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# The South African Food Processing Industry



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# **Foreword**

This report was written to give a selected overview of the South African Food Processing Industry as a general resource but in particular serve as an input to a planned Dutch Delegation of business persons to South Africa. The report is not a comprehensive analysis of the whole industry as this is too large a topic. It therefore focuses on information relevant to the planned delegation, considering only parts of three food chains (dried & juiced fruit, processed meat and dairy).

The first section, which introduces South Africa as a country, is the standard introduction to agricultural sector reports used by The Office of the Agricultural Counselor of the Kingdom of Netherlands Embassy in Pretoria.

While some of the information is not the most recent available, the introduction still gives a good view of the issues described and cannot be updated within the context of the current report. Only minor changes, neither affecting the data nor the essence of the section, were made to the text.

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# 1. Introduction to the country

# 1.1 General introduction

South Africa is officially called the Republic of South Africa (RSA). The current head of the state is President Jacob Zuma. The Capital of South Africa is Pretoria.

South Africa has nine provinces: 1 Western Cape, 2 Northern Cape, 3 Eastern Cape, 4 KwaZulu-Natal,

5 Free state, 6 North-west, 7 Gauteng, 8 Mpumalanga and 9 Limpopo.

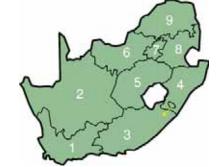


Figure 1. South Africa's 9 provinces

Geographic information (CIA, 2009)

Surface: 1,219,912 km2

Neighbour countries: Botswana, Lesotho, Mozambique, Namibia,

Swaziland, Zimbabwe

Coastline: 2798 km

Surface: Plateau in the interior, along the edge rugged hills and narrow

coastal plane

Lowest point: Sea level

Highest point: Mount Njesuthi (3,408 m)

Natural resources: Gold, coal, chrome, antimonium, iron ore,

manganese, nickel, phosphates, tin, uranium, diamonds, platinum,

copper, vanadium, salt, natural gas.

Climate: General temperate climate with 9 different climate zones from

subtropical to desert climate zones.

# 1.2 Economical information (2009)

GDP US \$ 495.1 billion GDP per capita US \$ 10,100

Agricultural contribution to GDP 3.3 %

Total exports US \$ 67.93 billion (5.2% to the Netherlands)

Total imports US \$ 70.24 billion

Unemployment rate 24% Population below poverty line 50%

Number of farmers Estimated 40.000

Employment of the

Birth rate:

Agricultural sector Estimated total of 1,5 million people

Minimal agricultural wages R 1.200 per month Average agricultural income Estimated R 950.000

# 1.3 Demographic data (CIA, 2009)

According to the latest estimate of 2009 the country has 49,052,489 residents, of which 2.5 million are Zimbabweans. The population shrinks 0.46% every year, due to mainly AIDS. South Africa is a multi ethnic and multicultural country. The composition of the population is as follows; black; 79%, white; 10%, coloured; 8% and indians; 3%. The total employment within South Africa is 17 million individuals in 2007. 1.5 Million individuals are employed in agriculture, hunting, forestry and fishing, 340,000 individuals are employed in skilled agriculture.

Age distribution: 0-14 = 29.7% (6,603,220 male, 6,525,810 female)

15-64 = 65% (13,955,950 male, 14,766,843 female) 65> = 5.3% (905,870 male, 1,429,944 female) 18.2 births per 1000 persons (estimates from 2006)

Death rate: 22 deaths per 1000 persons Infant mortality: 60.7 deaths per 1000 living birth

Life estimation at birth: Total: 42.73 years

Male: 43.75 years Female: 42.19 year 2.2 hirths per woman

Fertility case: 2,2 births per woman

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# 1.4 Agricultural information (CIA, 2009)

Suitable agriculture land Total surface of land	122,320,100 ha	100%
Total South African farm land Whereof	100,665,792 ha	82.3%
Potential arable land	16,737,672 ha	13.7%
Wherefrom irrigated	1,354,128 ha	1.4%
Grazing land	83,928,320 ha	68.6%
Nature conservation	11,785,999 ha	9.6%
Forestry	1,433,964 ha	1.2%
Other	8,434,345 ha	6.9%

Compared to other African countries, South Africa's agricultural sector is not dominated by subsistence communal farming, with most farms being large commercial, albeit family-owned, enterprises. The country is almost self-reliant and exports massive amounts of agricultural produce. Many other southern African countries rely on South Africa for their food imports.

#### **RAINFALL**

The average annual rainfall, illustrated in Figure 2 below, shows a rapid decline from east (> 800 mm) to west (< 200 mm). More than 60 percent of the country receives less than 600 mm per annum, and approximately one fifth of the country receives less than 200 mm per annum. The southern coastal region of the Western Cape Province receives rainfall throughout the year, while the rest of the province gets its rainfall in winter. The remainder of the country is classified as summer rainfall area (FAO, 2005).

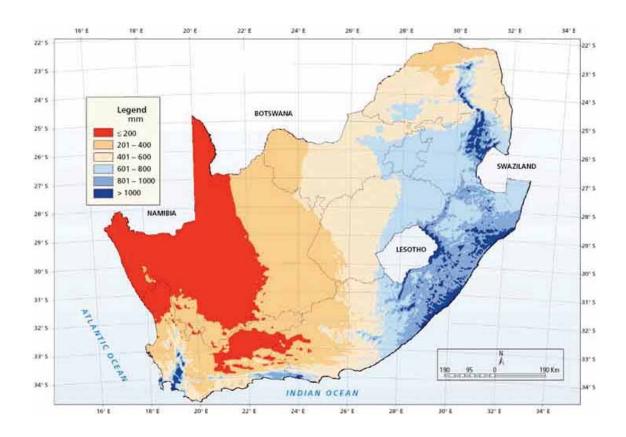


Figure 2. South Africa's average annual rainfall

Source: FAO Corporate Document Repository

#### **CROPS**

Due to the country's varied climate, many different crops are grown. The Western Cape Province has the most varied and prolific agricultural sector. Wine has become a massive export product, with South Africa now being the 5th largest producer worldwide. Deciduous fruit is also of major importance, with grapes, apples, cherries, pears, peaches, citrus and other fruit being exported in great quantities, mostly to Europe. Heavy wheat cultivation also occurs in the region, along with major wheat growing areas in the Highveld of Mpumalanga and the Free State. The Free State is the leading producer of South Africa's staple: maize.

As shown in Figure 3 below, the vast inland regions of the Karoo provide ideal conditions for livestock farming, especially sheep farming (for wool and mutton). Cattle farming is more popular amongst the indigenous people and flourishes more in the more well-watered eastern areas of South Africa. Ostrich farming is popular in the Oudtshoorn area of the Western Cape, along with intensive dairy farming on the Garden Route on the south coast. Sugarcane farming is a mainstay on the KwaZulu-Natal coast, with subtropical fruits, such as mangos, lychees, papaya, bananas and melons being extensively cultivated in KwaZulu-Natal, Limpopo and Mpumalanga Lowveld areas. Pineapples are cultivated in the Eastern Cape around East London. Many game farms specializing in South African wild antelopes are also gaining in importance and are found mainly in the north and east of South Africa.

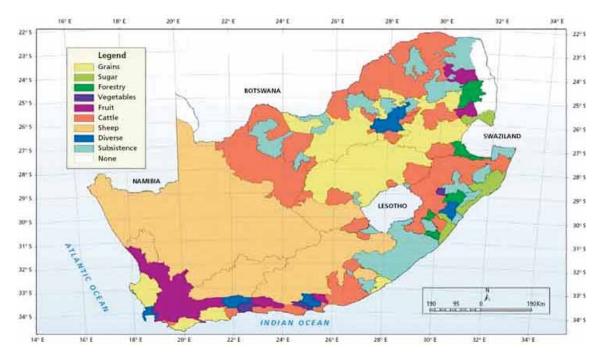


Figure 3. Agricultural regions of South Africa

Source: FAO Corporate Document Repository

Despite attempts by government to reform the distribution of land, historically mostly held by whites, these efforts have not yet translated into growth in the agricultural sector, which continues to lag behind or even decline in relation to the rest of the economy. This may also be due to the fact that indigenous people are mostly subsistence farmers and that anti-competitive practices like agricultural subsidies in developed countries and climate change are curtailing the sector's growth.

# 1.5 Legislation

South Africa is no doubt the continent's champion when it comes to policy and legislation. The agricultural sector is regulated by the National Department of Agriculture, Forestry and Fisheries (DAFF). The DAFF's vision states a united and prosperous agricultural sector. The agriculture is regulated through several acts;

- Animal and agua production
- Animal health
- Bio safety
- Food and Veterinary Services
- Food Safety and Quality Assurance
- Genetic resources
- Land Use and Soil

- Marketing
- Plant Health
- Plant Production
- Research and Technology Development
- Veterinary services

Import and exports are regulated by the DAFF as well, but legislation of the destination countries applies as well. Characteristics of the South African legislation is that National Acts can be customized by Provincial Government, but they are only able to make legislation stricter.

Further important legislation is the Competition act founded by the Government of South Africa in 1998, the Department of Trade and Industry drafted the recent version in 1997. The Competition Commission is responsible for implementing the Competition act. The Competition act ensures equal opportunities for all enterprises in the South African economy.

# 1.6 Important South African additional information

# **1.6.1 HIV/AIDS**

South Africa is the country with the largest number of HIV infected in the world. The country's Department of Health estimates that 18.3% of adults were living with HIV in 2006. 55% of all South Africans infected with HIV reside in the KwaZulu-Natal and Gauteng provinces. Rising death rates lowered life expectancy at birth from 59 years in 1990 to 43,8 years in 2009 for males and from 67 years in 1990 to 42,7 years in 2009 for females.

HIV prevalence among pregnant women is highest in the populous KwaZulu-Natal province (37%) and lowest in the Western Cape (13%), Northern Cape (16%) and Limpopo (18%) provinces. In the five other provinces (Eastern Cape, Free State, Gauteng, Mpumalanga and North West) at least 26% of women attending antenatal clinics in 2006 tested HIV-positive.

The latest HIV data collected at antenatal clinics suggest that HIV infection levels might be levelling off, with HIV prevalence in pregnant women at 30% in 2005, 29% in 2006, and 28% in 2007. The decrease in the percentage of young pregnant women (15–24 years) found to be infected with HIV also suggests a possible decline in the annual number of new infections.

HIV/AIDS has a tremendous impact on all sectors of the South Africa's economy. This includes microeconomic and macroeconomic perspectives. A study on its economic impact singles out the following effects:

- A decline in total labour supply
- A decline in labour productivity resulting from HIV/AIDS-related morbidity
- Increased production costs, prices, and a decline in aggregate demand, savings and investment
- Increased household expenditure
- Increased government expenditure

# 1.6.2 Security

Crime is a prominent issue in South Africa. South Africa has a high rate of murders, assaults, rapes, and other crimes compared to most countries. A survey for the period 1998–2000 compiled by the United Nations Office on Drugs and Crime ranked South Africa second for assault and murder per capita and first for rapes per capita. Total crime per capita is 10th out of the 60 countries in the dataset.

South Africa also has a bad record for car hijackings. In some areas there are road signs that indicate a high risk car-jack zone.

A recent new trend in South Africa is for thieves to enter restaurants and rob the patrons eating there. In July 2008, the Restaurant Association of South Africa (RASA) was forced to raise the security classification of the capital's restaurants to "caution areas". The RASA said since January, 15 people have been killed in 687 attacks carried out on RASA members' businesses.

Crime against commercial farmers has continued to be a major problem in the country. The South African farming community has suffered from attacks for many years. The majority of the victims have been white farmers, with claims of death tolls of up to 3,000 since 1995 cited in the national and international media.

The independent South African Human Rights Commission, set up by former President Mandela's government, quantifies the number at about 2,500, while farmers' organizations state the figure to be closer to 3,000. The Commission's report found that the rate of murders had increased by 25% since 2005. The victims' ages have ranged from infant to 87 years old.

According to the South African Human Rights Commission there have been 9,400 farm attacks. In 2010, the issue attracted greater international attention in light of the murder of the far-right political figure Eugene Terre' Blanche on his farm.

The United Nations Interregional Crime and Justice Research Institute have also conducted research on the victims of crime which shows the picture of South African crime as more typical of a developing country. These statistics show that South Africa has lower rates of violent crime than many African and South American countries.

According to a survey for the period 1998–2000 compiled by the United Nations, South Africa was ranked first for rapes per capita. One in three of the 4,000 women questioned by the Community of Information, Empowerment and Transparency said they had been raped in the past year. More than 25% of South African men questioned in a survey published by the Medical Research Council (MRC) in June 2009 admitted to raping someone; of those, nearly half said they had raped more than one person. Three out of four who admitted rape attacked for the first time during their teens. South Africa has the highest incidences of child and baby rape in the world.

The crime rates made sure most of South African house keepers have secured their homes, by wall, electrical fence or window bars. The gating of communities is increasing in popularity.

#### 1.6.3 Politics

South Africa is a federal parliamentary representative democratic republic, with the President of South Africa, elected by parliament, being the head of government. Executive power is exercised by the government. Legislative power is vested in both the government and the two chambers of Parliament, the Council of Provinces and the National Assembly. The Judiciary is independent of the executive and the legislature. Government is three-tiered, with representatives being elected at the national, provincial and local levels.

The current president is Jacob Zuma, the leader of the leading party, the African National Congress (ANC). Characteristic of the South African politics is that points of view and opinions can change by the day. The recent political history of South Africa has shown that the politicians talk more than they act, therefore some political statements are negligible, although they still can be a big issue in the news. Although Apartheid was abolished in 1994, the fact is that within South Africa there is still little integration between the different cultures and races.

# 1.6.4 Drought

South Africa is currently facing a long period of drought, especially in the South Coast region. This affects not only the agricultural sector, but the entire local economy. It is expected that water supply will be the biggest threat for the South African agriculture. According to statistics gathered by the Department of Environment and Water Affairs, George in the Eden District Municipality in the Western Cape Province experienced the lowest 12 consecutive months of rainfall since 1921 and is considered severely dry. The current conditions started around the month of March 2008. Having received an annual rainfall of 477mm in the last year which accounts for only 63 percent of the areas Mean Annual Precipitation (the average amount of rainfall received annually), urgent measures had to be put in place to deal with the water shortages including the introduction of severe water restrictions, sewage water is being re-directed after treatment to the purification plants and sea water is being desalinated to augment supply.

In addition the water storage levels for this area are well below average and are declining further. The Garden Route Dam: Storage is 30% which is 70% below the median storage. The Wolwedans Dam: Storage is 37.1% which is 60% below the median storage and also gradually declining. Also certain parts of the Eastern Cape are under severe pressure and are also experiencing severe drought conditions; these include Uitenhage under the Cacadu district municipality, which received a total rainfall of 360mm from January to December 2009, accounting for only 69 % of its average annual rainfall. Other affected areas are Grahamstown and Somerset East (Cacadu District Municipality), Kei Mouth (OR Tambo District Municipality) and Hogsback (Chris Hani District Municipality) as well as Phalaborwa in the Limpopo province.

Serious measures are being taken to solve the drought problem within South Africa, such as;

- Soliciting funds to commission drilling for water/boreholes in the short term.
- Recycling of sewage water in the medium term.
- Upgrading of the existing water schemes.
- Producing drinking water out of seawater.

#### 1.6.5 BBBEE

The Broad Based Black Economic Empowerment (BBBEE) policy was formed in 2003 under minister Didiza of the Department of Trade and Industry. South Africa's policy of black economic empowerment is not simply a moral initiative to redress the wrongs of the past. It is a pragmatic growth strategy that aims to realise the country's full economic potential. In the decades before South Africa achieved democracy in 1994, the apartheid government systematically excluded African, Indian and coloured people from meaningful participation in the country's economy. This inevitably caused much poverty and suffering - and a profoundly sick economy. The distortions in the economy eventually led to a crisis, started in the 1970s, when gross domestic product (GDP) growth fell to zero, and then hovered at about 3.4% in the 1980s. At a time when other developing economies with similar resources were growing, South Africa was stagnating.

Black Economic Empowerment is driven by legislation and regulation. An integral part of the BEE Act of 2003 is a sector-wide generic scorecard, which measures companies' empowerment progress in four areas:

- Direct empowerment through ownership and control of enterprises and assets.
- Management at senior level.
- Human resource development and employment equity.
- Indirect empowerment through:
  - o Preferential procurement,
  - Enterprise development, and
  - o Corporate social investment (a residual and open-ended category).

This scorecard, as well as a scorecard for multinational companies, is defined and elaborated in the BEE codes of good practice. The codes of good practice, which govern how companies do business in South Africa, allow global and multinational companies some flexibility in how they structure their empowerment deals. For example, representation does not only have to be at ownership level. The codes are binding on all state bodies and public companies, and the government is required to apply them when making economic decisions on:

- Procurement,
- Licensing and concessions,
- Public-private partnerships, and
- The sale of state-owned assets or businesses.

Private companies must apply the codes if they want to do business with any government enterprise or organ of state - that is, to tender for business, apply for licences and concessions, enter into public-private partnerships, or buy state-owned assets. Companies are also encouraged to apply the codes in their interactions with one another, since preferential procurement will affect most private companies throughout the supply chain. Different industries are required to draw up their own charters on BEE, so that all sectors can adopt a uniform approach to empowerment and how it is measured.

## 1.6.6 Land reform

In 1994 the new democratic government of South Africa inherited a racially highly skewed land distribution: white farmers owned 87% and black farmers 13% of agricultural land. Undoing the legacy of apartheid's unequal land distribution and ensuring the continued productive use of agricultural land transferred to black ownership is a national priority. The third priority of the Medium Term Strategic Framework (MTSF) is "Comprehensive rural development strategy linked to land and agrarian reform and food security". It is an imperative that the pace of land reform be accelerated and the sustainability of individual emerging farming enterprises dramatically improved.

The three comprehensive and far-reaching land reform programmes are:

- Land Restitution
- Land Redistribution
- Tenure Reform

#### **Land Restitution**

Parliament passed The Restitution of Land Rights act. No. 22 of 1994 to restore or compensate people for land rights they lost because socially discriminatory laws passed since 19 June 1913. Restitution can mean restoring the land itself or providing alternative land or monetary compensation or other relief. The form that restitution takes, depends on the circumstances of each claim. Alternative compensation applies if the claimant prefers it, or if it is no longer feasible to restore the actual land. The claimants are always involved in negotiating the settlement. Individuals, communities or their descendants who lost land rights due to racially discriminatory laws or practices on or after 19 June, 1913 qualify for restitution in terms of the Act. Examples of racially discriminatory laws include the Native Land Act of 1913, the Native Administration Act of 1927, the Development Trust and Land Act of 1936, the Asiatic Land Tenure Act of 1946, the Group Areas Acts of 1950 and 1966, the Rural Coloured Areas Act of 1963 and the Community Development Act of 1966.

#### **Land Redistribution**

The purpose of the land redistribution programme is to provide the poor with access to land for residential and productive use to improve their livelihoods. Land reform cannot benefit the country if poor people have to buy land on the open market without assistance. To achieve this, government assists the needy to purchase and develop land and provides services. Government acknowledge the need to maintain public confidence in the land market while redistributing land to the poor. The redistribution programme has depended largely on transactions between willing buyers and willing sellers. People who qualify for the land redistribution programme include;

- Labour tenants
- Women
- Farm workers
- Emerging Farmers
- The urban and rural landless poor

The Redistribution Programme has different components or subprograms, namely;

- Agricultural development, to make land available to people for agricultural purposes;
- Settlement, to provide people with land for settlement purpose;
- Non-agricultural enterprises, to provide people with land for enterprises such as eco-tourism projects.

# **Land Tenure**

Land tenure describes the way in which people own or occupy land. In South Africa, registered ownership is more secure than other ways of holding land. Apartheid laws made it impossible for black people to get registered ownership rights, or any other rights to land in most parts of the country. This created a severe land shortage for black people and many people established homes in areas where they had no legal rights. Tenure reform must:

- Resolve problems of insecurity, inequality and lawlessness;
- Remove development bottlenecks;
- Resolve tenure disputes, overlapping tenure rights and conflicting claims;
- Balance systems of group rights with individual rights;
- Give all rights holders under communal ownership systems, including women, adequate representation in decision-making processes;
- Put in place an adequate system of land administration to support individual and communal land tenure;
- Provide for law enforcement agencies to intervene in land rights' disputes in order to be flexible and allow for change and adaptation.

# Fundamental Principles of Land Tenure Reform;

The property clause in the Constitution also applies to tenure reform. This states: a person or community whose tenure of land is legally in secure as the result of a past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to tenure which is legally secure, or to comparable redress.

Goals of the Land reform project;

- Contribute to the realisation of country's objective of ensuring that 30% of agricultural land is owned by Black South Africans by the year 2014;
- Contribute to an additional target to make available of own existing high potential and unique agricultural land for lease by Black South Africans by year 2014;

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- Make available of existing high potential and unique agricultural land for acquisition or lease by 2010;
- Support legislative and development initiatives intended to secure tenure rights to agricultural land in all areas:
- Make available of own agricultural land to farm workers for their own animal and plant production activities.

The future of land reform in South Africa;

It is one view that enough land is available on the market to achieve the current land reform targets. With more than 5% of all agricultural properties changing ownership on the open market each year, South Africa should be able to transfer 30% of farm land to black owners well before 2014. There is no need for threats like expropriation because the major obstacles to Land Reform are administrative and bureaucratic bottlenecks, and high staff turnover in the relevant government bodies. A counterview is that the entrenchment of the property clause in the Constitution is a major obstacle to the achievement of even the limited objectives of the land reform programme. In South Africa, it is impossible to satisfy both the need to protect property rights and to ensure a policy of equitable distribution of land. Existing landowners inflate the price of land identified for transfer under the Land Reform programme.

#### 1.6.7 Decrease in numbers of white farmers

Due to the violence against white farmers, the BBBEE and land reform act, white South African farmers sometimes feel extremely intimidated and therefore decide to quit their agricultural business and in the worst case even leave the country for destinations such as Australia or other countries within Africa including neighbouring countries of South Africa. Since the end of the apartheid there has been a decrease of white farmers, not only because of safety reasons. The deregulation since 1994 is debit to a big part of farmer loss within the first years after the apartheid. Nowadays small margins combined with security issues are the main reason for white farmers to quit their business. It is expected that the decrease of white farmers will continue the next years however it is uncertain with what amount. At the end of 2009 the number of white farmers in South Africa was estimated at 40.000. The total number of farmers in South Africa decreased from over 60.000 in 1996 to 40.000 in 2009.

# 1.6.8 Electricity crisis

In 2007 Eskom, the state-owned electricity supplier started experiencing a lack of capacity in the electrical generating and reticulation infrastructure. This led to an inability to meet the routine demands of industry and consumers, resulting in countrywide rolling blackouts. Initially the lack of capacity was triggered by a failure at Koeberg nuclear power station, but since then a general lack of capacity became evident. The supplier has been widely criticized for failing to adequately maintain existing power stations and for the lack of forward planning of sufficient electrical generating capacity.

South Africa's state-owned power firm Eskom will be allowed to double electricity prices over a period of three years, drawing outrage from unions but relief from the mining sector where an even bigger hike had been feared. The power company says the increase is needed to finance its 385 billion rand (36.6 billion euro) scheme to meet the soaring demand for electricity by building new plants and expanding the national grid.

The National Energy Regulator SA (NERSA) agreed to allow three annual price increases of roughly 25%, beginning in April 2010. Eskom had originally sought increases of 35%. The jumps mean that electricity will cost twice as much in 2012 as it did in the beginning of 2010.

# 2. Primary Producer



The Agricultural Sector of South Africa is the major supplier of raw materials for the bulk of the Food Processing industries of South Africa as well as a major food exporter. The obvious exceptions to this are soya, wheat, barley and hops of which substantial quantities are imported often because of agricultural constraints.



As this report focuses on Food Processing, information will not be presented on individual value chains in this section on Primary Producers.

Agriculture is divided into two clear sectors the small scale historically disadvantaged farmer and the large-scale commercial farmer, many of whom were established through the strongly supported agricultural system of the apartheid government. This was focused on ensuring food self sufficiency and was based on commodity boards which facilitated an extremely regulated industry of commercial farmers who produced the majority of the food.

Unlike much of the rest of Sub-Saharan Africa, subsistence farming is not the predominate source of production. The National African Farmers Union (NAFU, 2008) estimated that only around 1 million farmers relied on their own production for food for their family. This implies a maximum of around only 10 % of production is subsistence compared to 60 to 90% in many sub Saharan African countries.

With on-going urbanisation this is more likely to decrease than increase. In a study some ten years ago in a community approximately 100 km from any town, it was found that only 25% of the population produced their own staple maize meal because they preferred the commercial brand. This, even though they had land and inputs available for free for traditional production.

In 1998 deregulation started and has resulted in the removal of the controlled agricultural system and the move from fixed prices under the commodity boards to prices which are very much world market linked.

While deregulation changed much, most of the food is still produced by commercial farmers. The majority of these farmers, even with land reform and numerous project based efforts by government, are still those farmers who benefited under the strictly regulated agricultural system in place prior to 1998 (Vink, 2002).

The consequence of this to a food processor is that a choice has to be made between contracting commercial farmers where quality and quantity will be reliably supplied against a specification or attempting to use small scale farmers to supply materials. Outgrowing is not as strongly established in South Africa as many other areas of Sub-Saharan Africa with only a few examples such as sugar, rooibos tea, tomatoes and cotton.

Primary commercial agriculture contributes about 2,6% to South Africa's GDP and about 8% to formal employment. There are strong backward and forward linkages into the economy, with the agro-industrial sector estimated to comprise about 15% of GDP.

Important from an agricultural view is that there are significant areas of land which are not currently farmed, although there are obviously limits on the total area available for expansion.

Only about 12% of South Africa's surface area is suitable for crop production, while only 22% of this is high potential arable land. Water availability is the main constraint with varying rainfall and many areas prone to drought. Almost 50% of available water is used for agriculture with 1,3 million ha under irrigation.

Counterbalancing this is a deteriorating water source, where the growing population and its demand for water will put pressure on water for irrigation. The infrastructure which were ideal some decades ago supplying widespread rail transport, high quality roads and very cheap electricity is changing rapidly. The rail system has deteriorated markedly with major investment now being required and a crisis in electricity supply lead to rolling blackouts in 2007. The electricity shortage, which was only alleviated by the global financial crisis, has led to major planned increases in electricity costs over the next three years.

As stated South Africa, pre 1990, was focussed on being self-sufficient in food production so as to avoid food sanctions being used as a weapon. With deregulation, tariffs have decreased markedly with respect to the number of tariffs, the average tariffs and the maximum tariffs. This along with global price trends and South Africa's capacity as a producer has opened exports into South Africa. Graph1 presents the imports and exports of agricultural produce by South Africa over the previous 5 years.

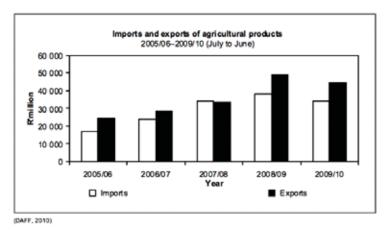


Figure 4 Imports & Exports

Figure 5 summarises issues that must be taken into consideration when investigating opportunities linked to the South African Food Processing Industry.

# Summary of Strengths, Weaknesses, Opportunities and Threats Agricultural Production

Strengths	Well established and important to country Variety of products because of climate variety & counter seasonality Domestic market growth & potentially Africa
Weaknesses	Water resource Degraded infrastructure Agricultural support for land reform beneficiaries
Opportunities	Counter season and products vs Developed Markets Opening of EU markets Niche markets in health areas eg herbal tea and ostrich meat
Threats	Loss of farming & research capacity Effect of climate change on weather Unemployment and crime Concerns about land reform could reduce FDI

Figure 5 Agricultural Production - SWOT

# 3. Food Processing Industry



In 2008 the manufacturing of Food & Beverages (Stats SA, 2010) accounted for 14% of the total income from manufacturing in South Africa, an amount of R221 billion. Food & Beverages were near average in both Concentration Ratio (the top 5 companies accounted for 30% of the income (range 16% to 52%) and profit where the Food & Beverages sectors profit was just under 8% (range 1% to 10%).



The Food & Beverages manufacturing industry generated an income of R221 billion in 2008 which is distributed between the sectors (Stats SA, 2010) as shown in Figure 6.

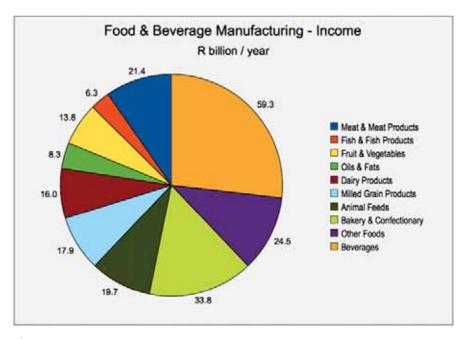


Figure 6 Income

The South African Food Processing Industry

The Food & Beverages manufacturing industry employs a total of 191 609 people who are distributed between the sectors as shown in Figure 7.

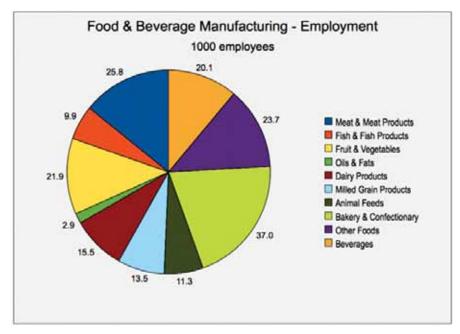


Figure 7 Employment

The processing industry is concentrated around large companies which produced 91% of the income of the processing industry in 2008 while employing 75% of the staff. At the other extreme micro enterprise generated 1.4% of income and employed 6% of the staff.

Note: Large enterprises are defined as those having a turnover above R51 million, while medium is above R13 million, small greater than R5 million and micro under R5 million.

The Food Processing Industry was highly concentrated in a few companies (especially in meat and dairy) under the strongly regulated system that existed previously. There is still a high degree of concentration, but this varies from sector to sector as shown in Figure 8.

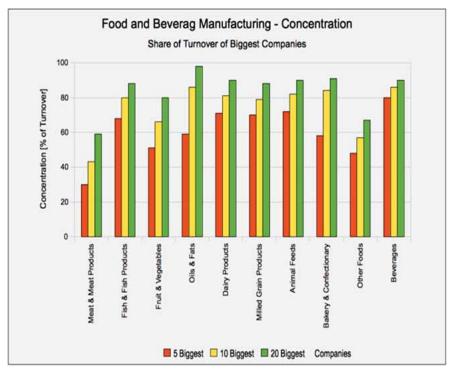


Figure 8 Concentration

Table 2 presents more detailed information and also calculates the Herfindahl Hirschman Index. This information gives the prospective business person seeking opportunities in South Africa a first view of what kind of competition will be faced.

**Table 2 Concentration** 

Major group and subgroup	No of firms	Relative contribution of		Herfindahl Hirschman index <sup>1</sup>
		4 largest firms (CR4)	10 largest firms (CR10)	
Meat, fish, fruit, vegetables, oils and fats	480	0,1957	0,3678	188
Slaughtering, dressing, packaging livestock	149	0,4688	0,6358	661
Prepared and preserved meat	119	0,5591	0,7114	989
Canned, preserved and processed fish	46	0,5778	0,7924	1346
Canned and processed fruit and vegetables	157	0,3498	0,5497	482
Vegetables and animal oils and fats	16	0,6520	0,9779	1319
Dairy products	113	0,6843	0,8005	1598
Processing of fresh milk	46	0,7079	0,8350	2430
Butter and cheese	17	0,8199	0,9743	1923
Ice cream and other edible ice	45	0,6007	0,7628	1293
Milk powder & other edible milk products	13	0,8700	0,9986	2742
Grain mill products	283	0,3604	0,5636	457
Flour	209	0,4258	0,6481	648
Breakfast foods, starches & starch products	8	0,9544		3005
Prepared animal feeds	72	0,3727	0,6076	522
Other food products	821	0,2613	0,5331	323
Bakery products	522	0,4526	0,6262	609
Sugar, golden syrup and castor sugar	7	0,9856		3098
Cocoa, chocolates and sugar confectionery	72	0,7287	0,8237	1676
Coffee, coffee substitutes and tea	15	0,8038	0,9580	2060
Nut foods	31	0,5129	0,7598	920
Other not elsewhere classified	182	0,3719	0,5012	471
Beverages	163	0,4556	0,7455	760
Distilling, rectifying and blending of spirits	97	0,6926	0,7812	1386
Beer and other malt liquors and malt	23	0,9195	0,9756	3777
Soft drinks; mineral waters	43	0,7355	0,9142	1876

'Note: This is a commonly accepted measure of market concentration, calculated by summing the squared market share of each firm in the market. An index of between 1000 and 1800 represents a moderately concentrated market, while the score for a concentrated market is in excess of 1800.

(Vink. 2002)

There are variations in the level of concentration in each food subsector from the highly concentrated breakfast foods subsector (total of eight companies) to the relatively competitive bakery products subsector. The level of concentration by food sector, however, underestimates the extent of concentration because a number of individual firms are involved in several food groups. Tiger Oats, for instance, is involved in the production of milled products (wheat and maize), processed fruit and vegetables, confectionary items, as well as dairy and meat products (Mather, 2005).

The current South African government has committed itself anew to the reduction of unemployment and poverty and sees the promotion of small business as one of the focuses. The New Growth Path identifies the Agricultural value chain as one of the three areas where South Africa can support labour absorbing activities in its priority to great jobs both in the short and long terms. In the second job driver the plan sees the creation of 145 000 jobs in agro-processing (South African Government, 2008) by 2020.

The New Growth Path sees the agricultural value chain offering major opportunities for employment creation through smallholder schemes and the processing and sale of agricultural products. It plans support for market and financial institutions, especially co-ops, which enable small producers to enter formal value chains and take advantage of economies of scale. The New Growth Path will strengthen and consolidate initiatives to support small and micro enterprise, with a comprehensive strategy laid out by early 2011.

This is clearly an opportunity for Netherlands to contribute expertise, information, IP, process and equipment, technology.

# 3.1 Agribusiness Competitiveness

The Agricultural Business Chamber has developed a tool that analyses the competitiveness of the agribusiness sector (ABC, 2008) in South Africa. The figure below is a summary of the 2008 report.

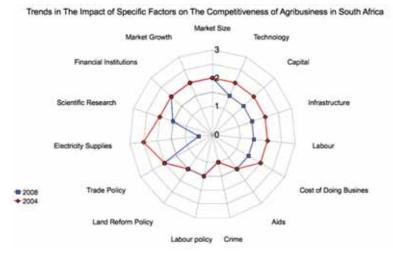


Figure 9 Agribusiness Competitiveness

What the report proposes is that an outsider would be well informed by the data which would indicate where their investment might be hindered by the SA Agribusiness Sectors weakness in being able to compete in the world market. The Agribusiness Chamber describes the implications of the chart as follows:

"The trends in the impact of specific factors on the competitiveness of the agribusiness sector in South Africa are illustrated. Seven factors show a decreasing trend from 2004 to 2008 in their ability to enhance the competitiveness of the agribusiness sector in South Africa (none of the factors show a positive trend). The cost of doing business, labour, infrastructure, capital, technology, scientific research institutions and electricity suppliers, all had a moderate positive impact on the competitiveness of the agribusiness sector in 2004. Currently, the impact of these factors shifted to having a constraining impact on the competitiveness of the agribusiness sector. The biggest shift happened with electricity supplies. In 2004, it was one of the factors that give the agribusiness sector in South Africa a competitive edge. globally, and currently it has a constraining impact on competitiveness."

# 3.2 Export/Import Potential

It is assumed that one possible area for new business would be linked to where the import/export strengths/need of South Africa and Netherlands complement each other. This section therefore looks for those areas where there could be gaps.

South Africa exports in the order of 40% in value terms, of its total agricultural production, with edible fruit and nuts, beverages and processed foods comprising almost 60% of these exports in the first quarter 0f 2010. The cereals showed a large change between 2007 and 2010 but the large export in 2009 was a result of short term supply and demand changes.

Table 3 SA Exports

Export values of agricultural products by product between 2007 and 2010 1st Qtr 1st Otr 1st Qtr 1st Otr 1st Qtr 1st Qtr 1st Qtr 1st Otr 2009 2010 Export value as % of total Export values by product (R millions) Cumulative % export value Total 6 821 7 583 11 912 10 139 Edible fruit and 2 532 2 729 3 440 3 425 29% 34% 29% nuts Beverages 1 388 1 610 2015 1829 17% 18% 46% 52% 539 647 774 714 7% 7% 52% 59% Preserved food Tobacco 323 162 487 537 4% 5% 56% 64% Cereals 114 207 1 548 497 13% 5% 69% 69% Wool, not carded 312 408 323 442 3% 4% 72% 73% or combed Miscellaneous 352 76% 77% 209 281 410 3% 3% food 344 280 81% 351 682 6% 3% 80% Sugars Meat 112 147 227 266 2% 3% 83% 83% Milling products, 53 399 3% 2% 51 182 87% 85% malt, starch

Source: South African Revenue Services

Netherlands is already a major importer of South African agricultural products and as shown in Table 4 has in fact been the largest importer ahead of the UK over the last 3 or 4 years. It would appear that these imports are mainly in the edible fruit and nuts category.

**Table 4 Importers** 

E	xport val	ues of ag	ricultura	I produc	ts by destin	ation betwee	n 2007 ar	nd 2010
	1st Qtr 2007	1st Qtr 2008	1st Qtr 2009	1st Qtr 2010	1st Qtr 2009	1st Qtr 2010	1st Qtr 2009	1st Qtr 2010
	Export values by destination (R millions)			Export value as % of total export value		Cumulative %		
Total	6 821	7 583	11 912	10 139	-			
Netherlands	1 091	1 222	1 524	1 540	13%	15%	13%	15%
United Kingdom	1 091	1 069	1 184	1 048	10%	10%	23%	26%
Zimbabwe	109	173	1 161	886	10%	9%	32%	34%
Germany	420	443	501	494	4%	5%	37%	39%
China	185	262	320	414	3%	4%	39%	43%
Mozambique	207	254	457	396	4%	4%	43%	47%
Kenya	95	81	753	379	6%	4%	50%	51%
United Arab Emirates	159	196	295	306	2%	3%	52%	54%
United States	214	241	345	275	3%	3%	55%	57%

Source: South African Revenue Services

Angola

#### Import values of agricultural products by exporting country

260

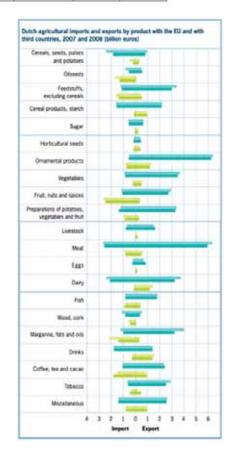
412

	1st Qtr 2007	1st Qtr 2008	1st Qtr 2009	1st Qtr 2010	1st Qtr 2009	1st Qtr 2010	1st Qtr 2009	1st Qtr 2010
	Import values by exporting country (R millions)			Import values as % of import value		Cumulative %		
Total	5 669	8 529	9 191	8 387	-	-		
Argentina	1 129	2 071	1 445	1 303	16%	16%	16%	16%
Brazil	455	767	961	800	10%	10%	26%	25%
Thailand	233	531	763	704	8%	8%	34%	33%
Germany	123	213	280	593	3%	7%	38%	41%
China	271	429	511	488	6%	6%	43%	46%
Netherland s	174	311	363	419	4%	5%	47%	51%
United Kingdom	383	344	366	383	4%	5%	51%	56%
Indonesia	168	367	444	334	5%	4%	56%	60%
Malaysia	281	426	458	331	5%	4%	61%	64%
United States	326	433	377	289	4%	3%	65%	67%

Source: South African Revenue Services

Netherlands' main exports to non EU countries (AERI, 2010) are Cereal Products and Starch, Ornamental Products, Dairy and Drinks, while its imports are Oilseeds; Animal Feeds; Fruits, Nuts and Spices; Margarine, Fats and Oils and Coffee Tea and Cocoa.

Besides the existing match in the fruit area which results in high exports of fruit to Netherands there are no other areas where a need can be matched. SA exports large quantities of oil and fats, animal feeds and oils and i has tried but been unable to export tea and coffee.



58%

On the Netherlands imports it is expected that the large scale drinks import into South Africa was related to the beer market problems between SAB Miller and Heineken. Now that Heineken has agreements with Namibia and has built its own brewery this large import is expected to be reduced.

It must be noted that this is a theoretical assessment and that the right people in the appropriate places at the right time can establish business deals that do not "make sense". However, perusing something which doesn't make sense has a higher risk. Conversely just because it makes sense doesn't mean that it will succeed!

This trade analysis suggests that Processed Fruit, Dairy and Drinks could be analysed further with the aim of providing useful information to Dutch businesses interested in seeking opportunities involving South Africa.

In this initial trade view of opportunities the Meat and Chicken Chains appeared to be unpromising because of the relative perceived strength of the South African industry, the large non processed sector and the supply of these through southern hemisphere sources close to South Africa. However, the Department of Trade and Industry, in its Geared for Growth 2010 publication (DTI 2010) identifies aquaculture, meat processing, indigenous tea and equipment for baby vegetables, fruit juice, nuts and indigenous fruit as opportunities.

# 3.3 South Africa's Industrial Environment

The successful introduction of processing technology/equipment into an agricultural production chain depends just as much, if not more, on the industrial environment in which the technology operates than on the process and the equipment.

For example an aseptic process plant can not operate without a reliable electricity supply, complex machinery requires a source of skilled maintenance staff and processes depend on the consistent supply of ingredients of the correct specification. These types of resources together constitute the requisite industrial environment.

This section provides information, which together with the associated contacts in Appendix 2, will allow the reader to evaluate possibilities.

#### 3.3.1 Food Processors

South Africa's Food Processing Industry is situated in the urban areas removed from the areas of production and is generally technically advanced and able to compete with major food processing companies internationally. Major international companies such as Nestle, Unilever, Dole, Parmalat and McCain have local companies or links with South African companies. This means that brands such as Kellogg, Marmite, Maggi, Snickers, Lays, Coke and Pepsi are on the supermarket shelves. Major South African companies such as Pioneer Foods, Tiger Foods, Distell, Capespan, Clover, Ceres Fruit Juices and SAB Miller are major world class food processors.

Contact details for companies and organisations mentioned in the report along with additional similar companies are included in Appendix 2. These lists are neither comprehensive nor ranked but merely try to present a large selection across the range.

Nestle has just last week (first week of February 2011) announced the investment of half a billion Rand in three facilities producing Milo, Cherios and Maggi. This indicates that Nestle recognise the capacity of South Africa to support modern state of the art food processing and possibly to be a gateway into Africa, Maggi being relatively small in South Africa but very large in sub-Saharan Africa.

There are industries such as tomato paste, juice concentrates and vegetable oil in smaller towns, where production is closer to the agricultural produce especially that which has a high waste content and short shelf life. However, this tends to be primary of intermediate processing.

There have been recent major prosecutions of food processors for anticompetitive behaviour in the processed food market. Pioneer was recently fined half a billion Rand, half of which is destined for an agribusiness fund to be administered by the Industrial Development Corporation. This has been an eye opener to many and it is expected that it will continue.

#### 3.3.2 Food Processors and Environmental Issues

Some major companies such as SAB Miller and Woolworths with very public actions appear to be actively pursuing concrete policies aimed at reducing their environmental impact and improving sustainability. However, it appears that the bulk of the industry is aware of the need to change environmental practices, includes it in their strategy, but only makes token efforts mainly in those areas where direct financial benefit is achievable.

Electricity, water and effluent disposal have been so cheap and easy that food processors have not had to give critical attention to efficiency although over the years there has been increasing pressure. Opportunity therefore exists in many areas for the introduction of new processes and technologies that address environmental issues.

Netherlands, being in the centre of the EU, has surely developed experience, expertise and skills in modifying and managing its industries to reduce emissions and energy consumption and to improve sustainability. There would be an opportunity to investigate and develop mechanisms to support the transfer of this to areas where South Africa falls short, such as the red meat abattoir industry.

# 3.3.3 Equipment Suppliers

The processing industry is supported by local technology companies, some branches of International Equipment Suppliers such as Tetrapak, APV and GEA while others such as Molenaar, Anderson Engineering, Metal Tank Industries and Foodspec were established independently but usually are agents for overseas suppliers. Stainless steel production and fabrication companies such as Falcon and Metal Tank Industries are also established to supply industry with fabricated equipment such as tanks, dryers and cookers.

The Southern Africa Stainless Steel Development Association (Sassda) is one of the most active stainless steel industry associations in the world and is a good source of information on equipment suppliers in the Food Processing Industry. Its database holds 35 companies including Tetra Pak under "Dairy Equipment", 35 including GEA under "Fruit Processing", 16 including APV Systems under "Dehydration", 10 including FMC Technologies under "Juice Extraction" and 18 including Alfa laval under "Evaporators".

There appears to be a perception that the South African Food Processing Industry is operating at a technological level that is lower than that applied in Europe and that there is therefore an opportunity for Dutch companies to replace out-dated plant with modern Dutch processes and equipment.

This is not the view of those consulted in the dairy, processed meat and fruit processing sectors. It is believed that the technology level in the South African industry is generally at or close to that in Europe due to the presence of European companies in South Africa and the large number of equipment suppliers with branches and agencies in South Africa.

The larger constraint to increased capital expenditure is the high cost of modern plant and the financing thereof. Dutch entrepreneurs could have this financial constraint reduced with the use of EVD financial instruments such as the Private Sector Investment (PSI) programme, which offers a subsidy of 50% of the project budget to a joint venture (South African plus a non-South African entity). This subsidy, with a maximum contribution of EUR 750,000, could be used to start up a business in South Africa. Such EVD instruments would give the Dutch entrepreneur an edge in new projects in South Africa since the funds are not to be repaid if the project is implemented accordingly. These instruments therefore make Dutch partners very attractive in South African business projects.

Any new company entering this market would need to understand the existing suppliers (international and local), the relationships existing through years of supply and the unique aspects of the South African market.

There is an opportunity for Dutch Technology and Equipment Supply companies to supply equipment into the South African market – it is, however, important to realise that this role is already fulfilled by European countries who have built a track record.

There would be a theoretical possibility for an equipment manufacturing company to establish local manufacturing, to supply South Africa and the African market, if it were possible to generate savings when compared to the existing Europe based operations.

# 3.3.4 Packaging Material

Packaging is well established in South Africa, with major companies such as Nampak, Consol, Kohler and Tetra Pak manufacturing and supplying a range of international standard packaging throughout the country. To supplement this there are many label, carton, shrink wrap, palletising, inspection and coding suppliers, who have not been included in the list of contacts.

# 3.3.5 Ingredients and Raw Materials

Raw materials are mainly supplied by South African Agriculture with imports being easily available through the fairly efficient logistics infrastructure, where necessary.

A sophisticated ingredient supply industry supplier food processors with a range of materials which are produced locally as well as imported ingredients which are not available or produced locally.

# 3.3.6 Process Knowledge

Process knowledge is high with many Universities such as Pretoria and Stellenbosch; Universities of Technology such as Tshwane & Cape Peninsular having on-going contacts with International research centres. Research organisations such as CSIR and ARC handle less academic research and a number of experienced consultants offering practical advice and assistance.

There is also a link with these overseas organisations through joint projects funded by the European Union.

SAAFoST is the Association for Food Scientists, Technologists and other Professionals serving the food and allied industries in South Africa. SAAFoST promotes education and professionalism as well as an appropriate legislative structure in the industry.

# 3.3.7 Human Resources in The Food Processing Industry

There is no doubt that there has been a loss of experienced scientists and technologists in the industry with the change in the industry and in the country. It is also clear that the graduation of high level specialist scientists and technologists has reduced and that the training, especially of craftsmen and artisans has reduced as learners and employees have grappled with the changes in the country.

However, as the country reshapes itself there are clear signs that improvements can be expected. There is already an excess of graduates who have not been able to find employment. These people with the benefit of government funded learnership schemes, training from companies and the inputs of Sector Education and Training Authorities (SETA's) will develop to be able to take their place in industry.

The SETAs with Industry are also focussing on worker and craftsman training to ensure the smooth running of Industry.

There is an opportunity for the world renowned Dutch Universities and Research Organisations to become involved in training and education.

# 3.3.8 Establishing a Business

South Africa offers strong support to the establishment of new businesses in South Africa especially if they entail direct foreign investment.

This is especially true in the area of agribusiness which is one of the focuses of the New Growth Path of the government. Businesses that create jobs and offer business opportunities for smaller businesses are particularly attractive.

The Department of Trade and Industry is the government ministry responsible for most aspects of industrial and business development in South Africa. They offer a 2010 Investment Handbook (DTI, 2010/2) which presents information on a range of issues including: Why Invest in South Africa? Regulatory Environment, Incentive Programmes for Investors, Broad-Based Black Economic Empowerment, Foreign Trade Relationships and Investment Promotion Agencies.

The have also published a manual titled Cost of Doing Business in South Africa 2008 which give a good view of a range of costs.

The administrative requirements of establishing a business are available at the South African government information website for organisations at <a href="http://www.services.gov.za/services/content/Home/OrganisationServices/en\_ZA">http://www.services.gov.za/services/content/Home/OrganisationServices/en\_ZA</a>, this includes:

Starting an organisation/business

ii. Revenue servicesiii. Human resource issuesiv. Intellectual property

v. Importing and exporting services vi. Business development and support

vii. Permits and licenses

viii. Doing business with government

ix. Transportation

x. Health and safety in the workplacexi. Discontinuing business operations

At present these regulations apply to all business and will continue to apply to at least medium and large businesses.

Support includes programmes such as Research and Development (R&D) Tax Incentive Programme, Industrial Development Zones (IDZ), Enterprise Investment Programme and Foreign Investment Grant and Support Programme for Industrial Innovation.

One of the newest incentive programmes is the Enterprise Investment Programme that has prioritized Agribusiness and Food Processing as one of its priority sectors.

The Department of Trade and Industry has established a network of organisations focussed on identifying, quantifying and publicising investment opportunities in agribusiness and in fact all sectors of the economy. The results of these organisations, of which there is one in each province are assimilated and presented by Trade InvestSA. It is the author's experience that some of these organisations and some of their identified opportunities are optimistic and will need to be well scrutinised and that in general their operations are bureaucratic and responses are not good.

Even so their offerings are worth investigating as they link into the systems in government, development, commerce and industry they have.

The one exception to this is Trade and Investment KwaZulu-Natal (TIKZN) who are professional, well informed and have major opportunities defined around Agribusiness and the Dube Tradeport which is promoted as Southern Africa's Global Trade Gateway!

# 3.3.9 Market Information

Various Government organisations and private sector companies including Nielsen SA, Who Owns Whom, Whitehouse and Associates and BMI FoodPak provide market information.

**Table 6 Food Processing SWOT** 

# Summary of Strengths, Weaknesses, Opportunities and Threats Food Processing Sector

Strengths	Strong and well developed food processing system Brand loyal, food interested upper income consumers Good base for export
Weaknesses	Low food consumption overall Consumers very cost sensitive Strong industry dissuades foreign investment
Opportunities	Revived growth in food demand after Global Financial Crisis Opportunities for diversification/upgrading in certain processing sectors More competitive exports with reduction in many export tariffs to EU Focus on sustainability and environment
Threats	Poor consumer confidence Overall lack of demand for premium products Electricity and water constraints

# 4. Wholesale/Retail



The wholesale/retail system in South Africa is dominated by several large retailers and is likely to become even more concentrated and supply chain driven with the intention of Wall Mart to gain its first foothold in Africa through an acquisition within Massmart, a major holder of lower income focused wholesale and retail chains in South Africa and Africa. The retail sector is currently under investigation by the Competition Commission for contravention of the Competition Act.



# 4.1 Retail Structure

As shown in Table 7, the retail sector is highly concentrated in a few supermarket chains in South Africa. The growing power of supermarket chains has led to fundamental changes in the sector. The food chains are increasingly buyer-driven, and transactions in the sector are increasingly through contractual agreements and rarely involve the open market. That is, supermarkets now source most of their processed food products from a few 'listed' suppliers.

Table 7 Supermarkets

Top supermarkets in South Africa

Company	Number of stores	Sales area (m2)	Average sales area (m2)	Retail banner sales 2003 (\$ millions)	Market share (%)
Shoprite	782	1 570 490	2 008	3 343	21,6
Pick 'n Pay	456	423 400	929	3 271	21,1
Metcash	369	608 550	1 649	1 627	10,5
Woolworths (SA)	149	596 000	4 000	1 494	9,6
SPAR (SA)	751	652 200	868	1 145	7,4
Subtotal	2 507	3,850 640		10 880	70,3
Other				4 606	29,7
Total				15 486	100,0

The South African Food Processing Industry

Becoming listed is a costly exercise which includes an audit of the processor's facilities to determine the company's capacity to supply large volumes of processed food of a high quality. The quality is measured by means of either private grades and standards or international standards such as Hazard Analysis and Critical Control Point (HACCP). Meeting these standards requires substantial investments in upgrading facilities, purchasing new monitoring systems and on-going expenses associated with new technical staff. On the other hand, accreditation and listing are beneficial to the supermarkets as they reduce the retail chain's transactions costs.

Processors now compete for valuable shelf space in the major retail chains and are increasingly forced to pay slotting fees to secure this space. Concentration in the retail sector has also led to restructuring among the processors often associated with mergers and acquisitions.

#### 4.2 FAIRTRADE Market

An alternative strategy that could facilitate the sale of the products of small businesses is FAIRTRADE. FAIRTRADE is based on the fact that there are consumers in the North (mainly Europe, the USA, Canada and Japan) who are prepared to pay extra for certain food products on the understanding that their purchase will benefit poor producers in the South.

FAIRTRADE organisations operate as importers into the North and follow a range of criteria which ensure the benefit to the small producer's organisation. These vary slightly in content and emphasis but tend to include

- i. paying a premium price
- ii. supporting the introduction of appropriate business systems
- iii. supplying advance payment for orders to allow the supplier to buy materials
- iv. ensuring that benefits accrue to the producers in the South.

In South Africa there has been a focus on exporting fresh fruit through the FAIRTRADE system. However, there is some discussion around whether fruit produced in commercial plantations, although linked to community groups, can ever really meet the FAIRTRADE objectives.

It is believed that a similar market could be established within South Africa. The upper-income consumer in the urban areas would pay above-market prices for South African FAIRTRADE products, produced by entrepreneurs and communities in the poor rural areas.

# 5. Consumer



In any activity involving the South African food market it must always be borne in mind that there is a vast difference between the poorest and the richest consumers, not only in income available for food purchases but in the approach to food and the understanding of technical food related issues like nutrition, micronutrients, vitamins, probiotics, additives, natural production, organic, antioxidants, hypoglycaemia and diabetes.



At the bottom of the income spectrum the consumer is struggling to access sufficient food to at least not be hungry but also to avoid more serious issues such as malnutrition, stunting and starvation.

# **5.1 Consumer Analysis**

In the late 80s the South African Advertising Research Foundation (SAARF) developed the first South African consumer market segmentation tools which classified consumers in 10 LSM levels based on a basket of criteria. The diagram gives an attractive view of what this system looked like – the average income was more an outcome of the classification than a defining criteria. The system is not totally quantitative but has found favour on the marketing community.

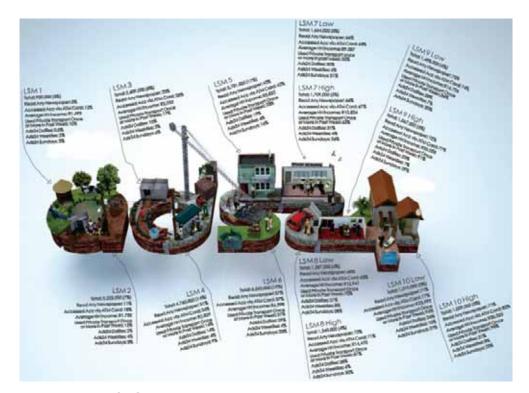


Figure 10 Consumer Analysis

From: ads24 - download 1MB file at http://bit.ly/LSMPoster

Since then this has been developed and modified and various related classifications now exist.

Within the original definition the income group roughly classified as LSM1 to LSM3 comprises one fifth of the population but is responsible for only 4% of expenditure, while the rich in LSM10 comprising only 10% is responsible for 45% of expenditure.

Comparing these two, the lower group obviously spends most of it money on staples, mainly mealie meal (which is significantly cheaper than rice or bread), vegetables and meat when possible. Concern is focussed on guaranteed quality (because wastage is not a possibility) and price with some bulk breaking and selling but not as much as in other Sub Saharan African countries where very small portions are sold.

The trend shown in Figure 11 clearly indicates the growth in meat consumption in favour of starch staples as the wealth of the consumer grows. This shows through the data even though large numbers of the population are still trapped in poverty.

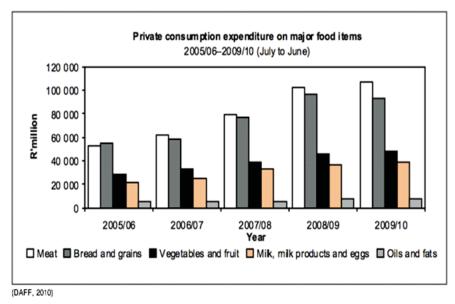


Figure 11 Consumption

The upper income group has a focus of quality although in general South Africans are slow to spend on quality. The demand for quality is often the consequence of status seeking and the following of trends. Other drivers such as health and ethical issues such as FAIRTRADE, Local Food and organic seem to be fairly underdeveloped in South Africa.

The utilisation and sales of organic food is underdeveloped in South Africa with various actions promoting it and others moving in different directions. What is significant is that the concept of organic as a marketing tool finds little application in poor populations where satisfying hunger and nutrition with minimal income are the objective. Ironically, the very poorest subsistence farmers often use organic methods as a consequence of their inability to purchase agricultural inputs, relying on their own local resources.

# **5.2 Ethical Consumer Products**

In Europe and the USA ethical products, such as Local Food, Organic, FAIRTRADE, Red Tractor, Food Miles, LEAF, Carbon Trust Footprint, Marine Stewardship have become very important consumer differentiators for food products. In fact these have multiplied so fast in the market that they are running the risk of confusing consumers and adding to the costs of production.

In South Africa the situation is very different, although this has not been reported, it appears that besides Organic and FAIRTRADE which are anyway poorly implemented, there are few products with ethical certification used.

Low income consumers who are focussed on eking value out of their expenditure, will clearly not be influenced by these certifications, so they can only be expected to have any impact in the higher income sector.

# 5.3 Two Markets - Different Products

An example of the vast differences is that while the lower LSMs battle to get the nutrition they need for a healthy life, the upper LSMs levels are experiencing health problems as a result of embracing a more western diet. Large number of black consumers who have had sudden increases in income have changed their diet almost without realising it. This has in turn, often lead to an increase in obesity, diabetes and hypertension which are not always causally linked to diet by these consumers who never had to worry about the problems of excess.

There is therefore an opportunity for any company entering the consumer market to focus on either the upper income or the "bottom of the pyramid" type market. For example Cadbury have launched their Dairy Milk Shots, a small low cost pack of candy coated chocolate designed to suit the high temperatures of sale through street hawkers. On the opposite end politicians seem to be distancing themselves from a trend towards expensive entertainment selling sushi eaten off the body of female models!

This indicates the need for anyone especially a company without previous experience of the consumer market to ensure they focus correctly probably with the assistance of a local marketing company.

The report thus far has focussed on generic information on the particular nature of the South African Food Industry. It is believed this background will allow potential investors to evaluate and adjust their particular expert product knowledge, allowing them to develop realistic business cases for the South African environment.

Three specific sectors have been chosen for further more specific description on product information and opportunities; namely fruit, meat and milk. The choice of these subsectors was arrived at using the writer's expertise regarding the attractiveness of such subsectors, and guidance from the Embassy of the Kingdom of The Netherlands in Pretoria.

For example, whereas the bakery and confectionery seems to be one of the biggest income generating subsectors, it is the author's belief that a large part of the size of this sector reflects the production of standard white and brown bread. This is a sector where the innovation opportunities seem somewhat limited and the technology in place is fairly standard worldwide, possibly limiting the opportunities for penetration by a new food processor. There could be an opportunity for a focus on environmental, efficiency and sustainability issues, given the high energy intensity of baking; but this is not of primary interest to a food processor in South Africa.

# 6. FRUIT PROCESSING CHAIN



A large variety of fruit is grown in South Africa; grapes, pome and stone fruit (apple, peach, pear, apricot, nectarine etc.) mainly in the Mediterranean climate area and at the higher altitudes, tropical fruit (including mango, litchi, pawpaw, pineapple, guava etc.) in the Sub Tropical areas in the North and East. Vine and Citrus fruits are widely distributed and indigenous wild growing underutilised fruits including Cactus Pear, Marula, Baobab, Kei Apple and Monkey Apple complete the wide range.



While the best business opportunities in the chain appear to be in fresh fruit export which currently accounts for almost 20% of the value of fruit production there is still some R 600 million worth of fruit sold for processing.

Processing should always be considered as having two overall interrelated objectives either producing products in response to a specific market demand or providing a sink for fruit that can not be sold to produce a product for which there is a market demand. This is particularly the case with jam where the commodity cheap jams are integrated with packhouses and fresh produce market to process fruit that could otherwise be wasted. Deflavoured fruit juices (mainly grape, apple and pear) and fruit juice concentrates are also dependent on the availability of cheaper "lower quality" fruit.

## 6.2 Fruit Resource

One of South Africa's strengths in its agricultural capacity is the fact that citrus, deciduous, vine and subtropical fruits are major industries. Graph 7 gives the annual production, in 2009/10, of 20 major fruits produced (DAFF, 2010) in South Africa.

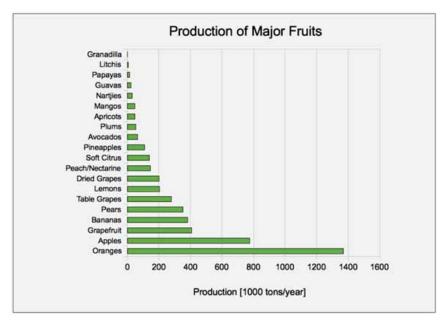
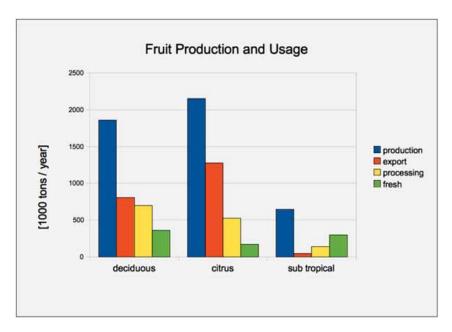


Figure 12 Fruit Production

The relative size of the industries as well as the quantities of fruit which are marketed fresh, exported and processed are presented in Figure 13.



It is clear that processing is not a major user of fruit, especially when it is realised that the price of fruit used for processing has less value than that sold or exported. However, processing does produce value added products which address specialised markets. It is also clear that sub-tropical fruit lags behind other fruits in the quantity which is processed.

Most of these fruits are processed into one or more products that add value to the agricultural output. These include dried fruit, fruit juices, jams, marmalades and preserves, fruit spirits, canned fruit, fruit leathers, crystallised fruit and ingredients for other food manufacturing (eg in cereals, cakes, dairy, juice).

# 6.2 Indigenous Fruits

South Africa and sub-Saharan Africa are home to many unique indigenous fruits which are considered to be a valuable resource and are investigated with the hope of commercialising products that would fit the "Super Fruit" definition and possibly create a large market demand.

However, Amarula Cream is the only successful product that has been produced from the indigenous fruits of South Africa. It is the second bestselling cream based liquor in the world. It is based on a distilled spirit produced from marula fruit collected in the wild by households in the Limpopo Province around Phalaborwa.

In Namibia the marula is collected, mainly to extract a very stable oil, from the kernel of the marula pip. This oil is marketed to cosmetic companies in Europe, including the iconic Bodyshop.

In the communities where the marula is found the fruit skin and bark have many additional uses, including medicinal uses and the production of a special snack from pips from fruit that has been eaten by a goat.

# **6.3 Processed Fruit Products**

In mass terms most of the fruit processed, is converted into fruit juice or canned fruit. In fact 99% of apples and 64% of pears are converted into juice with the balance being canned. Much of this juice is deflavoured and used to maintain the 100% juice tag on pure juice products.

Besides grapes dried for sultanas, currants and raisins the drying of fruit is at a much lower level.

Canning is not covered in this document as the industry has had difficulties over the past with an oversupplied market.

# 6.3.1 Dried Fruit

Simple dried deciduous and vine fruit (mainly currents, prunes, apricots, peaches, nectarines, pears and apples) are already widely produced using sun drying. Fruit is simply prepared (mainly by de-pipping and portioning) and layered out on drying trays in the sun on the ground to dry. Preparation of the fruit would normally be carried out in a processing building and attempts are made to reduce dust and dirt by using gravel or tarred areas to lay out the trays.



The location of sun drying is chosen to provide meteorological conditions that minimise the drying period and the distance the fruit needs to be transported from the farm.

An interesting marketing issue is that a few years ago sundried tomatoes were brought onto the market and sold with an emphasis on their naturalness. Certain dried fruit manufacturers soon followed suit marketing the products they had been selling for decades as sun dried produce.

The advantage of sun drying is that the energy cost of the dried product is zero, resulting both in a low running cost business and reducing the carbon footprint of the product.

The disadvantage that consumers and technologists are becoming more worried about is the fact that sun dried fruit can be contaminated by birds, rodents and insects. This can be addressed by managing the environment as well as possible and thereafter by sorting, cleaning and packaging of dried fruit.

The alternate is to carry out drying in a closed environment which protects the fruit from contamination and use solar heat indirectly to carry out the drying so as to maintain the running cost and carbon footprint advantages of sun dryers. This has a nutritional advantage in that the negative effect of direct sunlight on vitamin content is avoided.

There are a range of such dryers that use natural convection, solar powered convection of electric fans to circulate the air. These dryers tend to be small because of the difficulty of circulating sufficient air.

In many tropical areas such as the Mango growing areas of Mpumalanga the moisture is too high for effective sun drying and large scale cabinet dryers fired by diesel or gas are used to heat drying air.

#### Product Diversification

There are a number of higher added value dried fruit products that could be considered as the basis for business. These include:

- i. fruit leathers which are basically mixtures of fruit pulp dried in thin layers
- ii. osmotically dried fruit
- iii. crystallised fruit
- iv. chocolate coated dried fruit
- v. dried fruit powders

#### **Process Diversification**

The drying technologies currently practiced in South Africa currently are straight forward, basically being whole fruit, possibly de-pipped, dried in a box of hot air. This gives the products that are well known but which are far from the fresh fruit, with relatively unattractive colour and texture.

This opens the opportunity to use other newer technologies to improve the quality of the dried product sold to the consumer. More advanced technologies such as freeze drying, high pressure processing, mat drying and extrusion could be combined to produce products with different forms, structures and textures. They could also be combined and controlled to improve sustainability in the dried fruit industry and reduce the carbon footprint.

The taste of new products could also be improved through the incorporation of less well known tropical fruits and unused indigenous fruits. These tastes and the dried fruit's nutritional value can also be optimised through the use of newer gentle technologies.

### **Structure of Industry**

Drying is carried by a large number of driers in all types of business structure from integration with orchards and packhouses to small businesses buying, storing and drying the fruit they sell to large wholesalers/retailers.

Drying is labour intensive both in the orchard and at the drying plant where large quantities of manual labour are required to sort, clean, halve and pip the fruit before carefully layering it on the drying trays.

The seasonality of fruit, is a major constraint on the ability to run a drying plant for long periods of the year. This can best be addressed by sourcing fruit from a number of locations with different ripening times, drying different fruits and using cold storage to manage fruit storage.

#### **Regulatory Issues**

There is no direct involvement in the industry by government. However dried fruit quality is regulated and controlled by Dried Fruit Technical Services under The Agricultural Product Standards Act, No. 119 of 1990.

In addition normal business acts and regulations apply including The Foodstuffs, Cosmetics and Disinfectants Act, No. 54 of 1972, The Health Act, No. 63 of 1977, The Standards Act, No. 29 of 1993, The Trade Metrology Act, No. 77 of 1973, and The Trade Marks Act, No. 62 of 1963, The Environmental Conservation Act, No. 73 of 1989 and The Occupational Health and Safety Act, No. 85 of 1993. Local Authorities control the issuing of business licenses.

A change which is in process is the introduction of the application of HACCP as a mandatory standard in the Food Processing Industry. It is unclear how long this will be in implementation, but is a system that applied to almost all exports.

Note: This information is given to provide an understanding of the regulatory situation and not to provide a work document – legislation and rules need to be checked with those responsible early in the process.

#### Structure of Retail/Wholesale

The dried fruit retail sector is dominated by Bokomo, a Division of Pioneer Foods produces and manages a range of dried fruit products, under the brand name Safari.

Montague Dried Fruit and Nuts is one of the bigger exports of dried fruit. Other companies include Almans, Taste of Nature, Westfalia Fruit Processing and SA Dried Fruit Co-operative Ltd, while the yellow pages lists 30 dried fruit producers in South Africa.

#### **Current Production**

In 2010 a total of almost 57 000 tons of dried vine and deciduous fruit was produced with the former accounting for almost 90% of the total. From 55% up to 85% of all dried fruit has been exported in the last five years.

The production of dried vine and deciduous fruit has grown by almost 19% over the last five years even with significant decrease in 2008 and 2009, presumably as a result of the economic downturn.

The production of dried subtropical fruit will need to be determined by contacting all the growers associations as it is not reported by the National Department of Agriculture. Total consumption for processing of subtropical fruit is approximately 150 000 ton/year, but this is for juice, drying, jam, achaar, ingredients etc. For example Mango processing converts roughly 50% to juice, 30% to achaar and 20% to dried mango.

# 6.3.2 Fruit Juice

The majority of fruit processed is used to produce fruit pulp, concentrates and juices. 99% of apples and 64% of pears processed are used to produce juice.



The South African Food Processing Industry

While the average price for apples and pears on the fresh fruit markets were R4 301 and R4 008 per ton, farmers received an average of R734 and R526 per ton for apples used for canning and for juice respectively. In the case of pears producers received an average of R1 353 and R477 per ton respectively.

South Africa has been at the forefront of the development of quality juice products. Appletiser, now a brand of SAB Miller, well known internationally for its range of carbonated fruit juices was also the first company to perfect the packaging of fruit juice in aseptic cartons.

There are a range of fruit juice based drinks produced in South Africa, from fruit cordials through fruit nectars and fruit juices to health focused pure juices to organic fresh pressed single fruit juice. The market is focussed on the lower cost products although pure fruit juice still accounts for 31% of the total sales. There is also a large demand for the lower price aseptic juices for those circumstances where a cold chain is not in place and for their convenience and 45% of all juice sold is long shelf life.

Because of the seasonality of fruit production and the consumer demand for a variety of juices available at all times, much of the juice is produced from concentrates, purees or pulps that are stored either at ambient temperature using preservatives or using cold or frozen storage.

#### **Market**

BMI have recently predicted (BMI, 2010) a strong growth in bottled water and fruit juice in the soft drink sector. They predicted an annual sales growth of almost 15 % to 2015 and feel high growths are likely to continue further.

This trend is linked to a move away from Carbonated Soft Drinks (CSDs) to juice and bottled water for health reasons. The large effect is shown in Graph 9 which plots the actual and projected sales of juice, bottled water and CSDs. The large increase on a much smaller base means that fruit juice production will need to double in 5 years creating a large demand for processing plant.

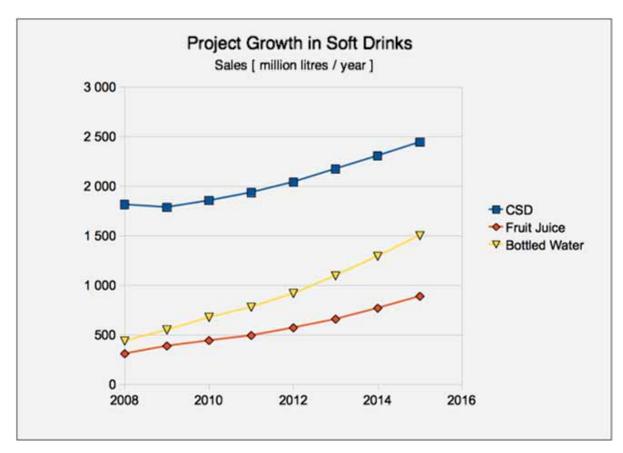


Figure 13 Soft Drink Market

#### **Product Diversification**

The two product focuses that offer room for development appear to be the production of more natural juices through the use of gentler technology (note the popularity of "not from concentrate" products) and the development of products based on super juices with nutritional advantages.

The use of indigenous fruits to provide a unique advantage within these opportunities would probably be worthy of investigation. This is confirmed by the BMI information.

#### **Process/Equipment Diversification**

Equipment for the processing of fruit and the production of juice and concentrates is supplied by the companies already described in section 2. These companies especially the international ones such as GEA and Tetra Pak are at the forefront of process and equipment development so there is no difficulty in sourcing cutting edge equipment.

However, the problem which still faces suppliers and which surfaces in many enquiries is the high cost of this equipment and its availability in smaller scale.

#### **Regulatory Issues**

The same regulatory issues apply for juice production as for dried fruit except that Dried Fruit Technical Services is not involved.

Structure of Retail/Wholesale

Seventy one percent (71%) of the juice produced reaches the consumer through the retail system, while 6% is exported and 14% goes into Food Service. Ceres and Liquifruit both owned by Pioneer are the main brands in the premium sector of the market. Many companies including Clover, Dairybell, Fruittime Simply Fruit, Coca Cola, Bronpro, Magalieberg Citrus Co-op and The Real Fruit Company supply a range of products and brands into the market.

# **6.4** Opportunity

The match between South Africa's export and Netherlands import of fruit suggests opportunities in the fruit area. While fresh fruit retailing is well established as a result of the existing trade, there are likely to be a range of fruit products that would be able to address less established markets.

- i. One of these opportunities would be to improve the quality and variety of dried fruit products through the introduction of new technology. A particular focus would be to develop products that are closer to the undried fruit in terms of texture, nutritional content and taste than the existing products which are mainly produced without consideration of these characteristics.
- ii. Another would be the development of new premium juices using gentler technology to produce more natural juices and super fruits and particularly South Africa's indigenous fruits to produce healthy drinks.
- iii. This could be an opportunity for equipment suppliers linked with the large increase in production capacity required by the predicted doubling in fruit juice production over 5 years.

## 7. PROCESSED MEAT CHAIN



In South Africa, stock farming is the only viable agricultural activity in a large part of the country. Of the 122.3 million hectares of land surface of South Africa, 68.61% is suitable for raising livestock, particularly cattle, sheep and goats. In 1009/10, of the 2.2 million cattle slaughtered in South Africa around 1.5 million are feedlot raised cattle. The benefit of non-arable land use and possible (claimed by some and denied by others) reduction in greenhouse gasses are not realised.



### 7.1 Meat Resource

The red meat industry is one of the most important growing industries in the South African agricultural sector. It contributed approximately 16,1% to the gross value of agricultural production in the RSA during 2009/10. The total number of cattle slaughtered decreased by 1,5%, while the number of sheep (including lambs) and pigs slaughtered increased by 7,6% and 2,6% respectively from 2008/09 to 2009/10.

Like the food industry the red meat industry evolved from a highly regulated environment to one that is largely deregulated today with little control on price. It now operates under the Meat Safety act of 2000 and the Marketing of Agricultural Products Act, 1996 \*Act No, 47 of 1996. The Red Meat Industry Forum includes "all the nationally representative roleplayer organisations in the Red Meat industry" and is responsible for Consumer Assurance, Consumer Communication and Education, Transformation and Development, Research and Development, Industry Liaison, Production Development, Compliance to Legislation. It is funded by levies defined in the Marketing of Agricultural Products Act.

According to the Bureau for Food and Agricultural Policy (BFAP, 2010) significant recovery in the global meat prices is expected over the next three years. This recovery is driven on the demand side by the recovery of the world economy boosting the purchasing power of consumers, especially in India and China. Growth of all meats is in the region of 2%.

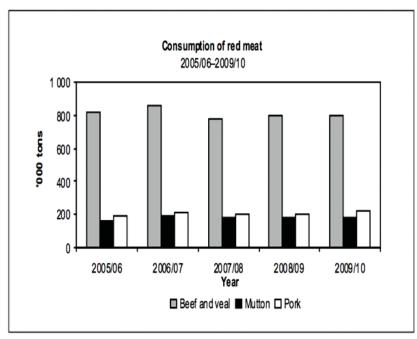


Figure 14 Meat Consumption

South Africa's meat markets (BFAP, 2010) appear to have been less affected by the global financial crises with average prices fairly constant in 2008 and 2009. Beef and mutton/lamb prices recording slight increases and chicken and pork prices remain under pressure.

For beef and mutton the higher international prices balanced the increase in the value of the Rand, but chicken prices were affected by cheaper imports. Consumers moved to cheaper cuts of beef and chicken in response to pressure on spending from the Global Financial Crisis.

Imports of red meat fell by 11,5% from 50 123 tons in 2008/09 to 44 378 tons in 2009/10 (25,4% below the average of approximately 59 522 tons for the five years up to 2009/10. This change and others like it depend on the world market and price.

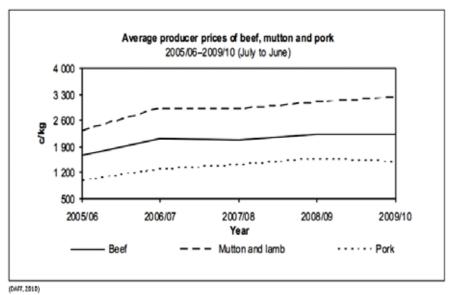


Figure 15 Meat Producer Prices

Chicken consumption is projected to increase 42% over the next decade, the total consumption of chicken meat is projected to exceed 2 million tons by 2019. Beef consumption is expected to grow by 17% following the recent stagnation. Although the sheep meat market is relatively small, a significant growth of 31% is expected over the next decade as per capita income increases. Pork consumption is projected to grow by 14% until 2019.

# 7.2 Products & Markets

The processed meat market is one where the products suited for the lower income market (eg polonies, vienna sausages) have no interest in the upper income market where products such as ham, smoked meat and delicatessen products find their niche.

However the upper income products are limited when compared to some of the fine produce available in Europe. Whether there would be a great enough demand for these higher cost products (which are currently available as imports) is not clear and would require a concerted marketing effort.

On the lower income side the products are very much cost driven.

# 7.3 Meat Processing

For this report two types of processing are identified. The slaughtering, dressing and portioning of carcasses in an abattoir and the production of value added meat by meat processors.

#### **Abattoir**

Since deregulation of the industry, the number of licensed abattoirs has risen to around 500. Of these the majority are for small abattoirs of less than 10 carcasses a day. South Africa currently has an excess of abattoir capacity for historic and geographic reasons.

Although some abattoirs are fairly old the nature of the process and the maintenance of equipment means that the abattoirs are running technology and processes that do not require upgrading.

The opportunity is therefore for equipment replacement and equipment supply for new abattoirs. This market is currently served by international companies such as Divac, Jarvis and Kentmaster who have South African offices and are well linked to the industry.

#### **Secondary Processing**

Mainly using cutting/chopping/comminuting (size reduction), mixing/tumbling, salting/curing, utilisation of spices/non-meat additives, stuffing/filling into casings or other containers, fermentation and drying, heat treatment and smoking to produce a range of foods including Bacons, hams, smoked products, meat loaves, polonies, viennas, canned meat, frozen convenience, cured and delicatessen products.

This processing covers a wide range of sizes from small catering kitchen scale processing in butcheries to industrial installations in the major processors such as Escourt, Renown, Seemans and Rainbow Chicken.

# **Equipment & Process**

The equipment for smaller capacity processing is well supplied by local spice and catering equipment companies such as Crown National and Freddy Hirsch and equipment suppliers who mainly distribute overseas fabricated equipment.

For larger installations the processors have contact with overseas equipment suppliers who have established their credibility and from whom they buy capital equipment. The demand in South Africa is believed to be too small to justify the local fabrication of specialised stainless steel equipment.

# 7.4 Regulatory Issues

Currently then, according to IMQAS (International Meat Quality Assurances Services), the following regulations apply to abattoirs:

Meat Safety Act, Act No. 40 of 2000 that promotes the safety of meat and animal products and establishes and maintains essential national standards in respect of abattoirs, the Agricultural Product Standards Act, Act No. 119 of 1990 that provides for control over the sale and export of certain agricultural products, the Abattoir Hygiene Act, 1992 - Act No. 121 of 1992 that provides for the maintenance of proper standards of hygiene in the slaughtering of animals and in the handling of meat and animal products and the Animal Diseases Act, 1984 - Act No. 35 of 1984 that provides for control measures for the prevention of diseases and parasites and for schemes to promote animal health.

The use of hormones and antibiotics as growth enhancers are possible routes to increasing profit in a livestock operation. At present there is no regulatory ban on the use of these substances in South Africa. The veterinary requirements, which ensure consumer safety, for the use of antibiotics and hormones are applied. It is claimed that the use of antibiotics as growth enhancers is mainly not practiced in the Red Meat Industry.

The lack of controls on the use of hormones and antibiotics means that South Africa is unable to export processed meat to Europe, without using red meat certified to have been produced in accordance with production practices that meet the European standards.

Draft regulations for organically produced products are being developed under the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990). These place strict constraints on the use of antibiotics and hormones in the production of livestock. Essentially hormones may only be used if necessary to treat reproductive disorders and antibiotics for treatment of disease in livestock where other methods are unlikely to succeed and not for preventative treatment. These regulations will produce meat that could be exported to Europe.

The South African consumer is mainly not reacting to these issues in much the same way as they outlined previously. Free range and organic meats do find a place in the upper income segment of the market but this is a minor part of the total market.

The Department of Agriculture (Veterinary Services) was responsible for meat inspection at approved abattoirs until 1994. The inspection service was deregulated in terms of the Abattoir Hygiene Act of 1992. An approved abattoir was to employ a veterinarian and inspector to render meat inspection services following designation by the veterinary authority of such qualified persons.

Note: This information is given to provide an understanding of the regulatory situation and not to provide a work document – legislation and rules need to be checked with those responsible early in the process.

## **Waste Environment & Sustainability**

The situation described in Section 2 applies here along with the added complication of waste disposal arising from the need to eliminate practices such as rendering, incineration and denaturing as a result of disease and environmental issues.

# 7.5 Opportunity

#### **General Opportunities**

With the recovery of the economy, the large growth in meat consumption expected through the widening middle class and the reduction of unemployment, there is an opportunity to develop:

- higher quality processed meats mimicking the successes in Europe (eg Parma ham, foie gras, leverworst) and/or with African flavours and ingredients to produce a new unique product range
- ii. the production of a polony/vienna that is cheap and shelf stable outside of a cold chain to provide processed meat to the large numbers of low income consumers.

### **Specific Opportunities**

Investment North West is funding a business plan to evaluate the potential for a very large abattoir and distributed meat processing plants to produce processed meat products, 80% of which would be for export.

Contact Elijah Sedumedi elijah@inw.org.za Tel+27 14 594 2570 Fax+27 14 594 2576 Industry Associations

#### **Annexure 1**

# Hi-tech meat processing plant mega project

The project is a partnership between South African livestock producers, a black economic empowerment consortium and German technology partners.

The plant intends handling 1 000 cattle and 500 pigs per day for slaughtering and is expected to fill a gap with updated technology needed in the meat industry. Eighty percent of the output will be for export. There are five plants within one project which will include, among other things, an abattoir.

Estimated total investment costs are R900-million. Forms of collaboration sought include a joint venture (equity), loan, market access and buyback arrangements, as well as management, technical and marketing expertise. Types of investment or cooperation sought from foreign sources include financial investment; equipment, technology contribution or licence; management expertise; and marketing expertise or distribution channels.



online at:http://www.tradeinvestsa.co.za/investment\_opportunities/983772.htm

# 8. MILK VALUE CHAIN



Like the food industry the dairy industry evolved from a highly regulated environment to one that is largely deregulated today with little control on price. It now operates under a batch of legislation that is aimed at facilitating safe and nutritious products.



Market forces associated with this deregulation has reduced the number of dairy farmers from 30 000 in the mid-80s to fewer than 2 800 today.

### 8.1 Milk Resource

A reduction in the price processors are paying for raw milk in recent months (second half 2010) along with higher than normal production (4,1% higher than during the corresponding period in 2009, making this year the second highest production period in seven years) and an increase in imports (a 79% hike in imports to 52-million litres for the first seven months of 2010) has increased the pressure (BFAP, 2010) on smaller players.

There is an expectation that as the raw milk production reduces to match processing demands supply and demand will become better balanced and all players in the chain will become more sustainable.

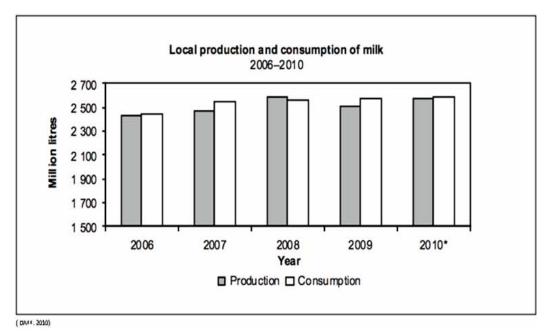


Figure 16 Milk Production and Consumption

Milk in South Africa is consumed in both liquid and concentrated milk product form. Almost 60% of the liquid milk consumed in South Africa is in the form of fresh milk products while over half of the concentrated milk product consumed is in the form of cheese.

At the secondary level i.e. processing, the dairy industry is characterised by a few larger processors operating nationally, a large number of smaller processors operating within specific regions and a number of producers who sell their produce directly to retailers and consumers. In total there are around 280 processing dairies, 40 of which produce 85% of the total milk production

Since 2005, South Africa has been a net importer of dairy products, on a milk equivalent basis. Milk powders and milk & cream make up almost half of South African's dairy product imports and over half of South Africa's dairy product exports.

# 8.2 Processing

Milk leaves the cow at approximately 37°C. It must be chilled as quickly as possible to below 5°C. Depending on the scale of the operation this may be by means of a heat exchanger connected to an ice water system or a refrigerated farm tank. Chilling is required even where production is on the farm.

Once the milk arrives at the dairy either on the farm or at a centralised dairy; Chilling, Pasteurisation, Clarification, Separation and standardisation and Homogenisation produce fresh milk at desired composition. This milk is then converted with different Unit Operations including Blending (flavoured milk) Incubation and fermentation (eg yoghurt), Evaporation (eg condensed milk), Drying (eg milk powder), Sterilisation and UHT processes (eg long life milk), Packaging and Cleaning and sanitation.

These operations produce products in the following five categories of products

- i. Liquid dairy products (pasteurised milk, sterilised milk, UHT milk, flavoured milks)
- ii. Cultured dairy products (amazi, yoghurt, dairy dessert)
- iii. Concentrated dairy products and cheese (evaporated milk, condensed milk, butter, cheese)
- iv. Powdered dairy products (milk powder, whey powder, ice cream powder, casein)
- v. Frozen dairy products (ice cream and frozen yoghurt)

## 8.3 Products and Markets

Figure 17 shows the relative consumption of dairy products according to Milk Producers Organisation.

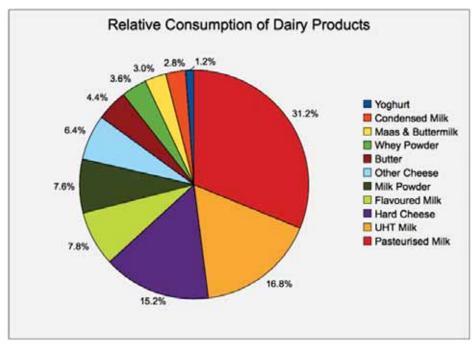


Figure 17 Product Market Share

Key players in the dairy industry are Clover, Parmalat SA, Nestlé and Dairybelle others are listed in Appendix 2.

Amasi (maas) is a traditional cultured (sour) milk that is manufactured by inoculating pasteurised milk with a specific bacterial culture. The end product has a firm texture, no gas bubbles and no separation of whey from the coagulum. It has a pleasant sour taste with a slight bite/prickliness on the tongue.

The lower income group mainly has access to dairy products through their own production and is not a large consumer of any of the relatively expensive processed milk products. The traditional use of a naturally fermented milk is normal in areas without a cold chain where it effectively increases the shelf life of the nutritionally important product of the subsistence farmer.

The upper income group has a high dairy consumption from fresh milk, yoghurt in many formats (including drinks, health foods and flavoured deserts) as well as from cheese. The consumption of butter is fairly low because of the perceived health advantages of margarine.

Cheese use in South Africa is very conservative with the bulk of the consumption being cheddar, gouda and processed cheese. Some other cheeses such as Camembert, blue vein and brie have been introduced in small quantities in higher income retail outlets. An opportunity exists here to introduce a bigger variety of cheeses, probably at the small dairy level and grow this sector.

## **Equipment and Process Engineering**

Some of the strongest multinational food process engineering companies including Tetrapak, GEA, APV and Alfa Laval have local offices and supply the dairy industry with the most up to date technology.

For smaller scale installations the local companies described in section 1 and listed in Appendix 2 often act as agents for equipment from Europe of the USA.

# 8.4 Regulatory Issues

Capital cost and the technical and marketing expertise and not regulatory issues constitute the barriers to entering the sector. The regulatory issues have, however, to be considered when setting up a dairy processing business. In particular hygiene which is a major issue in the industry, and is not limited to equipment but extends to walls, drainage, staff hygiene etc. is the focus of much of the legislation.

The Foodstuffs, Cosmetics and Disinfectants Act, No. 54 of 1972, governs the manufacture, sale and importation of all foodstuffs from a safety/public health and quality point of view. The Health Act, No. 63 of 1977, regulations relate to hygiene aspects of food premises (including milking sheds) and the transport of food. The Animal Diseases Act, No. 35 of 1984, controls animals as well as animal products such as meat, eggs, milk and their products from an animal disease point of view. The Agricultural Products Standards Act, No. 119 of 1990, controls and promotes specific product standards (e.g. meat, dairy products, cereals, fruit and vegetables and certain canned products) mainly with regard to quality as well as for export purposes. Regulation 2581 deals with dairy products and imitation dairy products. The Medicines and Related Substances Act, No. 101 of 1965, is not aimed at food specifically, but makes provision inter alia for the registration of veterinary drugs which impact on the safety of food as well as for the registration of foodstuffs and food supplements with medicinal effects or for which medicinal claims are made. The Trade Metrology Act, No. 77 of 1973, and The Trade Marks Act, No. 62 of 1963, control certain aspects related to the labelling of foodstuffs.

Note: This information is given to provide an understanding of the regulatory situation and not to provide a work document – legislation and rules need to be checked with those responsible early in the process.

# 8.5 Opportunity

#### **General Opportunity**

An opportunity that was raised by several of the players spoken with was the need for improved processing of whey at dairies producing cheese. Some years back whey was most often considered as a waste stream and simply put to drain. Increases in concern about the water and effluent systems resulted in the construction of whey drying plant especially at the larger plants. However smaller cheese producers can not justify the investment of a dryer and the transport of whey to contract dryers is expensive given the large distances and the increases in energy costs.

There is therefore an opportunity for Dutch dairy or equipment supplier to develop and implement a solution that suits this circumstance. This would of course be started with a feasibility study that would quantify the volumes and the costs.

There are two opportunities to bring new and higher value added products to the upper income market

- i. The development of new health yogurts using new and different African herbs for possible health benefits as well as taste. This would build on the capacity in indigenous plant processing/nutrition.
- ii. The development of the cheese market to accept new and higher value added cheeses based on those that succeed in the international market but which best meet South African conditions.

# **Specific Opportunities**

The proposal is to develop two dairy farms in the Normandien district (Newcastle Local Municipality) with enough capacity to sustain a cheese factory. It is expected the high quality of cheese can be produced processing the product immediately after milking and linking milk and cheese production.

Mbulelo Clive Khoza, Email clive@tikzn.co.za Tel +27 84 503 7799

## **APPENDIX 1 - REFERENCES**

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## **Processing Companies**

## **General**

Clover; Tel +27 (0)11 471 1400; Fax +27 (0)11 471 1504; http://http://www.clover.co.za

Distell; Tel +27(0)21 809 7000; Fax +27(0)21 886 4611; info@distell.co.za; http://www.distell.co.za/

Dole SA; Tel +27 (0)21 914 0600; Fax. +27 (0)21 914 0622; theda doman@za.dole.com; http://dolesa.co.za

McCain Foods (South Africa); Tel +27 (0)11 856 6000; Fax +27 (0)11 856 6001; consumer@mccain.co.za; http://www.mccain.co.za

Nestle (South Africa); Tel +27 (0)11 514 6000; Fax +27(0)11 514 6770; http://www.nestle.co.za

Parmalat (South Africa); Tel +27 (0)21 809 1400; Fax +27 (0)21 886 6939; http://www.parmalat.co.za

Pioneer Foods; Tel +27 (0)21 807 5100; Fax +27 (0)21 807 5280; info@pioneerfoods.co.za; http://www.pioneerfoods.co.za/

Tiger Brands Foods: Tel +27 (0)11 840 4000; Fax +27 (0)11 514 0084; http://www.tigerbrands.co.za

Unilever (South Africa); Tel +27 (0)86 033 1441; zawebsite.queries@unilever.com; http://www.unilever.co.za

## **Dried Fruit**

Alman Dried Fruit & Nuts; Tel +27 (0)11 397 4685; Fax +27 (0)86 610 8591; almdaleen@yebo.co.za; http://www.almans.co.za/

Montague Dried Fruit and Nuts; Tel +27 (0)23 614 2682; Fax +27 (0)23 614 1607; jp@montagudriedfruit.co.za; http://www.montagudriedfruit.co.za/

S.A.D; Anchen Myburgh-Creighton (Marketing Manager); Tel +27 (0)21 970 7300; amyburgh@pioneerfoods.co.za; http://www.wellingtons.co.za

South African Dried Fruit Co-Operative Ltd; Tel +27 (0)54 431 0729; Fax +27 (0)54 431 0729; srossouw@pioneerfoods.co.za

Westfalia Ltd; Tel +27 (0)15 309 9986/7; Fax +27 (0)15 309 9818; wmzac@mweb.co.za; http://www.westfalia.co.za

#### **Fruit Juice**

Bronpro; Mrs Tina Smit; Tel +27 (0)13 753 2318/9; Fax +27 (0)13 753 3377; http://bronpro.co.za/index.htm

Capespan; Tel +27 (0)21 917 2600; Fax +27 (0)21 917 2602; http://www.capespan.com

Ceres Juices; Tel +27 (0)11 622 0001/5; Fax +27 (0)11 622-0012; ceres@ceres.co.za; http://www.ceres.co.za

Coca Cola; Tel +27 (0)11 644 0780; Fax +27 (0)11 644 0766; ccsainfo@afr.ko.com; http://www.cocacola.co.za/default.aspx

Fruit & Veg City; Tel +27 (0)21 532 5400; Fax +27 (0)21 532 5411; http://www.fruitandvegcity.co.za

Fruittime; Tel +27 (0)11 422 4555; http://www.fruitime.co.za

Granor Passi; Tel +27 (0)15 298 6000; fax +27 (0)15 298 8200; info@granorpassi.co.za; http://www.granorpassi.co.za

Liquifruit; Tel +27 (0)21 943 6900; liquifruit@pioneerfoods.co.za; http://www.liquifruit.co.za/

Magalieberg Citrus Co-op; Tel +27 (0)12 256 9000 Fax +27 (0)12 256 6769; webmaster@magaliescitrus.co.za; http://www.magaliescitrus.co.za

Simply Fruit; Tel +27 (0)11 394 7574/5; Fax +27 (0)11 394 7154;

#### **Processed Meat**

Astral Foods Ltd; Tel +27 (0)12 667 5468; Fax +27 (0)86 504 2002; Olga.deWaal@astralfoods.com; http://www.astralfoods.co.za/astral main.htm

Enterprise Foods; Tel +27 (0)11 840 4000; http://www.enterprisefoods.co.za/

Eskort Ltd; Tel +27 (0)12 345 4452; Fax +27 (0)86 630 0906; info@eskort.com; http://www.eskort.com/index.cfm

Fabvleis (Pty) Ltd (Midland Meats); Tel +27 (0)16 972 8800; Fax (0)16 972 2030; admin@eac.co.za; http://www.eac-group.co.za/main.htm

Farmpure Meats (Pty) Ltd; Mr. Udo Tschirpig (Manager); Tel +27 (0)12 653 6502; Fax: +27 (0)12 653 6521; fpdepot@penvaan.co.za; http://www.farmpuremeats.co.za/index.html

Frey's Food Brands (Pty) Ltd; Tel +27 (0)31 784 6000; Fax +27 (0)31 784 6010; walterf@frays.co.za;

Hercules Cold Storage (Pty) Ltd; Hendrik Meyer; Tel +27 (0)12 379 6016; Fax +27 (0)12 379 9779; htmeyer@herculesfoods.com; http://www.herculesfoods.com

Irvin & Johnson Ltd; Tel +27 (0)21 402 9200; Fax +27 (0)21 402 9282; foodservice@ij.co.za; www.ij.co.za

New Style Pork (Pty) Ltd; Tel +27 (0)16 362 0936; Fax +27 (0)16 362 2029/59; sales@newstylepork.co.za; http://www.newstylepork.co.za

Rainbow Chicken Ltd; Tel +27 (0)31 242 8500; Fax +27 (0)86 679 6155; http://www.rainbowchicken.co.za/

Seemann's Quality Meat Products; Tel +27 (0)11 792 1410; Fax +27 (0)11 792 5117; kobus@seemanns.com; http://www.seemanns.co.za/index.html

A list of Veterinary Public Health Abattoir can be found on http://www.nda.agric.za/vetweb/; VPH; Abattoir lists

# **Dairy**

Clover; Tel +27 (0)11 471 1400; Fax +27 (0)11 471 1504; http://www.clover.co.za

Dairybell; Tel +27 (0)57-355 1231; Fax +27 (0)57-3964303; info@dairybelle.co.za http://www.dairybelle.co.za

Fairfield Dairy; Phone; Tel +27 (0)33 239 9800; Fax +27 (0)33 239 9878;

Fairview Cheese; Louis Lourens; Tel +27 (0)21 863 2450; Fax +27 (0)21 863 2591; fairwine@mweb.co.za

Homsek Dairy; Franz Homsek; Tel +27 (0)51 433 9368; homsekdairy@homsek.co.za

Honeydew Dairies; Tel +27 (0)33 266 6021; Fax +27 (0)33 266 6333; info@honeydewdairies.co.za; http://www.nestle.co.za

Nestle (South Africa); Tel +27 (0)11 514 6000; Fax +27(0)11 514 6770;

Nuwehoogte Goatsmilk & Cheese; Neil Pfaff; Tel +27 (0)79 752 1616; nuwehoogte@yahoo.com; http://www.nuwehoogte.weebly.com

Parmalat (South Africa); Tel +27 (0)21 809 1400; Fax +27 (0)21 886 6939; http://www.parmalat.co.za

Woodlands Dairy; Tel +27 (0)42 200 3400; Fax: +27 (0)42 291 0940; kstark@woodlandsdairy.co.za

# **Equipment & Process Suppliers**

General - Most cover a broad range of Food Processing

Alfa Laval (Pty) Ltd (South Africa); Tel +27 (0)11 230 3600; Fax +27 (0)11 230 3695; info.sa@alfalaval.com; www.alfalaval.com

Anderson Engineering Food & Chemical Equipment CC; Tel +27 (0)33 387 1544; Fax +27 (0)33 387 3923; www.andersoneng.co.za

APV Systems; Tel +27 (0)11 2073700; Fax +27 011 2073707

DAS Food Systems; Tel +27 (0)721 552 9165; sales@dasfs.co.za; http://www.dasfs.co.za

Duys Engineering Group; Tel +27 (0)31 713-1718; Fax +27 (0)31 713-1727; www.duys.co.za

EPTECH; Tel +27 (0)21 868 1594; Fax +27 (0)21 868 1599; info@eptech.co.za; http://www.eptech.co.za

Falcon Engineering (SA) (Pty) Ltd; Tel +27 (0)11 455 4900; Fax +27 (0)11 450 1162; falcon@falconeng.com; www.falconengineering.co.za

Filmatic Packaging Systems Pty Ltd; Tel +27 (0)21 862 2192; Fax +27 (0)21 862 4605; sales@filmatic.com; http://www.filmatic.com

GEA Process Engineering South Africa (Pty) Ltd; Tel +27 (0)11 805 6910; Fax +27 (0)11 541 0555; ZFBEKDVXGNRB@spammotel.com; http://www.gea-pe.co.za/

Guth South Africa; Tel +27 (0)11 477 4923; Fax +27 (0)11 477 8062; jhb@guth.co.za; http://www.guth.co.za

H.G. Molenaar; Tel +27 (0)21 868 2210; Fax +27 (0)21 868 2209; info@hgmolenaar.co.za; http://www.hgmolenaar.co.za

Henry S Komar & Associates; Tel +27 (0)11 760-2718; Fax +27 (0)11 760-1079; info@komar.co.za; http://www.komar.co.za

LHL Engineering (Pty) Ltd; Tel +27 (0)31 705 5856; Fax +27 (0)31 705 5860; www.lhl.co.za

P A Cuthbert & Co Manufacturing; Tel +27 (0)11 452-5806; Fax +27 (0)11 452-5849; www.pacuthbert.co.za

### Drying

Dryers for Africa; Tel +27 (0)13 733 3854; Fax +27 (0)13 733 3854; admin@dryersforafrica.co.za; www.dryersforafrica.co.za

Henry S Komar & Associates; Tel +27 (0)11 760-2718; Fax +27 (0)11 760-1079; info@komar.co.za; http://www.komar.co.za

## **Meat Processing**

Albrecht Machinery; Tel +27 (0)21 508 4800; +27 (0)21 508 4803; gcc@albrechtmachinery.co.za

Columbit Industries; Tel +27 (0)21 593 3161; Fax +27 (0)21 593 3179; capesales@columbit.biz; http://www.columbit\_biz/columbit\_south\_africa

Crown National; Tel +27 (0)11 201 9000; Fax +27 (0)11 201 9180; info@crownnational.co.za; http://www.crownnational.co.za

DIVAC; Tel +27 (0)44 874 2720/4/5; Fax: +27 (0)44 874 2747; divac@pixie.co.za; http://www.divac.co.za

Freddy Hirsch; Tel +27 (0)11 406 3200; Fax +27 (0)11 613 8406; http://www.freddyhirsch.co.za

Jarvis; Tel +27 (0)11 974 6776/9; Fax +27 (0)11 974 6802; jarvissa@yebo.co.za

 $Kentmaster; \ Tel \ +27 \ (0)11 \ 455 \ 3748; \ Fax \ +27 \ (0)11 \ 455 \ 3749; \ kentmaster@mweb.co.za; \ www.kentmaster.com$ 

Nuritur CC; Tel +27 (0)21 552 2923; Fax +27 (0)21 552 3476; nuritur@mweb.co.za

# **Ingredient suppliers**

Anchor Yeast; Tel +27 (0)11 248 8200; Fax +27 (0)11 474 2362; consumer@anchor.co.za; http://www.anchor.co.za

Chemimpo SA; Tel +27 (0)11 293 2000; Fax +27 (0)11 293 2141; enquiries@chemimpo.co.za; http://www.chemimpo.co.za/

Crest Chemicals; Tel +27 (0)11 254 3300; Fax +27 (0)11 314 1809; enquiries@crestchem.co.za; http://www.crestchem.co.za

Danisco South Africa; Tel +27 (0)11 608 6760; Fax +27 (0)11 608 3477; info@danisco.com; http://www.danisco.com

Flavourome (Pty) Ltd; Tel +27 (0)11 314 0219; Fax +27 (0)11 314 0784; davidw@flavourome.co.za; http://www.flavourome.co.za/

Frutarom South Africa; Tel +27 (0)11 794 1362; Fax +27 (0)11 795 3811; info@za.frutarom.com; http://www.frutarom.com

Novozymes SA (Pty) Ltd; Tel +27 (0)11 444 8124; Fax +27 (0)11 444 8127; info@novozymes.com; www.novozymes.co.za

Nutritional Foods; Tel +27 (0)11 473 6800; Fax +27 (0)11 474 6533; rudy.kruger@nfoods.co.za; http://www.nfoods.co.za/

Protea Industrial Chemicals; Tel +27 (0)11 824 2280; Fax +27 (0)11 821 3334; http://www.omnia.co.za/pebble.asp?relid=1967

South Bakels; Tel +27 (0)11 673 2100; Fax +27 (0)11 447 9073; sbakels@global.co.za;

Tate & Lyle South Africa; Tel +27 (0)11 708 9100; Fax +27 (0)11 708 3318; http://www.tateandlyle.com

Tongaat-Hulett Sugar Limited; Tel +27 (0)31 460 0309; Fax +27 (0)31 460 0340; corporate@huletts.co.za; http://www.huletts.co.za/

# **Packaging**

Cinqplast Plastop (Astrapak); Tel +27 (0)11 417 6300; Fax +27 (0)11 622 4428; gmatthews@cinqplast.co.za; www.astrapak.co.za

Consol Glass; Tel +27 (0)11 874 0000; Fax +27 (0)11 827 0210; information@consol.co.za; http://www.consol.co.za/iri/portal/anonymous

Consol Plastics; Tel +27 (0)11 827 5512; Fax +27 (0)11 827 0819; information@consol.co.za; http://www.consol.co.za;

Consol Speciality Glass; Tel +27 (0)12 318 8852; Fax +27 (0)12 318 8814; www.consolspecialityglass.co.za

Dairypack; Tel +27 (0)21 710 9200; Fax +27 (0)21 712 1342; http://www.polyoakpackaging.co.za/

Golden Era Group; Tel +27 (0)11 323 1900; Fax +27 (0)11 323-1901; gejhb@golden-era.co.za; http://www.golden-era.co.za

Handi-Pak; Tel +27 (0)21 854 7232; Fax +27 (0)21 854 6615; sales@handi-pak.co.za; http://www.handi-pak.co.za/

Nampak; Tel +27 (0)11 719 6300; Fax +27 (0)11 444 5761; http://www.nampak.com/Default.aspx

Packaging Shoppe; Tel +27 (0)11 312 1509; Fax +27 (0)11 315 5984; info@packshoppe.co.za; http://www.packshoppe.co.za/

Tetra Pak South Africa Ltd; Tel +27 (0)11 570 3000; Fax +27 (0)11 570 3149; http://www.tetrapak.com/za/Pages/default.aspx

WH Rosenmeyer & Co; Tel +27 (0)11 839 2950; Fax +27 (0)11 839 1320; www.rosenmeyer.co.za

Xactics (Lenco Packaging); Tel +27 (0)21 670 5000; Fax +27 (0)21 683 7792;

## **Process Knowledge**

Note: most suppliers have extensive process knowledge which they offer as part of their service to their customers.

#### Research

Agricultural Research Council (ARC Institute for Agricultural Engineering); Tel: +27 (0)12 842 4017; Fax: +27 (0)12 804 0753; iaeinfo@arc.agric.za; http://www.arc.agric.za

Cape Peninsula University of Technology: Food Technology Department; Virginia Jackson; Tel +27 (0)21 460 3176; Fax +27 (0)21 460 3217; jacksonv@cput.ac.za; http://www.cput.ac.za/index.php?option=com\_content&view=article&id=6&Itemid=50

CSIR Biosciences; Dr Joe Molete; Tel +27 (0)12 841 4616; Fax +27 (0)12 841 3105; jmolete@csir.co.za; http://www.csir.co.za/biosciences/

Durban University of Technology: Department of Biotechnology & Food Technology; Tel +27 (0)31 373 6769; Fax +27 (0)31 373 5351; http://www.dut.ac.za/pages/22580#Food%20Technology

Agro-food Technology Station (ATS); Larry Dolley; Tel +27 (0)21 953 8615; Fax +27 (0)21 953 8616; dolleyl@cput.ac.za; www.cput.ac.za

Limpopo Agro-Food Technology Station; Tel +27 (0)15 268 2785/3359; Fax +27 (0)15 268 3246; lats@ul.ac.za; http://www.ul.ac.za/index.php?Entity=Limpopo%20Agro-Food%20Technology%20Station

Tshwane University of Technology: Department of Biotechnology & Food Technology; Charmaine Briel; Tel +27 (0)12 382 6240; Brielc@tut.ac.za;

http://www.tut.ac.za/Students/faculties departments/science/departments/biofood and tech/Pages/default.aspx

University of Johannesburg: Department of Technology; Ms Denise Metcalfe (HOD); Tel +27 (0)11 559 6252; Fax +27 (0)11 559 6558; dmetcalfe@uj.ac.za;

http://www.uj.ac.za/EN/Faculties/science/departments/foodtech/Pages/default.aspx

University of Pretoria: Department of Food Science; Prof Amanda Minaar; Tel +27 (0)12 420 3239; Fax +27 (0)12 420 2839; food.science@up.ac.za;

http://web.up.ac.za/default.asp?ipkCategoryID=2055&subid=2055&ipklookid=11&parentid=

University of Stellenbosch: Department of Food Science; Tel +27 (0)21 808 3578; Fax +27 (0)21 808 3510; voedselw@sun.ac.za; http://academic.sun.ac.za/foodsci/

University of the Free State: Food Science Section; Tel +27 (0)51 401 2216; Fax +27 (0)51 401 9335; osthoffG@ufs.ac.za; http://natagri.ufs.ac.za/biotech

#### **Consultants**

Andrew Murray Consulting; Tel +27 (0)28 312 3064; Fax +27 (0)86 648 3131; +27 (0)82 459 1984; andrew.murray@mweb.co.za; http://www.foodengineering.co.za

Chaswill Process Technology; Tel +27 (0)21 510 3515; Fax +27 (0)21 510 2896; process@chaswill.co.za; http://www.chaswill.co.za

The Lekker Food Co.; Janine Barkhuysen; Tel +27 (0)11 849 0097; Fax (0)86 685 9411; janine@lekkerfood.co.za; http://www.lekkerfood.co.za/

Sunley Consulting; Nigel Sunley; Tel +27 (0)82 453 3125; Fax +27 (0)11 467 3108; nigel@sunleyconsulting.co.za

Vintlo Consultants cc; W von Fintel; Tel +27 (0)12 460 5972; Fax (0)12 460 5972; wvonfint@mweb.co.za

# **Associations / Organisations**

Note: Producer's Organisations have not been included in this list. Many can be found at <a href="http://bit.ly/ProdOrgs">http://bit.ly/ProdOrgs</a> or through online searches.

The Southern Africa Stainless Steel Development Association (Sassda); Tel +27 (0)11 883 0119; Fax +27 (0)86 639 4280; http://www.sassda.co.zahttp://www.sassda.co.za

The South African Association for Food Science & Technology; Tel +27 (0)31 368 8000; Fax +27 (0)31 332 5709; info@saafost.org.za; http://www.saafost.org.za/

Food Advisory Consumer Service, (FACS); Tel +27 (0)12 349 1448; drcole@cybersmart.co.za; http://www.foodfacts.org.za/

#### Fruit

South African Mango Growers Association (SAMGA); Tel +27 (0)15 306 6240 or +27 (0)15 307 2775; Fax +27 (0)15 307 6792; info@mango.co.za; http://www.mango.co.za/home

Hortgro; Tel +27 (0)21 870 2900 or +27 (0)21 870 2915; Fax +27 (0)21 870 2915; info@hortgro.co.zainfo@hortgro.co.za; http://www.hortgro.co.za

Dried Fruit Technical Services; Tel +27 (0)21 870 2900; Fax +27 (0)21 870 2915; marlene@dtd.co.za http://www.dfpt.co.za/content/view/12/27/lang,en

#### **Processed Meat**

Red Meat Abattoir Association (RMAA); Tel +27 (0)12 349 1237/8/9; +27 (0)12 349 1240; admin@rvav.co.za; http://www.rmaa.co.za

South African Meat Industry Company (SAMIC); Tel +27 (0)12 361 4545; Fax +27 (0)12 361 9837; rudivdw@samic.co.za; http://www.samic.co.za

South African Meat Processors Association (SAMPA); Tel +27 (0)12 807 1367; stoffelm@lantic.net

Association for Meat Importers and Exporters (AMIE); Tel +27 (0) 31 767 5740; Fax +27 (0) 31 767 0315; papen@worldonline.co.za

Southern African Poultry Association (SAPA); Tel +27 (0) 11 795 2051; www.sapoultry.co.za

### **Dairy**

Milk South Africa; Tel +27 (0)12 460 7312; Fax +27 (0)12 460 9909; dalene@milksa.co.zadalene@milksa.co.za; http://www.dairysa.co.za/

Milk Producers Organisation (MPO); Tel +27 (0)12 843 5600; Fax (0)12 804 4809/11; info@mpo.co.za; www.mpo.co.za;

South African Milk Processors' Organisation (SAMPRO); Tel +27 (0)12 991 4164; Fax +27 (0)12 991 4134 or +27 (0)86 504 9460; marietjie@sampro.co.za; http://www.sampro.co.za/

# **Other Chains Not Covered in Report**

Grain SA; Tel +27 (0)56 515 2145; Fax +27 (0)56 515 3613; heleen@grainsa.co.za; http://www.grainsa.co.za

Maize Trust, P O Box 12203; Tel +27 (0)12 333 3634; Fax +27 (0)12 333 3634; Mr Leon du Plessis; http://www.maizetrust.co.za; l-lagric@mweb.co.za

National Chamber of Milling; Tel +27 (0)12 663 1660; Fax +27 (0)12 663 3109; info@grainmilling.org.za; www.grainmilling.org.za

SA Canning Fruit Producers' Association; Tel +27 (0)21 872 1501; Fax +27 (0)21 872 2675; inmaak@mweb.co.za

SA Frozen Fruit and Vegetable Producers' Association (SAFFVPA); Tel +27 (0)44 875 9030; Fax (0)44 875 9906

SA Fruit and Vegetable Canners' Association; Tel (0)21 871 1308; Fax +27 (0)21 872 5930; safvpa@mweb.co.za

SA Fruit and Vegetable Canners' Association: Tel +27 (0)21 861 1308; Fax +27 (0)21 872 5930

SA Groundnut Forum; Tel +27 (0)56 515 2145; Fax (0)56 515 3613; nampo@mielies.co.za

SA Wine Industry Information and Systems; Tel +27 (0)21 807 5719; Fax +27 (0)21 807 6005; matthee@sawis.co.za; www.sawis.co.za

## **Industry Information Sources**

#### **State**

Stats S.A; **Tel** +27 (0)12 310 8911; Fax +27 (0)12 310 8500; info@statssa.gov.zainfo@statssa.gov.za; http://www.statssa.gov.za/

The National Agricultural Marketing Council; Thabo (Communications Contact); Tel +27(0)12 341 1115; Fax (0)12 341 1811/1911; thabo@namc.co.za; http://www.namc.co.za/dnn/default.aspx

The South African Department of Agriculture; Ms Noncedo Vutula (Chief Director: Communication and Information); Tel +27 (0)12 319 7348; Fax +27 (0)12 319 7832; CDCI@daff.gov.za; http://www.nda.agric.za/

The South African Department of Trade & Industry; Tel +27 (0)86 184 3348; Fax +27 (0)12 394 9501; contactus@thedti.gov.za; http://www.dti.gov.za/

Trade & Industrial Policy Strategies (TIPS); Tel 27 (0)12 431 7900; Fax +27 (0)12 431 7910; ipeleng@tips.org.za; http://www.tips.org.za/

National Plant Protection Organisation (NPPO) of South Africa; Tel +27 (0) 12 319 6100; Fax +27 (0) 12 319 6350; Mikeh@nda.agric.za

Directorate: Animal Health; Import Export Policy Unit; Tel +27 (0) 12 319 7514; inaL@daff.gov.za

### **Private**

Business Monitor International; Tel +27 (0)12 683 8860; Fax +27 (0)12 643 0204; bmosa@businessmonitor.com; http://store.businessmonitor.com/south-africa/food

BMI Foodpak; Tel +27 (0)11 615 7000; Fax +27 (0)11 615 4999; research@bmi.co.za; http://www.bmifoodpack.co.za/

Euromonitor International; Tel +27 (0)21 552 0037; Fax +27 (0)21 552 7071; info@euromonitor.com; http://www.euromonitor.com/

AC Nielsen South Africa; Graham Marshall; +27 (0)11 495 3105; Fax +27 (0)11 835 3410; acnielsen@acnielsen.co.za; http://www.acnielsen.com

# **Business Support**

Agricultural Business Chamber (ABC); Tel: +27 (0)12 807 6686; Fax: +27 (0)12 807 5600; admin@agbiz.co.za; http://www.agbiz.co.za

The Foundation for African Business and Consumer Services (Fabcos); Tel +27 (0)11 333 3701; Fax +27 (0)11 333 1009; http://www.fabcos.co.za

National African Federated Chamber of Commerce and Industry (NAFCOC); Tel (011) 807 5063; Fax +27 (0)11 807 9816; info@nafcoc.org.za; www.nafcoc.org.za

South African Chamber of Business (SACOB); Tel +27 (0)11 446 3800, Fax +27 (0)11446 3804, advisor@sacci.org.zahttp://www.sacci.org.za Southern African - Netherlands Chamber of commerce (SANEC) Johannesburg; Tel: +27 (0) 11 263 5800; Fax: +27 (0) 11 263 5811; info@sanec.co.za; ; http://www.sanec.co.za

In addition there are local business chambers in most larger towns and cities.

#### Other

National Independent Halaal Trust; Tel +27 (0) 11 854 4381; Fa +27 (0) 11 852 4300; niht@halaal.org.za

Industrial Development Corporation (IDC); Tel +27 (0)11 269 3000; Fax +27 (0)11 269 3116; callcentre@idc.co.zacallcentre@idc.co.za

Small Enterprise Development Agency (SEDA); Tel: +27 (0)86 010 3703; info@seda.org.zainfo@seda.org.zai, http://www.seda.org.za/Pages/Seda-Welcome.aspx

The South African Department of Trade & Industry (TDI); Tel +27 (0)86 184 3348; Fax +27 (0)12 394 9501; contactus@thedti.gov.za; http://www.dti.gov.za/

The South African Department of Trade & Industry(TDI): Foreign Economic Officer, The Hague; Mr Herman van der Kroef (Marketing Officer); Tel 00 31 70 392 4501; Fax 0031 70 361 7862 hvdkroef@thedti.nll; http://www.dti.gov.za/

Trade and Investment South Africa (TISA); +27 (0)12 394 9400; investmentsa@thedti.gov.za; www.thedti.gov.za

Eastern Cape Development Corporation (ECDC); Tel +27 (0)43 704 5600; Fax +27 (0)43 704 5700; info@ecdc.co.za; www.ecdc.co.za

Gauteng Economic Development Agency (GEDA) Tel +27 (0)11 833 8750; Fax +27 (0)11 833 8930; info@geda.co.za; www.geda.co.za

Invest North West; Tel +27 (0)14 594 2570; Fax +27 (0)14 594 2575/6; inw@inw.org.za; www.inw.org.za

Mpumalanga Economic Growth Agency (MEGA); Tel +27 (0)13 752 2440; Fax +27 (0)13 752 2468; http://www.mega.gov.za/

Northern Cape Department of Economic Affairs and Tourism; Tel +27 (0)53 839 4000; Fax +27 (0)53 832 9464; nmereeotlhe@ncpg.gov.za; http://economic.ncape.gov.za/

The Free State Development Corporation (FDC); Tel +27 (0)51 400 0800; Fax +27 (0)51 447 0929; victor@fdc.co.za; www.fipa.org.za

The Western Cape Investment and Trade Promotion Agency (WESGRO); Tel +27 (0)21 487 8600; Fax +27 (0)21 487 8700; info@wesgro.co.za; www.wesgro.co.za

Trade & Investment Limpopo; Stan Rakumako; Tel +27 (0)15 295 5171; Fax +27 (0)15 295 5197; Website: www.til.co.za

Trade and Investment KwaZulu-Natal (TIKZN); Tel +27 (0)31 368 9600; Fax +27 (0)31 368 5888; info@tikzn.co.za; www.tikzn.co.za