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Fast-Moving Consumer Goods in Africa



A PROFILE OF THE SOUTH AFRICAN AVOCADO MARKET VALUE CHAIN



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MARKET PROFILE OF AVOCADOS

INTRODUCTION

The avocado is also known as the alligator pear due to its pear-like shape and green skin. The avocado is predominantly made up of monounsaturated fat, an essential part of a healthy diet. It has the highest concentration of dietary fibre of any commonly eaten fruit. The avocado is regarded as part of the world's elite group of superfoods because of its bountiful benefits as a food packed with high levels of vitamins, minerals, and antioxidants and other photochemical. South Africa is one of the world's largest producers of avocados, with a total of 119 411 tons produced in 2015. Avocado production is concentrated mainly in the warm subtropical areas of the Limpopo and Mpumalanga provinces. KwaZulu-Natal is also an avocado- province due to its more southerly latitude and resulting cooler weather conditions. The aim of this article is to assess the global performance of avocados in terms of trade, as well South Africa's trade performance. Global trade overview of avocados Table 5 illustrates the top 10 importing countries of fresh and dried avocados globally in 2015. The global value of fresh and dried avocado imports increased significantly by 70.5 % between 2012 and 2015. In 2012, the global import value was slightly over US\$ 2 billion, while in 2015 it was more than US\$3.5 billion. The USA was rated as the top importer of fresh and dried avocados with a 45.6 % market share, followed by the Netherlands and France with an 8.3 % and 7.5 % market share respectively in 2015.

EXECUTIVE SUMMARY

Volume growth in 2016

Fresh food continues to grow, albeit at a steady rate. It is boosted by growing health trends as well as the affordability of fresh produce versus processed food. Consumers who are pressed for time can find many recipes that utilise fresh food ingredients in a convenient manner, which enables them to save time while still creating a tasty and nutritious meal. However, the majority of South Africans, particularly lower- to middle-income groups, make their choices based on price. This is particularly true in the current economic climate. The majority of fresh fruit and vegetables are cheaper compared to processed fruit and vegetables, which appeal more to high income demographics.

Drought impacts fresh food volumes in South Africa in 2016

A drought, which began in February 2015 only to subside in 2016, as well as rising input costs due to a rapidly plummeting rand, put South African food producers under extreme pressure. The most severely affected crops were maize (white and yellow), sunflowers, soya beans, groundnuts, sorghum and dry beans. This had a strong negative knock-on impact on many fresh food categories, ranging from agricultural products, such as fruit, vegetables, sugar, starchy roots and pulses to meat, where there was a lack of animal feed. While drought limited local production, the weakening currency resulted in imports being too expensive and the category subsequently felt the pressure.

Modern grocery retailers are the leading distributors of fresh food in South Africa

Modern grocery retailers accounted for 58% of the retail distribution of fresh food in 2016. Supermarkets were the most popular distribution channel for fresh food accounting for 40% of retail volume distribution in 2016. This is due to the wide variety of products stocked in supermarkets as well as the convenience in terms of location of outlets and the cleanliness of the products. Informal traders/hawkers and open markets are popular in more rural or lower-income areas as the products, such as fruits, vegetables and starchy roots, are unwashed and tend to be sold in larger quantities, passing on cost savings to the consumer.

Uncertain conditions impact the future performance of fresh foods

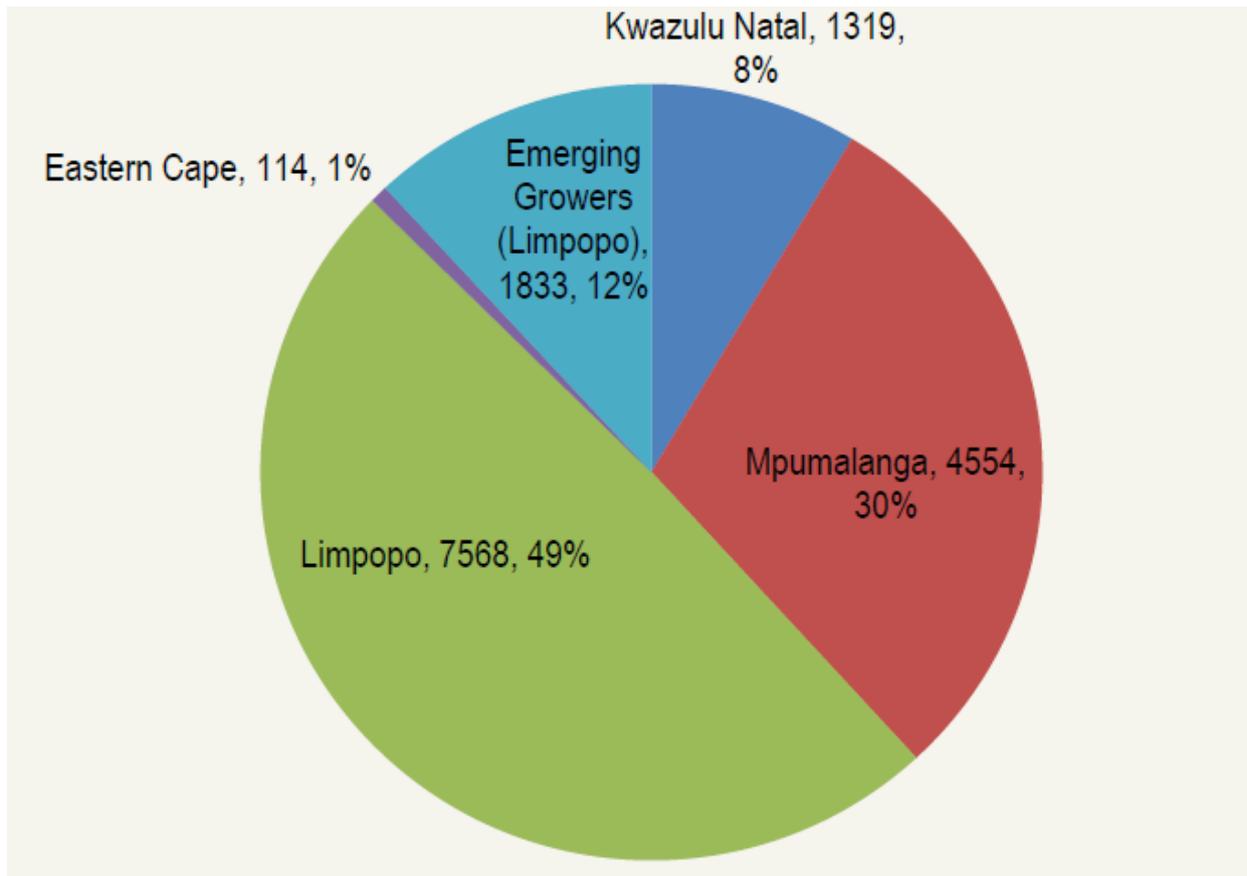
Fresh food will continue to grow as it is a necessary commodity. However, economic pressure, coupled with the impact of recent drought and rising food prices could potentially hamper growth. Moreover, many lower-income demographics may have to rely on subsistence farming to support their needs in terms of fruit, vegetables and starchy roots. Middle- to upper-income demographics will be encouraged to purchase fresh food over processed food using payment formats, such as loyalty cards, which often give cash back on consumer spending on healthy food items.

Due to the fact that the South African avocado industry is mostly export oriented, the gross value of production is heavily reliant on international avocado prices and fluctuations in the value of the South African currency relative to the currencies of South Africa's trading partners (mainly the European Union and the United States of America). Though partly responsible, fluctuations in the total value of production for avocados can therefore not necessarily be fully explained by fluctuations in the quantity of avocados produced in a given production season.

PRODUCTION AREAS

Avocado production in South Africa is concentrated mainly in the warm subtropical areas of the Limpopo and Mpumalanga provinces in the North East of the country between latitudes 22 °S and 25 °S (see Map 1). Annual rainfall in most of these areas is high (> 1000 mm p.a.), but there are some orchards in semi-arid regions with rainfall of \pm 400 mm p.a. Approximately 8% of commercial avocado orchards are in KwaZulu Natal province where the conditions are cooler due to the more southerly latitude (\pm 30 °S).

As already indicated above, due to climatic variability between the growing regions, most of the major cultivars are available over an extended period during the season. For example, 'Fuerte' is harvested from mid-March to May in the northern regions, and is harvested in July and August in KwaZulu-Natal.



Limpopo province represented 61% of national avocado production with 9 401 ha under avocado cultivation in 2011. Most of the avocado plantings in Limpopo are found in the Letaba district. The other main production area in Limpopo is Soutpansberg Mpumalanga and KwaZulu Natal provinces are the second and third biggest producers of avocados with 30% (4 554 ha) and 8% (1 319 ha) respectively.

AVOCADO OIL

Oil expressed from the flesh is rich in vitamins A, B, G and E. It has a digestibility of 93.8% but has remained too costly to be utilized extensively as salad oil. The amino acid content has been reported as: palmitic, 7.0; stearic, 1.0; oleic, 79.0; linoleic, 13.0. The oil has quality. Samples kept in a laboratory in Los Angeles at 40°F (4.4°C) showed only slight rancidity after 12 years. There is much interest in the oil in Italy and France. The Institut Francais de Recherches Fruitieres Outre Mer has studied the yield of oil in 25 cultivars. Joint Italian/Venezuelan studies of 5 prominent cultivars indicated that the fatty acid composition and tryglyceride structure was not influenced by variety. The oil is used as hair-dressing and is employed in making facial creams, hand lotions and fine soap. It is said to filter out the tanning rays of the sun, is non-allergenic and is similar to lanolin in its penetrating and skin softening action. In Brazil, 30% of the avocado crop is processed for oil, 2\3 of which is utilized in soap, 1/3 in cosmetics. The pulp residue after oil extraction is usable as stock feed.

The nutritional information per 100 gram of edible potion (flesh).

Moisture	65.7-87.7 g
Ether Extract	5.13-19.80 g
Fiber	1.0-2.1 g
Nitrogen	0.130-.382 g
Ash	0.46-1.68 g
Calcium	3.6-20.4 mg
Phosphorus	20.7-64.1 mg
Iron	0.38-1.28 mg
Carotene	0.025-.0475 mg
Thiamine	0.033-0.117 mg
Riboflavin	0.065-0.176 mg
Niacin	0.999-2.220 mg
Ascorbic Acid	4.5-21.3 mg

FOOD VALUE PER 100 G OF EDIBLE PORTION (FLESH)

MEDICINAL USES

The fruit skin is antibiotic and is employed as a remedy for dysentery. The leaves are chewed as a remedy for pyorrhoea. Leaf poultices are applied on wounds. Heated leaves are applied on the forehead to relieve neuralgia. The leaf juice has antibiotic activity. The aqueous extract of the leaves has a prolonged hypertensive effect. The leaf decoction is taken as a remedy for diarrhoea, sore throat and haemorrhage; it allegedly stimulates and regulates menstruation. It is also drunk as a stomachic. In Cuba, a decoction of the new shoots is a cough remedy. Sometimes a piece of the seed is boiled with the leaves to make the decoction. The seed is cut in pieces, roasted and pulverized and given to overcome diarrhoea and dysentery. The powdered seed is believed to cure dandruff. A piece of the seed or a bit of the decoction, put into a tooth cavity may relieve toothache. An ointment made of the pulverized seed is rubbed on the face as a rubefacient—to redden the cheeks. Oil extracted from the seed has been applied on skin eruptions.

OTHER USES

The seed yields a milky fluid with the odour and taste of almond. Because of its tannin content, it turns red on exposure, providing an indelible red-brown or blackish ink which was used to write many documents in the days of the Spanish Conquest. These are now preserved in the archives of Popayan. The ink has also been used to mark cotton and linen textiles.

Much avocado wood is available when groves are thinned out or tall trees are topped. The sapwood is cream-colored or beige; the heartwood is pale red-brown, mottled, and dotted with small drops of gummy red sap; fine-grained; light—40 lbs per cu ft—(560-640 kg/cu m); moderately soft but brittle; not durable; susceptible to dry-wood termites and fungi. The wood has been utilized for construction, boards and turnery. An Australian woodworker has reported that it is suitable for carving, resembles White Beech (*Eucalyptus kirktonii*); is easy to work, and dresses and polishes beautifully. He has made it into fancy jewel boxes. It probably requires careful seasoning. A Florida experimenter made bowls of it but they cracked

MARKET INTELLIGENCE

COMPETITIVENESS OF SOUTH AFRICAN AVOCADO EXPORTS

Competitiveness is described as an industry's capacity to create superior value for its customers and improved profits for the stakeholders in the value chain. The driving force in sustaining a competitive position is productivity that is output efficiency in relation to specific inputs with regard to human, capital and natural resources. South Africa's avocado exports represented 1.53% of world exports and its ranking in world exports was position 9. South African avocado exports are growing faster than the world imports in the Dutch market. South Africa's performance in this market can be regarded as gains in a dynamic market. At the same time, South African avocado exports have declined faster than the world imports in United Kingdom, Angola and France markets. South Africa's performance in those markets can be regarded as loss in declining markets. South African avocado exports are declining while world imports are growing in the Hong Kong, Saudi Arabia, Malaysia, United Arab Emirates, Mauritius, and Germany markets. These markets are dynamic and South Africa's performance in these markets should be viewed as an underachievement.

South Africa had a preferential trading agreement (PTA) with the European Union (EU) known as the Trade, Development and Cooperation Agreement (TDCA). The TDCA provided for the progressive introduction of a Free Trade Area (FTA). The EU is South Africa's main trading and investment partner. The FTA aimed to ensure better access to the Community market for South Africa and access to the South African market for the EU. The agreement covered around 90% of bilateral trade between the two parties and provided for the liberalisation of 95% of the EU's imports from South Africa within ten years and 86% of South Africa's imports from the EU in twelve years. In order to protect the vulnerable sectors of both parties, certain products were excluded from the FTA and others have been partially liberalised. For the EU, these are mainly agricultural products, while for South Africa, they are industrial products. The TDCA has however lapsed and the parties are now negotiating an Economic Partnership Agreement (EPA). In the meantime, tariffs that existed before the lapsing of the agreement are still applicable. South African avocados had preferential access into the EU market through the TDCA. Furthermore, South Africa has access to the US market under the AGOA, which significantly lowers the tariff barriers for South African avocados. Japan also operates a GSP system for which South Africa qualifies. The Asian countries (Hong Kong, United Arab Emirates, Singapore, and Saudi Arabia) also impose zero percent tariffs on avocados from South Africa while Malaysia imposes a 5% MFN duty on avocados from South Africa. Israel imposes a 27.54% import duty on fresh avocados and a 25% import duty on dried avocados originating in South Africa. In reality, the tariffs are likely to be far lower for South Africa when considering the preferential agreements, but at the same time, most tariff structures are particularly complex, with quotas, seasonal tariffs.

Specific tariffs (an amount per unit rather than a percentage of value) all contributing to many different tariff lines and often higher duties payable than one might have anticipated initially. One must also bear in mind that most tariffs are designated to protect domestic industries, and as such are likely to discriminate against those attempting to compete with the domestic producers of that country.

EUROPEAN UNION

The EU has a seasonal tariff structures which are highest during the European peak harvesting seasons (the price entry system), quotas and specific tariffs, and various policies that allow, amongst other things, organizations to purchase produce should supply rise too quickly (and thereby maintain prices), and then release this excess back onto the market as and when supply drops again. The immediate of these policies for South Africa is that an opportunity exists to supply avocados to the European market in the off season periods, as the produce will not compete directly with the European producers and thus would not be liable to a whole array of tariffs and other protective mechanisms.

There are other non-tariff barriers, including the phytosanitary and food health regulations laid down by the EU legislation, marketing standards and certificates of conformity, and the ever changing demand patterns of the EU consumers.

TARIFF BARRIERS

The EU applies a system known as entry price system. With this system, the EU establishes an 'entry price' at which produce may enter the EU market, which is not only based on the market price for the current and supply) and for previous years, but also on the prices of the domestic producers (prices they need to maintain profitability). It is calculated by the regulatory authorities so that it can be used in combination with tariffs and quotas to aid EU's attempts at protecting its agricultural system. The entry price is the minimum price at which produce may enter the market. If the price of the produce is lower than its calculated price, it is liable to have duties imposed upon it over and above any duties/quotas it might originally attract. Agricultural duties are applied as follows:

- When the value of the imported party is between 92% and 94% of the entry price, 8% of the entry price will be added to the normal customs duty.
- When the value of the imported party is between 94% and 96% of the entry price, 6% of the entry price will be added to the normal customs duty.
- When the value of the imported party is between 96% and 98% of the entry price, 4% of the entry price will be added to the normal customs duty.
- When the value of the imported party is between 98% and 100% of the entry price, 2% of the entry price will be added to the normal customs duty.

The entry price system applies to apples, pears and lemons year-round and to citrus fruit, table grapes, apricots, cherries, peaches, nectarines and plums during their peak seasons. There are tariffs applicable over and above the entry price tariffs, depending on the produce, where it originates from and whether that country has any preferential trading agreements with the EU.

PRODUCT LEGISLATION: PHYTOSANITARY REGULATIONS

The international standard for phytosanitary measures was set up by the International Plant Protection Committee (IPPC) to protect against spreading of diseases or insects through the importation of certain agricultural goods. The EU has its own particular rules formalized under EC 2002/89, which attempts to prevent contact of EU of crops with harmful organisms from elsewhere in the world.

The crux of the directive is that it authorizes the Plant Protection Services to inspect a large number of fruit products upon arrival in the EU. This inspection consists of physical examination of a consignment deemed to have a level of phytosanitary risk, identification of any harmful organisms and certification of the validity of any phytosanitary certificate covering the consignment. If the consignment does not comply with the requirements, it may not enter the EU although certain organisms can be fumigated at the expense of the exporter.

PRODUCT LEGISLATION: PACKAGING

The EU Commission lays down rules for materials that come into contact with food and which may endanger people's health or bring about an unacceptable change in the composition of the foodstuffs. The framework legislation for this is EC 1935/2004. Recycling packaging materials are also emphasized under 94/62/EC, whereby member states are required to recycle between 50% and 65% of packaging waste.

Exporters do not ship produce in packaging which is reusable, they may be liable for the costs incurred by the importing companies. Wood packaging is subject to phytosanitary controls and may need to undergo heat treatment, fumigation, etc.

NON – LEGAL REQUIREMENTS: SOCIAL AND ENVIRONMENTAL ACCOUNTABILITY to access the market, importers must not only comply with legal requirements set out above, but must also with market requirements and demands. For the most part, these revolve around quality and the perception of European consumers about environmental, social, health and safety aspects of both the products and the production techniques. Whilst supplying fruit that complies with these issues may not be mandatory in the legal sense, they are becoming increasingly important in Europe and cannot be ignored by existing or potential exporters.

SOCIAL ACCOUNTABILITY is becoming important in the industry, not only amongst consumers, but also for retail outlets and wholesalers. The Social Accountability 8000 (SA 8000) certification is a management system based on International Labour Organization (ILO) conventions, and deals with issues such as child labour, health and safety, and freedom of association, and requires an on-site audit to be performed annually. The certificate is seen as necessary tool for accessing any European market successfully.

ENVIRONMENTAL ISSUES are becoming increasingly important with European consumers. Consumer movements are lobbying against purchasing non-environmentally friendly or non-sustainable produce. To this end, both governments and private partners have created standards (such as ISO 14001 and Global-GAP) and labels to ensure that produce adhere to particular specifications.

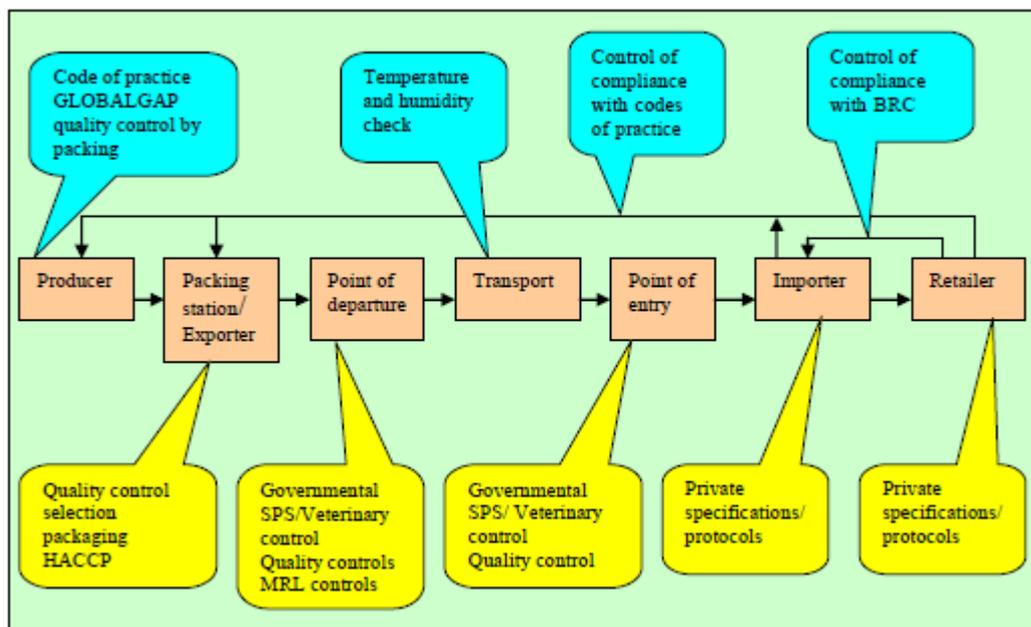
Although eco-labels (for example, the EU Eco-label, the Netherlands Milieukeur, the German Blue Angel and the Scandinavian White Swan) are voluntary, they can afford an exporter a marketing edge, as consumers wishing to purchase environmentally sound produce demand products that are easily recognizable.

Another important emerging label is Fairtrade, and includes those labels offered by Max Haavelaar Foundation, TransFair International and the FLO (Fairtrade Labelling Organization). Recently a 'universal' logo was adopted based on international fair trade standards developed by FLO, which covers amongst other things, minimum quality and price, various processing requirements, compensation of small farmers that covers sustainable production and living standards, and contracts that allow for long term planning and development.

CONSUMER HEALTH AND SAFETY REQUIREMENTS

Increasing consumer conscience about health and safety issues has prompted a number of safety initiatives in Europe, such as Global-GAP on good agricultural practices (GAP) by the main European retailers, the management system of HACCP, which is independently certified and required by legislation for European producers as well as food imported into Europe (EC 852/2004), and the ISO 9000 management standards system (for producers and working methods) which is certified by the International Standards Organization (ISO). The development of public and private standards involves interventions at multiple points along the value chain. An illustration of the multiple points and multiple standards that are applied for fresh fruit and vegetables and for fish is shown in Figure 22. There are controls by different agents carried out in different ways at different points along the value chain in response to the requirements of private sector companies, coalitions of private-sector standards setters and public agencies. Standards in agribusiness value chains operate, by definition, at multiple points. They are created, adopted, applied and verified by different actors (enterprises and institutions) at value chain.

SAFETY AND QUALITY CONTROL IN THE FRUIT AND VEGETABLE SUPPLY CHAINS

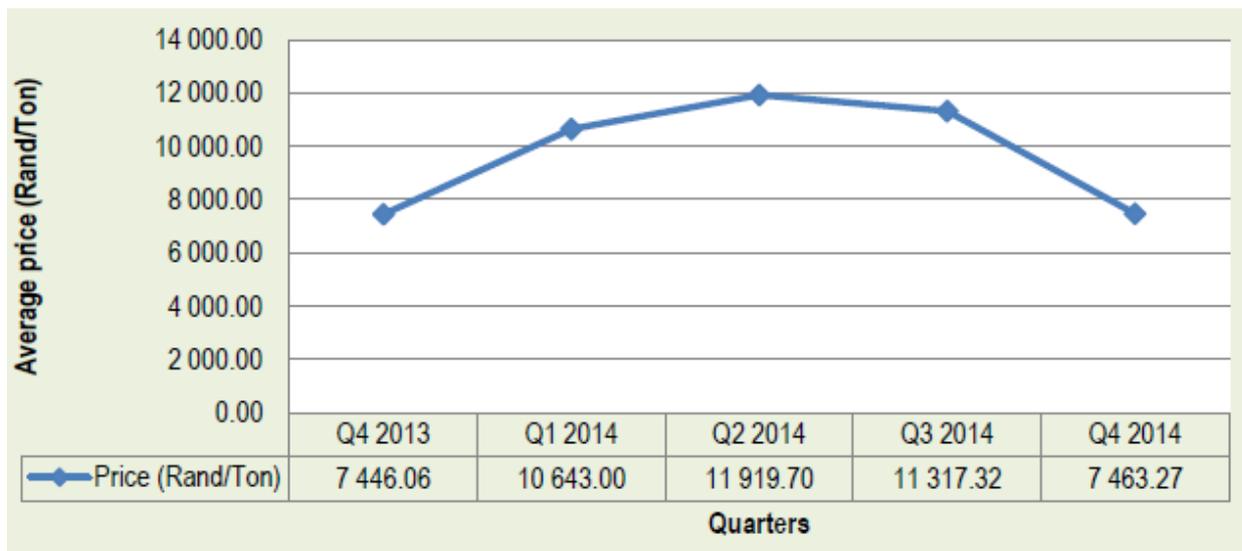


South African exporters have completely free access to the USA markets under the Generalized System of Preference (GSP), the GSP for LCDs (Least Developed Countries) or the African Growth and Opportunity Act (AGOA). South African exporters must always compare with what Chile (the main supplier of fruit to the USA and South Africa's potential rival) must pay in terms of tariff duties when exporting fruit to the USA. Chile's access to the USA fruit market is considered to be highly preferential under its own Preferential Trade Agreement (PTA).

NON TARIFF BARRIERS

The USA's phytosanitary regulation is conducted by Animal and Plant Health Inspection Service (APHIS), which is divided into nine sub-sections. Plant Protection and Quarantine (PPQ) and Veterinary Services (VS) are responsible for issuing permits for commodities and determining whether a commodity can be imported. The Policy and Program Development (PPD) division works with both these divisions in determining long term plans and procedures. Some products can get pre-clearance from International Services (IS) personnel stationed in the country of origin, either at exporting terminals or site inspections. The PPQ's main focus is to prevent the spread of diseases and pests into the USA's agriculture resources, and it has personnel stationed at all airports, seaports and border stations that check imported cargo and oversee the quarantine process. Exporters or importers must make a request to export/import a commodity, provide as much information as possible on the product, its region of origin and its status that is whether there are restrictions or regulations governing that particular product from that particular region before a permit is issued, along with the conditions of importation (disinfestation treatment) or mitigation measures. Denials can be challenged and governments and companies can request a change in the status of a prohibited commodity (an investigation must be performed by the PPQ scientific team), as long as sufficient conditions have changed or a risk assessment has not been conducted within the last 10 years. Most approved commodities can enter with inspection alone, but some may have to undergo mitigating measures including post-harvest treatments (hot/cold temperature treatments, irradiation or fumigation, depending on the requirements and which particular treatment is least harmful). The establishment of specifically and maintained pest-free areas in a country (which obviously requires extensive co-operation between the country's plant health services and APHIS IS division) or systems approaches (field surveys, random inspections or various onsite treatments).

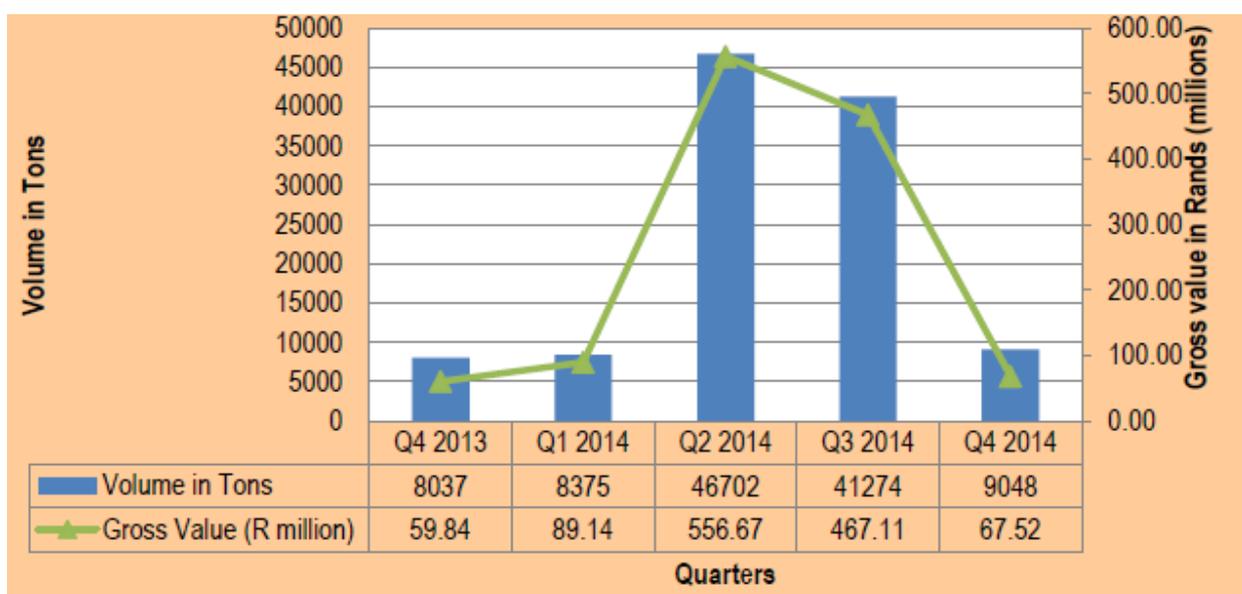
In addition to phytosanitary regulations, the USDA Food Safety Inspection Services (FSIS) regulates sanitary practices in the packing of food products, while the Food and Drug Administration (FDA), which is part of the US Department of Health, regulates packaging and labelling. The HACCP protocol is used extensively. The USDA quality standards for fruits and vegetables provide basis for domestic and international trade and aims to promote efficiency in marketing and procurement of fruits and vegetables.



AVERAGE PRODUCER PRICE OF AVOCADOS

The total quarterly production volumes and gross values of avocados during the period under review are presented in Figure 2. A total volume of 9 048 tons of avocados were produced in South Africa during the fourth quarter. The volume was 78% lower than the production value of the previous quarter (quarter 3 2014) and 12.58% higher as compared to previous year at the same time (quarter 4 2013). As can be visualised on the below graph, production usually start declining in the third quarter after reaching its peak in the second quarter, and remain at its lowest during the first and fourth quarters. Undoubtedly so, one can confidently expect an increase in production during the next coming quarter.

Avocados worth the value of R67 million were produced in South Africa during the fourth quarter (quarter 4 2014). This value was 85.54% less as compared to previous quarter and 12.84% higher as compared to last season at the same quarter.

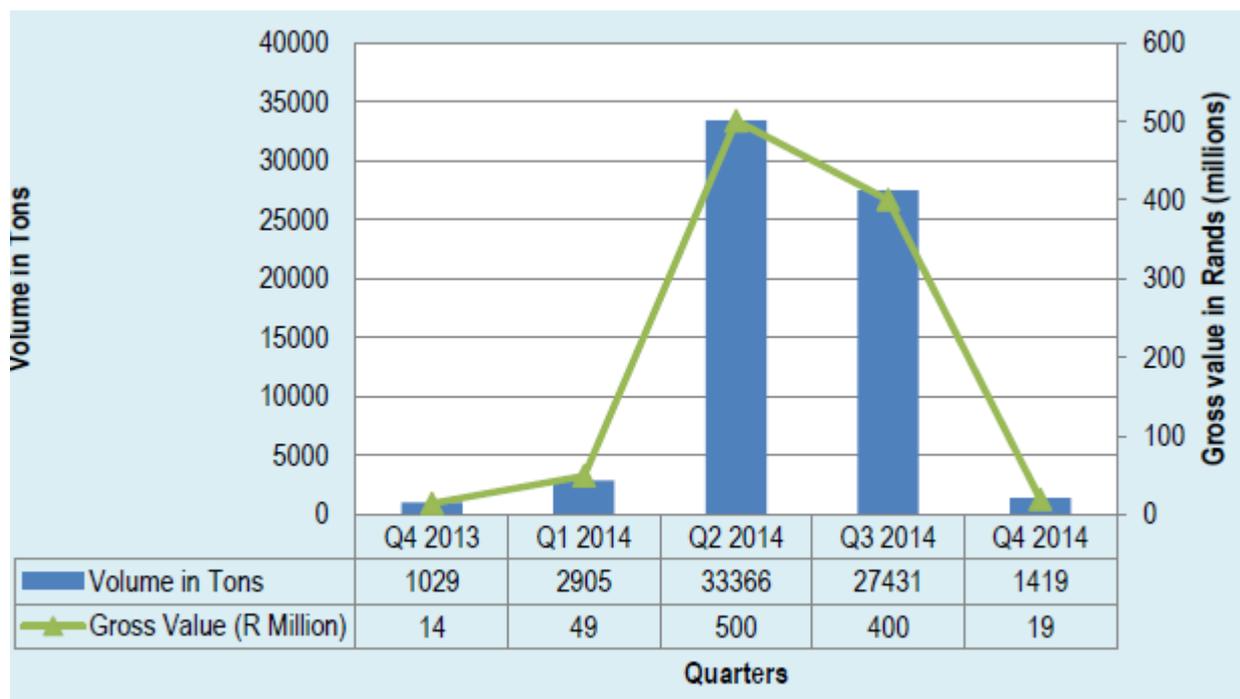


SALES AT NATIONAL FRESH PRODUCE MARKETS (NFPMS)

The quarterly sales and average prices of avocados sold in the NFPMs during the period under review are presented in Figure 3. A total volume of 6 799 tons of avocados were sold through the NFPMs during the fourth quarter of 2014. The volume sold was 33.89% lower as compared to the previous quarter (quarter 3, 2014) and 14.69% higher compared at the same time in the previous season (quarter 4 of 2013). The volume of avocados traded on the NFPMs is generally lower during the fourth and first quarter because production volumes are also generally lower during this period. Volumes traded at the local markets increase in the second and third quarters of the year in response to increased production. During the fourth quarter of 2014 avocados sold at the NFPMs reached an average price of R7 919.89 per ton. The price was 24.36% higher than the quarterly price of the previous quarter (quarter 3, 2014) and 1.93 higher when compared with the average price in the same time in the previous season.

EXPORTS AND IMPORTS

Quarterly export volumes and values of avocados during the period under review are presented in Figure 4. The figure indicates that 1 419 tons of avocados worth R19 million were exported by South Africa during the fourth quarter of 2014. The volume exported during the third quarter was below the current quarter (quarter 4 2014) by 94.83% and was 37.92% higher as compared to last year at the same quarter. The volume of exports is mainly influenced by external factors such as total volume of production, local demand, exchange rate as well as quality of produce. Europe was South Africa's largest export destination for avocados during the fourth quarter of 2014, absorbing almost all the exported avocados (97.8% or 1 389 tons) in the same quarter. The remaining 2.2% went to Africa.



AVOCADO EXTRACT MARKET: REGIONAL OUTLOOK

The consumption of avocado extract is expected to increase in Eastern and Western Europe and North America due to the increasing demands of avocado extract product in these regions. In North America avocado is a staple food which can be seen anywhere from supermarket to small grocery stores. Asia-pacific region is the leading producer and is likely to keep the same production during the forecast period followed by other region like Japan and South Africa. South Africa is one of the major producers for avocado across the globe.

JAPAN

Japan's agricultural sector is heavily protected, with calculations from the Organization for Economic Co-operation and Development (OECD) estimating that almost 60% of the value of Japan's farm production comes from trade barriers or domestic subsidies. Japan uses tariff rate quotas (TRQ) to protect its most sensitive products, and reserves the right for trading many of these products (within the quota) for one or two state trading enterprises. However, these extremely protective measures apply only to some products; others are able to compete more effectively with outside competition, often on the grounds of higher quality. Perhaps the biggest barrier to trade with Japan in fruit markets is its strict phytosanitary requirements, which have often been challenged in the WTO as having little or no scientific justification. Other measures that are being challenged include Japan's use of fumigation on agricultural products when cosmopolitan pests (already found in Japan) are detected. Japan is also increasing its labelling requirements. It now requires fresh food, including fruit, to be labelled with the place of origin, whilst new technological ('smart') labels that have embedded semi-conductors and information on just about everything are being adopted in agricultural sectors. Food containing genetically modified organisms (GMOs) need to be assessed for environmental food safety by the MAFF or the Ministry of Health, Labour and Welfare (MHLW). At the same time, the MHLW 36 tests food imports for maximum residue levels from pesticides and as of May 2006, any food pesticides not on approved list, regardless of the residue levels, are not allowed entry.

Japanese organic definitions changed in 2001 (they roughly corresponded to world standard definitions), and any foreign producers wishing to enter the Japanese market must be certified under the Japanese standards (not general world standards). tests food imports for maximum residue levels from pesticides and as of May 2006, any food pesticides not on approved list, regardless of the residue levels, are not allowed entry.

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CHINA

China has a massive system of government support for farmers and generally rural dwellers (who are lagging behind urban dwellers). To this end, most of the agricultural sectors are protected and promoted through a series of subsidies, tax cuts and infrastructure spending policies (as well as low cost loans, research, land use protection, market stabilization measures, etc). Part of the protection of its massive farming population, which for most part consists of small farmers not benefiting from economies of scale, necessarily occurs in the form of high tariffs and other restrictions. However China is obliged to reduce tariff levels as a condition of being a member of WTO. It therefore remains to be seen just what policies will be adopted going forward, but the general consensus is that it is a vitally important market to watch, and endeavour to enter.

DISTRIBUTION CHANNELS

There are roughly three distinct sales channels for exporting fruits. One can sell directly to an importer with or without the assistance of an agent (usually larger, more established). One can supply a fruit combine, which will then contract out importers/marketers and try to take of economies of scale and increased bargaining power. At the same time fruit combines might also supply large retail chains. One can also be a member of a private or cooperative export organization which will find agents or importers and market the produce collectively. Similar to a fruit combine, an export organization can either supply wholesale market or retail chains, depending on particular circumstances. Export organizations will wash, sort and package the produce. They will also market the goods under their own name or on behalf of the member, which includes taking care of labelling, bar-coding, etc. Most of the time, export organizations will enter into collective agreements with freight forwarders, negotiating better prices and services (more regular transport, lower peak season prices, etc.). Some countries have institutions that handle all the produce (membership compulsory) and sell only to a restricted number of selected importers. Agents will establish contacts between producers/export organizations and buyers in the importing country, and will usually take between 2% and 3% commission. In contrast, an importer will buy and sell his/her own capacity, assuming the full risk (unless on consignment). They will also be responsible for clearing the produce through customs, packaging and assuring label/quality compliance and distribution of the produce. Their margins lie between 5% and 10%. The contract importers of fruit combines market and distribute the product of the combines, clear it through customs and in some cases treat and package it. Only few exporters have long term contracts with wholesale grocers who deliver directly to retail shops, but with the increasing importance of standards (Global-GAP, etc.) and the year round availability of fruit, the planning of long term contractual relationship is expected to increase. Finally, a new medium of e-commerce is expected to have a significant impact on potential exporters or suppliers and their ability to supply directly to wholesalers or distributors in the target markets.

LOGISTICS

MODE OF TRANSPORT

The transport of fruits falls into two categories namely ocean cargo and air cargo. Ocean cargo takes much longer to reach the desired location but costing considerably less. The choice of transportation method depends, for most parts on the fragility of the produce and how long it can remain relatively fresh. With the advent of technology and container improvements, the feasibility, cost and attractiveness of sea transport have improved considerably. With the increased exports by South Africa, the number and the regularity of maritime routes have increased. These economies of scale could benefit South Africa if more producers were to become exporters and take advantage of the various ports which have special capabilities in handling fruit produce (for example Durban's new fruit terminal). The majority of avocados are exported by sea in refrigerated containers under controlled atmosphere (CA). 1-MCP treatment is used as an alternative to CA for fruit destined for markets where avocados are not ripened prior to retail. Fruit exported by sea is packed and cooled in the production regions. It is either loaded directly into refrigerated trucks at the pack house or into refrigerated containers for transport by road or rail to the port of exit. Avocados transported in refrigerated trucks are containerised in the port prior to shipping. The Cape Town port is the major export port for avocados and is located approximately 1 800 km from the production regions. The sea trip from Cape Town to Europe takes 12 to 14 days.

COLD CHAIN MANAGEMENT

Cold chain management is crucial when handling perishable products, from the initial packing houses to the refrigerated container trucks that transport the produce to the shipping terminals, through to the storage facilities at these terminals, onto actual shipping vessels and containers, and finally on to the importers and distributors that must clear the produce and transport it to the markets/retail outlets. For every 10 Degree Celsius increase above the recommended temperature, the rate of respiration and ripening of produce can increase twice or even thrice. Related to this are increasing important traceability standards which require an efficient controlled supply chain and internationally accepted business standards. Because it takes about 25 days from packing to reach the European retailer, strict control of all links in the cold chain is important in order to maintain high standards of avocado quality.

PACKAGING

Packaging can also play an important role in ensuring safe and efficient transport of a product and conforming to handling requirements, uniformity, recyclable material specifications, phytosanitary requirements, proper storage needs and even attractiveness for marketing purposes. The business panel of any carton (including printed carton labels) should comply with the requirements as established by the EU or any other regulations that are specified by a target market. Producers are advised to present their designs to the Perishable Products Export Control Board (PPECB) before they can order any cartons from a manufacturer. The following is normally required: 38.

- Class I or II
- Fruit type
- Carton depth
- Country of Origin: "Produce of South Africa"
- Complete address of exporter or producer
- Name of variety
- Content of carton: "14 x punnets or bags"
- PUC or PHC code: Registered producer – or Pack House Code with DAFF
- Date code
- Food safety accreditation number: Global Gap, Nature's Choice registration number, etc

ORGANIZATIONAL ANALYSIS

The South African Avocado Growers' Association

The South African Avocado Growers' Association (SAAGA) has a voluntary membership accounts for 85% of South African avocado exports. Activities of the association are by its grower members through levies on local and export sales. The aim of SAAGA is to improve the profitability and sustain the viability of growing avocados in South Africa. To this end, the association is involved in the following activities:

- Technical support and advisory services to its growers
- Funding of appropriate technical and market research
- Provision of relevant market information
- Local and export market development through generic promotion
- Liaison with government and other bodies both locally and abroad.

Although SAAGA is funded by growers other role players such as export companies, are also members.

Strengths, Weakness, Opportunities and Threats (SWOT) analysis

Some of the strengths, weaknesses, threats and opportunities of the avocado production sector in South Africa are the following:

EXPORT LOGISTICS

The majority of avocados are exported by sea in refrigerated containers under controlled atmosphere (CA). 1-MCP (SmartFresh®) treatment is used as an alternative to CA for fruit destined for markets where avocados are not ripened prior to retail. Airfreight is expensive and is only viable when prices are abnormally high. Fruit exported by sea is packed and cooled in the production regions. It is either loaded directly into refrigerated trucks at the pack house or

into refrigerated containers for transport to by road or rail to the port. Avocados transported in refrigerated trucks are containerised in the port prior to shipping. Cape Town is the major export port and is approximately 1800 km from the production regions. The sea voyage from Cape Town to Europe takes 12 to 14 days. Because it takes fruit about 25 days from packing to reach the European retailer, strict control of all links in the cold chain is vital in order to maintain high standards of fruit quality.

CURRENT TRENDS

INTEGRATED FRUIT PRODUCTION

Integrated fruit production is well established in the industry. Growers are aware of the negative effects of the injudicious use of pesticides- both to humans and to the orchard ecosystems. Insect pests are monitored, and registered insecticides are only used if economic thresholds are exceeded and pre-harvest intervals can be adhered to. Similar principles are applied to disease control and fungicide applications. Compost production is common on many farms and the value of compost in terms of maintaining a healthy population of soil microbes for tree health and optimum tree nutrition is evident.

CONSOLIDATION WITHIN THE INDUSTRY

A need for continuity of volume in order to meet the requirements of supermarket programmes has resulted in significant consolidation within the South African avocado export business. Contracts with major retailers provide greater price stability than selling fruit on the open market. Eighty percent of exports are controlled by four companies, all of which have strong grower involvement. These exporters either have their own importing companies in Europe and the UK or work very closely with established importers.

GROWTH IN THE SOUTH AFRICAN MARKET

Since 2000, the South African economy has been growing at a rate of 3.5% per annum. Coupled to this, is rapid growth of the middle class. Greater levels of dispensable income, together with generic promotion and an awareness of the importance of healthy eating, have increased the demand for avocados. There has also been growth in the upper income group that is willing to pay high prices for value added products. Consequently, there is strong growth in sales of avocados that are sold ripe and ready to eat.

PROCESSING

It is estimated that 10% to 12% of the annual crop is processed either into Guacamole or oil for cosmetic or culinary use. Only 'Hass' is used in the production of Guacamole, whereas all cultivars are utilised for oil extraction. Processed avocado products are sold locally as well as on the export market.

NEW MARKETS

The South African industry is working on accessing new markets such as the USA, Japan and China. Access efforts are being carried out within the bounds of official government-to-government protocols. Research is underway in order to develop mitigation procedures for phytosanitary pests, according to the specific requirements of new markets.

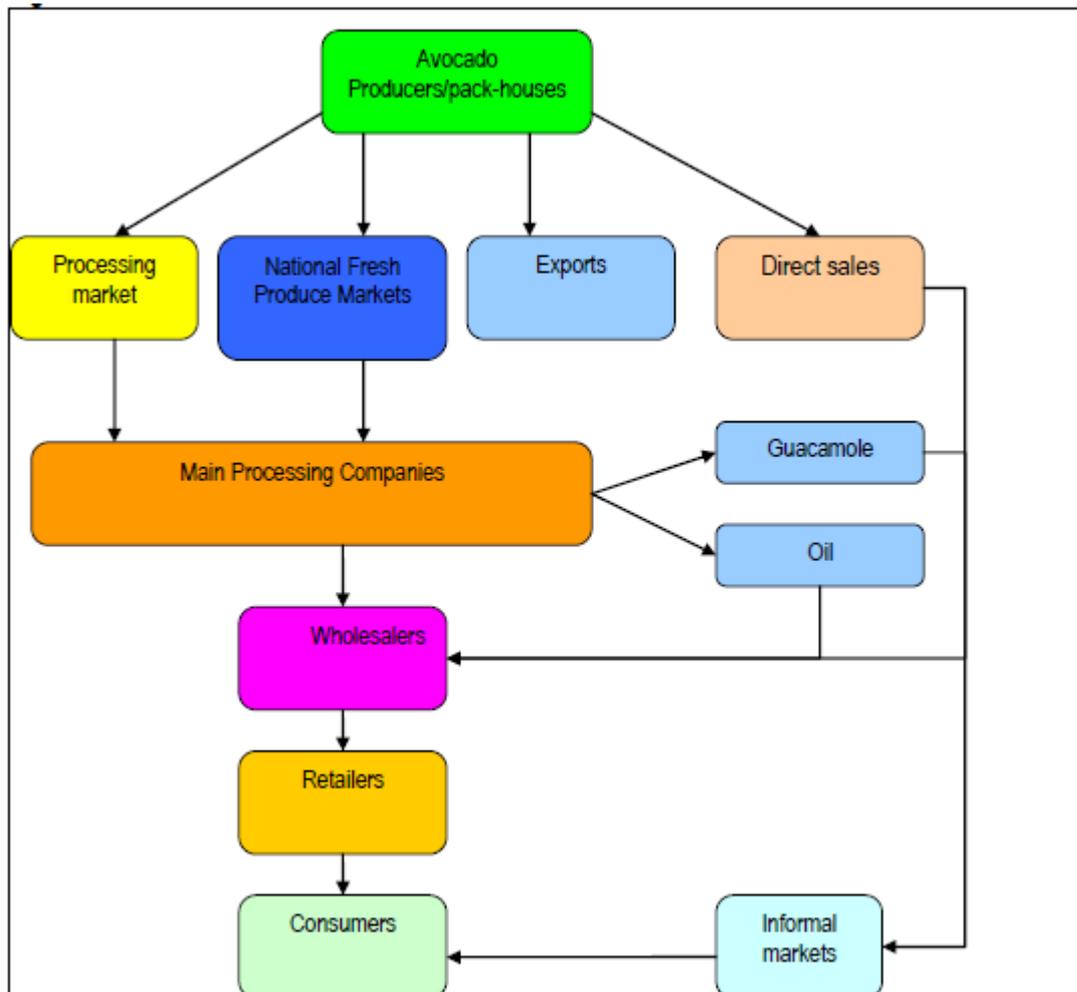
CULTIVAR DEVELOPMENT

Historically, development and testing of new varieties and rootstocks has been viewed by growers as something that SAAGA should engage in on behalf of the industry. However, in recent years, nurseries have entered this field to take advantage of commercial opportunities linked to cultivar ownership.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Generic promotion of the South African avocados has been successful especially in the UK. • The industry's export operations and leading players are well established. • Cooperation amongst the leading exporters has ensured that there is a constant supply to meet the basic requirement by the market. • The South African avocado industry has a strong reputation in major international markets. • The willingness by both the farmers and export agents to make available funds for market research. • Cooperation by RSA and other major role players like Spain, Kenya, Mexico, Chile and Peru in their openness to share market information on national and international levels. 	<ul style="list-style-type: none"> • Production is largely dependent on climatic conditions which can only be partially manipulated by man through irrigation. • Relatively high input and capital costs.
Threats	Opportunities
<ul style="list-style-type: none"> • Potential competition from Spain, Israel, Kenya, Peru and Mexico for the lucrative European market. • Port abilities and shipping cycles still pose a threat as delays can easily reduce shelf life by five to ten days 	<ul style="list-style-type: none"> • There is a strong demand in the UK and the rest of Europe in their summer months. • Increasing demand from avocado processing (oil and guacamole) present a potential for growth.

THE AVOCADO VALUE CHAIN

Figure above shows the avocado value chain in South Africa. The main actors in the chain include processors, National Fresh Produce Markets (NFPMs), exporters, retailers, hawkers, and wholesalers.



QUALITY STANDARDS AND FOOD SAFETY

Quality standards for exports are determined by the Department of Agriculture, Forestry (DAFF) in association with SAAGA. The standards ensure that good quality avocados are exported and include factors such as fruit maturity, size, and blemish levels. Quality is carried out by the Perishable Products Export Control Board (PPECB) on a consignment basis prior to shipping. The PPECB also ensures that standards for refrigerated road and refrigerated containers are met. In addition, growers of avocados have to comply with (GAP) standards. SAAGA reports indicate that 95% of the industry is Global-Gap accredited. Other accreditations in the industry include HACCP, BRC, LEAF, Fair-trade and Tesco Nature's Choice. 41

PRODUCERS AND PACK HOUSES

The core business of producers is to produce a high quality crop within "Good Agricultural Practice" protocols. Consistency, reliability of supply and producing varieties as demanded by the markets at affordable prices are also important facets of the producer's responsibility and business activities.

COLD STORAGE

Cold storage operators are responsible for receiving, handling, cooling the avocados to the required temperature and for ensuring that the correct fruit is loaded out according to the exporter's specifications into a truck or container that has been approved or registered by Perishable Produce Export Control Board (PPECB).

EXPORTERS

The core business of exporters is to market and sell the fruit of primary producers at the best market price that they are able to negotiate. In order to realize this, the exporter needs to communicate with many of the role players in the logistics chain (cold stores, transporters, shipping lines, port terminals, clearing and forwarding agents, PPECB, regional producers associations and special market inspectors, etc). It is the exporters' responsibility to manage the cold chain, handle the fruit in an acceptable manner and, they are accountable for the quality of fruit that reaches the destination market.

The main organisation that handles the export of fruits in South Africa is the Fresh Produce Exporters' Forum (FPEF). The FPEF was registered in 1998 as a non-profit organisation and its membership is voluntary and open to all companies that export fresh fruit from South Africa. The FPEF's mission is to create, within free market principles and a deregulated environment, a prosperous but disciplined fruit export sector. It was established mainly to provide leadership and services to its members and the international buying community. The forum sees itself as the international community's gateway to providing South Africa's finest quality produce from highly reputable South African exporters.



SOURCE: SOUTH AFRICAN AVOCADO GROWERS ASSOCIATION TRADE MAP, DAFF

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