



Trade Probe

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Trade Probe is a quarterly report produced by National Agricultural Marketing Council and the Department of Agriculture, Forestry and Fisheries. It reports and analyses agricultural products, trade performance in local and international markets. This publication is widely used by exporters and importers.

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In this issue we cover the following topics:

Market Profile of the South African Macadamia nuts industry

Trade analysis of grain sorghum

Assessing trade performance of oranges destined for Asian markets

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**National Agricultural
Marketing Council**
Promoting market access for South African agriculture



THIS ISSUE OF TRADE PROBE COVERS THE FOLLOWING TOPICS:

1. Trade profile of water, include natural water
2. Confronting Climate Change: Understanding and addressing the hotspots
3. Trade profile of live goats
4. Trade analysis of grain sorghum
5. Market profile of the South African macadamia nuts industry
6. Assessing trade performance of oranges destined for Asian markets

TRADE PROFILE OF WATER, INCLUDE NATURAL WATER (HS: 2201)

By Lucius Phaleng

Introduction

Irrigation agriculture uses the largest amount of water on earth by far and it accounts for 70% of all water withdrawals, globally. Irrigated land is more than twice as productive as rain-fed cropland (World Bank, 2018). Water in agriculture continues to play a critical role in global food security, and the global agricultural sector is highly dependent on water. The aim of the article is to highlight the importance of water as a key production input within the agricultural sector, and also to show trade trends of water (and natural water) in the world. Globally, water and its efficient use play a key role in future food security and economic growth. Whilst Southern Africa may not be seen as suffering from water scarcity, difficulties in access and dry-season shortages already induce economic water scarcity and conflicts over water use in some areas (Robyn et al., 2010).

Increasing demands for water by the agriculture sector place a greater pressure on maintaining water quantity and quality. Therefore, some countries (especially in Africa) with problems of water scarcity end up sourcing it from other countries for agricultural or other uses. The FAO (2017) has highlighted the point that most countries with large agricultural activities tend to consume or use large amounts of water, as compared with those with no agricultural activities. There are countries that import water for various activities, and there are those that export water to assist those that are in need.

Table 1 highlights the leading exporters of water (including natural water) in 2016, measured in million Rand. Global exports of water (HS2201) increased by 110.8% between 2012 and 2016, and this constitutes evidence that some countries are in need of water. France was ranked as the main exporter of water in 2016, constituting 25.2% of global water exports, and this may be due to its many rivers with good water. China is the second main exporter of water, with an 18.7% share of the total value of water that was exported globally, followed by Italy, Belgium and the United States of America (USA), with values

of R7 991 million, R3 525 million and R1 937 million, respectively.

Table 1: Top leading suppliers of water, 2016

	Exported value in R 'Million		Share value (%)	Growth rate in value %
Exporters	2012	2016	2016	2012-16
World	25032	52775		110,8
France	6927	13286	25,2	91,8
China	4004	9876	18,7	146,6
Italy	3709	7991	15,1	115,4
Belgium	1548	3525	6,7	127,7
USA	930	1937	3,7	108,2
Germany	776	1679	3,2	116,4
Fiji	734	1502	2,8	104,7
Georgia	486	1170	2,2	140,7
UK	319	1030	2,0	222,9
Turkey	305	941	1,8	208,0

Source: Trade Map (2017)

Table 2 shows the values of the world's leading water imports, by country, in 2016, measured in million Rands. The global value of imported water registered a growth rate of 112.9% between 2012 and 2016. Of the total water imported globally, 16.1% was destined for Hong Kong, followed by USA, Belgium and Germany, valued at R8 734 million, R4 215 million and R3 320 million, respectively. All the top ten importers of water had a positive growth rate between 2012 and 2016. It is surprising not to see a single African country among the top 10 importers of water.

Table 2: Top 10 leading importers of water, 2016

	Imported value in R 'Million		Share value (%)	Growth rate in value %
Importers	2012	2016	2016	2012-16
World	26061	55490		112,9
Hong Kong	3924	8959	16,1	128,3
USA	3732	8734	15,7	134,0
Belgium	1814	4215	7,6	132,4
Germany	1943	3320	6,0	70,9
Japan	2263	3093	5,6	36,7
UK	1229	2727	4,9	122,0
Netherlands	981	1851	3,3	88,8
France	918	1755	3,2	91,2
Switzerland	677	1237	2,2	82,6
Russia	504	1181	2,1	134,3

Source: Trade Map (2017)

The global trade performance (exports and imports) of water is highlighted in **figure 1**. Water trade in the world has been increasing over the past eight years (from 2009 to 2016). It is important to note that the world in effect imports more water than it exports, hence the negative trade balance. Within Southern Africa, water is a serious concern, especially in South Africa. Thus, an in-depth analysis of the water trade in South Africa is important.

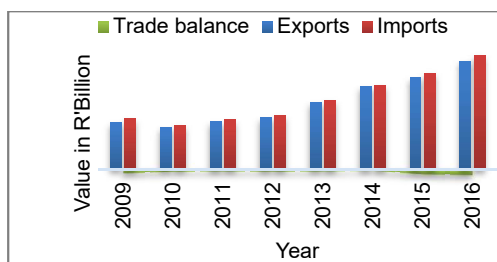


Figure 1: Global trade performance of water
Source: Trade Map (2017)

South Africa's trade performance of water

Table 3 assesses the importing markets of water that was exported by South Africa in 2016. It is important to note that South Africa's exports of water increased by 115% between 2012 and 2016. Botswana was ranked as the leading importer of water from South Africa, constituting 30% of total exports. Namibia was ranked as the second leading importer, representing a share of 27.3%, followed by Lesotho, Swaziland and Zimbabwe at values of R18.6 million, R9.9 million and R6.4 million, respectively. Top 10 importers were dominated by African countries excluding Australia, UAE and UK.

Table 3: South Africa's leading import markets of water

	Exported value in R 'Million		Share value (%)	Growth rate in value %
Importers	2012	2016	2016	2012-16
World	60,4	130,0		115,0
Botswana	14,0	39,1	30,09	179,6
Namibia	12,1	35,5	27,28	192,9
Lesotho	9,3	18,6	14,28	98,8
Swaziland	12,8	9,9	7,64	-22,6
Zimbabwe	4,6	6,4	4,96	39,5
Australia	0,0	3,2	2,42	-
Angola	1,8	2,8	2,14	52,7
Mozambique	2,0	2,6	1,96	29,4
UAE	0,2	2,1	1,58	1223,9
UK	0,0	1,9	1,50	-

Source: Trade Map (2017)

Table 4 highlights the values of water supplied to South Africa in 2016, by country, measured in million Rands. South African imports of water improved by 101.2% between 2012 and 2016. Italy was ranked as the main supplier of water to South Africa, representing about 52.4% of total imports, followed by France, the UK and Iceland at values of R3.6 million, R1.9 million and R1.4 million, respectively.

Table 4: South Africa's leading suppliers of water

	Imported value in R 'Million		Share value (%)	Growth rate in value %
Exporters	2012	2016	2016	2012-16
World	17,2	34,5		101,2
Italy	7,3	18,1	52,4	147,3
France	2,2	3,6	10,6	69,6
UK	1,3	1,9	5,4	41,6
Iceland	0,0	1,4	4,2	-
Norway	0,9	1,0	3,0	22,3
USA	0,3	1,0	2,9	239,1
Portugal	0,5	1,0	2,8	82,2
Switzerland	0,0	0,9	2,6	-

	Imported value in R 'Million		Share value (%)	Growth rate in value %
Australia	0,2	0,8	2,3	257,9
UAE	0,2	0,8	2,2	296,4

Source: Trade Map (2017)

Figure 2 shows South Africa's trade performance (exports, imports and trade balance) for water between 2009 and 2016. Both exports and imports of water were unstable in the period under review. With the exception of 2011 and 2015, it can be observed that South Africa exported more water than it imported (resulting in a positive trade balance).

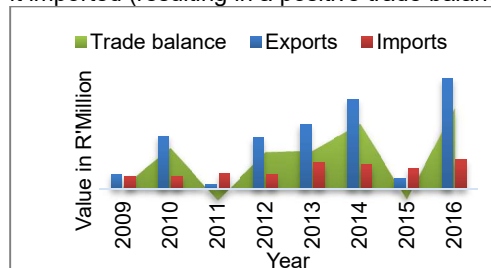


Figure 2: South Africa trade performance of water
Source: Trade Map (2017)

Conclusion

The water sector in the world is very sensitive to changes in climate and prolonged climate variability. With the ongoing changes in climate, rainfall patterns are heavily affected, culminating in worldwide water shortages. This has resulted in some countries importing water from other countries that are better off. Globally, water traded continues to increase, and imports were far more than the exports (net importer). On the other hand, South Africa exports more water than it imports, obviously with the exception of 2011 and 2015. Countries within Southern Africa are the main recipients of South Africa's water exports. Since climate change poses a major concern in the world (especially to the agricultural sector), and has a direct impact on water availability, it is therefore important to see how climate change has affect water trade in the past.

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CONFRONTING CLIMATE CHANGE: UNDERSTANDING AND ADDRESSING THE HOTSPOTS

By Anél Blignaut

Background on Confronting Climate Change

There is increasing pressure from consumers and international retail markets, as well as in international policies, to shift away from goods and services that are associated with high greenhouse gases (GHG). In terms of trade, addressing the need for reducing GHG is one of ways through which sectors could adapt so as to remain competitive in international markets. In this article, an insight is provided into the hotspots that greatly contribute to GHG in South Africa's wine and fruit industries. Knowing the hotspots is important, in that it lays a foundation for formulating appropriate measures to minimise the carbon footprint associated wine and fruit exports.

To effectively realise and respond to the opportunities and challenges posed by climate change, the Confronting Climate Change (CCC) Project was started in 2009 as a strategic cross-industry initiative, aimed at supporting the South African fruit and wine sectors' efforts. Besides the provision of a freely available on-line carbon emissions calculator, the CCC promotes technical training that supports its adoption and use, and has actively engaged with the retailers and importers to secure their support for the project. The results are accepted and feed in to existing retailers' sustainability requirements. This helps to avoid duplication of carbon foot printing systems. Farms, pack houses, wineries and other entities across the supply chain are enabled to undertake accurate measurements of the energy-use and carbon-emission intensities of their respective business activities. Such measurement is generally accepted as being a prerequisite for effective management that leads towards greater resource-use efficiency, reduced emissions, and the long-term sustainability of business activities and operations. The management principle of "you can't manage what you don't measure" applies.

Farm hotspots

The electricity consumption for the **pumping of water** is the largest source of farm-level carbon emissions, since South African grid-supplied electricity is predominantly coal based, and therefore carbon emissions are intensive, in both production and use. The most significant factors determining the energy requirements are the irrigation intensity of the crop and the pumping "head" of the farm.

The second biggest emitter at farm level is the **usage of synthetic nitrogen-based fertilisers**. As the production of all synthetic fertilisers is energy intensive, and as the energy used is predominately fossil-fuel based in South Africa, the manufacture of these inputs is carbon emissions intensive. On the user side, the inefficient or over application of synthetic nitrogen fertilisers results in large amounts of nitrous oxide emission, a very powerful greenhouse gas: Once emitted to the atmosphere, one ton of nitrous oxide is equivalent to 300 tons of

carbon dioxide. In addition, the prices of these inputs will continue to rise as the fuel prices go up, increasing the risk of increased input costs at the farm level. The more natural products are often multi-beneficial in that they increase soil health, which does not only lessen the requirement for synthetic additions, but also improves water retention and productivity. Commodity groups that require more intensive fertiliser programmes will have higher carbon emissions than those that utilise more conservative and natural soil enhancement practices do.

Diesel usage is the third largest emissions source and relates to the usage of a variety of vehicles and equipment for spraying, harvesting, soil preparation, transportation and other farming activities.

Packhouse hotspots

Most of the emissions at packhouse level are related to packaging material. The pome fruit and citrus (hard) packhouse emissions are the lowest of all fruit types, pointing to the less-intense packaging requirements for these "harder" fruit types.

Winery hotspots

Winery hotspots relate to the use of virgin packaging material, particularly glass and corrugated cardboard boxes. The use of wooden barrels also plays a significant role in winery emissions, as these barrels are often imported and have a relatively short life span. These activities contribute most of the carbon emissions throughout the supply-chain and should therefore be targeted as a priority area for improved efficiencies and alternative product usage.

How can I reduce or manage my carbon emissions?

1. Start to measure your carbon related inputs.
2. Enter your data into the CCC carbon footprint calculator.
3. Read and analyse the detailed carbon emissions report provided, once you have entered all your data correctly.
 - Look at your carbon emissions figure and compare it with the benchmark given in the report for your commodity and your region.
 - Look at the individual inputs to your business and learn from the report what percentage they contribute to your total carbon emissions. Start to manage those that cause the highest emissions in your business.
 - Look at the consumption figures (e.g. electricity used per kg of fruit produced or per ha) and compare your business with the benchmark for your region and commodity.
4. Communicate the results of your carbon footprint analysis within your organisation and incorporate the results in your management tools.
5. Address the hotspots within your organisation by implementing improved efficiency measures and targets through improved management and operational control and/or new technology, where applicable and where the budget allows.

6. Don't forget to think outside of the box! Change the paradigm and aim to be innovative in your approach to adapt to climate change.



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TRADE PROFILE OF LIVE GOATS (HS: 010420)

By Fezeka Matebeni

Introduction

Goats belong to the group of animals called small ruminants, and largely contribute to the subsistence and economic elements needed for improving household livelihoods. They also make an important indirect contribution to households through the use of crop by-products, integration with other farming enterprises, the use of household wastes and locally grown vegetation, and providing soil fertility improvements, as well as through their roles in the social, cultural and religious aspects of everyday life (FAO, 2009). Goat production in South Africa is estimated at 3%, as compared with Africa's goat's production. The current breeds that are commercialised in South Africa for the production of meat, skins and cashmere are Boer goats, Savanna goats and Kalahari goats. Goat meat is often called chevon (from adults) and cabrito (from young ones). There are other breeds, such as Saanen, Toggenburg and Alpine, that are mainly kept for milk production. Goat's milk is highly priced because of its quality and the fact that it is less prone to causing allergies in humans than cow's milk is. Angora and Gorno Altai goats produce mohair and cashmere, respectively (DAFF, 2015).

Table 5 demonstrates the top 10 importing countries of live goats in 2016, measured in million US dollar. The global value of imports for live goats increased by 49.2 % between 2012 and 2016. This was mainly influenced by a notable increase in imports by countries such as Libya, Jordan and Bahrain, by growths of 5550%, 529.3% and 192.3%, respectively. However, some countries showed a decline in their imports such as South Africa (44.5%), UAE (29.8%) and Malaysia (13.7%). Saudi Arabia was ranked as the largest importer of live goats, with a total value of US\$161.8 million in 2016. Oman and Jordan were ranked second and third, with total values of US\$97.1 million and US\$62.3 million,

respectively. It is notably that South Africa ranked eighth, with the value of US\$6.7 million (constituting 1.6% share value).

Table 5: World's leading importers of live goats

	Imported values in million US\$		Share Value (%)	Growth rate in value %
Importers	2012	2016	2016	2012-16
World	274.1	409.1		49.2
Saudi Arabia	116.9	161.8	39.6	38.4
Oman	46.8	97.1	23.7	107.5
Jordan	9.9	62.3	15.2	529.3
UAE	45.9	32.2	7.9	-29.8
Malaysia	12.4	10.7	2.6	-13.7
Nepal	11.2	10.2	2.5	-8.9
Qatar	3.3	7.6	1.9	130.3
S. Africa	12.1	6.7	1.6	-44.5
Bahrain	1.3	3.8	0.9	192.3
Libya	0.4	2.6	0.6	550.0

Source: TradeMap (2017)

Table 6 shows the top 10 global exporters of live goats during 2012 and 2016, measured in million US dollars. The value of global exports increased by 62.3% between 2012 and 2016. Iran, Sudan and Mali were the main contributors to the global exports, with growth rates of 10200.0%, 2340.0% and 388.9%, respectively. Somalia was the major exporter of live goats in 2016, with the value of US\$199 million. This was followed by Oman and India, with total values of US\$68 million and US\$25.0 million, respectively, in 2016.

Table 6: World's leading exporters of live goats

	Imported values in million US\$		Share value (%)	Growth rate in value %
	2012	2016	2016	2012-16
World	229,0	371,6		62,3
Somalia	122,5	199,0	53,5	62,5
Oman	25,2	68,0	18,3	169,8
India	5,5	25,0	6,7	354,5
Sudan	1,0	24,4	6,6	2340,0
Iran	0,1	10,3	2,8	10200,0
Mali	1,8	8,8	2,4	388,9
Namibia	12,1	6,3	1,7	-47,9
Australia	9,3	6,0	1,6	-35,5
France	1,5	3,1	0,8	106,7
Cyprus	1,2	2,9	0,8	141,7

Source: TradeMap (2017)

An overview of South Africa's trade in live goats

This section discusses South Africa's trade performance in live goats (exports, imports and trade balance) between 2012 and 2016 (See **Figure 3**). South Africa experienced a negative trade balance in the period under review; this is due to it having more imports than it exported, making it a net importer. In 2012, South Africa's imports reached a peak value of US\$12.1 million. The value of imports in 2016 was US\$6.7 million, while exports had a value of US\$1.2 million.

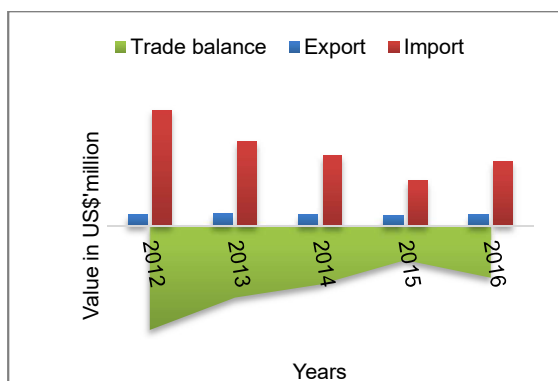


Figure 3: South Africa's trade performance in live goats
Source: TradeMap (2017)

Figure 4 highlights the leading suppliers of live goats imported by South Africa in 2016, measured in thousand US dollars. Namibia was ranked as the leading exporter to South Africa, at the market value of US\$6277 thousand, followed by Lesotho and Swaziland, with values of US\$419 thousand and US\$14 thousand, respectively. African countries were the main suppliers of live goats to South Africa.

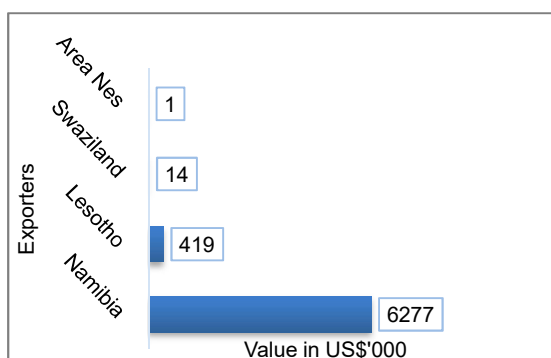


Figure 4: Top leading suppliers to South Africa
Source: TradeMap (2017)

Figure 5 highlights the leading importing markets for goats exported by South Africa in 2016, measured in thousand US dollars. Mauritius was ranked as the main market for South Africa exports, at a value of US\$185 thousand, followed by Lesotho, UAE and Botswana, with values of US\$174 thousand, US\$146 thousand and US\$137 thousand, respectively.

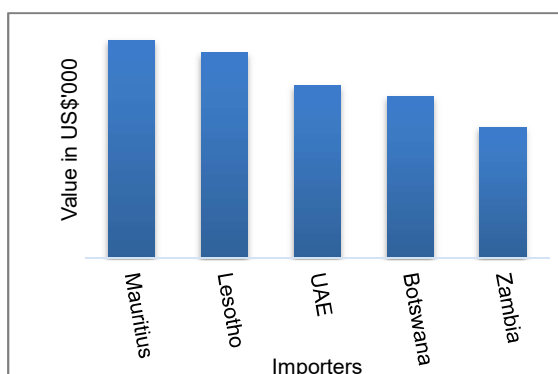


Figure 5: Top five major importers for live goats by South Africa
Source: TradeMap (2017)
Conclusion

In conclusion, goats are usually kept by small-scale farmers for both subsistence and economic reasons and, in either role, they generally improve the livelihoods of households, but they have the capability to do much more. Small ruminants contribute to the landless, rural farming and peri-urban households, as well as increasingly to urban households, by providing food, heat, income, socio-cultural wealth and clothing. South Africa was a net importer of goats under the reviewed period (2012–2016).

Reference

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TRADE ANALYSIS OF GRAIN SORGHUM: (HS: 1007)

By Nomantande Yeki

Introduction

Sorghum is the fifth most-important grain crop, after wheat, maize, rice and barley. It is an indigenous crop in Africa, and it is regarded as a basic staple food for many. There are two types of sorghum; bitter and sweet sorghum cultivars. The sweet cultivar remains the preferred choice over the bitter cultivar. The bitter cultivar is mostly planted in areas where birds are problematic because it contains tannin which gives a bitter taste, and as a result, birds tend to void it.

Sorghum is mainly cultivated in drier areas with shallow and heavy clay soils. The Mpumalanga and Free State provinces are the largest contributors to the area planted and production of sorghum. According to DAFF (2017), over the past five seasons, South Africa produced an average of 164 640 tons of sorghum per annum, which is relatively small when compared with domestic maize and wheat production. During the 2016 production season, sorghum contributed an average of 0.6% to the gross value of field crops. The estimated average annual gross value of sorghum between 2012 and 2016 amounted to R461 million.

Global overview of sorghum trade performance

Table 7 highlights the world's leading importers of sorghum in 2016, measured in US dollars. Global imports of sorghum increased between 2012 and

2016 from a value of US\$1600.6 million to US\$2065.3 million. China was the leading importer, with a value of US\$1428.2 million and a positive growth value of 6029% between 2012 and 2016. Mexico was ranked the second largest importer, with a 6.9% share value, followed by Japan (6.0%) and Ethiopia (2.9%)

Table 7: World's leading importers of sorghum

	Imported value in million US\$		Share value (%)	Growth value (%)
Importers	2012	2016	2016	2012-16
World	1600,6	2065,3		29,0
China	23,3	1428,2	69,1	6029,6
Mexico	403,1	142,5	6,9	-64,6
Japan	477,1	124,1	6,0	-74,0
Ethiopia	0,9	59,2	2,9	6477,8
Pakistan	0,2	45,4	2,2	22600
Sudan	0,0	24,7	1,2	-
Taipei	33,0	21,7	1,1	-34,2
Kenya	18,4	18,7	0,9	1,6
Spain	12,7	17,5	0,8	37,9
S. Africa	39,4	16,3	0,8	-58,6

Source: TradeMap (2017)

Table 8 presents the world's leading exporters of sorghum in 2016. Global exports of sorghum increased between 2012 and 2016 from a value of US\$1330.0 million to US\$1772.7 million. The USA was ranked as the largest exporter of sorghum, with a value of US\$1368.4 million. Australia was ranked second largest exporter with a share value of 9.0%, followed by Argentina (5.1%) and Afghanistan (1.9%).

Table 8: World's leading exporters of sorghum

Exporters	Export value (in thousand US \$)		Share value (%)	Growth rate in value %
	2012	2016	2016	2012-16
World	1330,0	1772,7		33,3
USA	521,2	1368,4	77,2	162,5
Australia	52,8	160,4	9,0	203,6
Argentina	566,9	90,9	5,1	-84,0
Afghanistan	0,0	32,9	1,9	-
France	31,7	27,3	1,5	-13,7
India	47,7	22,8	1,3	-52,1
Ukraine	24,9	15,3	0,9	-38,6
China	16,5	13,1	0,7	-20,3
S. Africa	19,4	6,2	0,3	-68,1
Russian	1,8	4,4	0,2	144,4

Source: TradeMap (2017)

Figure 6 presents South Africa's irregular and inconsistent trade performance in sorghum between 2012 and 2016. During 2012, 2015 and 2016, South Africa imported more sorghum than it exported, thereby becoming a net importer. During 2013 and 2014, sorghum imports decreased while exports increased, hence the positive trade balance.

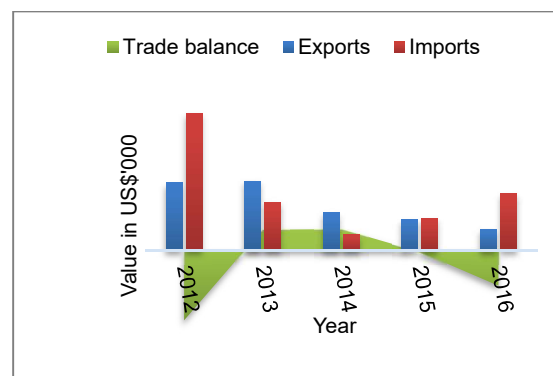


Figure 6: South Africa's trade performance in sorghum
Source: TradeMap (2017)

Figure 7 shows the leading export markets for South Africa's sorghum in 2016, measured as shares of South Africa's exports (%). All top five importers (Botswana, Swaziland, Angola, Namibia and Zimbabwe) account for about 98.4% of South Africa's sorghum global exports. Some 66.3% of the sorghum was destined for Botswana, followed by Swaziland and Angola, collectively constituting 27.3%.

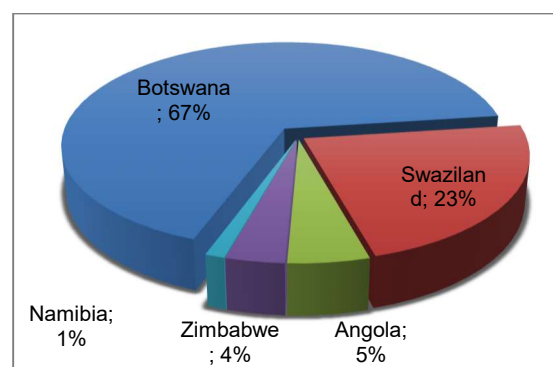


Figure 7: Top importers of South Africa's sorghum in 2016
Source: TradeMap (2017)

Figure 8 illustrates the top five global suppliers of sorghum to South Africa during 2016, measured as shares in South Africa's sorghum imports (%). It is clear that the top 5 exporters account for 100% of all the sorghum imported in the country. The USA supplied 97.7% of all the sorghum imported by South Africa, followed by Australia, Botswana and Ukraine, with shares of 1.1%, 0.7% and 0.5%, respectively.

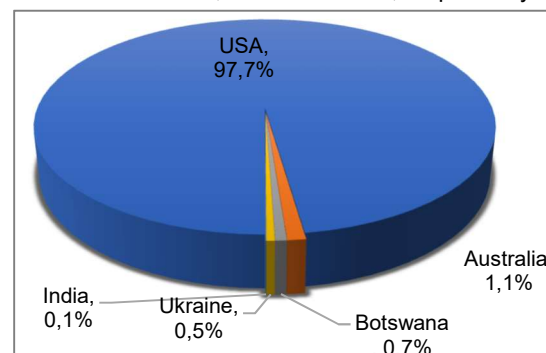


Figure 8: Leading suppliers of sorghum to South Africa
Source: TradeMap (2017)

Conclusion

It can be seen that South Africa is ranked 10th in the world's imports and exports, with share values of 0.9% and 0.5%, respectively. Although global trade increased between 2012 and 2016, South Africa's trade has declined steadily over the past five years. Nonetheless, African countries continue to be the leading importers of South Africa's sorghum. South Africa's unstable trade performance in sorghum is attributable to drought, among other factors.

References

DAFF (Department of Agriculture, Forestry and Fisheries) 2017, Trends in the Agricultural Sector 2016.



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MARKET PROFILE OF THE SOUTH AFRICAN MACADAMIA NUTS INDUSTRY (HS: 080261)

By Matsobane (BM) Mpyana

An overview of South Africa's Macadamia Industry

Macadamia nuts originated in Australia, although major commercial production currently takes place mainly in Hawaii. The 1960s marked the first introduction of macadamia nuts into South Africa. Interesting to note is that, in 2014, South Africa was identified as the world's largest producer of macadamia nuts, outcompeting Australia and Hawaii. South Africa's climatic conditions favour the production of macadamia nuts, with the plantations predominantly being situated in the northern parts of the country – in the provinces of Limpopo, Mpumalanga and coastal KwaZulu-Natal. According to Kim, Keogh and Clifton (2017), macadamia nuts are well-known for their health benefits, given that they contain no cholesterol and are a natural plant. The nuts also help to reduce the incidence of heart disease and contain no fatty acids. Notably, the nuts are quite expensive. The total estimated value of the industry was at about R32 million in 1996, and increased to over R4 billion in 2015. In 2016, it was reported that there were more than 8 million new macadamia nuts plantations, covering a total area of approximately 28 000 hectares, with an annual growth of 3 900 ha (SAMAC, 2016).

It is important to note that there are an estimated 700 farmers involved in growing macadamia nuts, with more than 650 being registered with the Southern African Macadamia Growers Association (SAMAC). The association is funded by a statutory levy and is comprised of macadamia growers, processors and

marketers, with a mission to lead the development of a profitable and sustainable industry in the common interests of its members through technical and marketing innovation. South Africa's macadamia nuts industry is export driven, with more than 95% of annual production being destined for export international markets. About 50% of the macadamia nuts are exported as Nut in Shell (NIS) to Asia, and the remainder is processed into kernel. The USA and Canada constitute the largest market for kernel exports. Other markets include Europe, Japan, South East Asia and the Middle East (SAMAC, 2016 & DAFF, 2016).

Employment potential

In South Africa, the agricultural sector presents a high potential in creating jobs, as compared with other economic sectors. In the first quarter of 2016, the sector created approximately 876 000 jobs. Despite an increase in job creation, there was a decline of about 15000 jobs, as compared with statistics for 2015 (Stats SA, 2016). The macadamia nut industry in South Africa has potential to contribute to job creation in the agricultural sector. Although most of the workforce is employed seasonally during harvesting and processing, it was estimated that approximately 7150 permanent job opportunities were created on macadamia farms, and another 600 permanent jobs in cracking facilities, between February and August, 2017. However, during the peak season, an additional of 8150 jobs were created, thereby providing employment potential for about 12 500 full-time workers in the industry. Most of the individuals in the workforce are employed specifically to pick and crack the nuts after falling (SAMAC, 2017).

Production areas

Figure 9 below shows the top regions in South Africa that produce macadamia nuts, with an estimated total production of 36 500 tons in 2016, as compared with 46 000 tons NIS produced in 2015. This shows a decline of about 9 500 tons in production for 2016. This was as a result of drought and high temperatures that were encountered in recent times in South Africa (Whyte, 2016). Furthermore, Figure 9 depicts that the major macadamia production regions, being Mpumalanga (53%), Limpopo (30%) and KwaZulu-Natal (16%), while other regions account for only 1% of the total production.

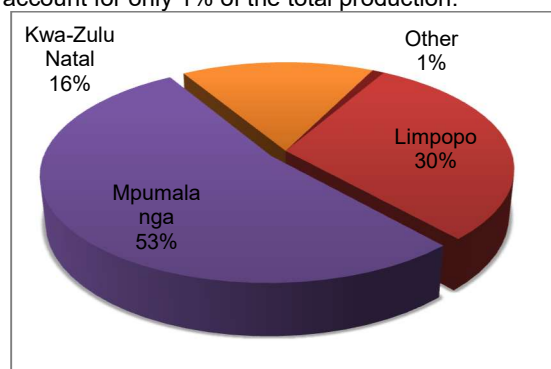


Figure 9: Macadamia producing regions in South Africa
Source: SAMAC (2017)

Market information

Figure 10 shows the top 5 exporters of macadamia nuts (in shell) in the world for the 2016 marketing season. In 2016, Australia was the largest exporter of macadamia nuts, with a share of 45% in global exports, followed by South Africa (31.3%), out competing Hong Kong which recorded only 10.5% in the world's total exports. It is interesting to note that Zimbabwe recorded a share of 4.7% and the USA recorded only 3.1% in two consecutive years. Only 5.4% of the world's exports were exported by all the other countries.

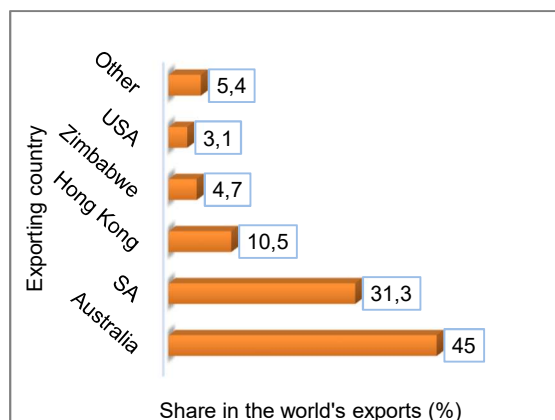


Figure 10: World exporters of macadamia nuts in 2016
Source: TradeMap (2017)

Figure 11 shows the main importers of macadamia nuts in the world. The figure shows that the highest importer of macadamia nuts was Viet Nam, which recorded a share of 37.7% of global imports, followed by Hong Kong (34.1%), China (20.9%), South Africa (1.9%) and Luxembourg (1.7%), respectively, in 2016.

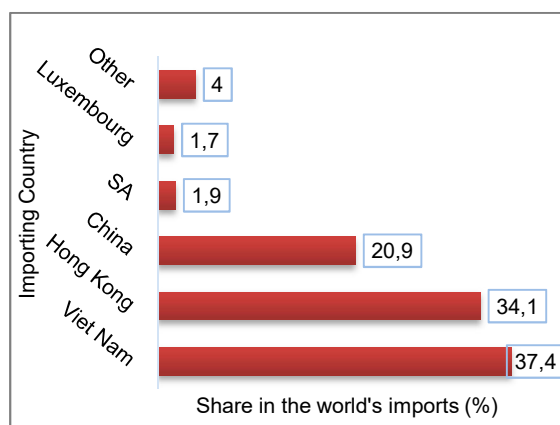


Figure 11: World importers of macadamia nuts in 2016
Source: TradeMap (2017)

Table 9 highlights the export markets for South Africa's macadamia nuts during the 2015 and 2016 period. The share in South Africa's macadamia nuts destined for Hong Kong increased from 49.5% in 2015 to 64.2% in 2016, whereas the share value for Viet Nam declined from 40.6% in 2015 to 30.7% in 2016. However, China recorded a decline, from 2.7% to 2.2%, in 2016. Germany and the Netherlands had

the lowest export market share values, with only 0.8% and 0.7% in 2016, respectively.

Table 9: Major export markets for the South Africa's macadamia nuts

Importers	South Africa's export share value (%)	
	2015	2016
Hong Kong	49.5	64.2
Viet Nam	40.6	30.7
China	2.7	2.2
Germany	0.9	0.8
Netherlands	1.4	0.7

Source: TradeMap (2017)

Future threats and opportunities in the South African macadamia nut industry

There is consensus that the industry will double its production in the future, although the processors will have to find new markets and add value to nuts to increase exports. On the other hand, it seems that Asia is South Africa's key to the macadamia nut market. This observation poses a threat to the industry's existence in future. Given the size of the industry, which is predominantly small as compared with other nut crops such as almonds, it is reportedly estimated that by 2017 the crop should have reached a record of 55000, growing to 65000 tons in 2018. In order for the industry to grow and keep up with the global trends, farms need to become more mechanised and better equipped to become more competitive with the macadamia powerhouses such as Australia. Currently, import tariffs imposed on macadamia nuts range from 0 to 30% and if reduced, South Africa's macadamia nuts are bound to unlock new markets and become more competitive (Farmers Weekly, 2017).

Moreover, it is reported that emerging macadamia nut producers are estimated to number over 22 in South Africa, and they have a critical role to play in the export market. These numbers are estimated in terms of the emerging farmers who are registered with SAMAC. There is no doubt that barriers to entry remain a major factor for their participation and in bridging the gap between emerging and commercial producers. On the other hand, the grower levy imposed on all macadamia nuts growers is beneficial, whereby 20% of the total levy income is used to assist the emerging farmers to improve their competitiveness and ultimately gain access to the export markets. The 20% is a transformation levy that is aimed at enhancing and advancing, and further promoting the inclusiveness, of the emerging farmers' competitiveness in the mainstream of the economy in South Africa. It remains unknown as to how many of the emerging macadamia nut producers have access to export markets, and the quantities (tonnes) exported to the international market.

Conclusion

It can be concluded that South Africa's macadamia nuts are highly demanded, worldwide. It is clear that Hong Kong (64.2%) remains the major role player in terms of being the main export market for South Africa's macadamia nuts. However, Australia

continues to dominate the world's exports of macadamia nuts, given the fact that the crop originates in that country. Moreover, there are potential market threats that Australia poses to other exporting countries such as South Africa, due to the size of the industry its technological advancement. In 2016, the South African macadamia nut industry did not perform to its full potential in terms of achieving the desired volumes (tonnes), as projected. This was a result of drought, high temperatures and hail that had a negative impact on the production, and of the high tariffs (ranging from 0 – 30%) imposed on macadamia nuts.

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ASSESSING TRADE PERFORMANCE OF ORANGES (HS: 080510) DESTINED FOR ASIAN MARKETS

By Lucius Phaleng

Introduction

Citrus represents the largest export sub-sector in the South African agricultural economy, and oranges constitute 70% of the total citrus export output. South Africa is one of the leading producers of oranges and a leading global exporter of oranges, with over half of its exports being destined for the EU and Russia (Ntombela and Moobi, 2013). Globally, South Africa's oranges compete with Spanish and USA oranges, which are ranked first and second, respectively. The aim of this article is to assess the export trend of oranges to the Asian markets, and to explore on the market opportunities that South African orange producers might take advantage of.

South Africa's position amongst the world's largest producers and exporters of oranges essentially reflects the country's global competitiveness, even in the wake of increasingly stringent world market

conditions. This is confirmed by Ndou (2012) who argues that in spite of the shifting health and environmental standards in overseas markets, South Africa remains fairly competitive. South Africa's competitiveness, however, is coming under increasing pressure owing to stagnating global consumption and rising costs of production, particularly those associated with meeting increasing quality standards (Edmonds, 2013; Chadwick, 2013).

South Africa's overview in trading oranges

South Africa ranks as the world's eighth largest producer of oranges, and its production is expected to rise by 2% to 1.4 million tons between 2017 and 2018, and the exports are forecasted at record 1.2 million tons, accounting for 25% of global trade (USDA, 2018). **Table 10** highlights South Africa's orange exports to the world, during the 2015 and 2016 periods. The table shows that South Africa's exports to the world increased by 13.2% between 2015 and 2016. The Netherlands remains the main export market for South Africa's oranges, accounting for an 18.8% share in South Africa's total orange exports, followed by UAE, Saudi Arabia and Hong Kong, constituting 9.6%, 8.9% and 6.3% shares in orange exports, respectively. Of the top 10 importers of oranges from South Africa, five were Asian countries, and this highlights the continued growing market in Asia.

Table 10: South Africa's orange exports to the world.

	Imported value in R 'Million		Share value in %	Growth rate in value %
Importers	2015	2016	2016	2015-16
World	7786	8811		13,2
Netherlands	1546	1659	18,8	7,3
UAE	1195	850	9,6	-28,9
Saudi Arabia	210	785	8,9	274,5
Hong Kong	305	554	6,3	81,9
China	371	536	6,1	44,3
Portugal	448	496	5,6	10,7
Russia	523	486	5,5	-7,1
UK	282	471	5,3	67,1
USA	692	424	4,8	-38,8
Canada	255	323	3,7	26,8

Source: TradeMap (2017)

South Africa is not a major importer of oranges from the world market, as illustrated in Table 11. The trade balance between South Africa and itself is due to the re-importation of the same oranges. According to USDA (2018), South Africa was ranked 13th among the world's importers of oranges. **Table 11** indicates the leading suppliers of oranges to South Africa in 2016. Global exports of oranges to South Africa declined by 2.1% between 2015 and 2016. The table shows very interesting facts of "re-imports" in the period under review. South Africa was the main supplier of oranges to South Africa, and this concept is known as re-importing. About 70.9% of oranges that South Africa imported from the world were re-imports (this might be due to import barriers), and 20.6% came from Spain in 2016.

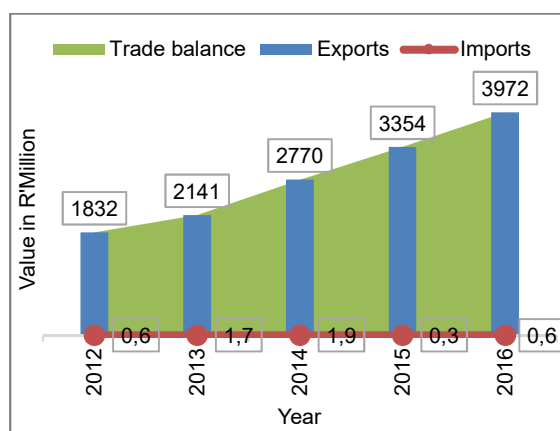
Table 11: South Africa's imports of oranges from the world.

	Imported value in R'000		Share value in %	Growth rate in value %
Exporters	2015	2016	2016	2015-16
World	34398	33679		-2,1
S. Africa	25824	23874	70,9	-7,6
Spain	1750	6932	20,6	296,1
Netherlands	0	938	2,8	-
Belgium	0	630	1,9	-
Egypt	1116	322	1,0	-71,1
Turkey	0	308	0,9	-
Swaziland	1953	264	0,8	-86,5
Israel	0	147	0,4	-
Portugal	0	147	0,4	-
Malaysia	0	117	0,3	-

Source: TradeMap (2017)

South Africa's trade of oranges with Asia

Asia is one of the target markets for South African fruit exports, and it is shown in **table 10** that major exports of oranges were destined for Asian countries. **Figure 12** highlights South Africa's trade (exports, imports and trade balance) of oranges with Asia over the past five years. It can be observed that South Africa's orange exports increased during the period under review, while imports remained low and stable. Moreover, South Africa's exports were higher than imports, which resulted in South Africa being a net-exporter of oranges to Asia. In 2016, South Africa's orange exports were valued at R3 972 million (while imports were R0.6 million). South Africa was ranked as the second largest supplier of oranges to Asia, after the USA.

**Figure 12:** South Africa's trade of oranges with Asia

Source: TradeMap (2017)

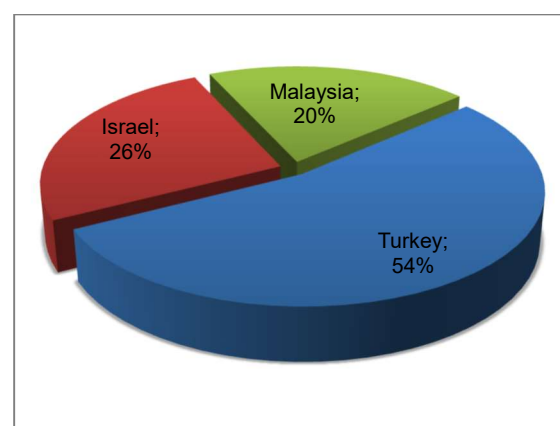
Table 12 highlights the top Asian importers of oranges from South Africa during the 2015 and 2016 periods. The analysis of the leading importers is made in terms of imported values, share value and tariff level faced by South Africa. The Table highlights the point that UAE was the leading importer, constituting a share of 21.4%, followed by Saudi Arabia, Hong Kong and China, at shares of 19.8%, 14.0% and 13.5%, respectively. The tariff levels faced by South Africa also play an important role when exporting to these countries; we can see that the top 3 importers impose a 0% tariff on South Africa, and which leads to interesting facts about others countries that impose 0%, but are ranked the lowest (such include Kuwait, Singapore and Oman).

Table 12: Main importers of oranges in Asia

	Exported value in R'000		Growth rate in value %	AVE faced by SA (%)
Importers	2015	2016	2016	
Asia Ag	3354	3972		
UAE	1195	850	21,4	0
Saudi Arabia	210	785	19,8	0
Hong Kong	305	554	14,0	0
China	371	536	13,5	11
Bangladesh	362	280	7,0	25
Malaysia	274	249	6,3	2,5
Kuwait	133	196	4,9	0
Singapore	94	89	2,2	0
India	117	47	1,2	30
Oman	41	45	1,1	0

Source: TradeMap (2017)

South Africa not only exports to Asian countries, but also imports from them. **Figure 13** highlights the main countries that exported to South Africa during the 2016 period. It is important to note that South Africa imported from only three Asian countries. Turkey was the main exporter, with a share value of 54% of all orange imports from Asia, followed by Israel and Malaysia, which constituted share values of 26% and 20%, respectively. Furthermore, it is necessary to indicate that all these three countries were also among the world's top exporters of oranges that were destined for South Africa.

**Figure 13:** Main Asian exporters of oranges to South Africa

Source: TradeMap (2017)

Conclusion

The main aim of this article was to assess orange exports from South Africa to Asia. It can be concluded that South Africa was the main supplier of oranges to Asia. The USA and Egypt were the main competitors in the Asian markets, but South Africa's exports continued to improve on a yearly basis. South Africa experienced a positive trade balance with Asia, meaning that South Africa is a net-exporter. It has been observed that Asian countries with 0% tariff levels import a larger share of South Africa's oranges. Accordingly, exporters are encouraged to target countries with duty free access (0% tariff rate) so as to increase South Africa's market shares.

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