



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:

An Overview of Trade in Soybean Cake

Trade Profile for Pineapples

Market Profile for Fresh Fish: Horse mackerel

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This issue of *TradeProbe* covers the following topics:

- Trade profile for pineapples (HS:080430)
- An overview of trade in soybean cake
- Market profile for fresh fish: horse mackerel (HS: 030355) and frozen horse mackerel (HS:030245)
- Trade profile for olive oil and its fractions (HS:1509),

TRADE PROFILE FOR PINEAPPLES (HS CODE 080430)

by Lucius Phaleng

Introduction

Pineapples are commercially important plants grown in South Africa, contributing towards foreign exchange earnings and employment creation among other forward and backward linkages. The pineapple industry in South Africa is highly linked to the processing industry, with approximately 80% of pineapple produce going for processing. The industry operates in a deregulated environment where prices are determined by the market forces of demand and supply.

The Eastern Cape Province is the biggest pineapple producing area in South Africa, yielding approximately 80 000 tons per annum. More than 9% of the crop is exported, while the rest is enjoyed locally as fresh fruit and/or as juice. However, because production of the Queen pineapple is more costly, fresh consumption is shifting towards the Cayenne (DAFF, 2009).

Global trade in pineapples

Table 1 shows the leading pineapple exporters between 2011 and 2015. During this period, it is clear that Costa Rica was ranked as the largest exporter of pineapples, constituting about 48.8% share of the global exports of this products in 2015. The global supply of pineapple showed negative growth between 2011 and 2014. This was mainly attributed to the decline of export supply from the Netherlands, Belgium and the USA. Ghana and Côte d'Ivoire were the only African countries among the top ten, with a share of 2.2% and 1.7%, respectively. South Africa's exports ranked 25th, with a share of 0.25% of pineapple exports globally.

Table 1: Global leading exporters of pineapple

Exporters	Value in million US dollars		Shares (%)	Growth Value (%)
	2011	2015	2015	2011-2015
World	1698	1685		-0.8
Costa Rica	719	822	48.8	14.3
Netherlands	186	163	9.7	-12.4
Belgium	207	108	6.4	-47.8
Philippines	67	105	6.2	56.7
USA	108	103	6.1	-4.6
Ghana	17	37	2.2	117.6
Mexico	17	36	2.1	111.8
Ecuador	42	32	1.9	-23.8
Cote d'Ivoire	27	29	1.7	7.4
China	3	26	1.5	766.7

Source: Own calculation and Trade Map, 2016

On the imports side, **Table 2** highlights the leading global importers of pineapples between 2011 and 2015. It is vital to note that the USA was ranked as the largest importer of pineapples, constituting approximately 29.6% share of global imports. The leading top ten importers accounted for 77.9% share of world imports. Of all the major markets listed, the USA and France showed positive average growth in imports of 22.1% and 15.2%, respectively between 2011 and 2015. There were no African countries amongst the top ten importers of pineapples and South Africa's imports of pineapples were ranked 92nd with a share of 0.01% (ITC, 2016)

Table 2: global leading importers of pineapples

Importers	Values in million US dollars		Shares (%)	Growth value (%)
	2011	2015	2015	2011-2015
World	2388	2273		-4.8
USA	551	673	29.6	22.1
Netherlands	187	153	6.7	-18.2
Germany	200	139	6.1	-30.5
UK	158	138	6.1	-12.7
Belgium	202	124	5.5	-38.6
Spain	121	116	5.1	-4.1
Italy	135	113	5.0	-16.3
Japan	127	109	4.8	-14.2
France	92	106	4.7	15.2
Canada	102	99	4.4	-2.9

Source: Own calculation, Trade Map

It is clear that South Africa as both an exporter and as an importer of pineapples is not a big major player (by size). By significance, the pineapple industry is valuable to South Africa (as noted earlier) and therefore, a close look at South Africa's exports and imports of this product is done in the section to follow.

South African trade of pineapples

Figure 1 shows the trade (exports, imports and trade balance) trends of South Africa's pineapples over the past five years. In 2015, South Africa's imports and exports were valued at \$0.2 million (\$200 thousands) and \$4.1 million, respectively. The TradeMap database reveals that South Africa exported more pineapples than the imported, and hence was a net exporter of pineapples. Furthermore, South Africa's imports and exports were not stable over the past five years, during

which export values were higher as compared to import values, resulting in a positive trade balance.



Figure 1: Exports, imports and trade balance
Source: Own calculation, and Trade Map 2016

Figure 2 shows the leading suppliers of pineapples to South Africa over the past five years. Thailand was the largest supplier of pineapples to South Africa, with a 100% market share in 2015. In the past three years, South Africa's pineapple imports were solely sourced from Thailand. Furthermore, minimal values were supplied by Ghana and Swaziland in 2011. It has also been noted that Namibia and USA also supplied minimal values of \$8 000 and \$14 000 during 2012.

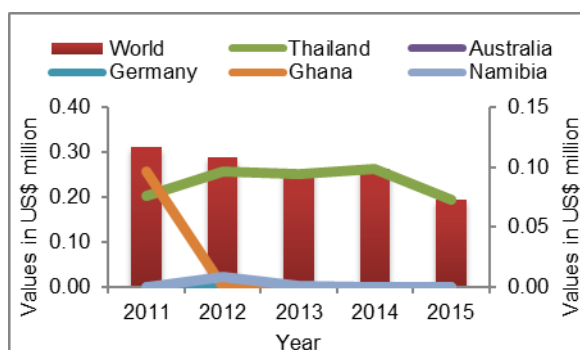


Figure 2 List of markets supplying pineapples to South Africa

Source: ITC Trade map, 2016

Figure 3 highlights the leading importers of South Africa's pineapples over the past five-years. In 2015, South Africa exported pineapples worth \$4.1 million globally with a significant increase of 5.1% between 2011 and 2015. This was mainly attributed by the drastic increase in imports by UK between 2014 and 2015. In 2015, Netherlands, United States and Saudi Arabia were the three major export markets for pineapples from South Africa, which collectively constituted US\$2.8 million worth of pineapples (See Figure. 6).

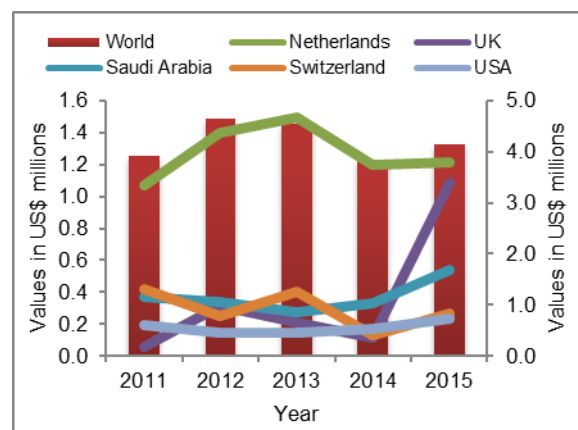


Figure 3: Leading importers of pineapples exported by South Africa

Source: ITC Trade map, 2016

Conclusion

We can thus conclude that South Africa is a net exporter of pineapples. However, the country is not a major exporter in global terms given that it only commands a 0.25% share of the global market. The European Union and the Middle East are the key markets for South Africa's pineapple exports. The performance of South Africa's pineapple exports within African countries has been poor and it will be desirable for policy-makers to boost pineapple exports to African countries.



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AN OVERVIEW OF TRADE IN SOYBEAN CAKE

by Moses H Lubinga

Introduction

Soybeans are high value seeds from which high protein meal and vegetable oil are separated and extracted after crushing the seeds. Soybean cake accounts for about 80% of the processed soybean and is regarded as the most valuable end product after processing. Soybean cake is mostly used as a livestock feed given that it is the world's most important source of protein feed, accounting for about 65% of the world's protein feed supplies. To a small extent, soybean cake is also used in the confectionery industry for baking and as a substitute for meat (SADC Trade, undated). This article profiles soybean cake trade performance, with a focus on South Africa.

Global trade in soybean cake

Overall, TradeMap data reveals that the world has been and still trading in soybean cake (in reasonable volumes and/or values). The world's annual growth in the value of imports (3%) and exports (2%) between 2011 and 2015 outweighed the annual growth in the quantity of soybean cake imports and exports (1%) during the same period (see **Tables 3 & 4 in Appendix A**). This may be an insightful pointer that prices play a vital role in oilcake trade. **Table 3** reveals that in 2015, only 14 countries were net exporters of soybean cake. Malawi registered the highest annual growth in soybean cake exports both in quantity (517%) and value (533%) terms between 2011 and 2015, followed by Ukraine (351–378%), Paraguay (41%), China (39–40%) and USA (8–10%), among others.

South Africa was a net importer of soybean cake but with a declining annual growth (–17%) of soybean cake imports between 2011 and 2015. South Africa's soybean cake exports registered a 23% annual growth in value terms during the same period. This may be associated with the existence of physical infrastructure like increased soy crushing capacity. For instance, DAFF (2014) noted that South Africa's soybean crushing volume increased by over 200% in the 2013/14 season in comparison to what was crushed during the 2010/11 season.

The top ten net importers of soybean cake worldwide in 2015 are presented in **Table 4**. With the exception of Japan and France, the other countries registered an annual growth in soybean cake imports between 2011 and 2015. Mexico was in the lead in annual growth rate, followed by Viet Nam and Indonesia, among others. Soybean cake is generally subjected to zero tariff rates by the top 10 importing countries, except for Thailand (60.5%) and Korea (1.1%).

South Africa's soybean cake trade

A detailed analysis of South Africa's trade in soybean cake is highly inspired by the fact that she exhibits a negative trade balance (net importer) over the years (See **Table 3** in Appendix A). Thus, the intention of this section is to ascertain South Africa's major trading partners in soybean cake. This article may thus be a stimulus for an empirical analysis of the drivers of South Africa's net import status in soybean cake. South Africa's soybean cake exports in 2015 were basically destined for SADC member countries with the exception of Switzerland, which paid US\$ 8 500 per ton (**Figure 4**). This once-off supply of 20 tons to Switzerland may have been triggered by the lucrative price, but for the other countries the price per ton ranged from US\$ 433 (Lesotho) to US\$ 752 (Angola). Unlike other countries where South Africa has duty-free access to the market, Angola subjects South Africa's soybean cake to a 2% tariff rate.

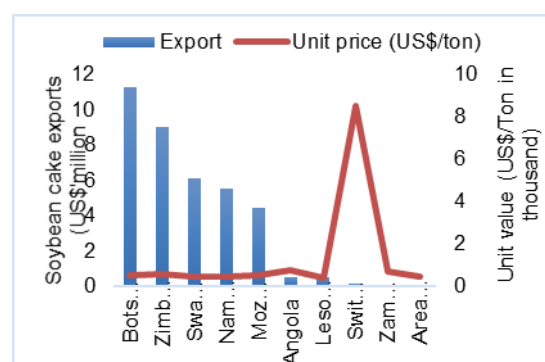


Figure 4: South Africa's soybean cake exports and unit values in 2015

Source: ITC Calculations based on UN COMTRADE Statistics

In the recent past (**Table 5**), Argentina supplied more than 95% of South Africa's soybean cake while the rest was obtained from India and Brazil. Although Argentina is still the dominant supplier, the annual growth rate in the quantity supplied between 2011 and 2015 declined by 18% while the rate for India increased by 3%. This suggests that South Africa might be nurturing good trade relations in soybean cake with India for reasons that are not discussed in this article. South Africa's suppliers of soybean cake face a 6.6% tariff to gain access into the South African market.

Table 5: Suppliers of soybean cake to South Africa, by value (US\$ million)

Exporters	2012	2013	2014	2015
Argentina	342.0	328.4	252.3	160.4
India	0.1	0.1	0.1	0.14
Brazil	–	–	0.03	0.04

Source: ITC Calculations based on UN COMTRADE Statistics

Conclusion and implications

Soybean cake is an important end product of soybean processing but it is not produced in adequate quantities globally. With the exception of a few countries which include Argentina, Brazil and USA, the world is a net importer of soybean cake. South Africa is also a net importer of the cake,

mainly from Argentina while her exports are mainly destined for SADC member countries. Policy wise, there is need to further foster soybean production and processing so as to reduce imports.

References

DAFF (2014). Soybean market value chain profile. SADC Trade (n.d.). Trade information brief. Soya beans.



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MARKET PROFILE FOR FRESH FISH: HORSE MACKEREL, FRESH (HS 030355) AND FROZEN (HS 030245)

by Xolisiwe Potelwa

Background

Horse mackerel is a fish species that belong to the family *Carangidae*. This fish species is mainly known as the southern species; its distribution is limited in the northern oceans. It can be found in the Atlantic up to Norway and also in the Mediterranean but rarely in the Black Sea. The fish product is used for human consumption and is a source of protein in the human diet. In the Southern African region, horse mackerel is found in the seas off South Africa, Namibia and Angola. It estimated that the stock harvest in the Southern African region amounts to about 900 thousand tons yearly.

Figure 5 shows the stock of horse mackerel harvested by South Africa between 2005 and 2014. The horse mackerel harvest showed an increase to 579 thousand tons in 2014 from 406 thousand tons in 2005. Between 2005 and 2011, the harvested stock of horse mackerel registered a positive growth but then declined by about 21.7%, between 2011 and 2014.

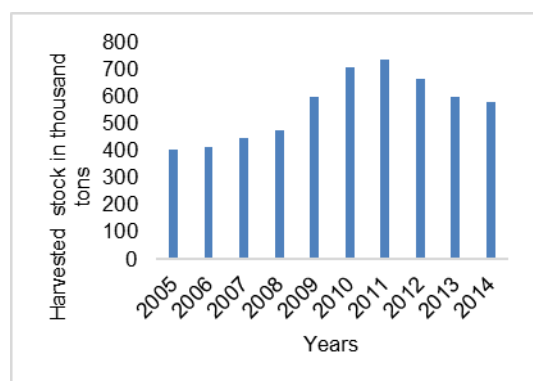


Figure 5: Horse mackerel stock harvested in South Africa

Source: STATSSA, 2014

It is against this background that in this article a review of the trade performance of horse mackerel is done, both for global and South African market perspectives. This article groups horse mackerel into both frozen and fresh. Therefore, the review is based on this grouping.

Global trade profile of horse mackerel fish

Table 6 shows the demand for horse mackerel fish in the world market, with an increased growth of 158% between 2012 and 2015. The global total imports amounted to R7.3 billion in 2015. The Egyptian market was the largest importer of this product with a total amount of R964 million in 2015. This market imported the largest amount of frozen horse mackerel – 92% of the total horse mackerel imported. Peru was the second largest importer with a positive increase in terms of demand from R66 million in 2012 to R706 million in 2015. Peru was followed by Nigeria, Japan, and Zambia with values of R700 million, R694 million and R637 million respectively in 2015.

Table 6: Global importers of horse mackerel, fresh and frozen in R' million

Importers	2012	2013	2014	2015
World	2862	5408	6225	7398
Egypt	0	0	1	964
Peru	66	323	309	706
Nigeria	0	0	0	700
Japan	542	451	554	694
Zambia	16	72	274	637
China	257	283	399	465
Netherlands	481	485	394	433
Cameroon	0	0	1418	419
Portugal	225	206	214	171
USA	113	142	162	164

Source: Trademap, 2016

As for exports into the world, they showed positive increase from R5.8 billion in 2012 to R7.1 billion in 2015. The Netherlands was the largest exporter of this product, with a value of R1.3 billion in 2015. The values of exports in this market declined from a high value of R1.5 billion in 2013 to R1.2 billion in 2014, and increased to R1.3 in 2015. Chile, Spain, Namibia and Ireland were among the top 5 exporters of this product (see **Table 7**). It is important to note that South Africa was among the top ten exporters of this product, with a production capacity that averaged at 560 thousand tons between 2004 and 2014 (STATSA, 2014).

Table 7: Global exporters of horse mackerel, fresh and frozen in R' million

Exporters	2012	2013	2014	2015
World	5 887	7 332	7 695	7 130
Netherlands	1 438	1 595	1 294	1 318
Chile	859	1 338	1 471	1 060
Spain	556	695	888	841
Namibia	304	904	1 152	830
Ireland	694	690	649	711
New Zealand	428	455	640	569
Korea	227	252	312	337
Norway	85	129	128	219

South Africa	224	295	184	173
Germany	127	126	129	154

Source: Trademap, 2016

South Africa's trade profile for horse mackerel, frozen and fresh

As indicated, the country is among the top 10 exporters of this product. South Africa exported a total of R173 million in 2015, with a decline of 6% between 2014 and 2015 (Figure 6). The decline in export values is attributable to a decline in stock harvested in 2014, and decreased demand from traditional markets (Mozambique and Cameroon) during 2015. Mozambique showed the largest market share for this product, with a value of R70 million, followed by Thailand with a value of R67 million and Cameroon with a value of R10.9 million in 2015.

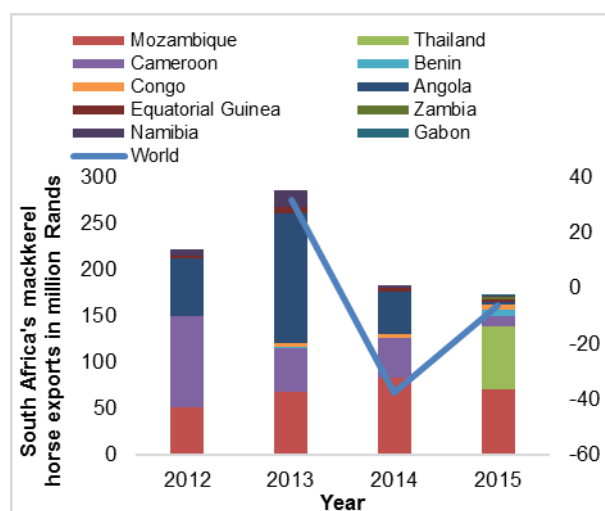


Figure 6: Main destinations for South African horse mackerel

Source: Trademap, 2016

South Africa, also imported this product at an average value of R121 million in 2015, with a significant decline of 61% in 2014 (see Figure 7). This may be attributed to the decrease in supplies from Namibia, from R304 million in 2014 to R44 million in 2015. Spain, Namibia, Area Nes and Norway were among the top four suppliers of horse mackerel in 2015, with a share of 49%, 36%, 10% and 3% respectively.

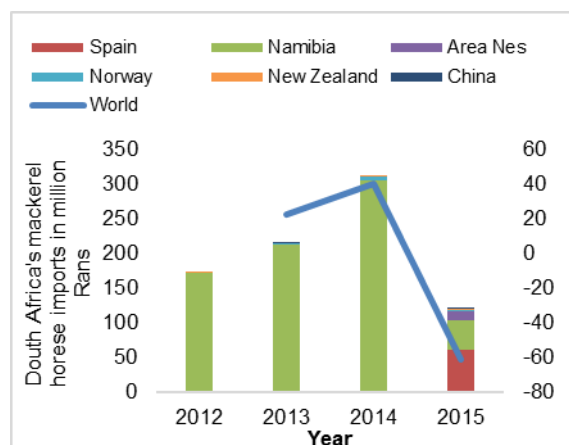


Figure 7: Main suppliers of horse mackerel to South Africa

Source: Trademap, 2016

South Africa was a net exporter of this product, except in 2014 when the country experienced a deficit of R128 million. This is an indication that the fish harvested by South Africa is used to satisfy domestic demand. Therefore, horse mackerel fish harvested in SA is mainly exported due to the higher returns internationally. Furthermore, large quantities of mackerel are imported by South Africa to meet the local demand for this product.

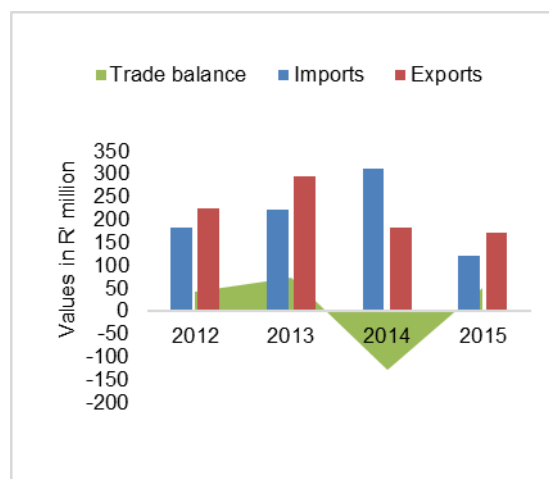


Figure 8: Trade performance of South African horse mackerel

Source: Trademap, 2016

Conclusion

In conclusion, the global demand for horse mackerel has been growing over the years. This demand is due to the fact that this product is source of protein in our daily diet. Although South Africa produces sufficient quantities to meet local demand, it exports this product to gain higher returns on the international market. Policy-wise, this product should be considered for freshwater production so as to increase the supply and create employment.

References

STATSSA. (2014). National Accounts: Environmental Economic Accounts Compendium. Pretoria: STATSSA.



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TRADE PROFILE FOR OLIVE OIL AND ITS FRACTIONS (HS CODE: 1509),

by Thandeka Ntshangase

Introduction

Recent research has been produced on scientific understanding of how diet and specific foods within a balanced diet promote human health and prevent chronic illnesses such as cardiovascular diseases, cancers, and neurodegenerative disorders. Many consumers are turning toward foods with medicinal properties as promising dietary interventions for preventing disease and maintaining health. As part of this trend, interests in the Mediterranean diet (MD) and specific foods that are essential to this diet have grown significantly. A common feature of the MD is a high consumption of olives and olive oil as the primary sources of dietary fat (International Olive Council, 2016).

While scientific research is continuously finding new health benefits of olive oil, people throughout history have been using it for a wide range of therapeutic and culinary uses. Human medicine in the past valued it for assisting with digestion, mitigating the effects of excess alcohol consumption, reducing muscle aches, and maintaining skin, hair and muscle health. Olive oil was also used as an aphrodisiac, laxative, sedative and a tonic to treat ailments as diverse as colic, paralysis, rheumatic pain, hypertension and sciatica. History and science increasingly support the many health benefits of consuming olive fruit and its oil, particularly as part of a balanced diet (International Olive Council, 2016).

World trade in olive oil and its fractions

Table 8 shows the leading global exporters of olive oil and its fractions in 2015. Globally a value of R92 billion was exported, with Spain leading with a value

of R37 billion in 2015, accounting for 40% of the world's exports. Italy was the second highest exporter with a value of R20 billion, followed by Tunisia as the third highest exporter. Tunisia exhibited the highest growth rate of 301% between 2014 and 2015. Global data showed an increase in terms of exports, and South Africa ranked 25th with a value of R36.8 million for 2015.

Table 8: World's leading exporters of olive oil and its fractions

Exporters	Value in Rand (millions)		Growth rate (%)
	2014	2015	2014–2015
World	75 983	92 134	21
Spain	39 204	37 063	–5
Italy	18 707	20 304	9
Tunisia	2 998	12 032	301
Greece	3 745	8 856	134
Portugal	5 377	6 070	13
Argentina	474	1 426	201
Morocco	431	961	123
Chile	451	765	70
Turkey	951	761	–20

Source: Trademap, 2016

Table 9 shows the leading global importers of olive oil and its fractions between 2014 and 2015. Global imports show growth, with a growth rate of 24% between 2014 and 2015. Italy was the leading importer of olive oils and its fractions with a value of R25 billion in 2015, followed by United States of America (R16 billion) in 2015. Spain as the third leading imported depicted the highest growth rate of 333% between 2014 and 2015. Being ranked 34th, South Africa accounted for only 0.23% of global imports.

Table 9: World's leading importers of olive oil and its fractions

Importers	Value in Rand (Million)		Growth rate (%)
	2014	2015	2014–2015
World	77 440	96 287	24
Italy	21 097	25 397	20
USA	12 278	15 577	27
Spain	1 819	7 868	333
France	4 667	6 168	32
Portugal	3 317	4 324	30
Germany	3 450	3 961	15
Japan	2 984	3 772	26
Brazil	3 827	3 484	–9
UK	2 550	3 421	34
Canada	1 891	2 079	10

Source: Trademap, 2016

South Africa's trade in olive oil and its fractions

Figure 9 illustrates South Africa's trade in olive oil and its fractions between 2011 and 2015. It is evident that South Africa imports more of this product than she exports (and is therefore a net importer). Notably there was a consistent increase in imports and exports between 2011 and 2015 although imports are far higher than exports.

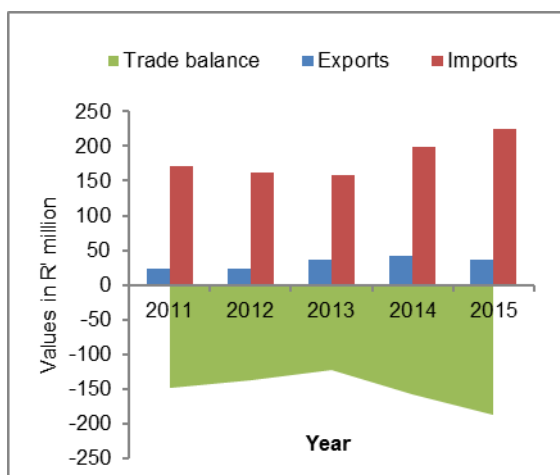


Figure 9: South Africa Olive oil trade
Source: Trademap, 2016

Figure 10 shows the main markets for South Africa's olive oil and its fractions in 2015. It is evident that the vast majority of South Africa's olive oil and related products go to the African market, comprising 49% of global imports (amongst the top 5). The leading destinations for South Africa's olive oil products was Namibia (R7 million), followed by Canada (R6 million). South Africa's exports to Botswana, Zimbabwe and Zambia accounted for 23%, 11%, and 9% of the country's olive oil exports, respectively.

Figure 11 presents the main markets that supplied South Africa with olive oil and its fractions in 2015. Most of South Africa's olive oils come from the European market, collectively accounting for 99.9% of the global market. Spain was the leading exporter to South Africa, accounting for 56%, followed by Italy, which exported R63 million worth of olive oil related products. Third was Portugal, followed by Greece and an unspecified area as the top 5 suppliers with values of R24 million, R12 million, and 381 thousand, respectively for 2015.

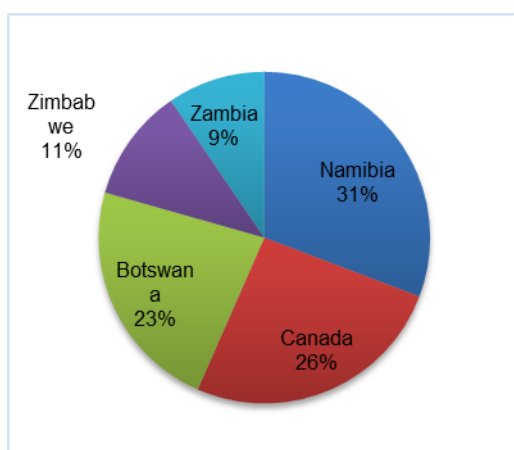


Figure 10: Main market destinations for South Africa's olive oil and its fractions
Source: Trademap, 2016

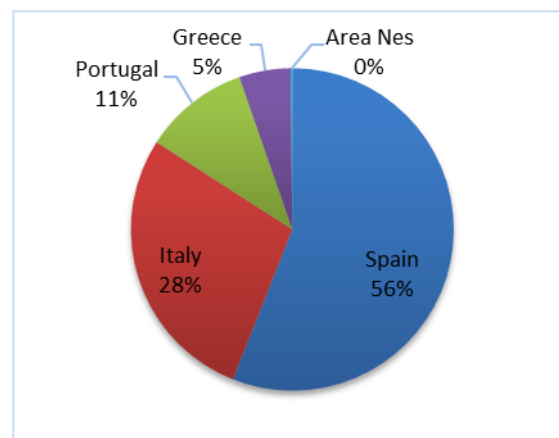


Figure 11: Main suppliers of olive oil related products to South Africa
Source: Trademap, 2016

Conclusion

It can thus be concluded that olive oil and its fractions are exported on a vast scale by European countries. It is also notable that South Africa is not a major exporter of olive oils due to low production levels in the country. There are therefore opportunities for South African farmers to grow the export market of olive oils beyond Africa, or to expand within the African market. South Africa should take advantage of the increasing global demand for this product due to an increase in health conscious consumers and expand its export base accordingly.



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APPENDIX A

Table 3: World's soybean cake net exporters in 2015

Partners	Trade balance in value (US\$ million)						Exports	
	2010	2011	2012	2013	2014	2015	Annual growth in value 2011-2015 (%)	Annual growth in quantity 2011-2015 (%)
World	-1 741	-1 307	-2 131	-2 106	-2 815	-1 410	2	1
Argentina	8 195	9 906	10 548	10 660	11 840	9 674	1	0
Brazil	4 706	5 689	6 593	6 784	6 999	5 820	1	0
USA	3 055	2 652	3 405	3 908	4 047	3 748	10	8
Paraguay	320	385	192	922	1 105	904	41	41
China	346	98	650	615	1 164	728	39	40
Bolivia	322	375	512	612	662	513	9	11
India	1652	2 219	2 075	2 860	1 180	436	-32	-36
Netherlands	-162	-159	-275	-88	-164	243	1	1
Ukraine	-23	-29	4	6	54	103	378	351
Norway	35	26	55	54	56	50	5	2
Zambia	6	-8	-5	28	21	13	67	66
Malawi	1	-2	-1	0	4	12	533	517
Uganda	4	4	2	9	1	3	-17	-15
Barbados	0	0	-	0	0	1	261	160
South Africa	-323	-341	-324	-304	-226	-123	23	22

Source: ITC Calculations based on UN COMTRADE Statistics

Table 4: World's top 10 soybean cake importers in 2015

Partners	Trade balance in value (US\$ million)						Imports	
	2010	2011	2012	2013	2014	2015	Annual growth in value 2011-2015 (%)	Annual growth in quantity 2011-2015 (%)
World	-1 741	-1 307	-2 131	-2 106	-2 815	-1 410	3	1
Indonesia	-1 162	-1 321	-1 828	-1 925	-2 195	-1 814	9	8
Viet Nam	-1 213	-1 280	-1 250	-1 717	-1 815	-1 463	10	10
France	-1 412	-1 430	-1 545	-1 607	-1 607	-1 454	0	0
Thailand	-1 054	-1 095	-1 352	-1 555	-1 675	-1 235	5	3
Italy	-735	-912	-860	-868	-1 002	-895	1	-1
UK	-923	-793	-893	-1 011	-1 021	-895	3	3
Poland	-784	-786	-983	-883	-1 031	-889	3	3
Japan	-980	-1 074	-1 091	-1 044	-1 057	-841	-5	-6
Mexico	-318	-445	-596	-639	-811	-832	17	15
Korea	-672	-620	-661	-844	-888	-791	9	6

Source: ITC Calculations based on UN COMTRADE Statistics

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