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For more information contact Sifiso Ntombela at [Sifiso@namc.co.za](mailto:Sifiso@namc.co.za)

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**NAMC**  
Promoting market access for South African agriculture

# SOUTH AFRICAN FRUIT TRADE FLOW

Issue No. 35: September 2019



## Beautiful country, beautiful fruit

Compiled by Lucius Phaleng, Zosuliwe Kala, Onele Tshitiza and Moses

Lubinga

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## 1. Background

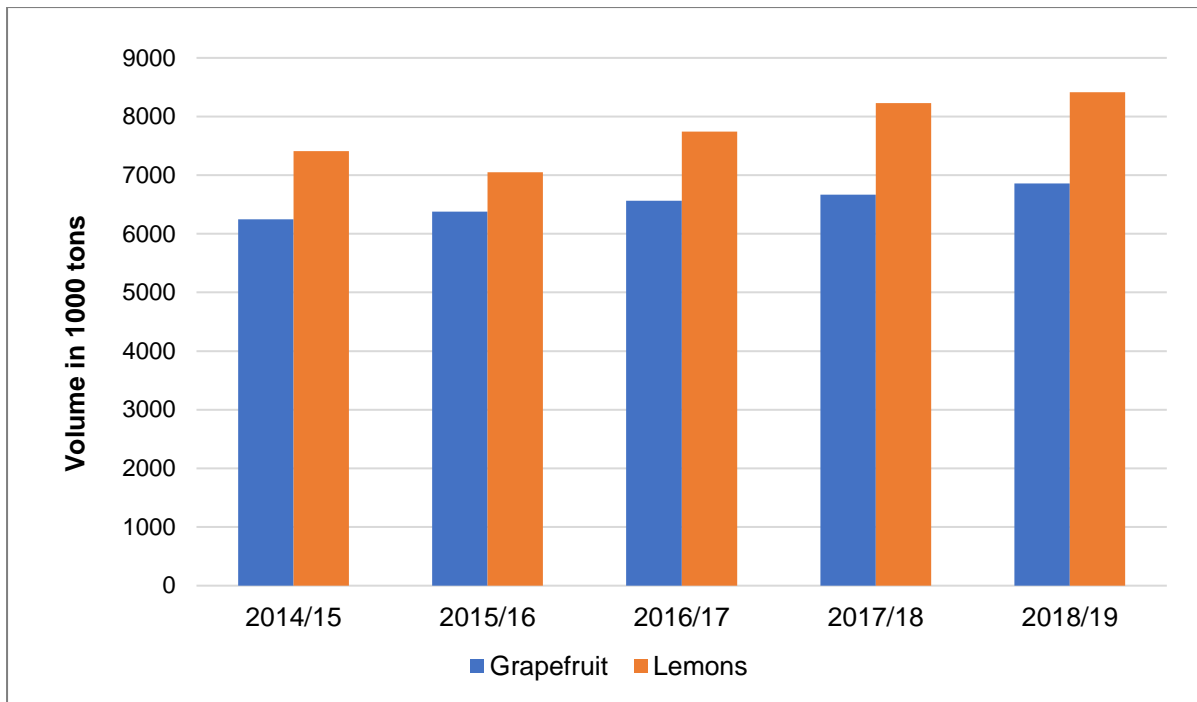
*South Africa's diverse weather and climatic conditions enable the country to cultivate and produce a variety of fruits. The country is known globally as a producer and exporter of citrus, deciduous and subtropical fruits. **This issue of the Fruit Trade Flow Report looks at citrus fruit (grapefruit and lemons) and pome fruit (apples and pears).** The main focus is on the analysis of the current season's performance of these fruits, for both the export and domestic markets, in comparison with the previous seasons. This report also assesses the global production of these fruits, giving a perspective on South Africa's production and export rankings (as a share of global production and exports).*

## 2. Overview of citrus fruit for the 2018/19 season

Citrus fruits are highly valued in terms of international trade and are produced in both tropical and subtropical regions. The citrus fruit industry comprises five broad categories, namely oranges, easy peelers (soft citrus), grapefruit, lemons and limes. The next section gives a preview of global citrus production for the 2018/19 season, with a particular focus on grapefruit and lemons.

### 2.1 Preview of global citrus production for the 2018/19 season

Global citrus production and consumption have grown rapidly since the mid-1980s. **Figure 1** depicts the global production of grapefruit and lemons during the period between 2014/15 and 2018/19, measured in thousand tons. During the 2018/19 production season, 6.9 million tons of grapefruit are projected to be produced, with a positive growth rate of 9.8% between the 2014/15 and 2018/19 seasons. China is the world's leading grapefruit producer with a total of 4.9 million tons produced during the 2018/19 production season, constituting a 71% share of the world's grapefruit production. The United States (US) ranked second, with a global share of 8%, followed by Mexico (6%), South Africa (6%), Turkey (4%) and Israel (2%). On the other hand, the world's production of lemons is projected at 8.4 million tons towards the end of the 2018/19 season, translating into an estimated 13.6% growth rate observed between 2014/15 and 2018/19. With reference to information from the United States Department of Agriculture (USDA), Mexico is the leading producer of lemons (about 2.6 million tons), accounting for a 31% share in the 2018/2019 season. Argentina and the European Union (EU) ranked second among the producers of lemons, each with a share of 19%, followed by Turkey (13%), the US (10%) and South Africa (6%).

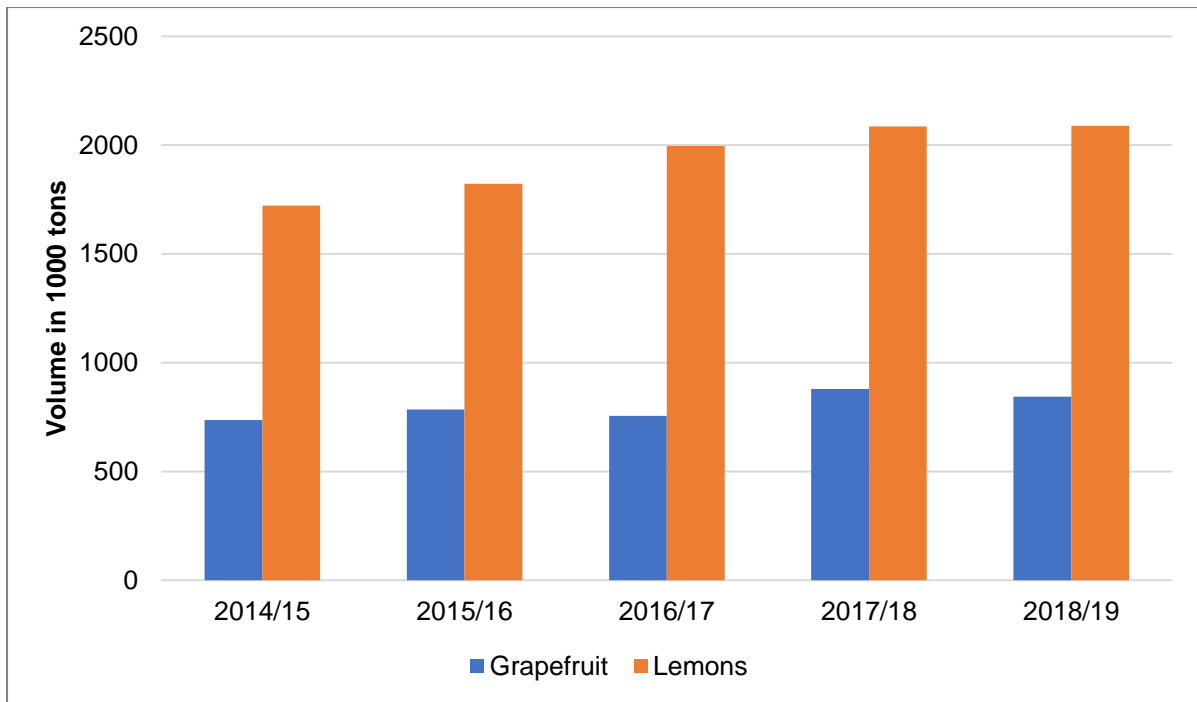


**Figure 1: Global production of grapefruit and lemons, 2014/15 – 2018/19**

Source: USDA (2019)

### 2.1.1 Global trade in citrus

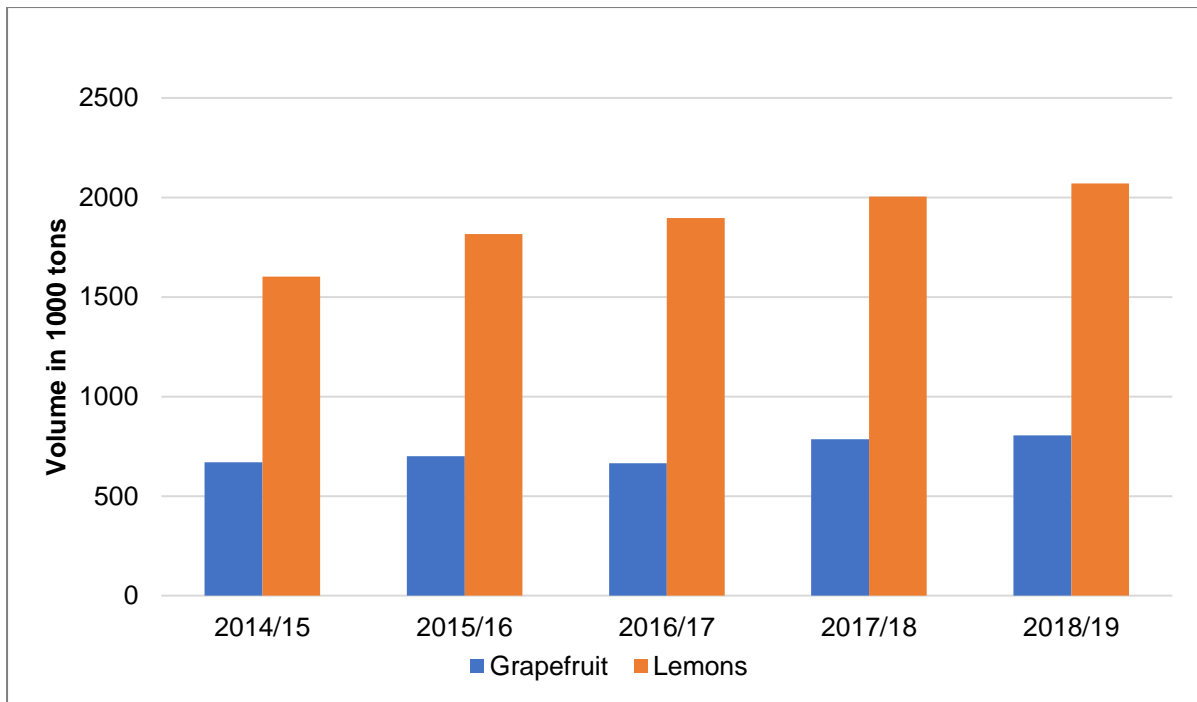
**Figure 2** below depicts the volume of grapefruit and lemons exported globally, measured in thousand tons. A total of 2.1 million tons of lemons and 844 000 tons of grapefruit were exported in the 2018/2019 season. Global exported volumes of grapefruit decreased by 4% compared to the previous season, while global exported volumes of lemons increased by 0.14% compared to the 2017/18 season. Furthermore, lemons are grown primarily for the fresh market, with the juice from lemons and limes mainly used as a flavouring in beverages. According to USDA statistics, Mexico is the leading exporter of lemons, exporting about 765 000 tons during the 2018/19 season and commanding a share of 37%, followed by Turkey (28%), South Africa (16%), Argentina (10%), the US (4%), the EU (4%), Hong Kong (1%) and Others (1%). South Africa ranked as the largest exporter of grapefruit, exporting about 250 000 tons and accounting for a 30% share during the 2018/2019 season. China was the second-largest exporter of grapefruit with a share of 27%, followed by Turkey (19%), Israel (9%), the US (7%), Hong Kong (4%), the EU (2%) and Others at 2%.



**Figure 2: Global exports of grapefruit and lemons, 2014/15 – 2018/19**

Source: USDA (2019)

**Figure 3** illustrates the global imports of grapefruit and lemons, measured in thousand tons. A total of 2.1 million tons of lemons were imported globally, translating into an equivalent of a 30% growth rate between the 2014/15 and 2018/19 seasons. According to the USDA, the US ranked as the largest importer of lemons with 760 000 tons (37% share by volume) in 2018/19. The EU was the second-largest importer of lemons constituting a share volume of 29%, followed by Russia (11%), Saudi Arabia (7%), Canada (5%), the United Arab Emirates (4%), Japan (3%), Ukraine (3%), and Hong Kong (2%). A total of 805 000 tons of grapefruit were imported globally, resulting in a 20% growth rate between the 2014/15 and 2018/19 seasons. The EU was the largest consumer of grapefruit and imported 370 000 tons thereof, with a share of 46% in the 2018/19 season. Russia was the second-largest importer of grapefruit with about 150 000 tons imported, constituting a share of 19%, followed by Japan (9%), Hong Kong (9%), Canada (5%), Ukraine (4%), the US (4%), Switzerland (2%) and South Africa (1%).



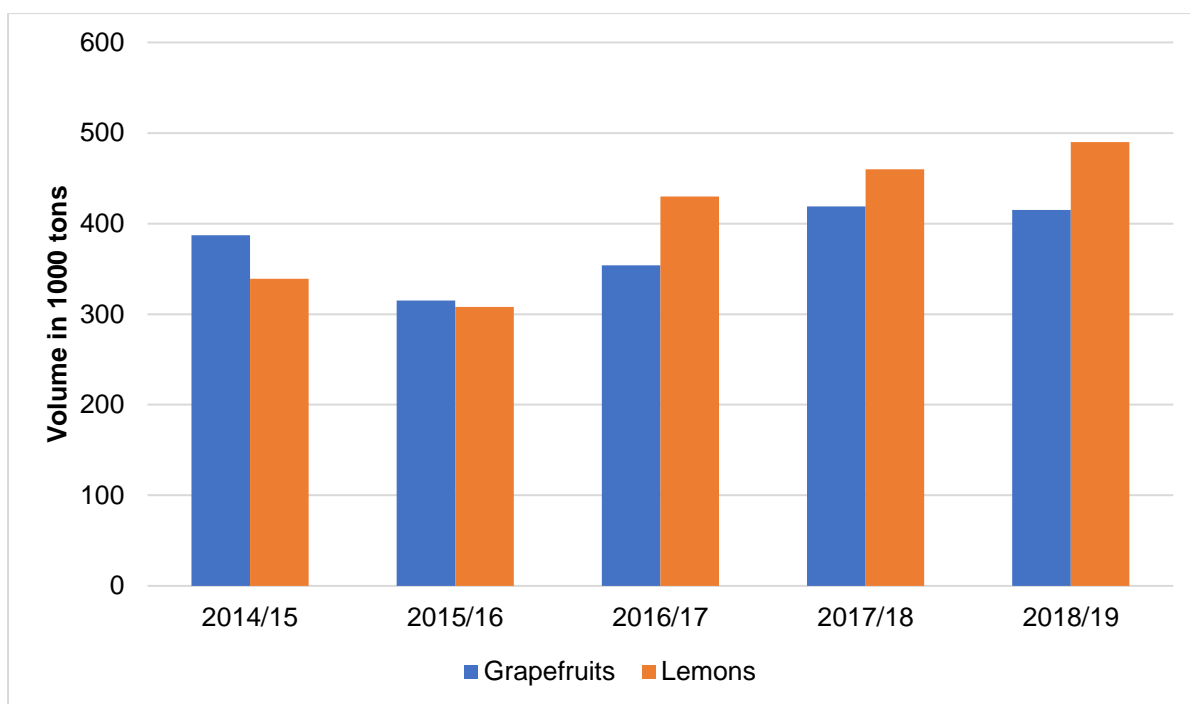
**Figure 3: Global imports of grapefruit and lemons, 2014/15 – 2018/19**

Source: USDA (2019)

## 2.2 Preview of South Africa’s citrus production season, 2018/19

**Figure 4** below illustrates South Africa’s production of grapefruit and lemons. South Africa’s production for grapefruit increased from 387 000 tons in 2014/2015 to 415 00 tons in 2018/2019. During the same period, lemons production increased from 339 000 tons to 490 000 tons. It can be noted that a decline in both grapefruit and lemons production was observed in the 2015/16 production season, possibly due to adverse climatic conditions such as drought which struck the country during that period. So far, South Africa has produced 415 000 tons of grapefruit, equivalent to a 1% drop in production compared to the previous season. On the other hand, a total of 490 000 tons of lemons have been produced by South Africa, representing a 7% increase in production from the previous season.





**Figure 4: South Africa's production of grapefruit and lemons, 2014/15 – 2018/2019**

Source: USDA (2019)

**Table 1** below shows the original 2018 estimates, the actual volumes achieved, and the estimates for the 2019 season, measured in cartons (1 carton = 15kg). It is important to note that grapefruit was underestimated by 11.5%, while lemons were overestimated by 3.2% compared to the actual volumes exported. In 2019, about 17.1 million cartons of grapefruit were estimated and lemons were estimated at 21.9 million cartons. This illustrates the credibility of information forecasting in the country, which assist both the domestic and export markets to function effectively and efficiently.

**Table 1: South Africa's citrus passed for export**

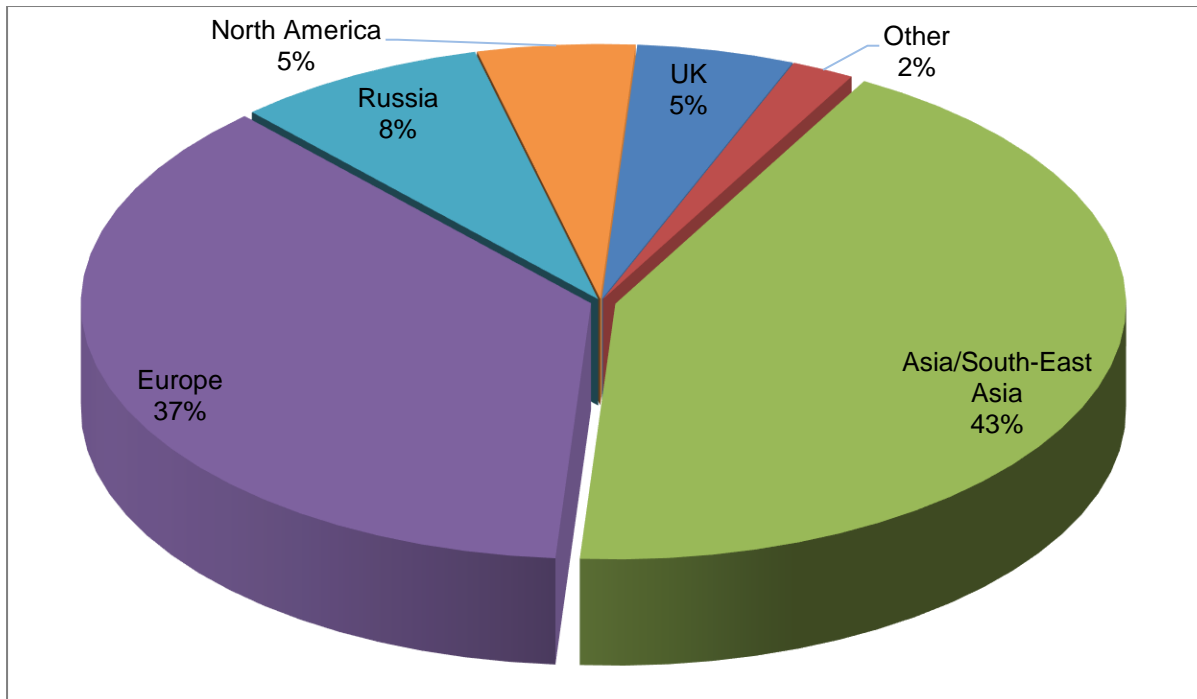
	2018 Estimate	2018 Actual	% Diff (Actual vs Est.)	2019 Estimate
<i>Grapefruit</i>	16 824 847	18 756 346	11.50%	17 147 107
<i>Lemons</i>	20 554 000	19 886 684	-3.20%	21 982 876
<b>Total</b>	<b>37 378 847</b>	<b>38 643 030</b>	<b>0.083</b>	<b>39 129 983</b>

Source: Citrus Growers' Association (CGA) (2019)

### 2.2.1 South Africa's trade in citrus

New markets have been opened up for South Africa's grapefruit over the past 10 years. There is a high production for grapefruit from the southern hemisphere region due to high demand in Europe and South-East Asia. **Figure 5** represents the main destinations for grapefruit exported by South Africa during the 2018/19 season. Of all the exports, South-East Asia was the dominant market for South African grapefruit,

accounting for 43%, followed by Europe (37%), Russia (8%), North America (5%), the UK (5%) and other countries (2%).

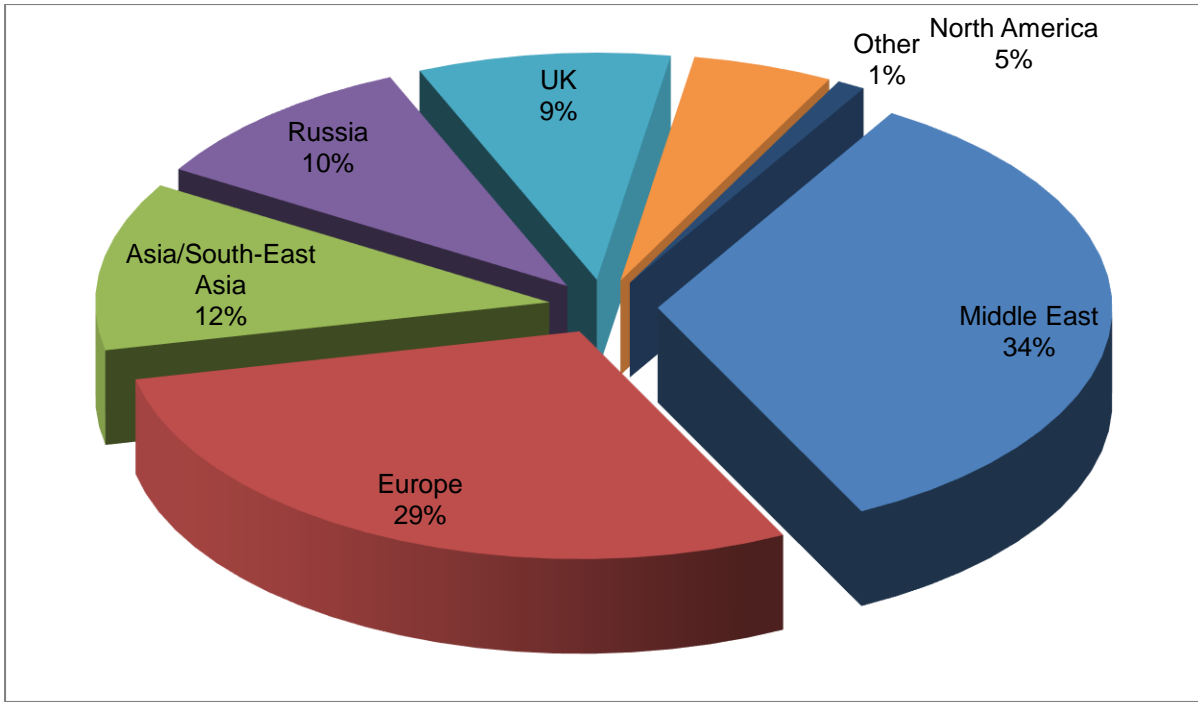


**Figure 5: Export destinations for South Africa's grapefruit, 2018/19 marketing season**

Source: CGA (2019)

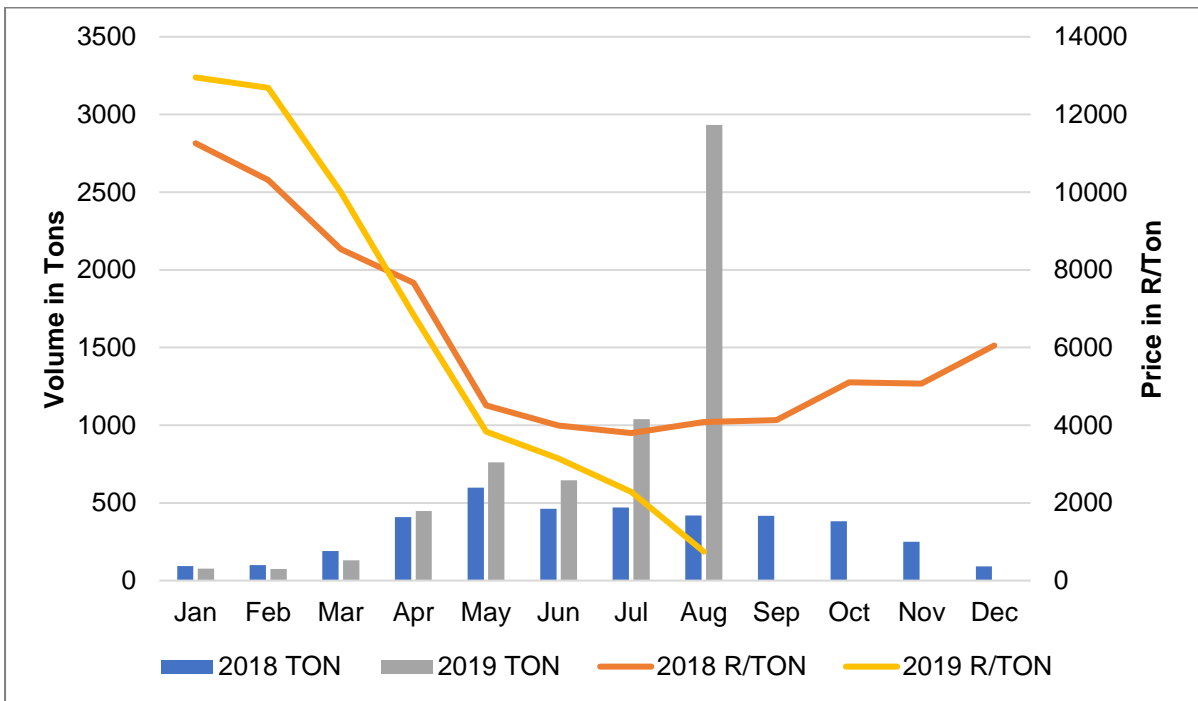
**Figure 6** highlights the main destinations for lemons exported by South Africa during the 2018/19 production season. The Middle East owns the largest share volume of 34% in South Africa's lemon exports followed by Europe, Asia, Russia, UK, North America and Other with a share of 29%, 12%, 10%, 9%, 5% and 1% respectively.





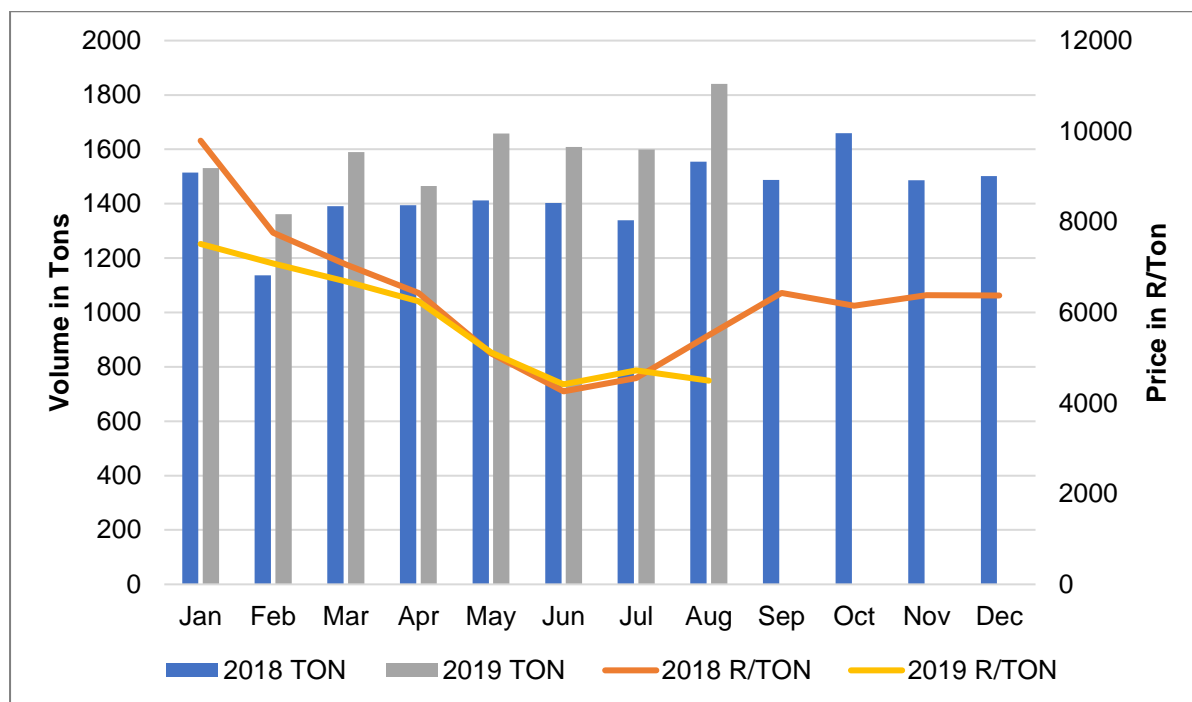
**Figure 6: Export destinations for South Africa’s lemons, 2018/19 marketing season**  
 Source: CGA (2019)

**Figure 7** highlights the quantities of grapefruit produced and price movements in the National Fresh Produce Markets (NFPMs) during the 2018 and 2019 periods. The figure further reveals that the quantity of grapefruit sold in 2019 was slightly higher compared to the 2018 period, whereas the price of grapefruit sold in the market was higher in 2018 compared to 2019. The highest sales of grapefruit were observed in August 2019.



**Figure 7: Local market sales of grapefruit, 2018-2019**  
 Source: DAFF (2019)

**Figure 8** highlights the quantities of lemons sold in the NFPMs between 2018 and 2019. It is important to note that so far, the quantities of lemons sold in the NFPMs in 2019 are slightly higher compared to the 2018 period, and the prices are notably lower in 2019 as compared to 2018, due to greater supply. The highest sales in 2018 were realised in October at 1 659 tons, whereas the highest sales in 2019 were experienced in August at 1 841 tons. The price of lemons in 2018 ranged from R9 732/ton in January to R6 372/ton in December. Similarly, the price of lemons in 2019 ranged from R7 512/ton in January to R4 496/ton in August.



**Figure 8: Local market sales of lemons, 2018-2019**

Source: DAFF (2019)

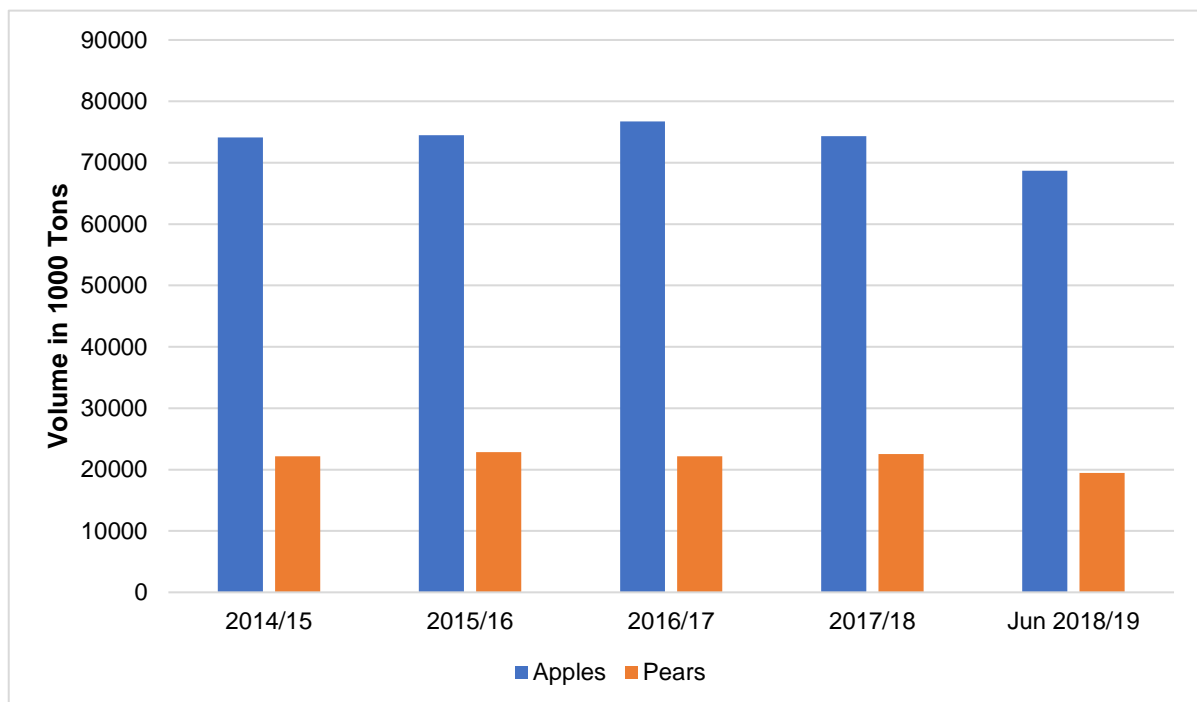
### 3. Preview of pome fruit for the 2018/19 season

Pome fruits consist of different fruit types, including apples, pears and quinces. The focus of this report is on the 2018/19 production season for apples and pears. The following sections provide a detailed analysis of the two products from a global and national perspective.

#### 3.1. Preview of global production of pome fruit

The largest producing country of apples in the world is China, producing 31 million tons in 2018/19, followed by the EU (14 million tons), the US (5 million tons), Turkey (3 million tons), and Iran (2.7 million tons). The largest producing country for pears is also China, with production of 13.1 million tons in 2018/19, followed by the EU (2.5 million tons) and the US (667 000 tons). **Figure 9** describes the world production of apples and pears from the 2014/15 season until June 2018/19, measured in thousand tons. The highest production of apples occurred during the 2016/17 season with 76.7

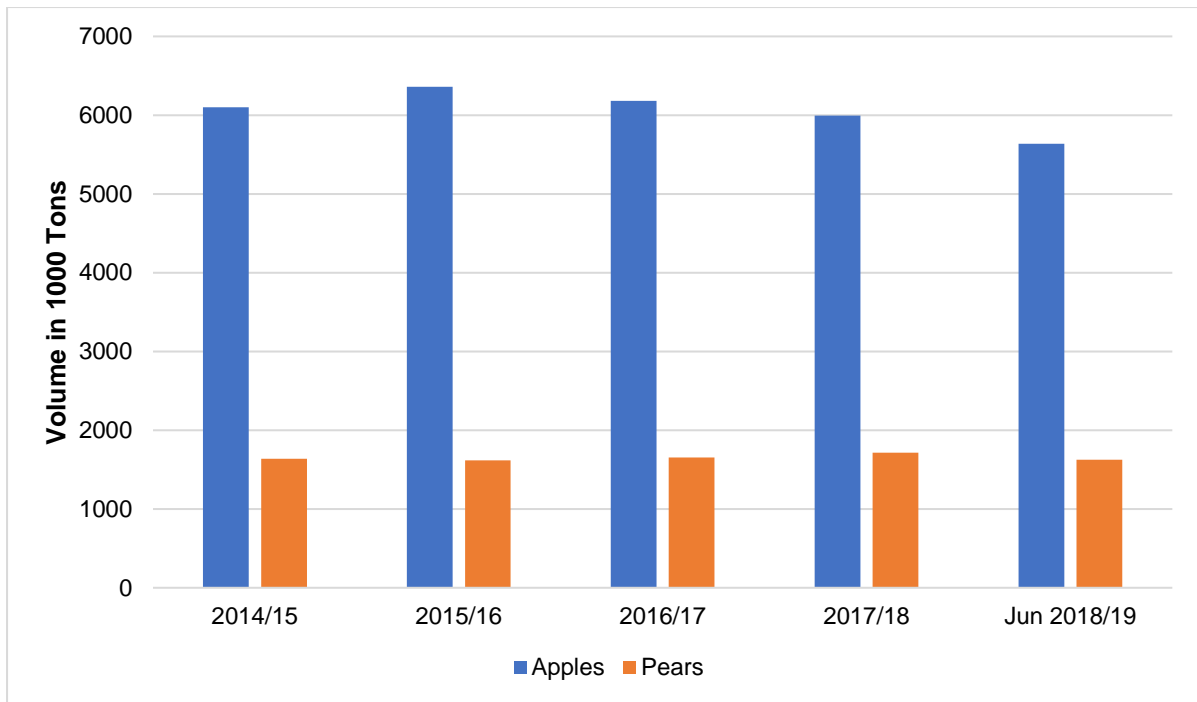
million tons produced, while the lowest apple production is anticipated to be the current 2018/19 season. Production in the current season is predicted to decrease by 7.6% as compared to the previous season. According to the USDA (2019), this is primarily due to a 25% decline in China's production caused by heavy rain, frost and hail. This has affected apple prices in China, with prices having doubled before the new harvest season. The largest quantity of pears was produced in the 2015/16 season, with production at 22.8 million tons, while the 2018/19 season exhibits a 13.8% decline in production due to lower production in several countries. Global pear production for the 2018/19 season is projected to reach 19.4 million tons.



**Figure 9: Global production of apples and pears, 2014/15 – 2018/19**  
Source: USDA (2019)

### 3.2 Global pome fruit trade

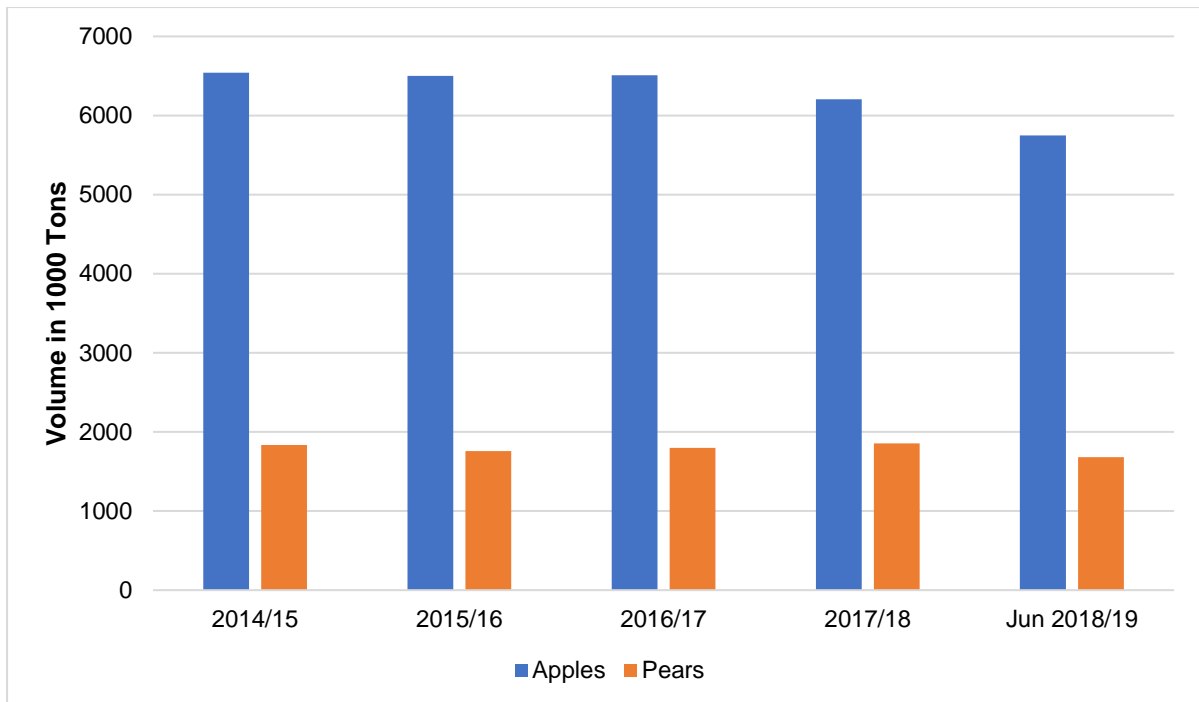
Global imports of apples and pears for the past five seasons are shown in **Figure 10**. Apple imports for the 2018/19 season have decreased, corresponding with the decrease in world production. World imports of apples stood at 5 994 000 tons in 2017/18, and by the end of June 2018/19 apple imports stood at 5 636 000 tons. The leading importers of apples by June 2018/19 were Russia, which imported 795 000 tons, followed by the EU (470 000 tons), Iraq (300 000 tons), Egypt (250 000 tons) and India (245 000 tons). The largest importers of pears were Russia (255 000 tons), the EU (200 000 tons), Indonesia (165 000 tons), Brazil (150 000 tons) and Belarus (120 000 tons).



**Figure 10: Global import trends of apples and pears, 2014/15 – 2018/19**

Source: USDA (2019)

Global exports are expressed in **Figure 11**. It can be noted that exports of apples and pears followed the same downward trend as production from the 2016/17 season until the current season. Global exports of apples declined from 6 204 000 tons in 2017/18 to 5 748 000 tons exported by June 2018/19, while pear exports dropped from 1 857 000 tons exported in 2017/18 to 1 681 000 tons by June 2018/19. The EU was largest exporter of apples in 2018/19 exported 1 230 000 tons, followed by China (880 000 tons), the US (760 000 tons), Chile (739 000 tons) and South Africa (540 000 tons) by June. Pears were mainly exported by China (390 000 tons), the EU (320 000 tons), Argentina (290 000 tons), South Africa (240 000 tons) and the US (140 000 tons).

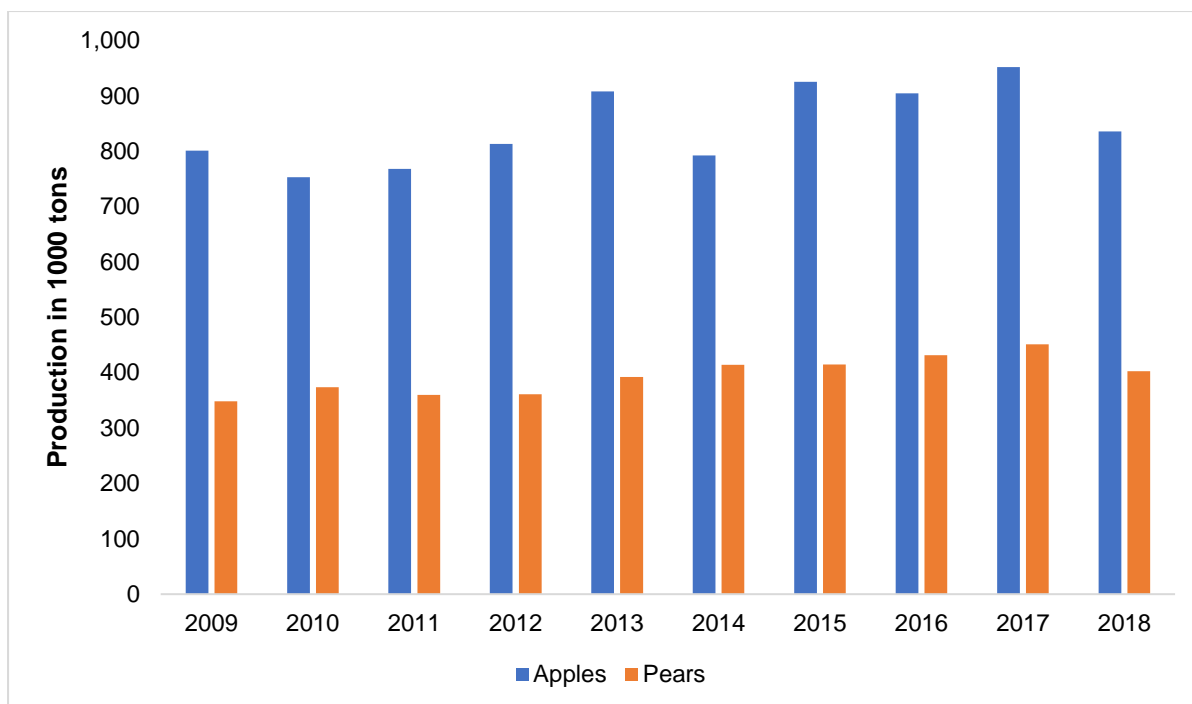


**Figure 11: Global export trends of apples and pears, 2014/15 – 2018/19**

Source: USDA (2019)

### 3.3 South Africa's pome fruit production

South Africa is a major competitor in apple and pear production globally, due to the favourable climatic conditions in the country which have attracted significant investment in the production and export of pome fruits. **Figure 12** depicts the production trends of apples and pears in South Africa over the past 10 years. South Africa's production of both apples and pears have been fluctuating over time; however, a decline in the production of both apples and pears was observed in 2018 compared to the previous season, with a 12% and 11% decrease respectively. The severe drought experienced in the Western parts of the country in 2017 had an effect in the production of pome fruits. During the 2018 production season, South Africa produced 835.8 thousand tons and 402.7 thousand tons of apples and pears, respectively.



**Figure 12: South Africa's production trends of apples and pears**

Source: Hortgro (2018)

**Table 2** highlights apples and pears volumes inspected and passed for export in 2018 and 2019 in cartons (1 carton=12.5 kg). Hortgro reported that the 2018 estimate for apples was 31 million cartons and in 2019, apples passed for export are estimated to increase by 7% to 33.7 million cartons. By week 40, apples inspected and exported amounted to 30.6 million cartons in 2019. For pears, the 2018 estimate and 2019 estimate show no difference. The actual pears that were inspected and exported in 2019 amounted to 16.6 million cartons. The 2019 inspection volumes show the apple industry might be recovering from the low volumes harvested in 2018 due to drier conditions in many growing areas of apples.

**Table 2: South Africa's pome fruit inspected and passed for export**

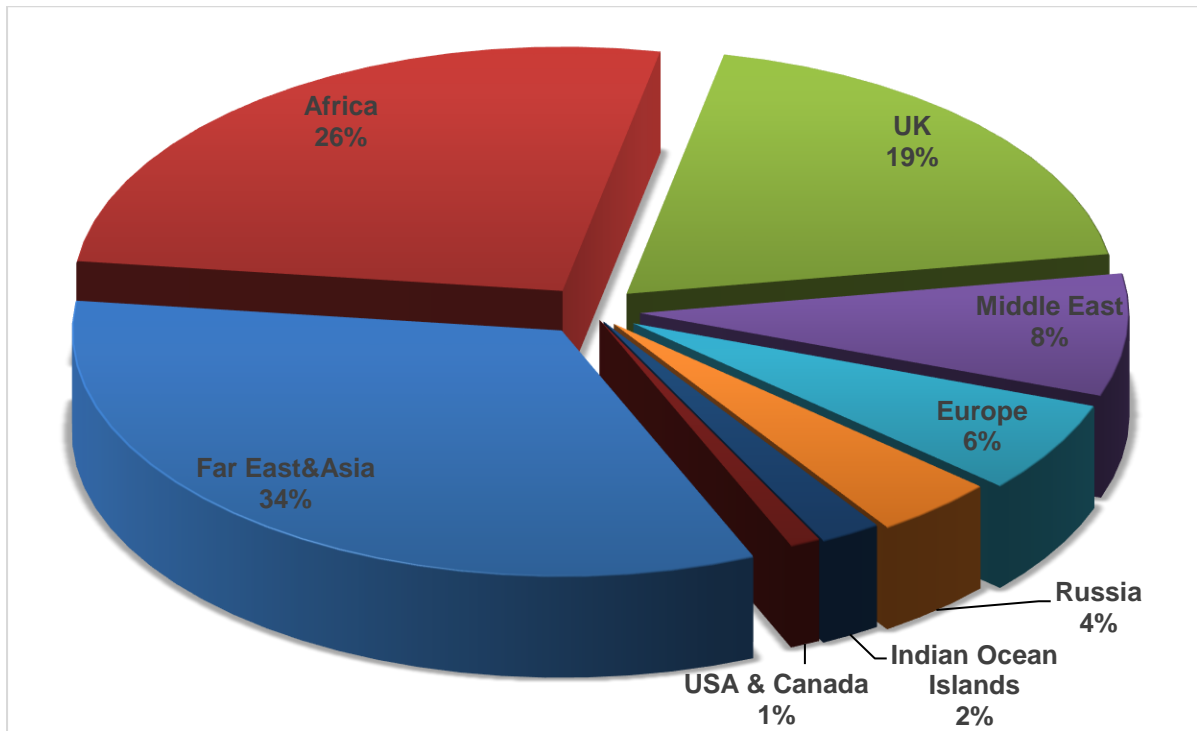
Types	2018 Estimates	2019 Estimates	2018 Inspections vs 2019 Estimates	Inspections passed for export
Apples	31 451 813	33 724 797	7%	30 686 454
Pears	16 971 952	16 983 751	0%	16 661 716

Source: Hortgro (2019)

### 3.3.1 South Africa's trade in pome fruit

A total of 30.6 million cartons of apples were exported in week 40 of 2019. **Figure 13** shows the main destinations for apples exported by South Africa in 2019. The Far East & Asia are the largest importers of apples from South Africa, accounting for a 34% share in South Africa's exports, followed by the African market (26%), the UK (19%),

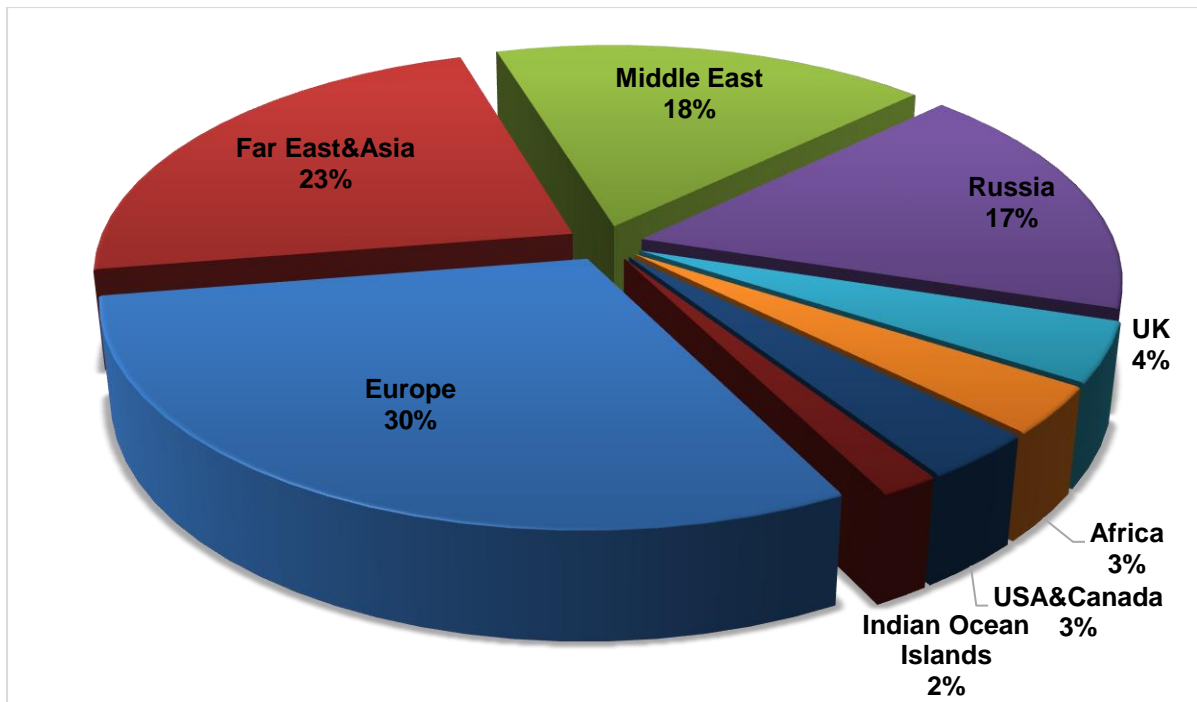
the Middle East (8%), Europe (6%), Russian Federation (4%), Indian Ocean Islands (2%) and USA & Canada (1%).



**Figure 13: Apple exports per export market, 2018/19 marketing season**

Source: Hortgro (2019)

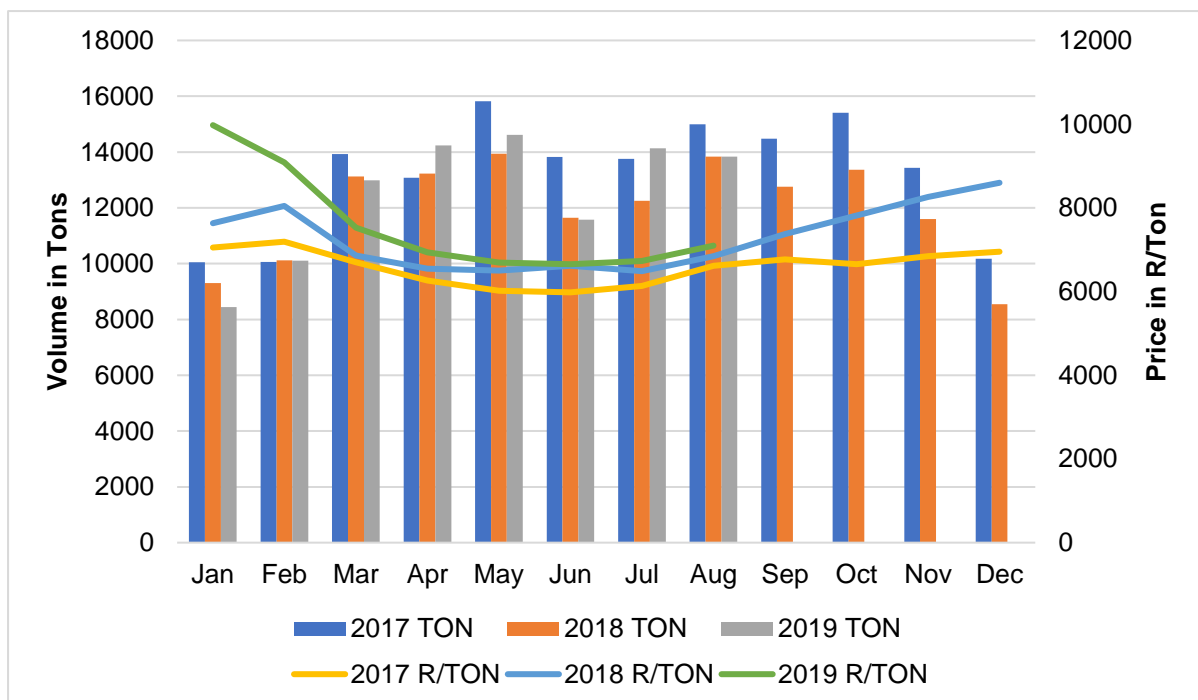
**Figure 14** highlights the main destinations for pears exported by South Africa in the 2019 season. Of all the exports that were inspected and passed for export, a total of 16.6 million cartons of pears were exported. Europe remains the top importer of pears from South Africa with a market share of 30% in the 2019 season. The Far East & Asia followed as the second-largest importer of pears, representing a share of 23%, followed by the Middle East (18%), Russian Federation (17%), UK (4%), Africa (3%), USA & Canada (3%), and Indian Ocean Islands (2%).



**Figure 14: Pear exports per export market, 2018/19 marketing season**

Source: Hortgro (2019)

Prices in local markets are mostly influenced by supply and demand. The harvesting season for most varieties starts in late January and ends in June. **Figure 15** shows the quantities and prices of apples sold in the NFPMs from 2017 to 2019 (January – August). The price of apples was at its highest in January 2019 at R9 957/ton, while the lowest quantity supplied was also in January 2019, amounting to 8444 tons.

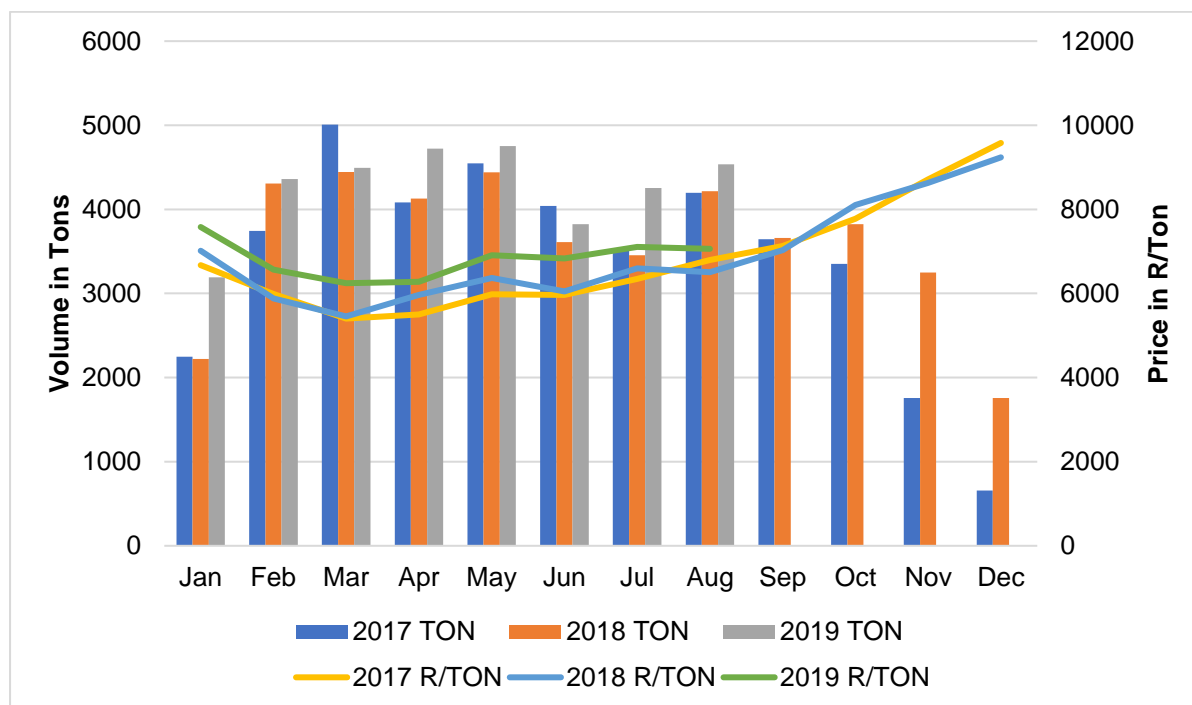


**Figure 15: Local market sales of apples**

Source: DAFF (2019)



The pear harvesting season starts in February, where it can be noted that the prices begin to fall to their lowest because there is supply in the market. **Figure 16** depicts the quantities and prices of pears sold in the NFPMs of South Africa from 2017 to 2019 (January – August). The highest price paid was in December 2017, at R 9 579.49/ton, while the quantity was 658.9 tons.



**Figure 16: Local market sales of pears**

Source: DAFF (2019)

#### 4. Fruit industry perspectives

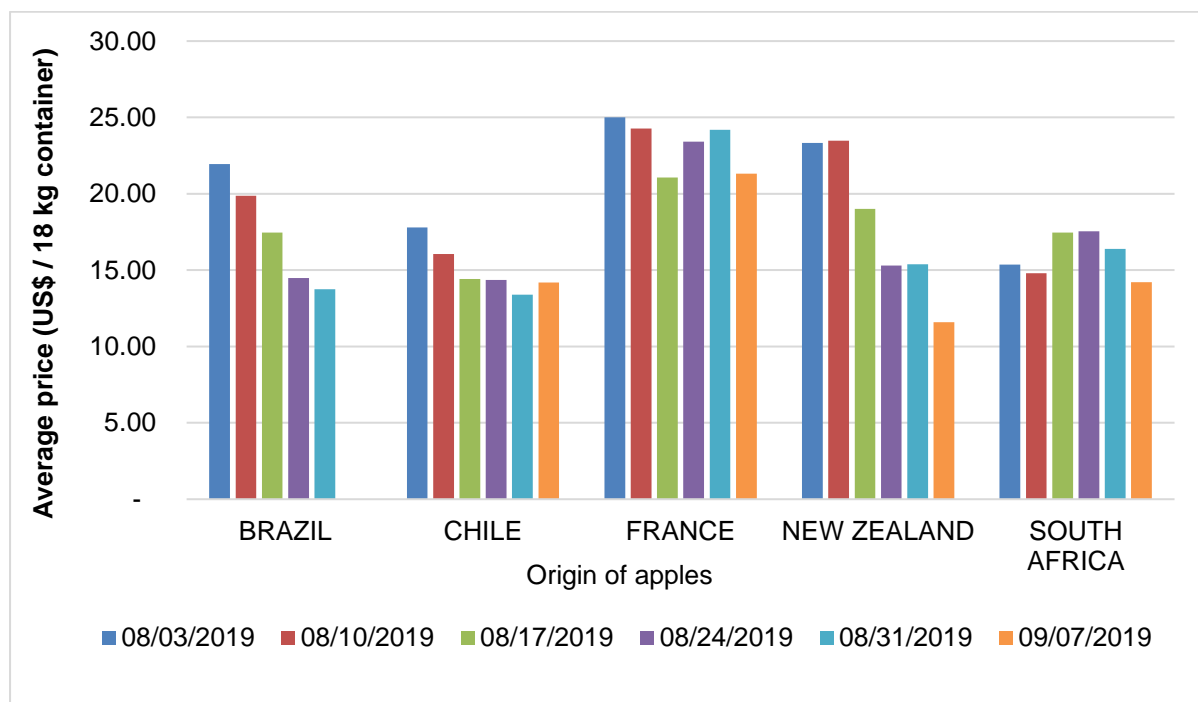
The following section focuses on current issues affecting the fruit industry, and also provides an analysis of how the industry is performing in terms of addressing developmental issues and where it could improve. In this issue, the focus is on apples in the US market.

##### 4.1 Why did apples from France and New Zealand receive a higher price compared to apples from South Africa?

In this article, I provide insight into the recent wholesale market prices of apples for the period between 3 August and 21 September 2019. South Africa exported four varieties of apples to the US, namely, Braeburn, Fuji, Golden Delicious and Granny Smith, which were all sold at Rotterdam (wholesale market). These apples were packaged in 18 kg containers. Although South Africa's apples largely compete with those produced domestically within the US (particularly from states including Washington, Pennsylvania, New Jersey, New York and California), competition is equally stiff from other countries like Argentina, New Zealand, France, Chile and

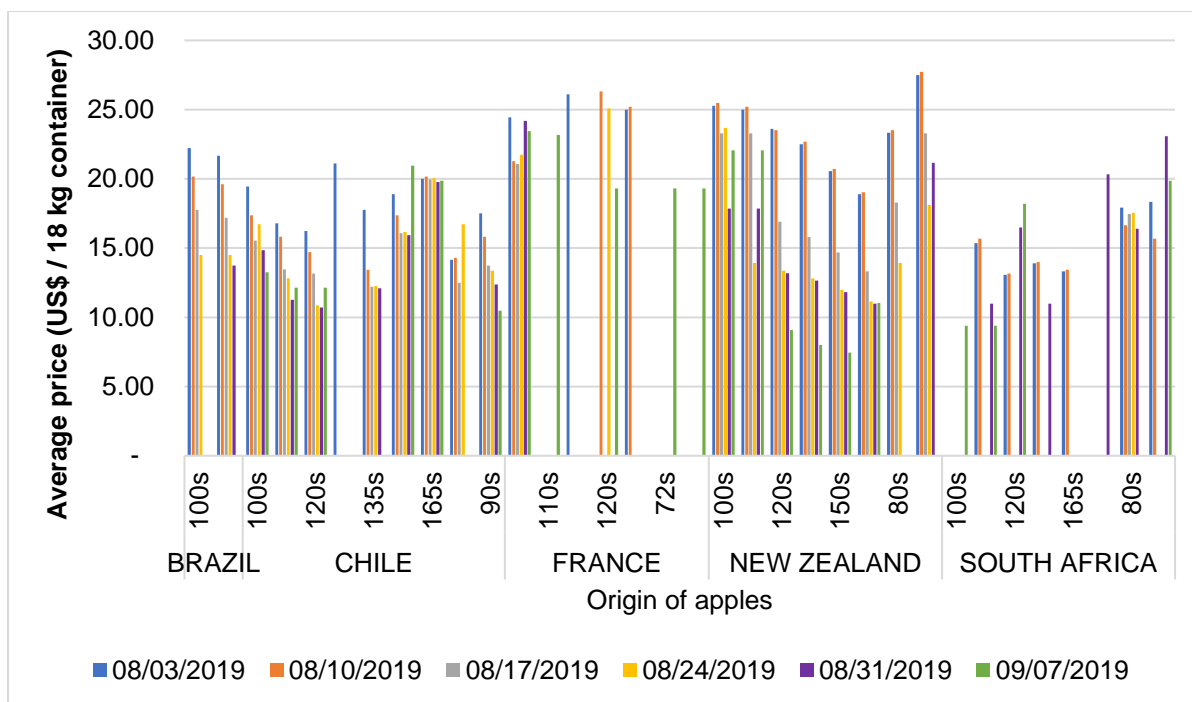
Brazil. For comparison purposes, this analysis focuses only on the four mentioned varieties, packaged into 18 kg containers.

In that context, South Africa’s apples competed with those from Brazil, Chile, France and New Zealand within the US market. Notably, all these suppliers also sell their apples at Rotterdam. During the period under consideration, the wholesale price of apples ranged between US\$ 11.58 and US\$ 25.00. On average, the price declined from US\$ 20.68 per 18 kg container for the week ending on 3 August to US\$ 15.32 per 18 kg container for the week ending on 7 September 2019. It is worthwhile to note that no apple sales were made until 21 September at Rotterdam. According to **Figure 17**, apples from France received the highest price (US\$ 23.21 per 18 kg container, on average), followed by New Zealand (US\$ 18.02) while South Africa’s apples received US\$ 15.96 per 18 kg container (slightly above the US\$ 15.03 received by Chile).



**Figure 17: Wholesale price of apples packaged in 18 kg containers in the US (Rotterdam market)**

Amidst the similarity in packaging and apple varieties sold, a critical question that must be answered is: Why did apples from France and New Zealand receive a higher price as compared to apples from South Africa? In an attempt to answer this question, two approaches are used: Firstly, the size of the apples within the 18 kg container. In this case, if the apples are small in size rather than large, it implies that more apples will be required to fill up the container. On that basis, it is clear (**see Figure 18**) that apples from France, New Zealand and Brazil are smaller in size than those exported to the US by South Africa. Within an 18 kg container, France, New Zealand and Brazil usually package 100 – 120 apples or even more while South Africa packages 80 – 90 apples. This could suggest that consumers in the US prefer smaller apples to larger ones.



**Figure 18: Wholesale prices by apple size packaged in 18 kg container at Rotterdam (USA)**

The second issue is the apple varieties in which a given country specialises. With the exception of Brazil, which specialises in Fuji apples only, the other countries export more than one variety. France concentrates on Golden Delicious and Granny Smith apples, while New Zealand focuses on Braeburn and Fuji. This kind of specialisation may be attributable to the mastery shown earlier by these countries in having consistency in apple size (*relatively smaller than the apples exported by South Africa*). Moreover, Granny Smith receives a higher price than all other varieties. South Africa is only consistent in supplying Golden Delicious apples to the US market (**Figure 19**).

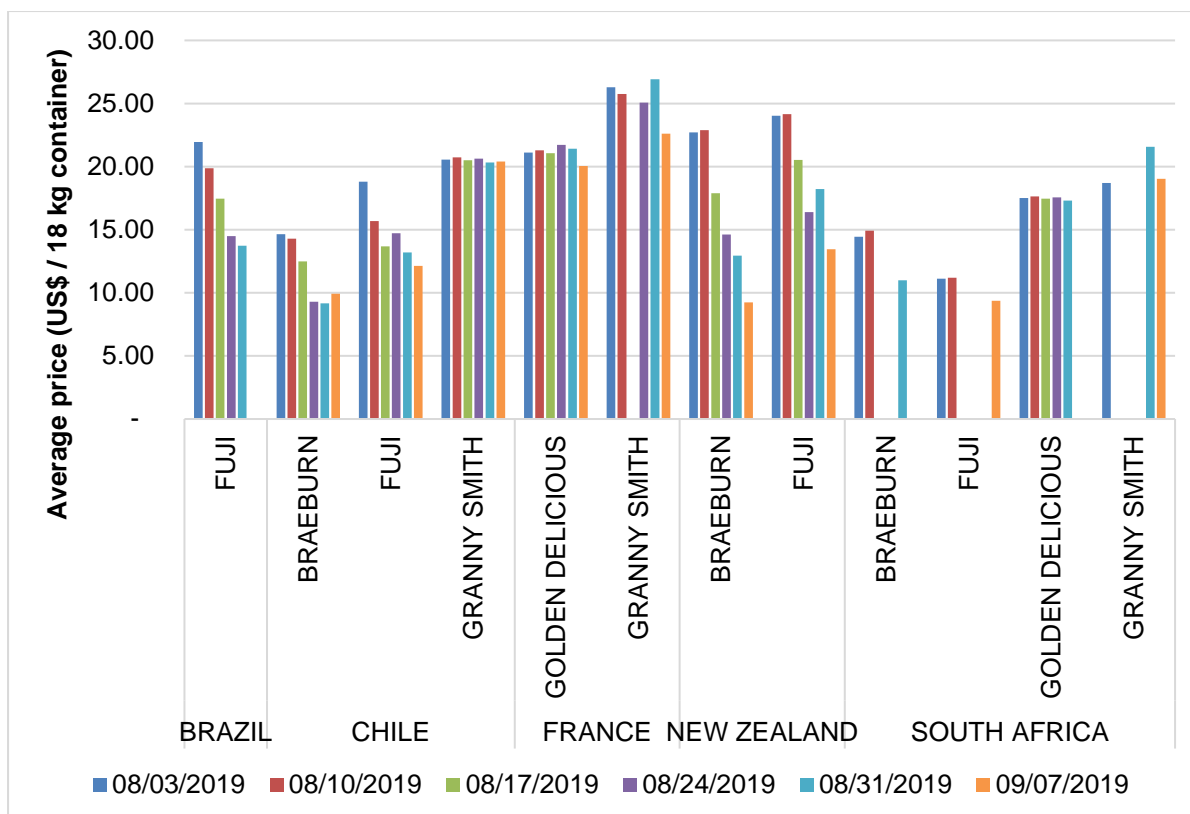


Figure 19: Wholesale prices by apple variety at Rotterdam (US)

## Conclusion

The wholesale price of South Africa's apples sold at the Rotterdam market in the US is influenced by the size of the apples packaged in the 18 kg container. Countries like France and New Zealand, which produce similar apple varieties to South Africa, pack more apples (smaller in size) in the 18 kg container than South Africa, hence the higher price received. South Africa exports more of the Golden Delicious variety to the US, yet Granny Smith receives a better price relative to the other varieties.

## Policy implications:

- Apple producers should look into generic promotions and consumer campaigns to improve the awareness of quality, taste and safety of South African apples in the US and other export markets. This will have a positive impact on the price received by South African fruit exporters.
- Apple producers should focus on Golden Delicious and Granny Smith for export to the US, with the other varieties (Fuji and Braeburn) being destined for other markets. Note that Brazil focuses on Fuji alone.

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USDA (United States Department of Agriculture). 2019. *Global producers, exporters and importers*. Washington, DC: USDA.

## USEFUL LINKS

Bureau for Food and Agricultural Policy (BFAP)	<a href="http://www.bfap.co.za">www.bfap.co.za</a>
Citrus Growers' Association (CGA)	<a href="http://www.cga.co.za">www.cga.co.za</a>
Department of Agriculture, Forestry and Fisheries (DAFF)	<a href="http://www.daff.gov.za">www.daff.gov.za</a>
Food and Agriculture Organisation (FAO)	<a href="http://www.fao.org/docrep/">www.fao.org/docrep/</a>
Fresh Produce Exporters' Forum (FPEF)	<a href="http://www.fpef.co.za">www.fpef.co.za</a>
Hortgro Services	<a href="http://www.hortgro.co.za">www.hortgro.co.za</a>
National Agricultural Marketing Council (NAMC)	<a href="http://www.namc.co.za">www.namc.co.za</a>
Perishable Products Export Control Board (PPECB)	<a href="http://www.ppecb.com">www.ppecb.com</a>
Quantec Easy Data	<a href="http://www.quantec.co.za">www.quantec.co.za</a>
South African Subtropical Growers' Association (Subtrops)	<a href="http://www.subtrop.co.za">www.subtrop.co.za</a>
South African Table Grape Industry (SATGI)	<a href="http://www.satgi.co.za">www.satgi.co.za</a>

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### For Correspondence:

**Dr. Sifiso Ntombela**  
(+27) 12 341 1115  
[Sifiso@namc.co.za](mailto:Sifiso@namc.co.za)

Private Bag X935  
Pretoria  
0001