

# A PROFILE OF THE SOUTH AFRICAN PLUM MARKET VALUE CHAIN

2012

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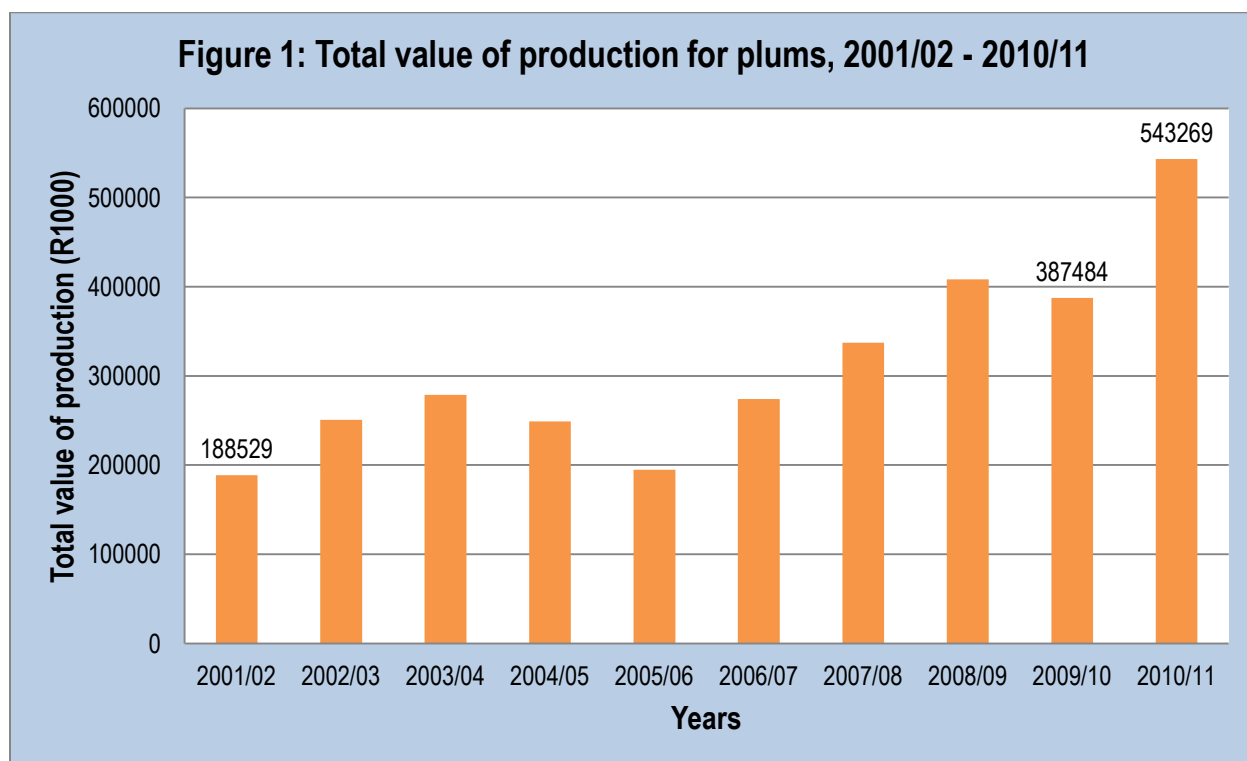
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## 1. DESCRIPTION OF THE PLUM INDUSTRY

The South African plum fruit industry is well established and primarily aimed at supplying plums to the export market. Smaller percentages of the annual crop are sold in the local markets and processed. Majority of South African plums are exported to the northern hemisphere countries during their winter and spring seasons. The bulk of these sales to the consumer are by means of contractual agreements via preferred category suppliers to the large supermarket chains. Furthermore, various export companies or agents conduct business on the basis of consignment on behalf of the grower or packer. During the 2010/11 production season plums contributed R543 million in terms of gross value of production. The 2010/11 value was 40% higher than the 2009/10 figure (R387 million) and represented 5.8% of the total gross value of deciduous fruits (R9.4 billion) in 2010/11. Per capita consumption of deciduous and subtropical fruits in South Africa during 2011 was 24.74 kilograms per year. This represented a 5.4% increase from the 2010 figure of 24.74 kilograms per year. The total gross value of production of plums for the past decade is depicted in Figure 1 below.



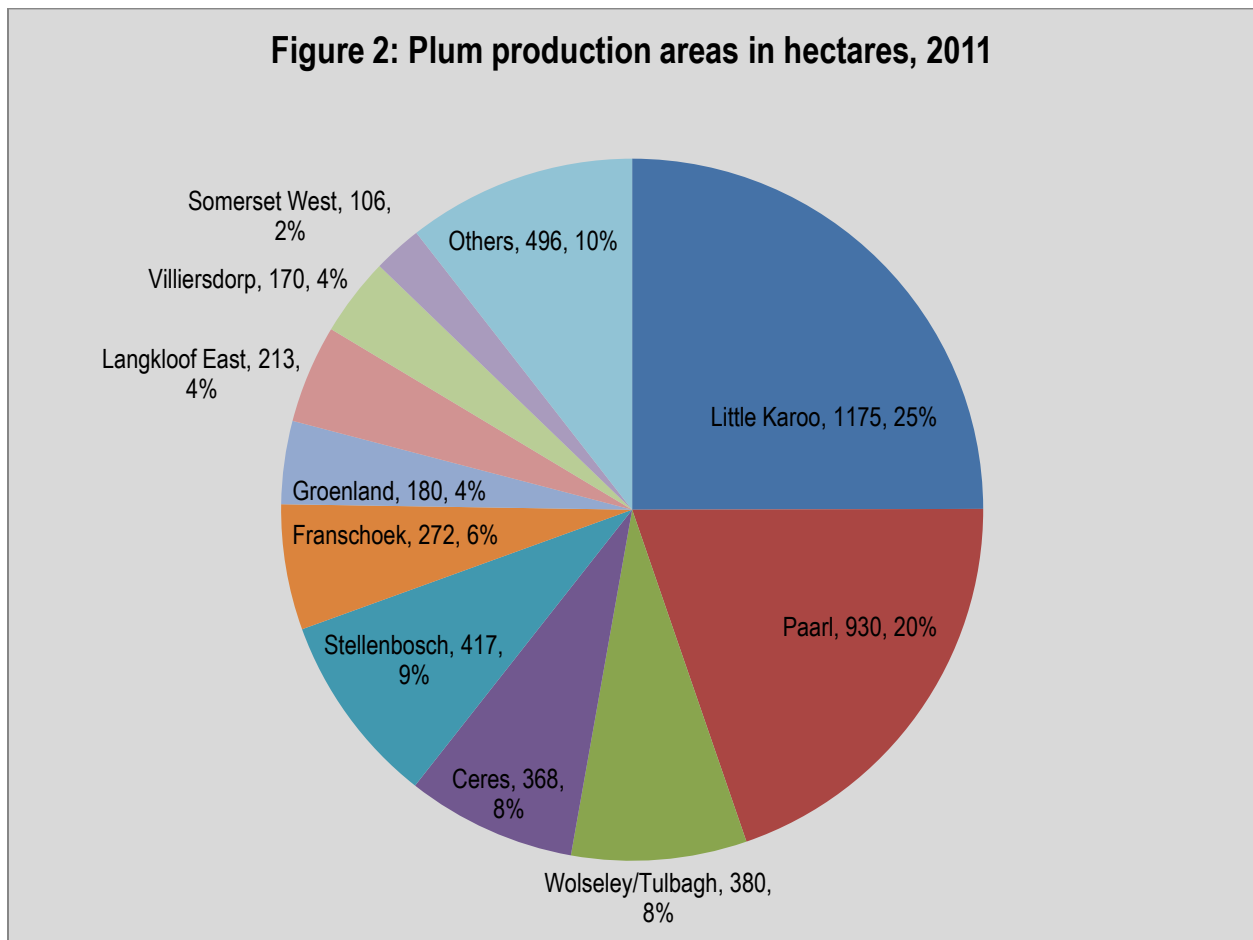
Source: Statistics and Economic Analysis, DAFF

Figure 1 indicates that the total value of production for plums increased by 189% during the period between 2001/02 and 2010/11 production seasons. However there have been ups and downs in between. The most notable decline in the total value of production for plums happened during the 2005/06 season. The declines during 2004/05 and 2005/06 were mainly due to severe droughts in some production areas in the Western Cape, major logistical problems and a sluggish demand in the traditional markets for South African plums. The 2005/06 trough was followed by an impressive three years of significant growth which was mainly due to among other things increased exports and the weakening of the local currency relative to the currencies of South Africa's major trading partners, notably the European Union. The 2009/10 season

however recorded a 4.8% decline in total value of production when compared to the 2008/09 season. The gross value of production has risen again by 40% between 2009/10 and 2010/11.

### 1.1 Plum production areas

South Africa's main plum producing areas are Little Karoo, Paarl, Wolseley/Tulbagh, and Stellenbosch (all in the Western Cape). The four leading areas account for over half of all the plums produced in South Africa. The Western Cape Province is the leader in the production of plums. This is primarily due to its Mediterranean type climate (cold winters and hot dry summers). Figure 2 presents production areas for plums in 2011.



Source: Hortgro Tree Census, 2011

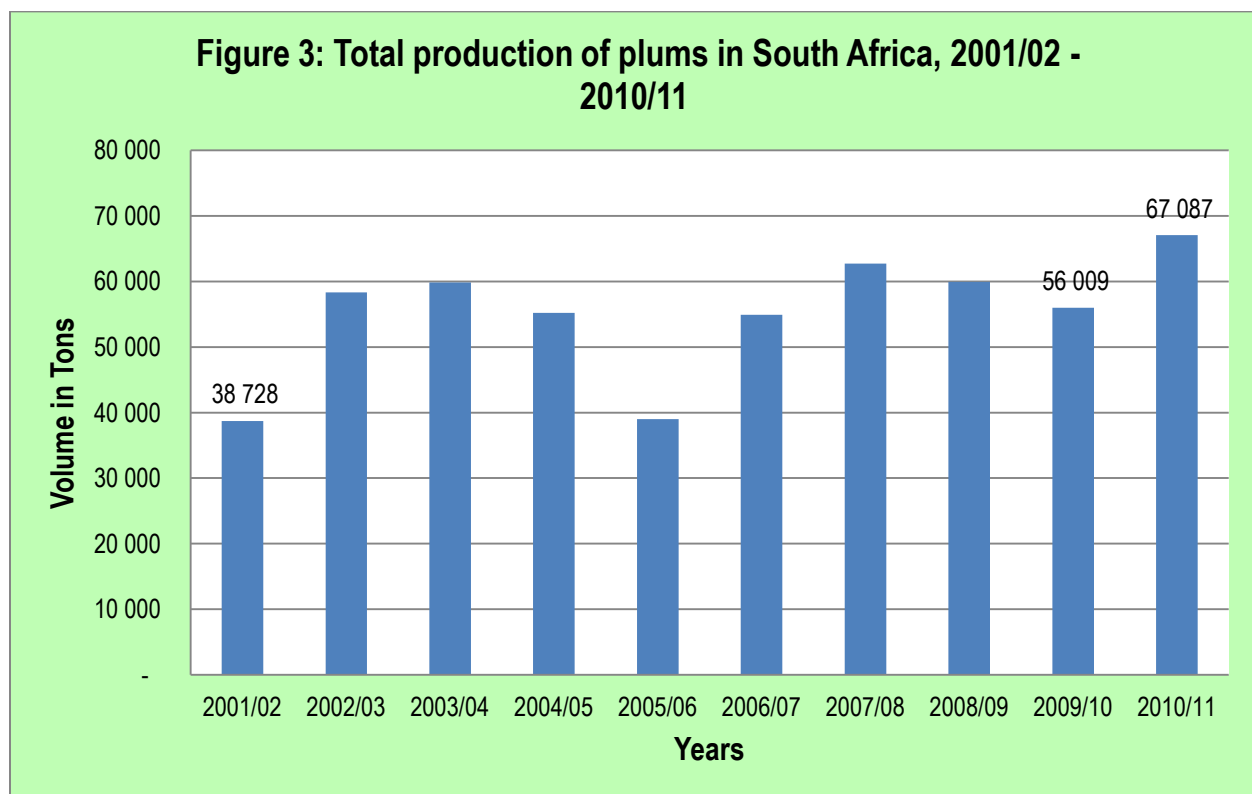
The figure above shows that in terms of the area planted for plums in hectares, the Little Karoo accounted for 25% with 1 175 ha, Paarl accounted for 20% with 930 ha, Stellenbosch accounted for 9% (417 ha) and Ceres and Wolseley/Tulbagh accounted for 8% each with 368 ha and 380 ha respectively. Total production area for plums in 2011 was 4 708 ha. This represent a 5.4% increase from the 4 466 hectares recorded during the 2010 production year.

## 1.2 Plum production in South Africa

In 2011 the age distribution of South African plum orchards was as follows:

- 963 ha (20%) was in the category of 0 – 3 years;
- 1 513 ha (32%) was in the 4 – 10 years category;
- 841 ha (18%) was in the 11 – 15 years category;
- 1 265 ha (27%) was in the 16 – 25 years category; and
- 125 ha (3%) were older than 25 years.

It can be observed from the figures above that most of South Africa's plum orchards are relatively younger. This is an indication of producers' confidence in the future of the South African plum industry. Producers' planting decisions are determined by among other things prices (anticipated), the level of the exchange rate (preferably a weaker Rand), and the amount and quality of produce produced by South Africa's major competitors. The age distribution of South African plum orchards did not change significantly between 2010 and 2011. Total production of plums in South Africa for the past ten years is illustrated in Figure 3 below.



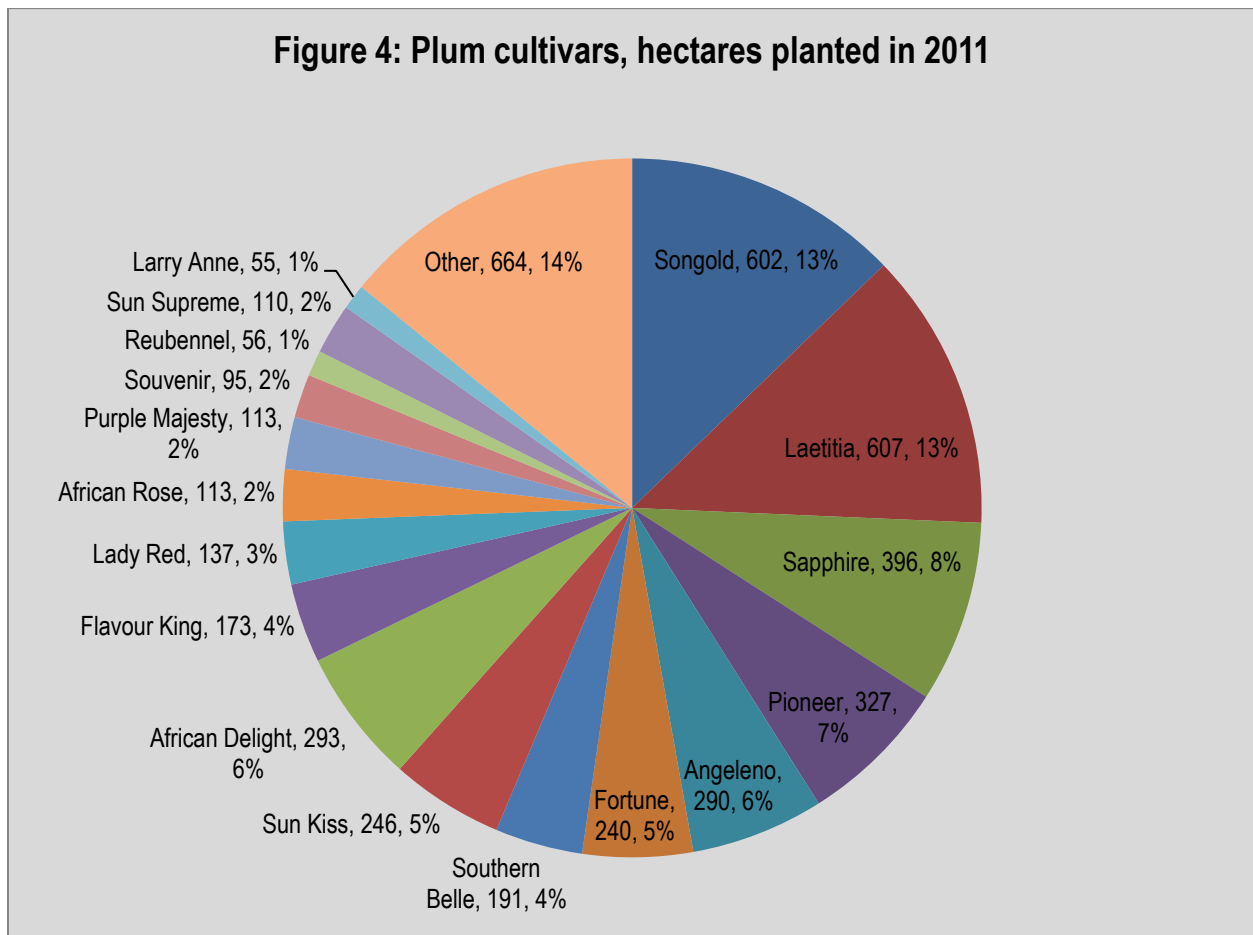
Source: Statistics and Economic Analysis, DAFF

Figure 3 shows that there has been a steady increase in plum production since 2005/06 production season. This increase was after a steady decline that the industry experienced between 2003/04 and 2005/06. Before then the industry experienced a steady increase from 2001/02 to 2003/04. Production of plums in South Africa continued to decline during 2009/10, recording a 6.8% decline when compared to the 2008/09

production volume. Production has however increased by 20% between 2009/10 and 2010/11 production seasons. Production is mainly influenced by access to new markets, competition from the southern hemisphere countries or a weakening of the Rand when compared with the currencies of South Africa's major trading partners.

### 1.3 Cultivars

South Africa's main plum cultivars are Laetitia, Songold, Sapphire and Pioneer. Figure 4 shows that in 2011, Songold and Laetitia accounted for 13% each with 602 ha and 607 ha respectively of the total area planted (4 708 ha). They were followed by Sapphire at 8% (396 ha), Pioneer at 7% (327 ha), and Angeleno at 6% (290 ha).



Source: Hortgro Tree Census, 2011

### 1.4 Employment

The plum industry makes an important contribution to direct employment in both production and processing. It provides indirect employment for numerous support industries in the areas where plums are grown. In 2011, direct employment within the industry was estimated at 6 717 people with 26 869 dependents. This represents a 4.8 percent increase in the number of people employed in the plum industry

between 2010 and 2011. The plum industry is among the few industries in which employment increased between 2010 and 2011.

The prescribed minimum wage is used as a baseline for determining basic wages in accordance with the legislation governing conditions of service. Minimum wages for farm workers for the period 1 March 2013 to 1 February 2016 are presented in Table 1. The consumer price index (CPI) is used in the calculation of annual wage adjustments. The sectoral determination stipulates that the wage increase will be determined by utilizing the previous year's minimum wage plus CPI + 1.5%.

**Table 1: Minimum wages for farm workers in the Republic of South Africa, 2013 - 2015**

Minimum rate for the period				Minimum rate for the period			Minimum rate for the period		
1 March 2013 to 28 February 2014				1 March 2014 to 28 February 2015			1 March 2015 to 28 February 2016		
Monthly	Weekly	Daily	Hourly	Monthly	Weekly	Hourly	Monthly	Weekly	Hourly
R2273.52	R524.70	R105.00 <sup>1</sup>	R11.66	Previous year's minimum wage + CPI <sup>2</sup> + 1.5%			Previous year's minimum wage + CPI + 1.5%		

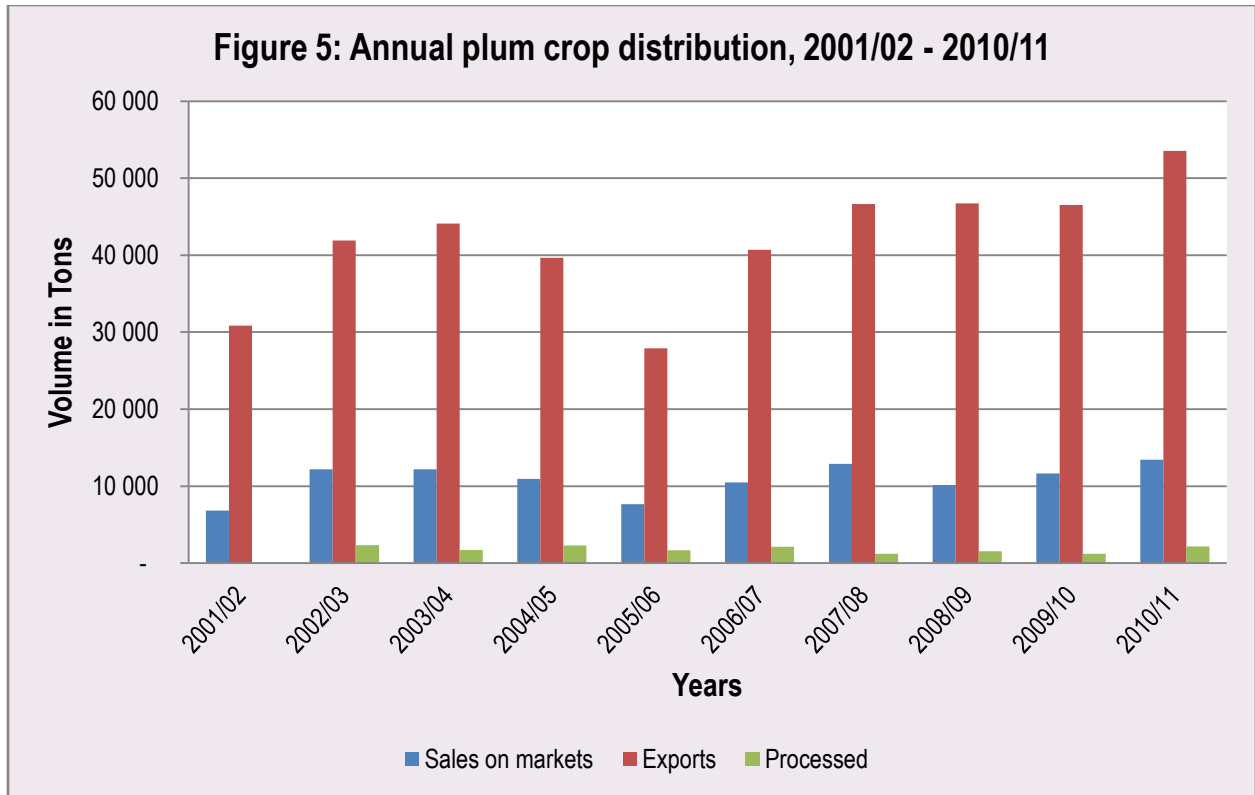
Source: Department of Labour, 2013

## 2. MARKET STRUCTURE

Figure 5 presents the distribution of South African plums for the past ten years. It is clear from Figure 5 that 79% (53 541 tons) of the total plum crop (67 087 tons) produced in South Africa during 2010/11 was destined for the export markets. Approximately 20% (13 444 ha) was produced for the local fresh market while the remaining 1% was processed. As can be seen from Figure 5 the processing component is relatively insignificant. The increase in production during 2010/11 is largely reflected in the increase in the quantities of plums exported and sold in the markets during the same period.

<sup>1</sup> For an employee who works 9 hours per day

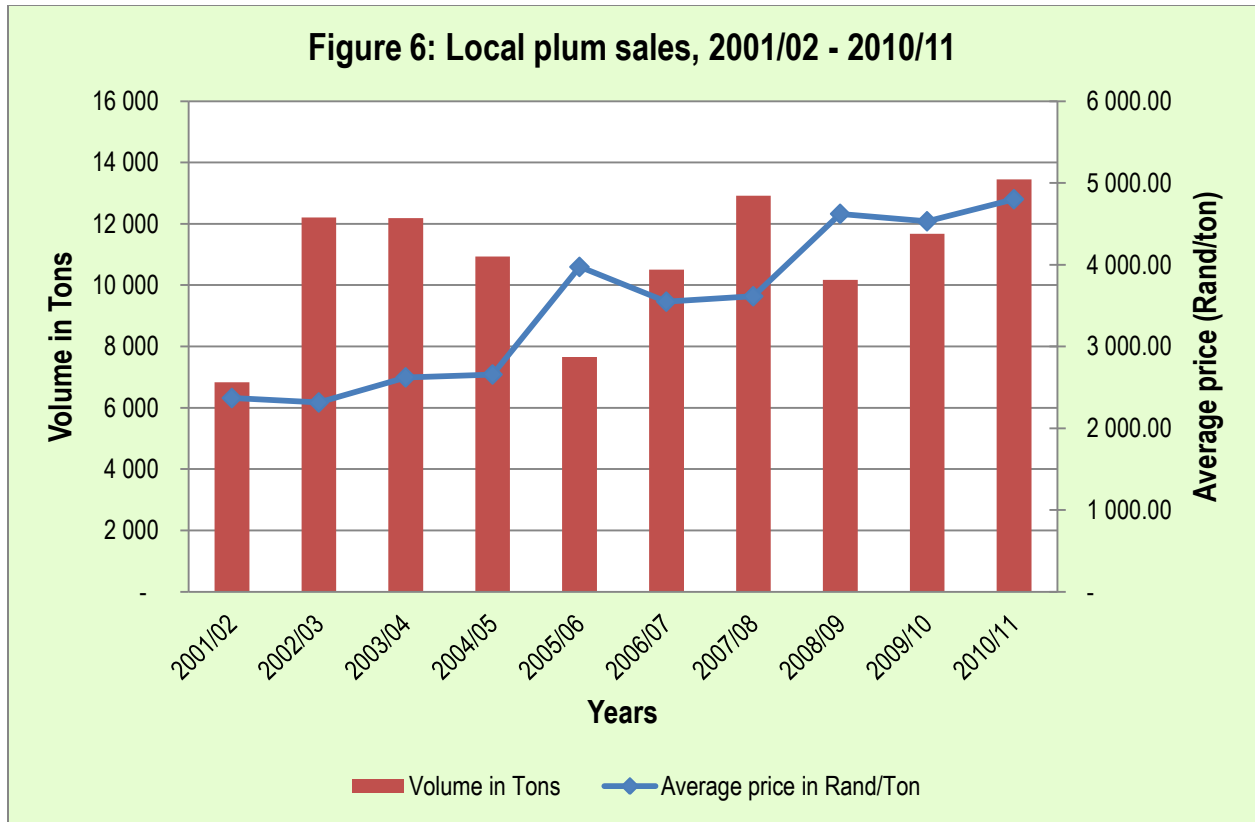
<sup>2</sup> The CPI to be utilised is the available CPI for the lowest quintile as released by Statistics South Africa six weeks prior to the increment date.



Source: Statistics and Economic Analysis, DAFF

## 2.1 Domestic markets and prices

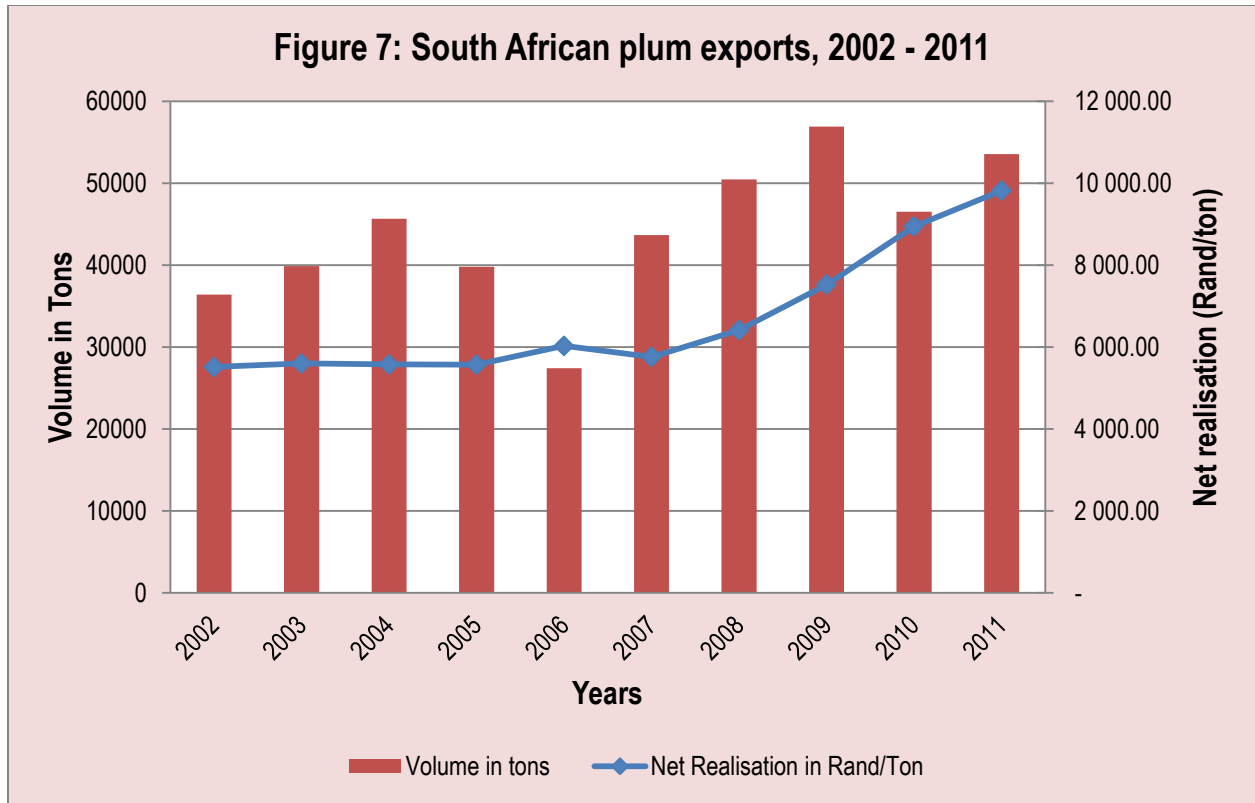
Local market volumes and general price trends for plums from 2001/02 to 2010/11 are presented in Figure 6. As illustrated in the figure, volumes of plums at local market have been increasing particularly from 2005/06 to 2007/08. The increase was mainly due to an increase in production. This is encouraging for the sector especially when one takes into consideration the decline that characterized the local plum market between 2002/03 and 2005/06. Volumes at NFPMs have however declined by approximately 32% in 2008/09 before increasing again by 12.7% in 2009/10. The volumes sold at the markets continued to increase during the 2010/11 marketing season, rising by 15% between 2009/10 and 2010/11. At the same time, prices received at the markets have been increasing during the ten years under review, rising from R2 369/ton in 2001/02 to R4 801/ton in 2010/11.



Source: Statistics and Economic Analysis, DAFF

## 2.2 Exports

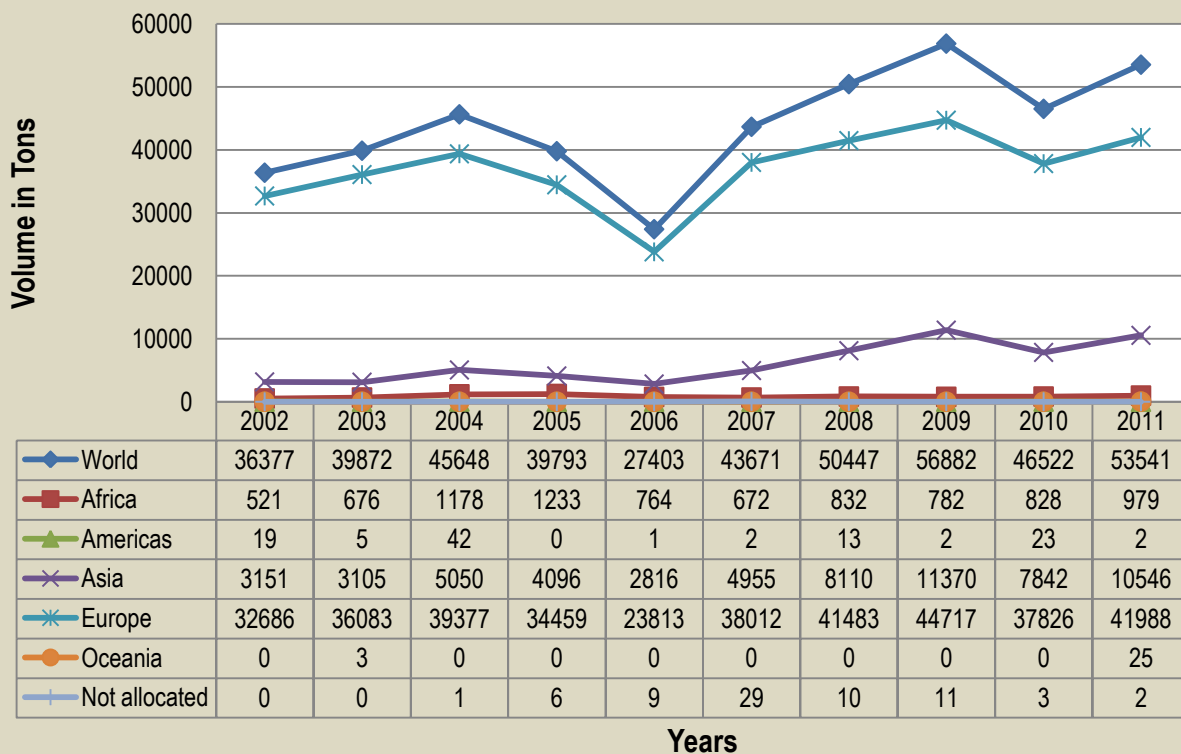
South Africa is a relatively small plum grower in terms of global hectares. However, the country is a major volume exporter in global terms. Plums sold in the export markets generate a greater unit price than that achieved on the local market. Therefore a thorough understanding of the rules of the export markets is critical for success in plum production and marketing. Figure 7 presents plum exports originating from South Africa for the period 2002 to 2011.



Source: Quantec Easydata

A total of 53 541 tons of plums were exported in 2011. This represented an 15% increase in plum export volumes from the previous year (2010). The increase in export volume was mainly the result of increased production during the same period. The impact of the 2004/2005 and 2005/06 season's drought in the Western Cape as well as unfavourable weather conditions during bloom, fruit set and fruit maturation is clearly visible in Figure 7. Total plum export volumes for 2006 were down by 30% when compared to the 2005. At the same time net realisation from exports has been increasing steadily. In 2011, it increased by 10% when compared to the 2010 price. Plums fetch higher prices in export markets than in local and processing markets. Exports of South African plums to the various regions of the world for the past decade are presented in Figure 8.

**Figure 8: Volumes of plums exported to the various regions of the world, 2002 - 2011**

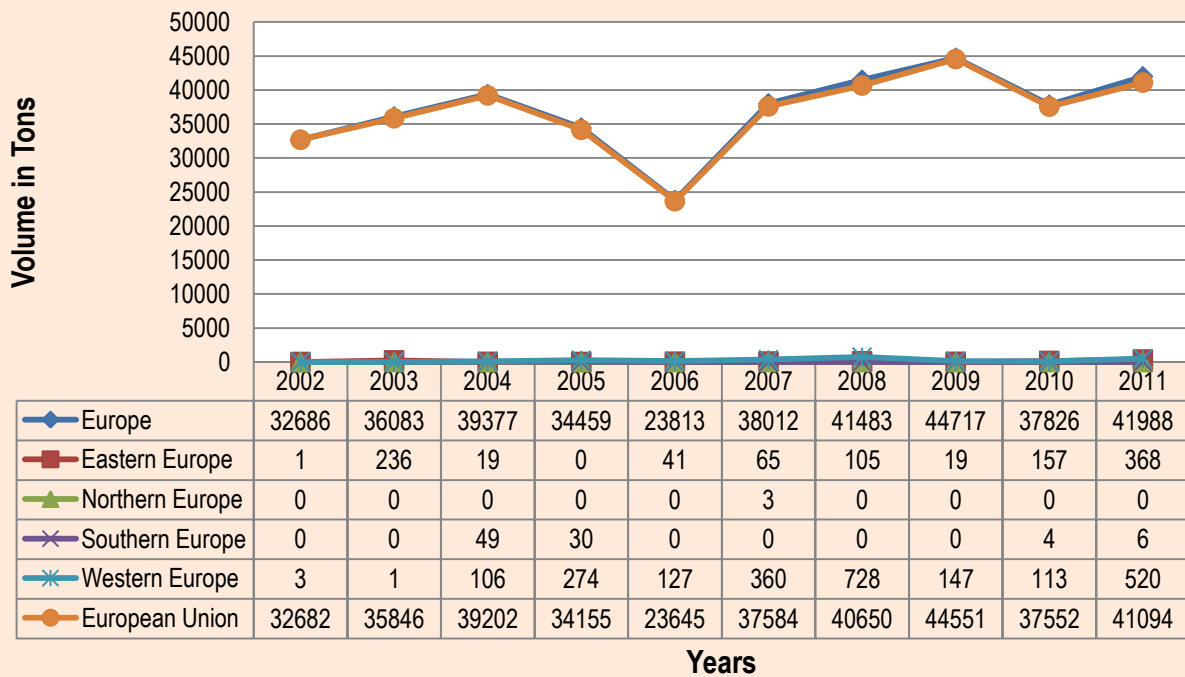


Source: Quantec Easydata

It is clear from Figure 8 that during the past decade, most of South Africa's exports of plums were destined for the European and Asia markets. In 2011, exports to Europe accounted for 78% of total South African plum exports while those to Asia constituted 20%. Exports to Europe declined steeply between 2004 and 2006 before registering exponential growth from 2007 to 2009, and then record a 15% decline in 2010. They increased again by 15% in 2011 but not the level reached in 2009. Exports to Asia increased steadily during the last decade and only passed the 10 000 tons mark for the first time in 2009 (11 370 tons). Asian exports declined by 31% in 2010 when compared to the previous year and increased by 34% in 2011. Exports to Africa remained below the 1 000 ton mark for most part of the past decade, only peaking at 1 233 tons in 2005. Exports to the Americas have been insignificant during the past seven years. Due to its relative importance to exports of South African plums, the European market is discussed further in the subsections that follow.

Volumes of South African plum exports to the various regions of Europe for the period 2002 to 2011 are shown in Figure 9. It is evident from Figure 9 that during the last decade almost all South African plum exports to Europe were destined for the European Union. In 2011, 98% of total South African plum exports to Europe were absorbed by the European Union while the remainder went to Western (1.2%) and Eastern Europe (0.8%). A total of 41 094 tons of South African plums was absorbed by the European Union in 2011. This represented a 9% increase when compared to the previous year (2010).

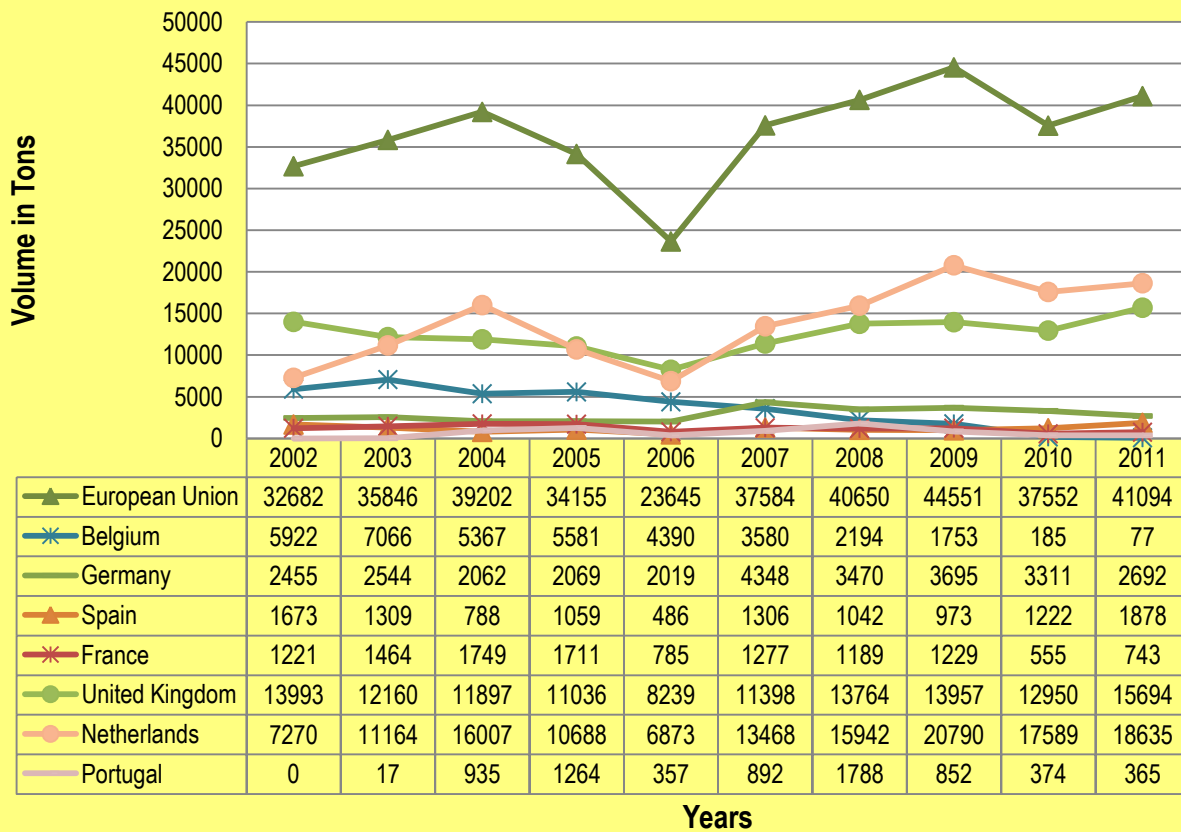
**Figure 9: Volumes of plums exported to the different regions of Europe, 2002 - 2011**



Source: Quantec Easydata

Due to its significance to South African plum exports the European Union market is further disaggregated below. Volumes of South African exports of plums to the different European Union member states during the last decade are presented in Figure 10. Readers should note that only those countries whose plum imports from South Africa were at least 1 000 tons in at least one year during the period under review are shown in Figure 10. It is clear from Figure 10 that the major importers of South African plums in the European Union are the Netherlands, United Kingdom and Germany. In 2011 the three countries accounted for 89% (36 751 tons) of all South African plum exports to the European Union, with the Netherlands accounting for 45% and the United Kingdom and Germany contributing 38% and 6% respectively. Between 2010 and 2011 exports to the Germany decreased by 19% while those to the Netherlands and United Kingdom went up by 6% and 21% respectively.

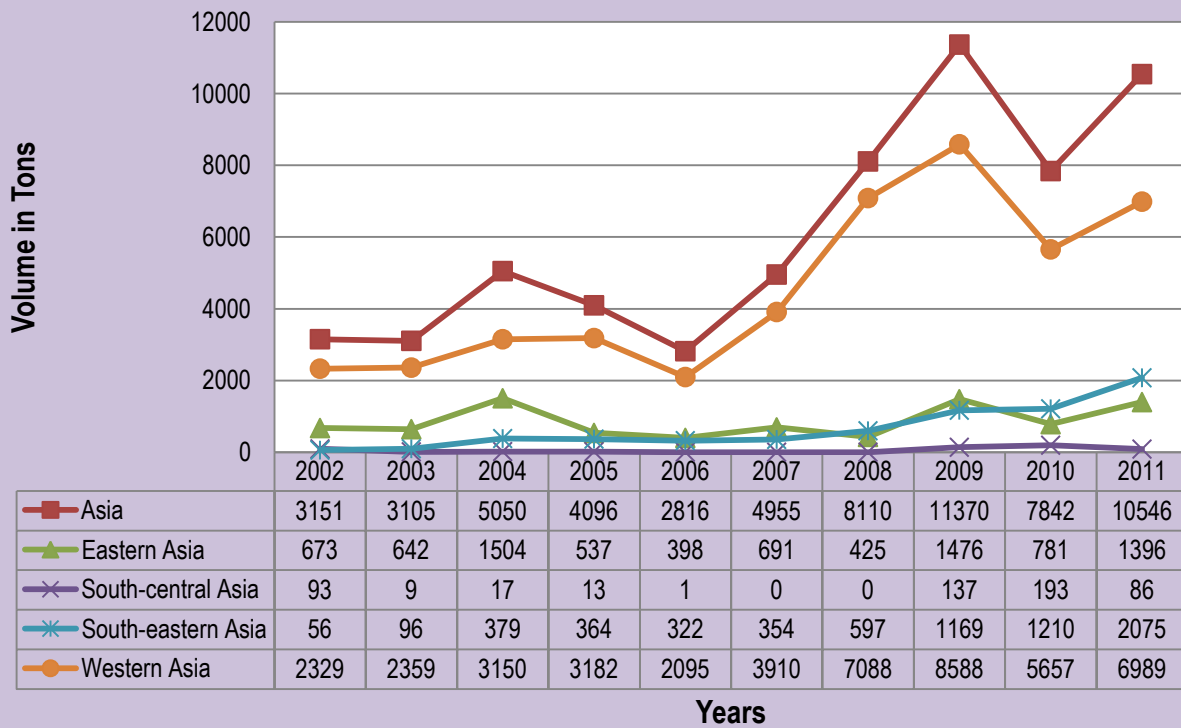
**Figure 10: Volumes of plum exports to the European Union member states, 2002 - 2011**



Source: Quantec Easydata

Figure 11 presents volumes of South African exports of plums to the different regions of Asia during the last ten years. The most important Asia region in terms of South African plum exports is Western Asia. In 2011, South African plum exports to Western Asia accounted for 66% of total South African plum exports to the Asian continent. South African plum exports to Western Asia peaked at 8 588 tons in 2009. Other important markets for South African plum exports in Asia are the Eastern and South-eastern Asia regions. With the exception of South-Central Asia, South African plum exports to all Asian regions increased in 2011 when compared to 2010.

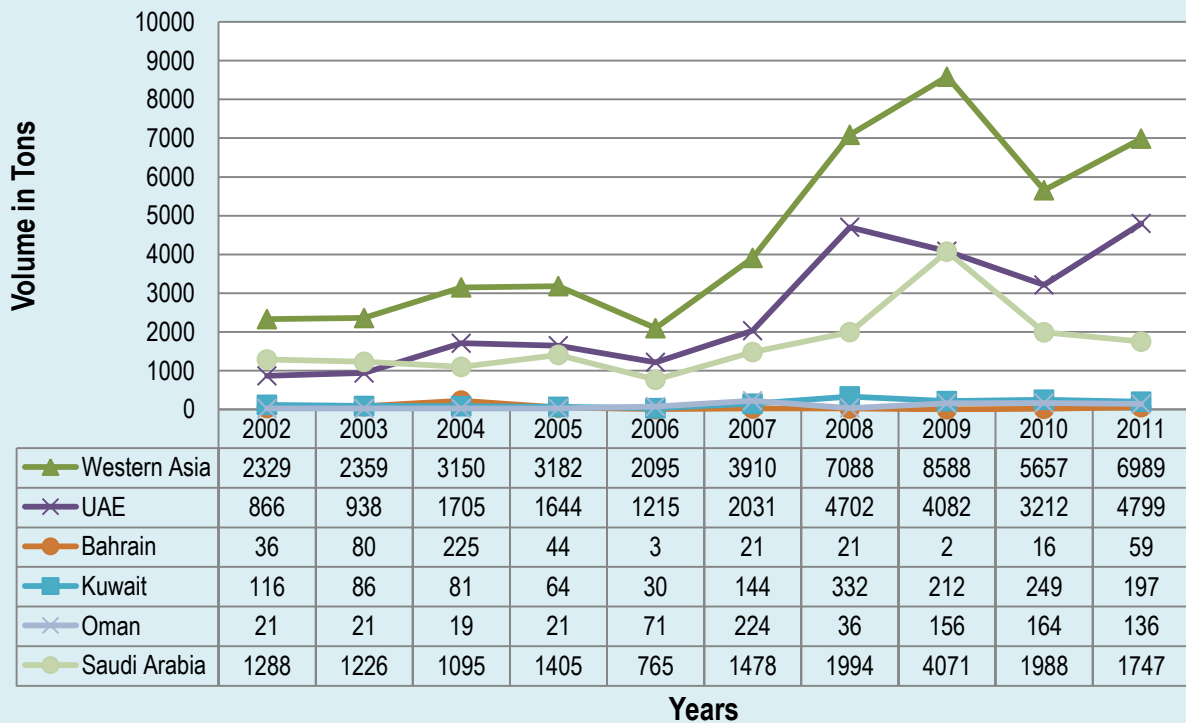
**Figure 11: Volumes of plum exports to the different regions of Europe, 2002 - 2011**



Source: Quantec Easydata

Volumes of South African plum exports to the different countries within Western Asia during the last decade are presented in Figure 12. It is critical to note that only those countries whose plum imports from South Africa were at least 100 tons in at least one year during the period under review are shown in Figure 12. The major importers of South African plums in Western Africa are the United Arab Emirates and Saudi Arabia. In 2011, the United Arab Emirates imported 4 799 tons of plums from South Africa worth over R66 million while Saudi Arabia imported 1 747 tons at a value of over R15 million. Between 2010 and 2011, South African exports of plums to the United Arab Emirates increased by 49% while those to Saudi Arabia declined by 12%.

**Figure 12: Volumes of plum exports to Western Asia member states, 2002 - 2011**

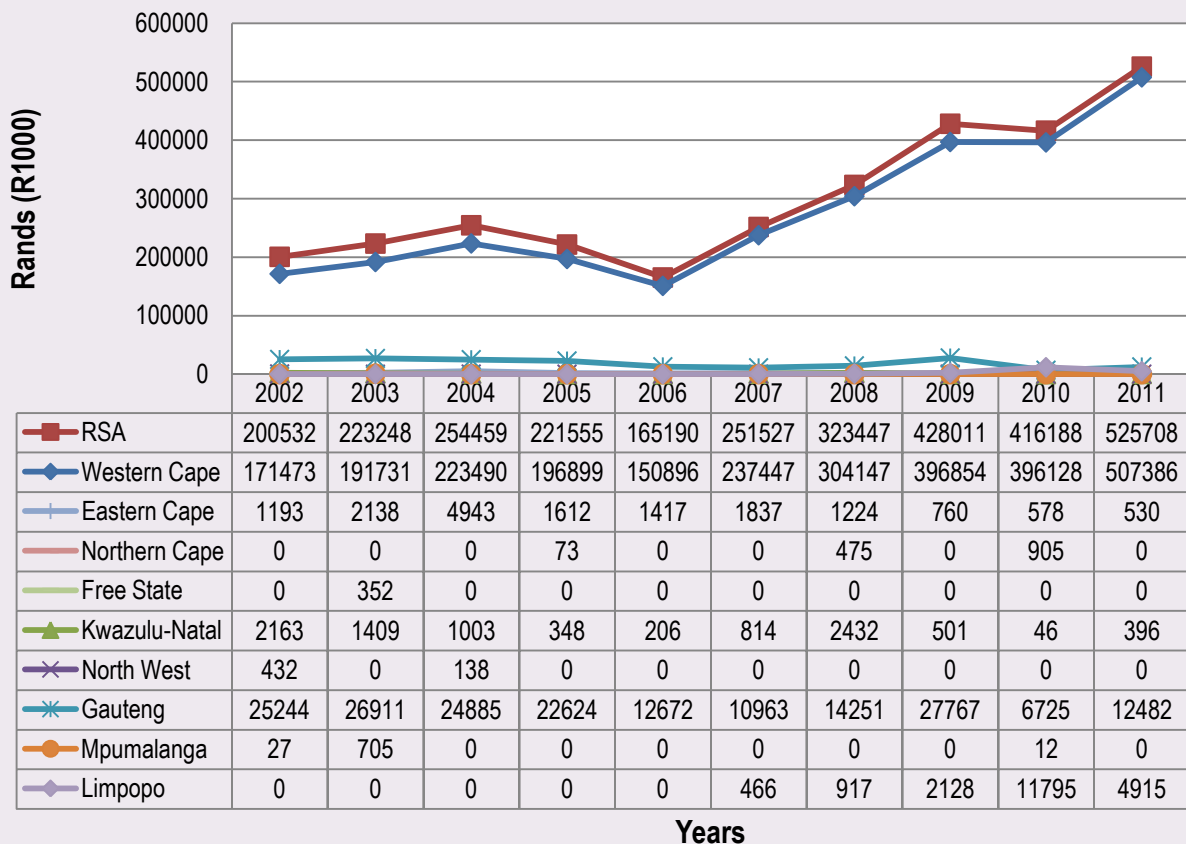


Source: Quantec Easydata

### 2.3 Provincial and district export values of South African plums

A review of provincial level trade data shows that the Western Cape is the major source of plums destined for the export markets. The reason for that is firstly, the Western Cape Province is the major producer of plums accounting for over half of total production. Secondly, the registered exporters are based in the province and thirdly, the province serves as an exit point for plum exports through the Cape Town harbour. Figure 13 depicts the value of plum exports from each province of the Republic of South Africa from 2002 to 2011.

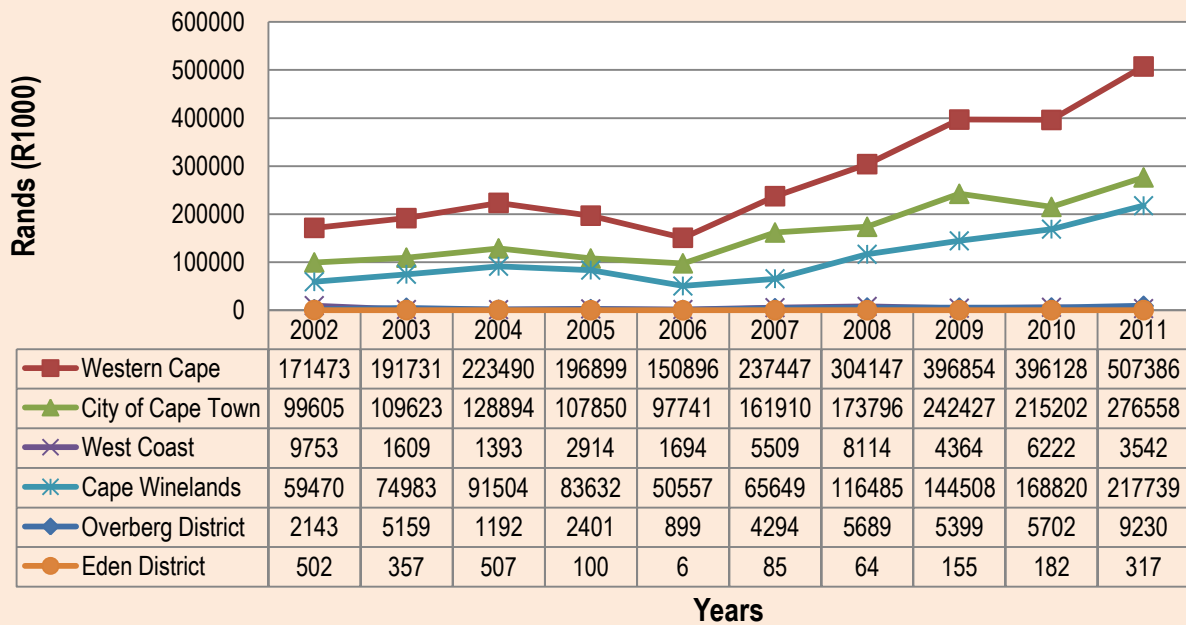
**Figure 13: Value of plum exports by provinces, 2002 – 2011**



Source: Quantec Easydata

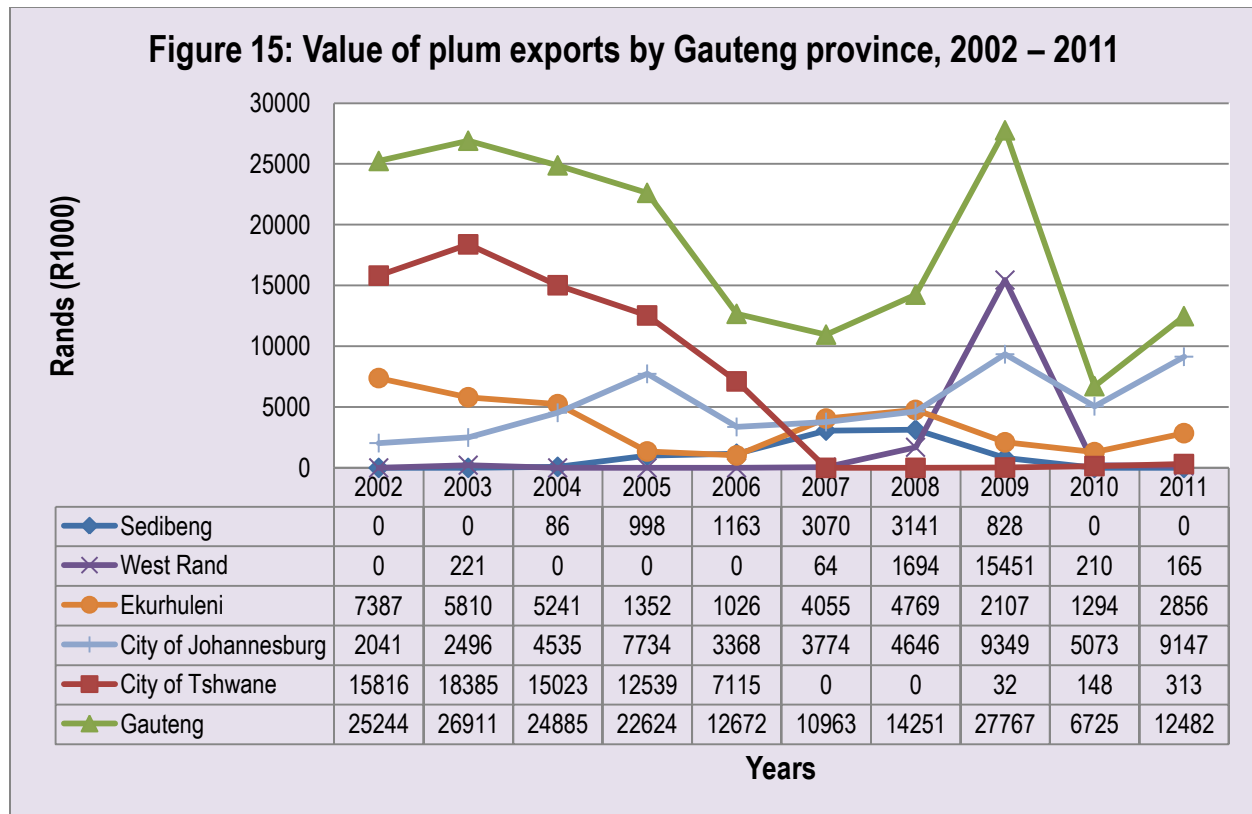
Highlights of the plum exports in Figure 13 were that the provinces of Western Cape and Gauteng to a lesser extent were consistently the top plum exporting provinces of South Africa over the last decade. Other provinces featured intermittently but usually registered minimal trade. The value of plum exports by provinces increased from over R200 million in 2002 to over R525 million in 2011. The following Figures (Figures 14 – 22) show the value of plum exports from the various districts in the nine provinces of South Africa. Figure 14 illustrates values of plum exports by the Western Cape Province for the period 2002 to 2011.

**Figure 14: Value of plum exports by the Western Cape province, 2002 – 2011**



Source: Quantec Easydata

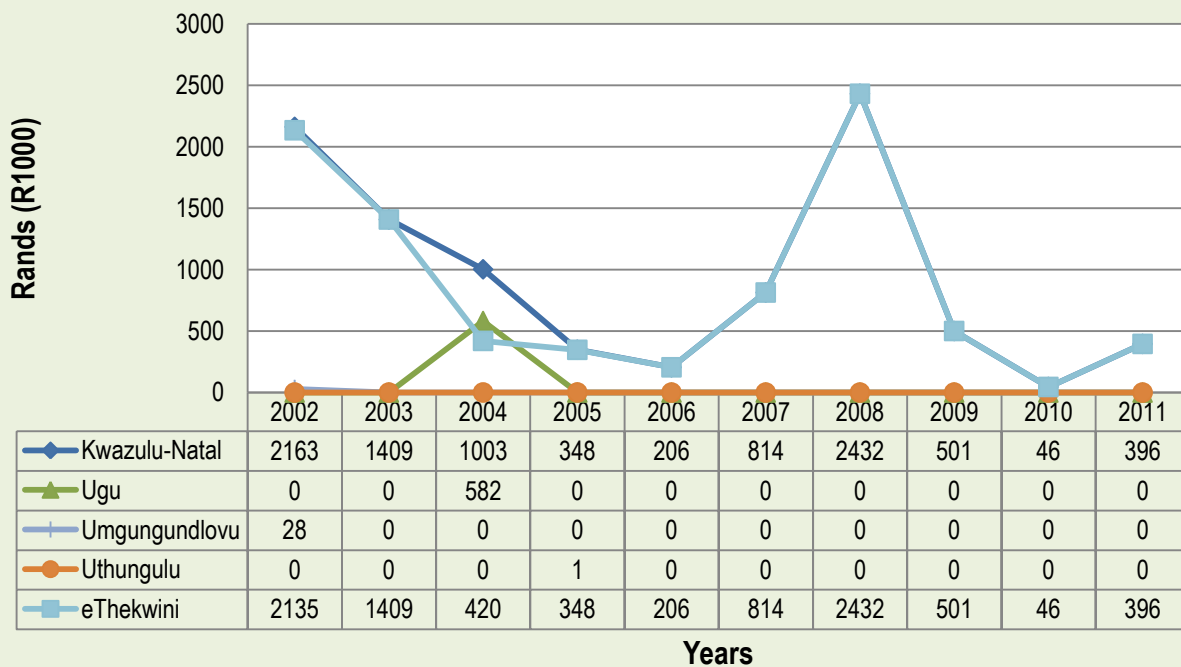
It is clear from Figure 14 that plum exports from the Western Cape Province are mainly from the City of Cape Town and Cape Winelands municipalities with high values recorded in 2011 for both the City of Cape Town and Cape Winelands. The City of Cape Town recorded a 28% increase in plum export values in 2011 while the Cape Winelands also recorded a 29% increase during the same period. As mentioned earlier on, the use of Cape Town harbour as an exit point may have played a major role in City of Cape Town being a leader in the export of plums from the Western Cape Province. The Cape Winelands district on the other hand, is the largest producer of plums in South Africa. Values of plum exports by the Gauteng province are depicted in Figure 15.



Source: Quantec Easydata

In Gauteng province, the leading role players in the export of plums for the past ten years have been the City of Johannesburg, City of Tshwane and Ekurhuleni municipalities. High export values of the leading municipalities were recorded in 2002 (for Ekurhuleni), 2003 (for the City of Tshwane) and 2009 (the City of Johannesburg). The West Rand has emerged as the leading plum exporting district in Gauteng in 2009, recording a record high R15.4 million worth of plum exports. The West Rand has however surrendered the top spot to the City of Johannesburg in 2010 and the City of Johannesburg continued its dominance in 2011. Between 2010 and 2011 the value of plum exports in all the municipalities in Gauteng, with the exception of the Sedibeng and the West Rand, has increased. Values of plum exports from the Kwazulu Natal province are shown in Figure 16.

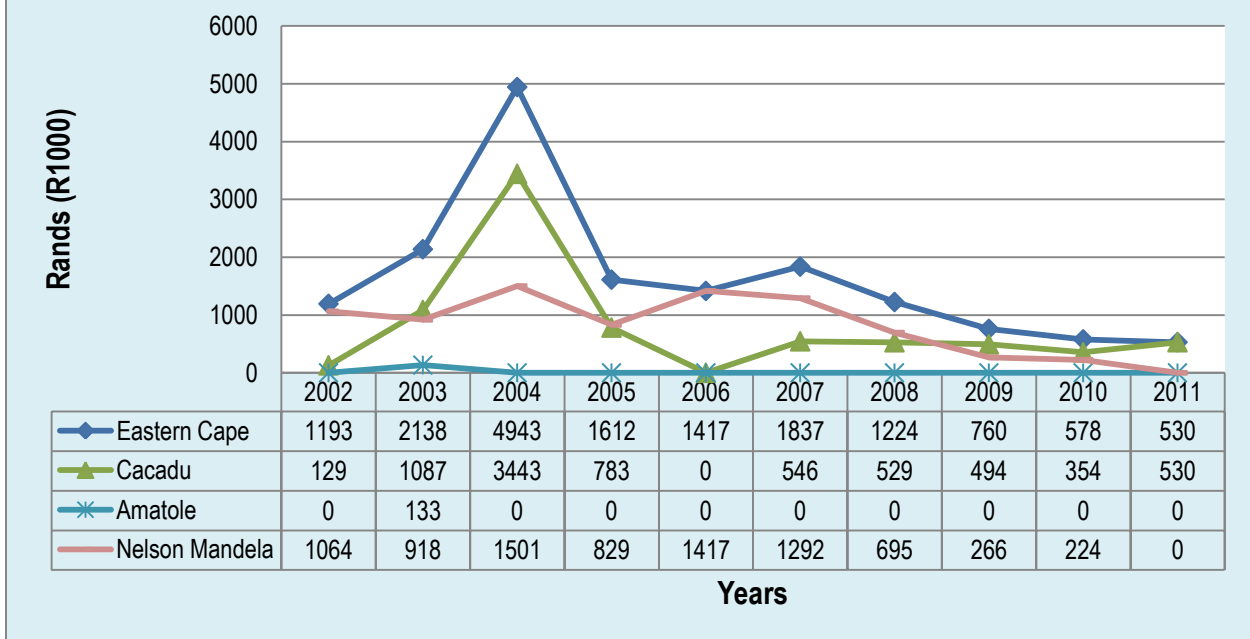
**Figure 16: Value of plum exports by the Kwa-Zulu Natal province, 2002 – 2011**



Source: Quantec Easydata

Plum exports from the Kwazulu Natal province are mainly from Ethekewini municipality. High export value for the leading municipality was recorded in 2008. The value of plum exports by the eThekweni district decreased from R501 thousand in 2009 to R46 thousand in 2010, a decline of 91%. The value however increased by 761% in 2011 when compared to 2010. The use of the Durban harbour as an exit point may have played a major role in Ethekewini being a leader in the export of plums from Kwazulu Natal province. Values of plum exports from the Eastern Cape Province are shown in Figure 17.

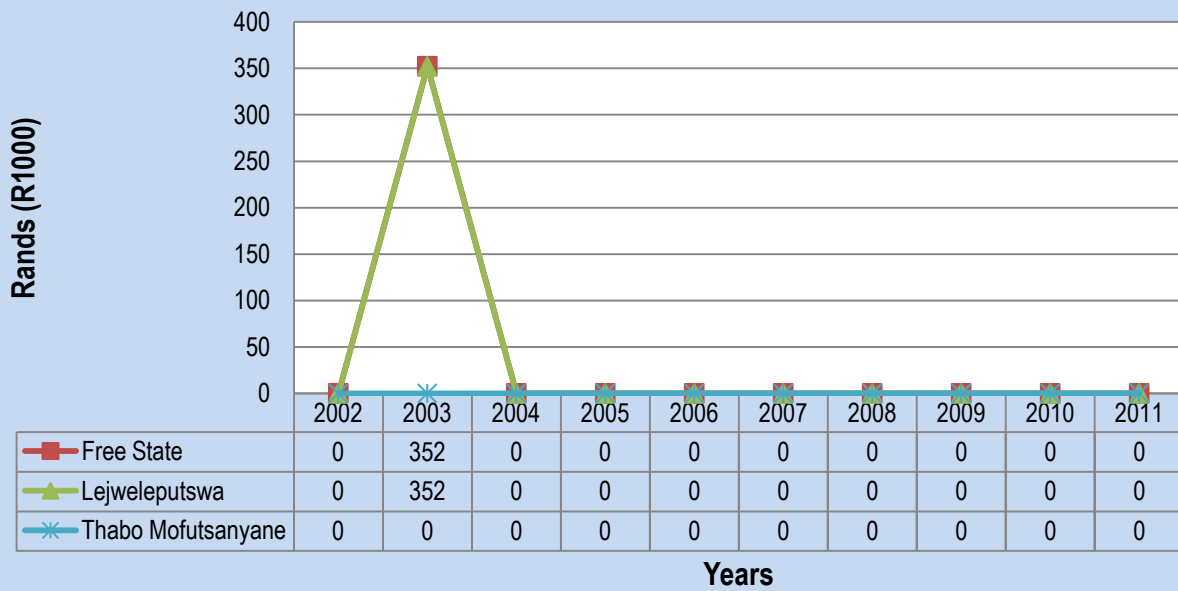
**Figure 17: Value of plum exports by the Eastern Cape province, 2002 – 2011**



Source: Quantec Easydata

It is clear from Figure 17 that plum exports from the Eastern Cape Province are mainly from Cacadu and Nelson Mandela municipalities. High export values for the leading municipalities were recorded in 2004 (for both Cacadu and Nelson Mandela). The export value of Cacadu has dropped drastically from the 2004 peak. The value of plum exports from the Nelson Mandela district has also been declining since 2006. No plum exports were recorded in Amatole since 2003. Between 2010 and 2011 the value of plum exports from Cacadu increased by 49% while that for Nelson Mandela declined by 100%. Values of plum exports from the Free State province are shown in Figure 18.

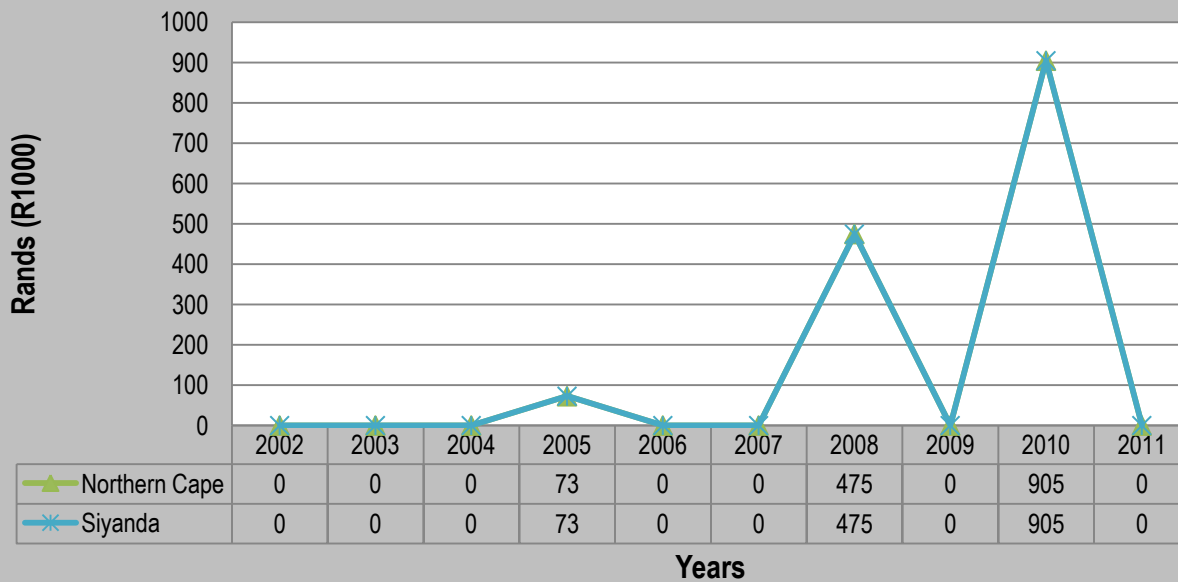
**Figure 18: Value of plum exports by Free State province, 2002 – 2011**



Source: Quantec Easydata

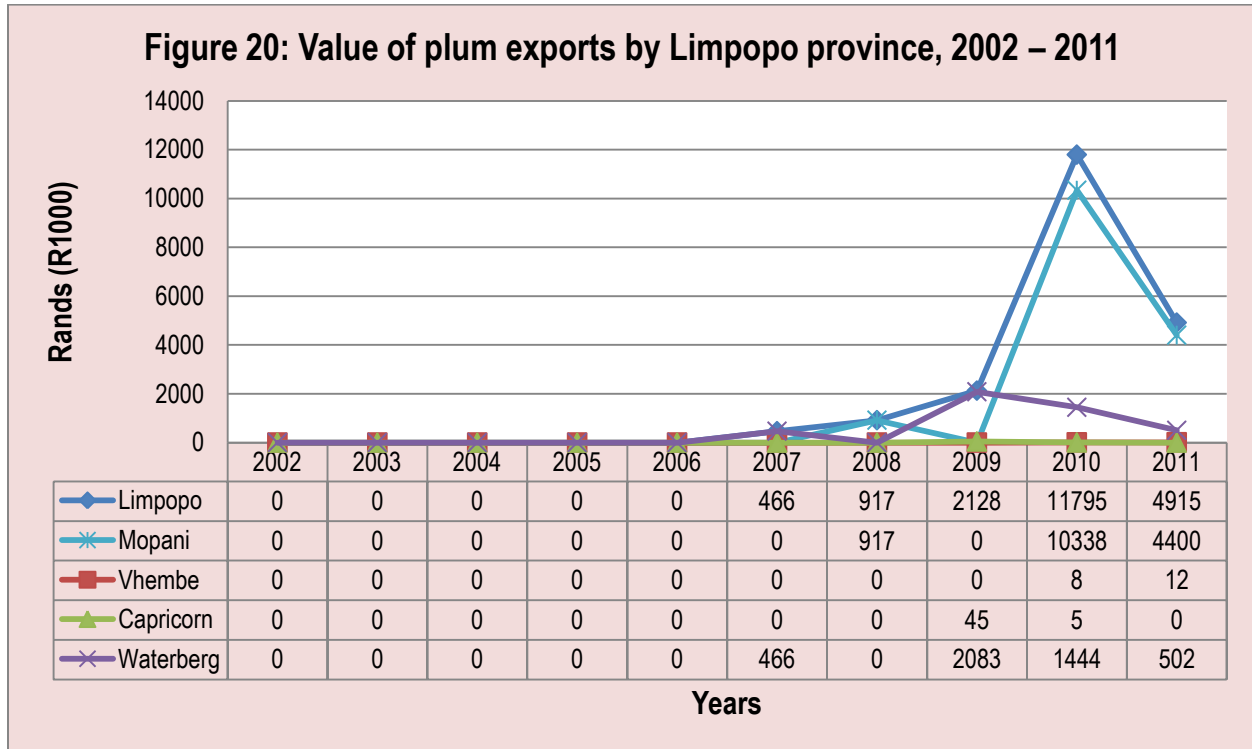
No plum exports were recorded from the Free State since 2004. Values of plum exports from the Northern Cape are presented in Figure 19.

**Figure 19: Value of plum exports by Northern Cape province, 2002 – 2011**



Source: Quantec Easydata

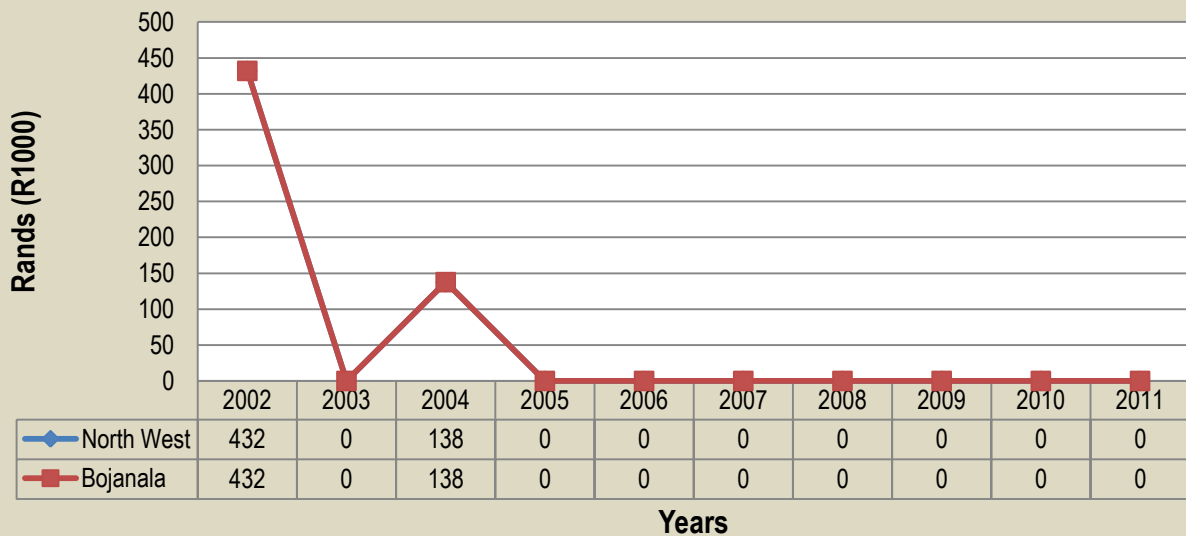
Plum exports from the Northern Cape Province are mainly from Siyanda municipality. High export value for the district municipality was recorded in 2010. A total of R905 thousands worth of plums were exported by the Siyanda district in 2010 and no exports were recorded in 2011. Values of plum exports from the Limpopo province are shown in Figure 20.



Source: Quantec Easydata

It is clear from Figure 20 that in 2011 plum exports from Limpopo province were mainly from Mopani and Waterberg municipalities. High export values for the leading municipalities were recorded in 2010 (for Mopani) and 2008 (for Waterberg). The export value of plums from the Waterberg district declined by 65% between the years 2010 and 2011. At the same time, the export value of plums from Mopani also declined from over R10 million in 2010 to R4.4 million in 2011, representing a decline of 57%. Export values for plums from the North West province are presented in Figure 21.

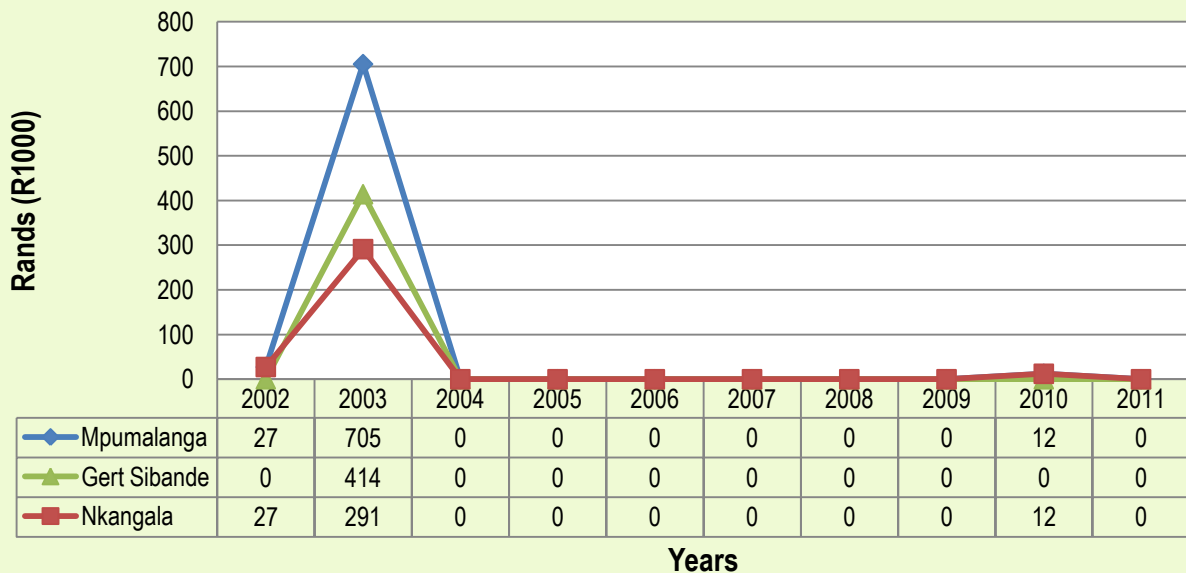
**Figure 21: Value of plum exports by North West province, 2002 – 2011**



Source: Quantec Easydata

The major plum exporting region in the North West province is the Bojanala Platinum municipality. High export value for the leading district municipality was recorded in 2002. No plum exports were recorded from the North West province since 2005. Export values for plums from the Mpumalanga province are presented in Figure 22.

**Figure 22: Value of plum exports by Mpumalanga province, 2002 – 2011**



Source: Quantec Easydata

It is clear from Figure 22 that plum exports from Mpumalanga province are mainly from Nkangala and Gert Sibande municipalities. High export values for the leading municipalities were recorded in 2003 (for both Nkangala and Gert Sibande). However there has been a steady decline in the value of plum exports from both the leading district municipalities since 2004. Plums worth R12 thousand were exported by the Nkangala district in 2010 and no exports were recorded in 2011.

## 2.4 Share Analysis

Table 2 illustrates the provincial shares towards national plum exports for the years 2002 to 2011. It shows that the Western Cape (96.5% in 2011) together with Gauteng Province (2.4% in 2011) (to a lesser extent) have commanded the greatest share of plum exports for the past ten years. As explained earlier, this means that the leading export provinces (Western Cape and Gauteng) derive their advantage from the fact that the registered exporters are based in their provinces and they also have exit points for plum exports.

**Table 2: Share of provincial plum exports to the total RSA plum exports (%)**

Years Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Western Cape	81.2	81.5	85.2	86.4	88.0	91.1	91.8	92.7	94.0	96.5
Eastern Cape	0.9	1.1	1.8	0.9	0.9	0.7	0.5	0.2	0.4	0.1
Northern Cape	0	0	0	0.1	0	0	0.1	0	0.1	0.0
Free State	0.1	0.3	0	0	0	0	0	0	0.0	0.0
Kwa Zulu Natal	2.3	2.1	0.4	0.7	0.5	0.5	0.7	0.1	0.8	0.1
North West	0.1	0	0.1	0	0	0	0	0	0.0	0.0
Gauteng	15.3	14.8	12.5	11.9	10.4	7.2	6.0	6.5	4.4	2.4
Mpumalanga	0.1	0.2	0	0	0	0	0.1	0	0.0	0.0
Limpopo	0	0	0	0	0.2	0.5	0.8	0.5	0.3	0.9
South Africa	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

The accompanying tables (Table 3 to 11) show shares of the various districts' plum exports to the various provincial plum exports.

**Table 3: Share of district plum exports to the total Western Cape provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Western Cape	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
City of Cape Town	58.1	57.2	57.7	54.8	64.8	68.2	57.1	61.1	54.3	54.5
West Coast	5.7	0.8	0.6	1.5	1.1	2.3	2.7	1.1	1.6	0.7
Cape Winelands	34.7	39.1	40.9	42.5	33.5	27.6	38.3	36.4	42.6	42.9
Overberg	1.2	2.7	0.5	1.2	0.6	1.8	1.9	1.4	1.4	1.8
Eden	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1

Source: Calculated from Quantec Easydata

Table 3 presents the shares of district plum exports to the total Western Cape provincial plum exports for the years 2002 to 2011. The leading plum export districts in 2011 in the Western Cape are the City of Cape Town (54.5%) and the Cape Winelands (42.9%). Together, the two districts accounted for over 97% to total Western Cape provincial plum exports in 2011.

**Table 4: Share of district plum exports to the total Eastern Cape provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Eastern Cape</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Cacadu</b>	10.8	50.8	69.6	48.6	0.0	29.7	43.2	65.0	61.2	100.0
<b>Amatole</b>	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Nelson Mandela</b>	89.2	42.9	30.4	51.4	100.0	70.3	56.8	35.0	38.8	0.0

Source: Calculated from Quantec Easydata

The shares of district plum exports to the total Eastern Cape provincial plum exports are presented in Table 4. The Nelson Mandela district has been the leading municipality in terms of plum exports from the Eastern Cape until 2008. It has however been overtaken by Cacadu district in 2009, accounting for 65% and 61.2% of all Eastern Cape plum exports in 2009 and 2010, respectively. All plum exports recorded in the Eastern Cape during 2011 were from the Cacadu district.

**Table 5: Share of district plum exports to the total Mpumalanga provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Mpumalanga</b>	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
<b>Gert Sibande</b>	0.0	58.7	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
<b>Nkangala</b>	100.0	41.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0

Source: Calculated from Quantec Easydata

In Mpumalanga, the Gert Sibande and Nkangala districts are the major contributors of plum exports recorded in the province (see Table 5). No exports of plums were recorded between 2004 and 2009. All recorded plums exports in 2010 were from the Nkangala district and no exports were recorded in 2011.

**Table 6: Share of district plum exports to the total Free State provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Free State</b>	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Lejweleputswa</b>	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Thabo Mofutsanyane</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Calculated from Quantec Easydata

The Free State province never reported any exports of plums since 2004 (see Table 6).

**Table 7: Share of district plum exports to the total Gauteng provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Gauteng	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sedibeng	0.0	0.0	0.3	4.4	9.2	28.0	22.0	3.0	0.0	0.0
West Rand	0.0	0.8	0.0	0.0	0.0	0.6	11.9	55.6	3.1	1.3
Ekurhuleni	29.3	21.6	21.1	6.0	8.1	37.0	33.5	7.6	19.2	22.9
City of Johannesburg	8.1	9.3	18.2	34.2	26.6	34.4	32.6	33.7	75.4	73.3
City of Tshwane	62.7	68.3	60.4	55.4	56.1	0.0	0.0	0.1	2.2	2.5

Source: Calculated from Quantec Easydata

In the Gauteng province, the contributions of the various districts to total provincial plum exports are more evenly distributed than in most provinces (see Table 7). In 2011, the leading district was the City of Johannesburg with 73.3% share. It was followed by Ekurhuleni and West Rand districts at 22.9% and 2.5% respectively.

**Table 8: Share of district plum exports to the total North West provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
North West	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bojanala	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Calculated from Quantec Easydata

The North West province never recorded any exports of plums since 2005 (see table 8).

**Table 9: Share of district plum exports to the total Limpopo provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Limpopo	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0
Mopani	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	87.6	89.5
Vhembe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Capricorn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0
Waterberg	0.0	0.0	0.0	0.0	0.0	100.0	0.0	97.9	0.0	10.2

Source: Calculated from Quantec Easydata

The shares of district plum exports to the total Limpopo provincial plum exports are presented in Table 9. In 2011, the Mopani district contributed 89.5% to total Limpopo provincial plum exports. The remainder were from the Waterberg (10.2%) and Vhembe (0.2%) districts.

**Table 10: Share of district plum exports to the total Northern Cape provincial plum exports (%)**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Northern Cape	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0
Siyanda	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0

Source: Calculated from Quantec Easydata

In 2008 and 2010 all exports of plums reported in the Northern Cape Province were from the Siyanda district (see Table 10). No exports of plums were recorded in the Northern Cape in 2009 and 2011.

**Table 11: Share of district plum exports to the total Kwazulu Natal provincial plum exports**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Kwazulu-Natal</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Ugu</b>	0.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Umgungundlovu</b>	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Uthungulu</b>	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
<b>eThekwini</b>	98.7	100.0	41.9	99.8	100.0	100.0	100.0	100.0	100.0	100.0

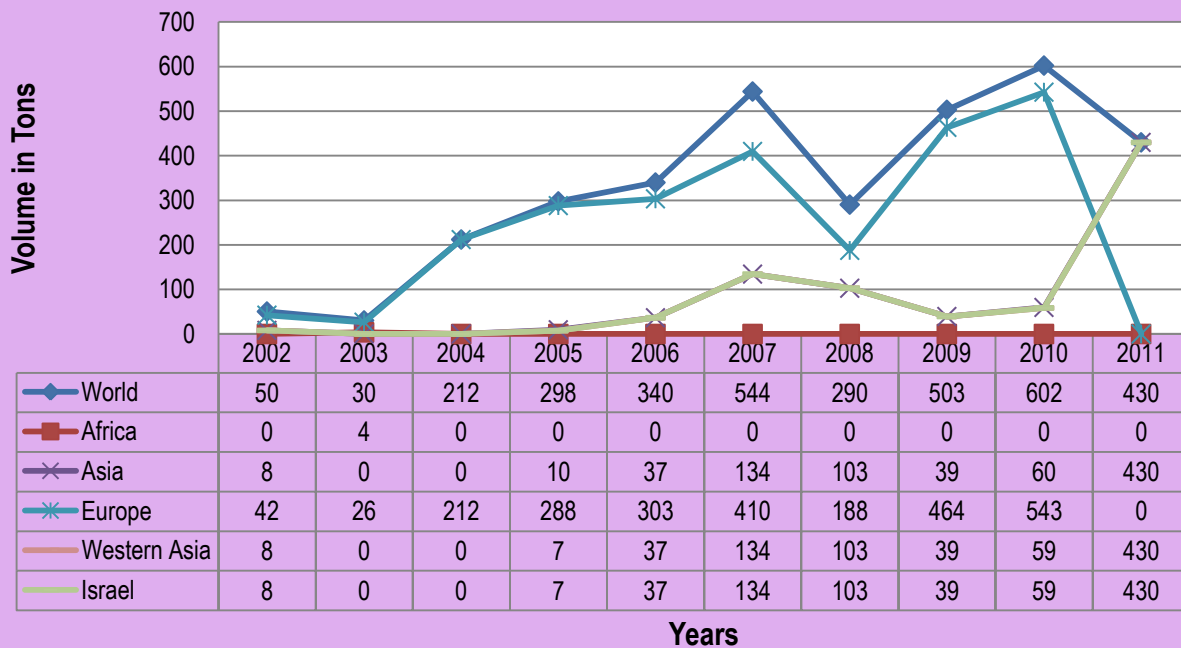
Source: Calculated from Quantec Easydata

All recorded exports of plums in the Kwazulu Natal province in 2011 were from the Ethekwini district (see Table 11).

## 2.5 Imports

Volumes of plums imported by South Africa from different regions of the world during the last decade are presented in Figure 23. It can be observed from the figure that plum imports by South Africa have been increasing over the past ten years, increasing from 30 tons in 2003 to over 600 tons in 2010. During the last decade, the bulk of South Africa's plum imports came from Europe. Over 90% (543 tons) of all South African imports (602 tons) of plums in 2010 came from the European Union, specifically Spain. The remaining 60 tons came from Asia. The situation has however changed in 2011. All South African plum imports in 2011 came from the Asian continent and the specific source within Asia was Israel. During 2011 South Africa's imports of plums represented 0.12% of total world imports and its ranking in the world was number 50.

**Figure 23: Volumes of plum imports by South Africa from different regions of the world, 2002 - 2011**

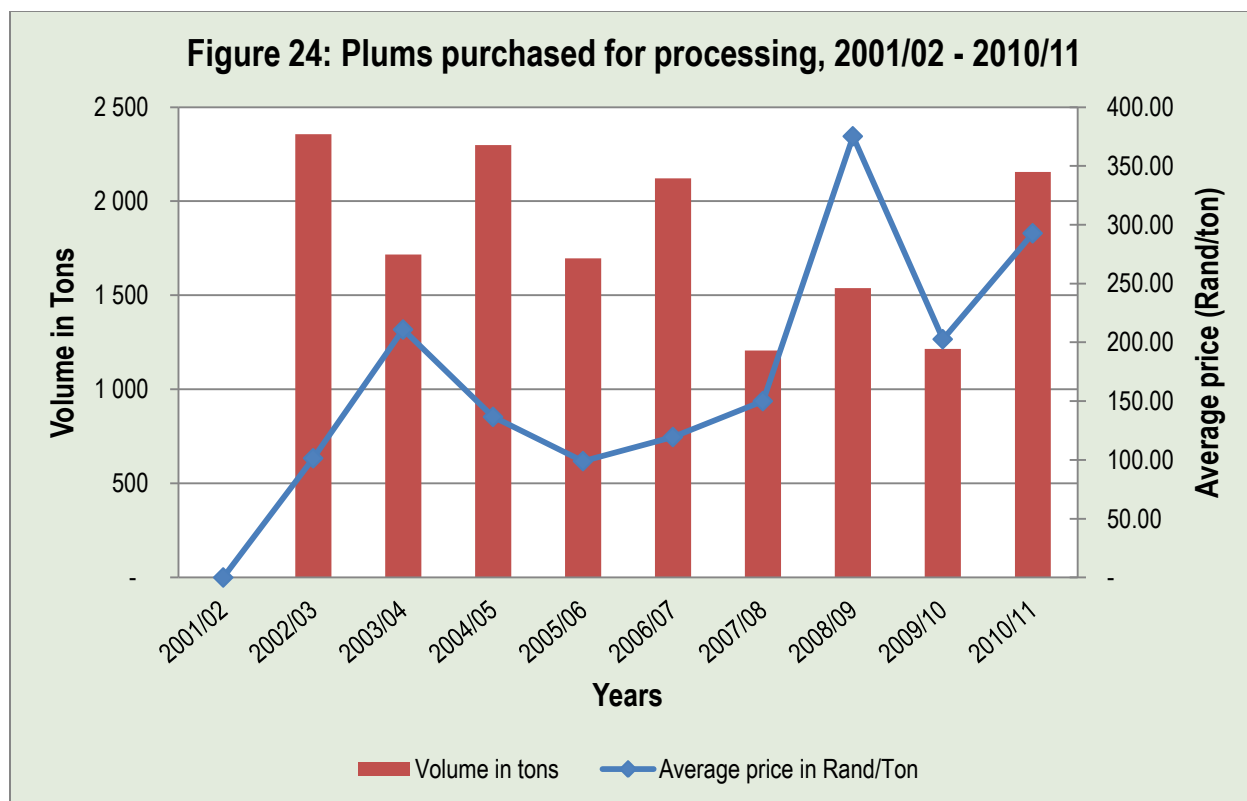


Source: Quantec Easydata

## 2.6 Processing

The volumes of plums available for processing in South Africa fluctuate yearly, depending on the crop size and the percentages of exportable fruit. In 2010/11, the processing industries absorbed approximately 3% (2 156 tons) of all plums produced (67 087 tons). As indicated earlier, the processing part is generally insignificant. The volumes of plums purchased for processing for the past decade are presented in Figure 24.

It is interesting to note from Figure 24 that prices (Rand/ton) of plums destined for the processing sector respond to volumes available in the market. The volume of plums processed increased by 77% during 2010/11. Prices realised in the processing industry also increased by 44% during the same period following a sharp decline in quantities available for processing during the previous year (2009/10).



Source: Statistics and Economic Analysis, DAFF

Plum fruit is sweet and juicy and it can be eaten fresh or used in jam making or other recipes. Plum juice can be fermented into plum wine. When distilled; plum wine produces a brandy known in Eastern Europe as Slivovitz. Dried plums are known as prunes. Prunes are also sweet and juicy and contain several antioxidants.

Various flavours of dried plum are available at Chinese grocers and specialty stores worldwide. They tend to be much drier than the standard prune. Cream, Ginseng, Spicy, and Salty are among the common variety flavours. Licorice is generally used to intensify the flavour of these plums and is used to make salty plum drinks and toppings for Shaved Ice or baobing.

Pickled plums are another type of preserve available in Asia and international specialty stores. The Japanese variety, called umeboshi, is often used for rice balls, called "Onigiri" or "Omusubi". The ume, from which umeboshi are made, is however more closely related to the apricot than to the plum.

Plums and prunes are known for their laxative effect. This effect has been attributed to various compounds present in the fruits, such as dietary fiber, sorbitol, and isatin. Prunes and prune juice are often used to help regulate the functioning of the digestive system. Furthermore, Prune kernel oil is made from the fleshy inner part of the pit of the plum.

Prune marketers in the United States of America have, in recent years, begun marketing their product as "dried plums", because "prune" has negative connotations connected with elderly people suffering from constipation.

### **3. MARKET INTELLIGENCE**

#### **3.1 Competitiveness of South African plum exports**

Competitiveness is described as an industry's capacity to create superior value for its customers and improved profits for the stakeholders in the value chain. The driving force in sustaining a competitive position is productivity that is output efficiency in relation to specific inputs with regard to human, capital and natural resources. In 2011, South African plum exports represented 9.89% of world exports and its ranking on the world exports was position 4.

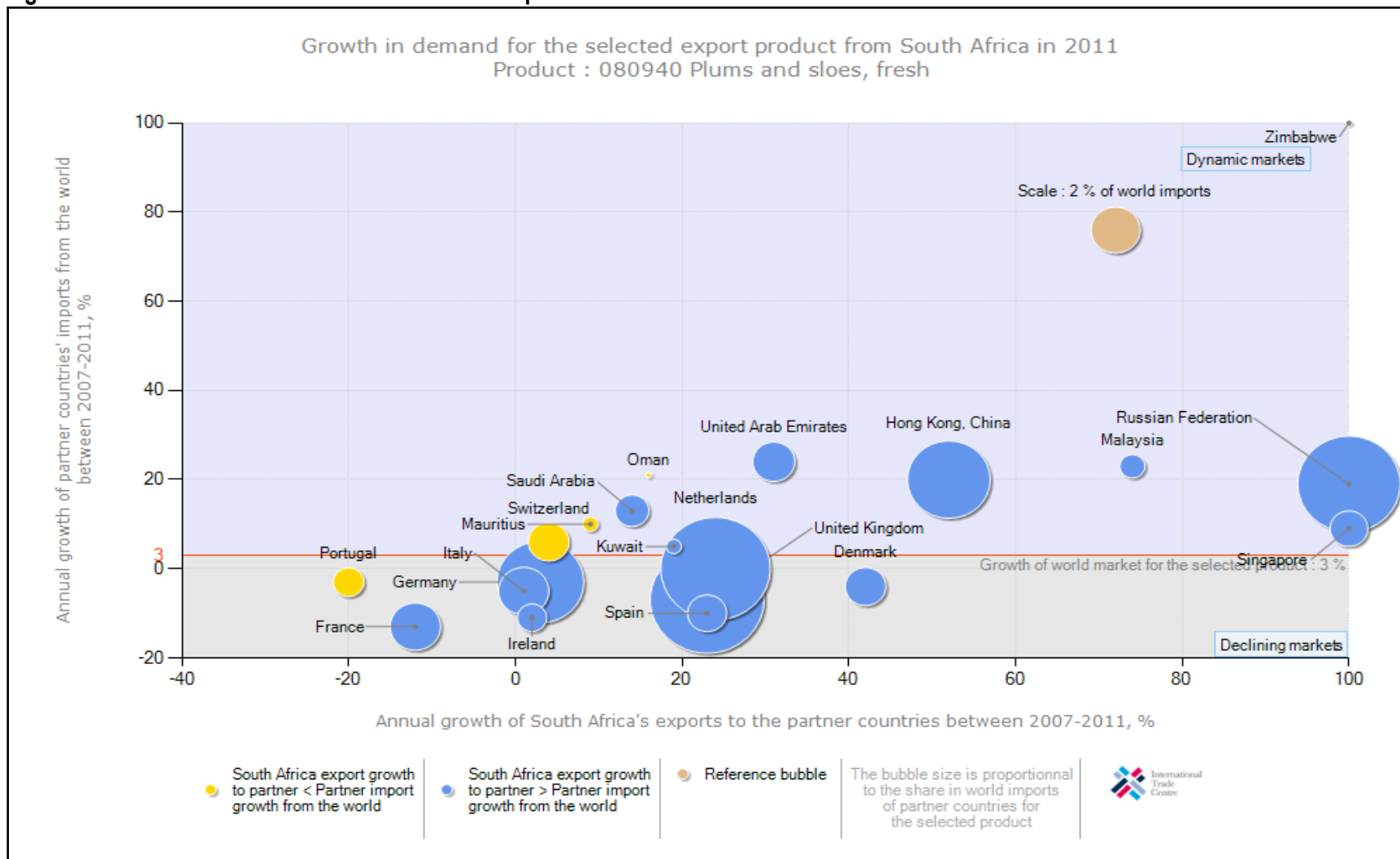
As depicted on Figure 25, South African plum exports are growing faster than the world imports in Zimbabwe, Russia, Singapore, Malaysia, Hong Kong, United Arab Emirates, and Saudi Arabia markets. South Africa's performance in those markets can be regarded as gains in dynamic markets.

South African plum exports are growing while the world imports are declining in Denmark, Spain, United Kingdom, Netherlands, Ireland, Italy, Germany, and France markets. South Africa's performance in those markets can be regarded as gains in declining markets and should be viewed as achievement in adversity.

At the same time, South African plum exports have declined faster than the world imports in the Portuguese market. South Africa's performance in this market can be regarded as a loss in declining market.

South African plum exports are declining while the world imports are growing in Mauritius, Switzerland and Oman markets. These markets are dynamic and South Africa's performance should be regarded as an underachievement.

**Figure 25: Growth in demand for the South African plums in 2011**



Source: TradeMap, ITC

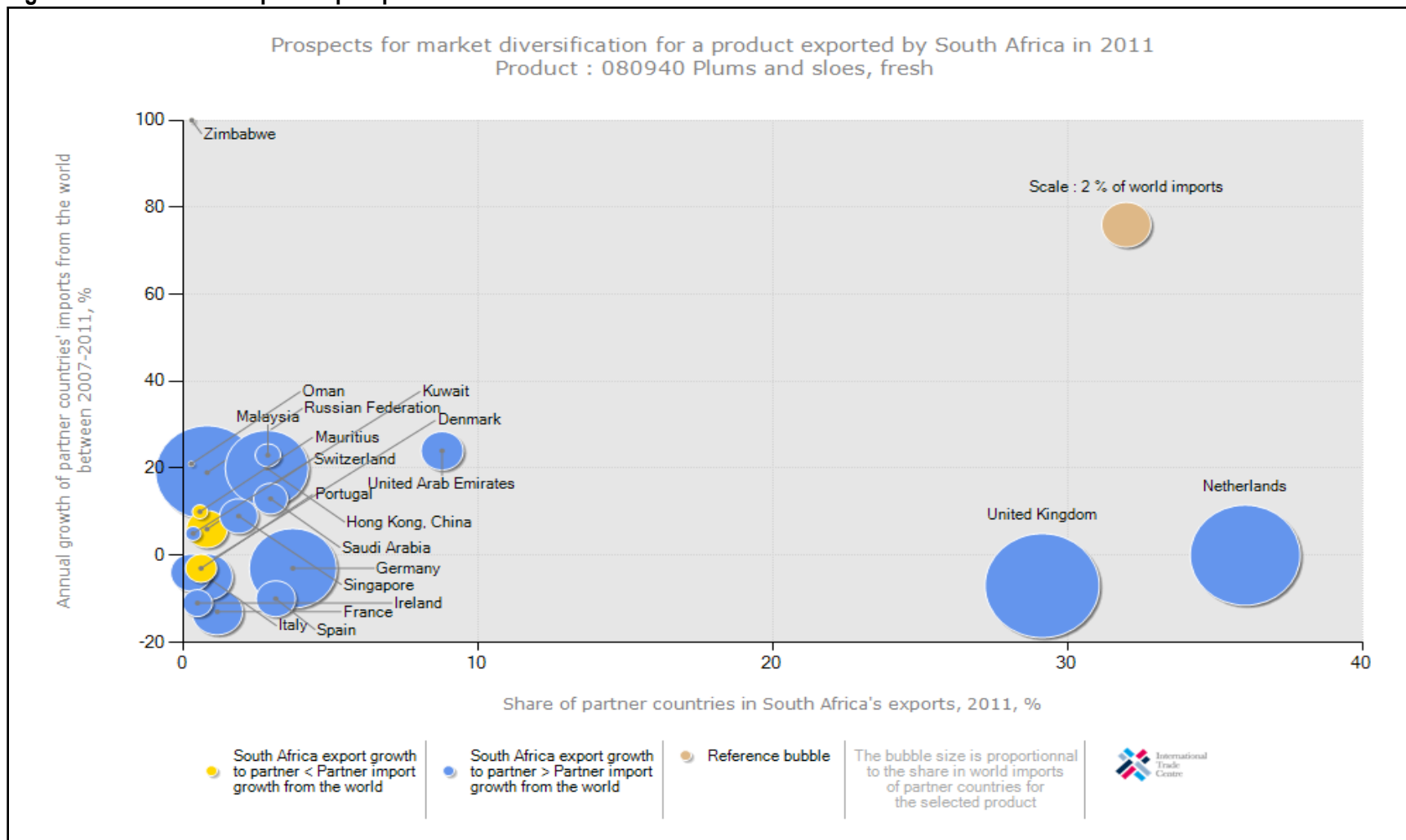
Figure 26 below illustrates prospects for market diversification by South African exporters of plums. The Netherlands, UK and the United Arab Emirates held a bigger market share of South African plums in 2011.

In terms of market size, the UK was the largest plum market in 2011 with just over US\$103 million (63 420 tons) worth of plum imports, or roughly 11.9% of the world plum market. Second was the Netherlands with just over \$96 million (44 613 tons) worth of plum imports, or roughly 11.1% market share followed by the Russian Federation with just over \$84 million (70 270 tons) worth of plum imports, or roughly 9.7% market share.

Whilst three countries dominate world plum imports, it is interesting to note that countries like the Zimbabwe, together with Malaysia and Oman have experienced higher annual growth rate from 2007 – 2011 (see Figure 26). Zimbabwe experienced an annual growth rate of 112%. Second was Malaysia with 23% annual growth rate followed by Oman at 21%. It is important to note that growth by all these mentioned countries has been off a low base. These countries represent possible lucrative markets for South African plum producers.

It is also important to note that plum imports from the world to countries such as France, Ireland, Spain, Germany, Italy, and Denmark have declined from 2007 – 2011 and as a result those countries have recorded a negative growth rate in plum imports.

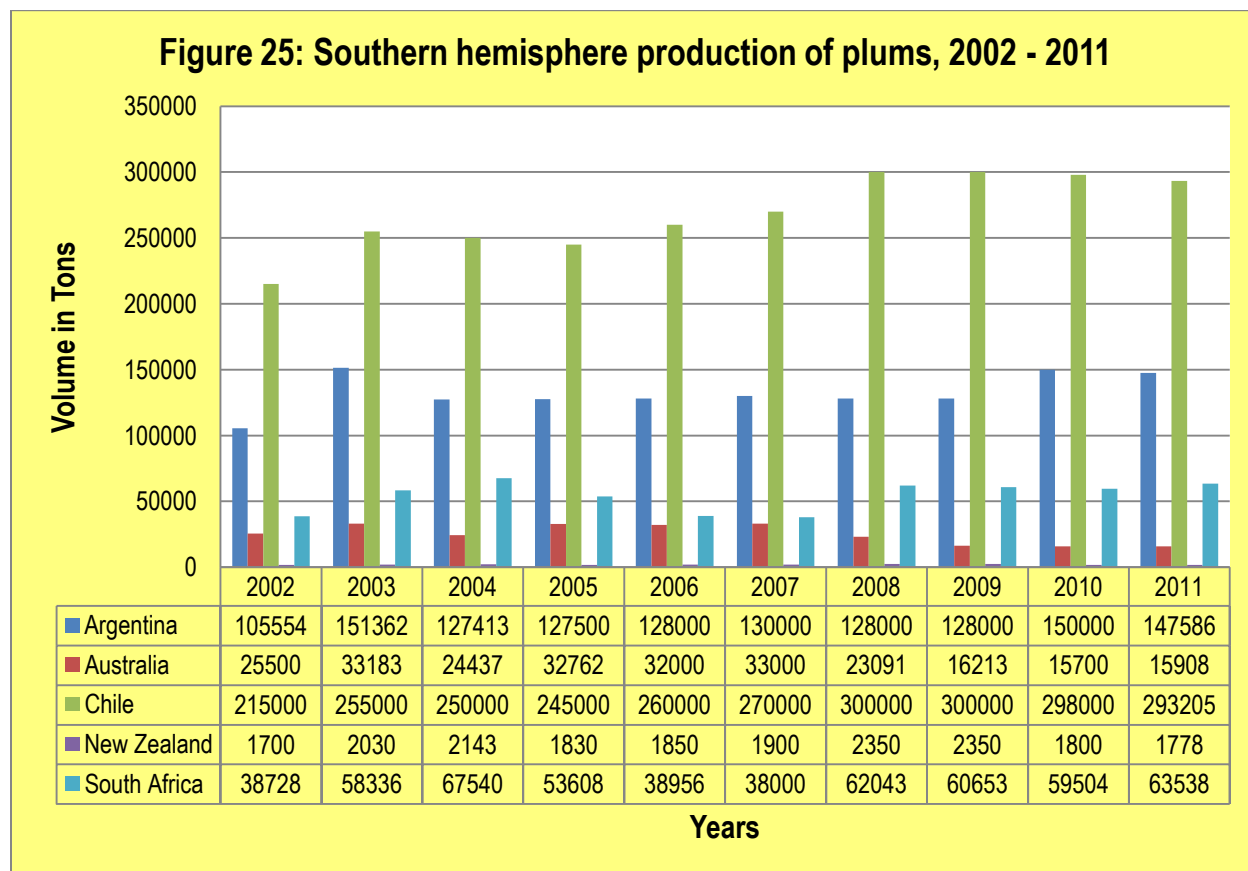
**Figure 26: South African plum's prospect for market diversification in 2011**



Source: TradeMap, ITC

### 3.2 South Africa vs. southern hemisphere production

Figure 27 presents southern hemisphere production of plums for the period 2002 to 2011. It is clear that South Africa was the third largest producer (63 538 tons) of plums in the southern hemisphere after Chile (293 205 tons) and Argentina (147 586 tons). Majority of these countries are vying for the lucrative European market. Total South African plum production has been relatively stable over the last four production season. Argentinean production declined from 150 000 tons in 2010 to 147 586 tons in 2011, a decline of 2%. Chilean production declined by 4 795 tons between 2010 and 2011 while South Africa's production increased by 4 034 tons during the same period.



Source: FAOSTAT

South Africa's main competitor from the southern hemisphere in the EU market for plum exports is Argentina, which was the second largest plum exporter from the southern hemisphere accounting for 18.77% of total southern hemisphere plum exports in 2011 (see Table 12). Historically, Argentina has been exporting to the USA but recently, it has been increasing its share in the EU market. In future, this competition between South Africa and Argentina will probably increase. Furthermore, this competition will also depend on the early/late timing of fruit arrivals, influenced by weather conditions. If South Africa is late and Argentina is early it will have a severe negative impact on prices received by South African producers. Southern hemisphere exports of plums during 2011 are presented in Table 12 below. South African plum exports accounted for 75.93% of total southern hemisphere exports in 2011. This makes South Africa the largest exporter of plums in 2011. It was followed by Argentina and Australia at 18.77% and 5.06% respectively.

**Table 12: Southern hemisphere exports of plums, 2011**

Country	Export - Quantity in Metric Tons (MT)	Contribution to Southern Hemisphere Exports (%)
<b>World exports</b>	490 709	
<b>Southern Hemisphere</b>	70 474	100.00
<b>Chile</b>	101	0.14
<b>Argentina</b>	13 227	18.77
<b>South Africa</b>	53 511	75.93
<b>New Zealand</b>	69	0.10
<b>Australia</b>	3 567	5.06

Source: Trademap, ITC

Argentina exports primarily within the South American markets (particularly Brazil), EU countries (mainly Netherlands, UK and Belgium) and to the Asian countries such as Russia.

Australia and New Zealand produce primarily for local markets and exports very little. Both countries pose no threat to South Africa in all the leading import markets such as the EU. Chilean plum exports declined from 74 533 tons in 2010 to 101 tons in 2011.

The main impact of the southern hemisphere plums into the EU market is that it drives prices down. Market coordination by the southern hemisphere countries can reduce the pressure on prices by controlling the supplies into the EU markets.

#### **4. MARKET ACCESS**

Barriers to trade can be divided into tariff barriers (including quotas, ad valorem tariffs, specific tariffs and entry price systems) and non tariff barriers (sanitary and phyto-sanitary measures, labels, etc). The main markets for fruit (including plums) employ various measures, both tariff and non tariff to protect the domestic industries. Whilst many of the non tariff measures can be justified under the auspices of issues such as health and standards, the tariff measures are increasingly under the scrutiny of the World Trade Organization (WTO), and as such are gradually being phased out. Nevertheless, exporters need to be aware of all the barriers that they may encounter when trying to get their produce onto foreign shelves.

##### **4.1 Tariffs, quotas and the price entry system**

Tariffs are either designed to earn government revenue from products being imported or to raise the price of imports so as to render local produce more competitive and protect domestic industries.

Quotas can be used to protect domestic industries from excessive imports originating from areas with some form of competitive advantage (which can therefore produce lower cost produce). Tariffs and quotas are often combined, allowing the imports to enter at a certain tariff rate up to a specified quantity. Thereafter, imports from that particular region will attract higher tariffs, or will not be allowed at all. This phenomenon is referred to as tariff-rate quotas (TRQs).

The entry price system, which is used in many northern hemisphere markets, makes use of multiple tariff rates during different periods when domestic producers are trying to sell their produce, and lower the tariffs during their off-season. Alternatively, the tariff rate can be a function of a market price – if the produce enters at a price which is too low (and therefore likely to be too competitive), it qualifies for a higher tariff schedule.

Whilst tariff regulations can be prohibitive and result in inferior market access, it is often the non tariff barriers that restrict countries like South from successfully entering the large developed markets. Many of these barriers revolve around different types of standards, including sanitary and phyto-sanitary standards (SPS), food health and safety issues, food labelling and packaging, organic produce certification, quality assurance and other standards and grades. Table 13 presents tariffs applied by the top-ten export markets to plums originating from South Africa during 2011. It is important to note that a total of six countries constituting the top ten markets for South African plums during 2011 were members of the European Union. They are the Netherlands, United Kingdom, Germany, Spain, France, and Italy. In Table 13, the tariffs applied by these countries will be grouped together under European Union tariffs.

**Table 13: Tariffs applied by top-ten export markets to plums originating from South Africa**

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
European Union	0809400500	Fresh plums	Preferential tariff for South Africa	0.00%	0.00%
	0809409000	Fresh sloes	Preferential tariff for South Africa	0.00%	0.00%
United Arab Emirates	08094000	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes	MFN duties (Applied)	0.00%	0.00%
Saudi Arabia	08094000	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes	General tariff	0.00%	0.00%
Malaysia	08094000A	Fresh plums and sloes: Plums	MFN duties (Applied)	5.00%	5.00%
Hong Kong	08094000	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes	MFN duties (Applied)	0.00%	0.00%
Singapore	08094000	PLUMS & SLOES FRESH (TNE)	MFN duties (Applied)	0.00%	0.00%
Russia	0809400500	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes: No description at level 10	General tariff(MFN)	5.00%	5.00%
	0809409000	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes: No description at level 10	General tariff(MFN)	5.00%	5.00%
Switzerland	08094012	Abricots, cerises, pêches (y compris	Preferential	0.00%	0.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
		les brugnonns et nectarines), prunes et prunelles, frais: prunes et prunelles: à découvert: prunes: du 1er octobre au 30 juin	tariff for SACU countries		
	08094013	Abricots, cerises, pêches (y compris les brugnonns et nectarines), prunes et prunelles, frais: prunes et prunelles: à découvert: du 1er juillet au 30 septembre: importées dans les limites du contingent tarifaire (c. n° 18)	Preferential tariff for SACU countries	0.00%	0.00%
	08094015	Abricots, cerises, pêches (y compris les brugnonns et nectarines), prunes et prunelles, frais: prunes et prunelles: à découvert: du 1er juillet au 30 septembre: prunelles	Preferential tariff for SACU countries	0.00%	0.00%
	08094092	Abricots, cerises, pêches (y compris les brugnonns et nectarines), prunes et prunelles, frais: prunes et prunelles: autrement emballées: prunes: du 1er octobre au 30 juin	Preferential tariff for SACU countries	0.00%	0.00%
	08094093	Abricots, cerises, pêches (y compris les brugnonns et nectarines), prunes et prunelles, frais: prunes et prunelles: autrement emballées: du 1er juillet au 30 septembre: importées dans les limites du contingent tarifaire (c. n° 18)	Preferential tariff for SACU countries	0.00%	0.00%
	08094095	Abricots, cerises, pêches (y compris les brugnonns et nectarines), prunes et prunelles, frais: prunes et prunelles: autrement emballées: du 1er juillet au 30 septembre: prunelles	Preferential tariff for SACU countries	0.00%	0.00%
Mauritius	08094000	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes	MFN duties (Applied)	0.00%	0.00%
Kuwait	08094000	Apricots, cherries, peaches (including nectarines), plums and sloes, fresh: Plums and sloes	MFN duties (Applied)	0.00%	0.00%

Source: Market Access Map, ITC

South Africa had a preferential trading agreement (PTA) with the European Union (EU) known as the Trade, Development and Cooperation Agreement (TDCA). The TDCA provided for the progressive introduction of a Free Trade Area (FTA). The EU is South Africa's main trading and investment partner. The FTA aimed to ensure better access to the Community market for South Africa and access to the South African market for the EU. The agreement covered around 90% of bilateral trade between the two parties and provided for the liberalisation of 95% of the EU's imports from South Africa within ten years and 86% of South Africa's

imports from the EU in twelve years. In order to protect the vulnerable sectors of both parties, certain products were excluded from the FTA and others have been partially liberalised. For the EU, these are mainly agricultural products, while for South Africa, they are industrial products. The TDCA has however lapsed and the parties are now negotiating an Economic Partnership Agreement (EPA). In the meantime, tariffs that existed before the lapsing of the agreement are still applicable. As can be seen in Table 13, South African plums had preferential access into the EU market through the TDCA. South African plums enter the United Arab Emirates, Saudi Arabia, Hong Kong, Singapore, Switzerland, Mauritius, and Kuwait markets duty-free while Malaysia and Russia impose a 5% duty on plum imports originating from South Africa.

In reality, the tariffs are likely to be far lower for South Africa when considering the preferential agreements, but at the same time, most tariff structures are particularly complex, with quotas, seasonal tariffs and specific tariffs (an amount per unit rather than a percentage of value) all contributing to many different tariff lines and often higher duties payable than one might have anticipated initially. One must also bear in mind that most tariffs are designated to protect domestic industries, and as such are likely to discriminate against those attempting to compete with the domestic producers of that country.

## **4.2 European Union (EU)**

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

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

### **4.2.1 Tariff barriers**

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

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

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

There are tariffs applicable over and above the entry price tariffs, depending on the produce, where it originates from and whether that country has any preferential trading agreements with the EU.

#### 4.2.2 Non tariff barriers

Non tariff barriers can be divided into those that are mandatory and laid out in the EU Commission's legislature and those that are a result of consumers, retailers, importers and other distributors' preferences.

##### 4.2.2.1 Legal requirements

###### i) Product legislation: quality and marketing

There are number of pieces of EU legislation that govern the quality of produce that may be imported, marketed and sold within the EU. They are as follows:

**General Food Law** which covers matters in procedures of food safety and hygiene (micro-biological and chemical), including provisions on the traceability of food (for example, Hazard Analysis and Critical Points, or HACCP), and it is laid out under regulation EC 178/2002.

**EU Marketing Standards** which govern the quality and labelling of fruit are laid out in the Common Agricultural Policy (CAP) framework under regulation EC 2200/96. These regulations include diameter, weight and class specifications, and any produce that does not comply with these standards will not be sold on the EU markets.

**Certificate of Conformity** must be obtained by anyone wishing to export and sell fruits in the EU, if that fruit falls under the jurisdiction of the EU marketing standards.

**Certificate of Industrial Use** must be obtained if the fruit is to be used in further processing.

**Maximum Residue Limits (MRL)** of various pesticides allowed.

###### ii) Product legislation: phyto-sanitary regulations

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

The crux of the directive is that it authorizes the Plant Protection Services to inspect a large number of fruit products upon arrival in the EU This inspection consist of physical examination of a consignment deemed to have a level of phytosanitary risk, identification of any harmful organisms and certification of the validity of any phytosanitary certificate covering the consignment. If the consignment does not comply with the

requirements, it may not enter the EU although certain organisms can be fumigated at the expense of the exporter.

### iii) Product legislation: packaging

The EU Commission lays down rules for materials that come into contact with food and which may endanger people's health or bring about an unacceptable change in the composition of the foodstuffs. The framework legislation for this is EC 1935/2004. Recycling packaging materials are also emphasized under 94/62/EC, whereby member states are required to recycle between 50% and 65% of packaging waste. If exporters do not ship produce in packaging which is reusable, they may be liable for the costs incurred by the importing companies. Wood packaging is subject to phytosanitary controls and may need to undergo heat treatment, fumigation, etc.

#### 4.2.2.2 Non-legal requirements

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

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

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

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

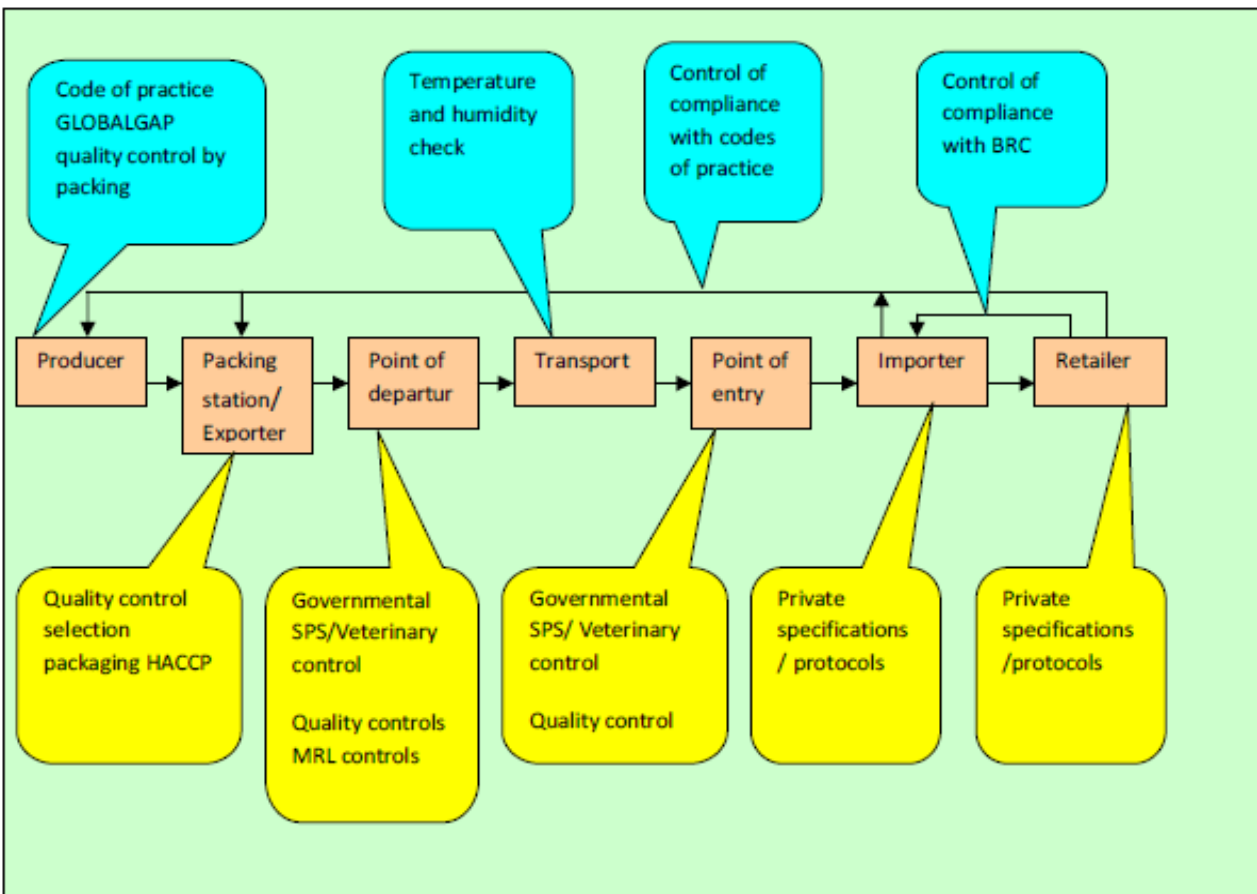
Another important emerging label is Fairtrade, and includes those labels offered by Max Havelaar Foundation, Trans-Fair International and the FLO (Fairtrade Labelling Organization). Recently a 'universal' logo was adopted based on international fair trade standards developed by FLO, which covers amongst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

### 4.2.2.3 Consumer health and safety requirements

Increasing consumer conscience about health and safety issues has prompted a number of safety initiatives in Europe, such as EUREPGAP on good agricultural practices (GAP) by the main European retailers, the international management system of HACCP, which is independently certified and required by legislation for European producers as well as food imported into Europe (EC 852/2004), and the ISO 9000 management standards system (for producers and working methods) which is certified by the International Standards Organization (ISO).

The development of public and private standards involves interventions at multiple points along the value chain. An illustration of the multiple points and multiple standards that are applied for fresh fruit and vegetables and for fish is shown in Figure 26. There are controls by different agents carried out in different ways at different points along the value chain in response to the requirements of private sector companies, coalitions of private-sector standards setters and public agencies. Standards in agribusiness value chains operate, by definition, at multiple points. They are created, adopted, applied and verified by different actors (enterprises and institutions) at different points in the value chain.

Figure 26: Food safety and quality control in the fruit and vegetable supply chains



Source: UNIDO

## **4.3 United States of America (USA)**

### **4.3.1 Tariff barriers**

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

### **4.3.2 Non tariff barriers**

The USA's phytosanitary regulation is conducted by Animal and Plant Health Inspection Service (APHIS), which is divided into nine sub-sections. Plant Protection and Quarantine (PPQ) and Veterinary Services (VS) are responsible for issuing permits for commodities and determining whether a commodity can be imported. The Policy and Program Development (PPD) division works with both these divisions in determining long term plans and procedures.

Some products can get pre-clearance from international Services (IS) personnel stationed in the country of origin, either at exporting terminals or site inspections. The PPQ's main focus is to prevent the spread of diseases and pests into the USA's agriculture resources, and it has personnel stationed at all airports, seaports and border stations that check imported cargo and oversee the quarantine process. Exporters or importers must make a request to export/import a commodity, provide as much information as possible on the product, its region of origin and its status that is whether there are restrictions or regulations governing that particular product from that particular region before a permit is issued, along with the conditions of importation (disinfection treatment) or mitigation measures. Denials can be challenged and governments and companies can request a change in the status of a prohibited commodity (an investigation must be performed by the PPQ scientific team), as long as sufficient conditions have changed or a risk assessment has not been conducted within the last 10 years.

Most approved commodities can enter with inspection alone, but some may have to undergo mitigating measures including post-harvest treatments (hot/cold temperature treatments, irradiation or fumigation, depending on the requirements and which particular treatment is least harmful). The establishment of specifically and maintained pest-free areas in a country (which obviously requires extensive co-operation between the country's plant health services and APHIS IS division) or systems approaches (field surveys, random inspections or various on site treatments).

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

#### **4.4 Japan**

Japan's agricultural sector is heavily protected, with calculations from the Organization for Economic Co-operation and Development (OECD) estimating that almost 60% of the value of Japan's farm production comes from trade barriers or domestic subsidies. Japan uses tariff rate quotas (TRQ) to protect its most sensitive products, and reserves the right for trading many of these products (within the quota) for one or two state trading enterprises. However, these extremely protective measures apply only to some products; others are able to compete more effectively with outside competition, often on the grounds of higher quality.

Perhaps the biggest barrier to trade with Japan in fruit markets is its strict phytosanitary requirements, which have often been challenged in the WTO as having little or no scientific justification. Other measures that are being challenged include Japan's use of fumigation on agricultural products when cosmopolitan pests (already found in Japan) are detected.

Japan is also increasing its labelling requirements. It now requires fresh food, including fruit, to be labelled with the place of origin, whilst new technological ('smart') labels that have embedded semi-conductors and information on just about everything are being adopted in various agricultural sectors.

Food containing genetically modified organisms (GMOs) need to be assessed for environmental food safety by the MAFF or the Ministry of Health, Labour and Welfare (MHLW). At the same time, the MHLW tests food imports for maximum residue levels from pesticides and as of May 2006, any food with pesticides not on approved list, regardless of the residue levels, are not allowed entry.

Japanese organic definitions changed in 2001 (they roughly corresponded to world standard definitions), and any foreign producers wishing to enter the Japanese market must be certified under the Japanese standards (not general world standards).

#### **4.5 China**

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

### **5. DISTRIBUTION CHANNELS**

There are roughly three distinct sales channels for exporting fruits. One can sell directly to an importer with or without the assistance of an agent (usually larger, more established commercial operations). One can supply fruits combined, which will then contract out importers/marketers and try to take advantage of economies of scale and increased bargaining power. At the same time combined fruits might also supply large retail chains. One can also be a member of a private or cooperative export organization which will find

agents or importers and market the produce collectively. Similar to combined fruits, an export organization can either supply wholesale market or retail chains, depending on particular circumstances. Export organizations will wash, sort and package the produce.

They will also market the goods under their own name or on behalf of the member, which includes taking care of labelling, bar-coding, etc. Most of the time, export organizations will enter into collective agreements with freight forwarders, negotiating better prices and services (more regular transport, lower peak season prices, etc). Some countries have institutions that handle all the produce (membership compulsory) and sell only to a restricted number of selected importers.

Agents will establish contacts between producers/export organizations and buyers in the importing country, and will usually take between 2% and 3% commission. In contrast, an importer will buy and sell his/her own capacity, assuming the full risk (unless on consignment). They will also be responsible for clearing the produce through customs, packaging and assuring label/quality compliance and distribution of the produce. Their margins lie between 5% and 10%. The contract importers of fruit combines market and distribute the produce of the combines, clear it through customs and in some cases treat and package it.

Only few exporters have long term contracts with wholesale grocers who deliver directly to retail shops, but with the increasing importance of standards (Global-Gap, etc) and the year round availability of fruit, the planning of long term contractual relationships is expected to increase.

## **6. LOGISTICS**

### **6.1 Mode of transport**

The transport of fruits falls into two categories namely ocean cargo and air cargo. Ocean cargo takes much longer to reach the desired location but costing considerably less. The choice of transportation method depends, for most parts on the fragility of the produce and how long it can remain relatively fresh. With the advent of technology and container improvements, the feasibility, cost and attractiveness of sea transport have improved considerably. With the increased exports by South Africa, the number and the regularity of maritime routes have increased. These economies of scale could benefit South Africa if more producers were to become exporters and take advantage of the various ports which have special capabilities in handling fruit produce (for example Durban new fruit terminal).

### **6.2 Cold chain management**

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

### **6.3 Packaging**

Packaging can also play an important role in ensuring safe and efficient transport of a product and conforming to handling requirements, uniformity recyclable material specifications, phytosanitary requirements, proper storage needs and even attractiveness for marketing purposes.

The business panel of any carton (including printed carton labels) should comply with the requirements as established by the EU or any other regulations that are specified by a target market. Producers are advised to present their designs to the Perishable Products Export Control Board (PPECB) before they can order any cartons from a manufacturer. The following is normally required:

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

## **7. ORGANIZATIONAL ANALYSIS**

### **7.1 Producer and associated organizations**

Grower participation and control of their interests in the industry are structured by means of fruit type producer associations (Section 21 companies), as illustrated on Figure 27. The industry consists of Hortgro Services as its mouthpiece. Hortgro Services is responsible for administrative services and financial administration, as well as operational industry services such as transformation and training, information, communication and social programmes.

Hortgro Services comprises of its members, affiliated members and service entities. The members are the South African Apple and Pears Producers Association (SAAPPA), South African Stone Fruit Producers Association (SASPA), Dried Fruit Technical Services (DFTS), Protea Producers of South Africa (PPSA), South African Cherry Growers' Association (SACGA), and the South African Olive Industry Association.

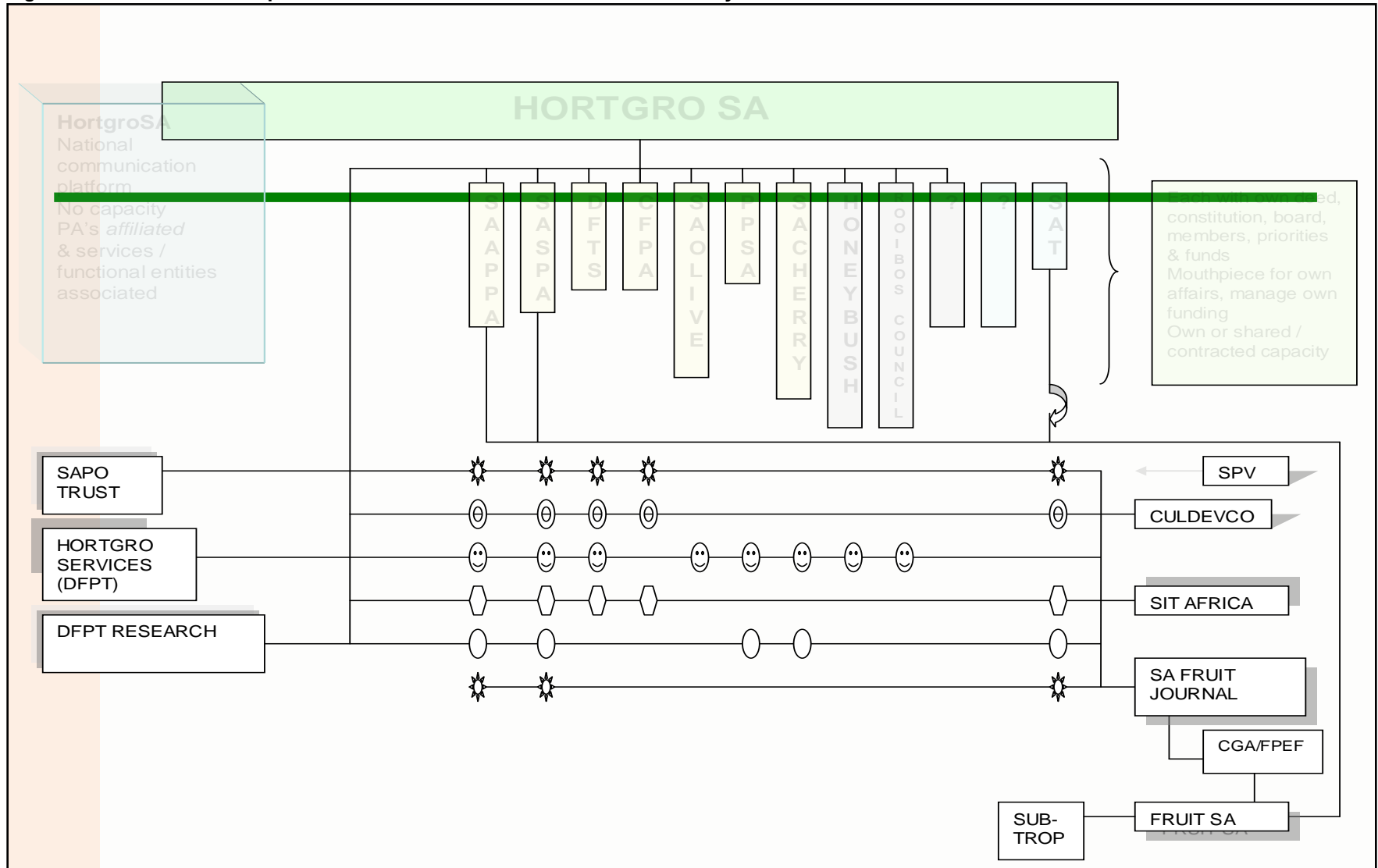
The affiliated members are Rooibos Tea Producers Association, Pomegranate Producers Association, Cape Flora, South African Honeybush Tea Association (SAHTA), South African Bee Industry Organisation, South African Berry Producers Association.

The service entities are Fruitgro Science (DFPT Research), South African Plant Improvement Organisation (SAPO) Trust, Cultivar development Company (CULDEVCO), Sterile Insect Technique (SIT) Africa, Entomon Technologies and the SA Fruit Journal.

The main association responsible for the plum industry is the South African Stone Fruit Producers' Association (SASPA). It is a Section 21 company and its objectives are as follows:

- To promote the common interest and specific needs of the stone fruit producers in South Africa and to act as their official representative.
- To rationalize and promote the production and marketing of stone fruits and stone fruit products.
- To encourage and pursue constructive dialogue and mutual cooperation with government and other role players.
- To foster mutual trust and long term relationships among role players and stakeholders.
- To establish and promote a reciprocal information system to enable stakeholders to make informed market decisions.

Figure 27: Structure of the producer interest in the deciduous fruit industry



Source: Hortgro

## 7.2 Strengths, Weaknesses, Opportunities and Threat analysis

Some of the strengths, weaknesses, threats and opportunities of the plum production sector in South Africa are as follows:

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• The industry's export operations and leading players are well established.</li> <li>• An efficient export infrastructure exists and market access has been improved.</li> <li>• The South African fruit industry is known for excellent overall quality for fruit (strong reputation in major international markets).</li> <li>• Sound communication mechanisms to majority of industrial participants.</li> <li>• High level of investment in current technology within pack houses and cold chain facilities.</li> <li>• Industry has all traceability systems in place, as required by accreditation protocols.</li> </ul>	<ul style="list-style-type: none"> <li>• Production is largely dependent on climatic conditions which can only be partially manipulated by man through irrigation.</li> <li>• Deteriorating research infrastructure and capacity may limit new technology development in the future.</li> <li>• Saturation of traditional export markets.</li> <li>• Reliance on the UK and EU as main export market.</li> <li>• Relatively high input and capital costs.</li> <li>• An element of fragmentation in the industry.</li> <li>• Lengthy supply chain beyond the pack house.</li> <li>• Lack of industry control on efficiency and productivity in supply chain beyond farm gate and pack house door.</li> <li>• Poor skills and knowledge of the new entrants.</li> <li>• Delays due to degradation of the supporting infrastructure within the supply chain (handling facilities at ports, roads and energy supply).</li> </ul>
Threats	Opportunities
<ul style="list-style-type: none"> <li>• Increased competition from the Southern Hemisphere counterparts like Chile, and Argentina.</li> <li>• Oversupply of fruit into established export markets.</li> <li>• Availability and cost of irrigation water.</li> <li>• Impact of climate change especially in the Western Cape.</li> <li>• Inflation rate with regard to cost of labour and farming and also packing prerequisites.</li> <li>• Currency variability.</li> </ul>	<ul style="list-style-type: none"> <li>• Market access initiatives to the Middle East, Asia (India, Indonesia) and China.</li> <li>• Increasing demand for fresh plums in Africa.</li> <li>• Potential for increased local market consumption.</li> </ul>

## 7.3 Strategic challenges

### 7.3.1 Labour markets

The critical need for labour at harvest time offers seasonal work to unemployed persons in the immediate vicinity of plantations. In most countries, workers migrate from one region to another as the harvest season

progresses from early to late. However, in the local scenario, labourers lack mobility as well as skills to find work outside crop harvesting.

A major challenge in terms of labour is the lack of skilled labour. At the same time, farm wage levels do not attract skilled or qualified people to undertake menial and hard work. Smaller producers, who pay comparatively lower wages, are more exposed than the larger producers to the threat of labour shortages.

### **7.3.2 Infrastructure**

Some of the infrastructural challenges are as follows:

- Lack of storage capacity at certain times of the year, when stone fruit and other fruits are being harvested (mid January until end of February).
- Hygiene and micro-bacterial quality of water available for use in pack houses and domestic purposes on farms.
- Poor or no communication between the agricultural sector and service providers in terms of planning and future expansion on issues such as energy and transport.
- Transport from the pack house to the market – road, ship or rail.
- Logistical systems which are not applied at full efficiency.
- Inefficient handling operations at South African ports, giving rise to costly delays and breaks in the cold chain.

### **7.3.3 Other challenges**

Producers are being confronted with more regulations to control the production from farm to fork. These include regulating soil, air, water, chemicals, labelling and safety. On the retailing side pressure mounts to introduce measures for increased traceability of products. The consumer wants a safe product produced with socially acceptable and environmentally friendly production methods. Combined with this many consumers are up in arms about GMO's and the USA government is introducing a bio terrorism act that will put even more pressure on exporters to the USA.

Competition for scarce natural resources (land and water) is putting continued pressure on good farmland that can otherwise be used for agricultural purposes.

There is a threat of climate change particularly in the Western Cape Province. Production of plums and other fruits could be adversely affected by the warming of the winter season due to rising average temperatures and subsequent loss in chilling hours. Lack of winter chilling gives rise to delayed foliation and the problem of small fruit of poor quality. Increased average maximum temperatures in January and February may result in poor colour development. The risk of sunburn is also increased.

### **7.3.4 Empowerment and transformation in the sector**

According to Hortgro Services, transformation in the deciduous fruit industry has four focus areas. These are economic development, the Deciduous Fruit Development Chamber (DFDC), networking and agri-villages.

With regards to economic development, Hortgro Services serves as an implementation agent of CASP grants for the Western Cape Department of Agriculture. This provides an opportunity for Hortgro to provide matching funds for the implementation of targeted transformation projects in the province. The main focal point of economic development is the tree project. The tree project aims to increase production or footprint for Black Economic Empowerment (BEE) farmers.

To overcome transformation challenges and encourage it, the Deciduous Fruit Development Chamber (DFDC) was established as a national support structure for emerging deciduous fruit farmers. The DFDC provides space for incubator interactions that guide the business and technical assistance to emerging fruit farmers. The DFDC aims to fulfil a dynamic capacity building and advocacy role and to exert pressure in order to mobilise resources from various quarters, including government and the donor community.

Networking entails the building of relationships and networks in order to enhance the procurement of funds and other resources to help with the transformation process. This includes building working relations with all commercial banks and other DFIs and parastatals such as the Land Bank, Industrial Development Corporation (IDC), the Agricultural Research Council (ARC), and other industry stakeholders.

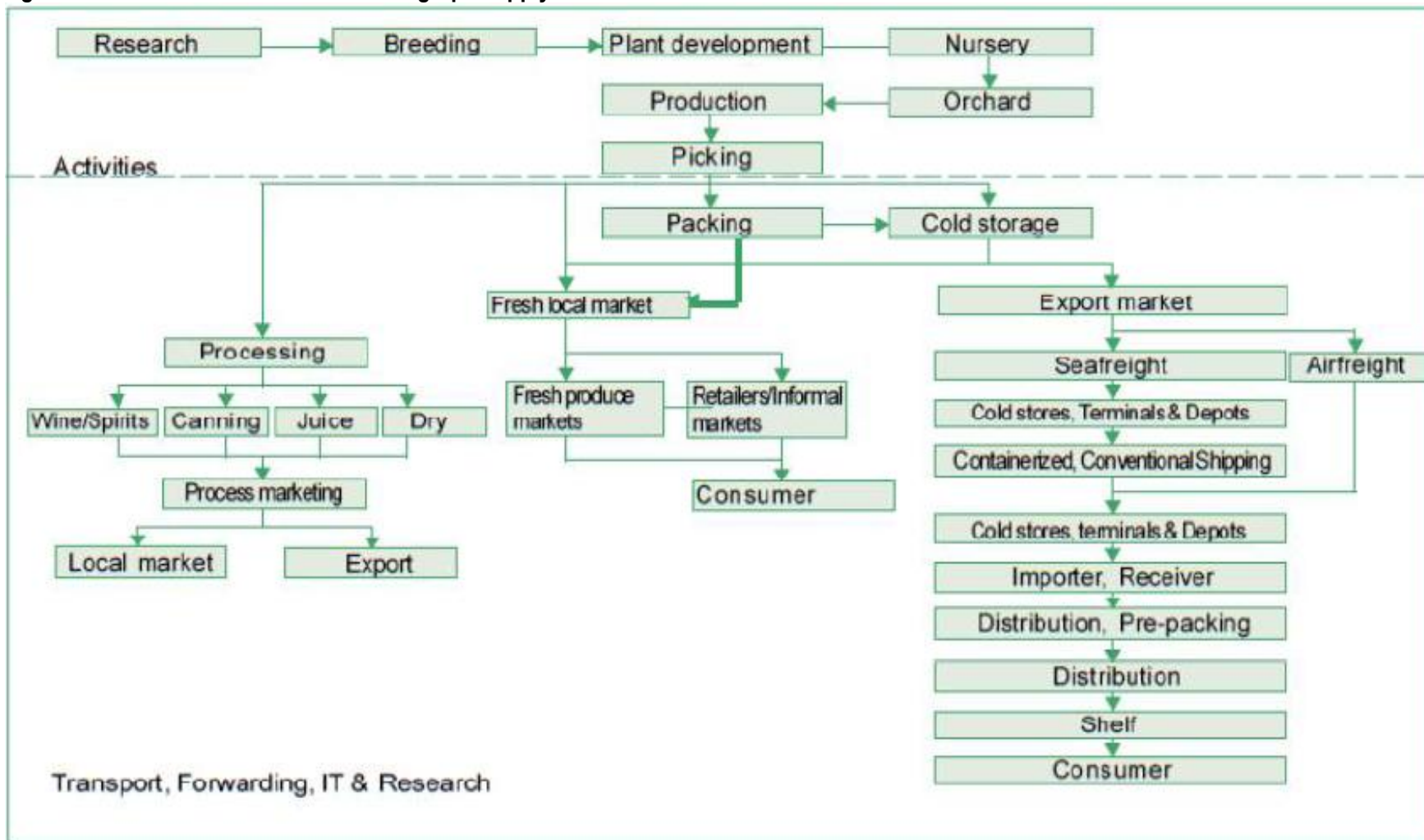
Agri-villages focus specifically on the provision of housing for farm workers and their families. Hortgro Services has committed itself to participating in organised agricultural initiatives to explore the following options as possible solutions to farm worker housing:

- On-farm housing without ownership rights.
- Off-farm housing without ownership, e.g. renting.
- Off-farm housing with ownership.

## **8. PLUM SUPPLY VALUE CHAIN**

The supply value chain is a complex linkage of various production and operational role-players (see Figure 28). Key stakeholders include input suppliers, producers, producer organisations, organised labour, NOGs, financial institutions, government, exporters and other traders. The following discussion focuses on the main segments of the plum value chain.

Figure 28: The deciduous fruit and table grape supply value chain



Source: OABS

## **8.1 Suppliers of inputs and farming requisites**

Fruit farming is a large user of specialised inputs and sophisticated agricultural chemicals. Input suppliers ensure that all inputs needed by farmers for successful production, including farm equipment, pesticides, insecticides and others, are always available at reasonable prices so as to ensure a competitive fruit industry in South Africa.

## **8.2 Producers**

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

## **8.3 Fresh produce markets**

FPMs are the dominant player and form of wholesaling in the South African plum and fresh fruit and vegetable (FFV) sector. However other wholesale forms do exist including independent wholesalers, contract buyers, supermarkets, wholesaling subsidiaries, as well as farmer sales direct to retailers and to consumers.

Being the largest wholesalers, the FPMs have emerged as the FFV price-setters or, as nicknamed, the “fresh produce stock exchange”. The prices at the FPMs are arrived at through a bargaining process mediated by market agents who have a dual objective to collect the best prices (and hence commission) for sales while ensuring that the highly perishable stocks are cleared. These prices are then used as reference prices even in private transactions outside the FPMs.

## **8.4 Retailers**

South African plum retailers exist in both the formal and informal sectors. In the former this includes formally registered retail chains, supermarkets and neighbourhood stores. The latter covers tuck shops (*sphaza*), and hawkers. In this environments plums sales are at predetermined prices and are typically individually or in small packages.

## **8.5 Processors**

As explained earlier, the processing of plums consists of canning, drying and juice manufacturing. There is also a set of further processors not captured in the group above. These entities use plums (and plum products) in food preparations. This includes caterers, hospitality and other institutions such as corporates, government institutions like hospitals, prisons, etc.

## **8.6 Cold storage operators and transporters**

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

(PPECB). A flat bed truck or other non-approved vehicle may be used in journeys shorter than two hours in total.

Transporters perform a key link in the fresh fruit supply chain by facilitating the physical transfer of the products between parties such as the producer, cold store and terminal operator. Transporters are responsible for maintaining the cold chain during transit.

## **8.7 Exporters**

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

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

## **8.8 PPECB**

In terms of the PPECB Act (Act 9 of 1983) the PPECB is responsible for the "control of perishable products intended for export from the Republic of South Africa". This mainly involves the control of the cold chain (including the shipping process). PPECB also acts as a government "assignee" in terms of the APS (Agricultural Products Standards) Act (Act 119 of 1990) and is responsible for the "control over sale and export of agricultural and related products". PPECB controls (and certifies) that the quality standards of these products are met. The National Department of Agriculture, Forestry and Fisheries (DAFF) issues the phytosanitary certificates.

All PPECB and other inspection regulations, protocols or requirements must be met and adhered to. The Information and Communication Procedure (ICP) must therefore be seen in conjunction with the PPECB Act and its regulations, the APS Act, as well as those temperature and other specialized handling protocols and procedures as established by PPECB in conjunction with the industry. As more emphasis is placed on food safety and customers are demanding higher standards of quality, PPECB and other inspection bodies play an increasingly important role in the export of fresh produce from South Africa. PPECB may make the following information available to exporters and producers on request:

- Packed volumes
  - ✓ Inspected and approved for export
  - ✓ Inspected and rejected for export
- Product quality

- ✓ Reasons for rejection
- Shipped volumes
  - ✓ This information is available on a product and destination region level
- Cold chain information
  - ✓ Vessel carrying instructions (temperature letter, vessel temperature log, statements of facts, deviations, etc.

The information outlined above is available in varying degrees of detail.

## **8.9 Terminal and port operators**

Terminal operators must inform exporters, PPECB and other relevant parties in the supply chain such as transporters, producer associations, producers and cold stores about port related delays such as labour strikes, wind delays, plug-in congestion and other traffic congestion in the port that will impact on the flow of fresh produce into and out of the harbour. The South African Port Operations (SAPO) container terminal reports to shipping lines.

## **9. ACKNOWLEDGEMENTS**

The following industries/organizations are acknowledged.

### **9.1 Deciduous Fruit Producers Trust (DFPT)/ Fruitgro Science/ Hortgro Services**

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**9.4 National Agricultural Marketing Council (NAMC)**

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[www.namc.co.za](http://www.namc.co.za)

**9.5 International Trade Centre**

[www.trademap.org/](http://www.trademap.org/) [www.macmap.org](http://www.macmap.org)

**9.6 Quantec**

[www.quantec.co.za](http://www.quantec.co.za)

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