

# A PROFILE OF THE SOUTH AFRICAN LITCHI MARKET VALUE CHAIN

2012

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REPUBLIC OF SOUTH AFRICA

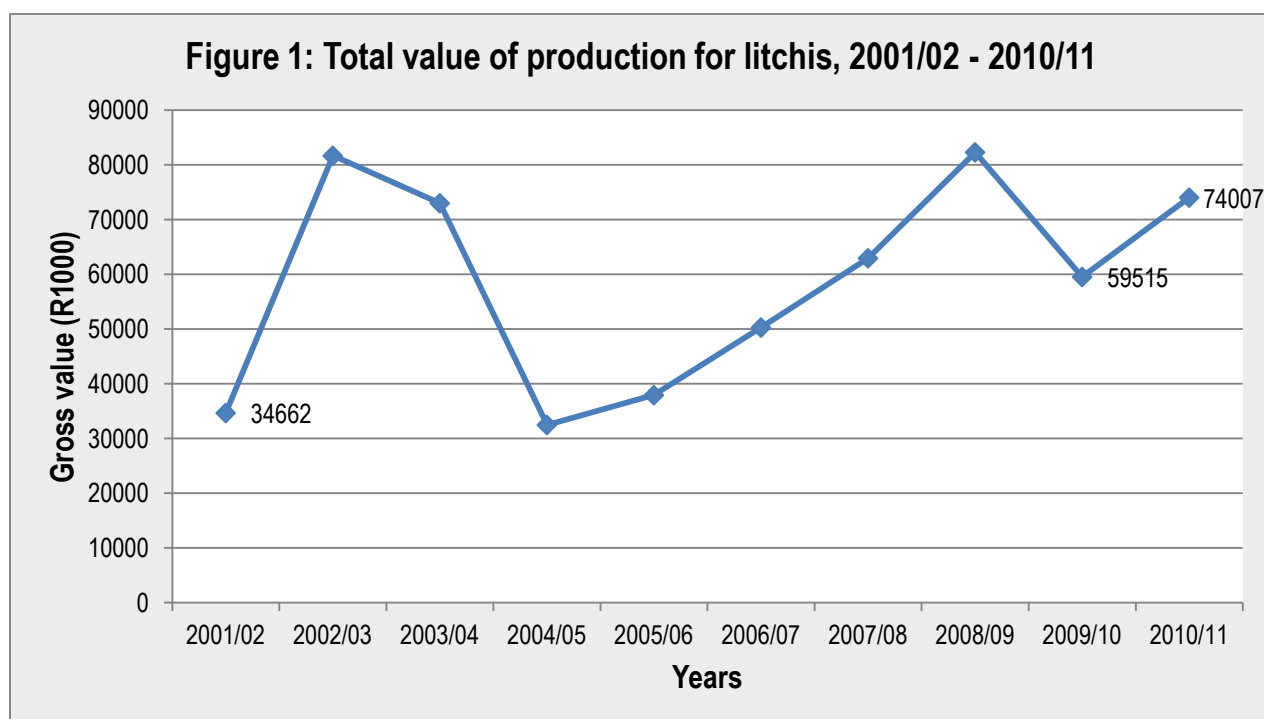
## TABLE OF CONTENTS

<b>1. DESCRIPTION OF THE INDUSTRY .....</b>	<b>3</b>
1.1 Production volumes .....	4
1.2 Production areas .....	4
1.3 Litchi cultivars planted in South Africa .....	5
1.4 Employment .....	6
<b>2. MARKET STRUCTURE .....</b>	<b>7</b>
2.1 Domestic market sales and prices .....	8
2.2 Exports .....	9
2.3 Provincial and district export values .....	13
2.4 Share analysis .....	20
2.5 Imports .....	23
2.6 Litchi harvesting and post-harvest treatment .....	23
2.6.1 Harvesting .....	23
2.6.2 Post-harvest treatment .....	23
2.6.3 Litchi drying .....	24
<b>3. MARKET INTELLIGENCE .....</b>	<b>24</b>
<b>4. MARKET ACCESS .....</b>	<b>29</b>
<b>5. DISTRIBUTION CHANNELS IN EXPORT MARKETS .....</b>	<b>32</b>
<b>6. LOGISTICS .....</b>	<b>33</b>
6.1 Mode of transport .....	33
6.2 Cold chain management .....	33
6.3 Packing and palletizing .....	34
<b>7. ORGANISATIONAL ANALYSIS .....</b>	<b>35</b>
7.1 The South African Subtropical Growers' Association (Subtrop) .....	35
7.2 Strength, Weakness, Opportunities and Threats (SWOT) analysis .....	35
7.3 The litchi value chain .....	36
7.3.1 Suppliers of inputs and farming requisites .....	37
7.3.2 Producers .....	37
7.3.3 Fresh produce markets .....	37
7.3.4 Retailers .....	38
7.3.5 Processors .....	38
7.3.6 Cold storage operators and transporters .....	38
7.3.7 Exporters .....	38
7.3.8 PPECB .....	39
7.3.9 Terminal and port operators .....	39
<b>8. ACKNOWLEDGEMENTS .....</b>	<b>40</b>

## 1. DESCRIPTION OF THE INDUSTRY\*

The litchi (*Litchi chinensis*) is indigenous to the south of China where a subtropical climate prevails and mention is made of the fruit in the earliest Chinese literature. The first trees out of the Asian continent were established in the subtropical areas of Hawaii, Florida, California and South Africa in the 19<sup>th</sup> century. Literature reveals that litchi trees were imported into South Africa from Mauritius in 1876, but some trees had already been noticed in Natal in 1875, which indicates earlier imports. Many different cultivars were established in Kwazulu Natal and later in the Mpumalanga Lowveld and other suitable frost-free areas of the country.

The South African Litchi Growers' Association (SALGA) and the Research and Technical Committee were formed in 1987 to attend to the immediate problems of the litchi industry. The industry is subject to the same problems as the fresh fruit industry in general, namely marketing, logistics, market access and adverse weather conditions such as drought, frost and hail. During the 2010/11 production season the litchi industry contributed approximately 3% (R74 million) to total gross value of subtropical crops (R2.3 billion). Gross value of production for litchis in South Africa for the period 2001/02 to 2010/11 is presented in Figure 1.



Source: Statistics and Economic Analysis, DAFF

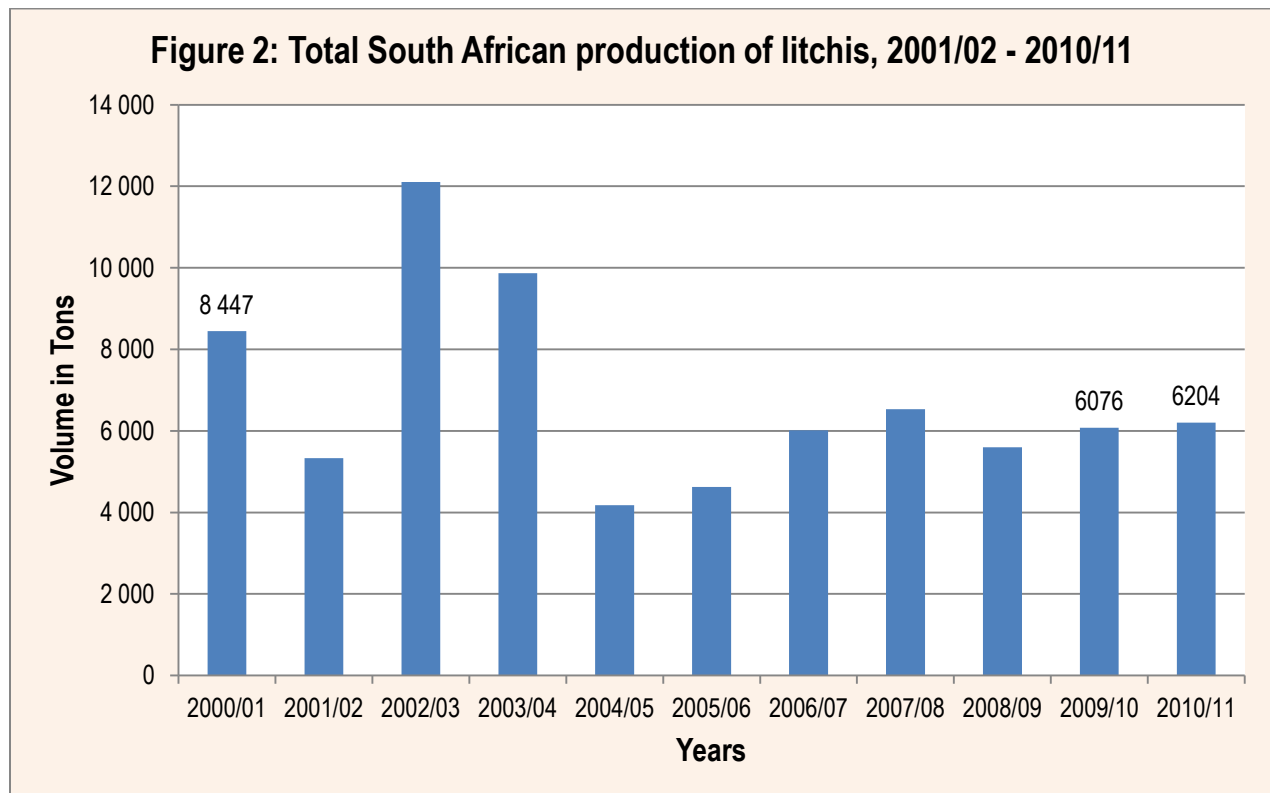
As can be seen in Figure 1 the gross value of litchis produced in South Africa fluctuated significantly during the past ten years. During the ten years under review the total value of production for litchis reached its highest in 2008/09 at R82.3 million and was at its lowest in 2004/05 at R32.5 million. Litchis with a total gross value of R74 million were produced in South Africa during the 2010/11 production season. The total

\* Inputs from Tshifhiwa Radzilani of the South African Subtropical Growers' Association (Subtrop) are herewith acknowledged.

gross value was 23% higher than that of the previous year (2009/10) and 11% higher than that of a decade ago (2001/02). The total gross value usually trails the total volume of production.

### 1.1 Production volumes

The litchi industry in South Africa is well-established and exhibits a slow trend in terms of new plantings and production. Growth in production volume has been relatively disappointing during the last decade. Total production of litchis for the period 2001/02 to 2010/11 is presented in Figure 2.



Source: Statistics and Economic Analysis, DAFF; Subtrop, 2012

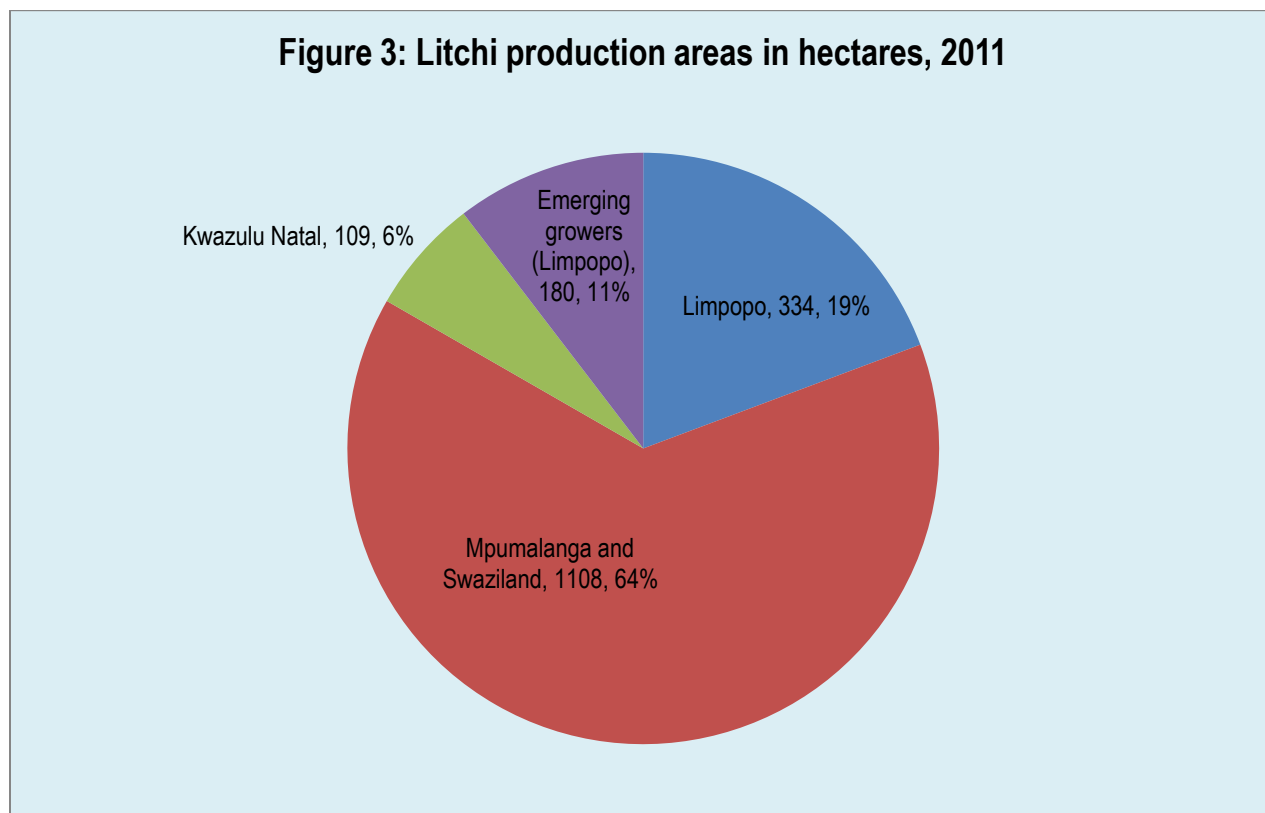
As can be observed in Figure 2, a total volume of 6 204 tons of litchis were produced in South Africa during the 2010/11 production season. The production volume increased by 2% between the 2009/10 and 2010/11 production seasons. The volume produced was however, 27% lower than the volume produced during the 2000/01 production season. During the ten years under consideration, production peaked in 2002/03 at 12 102 tons and was at its lowest in 2004/05 at 4 177 tons. Litchi has long been known to have a substantial water requirement and is best adapted to a subtropical climate with short, dry and cool but frost-free winters and long hot summers with high rainfall and humidity.

### 1.2 Production areas

Litchis grow well in especially sandy soils in the cooler subtropical areas. However, the trees also grow and produce well in clay soil in the warmer areas. The litchis require mean winter minimum temperatures below 15°C and mean winter maximum temperatures of 20°C or lower to flower well. Mean summer maximum

temperatures should be between 27 and 33°C. There should be low rainfall during winter and high rainfall during summer. The relative humidity should be 50% and higher during the warm summer months.

Litchi production areas during the year 2011 are presented in Figure 3. A total area of 1 731 ha was planted to litchis in South Africa in 2011. It is evident from Figure 3 that Mpumalanga province is the leader in terms of litchi production in South Africa. An area of 1 108 hectares (64%) out of a total of 1 731 hectares under litchi cultivation in South Africa in 2011 are found in Mpumalanga (including Swaziland). Regionally, the most important litchi producing region in Mpumalanga is the hot Lowveld, which produces nearly 60% of all South African litchis annually.



Source: Subtrop, 2012

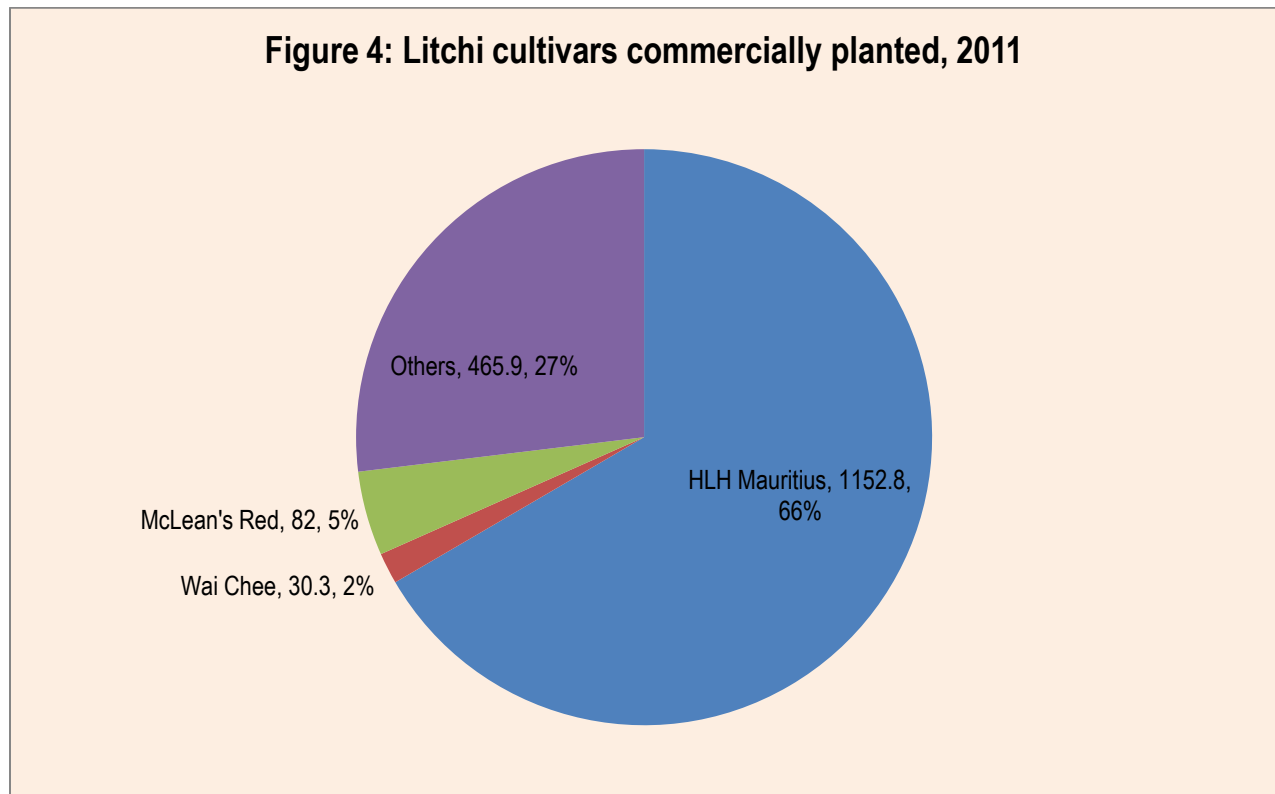
An area totalling 334 hectares are under litchi cultivation in Limpopo province, representing 19% of the total area under litchi cultivation in South Africa in 2011. The most important litchi producing areas in Limpopo include Trichardtsdal, Tzaneen, Makhado (Louis Trichardt), and Levubu. Annually, Tzaneen contributes an average of 20% to total Litchi production in South Africa and this includes areas farmed by emerging producers in the province. The north and south coasts of Kwazulu Natal have 109 hectares (6%) under litchi cultivation while the emerging producers in Limpopo have 180 hectares (11%) under litchi cultivation.

### 1.3 Litchi cultivars planted in South Africa

Litchi cultivars grown in South Africa are divided into three main groups: Mauritius group, Chinese group and the Madras group. The Mauritius group is usually planted in South Africa and produces satisfactory yields as well as good quality fruit. Cultivars in this group include HLH Mauritius (also known as Tai So), Muzaffarpur, Late Large Red, Hazipur, Saharanpur, and Rose-Scented.

The Chinese group produces very poor yields but the fruit is of very high quality. Cultivars in this group include Haak Yip, Wai Chee, Shang Shou Huai, Kontand, Glutinous Rice, and Three Months Red. The Madras group produces colourful red fruit of poor quality and the cultivars include Kafri, Shorts Seedless, Johnstone's Favourite, Emmerson, Durbhanga, Maries, Mooragusha, Madras 19, Hazipur/Saharanpur, Red McLean, Brewster and Bedana. The main cultivars planted on a commercial scale in South Africa during 2011 are presented in Figure 4.

**Figure 4: Litchi cultivars commercially planted, 2011**



Source: Subtrop, 2012

It is evident from Figure 4 that the main cultivar grown on a commercial scale in South Africa is HLH Mauritius (1 153 ha or 66% in 2011). This cultivar is mostly grown in Mpumalanga and Limpopo provinces. Another important cultivar grown in South Africa is McLean's red (82 ha or 5%). Wai Chee contributed 2% (30 ha) of total area planted to litchis in 2011 while other cultivars constituted the remaining 27% (465 ha). The commercial litchi industry in South Africa is mainly dependent on HLH Mauritius and McLean's Red cultivars.

#### 1.4 Employment

The South African litchi industry plays an important role in terms of job creation for the majority of the people living in rural areas. It is estimated that the industry employs approximately 4 000 permanent farm workers and an additional two thousand casual labourers during peak periods. The contribution of the industry is further seen through the dependency of individual members of the households, which is estimated at 24 000 annually.

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>†</sup>	R11.66	Previous year's minimum wage + CPI <sup>‡</sup> + 1.5%			Previous year's minimum wage + CPI + 1.5%		

Source: Department of Labour, 2013

## 2. MARKET STRUCTURE

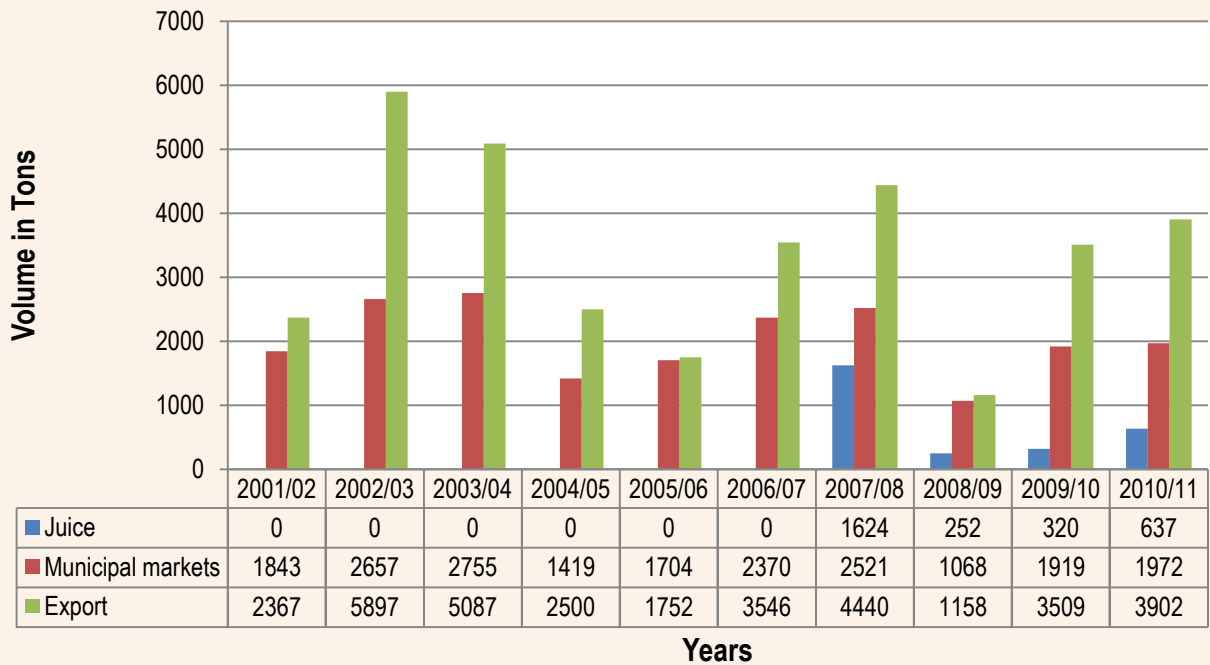
The distribution of the annual litchi crop over the past decade is presented in Figure 5. The South African litchi industry is predominantly export oriented. During the 2010/11 production season 3 902 tons of litchis were exported and 1 972 tons were sold in the local markets. This means that out of a total production of 6 204 tons produced in 2010/11, 63% went to the export market while 32% was sold through the local markets. Approximately 5% (637 tons) was delivered for processing (juice making) during the same year. The volumes of litchis delivered to the export, processing and local markets increased between 2009/10 and 2010/11 seasons.

Litchi production is mostly hampered by inadequate yields due to alternate bearing and high fruit drop during fruit set and early fruit development. Fruit size is affected by insufficient irrigation and fertilisation during critical stages of fruit development. All these factors should be taken into account if farmers are to produce fruits of good quality and size for the market.

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

<sup>‡</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.

**Figure 5: Annual litchi crop distribution, 2001/02 - 2010/11**

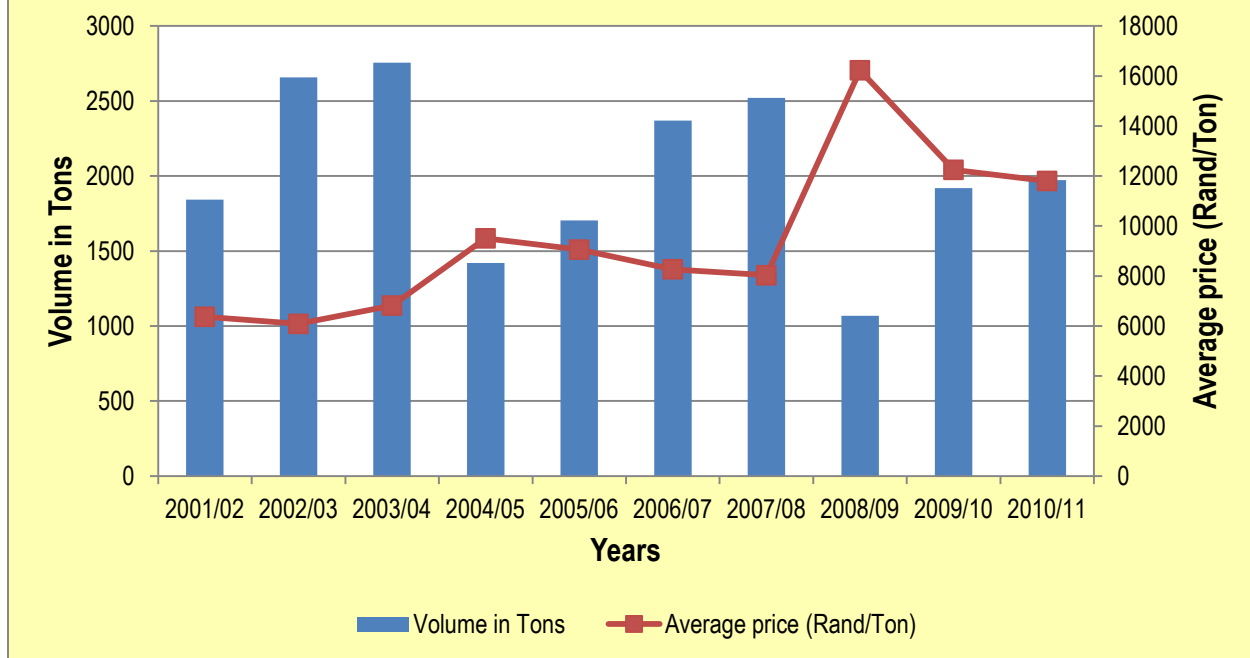


Source: Subtrop, 2012; Statistics and Economic Analysis, DAFF

## 2.1 Domestic market sales and prices

It is quite a challenging task to obtain a complete picture of the local market, as most of the fruit is sold informally to hawkers and informal traders. However, recorded quantities are sold through agents on the national fresh produce markets (NFPMs), as well as through retailers and processors for the manufacturing of mostly juice. Domestic sales and prices realised at the NFPMs for the period 2001/02 to 2010/11 are presented in Figure 6.

**Figure 6: Sales of litchis at the municipal markets, 2001/02 - 2010/11**



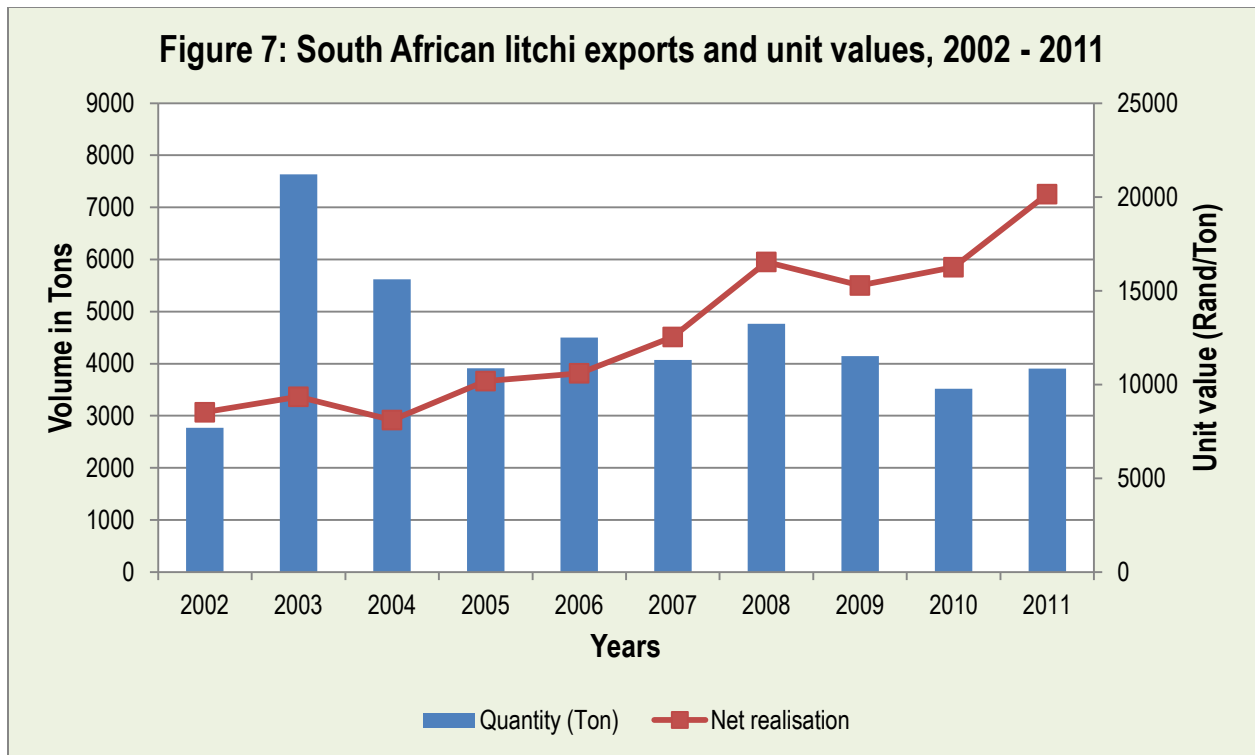
Source: Subtrop, 2012

Between the 2001/02 and 2010/11 marketing seasons volumes of litchis sold on the NFPMs increased slightly from 1 843 tons to 1 881 tons, an increase of 2%. The volume of litchis sold through the markets has not grown significantly during the last decade. This trend is not only confined to litchis but to a whole other fruits and vegetables sold through NFPMs. This is a clear indication that NFPMs are losing their role as centres of price discovery and the principal marketing channel of fruits and vegetables. The result is direct sales from farms to pack houses and retailers.

At the same time, prices realised at the NFPMs have increased steadily, increasing from R6 370 per ton in 2001/02 to R11 803 per ton in 2010/11, an increase of 85% in ten years. The rise in prices has been mainly due to a decline in volumes delivered to the markets. The response of prices to volumes available for sale in the markets indicate a lag in terms of the responsiveness of prices to available stocks in the sense that, it takes approximately a year for prices to adjust to available stocks.

## 2.2 Exports

In 2011 the South African litchi industry accounted for 1.23% of the world's exports of litchis and approximately 63% (3 902 tons) of all litchis (6 204 tons) produced in South Africa during the 2010/11 marketing season were exported. Total volumes and net realisation for South African litchi exports from 2002 to 2011 are presented in Figure 7.

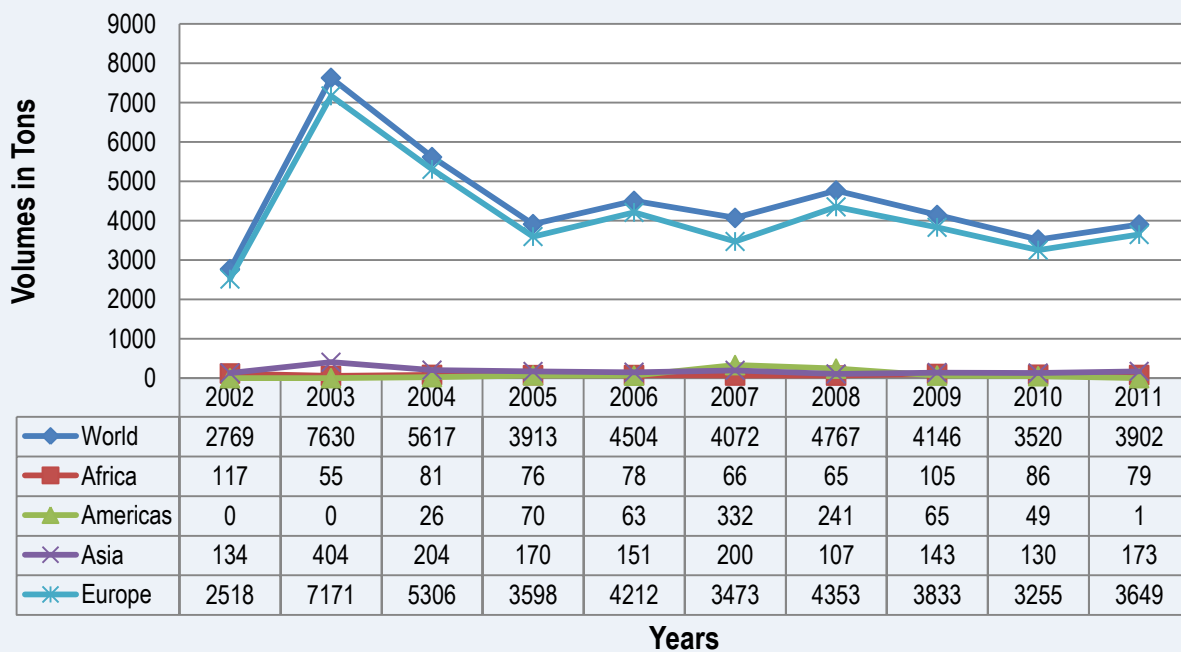


Source: Quantec Easydata

Data from Quantec indicate that volumes of litchis exported by South Africa have been relatively stable over the past ten years. The exceptions were in 2003 and 2004 when volumes exported were higher. There was a huge increase (176%) in exports between 2002 and 2003. This was mainly due to an increase in production experienced during the 2002/03 production season. A total volume of 3 902 tons of litchis was exported by South Africa in 2011. The export volumes have been declining during the past two marketing season before increasing again by 11% in 2011.

Prices realised in the export markets have been increasing during the last ten years. Prices increased from R8 519 per ton in 2002 to R20 149 per ton in 2011, an increase of 136%. Prices also increased by 24% between 2010 and 2011. It is interesting to note that prices of litchis respond to quantities supplied to the market. This was evidenced in 2004 with a 13% decline in prices following an increase in quantities supplied. It is also important to note that there exists a lag in terms of the responsiveness of prices to quantities available for sale. Exports of South African litchis to the various regions of the world over the past decade are presented in Figure 8.

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

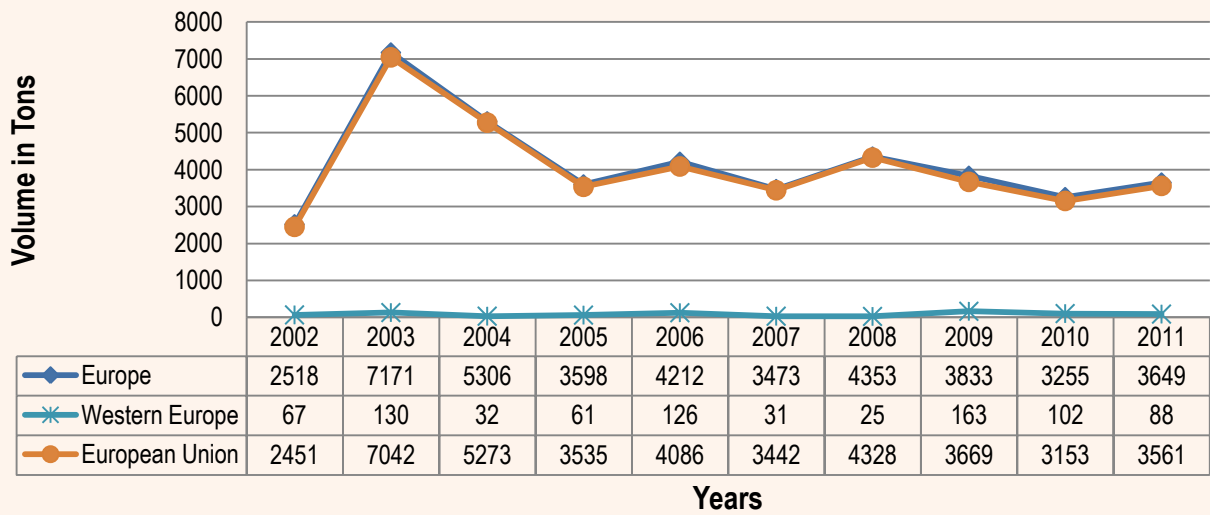


Source: Quantec Easydata

It is evident from Figure 8 that during the last decade, almost all of South Africa's exports of litchis were destined for the European market. Exports to Europe accounted for 94% (3 649 tons) of total South African litchi exports (3 902 tons) in 2011. Exports to Africa, the Americas and Asia have been relatively insignificant, collectively accounting for less than 10% throughout the last decade. Exports to Europe increased from 3 255 tons in 2010 to 3 649 tons in 2011, an increase of 12%. During the period under review, litchi exports to Europe peaked at 7 171 tons in 2003 and were at their lowest in 2002 at 2 518 tons.

Within Europe, South African exports of litchis are mainly distributed between the European Union and Western Europe (see Figure 9). The European Union consists of 25 member states while Western Europe comprises Switzerland, Liechtenstein and Monaco. Annually, over 90% of all South African litchi exports to Europe go to European Union member states while the remainder goes to Western Europe (see Figure 9). Exports to Europe peaked at 7 171 tons in 2003. The European Union absorbed approximately 98% (3561 tons) of all South African litchi exports to Europe in 2011 and the remaining 2% (88 tons) was absorbed by Western Europe.

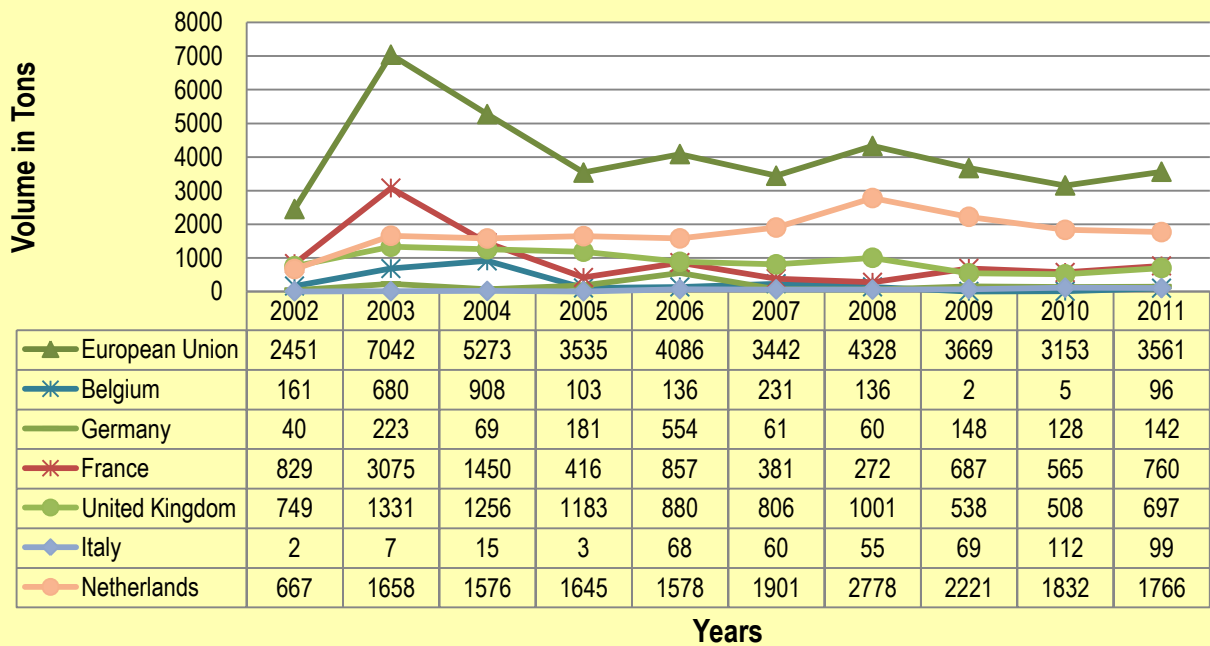
**Figure 9: Volumes of litchi exports to various regions of Europe, 2002 - 2011**



Source: Quantec Easydata

Due to its significance to South African exports of litchis the European Union market is further disaggregated in Figure 10.

**Figure 10: Volumes of litchis exported to various European Union member states, 2002 - 2011**

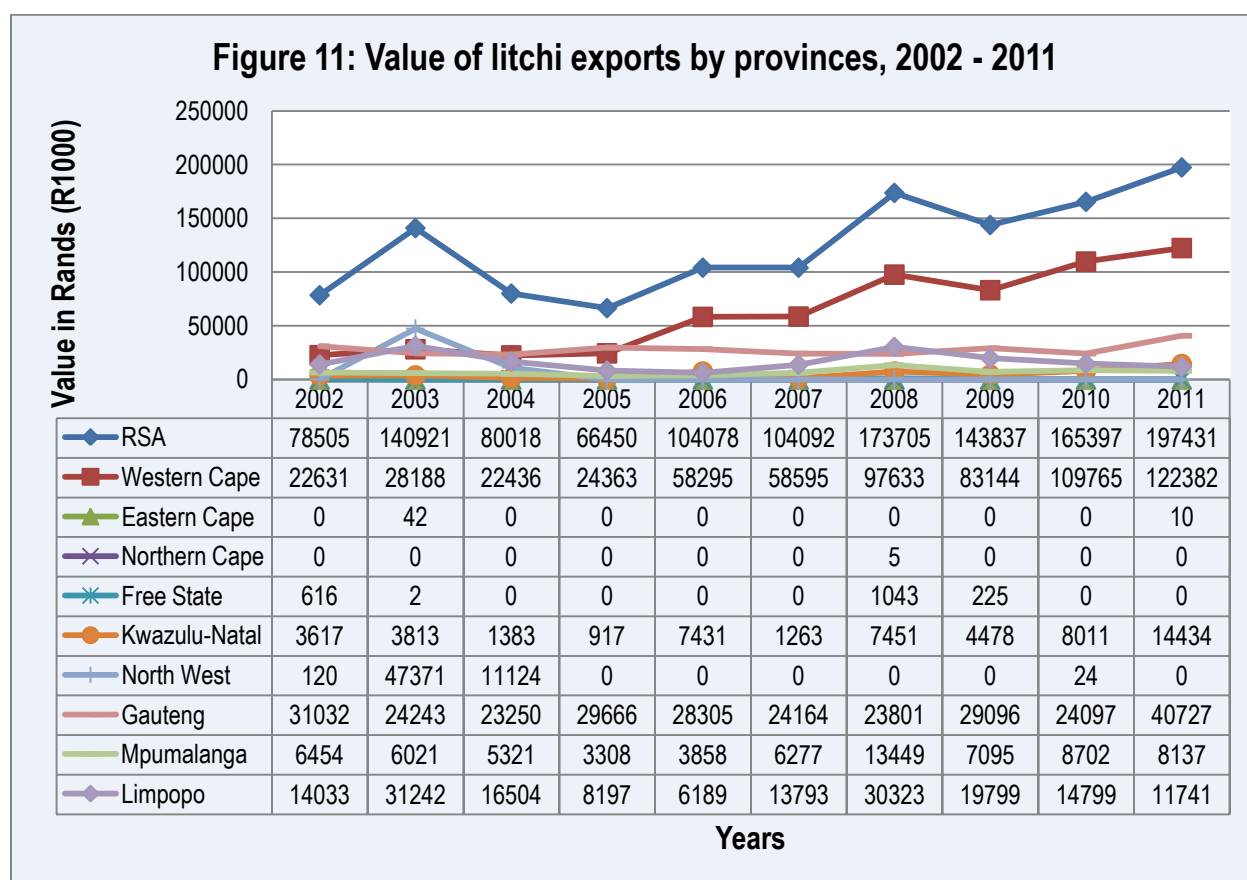


Source: Quantec Easydata

It is evident from Figure 10 that the major importers of South African litchis in the European Union are the Netherlands, United Kingdom and France. In 2011 the Netherlands accounted for 50% (1 766 tons) of all South African exports of litchis to the European Union (3 561 tons). It was followed by France and the United Kingdom at 21% (565 tons) and 20% (508 tons) respectively. During the period under review exports to the Netherlands peaked at 2 778 tons in 2008 while those to France and the United Kingdom peaked at 3 075 tons (in 2003) and 1 331 tons (also in 2003), respectively. The total South African litchi exports to the European Union increased by 13% between the years 2010 and 2011. The main contributors to the decline were the United Kingdom and France who recorded increases during the same period. Exports into the Netherlands declined by an average of 4% during the same period under review.

### 2.3 Provincial and district export values

Values of litchi exports from each province of South Africa for the period 2002 to 2011 are presented in Figure 11.

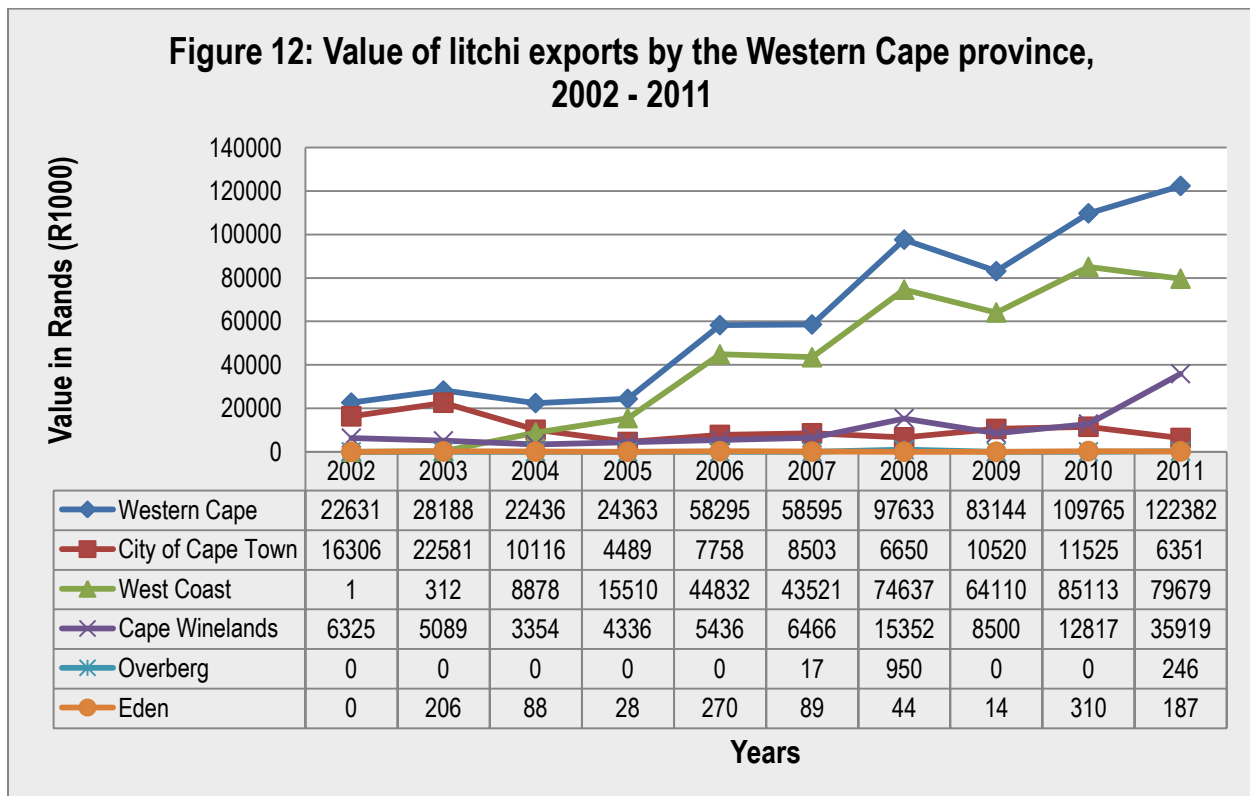


Source: Quantec Easydata

Litchis worth R197 million were exported by South Africa in 2011. The export value was 19% higher than the 2010 export value and 153% higher than the value of litchis exported in 2002. The Western Cape is the leading exporter of litchis in South Africa. The province contributed 62% to total value of South African exports in 2011. The Western Cape is followed by Gauteng and Kwazulu Natal at 21% and 7% respectively. The Western Cape and Gauteng are not among the major producers of litchis in South Africa but the bulk of South African litchis are exported through these provinces. This is mainly because the two

provinces serve as exit points for litchi exports in South Africa. Mpumalanga province, the biggest producer of litchis in South Africa comes in fifth at 4%. This indicates that the biggest producers of litchis are not necessarily the biggest exporters as litchis leave South Africa via other provinces.

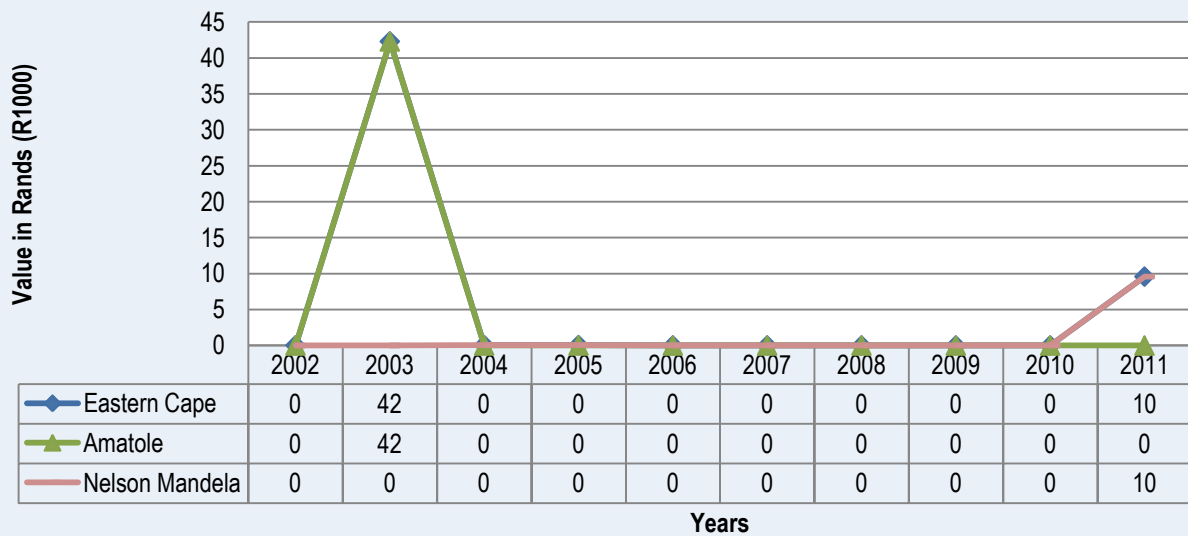
Figures 12 – 20 show the value of litchi exports from the various districts in each of the nine provinces of South Africa. Values of litchi exports by the Western Cape province are presented in Figure 12. The West Coast district is the leading exporter of litchis in the Western Cape. The value of the district's exports peaked at over R85 million tons in 2010 before declining to R80 million in 2011. The value of litchi exports from the West Coast declined by 6% between 2010 and 2011. Other major players in the export of litchis in the Western Cape are the City of Cape Town and the Cape Winelands district. The two districts accounted for R6.4 million and R35.9 million respectively in 2011.



Source: Quantec Easydata

The Eastern Cape province only recorded exports of litchis worth R42 thousand during 2003 and R10 thousand during 2011 (see Figure 13).

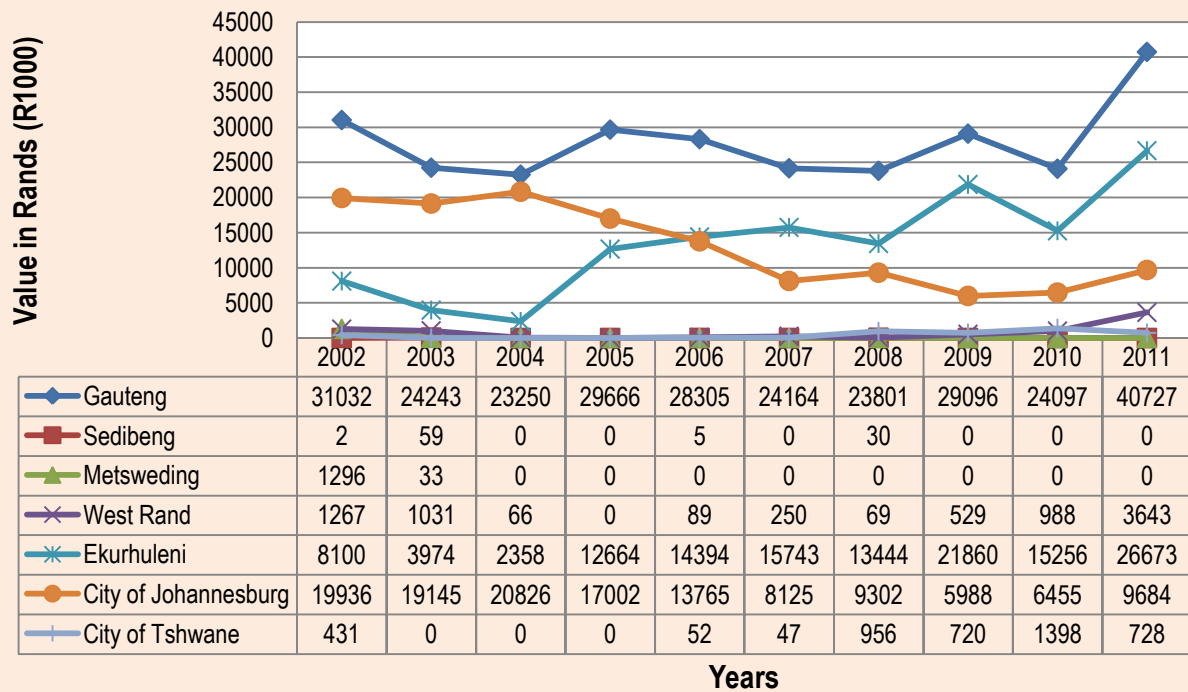
**Figure 13: Value of litchi exports by the Eastern Cape province, 2002 - 2011**



Source: Quantec Easydata

Values of litchi exports by the Gauteng province are presented in Figure 14.

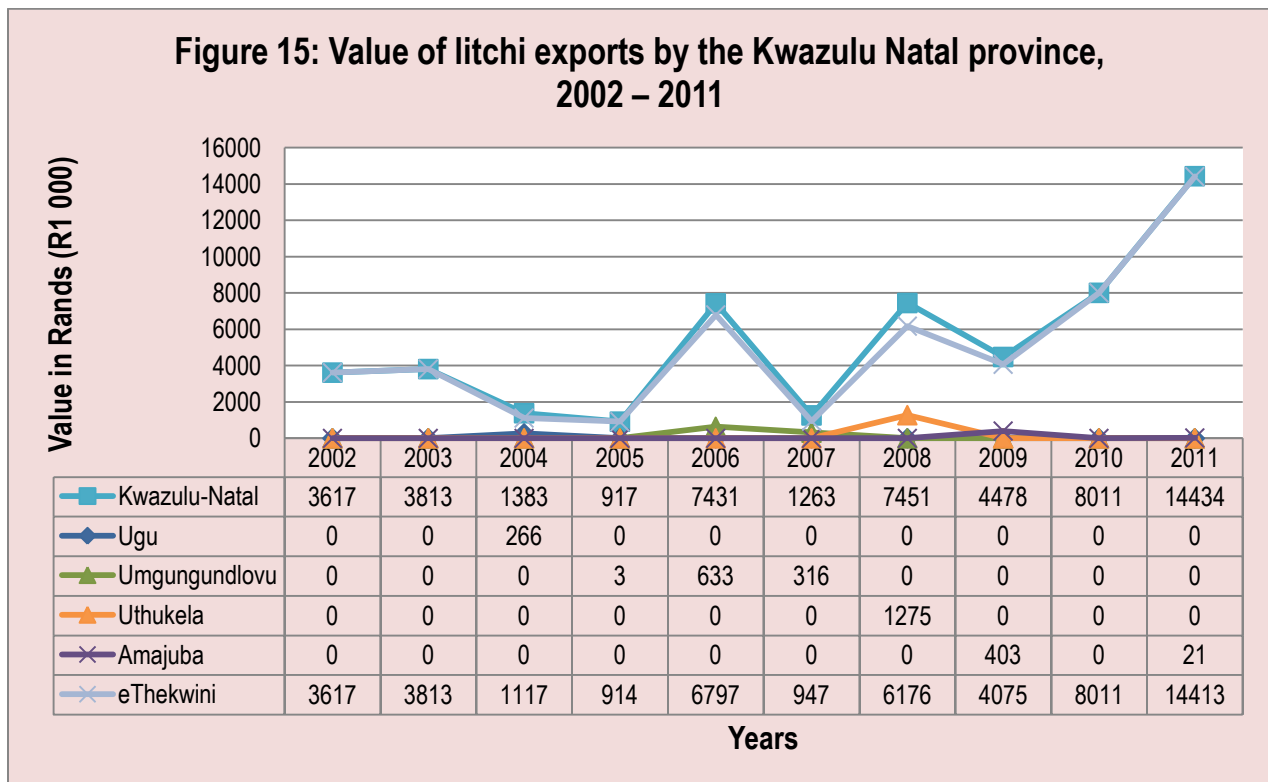
**Figure 14: Value of litchi exports by Gauteng province, 2002 - 2011**



Source: Quantec Easydata

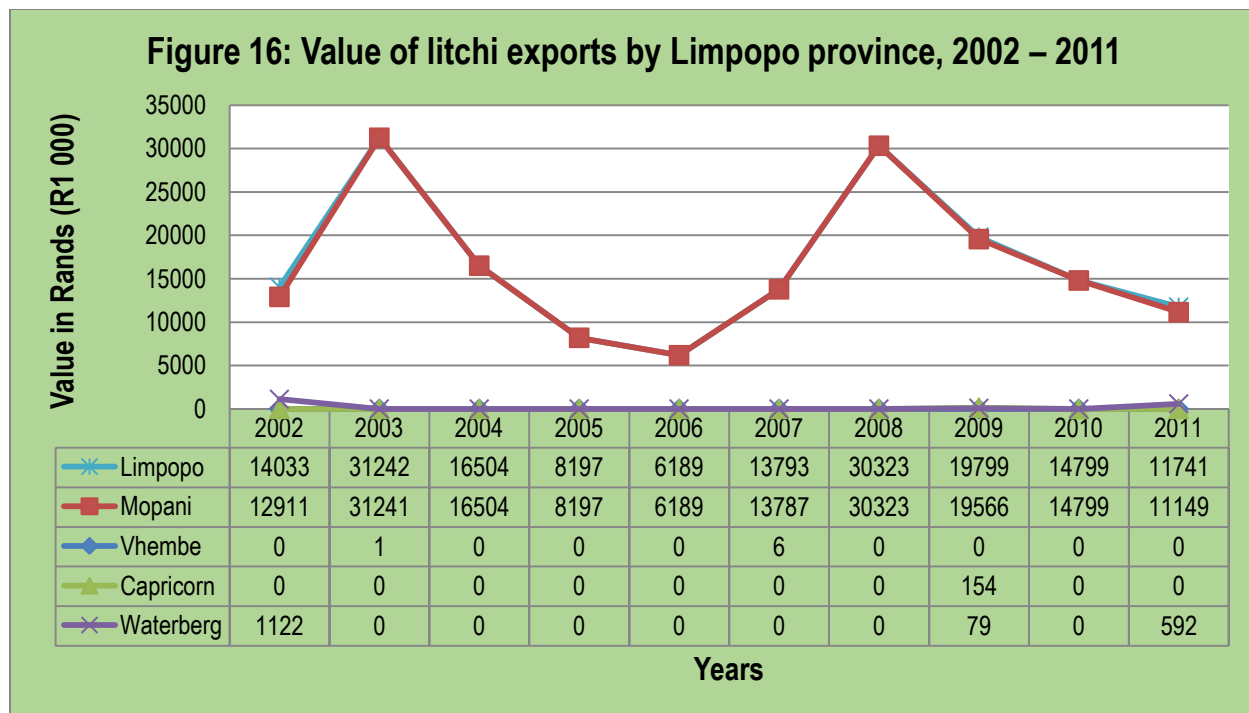
Litchi exports in Gauteng are mainly from Ekurhuleni and City of Johannesburg metropolitan municipalities. High export values for the leading municipalities were recorded in 2011 (for Ekurhuleni) and 2004 (for City of Johannesburg). Export values from Ekurhuleni, the leading litchi exporting district in 2011, increased from just over R8.1million in 2002 to over R26 million in 2011. Ekurhuleni overtook the City of Johannesburg as the leading export region for litchis in Gauteng in 2006. The value of exports from the City of Johannesburg rose by 49% between 2010 and 2011 while the value of litchi exports from Ekurhuleni increased by 75% during the same period.

Figure 15 illustrates values of litchi exports by the Kwazulu Natal province. The leading litchi export district in the Kwazulu Natal is the eThekweni metropolitan municipality. The municipality recorded litchi exports worth over R14 million during 2011. High export values for the leading municipality were recorded in 2011. The use of the Durban harbour as an exit point is the main reason for eThekweni municipality being a leader in the export of litchis in Kwazulu Natal. The value of litchi exports from Kwazulu Natal fluctuated strongly during the period under review and has been increasing during the past two years.



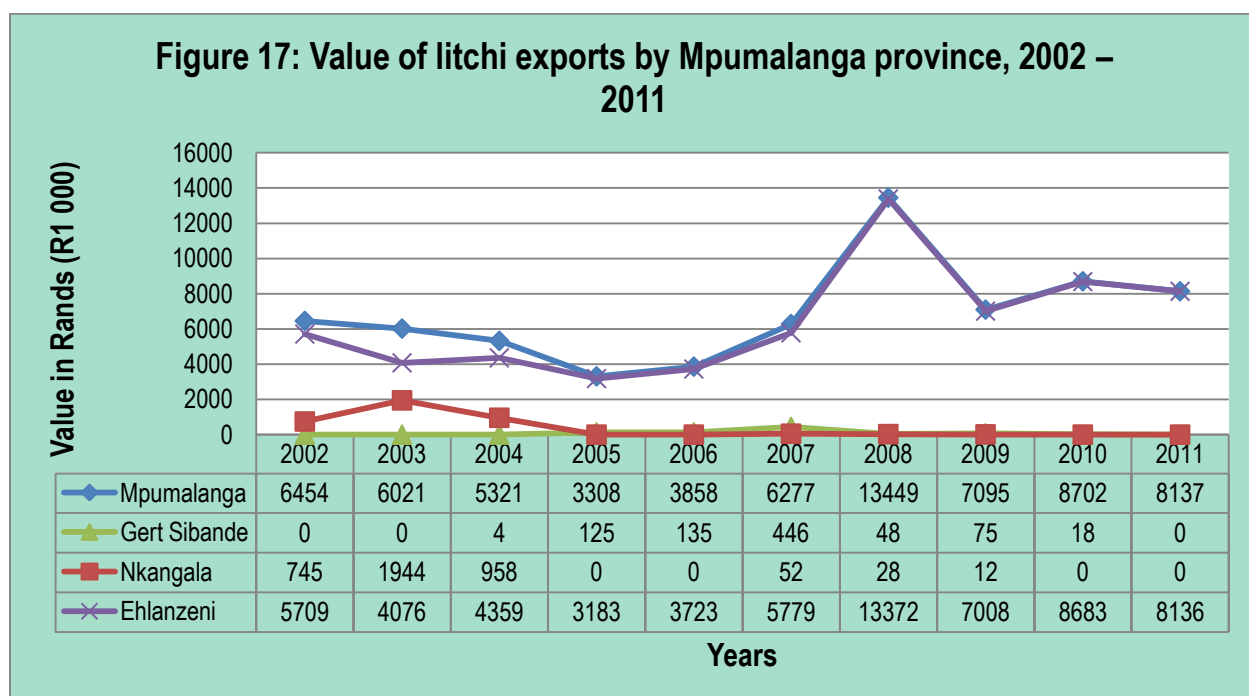
Source: Quantec Easydata

Values of litchi exports from the Limpopo province are shown in Figure 16. It is clear from Figure 16 that litchi exports from the Limpopo province are mainly from the Mopani district municipality. High export values for the leading municipality were recorded in 2003. The district recorded litchi exports worth R11.1 million in 2011. This was down from the R14.8 million recorded in the previous year (2010). Another municipality that recorded litchi exports during 2011 was the Waterberg district.



Source: Quantec Easydata

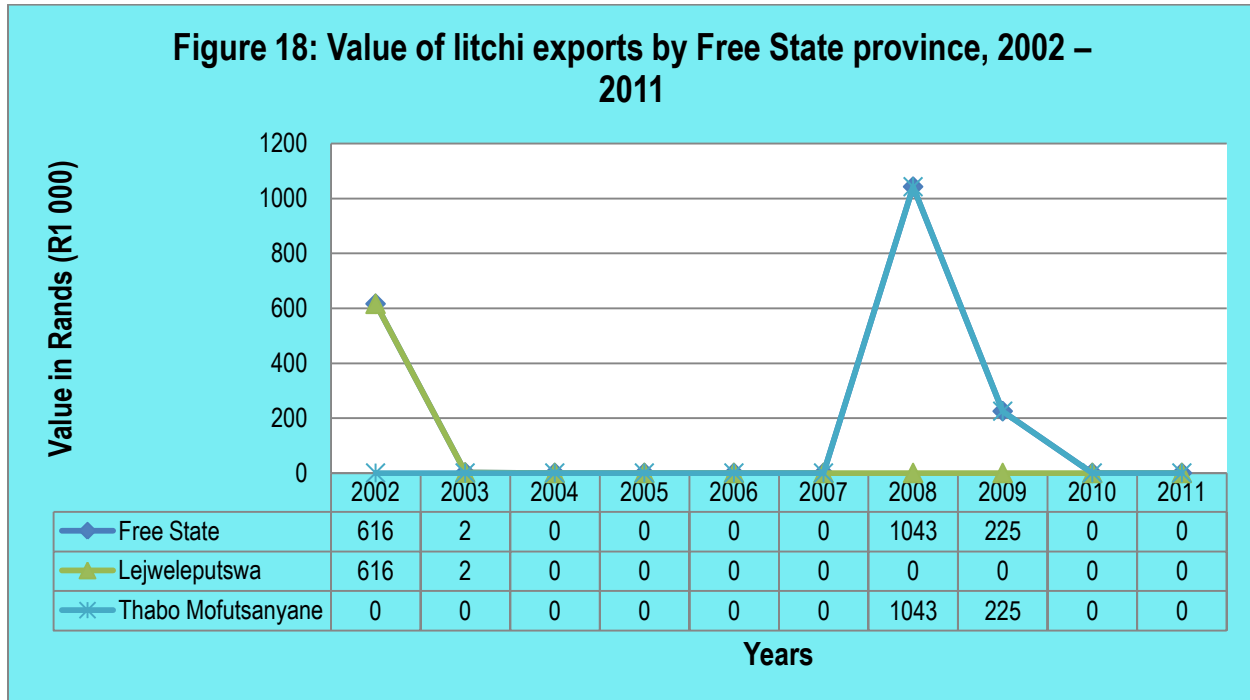
Values of litchi exports from Mpumalanga province are presented in Figure 17.



Source: Quantec Easydata

It can be observed from Figure 17 that litchi exports recorded in Mpumalanga province are mainly from the Ehlanzeni district. High export value for the Ehlanzeni district was recorded in 2008. The value of litchi exports from the district has declined from over R13 million in 2008 to R7 million in 2009, a decline of 48%.

The value however experienced an increase of 23% in 2010 when compared with the previous year and declined again by 7% in 2011 when compared to 2010. The Nkangala district recorded the highest value for litchi exports in 2003 (R1.9 million). Figure 18 shows the value of litchi exports by the Free State province.

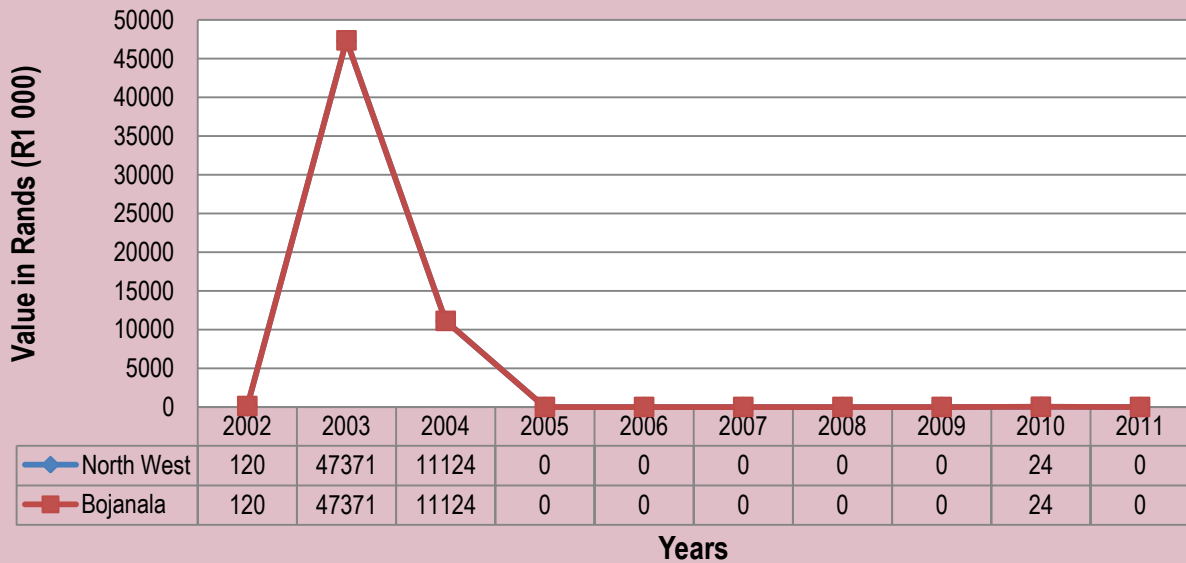


Source: Quantec Easydata

The major exporters of litchis in the Free State province are Lejweleputswa and Thabo Mofutsanyane district municipalities. High export values for the leading municipalities were recorded in 2008 (for Thabo Mofutsanyane) and 2002 (for Lejweleputswa). No litchi exports were recorded from the Lejweleputswa district since 2003 while the Thabo Mofutsanyane only recorded litchi exports in 2008 and 2009. No litchi exports were recorded in 2011.

Values of litchi exports by the North West province are presented in Figure 19. All exports of litchis recorded in North West during the past ten years were from the Bojanala district. The district exported litchis worth over R47 million in 2003. No exports were recorded by the province from 2005 until 2010 when litchi exports worth R24 thousands were recorded. No litchi exports were recorded in 2011.

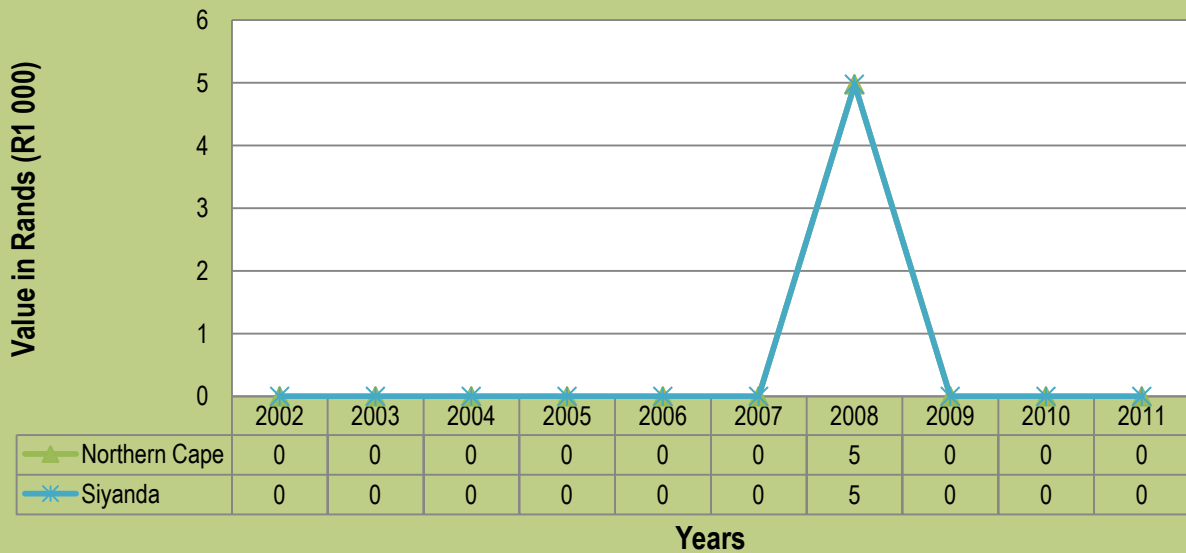
**Figure 19: Value of litchi exports by North West province, 2002 – 2011**



Source: Quantec Easydata

All exports of litchis recorded in the Northern Cape during the past decade were from the Siyanda district (see Figure 20). During the past decade, the Northern Cape only recorded R5 thousand worth of litchi exports in 2008.

**Figure 20: Value of litchi exports by Northern Cape province, 2002 – 2011**



Source: Quantec Easydata

## 2.4 Share analysis

Table 2 provides an illustration of provincial shares towards the total value for South African litchi exports for the period 2002 to 2011. The Western Cape, Gauteng and Limpopo provinces have commanded the greatest share of litchi exports during the past decade. The three provinces collectively accounted for almost 88.5% of all exports of litchis in South Africa in 2011. All these provinces but Limpopo, do not produce litchis but they are the largest contributors in terms of litchi exports. This raises concerns regarding the availability of marketing infrastructure in provinces like Mpumalanga and Kwazulu Natal that produce a greater proportion of South African litchis and export very little litchis on their own. Kwazulu Natal and Mpumalanga contributed 7.3% and 4.1% to the total value of South African exports of litchis in 2011.

**Table 2: Share of provincial litchi exports to the total RSA litchi exports (%), 2002 - 2011**

Years Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>RSA</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Western Cape</b>	28.8	20.0	28.0	36.7	56.0	56.3	56.2	57.8	66.4	62.0
<b>Eastern Cape</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Northern Cape</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Free State</b>	0.8	0.0	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.0
<b>Kwazulu-Natal</b>	4.6	2.7	1.7	1.4	7.1	1.2	4.3	3.1	4.8	7.3
<b>North West</b>	0.2	33.6	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Gauteng</b>	39.5	17.2	29.1	44.6	27.2	23.2	13.7	20.2	14.6	20.6
<b>Mpumalanga</b>	8.2	4.3	6.6	5.0	3.7	6.0	7.7	4.9	5.3	4.1
<b>Limpopo</b>	17.9	22.2	20.6	12.3	5.9	13.3	17.5	13.8	8.9	5.9

Source: Calculated from Quantec Easydata

The shares of district litchi exports to total Western Cape provincial litchi exports are presented in Table 3. In 2011 the leading exporter of litchis in the Western Cape was the West Coast district with 65.1%. It was followed by the Cape Winelands and the City of Cape Town at 29.4% and 5.2% respectively.

**Table 3: Share of district litchi exports to the total Western Cape provincial litchi exports (%), 2002 - 2011**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Western Cape</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>City of Cape Town</b>	72.1	80.1	45.1	18.4	13.3	14.5	6.8	12.7	10.5	5.2
<b>West Coast</b>	0.0	1.1	39.6	63.7	76.9	74.3	76.4	77.1	77.5	65.1
<b>Cape Winelands</b>	27.9	18.1	14.9	17.8	9.3	11.0	15.7	10.2	11.7	29.4
<b>Overberg</b>	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.2
<b>Eden</b>	0.0	0.7	0.4	0.1	0.5	0.2	0.0	0.0	0.3	0.2

Source: Calculated from Quantec Easydata

Table 4 shows the shares of district litchi exports to the total Eastern Cape provincial litchi exports for the period 2002 to 2011. During the last ten years the Eastern Cape only recorded exports of litchi in 2003 from Amathole and in 2011 from the Nelson Mandela metropolitan municipality.

**Table 4: Share of district litchi exports to the total Eastern Cape provincial litchi exports (%), 2002 - 2011**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Amathole	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nelson Mandela	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Source: Calculated from Quantec Easydata

The shares of district litchi exports to the total Gauteng provincial litchi exports are presented in Table 5. In Gauteng the contributions of the various districts to total provincial litchi exports are mainly distributed between Ekurhuleni and City of Johannesburg. In 2011, the leading district was Ekurhuleni with 65.5% share. It was followed by the City of Johannesburg at 23.8%. The two districts accounted for 89% of the total value of litchi exports recorded by Gauteng during 2011. The West Rand and the City of Tshwane also contributed 8.9% and 1.8% respectively in 2011.

**Table 5: Share of district litchi exports to the total Gauteng provincial litchi exports (%), 2002 - 2011**

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	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Metsweding	4.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West Rand	4.1	4.3	0.3	0.0	0.3	1.0	0.3	1.8	4.1	8.9
Ekurhuleni	26.1	16.4	10.1	42.7	50.9	65.1	56.5	75.1	63.3	65.5
City of Johannesburg	64.2	79.0	89.6	57.3	48.6	33.6	39.1	20.6	26.8	23.8
City of Tshwane	1.4	0.0	0.0	0.0	0.2	0.2	4.0	2.5	5.8	1.8

Source: Calculated from Quantec Easydata

The leading exporter of litchis in Kwazulu Natal is the eThekweni metropolitan municipality (see Table 6). Almost all (99.9%) litchi exports recorded in Kwazulu Natal during 2011 were from the eThekweni metropolitan municipality. The remaining 0.1% came from Amajuba district.

**Table 6: Share of district litchi exports to the total Kwazulu Natal provincial litchi exports (%), 2002 - 2011**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Kwazulu-Natal	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Ugu	0.0	0.0	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Umgungundlovu	0.0	0.0	0.0	0.3	8.5	25.0	0.0	0.0	0.0	0.0
Uthukela	0.0	0.0	0.0	0.0	0.0	0.0	17.1	0.0	0.0	0.0
Amajuba	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.1
eThekweni	100.0	100.0	80.7	99.7	91.5	75.0	82.9	91.0	100.0	99.9

Source: Calculated from Quantec Easydata

Table 7 presents the shares of district litchi exports to total Limpopo provincial litchi exports for the period 2002 to 2011. The leading litchi export district in Limpopo is Mopani. The district accounted for all (100%) litchi exports recorded in Limpopo in 2010 and 95% of total litchi exports in 2011. The remaining 5% came from the Waterberg district.

**Table 7: Share of district litchi exports to total Limpopo provincial litchi exports (%), 2002 - 2011**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Limpopo	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mopani	92.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	100.0	95.0
Vhembe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capricorn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Waterberg	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	5.0

Source: Calculated from Quantec Easydata

In 2011, the Ehlanzeni district contributed all (100.0%) exports of litchis from Mpumalanga province (see Table 8). Contributions from the Gert Sibande and Nkangala district municipalities have been insignificant over the last ten year.

**Table 8: Share of district litchi exports to total Mpumalanga provincial litchi exports (%), 2002 - 2011**

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Mpumalanga	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gert Sibande	0.0	0.0	0.1	3.8	3.5	7.1	0.4	1.1	0.2	0.0
Nkangala	11.5	32.3	18.0	0.0	0.0	0.8	0.2	0.2	0.0	0.0
Ehlanzeni	88.5	67.7	81.9	96.2	96.5	92.1	99.4	98.8	99.8	100.0

Source: Calculated from Quantec Easydata

The leading export district for litchis in the Free State is the Thabo Mofutsanyane district (see Table 9). All litchi exports recorded in the Free State in 2008 and 2009 were from the Thabo Mofutsanyane district municipality. No litchi exports were recorded in the Free State during 2010 and 2011.

**Table 9: Share of district litchi exports to total Free State provincial litchi exports (%), 2002 - 2011**

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

Source: Calculated from Quantec Easydata

The shares of district litchi exports to total North West provincial litchi exports are presented in Table 10. All litchi exports recorded in the North West province during 2010 were from the Bojanala district. No litchi exports were recorded in the North West in 2011.

**Table 10: Share of district litchi exports to total North West provincial litchi exports (%), 2002 - 2011**

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

Source: Calculated from Quantec Easydata

In the Northern Cape litchi exports were only reported from the Siyanda district in 2008 (see Table 11).

**Table 11: Share of district litchi exports to total Northern Cape provincial litchi exports (%), 2002 - 2011**

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

Source: Calculated from Quantec Easydata

## 2.5 Imports

South Africa is not a major importer of litchis, indicating that the country is self-sufficient in terms of litchis. In 2011 South Africa imported a total of 407 tons of litchis worth US\$986 thousand. Approximately 74% (302 tons) of the total litchi imports came from Israel, 21% (87 tons) came from Zimbabwe, while the remaining 4% (18 tons) came from Spain and Peru. South Africa's imports represented 0.04% of world litchi imports in 2011 and its ranking in the world was number 72. Litchi imports rose from 322 tons in 2010 to 407 tons during 2011, an increase of 26%.

## 2.6 Litchi harvesting and post-harvest treatment

### 2.6.1 Harvesting

Picking of litchis must be done selectively during the early season to ensure that only mature fruit are harvested. Picking must then be repeated at regular intervals during the harvest season. Whole clusters are picked from trees when uniform ripeness is achieved. When removing litchis from the tree, approximately 3mm of the pedicel must remain on the fruit to prevent skin splitting. Harvesting must take place during the coolest part of the day, whenever possible. In practice however, this is sometimes not possible due to large quantities of fruit that ripen at the same time. This is also dependent on the number of labourers available as well as the size of the crop.

It is critical to keep harvested fruit and loaded vehicles out of the sun in order to minimise heating as this causes premature browning of the skin. During transport, loaded vehicles may be covered with wetted hessian material or light coloured tarpaulins to prevent heating and sun injury. Litchis must not be picked wet and care must be taken to ensure that the fruit have dried sufficiently in the morning before harvesting commences. Like any other fruit, litchis are firstly sorted in terms of size after harvesting. Export fruit must have a minimum diameter of 30mm and all low quality fruit must be removed. Specific quality standards must be met depending on the market to be serviced. The quality criteria include dark blemishing, insect damage, torn fruit, undeveloped and double fruit, mould infections, and incompletely sulphured fruit.

### 2.6.2 Post-harvest treatment

The pericarp of the litchi fruit deteriorates rapidly once harvested. The fruit loses its red colour and turns brown within a few days at room temperature. Skin browning is responsible for loss of aesthetic attraction and low temperature is essential to prevent this. Low temperature entails keeping the fruit at 1°C and is the most effective means of facilitating long-term storage as it prevents excessive moisture loss and help fruit retain skin colour. Mould may however still develop and any break in the cold chain will speed up the oxidation reactions. Unfortunately, cold storage alone is not enough to retain the colour and prevent

spoilage in fruit and some producers effectively use a combination of low temperature, high humidity and plastic packaging to control browning on fruit sold on local markets.

### **2.6.3 Litchi drying**

As with other agricultural crops, it is important to develop processed products if additional marketing opportunities are to be created. Intact dried litchis are a well known commodity in China and vast quantities are annually processed for the Chinese market. In South Africa the cultivar found to dry into a tastier dried product is McLean's Red. A drying temperature around 55°C for approximately 3 weeks is the most appropriate drying regime. Fruit with a moisture content of 20 – 30% has a raisin-like taste. The characteristics of the international processed fruit market and the fresh fruit export orientation of the local industry indicate it most sensible to develop a high quality product aimed at the local tourist market as well as export markets. The dried product must be appropriately packed and labelled to ensure attractiveness in the eyes of the final consumers.

## **3. MARKET INTELLIGENCE**

In South Africa the earliest HLH Mauritius fruit is usually harvested during early- to mid-November. This is in direct competition with Madagascar's production, which is marginally earlier than that of South Africa. Given the fact that both countries export litchis mainly to Europe, there is therefore a scramble to reach the European market with air-freighted fruit from South Africa and Madagascar. In spite of air-freight costs being over eight times higher than sea-freight, good returns can be made earlier in the season. Air exports can account for up to 25% of South African litchi exports during certain years.

However, as soon as volumes reach the European market with the first sea shipments, prices drop rapidly. It takes about 2 days for South African litchis to reach France by air. The fruit reaches the same destination in approximately 26 days by sea. In the European Union, South African litchis has gained a significant market share in the German while loosing greatly in the French market. Exports into the German market increased from 40 tons in 2002 to 142 tons in 2011, an increase of 255%. At the same time, exports to France decreased from 3 075 tons in 2003 to 760 tons in 2011, a decline of 75%. Countries such as Madagascar, Mauritius and Reunion are increasing their market shares in markets in which South Africa is loosing.

The distance to the EU, 11 200 km, is a major constraint affecting South African exports. Due to the amount of time that the fruit spend en route when transported via sea, the impact of extended storage time can be highly significant when it comes to quality, and it is up to the producer/exporter to ensure that adequate controls are in place. In 2011, South Africa's litchi exports represented 1.23% of world exports and its ranking in the world was number 16. Growth in demand for South African litchis in 2011 is depicted in Figure 21.

It is evident from Figure 21 that South African exports of litchis are growing faster than the world imports in Seychelles, Zambia, United Arab Emirates, and Kenya. South Africa's performance in these markets can be regarded as gains in dynamic markets.

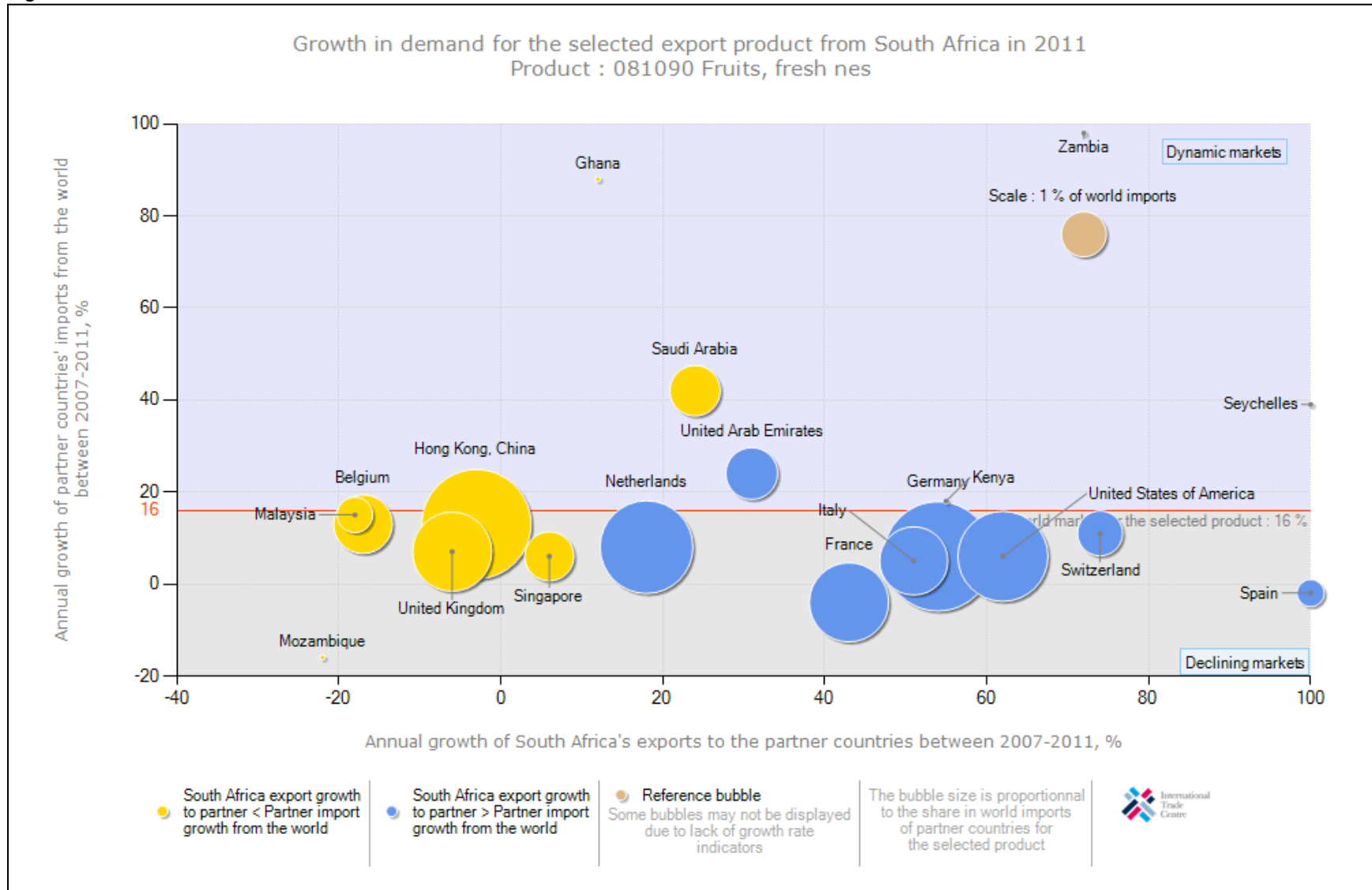
South African litchi exports are growing while world imports are declining in the Spain, Switzerland, United States of America, Germany, Italy, France, and the Netherlands. South Africa's performance in these

markets should be regarded as gains in declining markets and should be viewed as an achievement in adversity.

At the same time South African litchi exports have declined faster than world imports in the Singapore, United Kingdom, Malaysia, Belgium, and Mozambique. South Africa's performance in these markets can be regarded as losses in declining markets.

South African exports of litchis are declining while world imports are growing in Ghana and Saudi Arabia markets. These markets are dynamic and South Africa's performance should be regarded as an underachievement.

**Figure 21: Growth in demand for South African litchis in 2011**



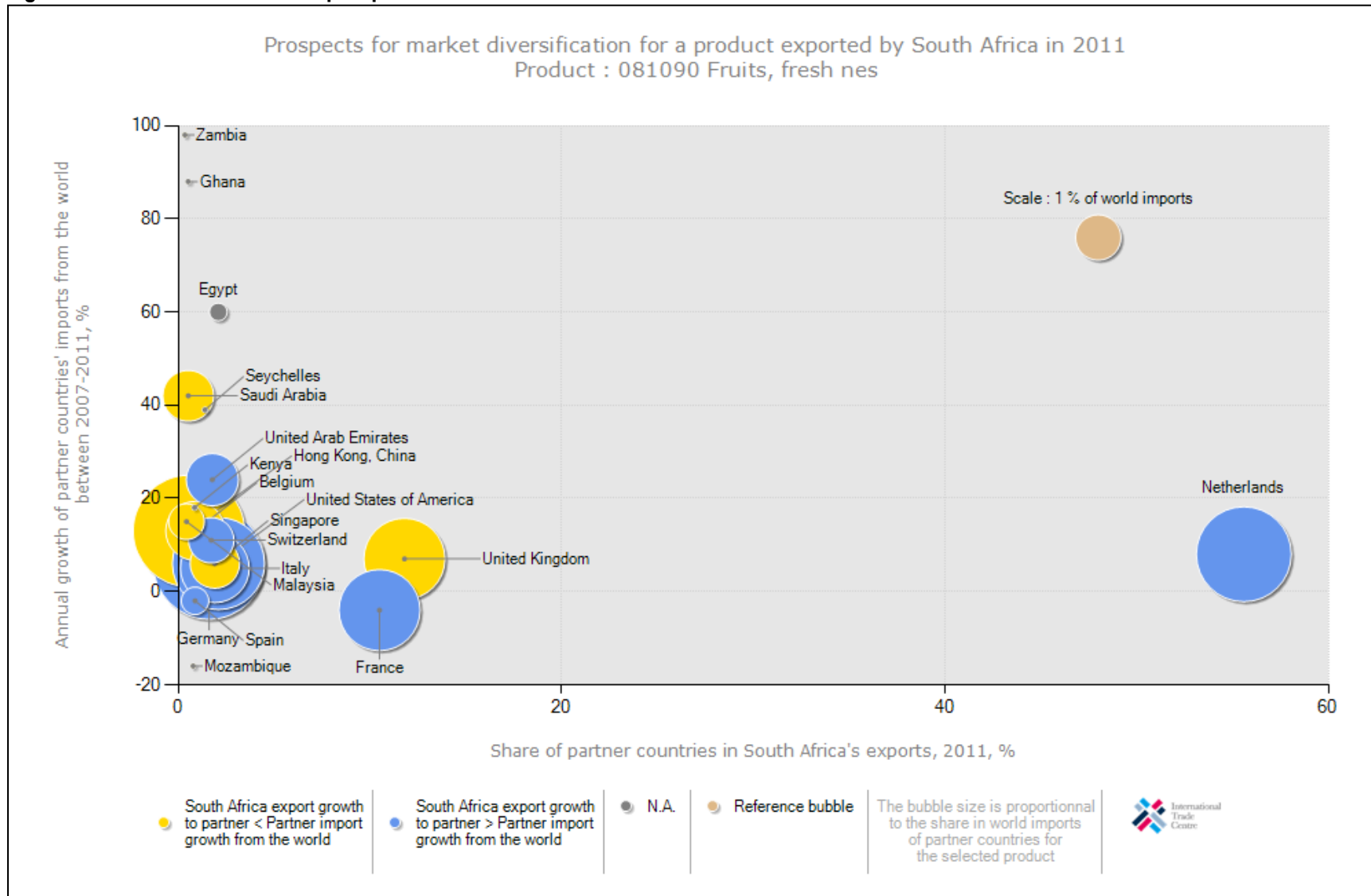
Source: Trademap, ITC

Prospects for market diversification by South African litchi exporters are illustrated in Figure 22. The Netherlands, France and the United Kingdom hold a bigger market share of South African exports of litchis. In terms of market size, China was the largest litchi importer in 2011 with just over US\$569 million (738 173 tons) worth of litchi imports, or roughly 23% of the world litchi market. Second was Russia with just over US\$224 million (218 251 tons) worth of litchi imports or roughly 9.1% market share. Russia is followed by Germany with just over \$171 million (82 590 tons) worth of litchi imports or roughly 6.9% market share.

Whilst three countries dominate world litchi imports, it is interesting to note that countries like Zambia, together with Ghana and Egypt experienced higher annual growth rates in terms of litchi imports from 2007 – 2011. Zambia experienced an annual growth rate of 98% while Ghana and Egypt experienced annual growth rates of 88% and 60% respectively. These countries represent future potential markets for South African litchi exports.

It is also important to note from Figure 22 that litchi imports from the world to countries such as Mozambique and Spain have declined between 2007 and 2011 and as a result, these countries have recorded negative growth in terms of litchi imports from the world. Growth in Mozambique and Spain declined by 16% and 2% respectively.

**Figure 22: South African litchis' prospects for market diversification in 2011**



Source: Trademap, ITC

#### 4. MARKET ACCESS

Under the World Trade Organisation (WTO) market access for goods means the conditions, tariff and non-tariff measures, agreed by members for the entry of specific goods into their markets. Tariffs commitments for goods are set out in each member's schedules of concessions on goods. The schedules represent commitments not to apply tariffs above the listed rates, also known as bound rates. 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 phytosanitary measures, labels, etc). The main markets for fruits (including litchi) employ 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 WTO. Tariffs on all agricultural products are now bound. Almost all import restrictions that did not take the form of tariffs, such as quotas, have been converted to tariffs through a process called tariffication. This has made markets more predictable for agriculture. Previously more than 30% of agricultural produce had faced quotas or other import restrictions. The percentage is now under five. Nevertheless, exporters need to be aware of all the barriers that they may encounter when trying to get produce onto foreign shelves.

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 phytosanitary standards (SPS), food health and safety issues, food labelling and packaging, organic produce certification, quality assurance and other standards and grades. Table 12 presents tariffs applied by the leading export markets to litchis originating from South Africa in 2011. Tariffs applied by European Union member states to litchis originating from South Africa are clustered into one category under European Union. During 2011 the EU member states appeared in the list of leading markets were the Netherlands, United Kingdom, France, Italy, Germany, Belgium, and Spain.

**Table 12: Tariffs applied by leading export markets to litchis from South Africa in 2011**

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
European Union	0810907530	Fresh tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola and pitahaya	Preferential tariff for South Africa	0.00%	0.00%
	0810907550	Fresh tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola and pitahaya	Preferential tariff for South Africa	0.00%	0.00%
	0810907560	Fresh tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola and pitahaya	Preferential tariff for South Africa	0.00%	0.00%
	0810907590	Fresh tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola and pitahaya	Preferential tariff for South Africa	0.00%	0.00%
USA	08109045	Fruit, not elsewhere specified or included, fresh	Preferential tariff for GSP countries	0.00%	0.00%
Egypt	08109000	"Fresh tamarinds, cashew apples, jackfruit, lychees, sapodillo plums, passion fruit, carambola, pitahaya and other edible fruit (excl. nuts, bananas, dates, figs, pineapples, avocados, guavas, mangoes, mangosteens, papaws papayas", citrus fruit, grapes, melons, apples, pears quinces, apricots, cherries, peaches, plums, sloes, strawberries, raspberries, mulberries, blackberries, loganberries, cranberries, fruits of the genus Vaccinium, kiwifruit and durians)""	MFN duties (Applied)	5.00%	5.00%
Singapore	08109020	Lychees fresh (tne)	MFN duties (Applied)	0.00%	0.00%
United Arab	08109090	Other fruit, fresh: Other: Other	MFN duties	0.00%	0.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
Emirates			(Applied)		
Switzerland	08109092	Autres fruits, frais: durians: autres: fruits tropicaux	Preferential tariff for SACU countries	0.00%	0.00%
	08109093	Autres fruits, frais: durians: groseilles à grappes, y compris les cassis: du 16 septembre au 14 juin	Preferential tariff for SACU countries	0.00%	0.00%
	08109094	Autres fruits, frais: durians: du 15 juin au 15 septembre: importées dans les limites du contingent tarifaire (c. n° 19)	Preferential tariff for SACU countries	0.00%	0.00%
	08109096	Autres fruits, frais: durians: du 15 juin au 15 septembre: groseilles à maquereau	Preferential tariff for SACU countries	0.00%	0.00%
	08109099	Autres fruits, frais: durians: du 15 juin au 15 septembre: autres : no description at level 8	Preferential tariff for SACU countries	0.00%	0.00%
Seychelles	08109000	Fruits, fresh nes	General tariff	0.00%	0.00%
Kenya	08109000	Other fruit, fresh: Other	MFN duties (Applied)	25.00%	25.00%
Mozambique	08109000	"Frutas frescas (excepto frutas de casca rija, bananas, tâmaras, figos, ananases ""abacaxis"", abacates, goiabas, mangas, mangostões, papaias ""mamões"", citrinos, uvas, melões, melancias, maçãs, pêras, marmelos, damascos, cerejas, pêssegos, ameixas, abrunhos, morangos, framboesas, amoras, amoras-framboesas, airelas, mirtilos, frutas do género ""Vaccinium"", kiwis e duriangos)"	Preferential tariff for South Africa	0.00%	0.00%
Hong Kong	08109010	Other fruit, fresh: Other: Lychees	MFN duties (Applied)	0.00%	0.00%

Source: Market Access Map, ITC

As can be seen from Table 12 South African litchis enjoyed free market access in all the top ten markets during the year 2011. South Africa has a preferential trading agreement with the European Union through

the trade chapter in the Trade Development and Cooperation Agreement (TDCA). The agreement covers countries such as the Netherlands, France, United Kingdom, Germany, Belgium, and Italy. It can be observed from the table above that South African litchis enter the European Union duty-free. The United States of America also has a preferential tariff for GSP countries for which South African litchis qualify. Egypt and Kenya impose tariffs of 5% and 25% ad valorem respectively to litchis originating from South Africa. Mozambique also applies a preferential tariff to litchis from South Africa through which South African litchis enter duty-free. Switzerland also has a preferential trade agreement with SACU member states through which litchis from SACU member states enter Switzerland on a duty-free basis. South African litchis also enter Singapore, United Arab Emirates, Seychelles and Hong Kong on a duty-free basis.

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.

## **5. DISTRIBUTION CHANNELS IN EXPORT MARKETS**

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.

Some 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 (EUREGAP, 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 that have special capabilities in handling fruit produce (for example Durban's new fruit terminal).

### **6.2 Cold chain management**

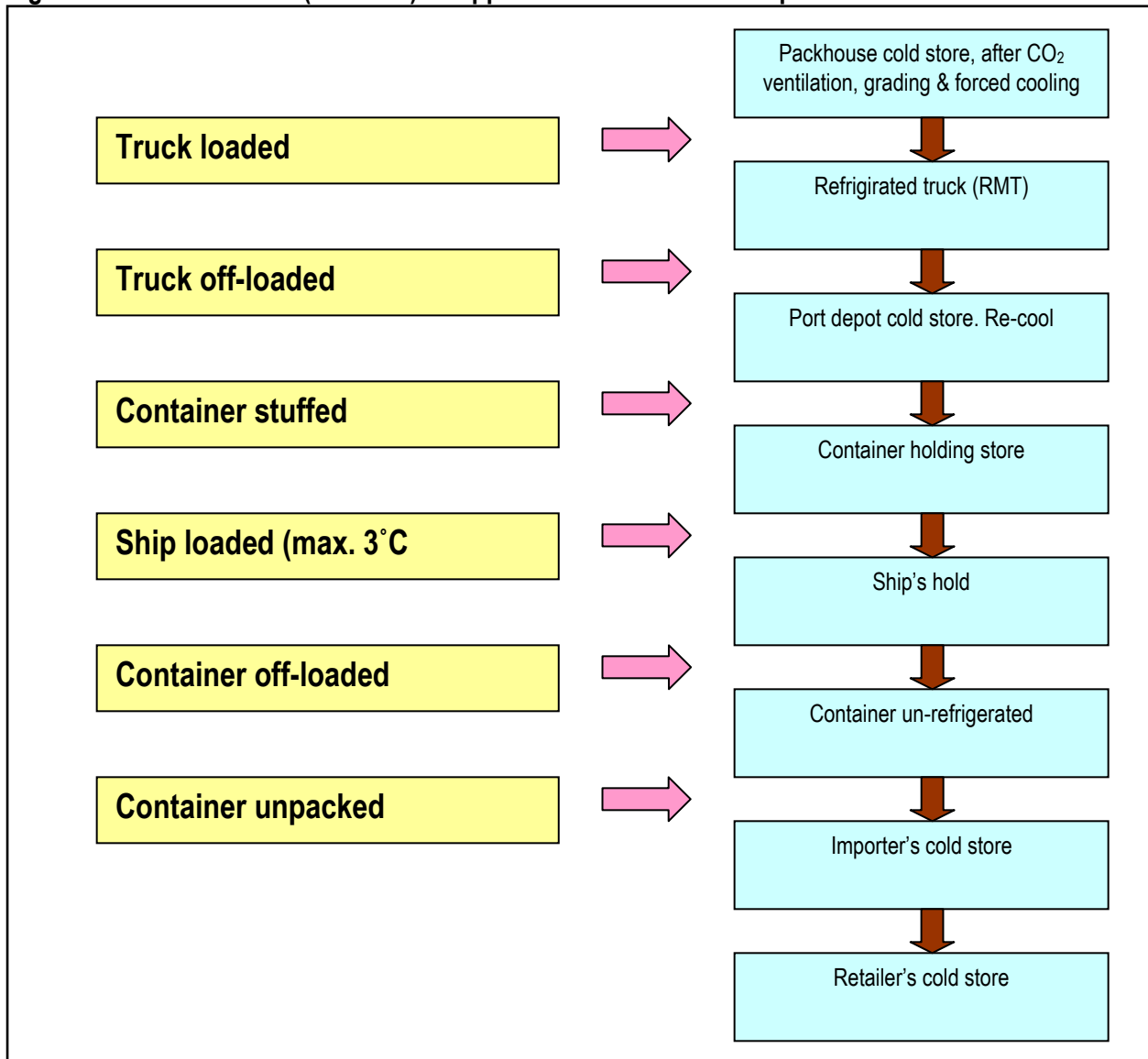
Cold chain management is crucial when handling perishable products, from the initial packing houses to the refrigerated container trucks that transport the produce to the shipping terminals, through to the storage facilities at these terminals, onto actual shipping vessels and containers, and finally on to the importers and distributors that must clear the produce and transport it to the markets/retail outlets. Related to this are increasing important traceability standards which require an efficient controlled supply chain and internationally accepted business standards.

It must be borne in mind that the main South African litchi production areas are over 1 000 km from the nearest suitable port, Cape Town. Careful controls are therefore required at all points in the cold chain. For example, fruit pulp temperatures are measured at packhouses by Perishable Products Export Control Board (PPECB) inspectors prior to loading into refrigerated motor trucks (RMTs). The RMTs themselves must meet the following standards:

- Registered with PPECB (thermocouple in delivery);
- Correct air circulation system used;
- Temperature control system and calibration approved;
- Temperature recorders and thermocouples functional;
- Integrity of insulation tested regularly;
- Cleanliness;
- Pre-cooling of product and cargo box recorded;
- Procedure of loading monitored;
- Written instructions given;
- Communication of delays, temperature deviations, etc.

The cold chain, as applied for exports of litchis from South Africa, is illustrated in Figure 23. It is unfortunate that in spite of all measures put in place, many problems still arise. For example, if temperatures rise above the required levels when products are being transported, this could lead to delays while products are re-cooled. Re-cooling is an additional expense and significant weight loss occurs in the re-cooled fruit. This results in soft fruit which is susceptible to fungal attack. In order to monitor such problems, the Subtropical Fruit industries persuaded the PPECB to appoint a technical officer who monitors port problems and reports back directly to the relevant industries.

**Figure 23: The cold chain (1°C - 2°C) as applied for South African exports**



Source: ARC-ITSC

### 6.3 Packing and palletizing

Export fruit are packed in 2 kg (plus an additional 100 g added to cover weight loss for airfreight and 150 g for seafreight) cartons. The cartons must be well ventilated to ensure the gradual dissipation of SO<sub>2</sub> from the pericarp and the pulp. The size and layers within the pallet are normally specified by the exporter. The Capespan pack-house guide prescribes pallet dimensions of 1 114 x 1 110 mm.

Wooden pallets should be dry and free of bark and mould growth, as this may pose a phyto-sanitary risk to importing countries. Twenty four boxes are parked per layer and each pallet consists of 18 layers, resulting in 432 boxes per pallet. After palletization, each individual pallet is force cooled to ensure that the boxes in the middle of the pallet are cooled too and kept at 1°C. If not properly cooled, fruit in the middle of the pallet may spoil. The cold chain from the pack-house, road transport and shipping must be maintained to ensure

the landing of a high quality product to the consumer. Any break in the cooling chain may lead to fungal infection of a whole consignment.

## 7. ORGANISATIONAL ANALYSIS

### 7.1 The South African Subtropical Growers' Association (Subtrop)

As an association of associations, the South African Subtropical Growers' Association (Subtrop) manages the affairs of the South African Avocado (SAAGA), Mango (SAMGA), Macadamia (SAMAC), and Litchi (SALGA). The member associations have a voluntary membership that account for 85% of South Africa's avocado, mango, litchi, and macadamia production. Activities of the association are funded by its members through levies on local and export market sales. To this end, the association is involved in the following activities:

- Technical support and advisory services to its growers (play an important role in coordinating events such as study groups in order to assist growers to more efficient in their operations);
- Coordination of appropriate technical and market research;
- Provision of relevant market information with specialisation in areas such as export information and event management;
- Local and export market development through generic promotion;
- Liaison with government and other bodies both locally and abroad.

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

### 7.2 Strengths, Weakness, Opportunities and Threats (SWOT) analysis

Some of the strengths, weaknesses, threats and opportunities of the litchi production sector in South Africa are presented in Table 13. Generally, the litchi industry can still expand and new markets be opened and exploited if sound fruits of the highest quality are produced and marketed.

**Table 13: SWOT analysis for litchis**

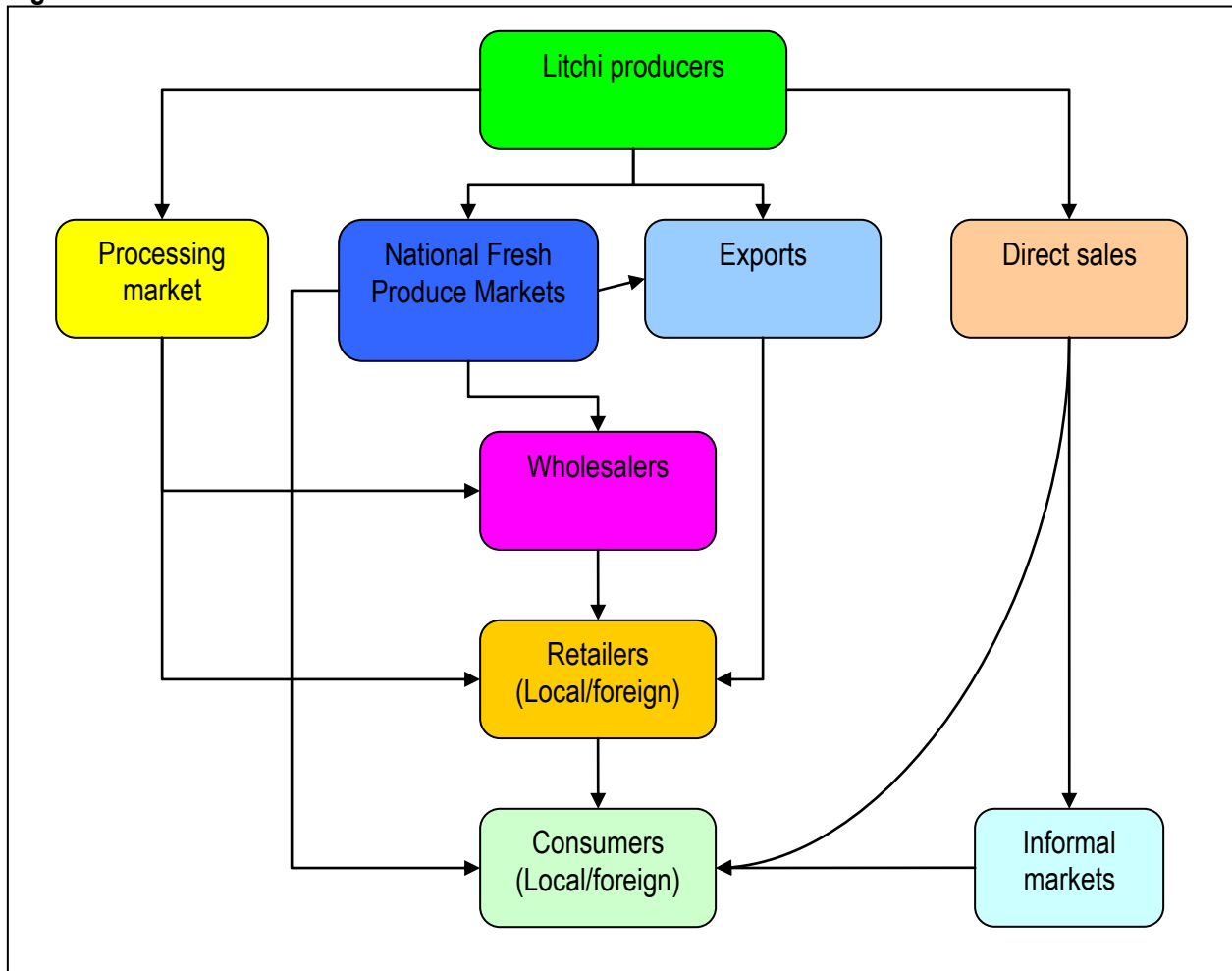
Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Generic promotion of the South African litchis through the quality mark (SALGA Quality Approved Litchis) has been successful.</li> <li>• The industry's export operations and leading players are well established.</li> <li>• Cooperation amongst the leading exporters has ensured that there is a constant supply to meet the basic requirement by the market.</li> <li>• The South African litchi industry has a strong reputation in major international markets.</li> <li>• The willingness by both the farmers and export agents to make available funds for market research.</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>• Relatively high input, labour and capital costs.</li> </ul>

Threats	Opportunities
<ul style="list-style-type: none"> <li>• Intense competition from Madagascar, Mauritius and Reunion in the lucrative European markets.</li> <li>• Port abilities and shipping cycles still pose a threat as delays can drastically reduce shelf life of litchis</li> </ul>	<ul style="list-style-type: none"> <li>• There is a strong demand in the Netherlands and the rest of Europe in their summer months.</li> <li>• Increasing demand from the canning sector present a potential for growth.</li> <li>• Thorough and continuous research by SALGA may lead to improved and better quality cultivars.</li> </ul>

### 7.3 The litchi value chain

Figure 24 below shows the litchi value chain in South Africa. The main actors in the chain include input suppliers, litchi producers, processing companies (mainly juice and concentrates manufacturers and drying companies), national fresh produce markets (NFPMs), exporters (including agents), retailers (both local and foreign), hawkers (informal markets), wholesalers, and, most importantly final consumers. Some of the majors players in the litchi value chain are discussed briefly below.

**Figure 24: The litchi value chain**



### 7.3.1 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.

### 7.3.2 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.

### 7.3.3 Fresh produce markets

FPMs are the dominant player and form of wholesaling in the South African litchi 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.

#### **7.3.4 Retailers**

South African litchi 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 litchi sales are at predetermined prices and are typically individually or in small packages.

#### **7.3.5 Processors**

As explained earlier, the processing of litchis mainly consists of canning, juice manufacturing and drying.

#### **7.3.6 Cold storage operators and transporters**

Cold storage operators are responsible for receiving, handling, cooling the litchis 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.

#### **7.3.7 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.

### **7.3.8 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.

### **7.3.9 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.

## 8. ACKNOWLEDGEMENTS

Acknowledgements are given to the following institutions:

### 8.1 South Africa Subtropical Growers' Association/ South African Litchi Growers' Association

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### 8.3 National Department of Agriculture, Forestry and Fisheries

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[www.daff.gov.za](http://www.daff.gov.za)

### 8.4 International Trade Centre

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

### 8.5 Quantec

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

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