A PROFILE OF THE SOUTH AFRICAN PINEAPPLE MARKET VALUE CHAIN

2012

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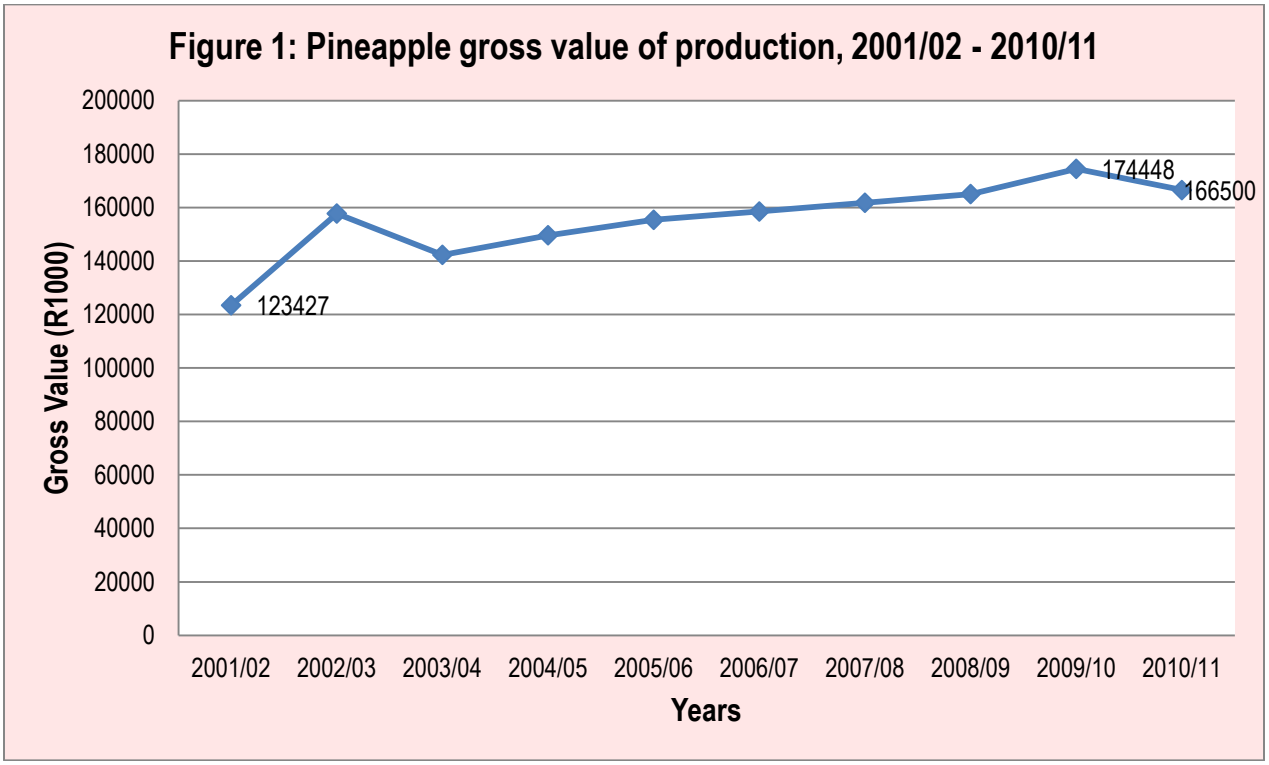
1. DESCRIPTION OF THE PRODUCT AND INDUSTRY

The pineapple (*Ananascomosus*) is an edible tropical plant and berry/fruit (multiple), native to Uruguay, Brazil and Paraguay. It is a medium tall (1–1.5 m) herbaceous perennial plant with 30 or more trough-shaped and pointed leaves 30–100 cm long, surrounding a thick stem. The pineapple is an example of a multiple fruit: multiple, spirally-arranged flowers along the axis each produce a fleshy fruit that becomes pressed against the fruits of adjacent flowers, forming what appears to be a single fleshy fruit. The leaves of the cultivar 'Smooth Cayenne' mostly lack spines except at the leaf tip, but the cultivars 'Spanish' and 'Queen' have large spines along the leaf margins. There are two main varieties of pineapples commercially grown in South Africa, the smooth leaf Cayenne and the Queen. The Cayenne is the largest crop and is mostly suitable for canning because it is larger and has a lot of juice.

Pineapples are one of the most commercially important plants grown in South Africa, taking into consideration their foreign exchange earnings, employment creation and linkages with support institutions. The pineapple industry is highly linked to the processing industry with approximately 80% of pineapples being absorbed by the processing market annually. The industry operates in a deregulated environment where prices are determined by the market forces of demand and supply. Gross value of production for pineapples for the period 2001/02 to 2010/11 is shown in Figure 1.



Source: Statistics and Economic Analysis, DAFF

The gross value of production (GVP) for the industry was approximately R167 million in 2010/11. This represents a 4.6% decrease in gross value from the 2009/10 season. The GVP for the industry has been increasing since the 2004/05 production season until 2009/10, after which a decline in gross value was recorded in 2010/11 season. The last decade saw a peak in the gross value of pineapple production during

the 2009/10 season at R174 million. What is interesting is that during the last seven seasons total gross value has been increasing while total tonnages produced have been declining (see Figure 2). This may be the result of, among other things, fluctuations in the exchange rates, improved prices resulting from lower production volumes, as well as the effects of inflation.

1.1 Pineapple production areas

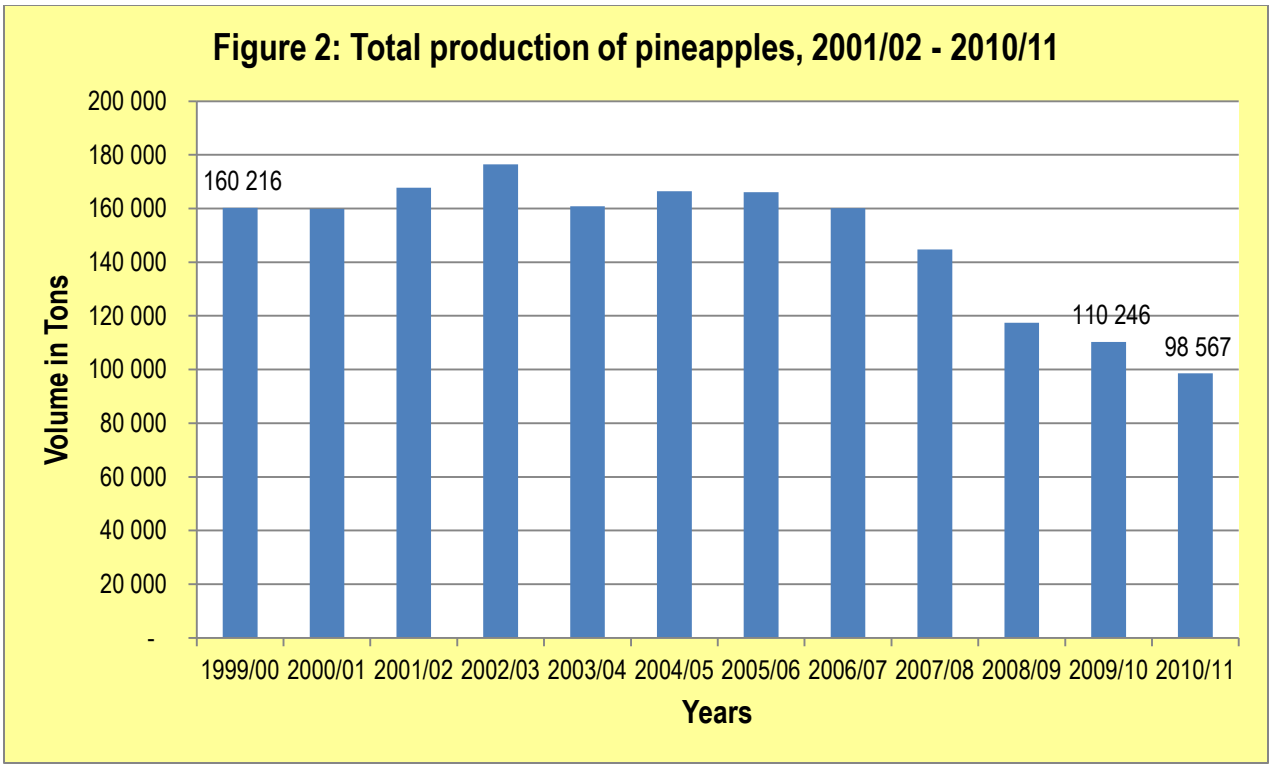
The main producing areas of pineapples in South Africa are Northern Kwazulu Natal (Hluhluwe district) and the Eastern Cape. The Eastern Cape generally account for over three quarters of the pineapples produced in South Africa. As pineapples are indigenous to the tropics the crop requires areas where the climate is warm, humid and free from extreme temperatures (25˚C being optimal).

1.2 Production

In determining which pineapple cultivar to plant, a producer should consider the following:

- The global demand and the demand in specific markets,
- His or her (the producer's) current infrastructure in respect of being able to cope with pruning, spraying, picking, cold storage and packing of a particular cultivar, and
- The availability of natural resources like water, soil types, cold units and slopes.
- The land should be prepared so as to control water runoff and thereby limit soil erosion, facilitate good drainage and prevent root and heart rot, facilitate uniform distribution of sunlight to all plants, and have roads allowing machinery easy access to the pineapple plants to expedite spraying and harvesting.

Figure 2 shows total production of pineapples for the period 2001/02 to 2010/11. A total of 98 567 tons of pineapples were produced in South Africa in 2010/11. Pineapple production has been declining over the past six years. Production declined by10.6% during the 2010/11 season when compared with the 2009/10 volume. The decrease in production has previously been associated with the cadmium contaminated zinc sulphate fertilizer that was used by the pineapple producers. A multi-national fertilizer distributor operating in the Eastern Cape Province sourced low cost zinc sulphate from China. This zinc sulphate contained high concentrations of cadmium and lead. The resulting effect on crops dosed with these fertilizers was contaminated fruit which has damaged the reputation for South African fruit globally. The continuous decline may be an indication that the industry is still struggling to pull itself out of the crisis. It may also be an indication that areas that were replanted after the contamination are still to bear fruit.



Source: Statistics and Economic Analysis, DAFF

The most worrying for farmers is that, although cadmium level test showed a decrease in the plants and fruits since November 2006, recent tests have shown a slight increase. The greatest worry is that future crops planted on the land could be contaminated. Most cadmium residue is found in the actual plant and roots which forces farmers to remove all the plants on their land.

1.3 Employment

Full-time labourers employed on pineapple farms are primarily employed for a number of specialist tasks such as pruning and trellising of trees. Labour is also required to carry out thinning practices during blooming or during the first four weeks of fruit growth. Other tasks include harvesting, supervision, operational duties in the pack house, irrigation management, scouting for insects and diseases on a seasonal basis, tractor or forklift driving and grafting. It is estimated that the pineapple industry employs approximately 1 400 workers in the canneries or processors. An additional 3 500 workers are employed in the farms and ancillary industries. It is further estimated that approximately 30 000 people are dependent on the industry for their livelihood.

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[1]	R11.66	Previous year's minimum wage + CPI[2] + 1.5%			Previous year's minimum wage + CPI + 1.5%		

Source: Department of Labour, 2013

1.4 Pineapple varieties

The main pineapple varieties produced in South Africa are Smooth Cayenne (mainly in the Eastern Cape) for canning and the Queen (mainly in Hluhluwe) for the local and export fresh fruit market. The new MD2 variety is planted in small quantities in both regions and is aimed at fresh fruit markets as well as ready to eat products for export. Ninety percent of the fresh pineapples sold in South Africa are the Queen variety. The Smooth Cayenne is used for both canning (75% of which is exported) and as fresh fruit and because production of the Queen is relatively more costly, fresh consumption is shifting towards the Smooth Cayenne.

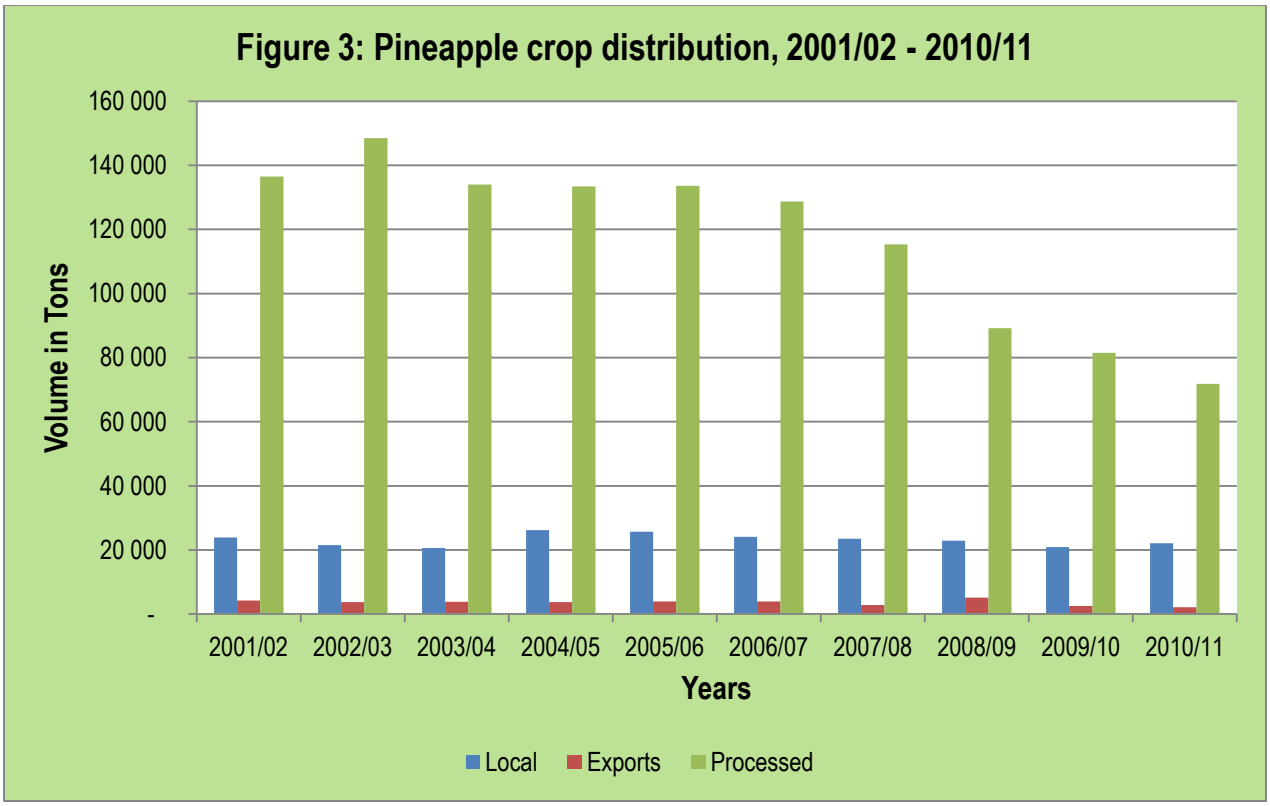
The Cayenne plant is the larger of the two varieties and the leaves are smooth, while the leaves of the Queen have thorns. The Cayenne fruit can reach a mass of 4kg, is very juicy and has a softer tissue with a pale yellow colour. The Queen fruit is smaller (up to 1.5kg) but has a crisp and bright yellow flesh and is less acid than Cayenne. The MD2 has a cylindrical fruit with an attractive yellow skin, the flesh is firm and it has a higher sugar and Vitamin C content than the Cayenne variety.

2. MARKET STRUCTURE

Approximately 80% of the annual pineapple crop is normally destined for the processing market. The proportion that went to the processing market during the 2010/11 marketing season was approximately 73% (71 825 tons) of the total crop (98 567 tons). As illustrated in Figure 3, pineapple production in South Africa is primarily aimed at both the processing and local markets. Fresh fruit export market is not significant. The amounts of pineapples sold in the local markets and those destined for exports have been fairly stable between the 2001/02 and 2010/11 production seasons, while the volumes processed declined significantly during the last five years following significant declines in production during the same period.

[1] For an employee who works 9 hours per day

[2] 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.

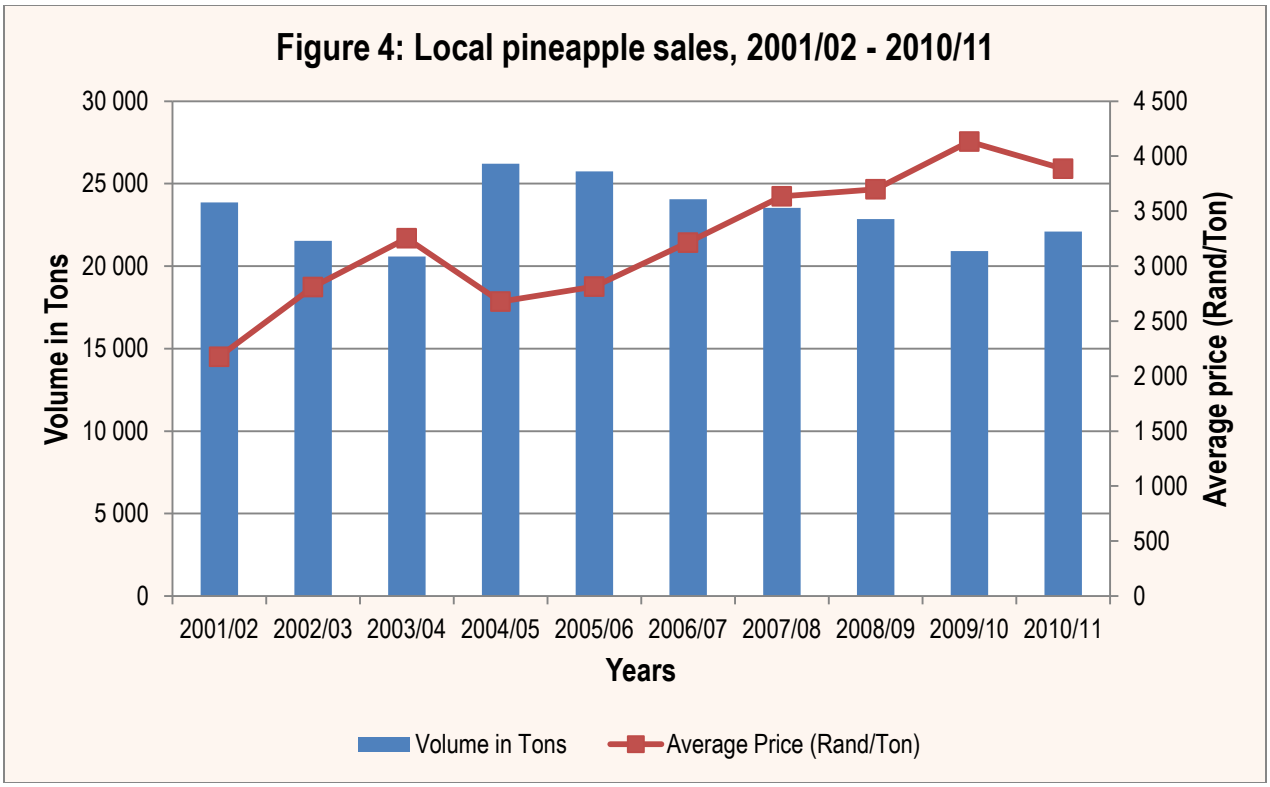


Source: Statistics and Economic Analysis, DAFF, Quantec Easydata

2.1 Domestic markets and prices

Local pineapple market volumes and general price trends from 2001/02 to 2010/11 are presented in Figure 4. As illustrated in Figure 4, volumes of pineapples at sold at the local markets have been declining since the 2005/06 marketing season before recording a marginal increase in 2010/11. Sales of pineapples sold in the local markets increased by 5.8% between 2009/10 and 2010/11. It is worth noting that over 90% of the pineapples sold in the local markets are of the Queen cultivar, which is specifically suited for fresh consumption.

While the amount of pineapples sold in the sold markets has been declining during the past five years, prices received have been increasing (with the exception of 2010/11). The average price of pineapples sold in the local markets in 2010/11 was R3 886 per ton. This was 6% lower than the average price during the previous year (2009/10) and 38% higher than the average price five years ago (2005/06).



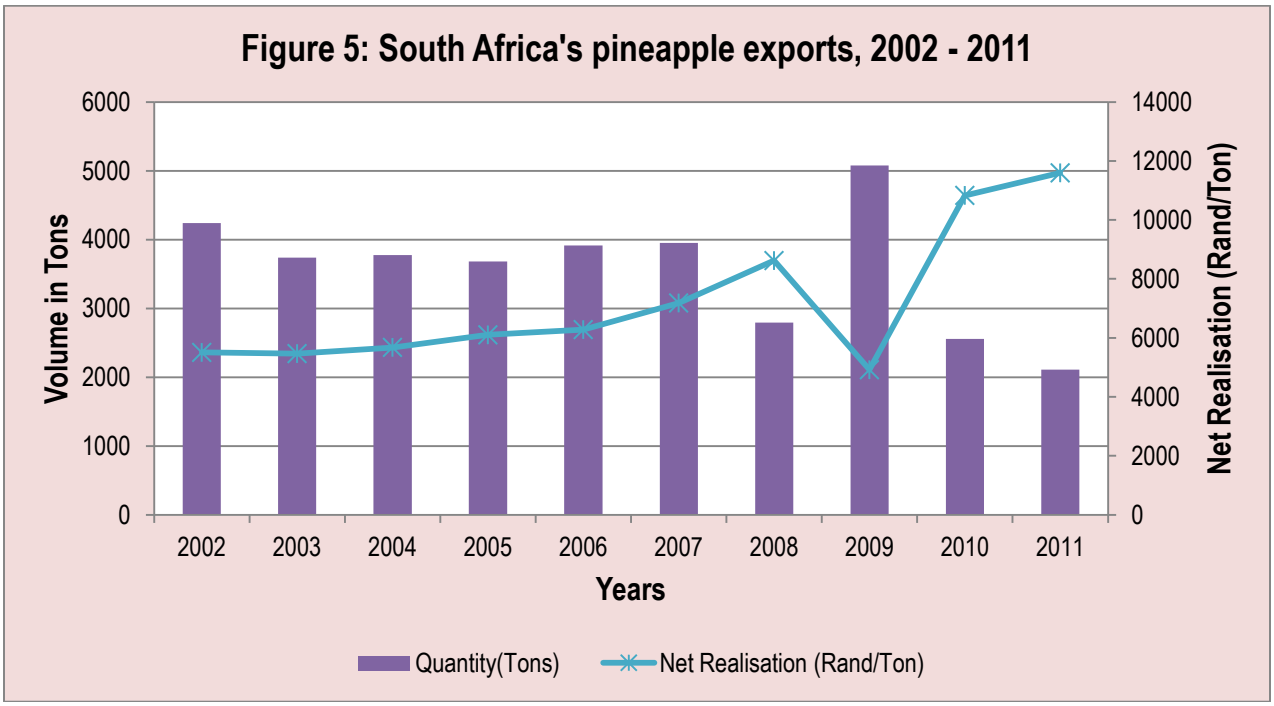
Source: Statistics and Economic Analysis, DAFF

Prices on the local markets are largely influenced by seasonality in production, perishability of produce and the amount of pineapples used for processing and exported (availability of pineapples on the local market). The impact of seasonality is to some extent cushioned by cold storage facilities that ensure regular pineapple supplies in the local markets. Demand factors such as consumer habits, substitution between products and per capita income also influence prices.

2.2 Pineapple exports

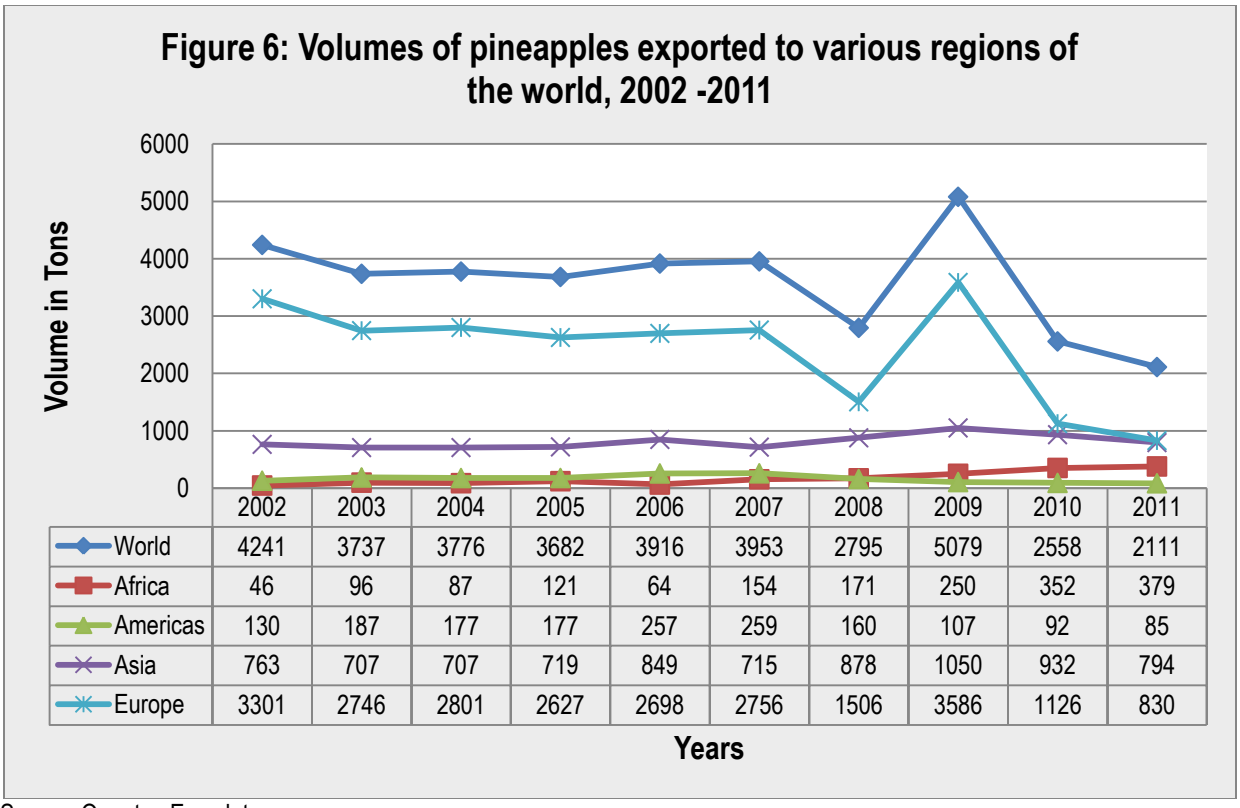
South Africa is a relatively small pineapple grower in terms of global hectares. Furthermore, the country is not a major volume exporter in global terms. Unlike the fresh pineapple export market, South Africa is highly competitive in the processed pineapple products particularly pineapple juice. South Africa's pineapple exports for the period 2002 to 2011 are presented in Figure 5.

As can be seen in Figure 5, South Africa's pineapple export volumes have been declining since the 2002 production season before picking up again in 2006. The volume exported declined significantly from 5 079 tons in 2009 to 2 111 tons in 2011, a decrease of 58%. Prices realised in exports have however been on the rise until 2008, indicating that the pineapple market is strongly driven by market forces. In 2009 prices reacted strongly to increased supply throughout the world, resulting in a 41% decline in net realisation for South African pineapple exports. The net realisation has however increased again in 2010 and 2011, following a decline in the quantity exported by South Africa during the same period. As previously indicated, South Africa is not amongst the leading exporters of fresh pineapples. South African pineapples are primarily sold on the domestic markets for processing. This is mainly due to South Africa's location and its subtropical climate, which makes it difficult to compete against South East Asian pineapple producing countries on world markets. This limits the export potential of the South African fresh pineapples.



Source: Quantec Easydata

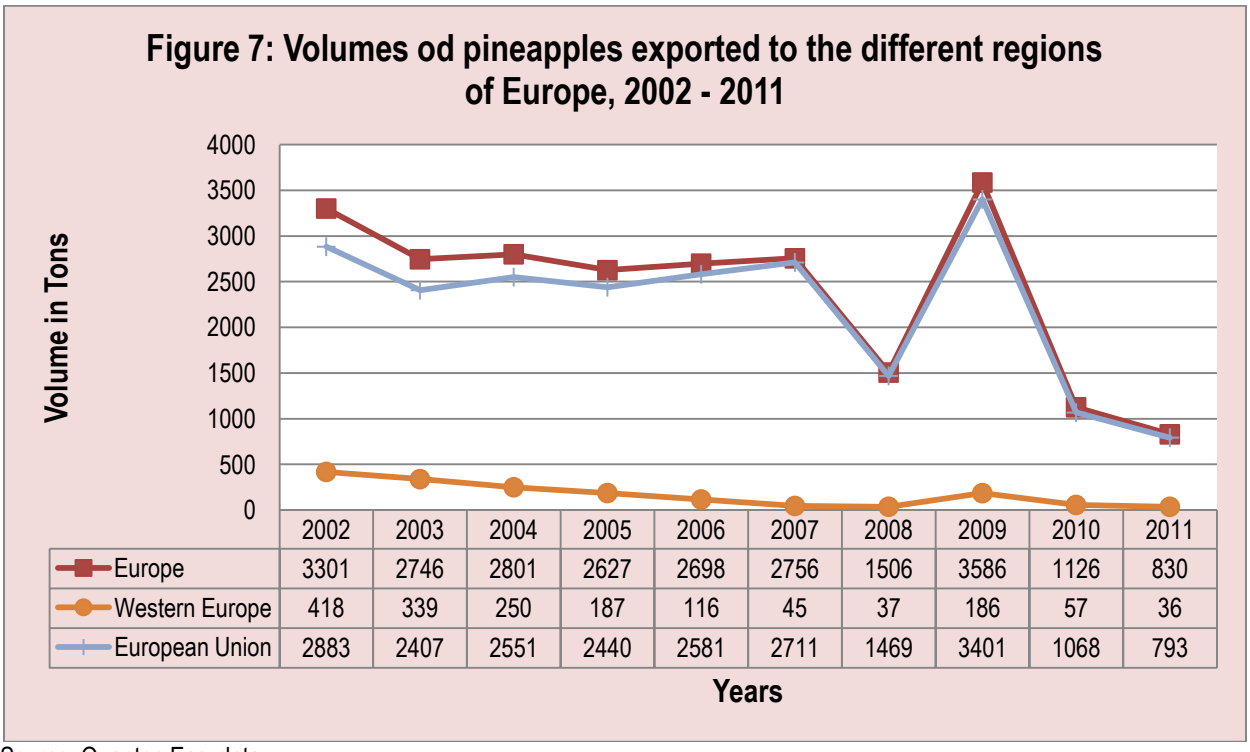
Exports of South African pineapples to the various regions of the world over the past decade are presented in Figure 6. It is clear from Figure 6 that during the last decade, most of South Africa's exports of pineapples went to the European and Asian markets. In 2011, exports to Europe accounted for 39% of total South African pineapple exports while those to Asia accounted for 38%. During the past decade, South Africa's exports of pineapples to Europe declined from 3 301 tons in 2002 to 830 tons in 2011, a decline of 70%. Exports to Asia increased from 763 tons in 2002 to 794 tons in 2011, an increase of 4%. Export volumes to Africa and the Americas remained relatively stable over the past ten years, with exports to Africa increasing by 7.7% between 2010 and 2011. Due to their relative importance to exports of South African pineapples, the European and Asian markets will be further explored in the subsections that follow.



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
World	4241	3737	3776	3682	3916	3953	2795	5079	2558	2111
Africa	46	96	87	121	64	154	171	250	352	379
Americas	130	187	177	177	257	259	160	107	92	85
Asia	763	707	707	719	849	715	878	1050	932	794
Europe	3301	2746	2801	2627	2698	2756	1506	3586	1126	830

Source: Quantec Easydata

Volumes of South African exports of pineapples to the various regions of Europe are presented in Figure 7.



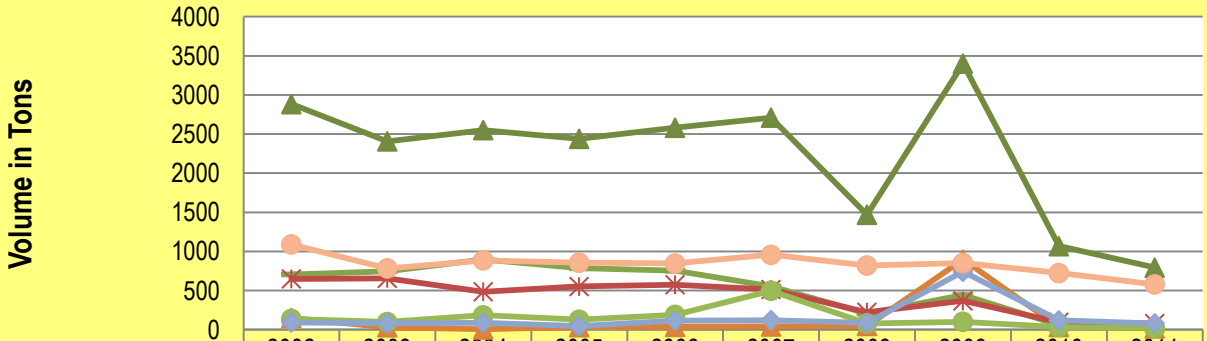
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Europe	3301	2746	2801	2627	2698	2756	1506	3586	1126	830
Western Europe	418	339	250	187	116	45	37	186	57	36
European Union	2883	2407	2551	2440	2581	2711	1469	3401	1068	793

Source: Quantec Easydata

It is evident from Figure 7 that during the last ten years the bulk of South African pineapple exports that went to Europe were destined for the European Union. In 2011, almost all (96%) South African pineapple exports to Europe were absorbed by the European Union, with the remaining 4% going to Western Europe. Exports to Europe experienced a 45% decline between 2007 and 2008 before picking up in 2009 with an increase of 138% before declining again with 69% between 2009 and 2010. Exports declined further by 26% between 2010 and 2011. The European Union market is further disaggregated in Figure 8.

It is critical to note that only those EU member states whose imports of pineapples from South Africa were at least 100 tons in at least one year during the period under review are shown in Figure 8. It can be observed from Figure 8 that the major importers of South African pineapples in the European Union are the Netherlands, Italy, France, Germany, Spain and the United Kingdom. In 2011 the Netherlands, Italy, France, the United Kingdom, Germany and Spain accounted for 73%, 10%, 10%, 2.5%, 2.3% and 2.2% respectively, of total South African pineapple exports to the European Union.

Figure 8: Volumes of pineapples exported to the different European Union member states, 2002 - 2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
European Union	2883	2407	2551	2440	2581	2711	1469	3401	1068	793
Germany	707	747	898	786	755	553	206	442	60	18
Spain	149	32	3	32	36	41	48	895	35	16
France	649	657	485	552	576	514	223	368	95	79
United Kingdom	138	98	184	128	189	498	80	102	34	20
Italy	93	82	89	45	118	122	89	741	119	80
Netherlands	1090	784	886	856	846	957	820	852	724	579

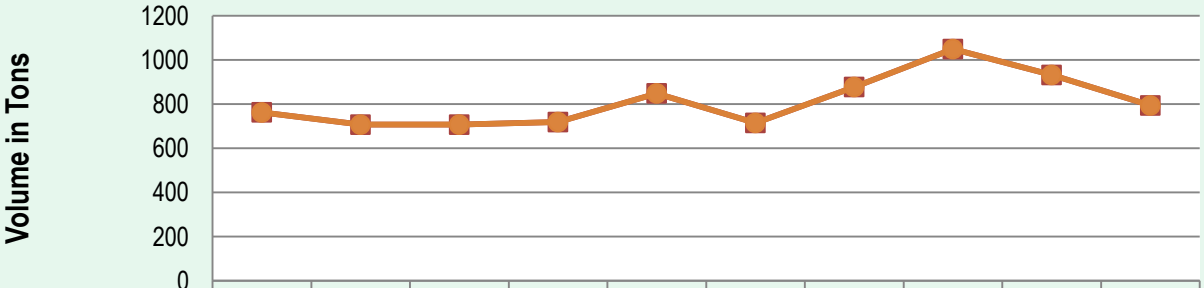
Source: Quantec Easydata

The 69% decrease in South African pineapple exports to the European Union between 2009 and 2010, and the 26% between 2010 and 2011, was mainly caused by major decreases in pineapple imports in the major EU member states listed above except the Netherlands, whose imports from South Africa remained relatively stable.

Figure 9 presents volumes of South African exports of pineapples to the different regions of Asia. The most important Asian region in terms of South African pineapple exports is Western Asia. All South African

pineapple exported to Asia since 2002 were absorbed by the Western Asia market. Overall, South African exports of pineapples to Asia increased from 763 tons in 2002 to 932 tons in 2010, an increase of 22%. Exports to Asia however declined by 15% between 2010 and 2011.

Figure 9: Volumes of pineapples exported to Asian regions, 2002 - 2011



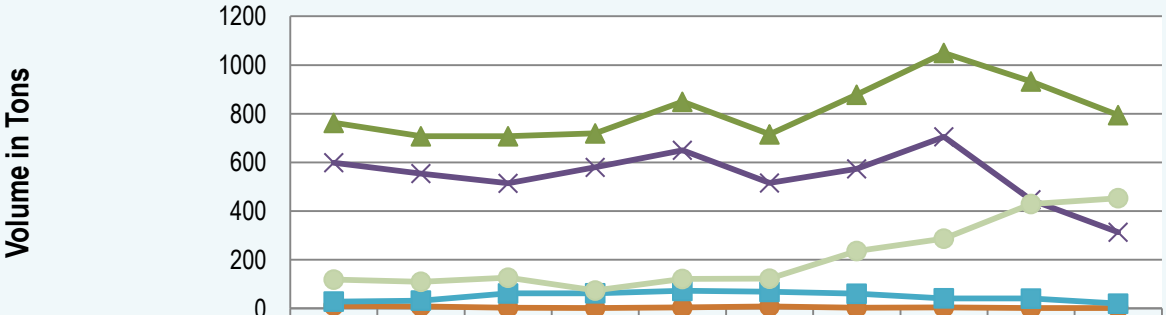
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Asia	763	707	707	719	849	715	878	1050	932	794
Western Asia	762	707	707	719	849	715	878	1050	932	794

Years

Source: Quantec Easydata

Volumes of South Africa pineapple exports to the different countries in Western Asia during the last decade are presented in Figure 10.

Figure 10: Volumes of pineaple exports to different countries in Western Asia, 2002 - 2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Western Asia	762	707	707	719	849	715	878	1050	932	794
United Arab Emirates	599	554	514	580	650	515	573	705	447	313
Bahrain	12	9	3	2	4	8	3	4	1	2
Kuwait	28	33	62	62	72	68	60	42	41	20
Saudi Arabia	119	110	126	74	121	122	236	287	429	453

Years

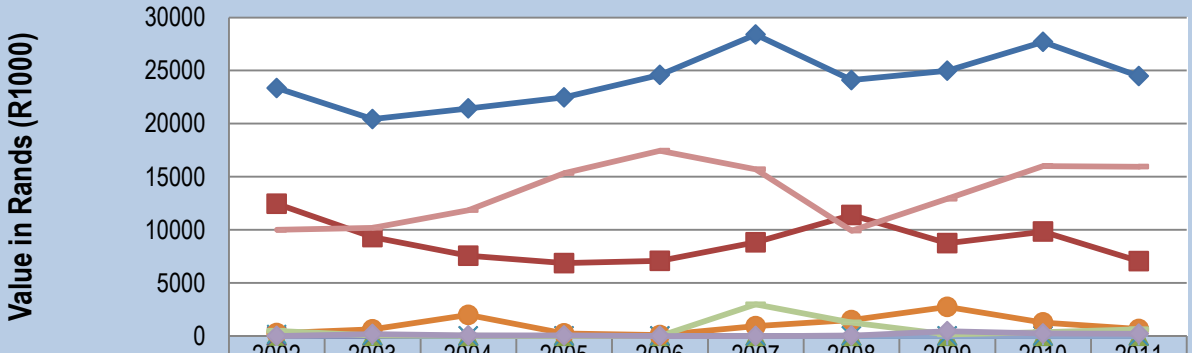
Source: Quantec Easydata

The leading importers of South African pineapples in Western Asia are the United Arab Emirates and Saudi Arabia. In 2011, the United Arab Emirates imported 313 tons of pineapples worth over R1.9 million from South Africa while Saudi Arabia imported 453 tons at a value of over R2.3 million. Between 2010 and 2011 South African exports of pineapples to the UAE declined by 30% while those to Saudi Arabia increased by 6%.

2.3 Provincial and district export values of South African pineapples

A review of provincial level trade data presents an interesting but somewhat misleading view of the source of pineapples destined for the export markets. Firstly, the fact that approximately 94% of pineapples exported in 2011 were from Western Cape (29%) and Gauteng (65%) provinces does not imply that the pineapples were produced there but that the registered exporters were based in those provinces. Secondly, a province like the Western Cape serves as exit point for pineapple exports through the Cape Town harbour. Figure11 below depicts the value of pineapple exports from each province of South Africa for the period 2002 to 2011.

Figure 11: Values of pineapple exports by provinces, 2002 - 2011



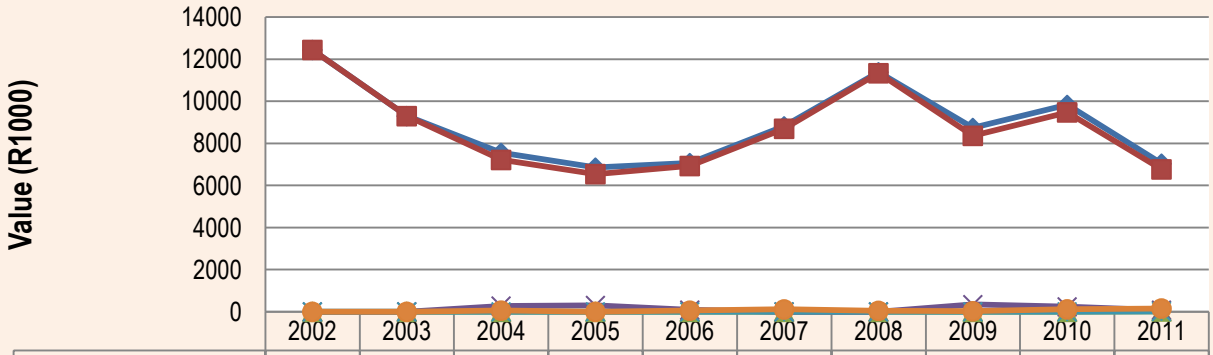
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
RSA	23346	20425	21432	22466	24588	28391	24092	24980	27702	24475
Western Cape	12445	9303	7550	6852	7069	8813	11386	8737	9832	7040
Eastern Cape	33	18	0	0	0	0	0	0	0	6
Northern Cape	0	0	0	0	0	0	9	0	0	0
Free State	139	39	0	0	0	0	0	0	0	0
Kwazulu-Natal	265	616	1976	237	73	914	1484	2732	1270	646
North West	0	10	0	0	0	0	0	0	0	0
Gauteng	9985	10189	11851	15333	17445	15696	9919	12917	16011	15949
Mpumalanga	478	66	8	0	0	2969	1268	148	363	622
Limpopo	0	184	48	45	1	0	28	446	226	212

Source: Quantec Easydata

Highlights of the pineapple exports in Figure11 were that the provinces of Western Cape and Gauteng were consistently the top pineapple exporting provinces of South Africa over the last decade. The value of exports in both provinces increased between 2009 and 2010. In the period between 2010 and 2011, the

value of exports in the Western Cape decreased while in Gauteng the decrease was marginal. Gauteng retained its position as the largest exporter of pineapples in South Africa during 2011. Other provinces featured intermittently but usually registered minimal trade. The following Figures (Figures 12 – 20) show the value of pineapple exports from the various districts in the nine provinces of South Africa. Figure 12 illustrates values of pineapple exports by the Western Cape Province during the period 2002 to 2011.

Figure 12: Values of pineapple exports by the Western Cape province, 2002 - 2011



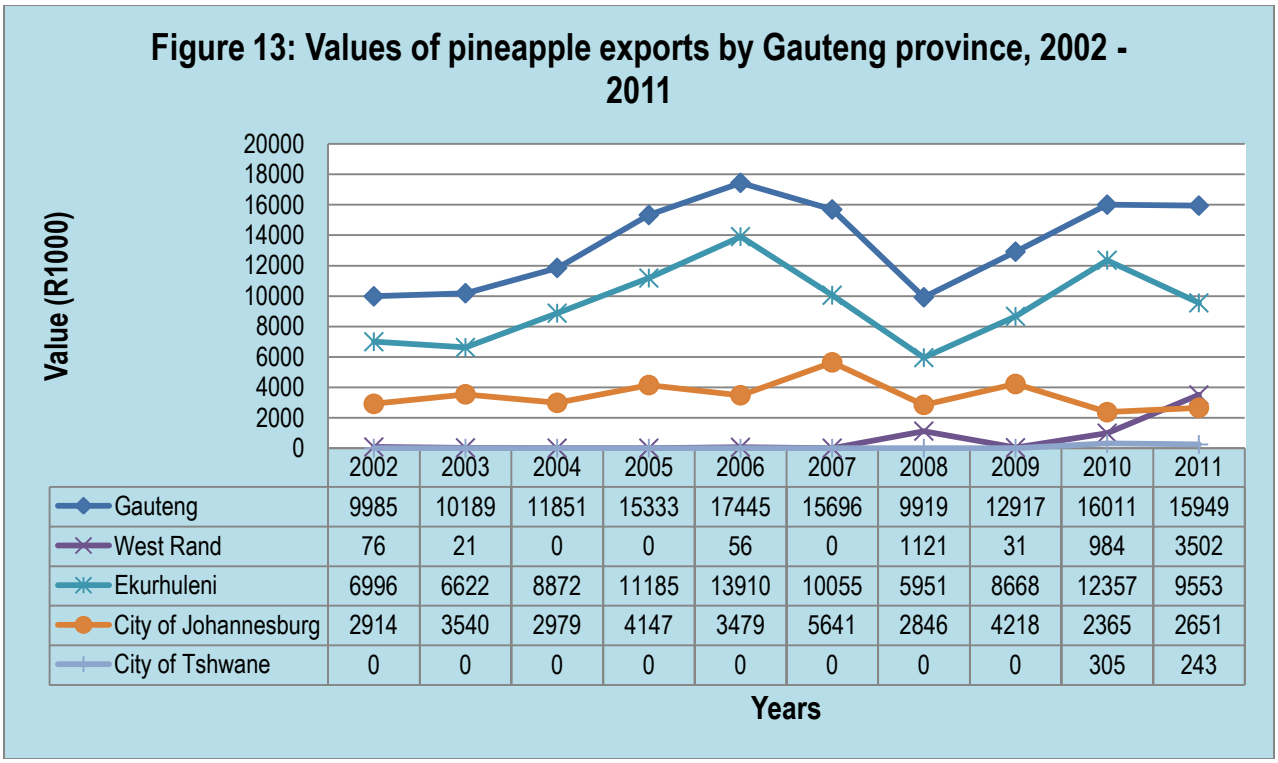
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Western Cape	12445	9303	7550	6852	7069	8813	11386	8737	9832	7040
City of Cape Town	12445	9301	7218	6545	6930	8700	11339	8365	9479	6769
West Coast	0	0	0	0	0	0	0	0	0	17
Cape Winelands	0	2	276	307	85	0	0	344	237	81
Overberg	0	0	0	0	0	0	0	2	0	17
Eden	0	0	56	0	53	113	46	26	116	157

Years

Source: Quantec Easydata

Pineapple exports from the Western Cape are mainly from the City of Cape Town. High export value for the leading municipality was recorded in 2002. Pineapples worth R6.8 million were exported through the City of Cape Town in 2011 and this represented a decrease from R9.5 million in 2010. The use of the Cape Town harbour as an exit point may have played a major role in the City of Cape Town being a leader in the export of pineapples from the Western Cape. The year 2009 marked the first decline in pineapple export values for the City of Cape Town after some years of significant growth. The export value increased again in 2010, only to decrease again in 2011.

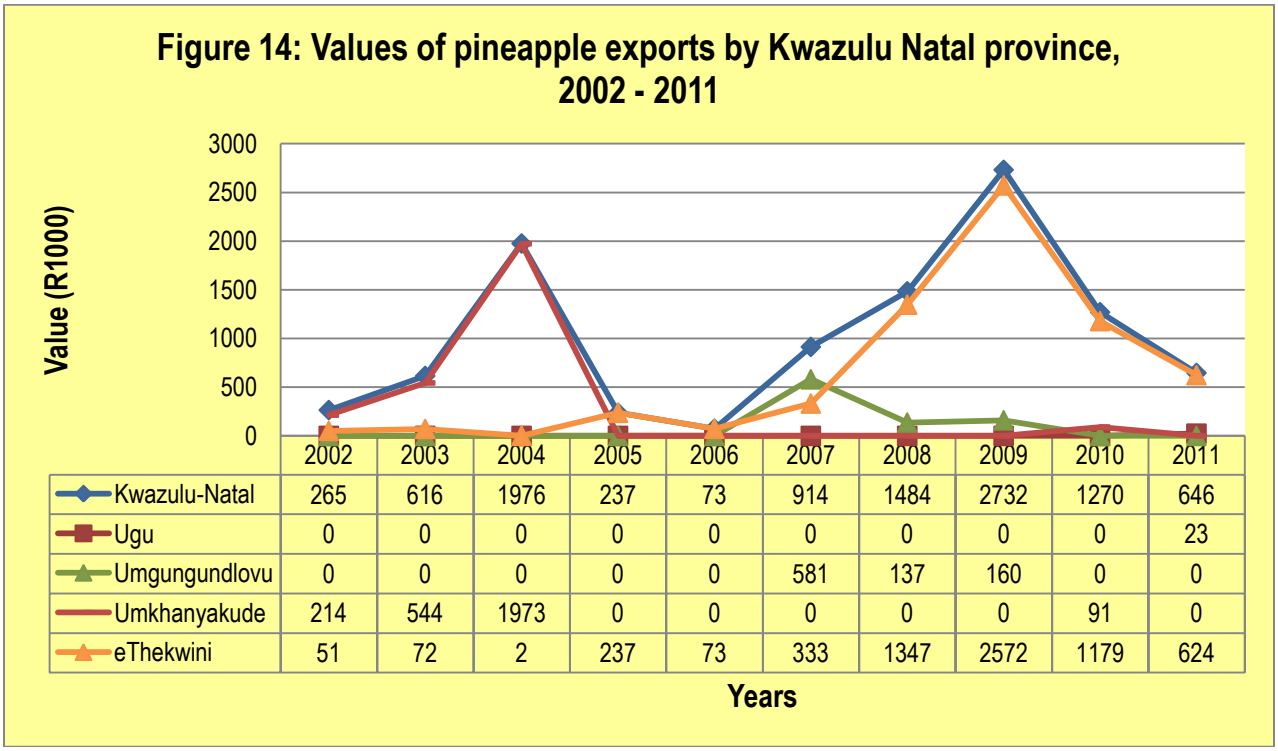
The values of pineapple exports by the Gauteng province are illustrated in Figure 13. It is clear from Figure 13 that in Gauteng, there have generally been fluctuations on the pineapple export values for the past ten years. The leading role players are City of Johannesburg and Ekurhuleni municipalities. High export values of the leading municipalities were recorded in 2007 (for the City of Johannesburg) and 2006 (for Ekurhuleni). Ekurhuleni exported pineapples worth R9.6 million in 2011 while the City of Johannesburg exported pineapples worth R2.7 million during the same period.



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Gauteng	9985	10189	11851	15333	17445	15696	9919	12917	16011	15949
West Rand	76	21	0	0	56	0	1121	31	984	3502
Ekurhuleni	6996	6622	8872	11185	13910	10055	5951	8668	12357	9553
City of Johannesburg	2914	3540	2979	4147	3479	5641	2846	4218	2365	2651
City of Tshwane	0	0	0	0	0	0	0	0	305	243

Source: Quantec Easydata

The values of pineapple exports from the Kwazulu Natal province are illustrated in Figure 14.



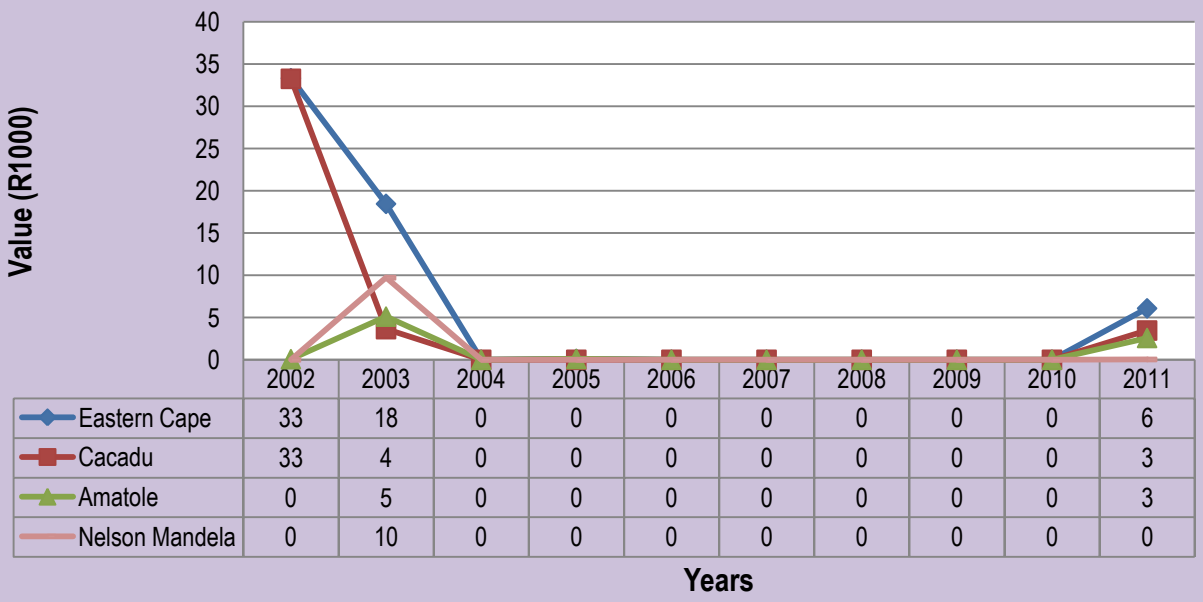
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Kwazulu-Natal	265	616	1976	237	73	914	1484	2732	1270	646
Ugu	0	0	0	0	0	0	0	0	0	23
Umgungundlovu	0	0	0	0	0	581	137	160	0	0
Umkhanyakude	214	544	1973	0	0	0	0	0	91	0
eThekwini	51	72	2	237	73	333	1347	2572	1179	624

Source: Quantec Easydata

Pineapple exports in Kwazulu Natal are mainly from EThekwini municipality and to a lesser extend from both Umkhanyakude and Umgungundlovu municipalities. High export values for the leading municipalities were recorded in 2009 (for EThekwini), 2004 (for Umkhanyakude) and 2007 (for Umgungundlovu). The value of pineapple exports recorded by the eThekwini municipality declined significantly in 2010. The value recorded by the eThekwini continued to decline in 2011. The use of the Durban harbour as an exit point plays a major role in EThekwini being a leader in the export of pineapples from the Kwazulu Natal.

Values of pineapple exports from the Eastern Cape Province are shown in Figure 15. It is clear Figure 15 that pineapple exports from Eastern Cape are from the Cacadu municipality. High export value for the leading municipality was recorded in 2002. All the Eastern Cape municipalities have been dropping their export values since 2003 and by 2004, no pineapple exports were recorded in the Eastern Cape. In 2011, some pineapples were exported by the Cacadu and Amatole districts. This is interesting given the fact that the Eastern Cape is a leading province in pineapple production.

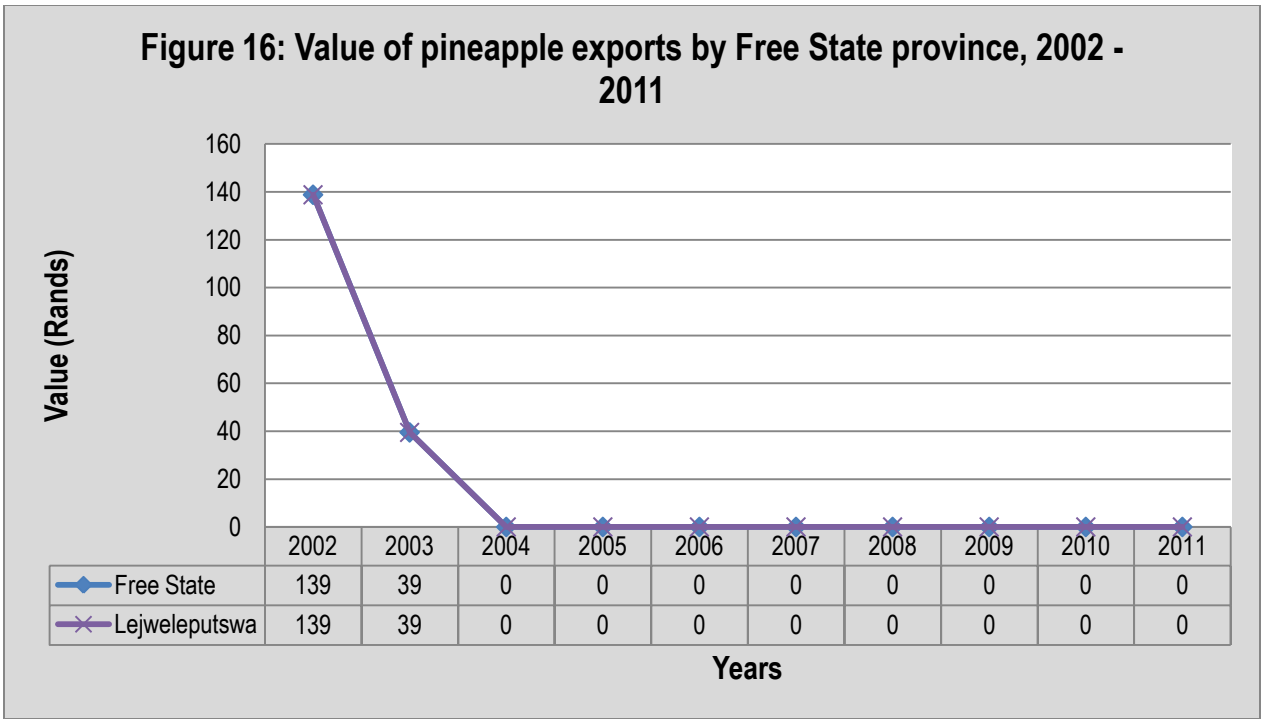
Figure 15: Values of pineapple exports by the Eastern Cape province, 2002 - 2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	33	18	0	0	0	0	0	0	0	6
Cacadu	33	4	0	0	0	0	0	0	0	3
Amatole	0	5	0	0	0	0	0	0	0	3
Nelson Mandela	0	10	0	0	0	0	0	0	0	0

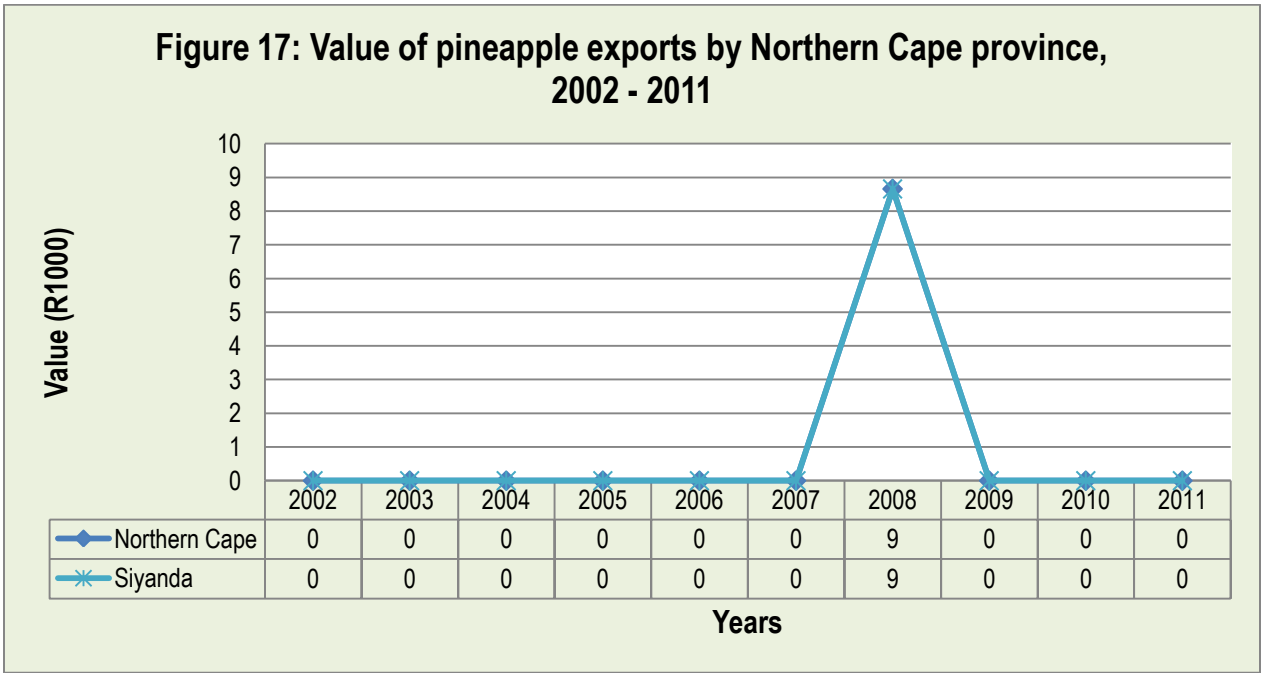
Source: Quantec Easydata

Values of pineapple exports by the Free State province are shown in Figure 16. In the Free State pineapple exports are mainly from Lejweleputswa municipality. High export value for the leading municipality was recorded in 2002. Lejweleputswa's export values have decreased drastically from the 2002 peak and the district never reported pineapple exports since 2004.



Source: Quantec Easydata

Values of pineapple exports by the Northern Cape province are depicted in Figure 17.

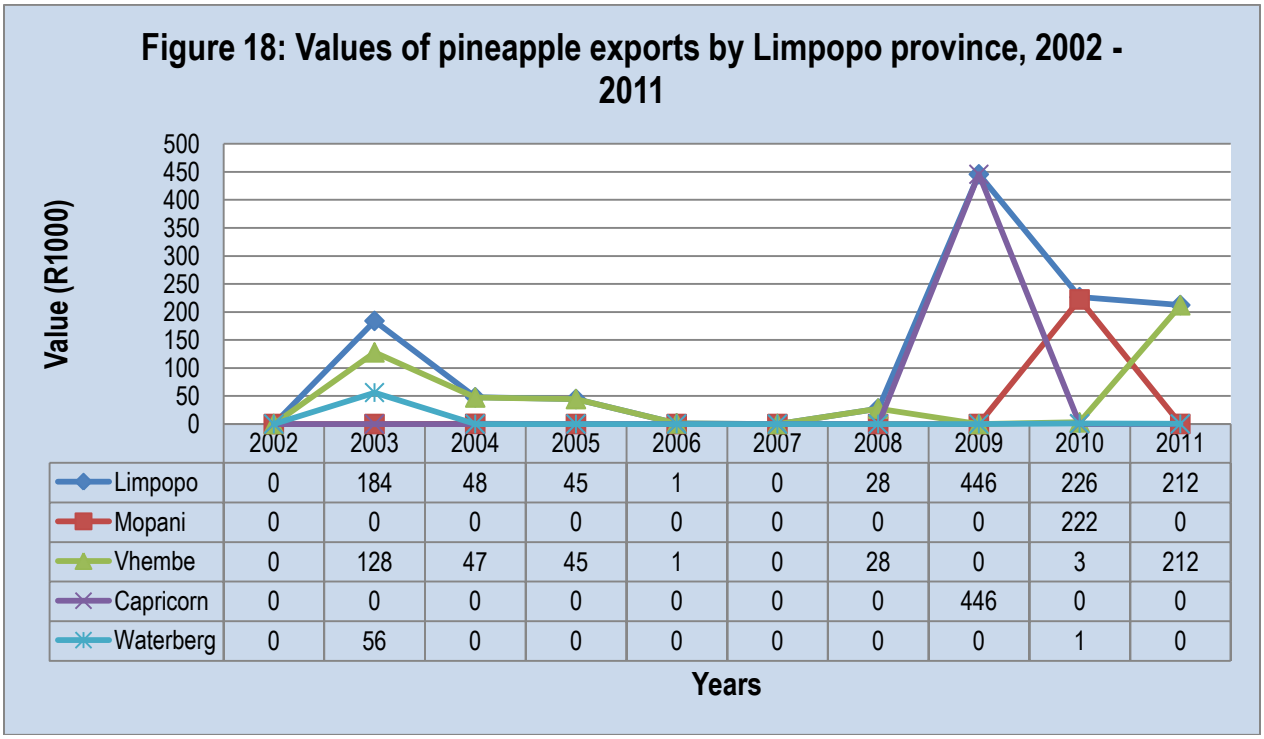


Source: Quantec Easydata

Pineapple exports in the Northern Cape were only recorded from the Siyanda municipality during 2008. Values of pineapple exports by the Limpopo province are illustrated in Figure 18. Pineapple exports from Limpopo are mainly from Vhembe district municipality. High export value for the leading district municipality

was recorded in 2011. Mopani district recorded exports worth over R220 thousand in 2010 after almost a decade without recording any pineapple exports. All pineapple exports reported in Limpopo province during 2011 were from the Vhembe district.

Figure 18: Values of pineapple exports by Limpopo province, 2002 - 2011

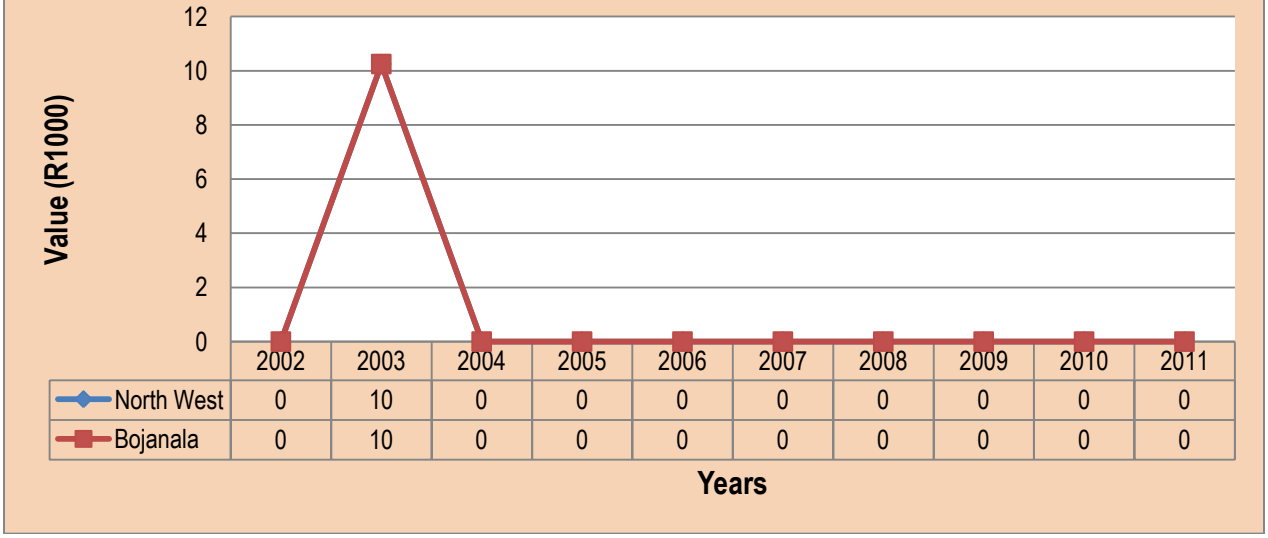


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Limpopo	0	184	48	45	1	0	28	446	226	212
Mopani	0	0	0	0	0	0	0	0	222	0
Vhembe	0	128	47	45	1	0	28	0	3	212
Capricorn	0	0	0	0	0	0	0	446	0	0
Waterberg	0	56	0	0	0	0	0	0	1	0

Source: Quantec Easydata

Values of pineapple exports from the North West province are shown in Figure 19.

Figure 19: Values of pineapple exports by North West province, 2002 - 2011

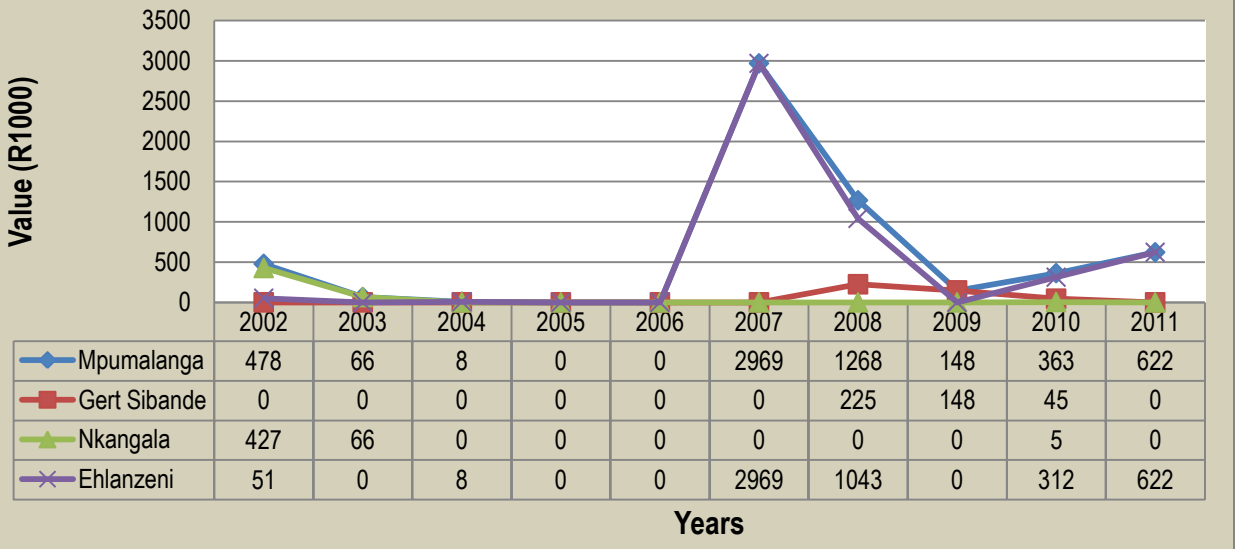


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
North West	0	10	0	0	0	0	0	0	0	0
Bojanala	0	10	0	0	0	0	0	0	0	0

Source: Quantec Easydata

Pineapple exports of from North West are mainly from Bojanala Platinum municipality. High export value for the leading municipality was recorded in 2003. Figure 20 shows values of pineapple exports from the Mpumalanga province.

Figure 20: Values of pineapple exports by Mpumalanga province, 2002 - 2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Mpumalanga	478	66	8	0	0	2969	1268	148	363	622
Gert Sibande	0	0	0	0	0	0	225	148	45	0
Nkangala	427	66	0	0	0	0	0	0	5	0
Ehlanzeni	51	0	8	0	0	2969	1043	0	312	622

Source: Quantec Easydata

It is clear from Figure20 that pineapple exports from Mpumalanga are from Gert Sibande and Ehlanzeni municipalities. High export values for the leading municipalities were recorded in 2008 (for Gert Sibande) and 2007 (for Ehlanzeni). The Ehlanzeni district overtook Gert Sibande district as the leading exporter of pineapples in Mpumalanga in 2010 and 2011.

2.4 Share Analysis

Table 2 illustrates provincial shares towards national pineapple exports. It shows that the Western Cape and Gauteng provinces have commanded the greatest share of pineapple exports for the past ten years. This is in spite of the fact that the Eastern Cape and Kwazulu Natal provinces are the leading producers of pineapples. The leading contributor in 2011 was Gauteng at 65.2%. It was followed by the Western Cape at 28.8% and Kwazulu Natal and Mpumalanga at 2.6% and 2.5% respectively. 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 pineapple exports.

The above scenario raises concerns about the availability of marketing infrastructure and agro-logistics in the other major pineapple producing provinces of South Africa like the Eastern Cape and Kwazulu Natal because both Gauteng and Western Cape are not pineapple producing regions and yet the sizeable share of South African pineapple exports are exported through these provinces.

Table 2: Share of provincial pineapple exports to total RSA pineapple exports (%), 2002 – 2011

Years Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
RSA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Western Cape	53.3	45.5	35.2	30.5	28.7	31.0	47.3	35.0	35.6	28.8
Eastern Cape	0.1	0.1	0	0	0	0	0	0	0	0
Northern Cape	0	0	0	0	0	0	0	0	0	0
Free State	0.6	0.2	0	0	0	0	0	0	0	0
Kwazulu-Natal	1.1	3.0	9.2	1.1	0.3	3.2	6.2	10.9	4.7	2.6
North West	0	0.1	0	0	0	0	0	0	0	0
Gauteng	42.8	49.9	55.3	68.2	70.9	55.3	41.2	51.7	57.6	65.2
Mpumalanga	2.0	0.3	0	0	0	10.5	5.3	0.6	1.4	2.5
Limpopo	0	0.9	0.2	0.2	0	0	0.1	1.8	0.8	0.9

Source: Calculated from Quantec Easydata

Tables 3 to 11 show shares of the various districts' pineapple exports to the various provincial pineapple exports. Table 3 presents the shares of district pineapple exports to the total Western Cape provincial pineapple exports for the years 2002 to 2011. The leading pineapple export district in the Western Cape is the City of Cape Town. The district contributed almost all (96.2%) pineapple exports from the Western Cape in 2011. The remainder came from the Cape Winelands and Eden districts.

Table 3: Share of districts' pineapple exports to total Western Cape provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
City of Cape Town	100.0	100.0	95.6	95.5	98.0	98.7	99.6	95.7	96.4	96.2
CapeWinelands	0.0	0.0	3.7	4.5	1.2	0.0	0.0	3.9	2.4	1.2
Eden	0.0	0.0	0.7	0.0	0.8	1.3	0.4	0.3	1.2	2.6
Western Cape	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100

Source: Calculated from Quantec Easydata

The shares of district pineapple exports to the total Eastern Cape provincial pineapple exports are presented in Table 4. No pineapple exports were recorded from the Eastern Cape Province between 2006 and 2010. This is despite the fact that the Eastern Cape is the major producer of pineapples in South Africa. Pineapple exports were however recorded again in 2011, with the Cacadu district contributing 56.9%

Table 4: Share of districts' pineapple exports to total Eastern Cape provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Cacadu	99.8	19.7	0	0	0	0	0	0	0	56.9
Amatole	0.2	27.7	0	100.0	0	0	0	0	0	42.4
Nelson Mandela	0.0	52.6	0	0	0	0	0	0	0	0
Chris Hani	0	0	0	0	0	0	0	0	0	0.7
Eastern Cape	100.0	100.0	0	100.0	0	0	0	0	0	100.0

Source: Calculated from Quantec Easydata

In the Mpumalanga province, the main contributor to total provincial pineapple exports in 2011 was the Ehlanzeni (100%) district (see Table 5).

Table 5: Share of districts' pineapple exports to total Mpumalanga provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GertSibande	0.0	0.0	0.0	0.0	0.0	0.0	17.7	100.0	12.0	0.0
Nkangala	89.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0
Ehlanzeni	10.7	0.0	100.0	0.0	0.0	100.0	82.3	0.0	86.6	100.0
Mpumalanga	100.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Quantec Easydata

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

Table 6: Share of districts' pineapple exports to total Free State provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Lejweleputswa	100.0	100.0	0	0	0	0	0	0	0	0
Free State	100.0	100.0	0	0	0	0	0	0	0	0

Source: Calculated from Quantec Easydata

In the Gauteng province, the contributions of the various districts to total provincial pineapple exports are distributed between three main districts (see Table 7). In 2011, the leading district was Ekurhuleni with 60.0% share. The West Rand and the City of Johannesburg at 22.0% and 12.9% respectively followed it.

Table 7: Share of districts 'pineapple exports to total Gauteng provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Sedibeng	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
West Rand	0.8	0.2	0.0	0.0	0.3	0.0	11.3	0.2	5.5	22.0
Ekurhuleni	70.1	65.0	74.9	73.0	79.7	64.1	60.0	67.1	77.7	60.0
City of Johannesburg	29.2	34.7	25.1	27.0	19.9	35.9	28.7	32.7	14.8	12.9
City of Tshwane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	5.1
Gauteng	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Quantec Easydata

The North West province never reported any exports of pineapples since 2004 (see Table 8).

Table 8: Share of districts' pineapple exports to total North West provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bojanala Platinum	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North West	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Calculated from Quantec Easydata

In 2009, all exports of pineapples recorded in the Limpopo province were from the Capricorn district (see Table 9). The contributions however changed significantly in 2010. Almost all pineapple exports recorded in Limpopo during 2010 were from Mopani (98.2%). The Capricorn district only contributed 0.1% during the same period. In 2011, all exports recorded were from the Vhembe district.

Table 9: Share of districts' pineapple exports to total Limpopo provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Mopani	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	98.2	0.0
Vhembe	0.0	69.5	99.4	100.0	100.0	0.0	100.0	0.0	1.4	99.8
Capricorn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.1	0.0
Waterberg	0.0	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1
Limpopo	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0

Source: Calculated from Quantec Easydata

All recorded exports of pineapples in the Northern Cape Province in 2008 were from the Siyanda district (see Table 10). No pineapple exports were recorded from the Northern Cape in since 2009.

Table 10: Share of districts pineapple exports to total Northern Cape provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Siyanda	0.0	0.0	0.0	0.0	0.0	0.0	100	0.0	0.0	0.0
Northern Cape	0.0	0.0	0.0	0.0	0.0	0.0	100	0.0	0.0	0.0

Source: Calculated from Quantec Easydata

The shares of district pineapple exports to the total Kwazulu Natal provincial pineapple exports are presented in Table 11. In 2011, the EThekwini district contributed almost all (96.5%) of Kwazulu Natal's provincial pineapple exports. The remaining 3.5% came from Ugu district.

Table 11: Share of districts' pineapple exports to the total Kwazulu Natal provincial pineapple exports (%), 2002 – 2011

Years District	2002	2003	2004	2005	2006	2007	2008	2009	2009	2010	2011
Umgungundlovu	0.0	0.0	0.0	0.0	0.7	63.6	9.2	5.9	0.0	0.0	0.0
Umkhanyakude	80.6	88.3	99.9	0.0	0.0	0.0	0.0	0.0	7.1	7.2	0.0
Ugu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Ethekwini	19.4	11.7	0.1	100.0	99.3	36.4	90.8	94.1	92.9	92.8	96.5
Kwazulu Natal	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

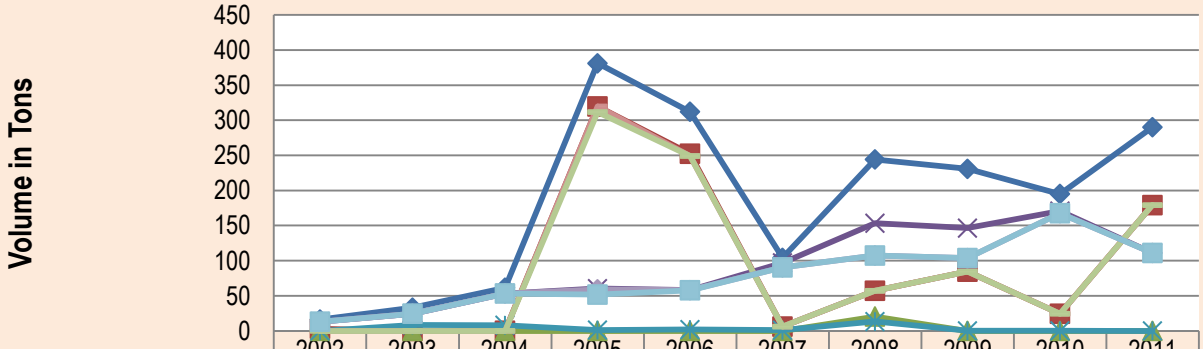
Source: Calculated from Quantec Easydata

2.5 Pineapple imports

The volumes of pineapples imported by South Africa during the last decade are presented in Figure 21. South Africa imported 290 tons of pineapples during 2011. The highest volume imported during the period under review was 381 tons in 2005. During 2011, the majority of South African imports of pineapples came from Africa (62%), the remaining 38% came from the Asian continent (specifically Thailand in South-eastern Asia) .During 2010 Asia accounted for 88% of South Africa's imports. The largest and only supplier of South African pineapple imports in Africa during 2011 was Ghana in Western Africa. On the other hand, South Africa imported 3 794 tons of prepared or preserved (200820) in 2011 mainly from Thailand (3 325 tons), China (180 tons) and the Philippines (83 tons). South Africa also imported 77 tons of pineapple juice (200949) in 2011 from Portugal (16 tons) and the Netherlands (14 tons).

During 2011, South Africa's imports of pineapples (080430) represented 0.01% of world imports and its ranking in the world was number 81. At the same time, South Africa's imports of prepared or preserved pineapples (200820) represented 0.25% of world imports and its ranking in the world was number 42. On the other hand, South Africa's imports of pineapple juice (200949) represented 0.02% of world imports and its ranking in the world was number 107.

Figure 21: Volumes of pineapples imported by South Africa from the various regions of the world, 2002 - 2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
World	16	33	62	381	312	104	244	231	195	290
Africa	3	0	0	320	252	6	57	84	24	179
Americas	0	0	0	0	0	0	21	0	0	0
Asia	13	25	53	60	58	97	153	146	171	111
Europe	0	9	8	1	2	1	13	0	0	0
Western Africa	0	0	0	320	249	6	57	84	24	179
Ghana	0	0	0	312	249	6	57	84	24	179
South-Eastern Asia	13	25	53	59	58	90	107	104	168	111
Thailand	13	25	53	52	58	90	107	104	168	111

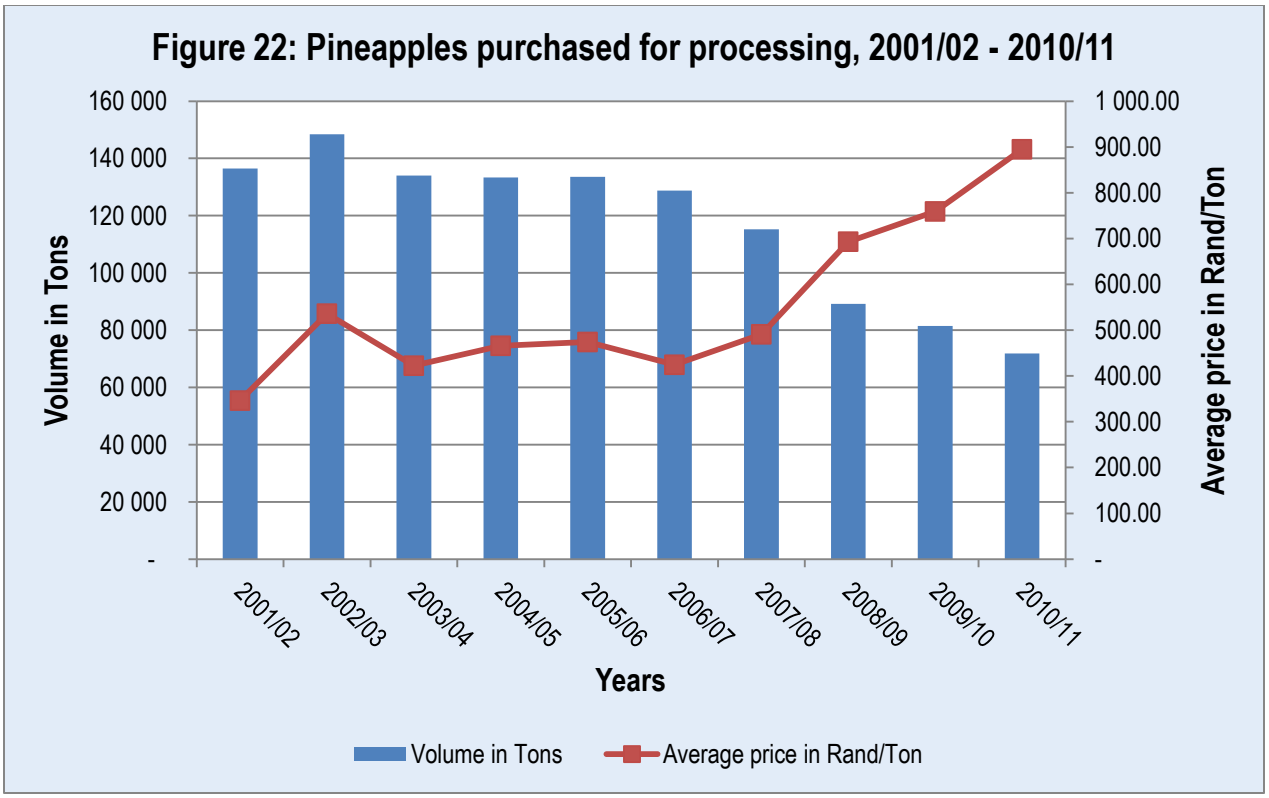
Years

Source: Quantec Easydata

2.6 Processing

The pineapple processing industry in South Africa is significant. In 2010/11, the processing industries absorbed 71 825 tons. This represented 73% of all pineapples (98 567 tons) produced in South Africa during the same period. The total purchases represent direct purchases from growers and quantities of pineapples purchased from the National Fresh Produce Markets. According to Figure 22, volumes purchased for processing have been declining during the past five years. Prices realised have been increasing during the same period, indicating that prices are greatly influenced by the amount of produce available for sale. Between 2009/10 and 2010/11 the volumes processed declined by 12% while prices increased by 18%.

Field ripe fruits are best for eating fresh, and it is only necessary to remove the crown, rind, eyes and core. In countries like Panama, very small pineapples are cut from the plant with a few inches of stem to serve as a handle, the rind is removed except at the base, and the flesh is eaten out-of-hand like corn on the cob. The flesh of larger fruits is cut up in various ways and eaten fresh, as dessert, in salads, compotes and otherwise, or cooked in pies, cakes, puddings, or as a garnish on ham, or made into sauces or preserves. Malayans utilize the pineapple in curries and various meat dishes. In the Philippines, the fermented pulp is made into a popular sweetmeat called *nata de pina.* The pineapple does not lend itself well to freezing, as it tends to develop off flavours.



Source: Statistics and Economic Analysis, DAFF

Canned pineapple is consumed throughout the world. The highest grade is the skinned, cored fruit sliced crosswise and packed in syrup. Undersize or overripe fruits are cut into "spears", chunks or cubes. Surplus pineapple juice used to be discarded after extraction of bromelain (q.v.). Today there is a growing demand for it as a beverage. Crushed pineapple, juice, nectar, concentrate, marmalade and other preserves are commercially prepared from the flesh remaining attached to the skin after the cutting and trimming of the central cylinder. All residual parts cores, skin and fruit ends are crushed and given a first pressing for juice to be canned as such or prepared as syrup used to fill the cans of fruit, or is utilized in confectionery and beverages, or converted into powdered pineapple extract which has various roles in the food industry. Chlorophyll from the skin and ends imparts a greenish hue that must be eliminated and the juice must be used within 20 hours as it deteriorates quickly. A second pressing yields "skin juice" which can be made into vinegar or mixed with molasses for fermentation and distillation of alcohol. Sugar/acid ratio and ascorbic acid content vary considerably with the cultivar. The sugar content may change from 4% to 15% during the final 2 weeks before full ripening.

2.6.1 Other Uses

Bromelain: The proteolytic enzyme, bromelain, or bromelin, was formerly derived from pineapple juice; now it is gained from the mature plant stems salvaged when fields are being cleared. The yield from 368 lbs (167 kg) of stern juice is 8 lbs (3.6 kg) of bromelain. The enzyme is used like papain from papaya for tenderizing meat and chill proofing beer; is added to gelatin to increase its solubility for drinking; has been used for stabilizing latex paints and in the leather-tanning process. In modern therapy, it is employed as a digestive and for its anti-inflammatory action after surgery, and to reduce swellings in cases of physical injuries; also in the treatment of various other complaints.

Fibre: Pineapple leaves yield a strong, white, silky fibre which was extracted by Filipinos before 1591. Certain cultivars are grown especially for fibre production and their young fruits are removed to give the plant maximum vitality. The 'Perolera' is an ideal cultivar for fibre extraction because its leaves are long, wide and rigid. Chinese people in Kwantgung Province and on the island of Hainan weave the fibre into coarse textiles resembling grass cloth. It was long ago used for thread in Malacca and Borneo. In India the thread is prized by shoemakers and it was formerly used in the Celebes. In West Africa it has been used for stringing jewels and also made into capes and caps worn by tribal chiefs. The people of Guam hand-twist the fibre for make fine casting nets. They also employ the fibre for wrapping or sewing cigars. Pina cloth made on the island of Panay in the Philippines and in Taiwan is highly esteemed. In Taiwan they also make a coarse cloth for farmers' underwear.

The outer, long leaves are preferred. In the manual process, they are first decorticated by beating and rasping and stripping, and then left to ret in water to which chemicals may be added to accelerate the activity of the microorganisms which digest the unwanted tissue and separate the fibres. Retting time has been reduced from 5 days to 26 hours. The rested material is washed clean, dried in the sun and combed. In mechanical processing, the same machine can be used that extracts the fibre from sisal. Estimating 10 leaves to the lb (22 per kg), 22,000 leaves would constitute one ton and would yield 50-60 lbs (22-27 kg) of fibre.

Juice: Pineapple juice has been employed for cleaning machete and knife blades and, with sand, for scrubbing boat decks.

Animal Feed: Pineapple crowns are sometimes fed to horses if not needed for planting. Final pineapple waste from the processing factories may be dehydrated as "bran" and fed to cattle, pigs and chickens. "Bran" is also made from the stumps after bromelain extraction. Expendable plants from old fields can be processed as silage for maintaining cattle when other feed is scarce. The silage is low in protein and high in fibre and is best mixed with urea, molasses and water to improve its nutritional value.

In 1982, public concern in Hawaii was aroused by the detection of heptachlor (a carcinogen) in the milk from cows fed "green chop" leaves from pineapple plants that had been sprayed with the chemical to control the ants that distribute maize bugs. There is supposed to be a one year lapse to allow the heptachlor to become more dilute before sprayed plants are utilized for feed.

Folk Medicine: Pineapple juice is taken as a diuretic and to expedite labour, also as a gargle in cases of sore throat and as an antidote for seasickness. The flesh of very young (toxic) fruits is deliberately ingested to expel intestinal worms; and as a drastic treatment for venereal diseases. In Africa the dried, powdered root is a remedy for edema. The crushed rind is applied on fractures and the rind decoction with rosemary is applied on haemorrhoids. Indians in Panama use the leaf juice as a purgative, emmenagogue and vermifuge.

2.6.2 Ornamental Value

The pineapple fruit with crown intact is often used as a decoration and there are variegated forms of the plant universally grown for their showiness indoors or out. Since 1963, thousands of potted, ethylene

treated pineapple plants with fruits have been shipped annually from southern Florida to northern cities as indoor ornamentals.

2.6.3 Toxicity

When unripe, the pineapple is not only inedible but poisonous, irritating the throat and acting as a drastic purgative. Excessive consumption of pineapple cores can cause the formation of fibre balls (bezoars) in the digestive tract.

3. MARKET INTELIGENCE

3.1 Competitiveness of South African pineapple 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 fresh or dried pineapple exports represented 0.2% of world exports and its ranking on the world exports was number 25.

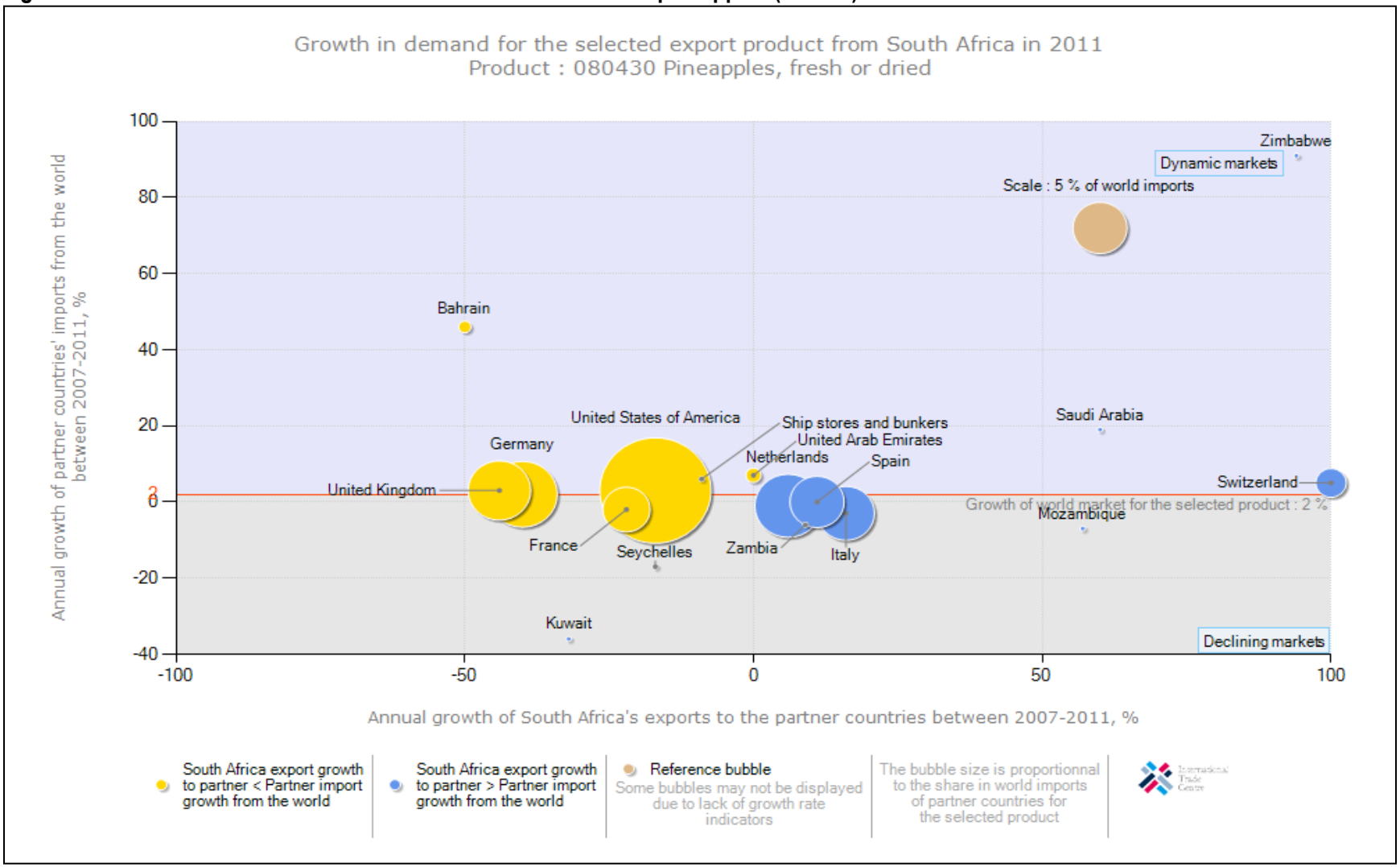
As depicted in Figure 23 below, South African fresh or dried pineapple (080430) exports are growing faster than the world imports in Zimbabwe, Switzerland and Saudi Arabia markets. South Africa's performance in those markets can be regarded as gains in dynamic markets.

South African fresh or dried pineapple exports are growing while the world imports are declining in Spain, Mozambique, Italy, Spain, Netherlands, and Kuwait markets. South Africa's performance in those markets can be regarded as gains in declining markets and should be viewed as achievement in adversity.

South African fresh or dried pineapple exports have declined faster than world imports in Seychelles, France, Germany and the United Kingdom markets. South Africa's performance into those markets can be regarded as loss in a declining market.

South African fresh or dried pineapple exports are declining while the world imports are growing in Belgium and the UAE markets. These markets are dynamic and South African performance should be regarded as an underachievement.

Figure 23: Growth in demand for the South African fresh or dried pineapples (080430) in 2011



Source: TradeMap, ITC

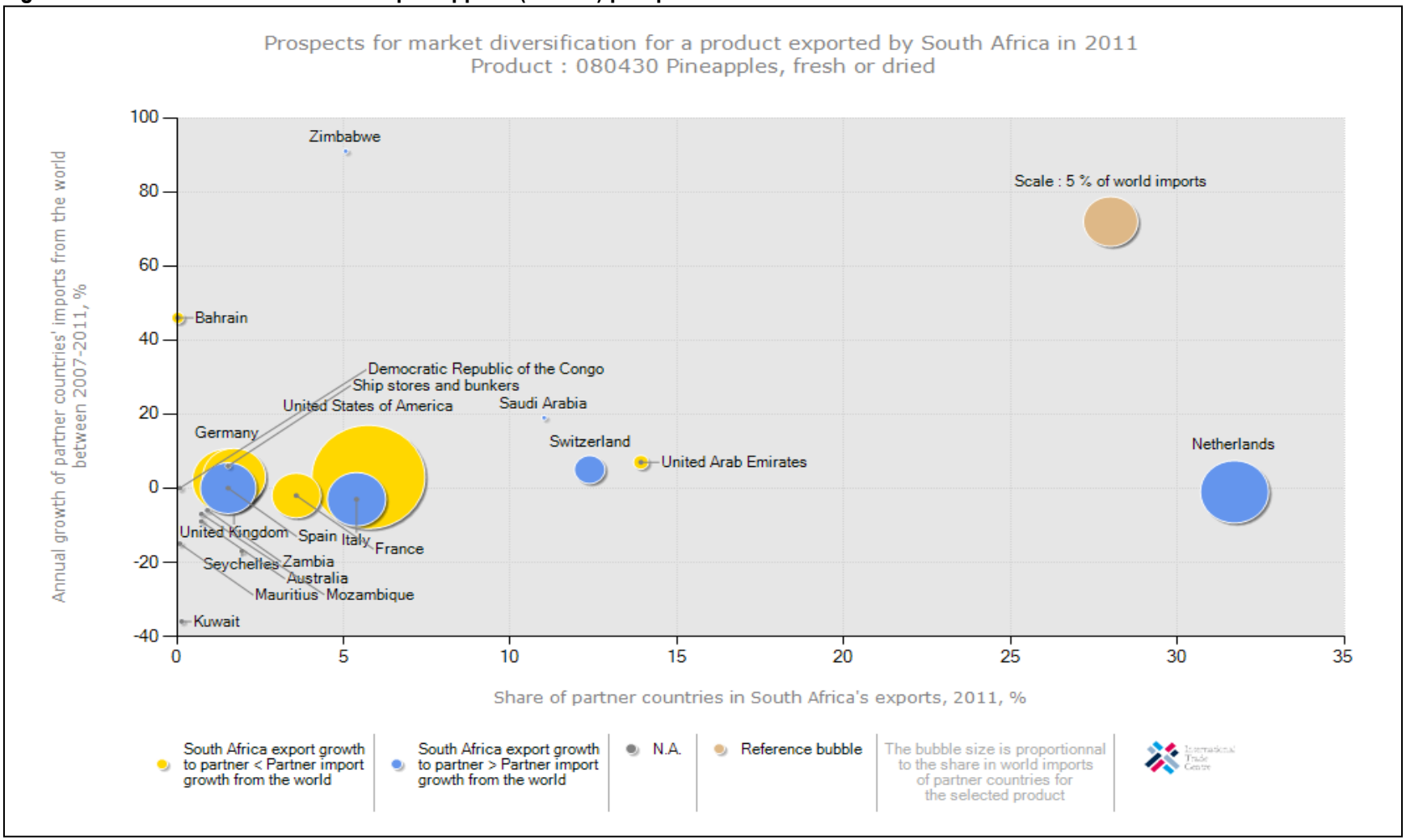
Figure 24 below illustrates prospects for market diversification by South African exporters of fresh or dried pineapples (080430). The Netherlands holds a bigger market share of South African fresh or dried pineapple exports.

In terms of market size, USA was the largest fresh or dried pineapple market in 2011 with just over $550 million worth of fresh or dried pineapples imports, or roughly 23.4% of the world fresh or dried pineapple market. Second was Belgium with just over $202 million worth of fresh or dried pineapple imports, or roughly 8.6% market share followed by Germany with just over $200 million worth of fresh or dried pineapple imports, or roughly 8.5% market share.

Whilst three countries dominate world fresh or dried pineapples imports, it is interesting to note that countries like Zimbabwe and Bahrain have experienced higher annual growth rate from 2007 – 2011. Zimbabwe experienced an annual growth rate of 91% while Bahrain experienced an annual growth rate of 46%. 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 fresh or dried pineapples producers.

It is also important to note that fresh or dried pineapples imports from the world to countries such as Kuwait, Mauritius, Seychelles, Mozambique and Australia have declined from 2007 – 2011 and as a result those countries have recorded negative growth rates in fresh or dried pineapples imports.

Figure 24: South African fresh or dried pineapples' (080430) prospects for market diversification in 2011



Source: TradeMap, ITC

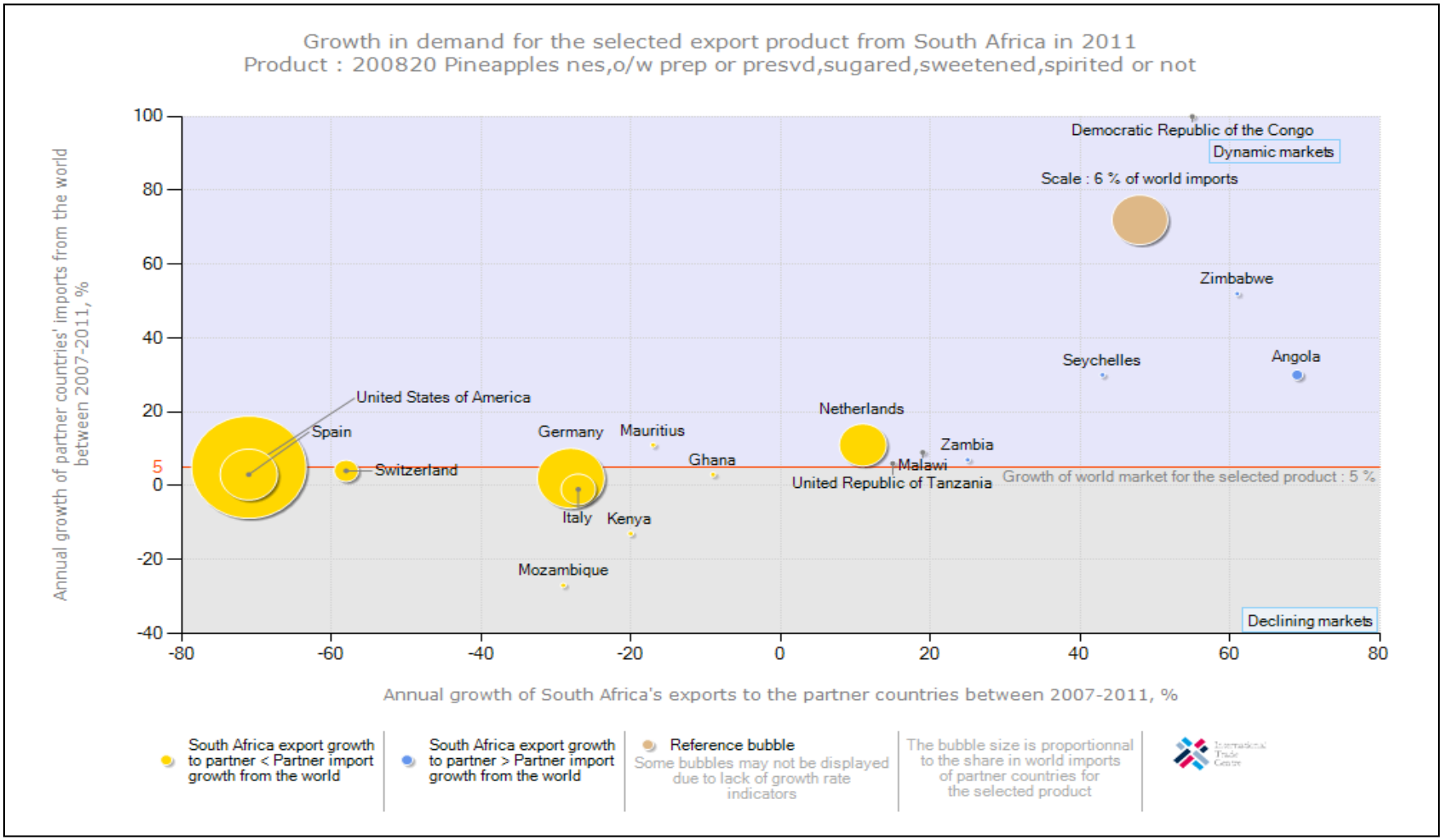
In 2011, South African pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) (200820) exports represented 0.03% of world exports and its ranking on the world exports was number 33.

As depicted in Figure 25 below, South African pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) exports are growing faster than the world imports in Angola, Zimbabwe, Democratic Republic of Congo, Seychelles, Zambia and Malawi markets. South Africa's performance in those markets can be regarded as gains in dynamic markets.

South African pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) exports have declined faster than world imports in the countries such as Mozambique, Kenya, Italy, Germany, Ghana, Switzerland, and Spain markets. South Africa's performance in these markets can be regarded as loss in declining markets.

South African pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) exports are declining while the world imports are growing in Mauritius and Netherlands markets. These markets are dynamic and South African performance should be regarded as an underachievement.

Figure 25: Growth in demand for the South African pineapples (otherwise preserved or prepared, sugared, sweetened, spirited or not) in 2011



Source: TradeMap, ITC

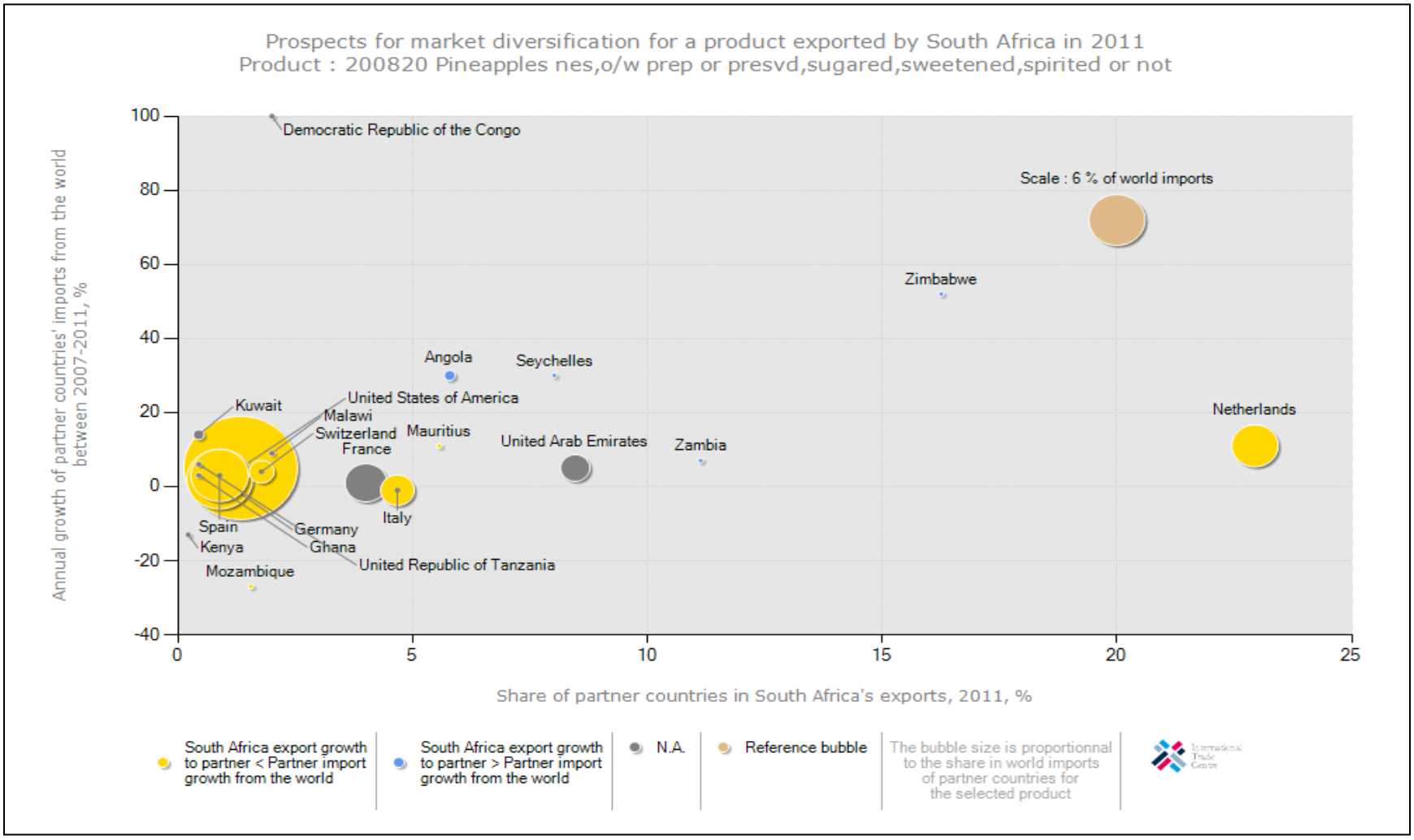
Figure 26 below illustrates prospects for market diversification by South African exporters of pineapples (otherwise prepared or preserved, sugared, sweetened, spirited or not) (200820). The Netherlands, Zimbabwe and Zambia hold a bigger market share of South African pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) exports.

In terms of market size, the USA was the largest pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) market in 2011 with just over $387 million worth of pineapples (otherwise prepared or preserved, sugared, sweetened, spirited or not) imports, or roughly 27.5% of the world pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) market. Second was Germany with just over $123 million worth of pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) imports, or roughly 8.8% market share followed by Spain with just over $88 million worth of pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) imports, or roughly 6.3% market share.

Whilst three countries dominate world pineapples imports, it is interesting to note that countries like Democratic Republic of the Congo, together with Zimbabwe, Seychelles and Angola have experienced higher annual growth rate from 2007 – 2011. The DRC experienced an annual growth rate of 139%. Second was Zimbabwe with 52% annual growth rate followed by Seychelles and Angola at 30% each. 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 pineapple (otherwise prepared or preserved, sugared, sweetened, spirited or not) producers.

It is also important to note that pineapples (otherwise prepared or preserved, sugared, sweetened, spirited or not) imports from the world to countries such as Kenya and Mozambique have declined from 2007 – 2011 and as a result those countries have recorded negative growth rates in pineapples (otherwise prepared or preserved, sugared, sweetened, spirited or not) imports.

Figure 26: South African pineapples' (otherwise preserved or prepared, sugared, sweetened, spirited or not) prospects for market diversification in 2011



Source: TradeMap, ITC

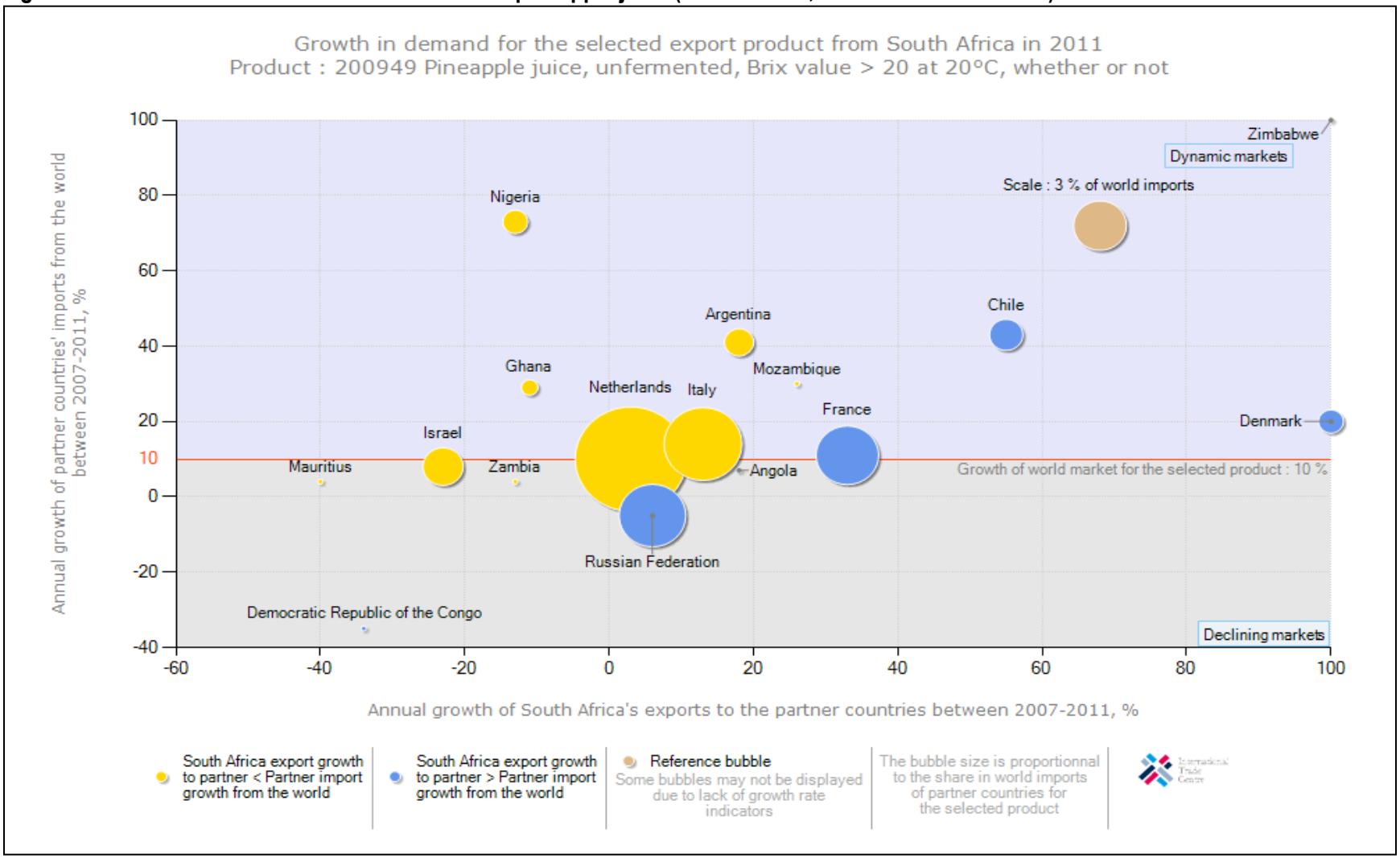
In 2011, South African pineapple juice (unfermented, Brix value > 20 at 20°C)(200949) exports represented 2.82% of world exports and its ranking on the world exports was number 7. As depicted in Figure27 below, South African pineapple juice (unfermented, Brix value > 20 at 20°C) exports are growing faster than the world imports in the Zimbabwe, Chile, Denmark, and France markets. South Africa's performance in those markets can be regarded as gains in dynamic markets.

South African pineapple juice (unfermented, Brix value > 20 at 20°C) exports are growing while the world imports are declining in the DRC, Russia and Angola markets. South Africa's performance in those markets can be regarded as gains in declining markets and should be viewed as achievement in adversity.

South African pineapple juice (unfermented, Brix value > 20 at 20°C) exports have declined faster than world imports in Mauritius, Netherlands, Zambia and Israel markets. South Africa's performance into these markets can be regarded as losses in declining markets.

South African pineapple juice (unfermented, Brix value > 20 at 20°C) exports are declining while the world imports are growing in the Mozambique, Argentina, Nigeria and Ghana markets. These markets are dynamic and South African performance should be regarded as an underachievement.

Figure 27: Growth in demand for the South African pineapple juice (unfermented, Brix value > 20 at 20°C) in 2011



Source: TradeMap, ITC

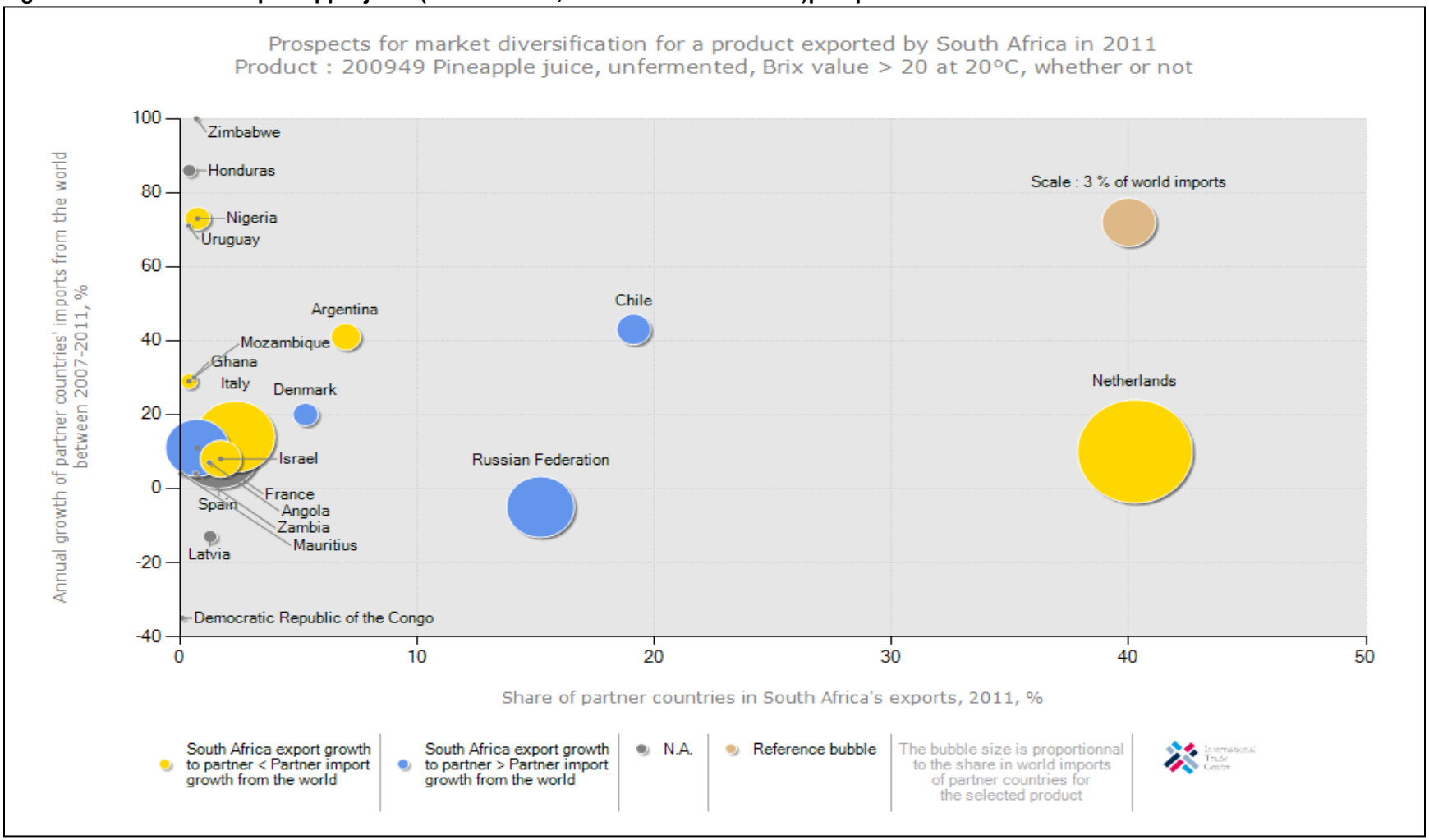
Figure 28 below illustrates prospects for market diversification by South African exporters of pineapples juice (unfermented, Brix value > 20 at 20°C) (200949). The Netherlands, Chile and Russia hold a bigger market share of South African pineapple juice exports (unfermented, Brix value > 20 at 20°C).

In terms of market size, the USA was the largest pineapple juice (unfermented, Brix value > 20 at 20°C) market in 2011 with just over $112 million worth of pineapples juice (unfermented, Brix value > 20 at 20°C) imports, or roughly 18.2% of the world pineapple juice (unfermented, Brix value > 20 at 20°C) market. Second was the Netherlands with about $93 million worth of pineapple juice (unfermented, Brix value > 20 at 20°C) imports, or roughly 15.1% market share followed by Spain with about $46 million worth of pineapple juice (unfermented, Brix value > 20 at 20°C) imports, or roughly7.4% market share.

Whilst three countries dominate world pineapples imports, it is interesting to note that countries like the Zimbabwe, together with Honduras and the Uruguay have experienced higher annual growth rate from 2007 – 2011. Zimbabwe experienced an annual growth rate of 176%. Second was Honduras with 86% annual growth rate followed by Uruguay at 71%. 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 pineapple juice (unfermented, Brix value > 20 at 20°C) producers.

It is also important to note that pineapple juice (unfermented, Brix value > 20 at 20°C) imports from the world to countries such as the Democratic Republic of the Congo and Latvia have declined from 2007 – 2011 and as a result those countries have recorded a negative growth rate in pineapples juice (unfermented, Brix value > 20 at 20°C) imports.

Figure 28: South African pineapple juice (unfermented, Brix value > 20 at 20°C)prospects for market diversification in 2011



Source: TradeMap, ITC

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 pineapple) 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 Africa 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 12 presents tariffs applied by the leading export markets for pineapples (fresh or dried) originating from South Africa during 2011. The European Union member states that featured as the leading export destinations for South African pineapples (fresh or dried) include the Netherlands, Italy, France, United Kingdom, Spain, and Germany. Because the tariff schedule of the European Union member states is the same, only one schedule for the EU is presented in Table 12.

Table 12: Tariffs applied by leading markets to pineapples (fresh or dried) from South Africa (080430)

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
European Union	08043000	- Pineapples	MFN applied duty	5.80%	5.80%
United Arab	08043000	- Pineapples	MFN duties	0.00%	0.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
Emirates			(Applied)		
Switzerland	08043000	-Pineapples	Free-trade agreement duty rate for South Africa	0.00%	0.00%
Saudi Arabia	08043000	- Pineapples	General tariff	0.00%	0.00%
United States of America	08043020	Pineapples, fresh or dried, not reduced in size, in bulk	Preferential tariff for AGOA countries	0.00%	0.00%
	08043040	Pineapples, fresh or dried, not reduced in size, in crates or other packages	Preferential tariff for AGOA countries	0.00%	0.00%
	08043060	Pineapples, fresh or dried, reduced in size	Preferential tariff for AGOA countries	0.00%	0.00%
Zimbabwe	08043000	- Pineapples	MFN applied duty rates	40.00%	40.00%
Seychelles	08043000	Pineapples, fresh or dried	General tariff	0.00%	0.00%
Zambia	08043010	- - - Fresh	MFN applied duty rates	25.00%	25.00%
	08043020	- - - Dried	MFN applied duty rates	25.00%	25.00%
Australia	08043000	-Pineapples	MFN duties (Applied)	0.00%	0.00%
Mozambique	08043000	- Pineapples	MFN applied duty rates	20.00%	20.00%

Source: Market Access Map, ITC

Table 12 shows that South African pineapples no longer enjoy preferential market access into the EU because of the preferential trading agreement (PTA) with the EU. This is clearly indicated by a tariff of 5.8% applied to pineapples originating from South Africa. South Africa has access to the USA market under the AGOA, which significantly lowers the tariff barriers for South African pineapples (fresh or dried). Switzerland has a preferential tariff for Southern African Customs Union member states. South African pineapples (fresh or dried) also have duty free access in countries such as United Arab Emirates, Seychelles, Saudi Arabia, and Australia. South African pineapple exports however face higher tariffs in countries such as Zimbabwe (40%), Zambia (25%) and Mozambique (20%).

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.

Table 13 presents tariffs applied by leading export markets to pineapple juice (unfermented, Brix value > 20 at 20˚C) originating from South Africa during 2011. The European Union member states that featured in the leading list of export destinations for South African pineapple juice (unfermented, Brix value > 20 at 20˚C) include the Netherlands, Denmark, Italy, Spain, Latvia and France. Because the tariff schedule of the European Union member states is the same, only one schedule for the EU is presented in Table 13.

Table 13: Tariffs applied by leading markets to pineapple juice (unfermented, Brix value > 20 at 20˚C) from South Africa (200949)

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
European Union	20094911	---- Of a value not exceeding € 30 per 100 kg net weight	MFN applied duty	33.6 + 20.6 €/100 kg/net	
	20094991	----- With an added sugar content exceeding 30 % by weight	MFN applied duty	15.2 + 20.6 €/100 kg/net	
	20094930	---- Of a value exceeding € 30 per 100 kg net weight, containing added sugar	MFN applied duty	15.20%	15.20%
	20094993	----- With an added sugar content not exceeding 30 % by weight	MFN applied duty	15.20%	15.20%
	20094999	----- Not containing added sugar	MFN applied duty	16.00%	16.00%
	20094919	---- Other	MFN applied duty	33.60%	33.60%
Chile	20094900	Jugos de frutas u otrosfrutos (incluido el mosto de uva) o de hortalizas, sin fermentar y sin adición de alcohol, incluso con adición de azúcar u otroedulcorante: Jugo de piña (ananá): Los demás	MFN duties (Applied)	6.00%	6.00%
Russia	2009401100	- - - of a value not exceeding euro 30 per 100 kg net weight	MFN duty	15 %, not less than 0.07 euro par litre	
	2009401909	- - - -other	MFN duty	15 %, not less than 0.07 euro par litre	

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
	2009403000	- - - of a value exceeding euro 30 per 100 kg net weight containing added sugar	MFN duty	15 %, not less than 0.07 euro par litre	
	2009409100	- - - - with an added sugar content exceeding 30% by weight	MFN duty	15 %, not less than 0.07 euro par litre	
	2009409300	- - - - with an added sugar content not exceeding 30% by weight	MFN duty	15 %, not less than 0.07 euro par litre	
	2009409909	- - - - not containing added sugar	MFN duty	15 %, not less than 0.07 euro par litre	
	2009401901	Not provided	MFN duty	5.00%	5.00%
	2009409901	- - - - not containing added sugar	MFN duty	5.00%	5.00%
Argentina	20094900	- - Los demás/ Jugo de piña (ananá)	MFN duties (Applied)	15.50%	15.50%
Israel	20094900	Pineapple juice, unfermented, Brix value > 20 at 20°C, whether or not containing added sugar or other sweetening matter (excl. containing spirit)	MFN duties (Applied)	0.00%	0.00%
Angola	20094900	Sumo de ananás [abacaxi], nãofermentado, semadição de álcool, com ousemadição de açúcarou de outros edulcorantes, com valor brix > 20 à temperatura de 20°c	MFN duties (Applied)	15.00%	15.00%
Nigeria	2009400001	Only in concentrate and in drums for bonifade manufacturers for 1 year	MFN applied duty	10.00%	10.00%
	2009400000	Pineapple juice	MFN applied duty	55.00%	55.00%
	2009400002	Other	MFN applied	100.00%	100.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
			duty		
Zimbabwe	20094900	- - Other	MFN duties (Applied)	40% + $15/L	40.05%
Zambia	20094900	- - Other	Preferential tariff for South Africa	5.00%	5.00%
Mozambique	20094900	-- Other	MFN applied duty rates	20.00%	20.00%

Source: Market Access Map, ITC

Table 13 shows that South African pineapple juices no longer enjoy preferential market access into the EU because of the preferential trading agreement (PTA) with the EU.. Tariffs applied by the EU range from 15.2% to 33.6%. Chile applies a 6% tariff across all imports of agricultural products as part of its liberalisation agenda. South African pineapple juice exports into Argentina face a 15.5% duty while those to the Russian Federation face an average duty of 15%. Angola also impose a 15% import duty of South African pineapple juice exports while Zimbabwe impose import duties of 25% and 40.05% respectively. Exports of pineapple juice by South Africa enter Israel and Zambia with a 5% duty while Mozambique applies a 20% import duty on South African pineapple juice.

4.2 European Union (EU)

The EU has 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 apples 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.

The entry price system applies to apples, pears and lemons year-round and to citrus fruit, table grapes, apricots, cherries, peaches, nectarines and plums during their peak seasons. As can be seen in Tables 12 and 13 the price entry system does not apply to pineapples. 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 phyto-sanitary 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 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 phyto-sanitary risk, identification of any harmful organisms and certification of the validity of any phyto-sanitary 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 phyto-sanitary controls and may need to undergo heat treatment, fumigation, etc.

4.2.2.2 Non-legal requirements: social and environmental accountability

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 Haavelaar Foundation, TransFair International and the FLO (FairtradeLabelling 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).

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 phyto-sanitary 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 of 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 (disinfestations 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 phyto-sanitary 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, well established commercial operations). One can supply a fruit combine, which will then contract out importers/marketers and try to take advantage of economies of scale and increased bargaining power. At the same time fruit combines 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 a fruit combine, 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 product 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 relationship is expected to increase. Finally, a new medium of e-commerce is expected to have a significant impact on potential exporters/suppliers and their ability to supply directly to wholesalers/distributors in the target markets.

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's new fruit terminal).

For some products, in order to reach the destination market with an acceptable degree of freshness, air transport becomes the only option. Obviously, the price fetched on these markets needs to be sufficient to cover the transport costs. Collective agreements between farmers of different commodities with different harvest periods become particularly important if air transport costs are to be managed efficiently.

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.

6.3Packaging

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, phyto-sanitary requirements, proper storage needs and even attractiveness for marketing purposes.

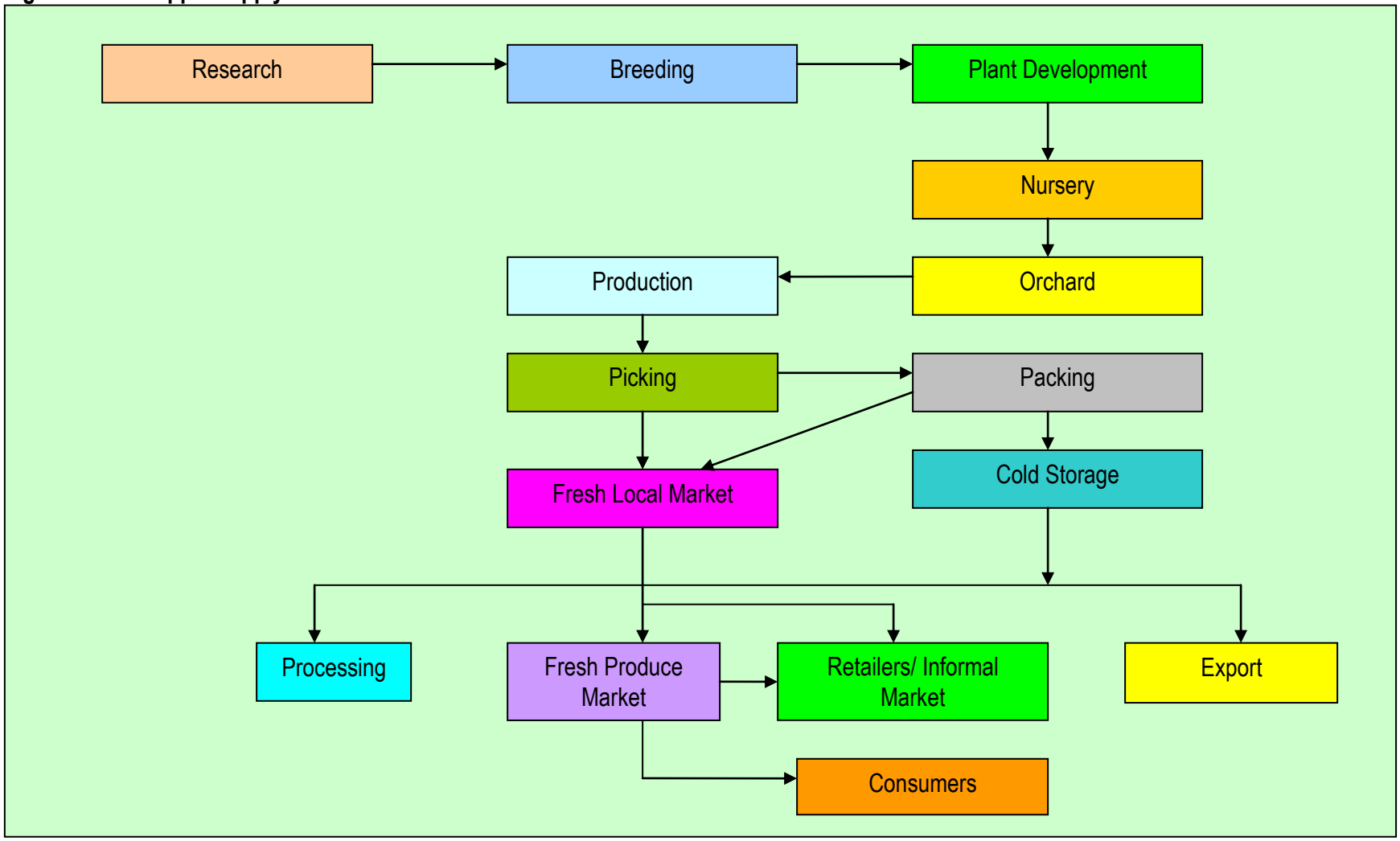
The business panel of any carton (including printed carton labels) used for packaging should comply with the requirements as established by the EU or any other regulations that are specified by a target market. Producers are advised to present their designs to the Perishable Products Export Control Board (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. PINEAPPLE SUPPLY VALUE CHAIN

Figure 29 presents the pineapple supply value chain. The supply value chain is a complex linkage of various production and operational role-players. Key stakeholders include producer organizations, organized labour, NGOs, financial institutions, government, fresh produce markets, processors, exporters and other traders.

Figure 29: Pineapple supply value chain



Source: Fruit Industry Plan Project Team (FIPPT)

7.1 Research

Research and Development in the South African pineapple industry is mainly carried out by the Institute for Tropical and Subtropical Crops of the Agricultural Research Council (ARC). Research conducted by the institute focuses mainly on breeding and plant improvement, nutrition, nematode control, pests and diseases, growth regulators and post harvest handling. Producer organizations also carry out research based on their needs from time to time.

7.2 Producer organisations

Pineapple producers in KwaZulu Natal are mainly represented through the Hluhluwe Queen Pineapple Marketing Association. The association was established in 1988 to promote pineapples. The association's main goals are:

- To market and promote queen pineapples produced by its members;
- To act as mouth-piece of the members and represent them in promoting queen pineapples produced in the Hluhluwe area; and
- To utilize funds collected for pineapple research

7.3 Pineapple processors

Data from Statistics and Economic Analysis (Abstract, 2011) indicate that during the 1980's more than 200 000 tons of fresh pineapples were produced and supplied to five canneries/processors in the Eastern Cape. However, between 1983 and 1993 South East Asian pineapple producers increased their production of pineapples threefold and flooded the world market resulting in a sharp decline in prices. This, together with sanctions against South Africa, fluctuating exchange rates and the compulsory purchase of the South African government of large areas of land under pineapple production for incorporation into the former Ciskei homeland contributed to the near collapse of the pineapple industry in the Eastern Cape.

By 1993 only three canneries/processors remained in operation and the multinational owners of two of these sold out to local farmers. Of these three canneries, one closed in 1995. The remaining two are both located in East London and are Summerpride Foods and Collondale Cannery. Summerpride Foods has a capacity of 120 000 tons while the Collondale Cannery has a capacity of 40 000 tons, bringing the total processing capacity per annum to 160 000 tons. The ownership of these two canneries is vested in the pineapple producers. This means that they are vertically integrated.

7.4 Fresh produce markets

Over 90% of all Queen Pineapples sold for fresh consumption in South Africa are distributed through the fresh produce markets (FPMs). FPMs continue to serve as centres for price discovery in the marketing of pineapples in South Africa.

7.5 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.

7.6 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. OPPORTUNITIES AND THREATS

A significant proportion of South African pineapple output is processed (Cayenne) and canned. The world market for canned pineapples is notoriously cyclical in nature. This is mainly because of the dominance of South East Asia (Thailand, Malaysia, Indonesia and the Philippines) who produce 80% of world production. Any climatic or economic adversity in these areas leads to a significant shift in world supply. Furthermore, due to their tropical climate, these Asian countries can produce a pineapple crop in one year whereas in South Africa it takes at least two years to produce a crop. South East Asian producers can therefore come on stream much quicker than the South African industry. This places them in a better position to take advantage of upswings in demand and higher prices.

However, the South African industry does have a competitive advantage over East Asia when it comes to selling the product to the Americans as the freight rates from South Africa are lower than those from Asia. The South African fruit is also well-known for its "tartness" of taste as opposed to the superior colour but somewhat "bland" taste of the South East Asian pineapple. Certain markets also prefer the South African pineapple and have become niche markets. The USA market, for example, prefers fruit packed in natural juice and not syrup.

9. ACKNOWLEDGEMENTS

The following industries/organizations are acknowledged.

9.1 National Department of Agriculture, Forestry and Fisheries
Directorate: Statistics and Economic Analysis
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Fax (012) 319 8031
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9.2 International Trade Centre (ITC)
www.intracen.org

9.3 Quantec Easy Data
www.quantec.co.za

9.4 Hluhluwe Pineapple Marketing Association
PO Box 332
Hluhluwe
3960
Tel: 035 562 0731
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www.pineapples.co.za

9.5 Summerpride Foods
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9.6 Collondale Cannery
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