A PROFILE OF THE SOUTH AFRICAN BEETROOT MARKET VALUE CHAIN

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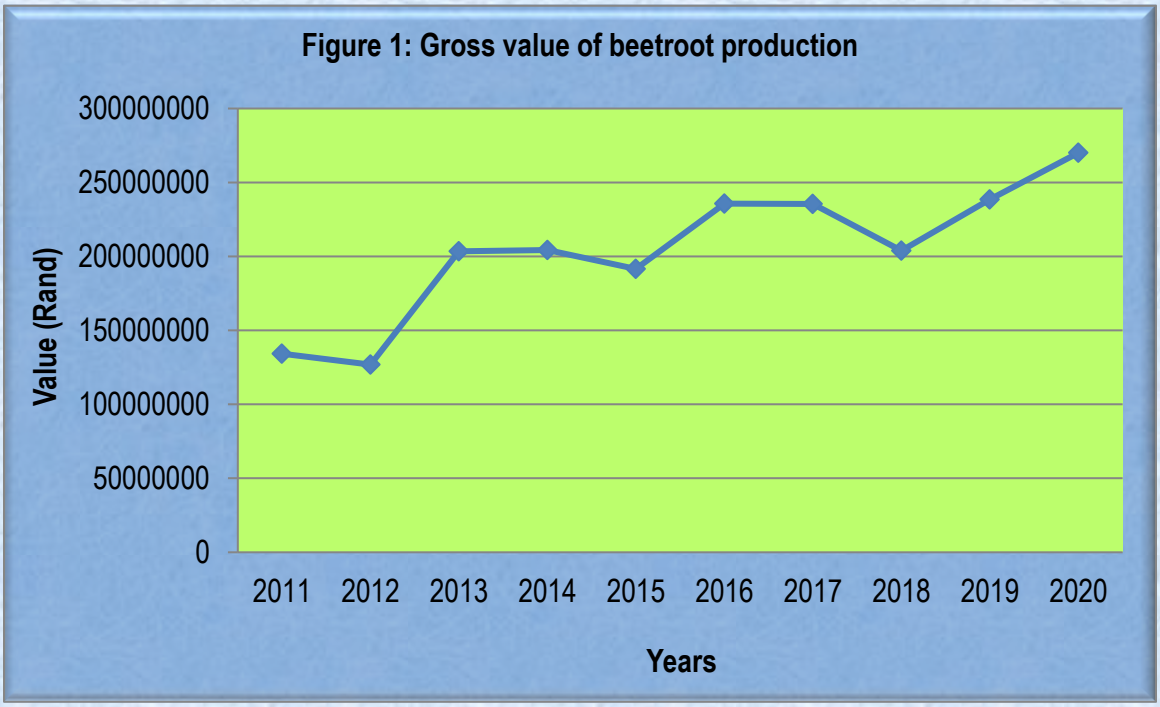
1. DESCRIPTION OF THE INDUSTRY

Beetroot is a biennial plant grown as an annual crop for its storage root. The taproot portion of the beet plant is known in North America as the beet, and also known as the table beet, garden beet, sugar beet, red beet, diner beet or golden beet. The beetroot is indigenous to Asia Minor and Europe Majority of beetroot is grown for processing. The roots are eaten grilled, boiled or roasted as a cooked vegetable or cold as a salad after cooking and adding oil and vinegar. In addition, beetroot can be used in salads and it is also preserved by pickling and canning. The green, leafy portion of the beet is also edible. It is most commonly served boiled or steamed and it has a taste and texture similar to spinach. Beetroot juice is today advocated as a stimulant for the immune system and as a cancer preventative. Beetroot has long been considered beneficial to the blood, the heart and the digestive system. Beetroot is a rich source of carbohydrates, a good source of protein, and has high levels of important vitamins minerals and micronutrients. Figure 1 below illustrates the contribution of the beetroot industry to the gross value of agricultural production over 10 years.



Source: Statistics and Economic Analysis, DALRRD

Figure 1 above, is an illustration of beetroot industry gross value from the 2011 to 2020 period. In 2012, the gross value dropped by 5.5%, when compared to the 2011 gross value. This can be attributed to a 16.5% drop in producer price in the same year. During 2013, beetroot gross value increased substantially by 60.3%, when compared to 2012 gross value and this can be attributed to increment in producer price in the same period. There was a slight increase of 0.5% in gross value during 2014 when compared with the 2013 figure and this can be attributed to an increase in the producer price. In 2015, beetroot gross value fell by 6.3% in comparison to the previous year gross value and this can the ascribed to a 29% drop in producer price. A record-high beetroot gross value was recorded in 2016, and this represents a 23% increase in gross value when compared to the 2015 value. The increase in beetroot gross value can be attributed to favourable producer prices

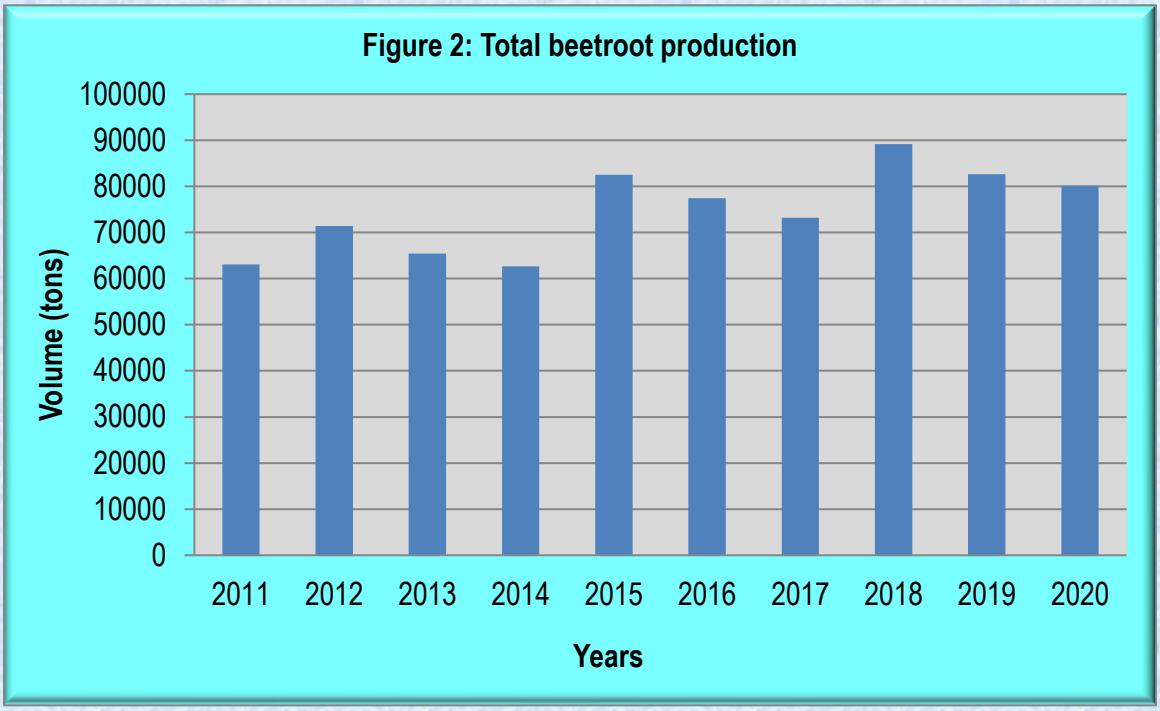
during the same period. In 2017, beetroot gross value eased slightly lower by 0.11% relative to 2016 gross value and this can be ascribed to a 5.5% decrement in beetroot production output. As of 2018, beetroot gross value has declined by 13.4%, in comparison to the 2017 value. During 2019, South Africa's beetroot gross value grew by 17% relative to the 2018 gross value and this can be attributed to favourable producer prices that occurred in the same season. There was a notable 13.2% increment in beetroot gross value in comparison to the previous year (2019) and this can be ascribed to favourable producer prices in the same year.

1.1 Production Areas

Beetroot is a cool-weather crop that is hardy and tolerates some freezing. It grows best in spring and autumn but does well in the summer in the Highveld and winter in the Lowveld. The best quality beetroot is obtained if the crop is grown to maturity in the shortest possible time. The main producing regions are North West, Gauteng, Mpumalanga, KwaZulu Natal and Western Cape. Globally, Russia, France, the United States, Germany, Turkey, Poland, Ukraine and Egypt are the top countries producing beetroot (FAOSTAT 2019). Egypt is still the only African country in the top ten beetroot production.

1.2 Production Trends

The total South African beetroot production for the period 2011 to 2020 is presented in Figure 2.



Source: Statistics and Economic Analysis, DALRRD

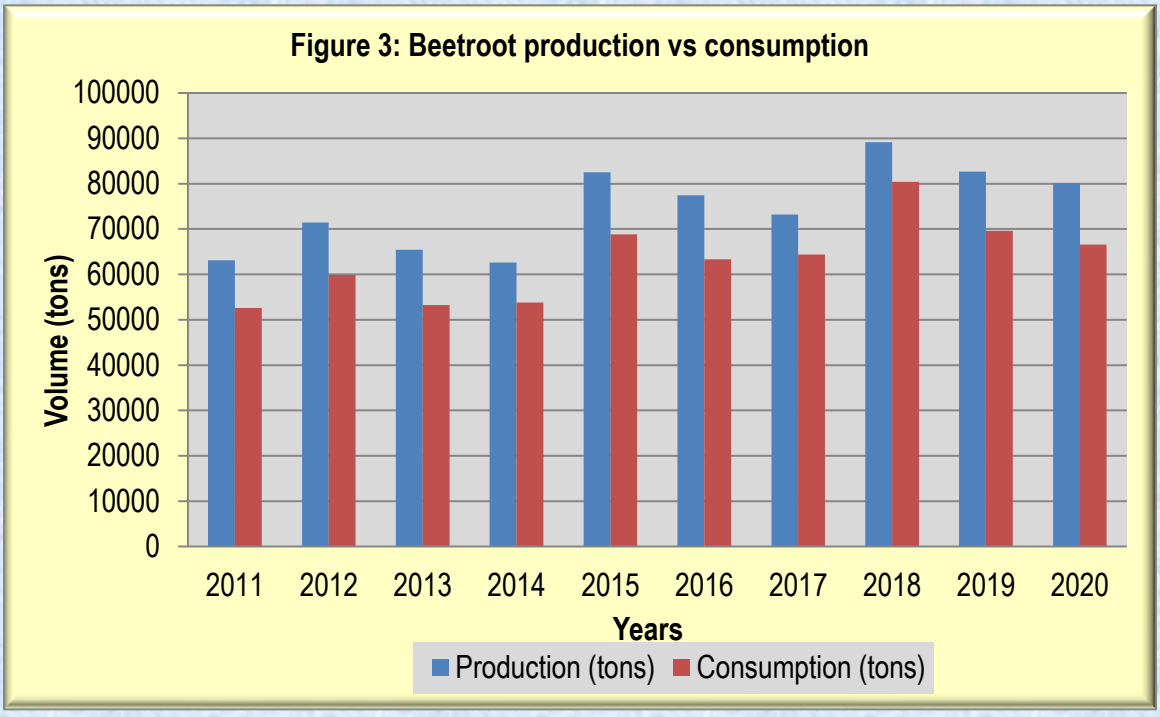
The area planted to beetroot each year is determined by climatic and economic factors. This might lead to fluctuations in the area planted each year. Figure 2 shows fluctuations in beetroot production and in 2011, the production output was just above 63 000 tons. A notable higher production volume

was recorded in 2012, and the increase was 13.2% when compared to the 2011 production year. During 2013, beetroot production volume dropped by 8.3%, when compared to the previous year volumes. Production volume dropped further by 4.3% during 2014, in comparison to 2013 production volume. In 2015, there was a notable increase of 31.7% in production output, in comparison to the previous year output. During 2016, there was a 6.2% decrement in beetroot production output when compared to 2015 production output. In 2017, beetroot production output has experienced a 5.5% decrement relative to 2016 production output. Beetroot production output was stable above 51 000 tons during the period under review. There was a 21.8% increment in beetroot production in 2018, when compared to 2017 production output. As of 2019, beetroot production eased lower by 7% relative to 2018 production output. During 2020, the beetroot production declined slightly by 3% in comparison to the previous year (2019) production output.

1.3 Production vs. Consumption of beetroot

Figure 3 below depicts the local consumption of beetroot compared to the production over the 10 years. The figure indicates that the production of beetroot is higher compared to local consumption. The average beetroot consumption is approximately 63 263 tons per annum. This indicates that South Africa is self-sufficient in terms of beetroot production and the surplus beetroot is exported. Australians are the highest consumers of beetroot in the world, mainly contributed by the Australian tradition of using sliced processed beetroot on hamburgers.

Figure 3: Beetroot production vs consumption



Source: Statistics and Economic Analysis, DALRRD

2. MARKET STRUCTURE

There is no regulation or restriction in the marketing of beetroot. The prices of beetroot are determined by the market forces of demand and supply. The industry uses fresh produce market, informal market, processor and direct selling to wholesalers and retailers. Beetroots are also exported to other countries through export agents and marketing companies. South Africa also imports beetroot from other countries.

2.1 Domestic market and price

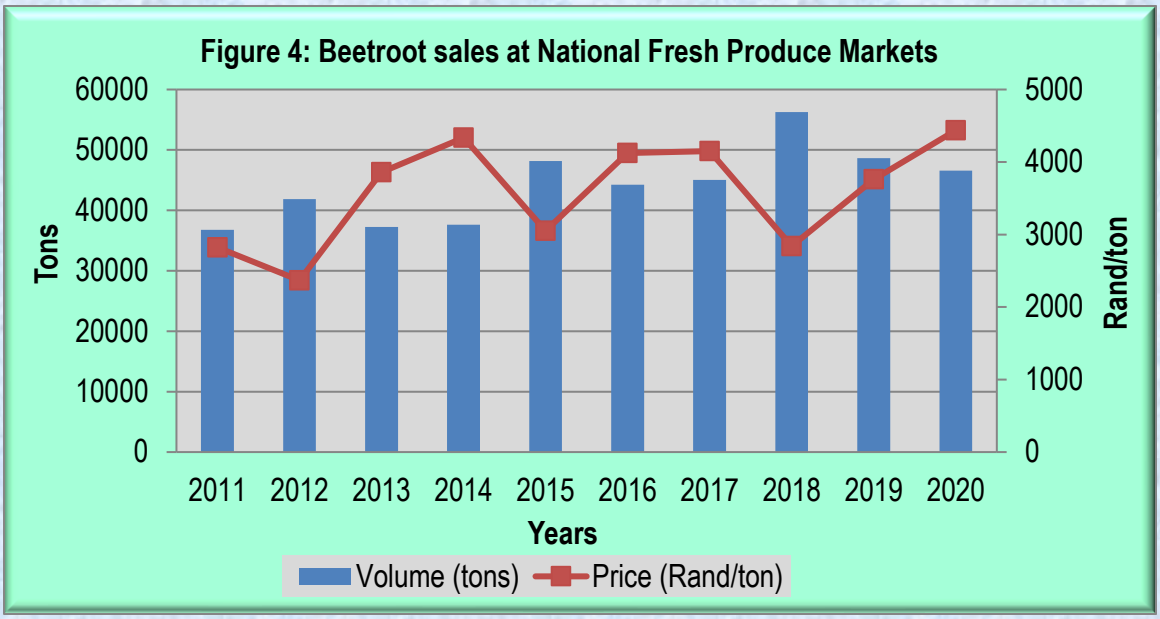
The distribution of the annual beetroot crop is given in Table 1 below.

Table 1: Beetroots sold through different market channels

Years	National Fresh Produce Market (Tons)	Exports (Tons)	Processing (Tons)
2011	36 775	5 174	10 496
2012	41 882	4 246	11 505
2013	37 229	3 839	10 232
2014	37 622	4 116	8 830
2015	48 141	5 977	13 679
2016	44 263	5 698	14 125
2017	45 028	5 183	8 777
2018	56 248	6 417	8 728
2019	48 663	5 359	8 591
2020	46 562	4 956	13 548

Source: Statistics and Economic Analysis, DALRRD

Table 1 above shows that in 2020, there was a slight decrement of 4.3% in beetroot sold through National Fresh Produce Markets compared to the previous year (2018). Export volumes decreased notably by 7.5% and processing activities have sharply dropped by 57.6% in the same year. The decline in sales at National Fresh Produce Markets (NFPMs) and export volume can be attributed to the 3% decrease in beetroot production volume in the same year. National Fresh Produce Markets remain an important channel for the sales of fresh beetroot in South Africa. In 2020, 58% of all beetroots were distributed through fresh produce markets and the remaining 42% represented exports, direct sales from producers to wholesalers, retailers, processors, informal traders and consumers. Figure 4 below illustrates the sales of beetroot at the national fresh produce markets from 2011 to 2020 period.



Source: Statistics and Economic Analysis, DALRRD

Figure 4 illustrates the sales of beetroot at the national fresh produce markets from 2011 to 2020. In 2012, market prices dropped by 16%, when compared to 2011 market prices and this can be attributed to a 14% increase in beetroot supplied in the market. During 2013, market prices surged by 63% due to an 11.1% drop in volume supplied in the market. In 2014, the market price increased by 12.3%, despite a 1.1% increase in beetroot supplied at the market and this can be attributed to the strong beetroot demand in the same year. There was a notable increase of 27.9% on beetroot supplied at the market in 2015, and this has negatively impacted on the market price by 29.6%. Beetroot price gone up notably by 35% in 2016, this can be ascribed to an 8% decrement in volume supplied at the market. During 2017, beetroot market price grew slightly by 0.7% despite a 1.7% increase in beetroot supplied at the fresh produce market and this can be ascribed to the strong beetroot uptake in the same season. In 2018, there was a 23.8% increment in beetroot sales volume supplied at the market and as a result, the market price has sharply dropped by 31.5%. As in 2019, beetroot sales at the market declined by 13% and as a subsequent, the market price eased higher by 32% relative to the 2018 market price. As of 2020, the beetroot price was a record high of R4 436.97 due to a 4.3% drop in sales volumes supplied to the markets.

2.2 South Africa Beetroot Exports

South Africa is self-sufficient in terms of beetroot production (see Figure 3). South Africa is not a major beetroot exporter. In 2020, South Africa represented 0.4% of world exports and its ranking in the world was number 26. South Africa has lost its competitiveness in terms of world beetroot exports due to a decreased export volume to the world, as in 2019, it was ranked number 21. Most beetroot produced was destined for domestic markets. In 2020, Lesotho, Eswatini, Botswana, the United Kingdom, Namibia, Germany, Netherlands, Mozambique and Zambia were still the primary market for beetroot export from South Africa. Globally, the Netherlands, Italy, China, Spain, Mexico, United States of America, Israel and Hungary are major beetroot exporters. Figure 5 below illustrates South African beetroot export destinations.

Source: ITC Trade Map

Further details relating to South African beetroot exports are presented in Table 2.

Table 2: South African beetroot exports in 2020

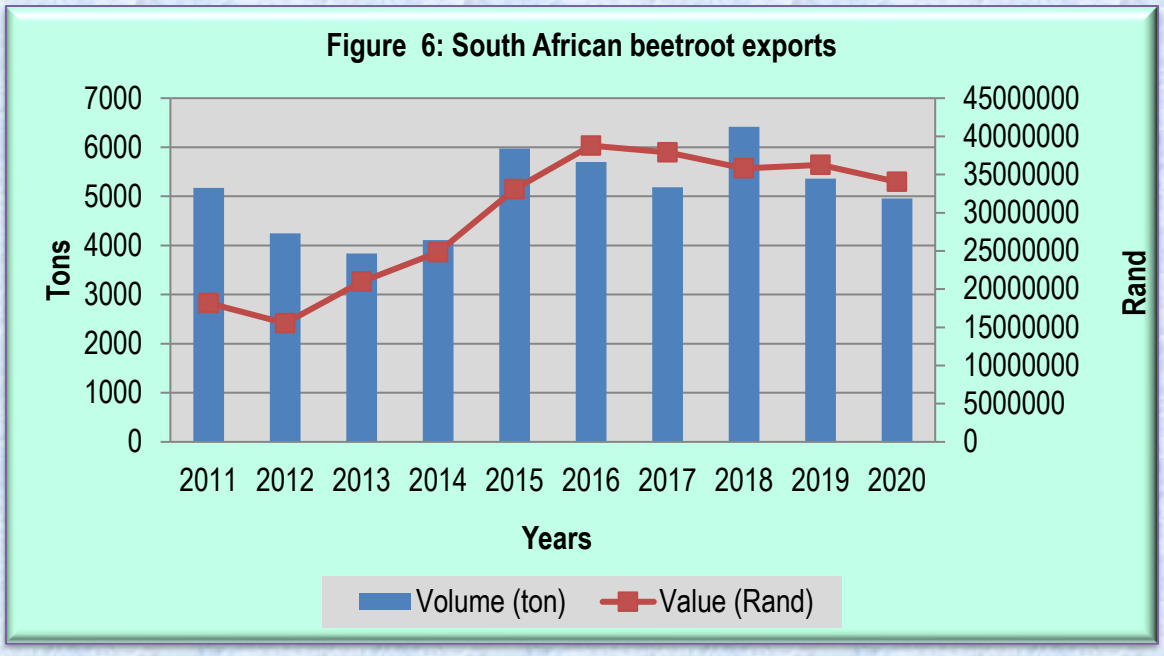
Importers	Value exported in 2020 (USD thousand)	Trade balance 2020 (USD thousand)	Share in South Africa's exports (%)	Quantity exported in 2020 (tons)	Growth in exported value between 2016-2020 (%, p.a.)	Growth in exported quantity between 2016-2020 (%, p.a.)	Growth in exported value between 2019-2020 (%, p.a.)
World	2080	2053	100	4955	-6	-2	-17
Lesotho	468	468	22.5	1213	5	7	-8
Eswatini	443	417	21.3	2149	21	18	5
Botswana	276	276	13.3	537	-18	-18	-9
Namibia	184	184	8.8	213	-21	-31	-20
Germany	123	123	5.9	74	259	46	471
Netherlands	94	94	4.5	14	-2	3	-47
Mozambique	87	87	4.2	198	4	-6	-44
Zambia	76	76	3.7	177	-10	-7	-51
United Kingdom	73	73	3.5	9	-12	-14	-74
Angola	68	68	3.3	141	-38	-35	-17
Malawi	29	29	1.4	26	15	9	13

Importers	Value exported in 2020 (USD thousand)	Trade balance 2020 (USD thousand)	Share in South Africa's exports (%)	Quantity exported in 2020 (tons)	Growth in exported value between 2016-2020 (%, p.a.)	Growth in exported quantity between 2016-2020 (%, p.a.)	Growth in exported value between 2019-2020 (%, p.a.)
United Arab Emirates	23	23	1.1	23	15	16	186
Zimbabwe	22	22	1.1	74	-14	-1	171
Seychelles	20	20	1	13	59	56	19
France	17	17	0.8	2	49	0	166
Senegal	17	17	0.8	33	5	7	-56
Qatar	15	15	0.7	5			
Mauritius	10	10	0.5	20	-7	4	2

Source: IT Trade Map

Table 2 indicates that during 2020, the biggest share of South African beetroot exports was still destined to the Lesotho, which commanded 22.5% of South Africa's beetroot exports, followed by Eswatini which commanded 21.3%, Botswana which commanded 13.3% , Namibia has registered 8.8%, Germany has received 5.9% and the Netherlands which commanded 4.5%. Beetroot exports to Lesotho have increased by 7% and 5% in value and quantity respectively between the 2016 and 2020 period. Beetroot exports to Eswatini have increased by 18% and 21% in value and quantity respectively between the 2016 and 2020 periods. South Africa's beetroot to Botswana has also decreased by 18% and 18% in value and quantity between the 2020 and 2021 periods.

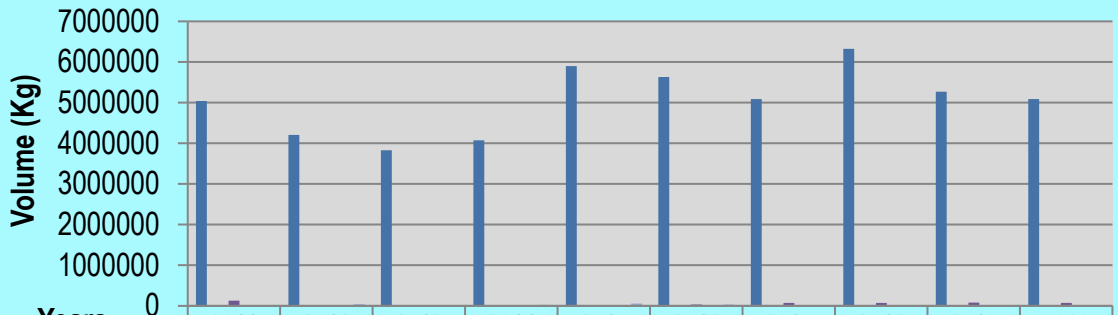
Figure 6 below, illustrates South Africa's beetroot exports from 2011 to 2020. As of 2011, South Africa exported just above 5 174 tons of beetroot to the world and in 2012, beetroot export volume has gone down by 17.9%, when compared to the 2011 beetroot exports. During 2013, beetroot exports decreased further by 9.6%, which can be ascribed to an 8.3% drop in domestic production output. There was an increase of 7% in beetroot export during 2014, despite a 0.27 % drop in production output in the same year. It was more profitable to export beetroot in 2014 since high export values were recorded for volume exported. There was a notable increase of 45% in 2015, and this can be ascribed to a 31.7% increment in the domestic beetroot production output. During 2016, South Africa's beetroot exports dropped by 4.6% in comparison to 2015 export, and this can be attributed to a 6.2% decline in beetroot domestic production output. In 2017, South African beetroot exports eased lower by 9% relative to the previous year (2016) exports and this can be ascribed to a 5.5% increment in beetroot production output. It was also more profitable to export beetroot since a higher export value was recorded for volume exported. In 2018, beetroot export volume has increased by 23.8% relative to 2017, and this can be attested to a 21.8% increment in production output. At the same time, it was less profitable to export to 2017 export value. As for 2019, South Africa has exported 16% less beetroot in comparison to the previous year (2018) and this can be ascribed to a 7% decline in domestic production output. In 2020, South Africa has exported 4 956 tons of beetroot, which was 7.5% less when compared to 2019 export volume and this can be attested to a 3% decline in beetroot production output. It was more profitable to export beetroot in 2020, relative to 2019 export value.



Source: Quantec Easydata

Figure 7 below illustrates beetroot export volumes to the various regions. During 2011, Africa was the primary export market for South Africa beetroot and a notable volume of the beetroot was exported to the European region. In 2012, above 86% of South African beetroot was exported to the African region and export to Asia has increased considerably. In the same year, beetroot exports to the European region have dropped significantly. In 2013, the African region remains the largest export market for beetroot from South Africa. At the same time, notable volumes were also exported to the European region while the export to the Americas, Asia and Oceania regions were less significant. During 2014, the African region remained the primary export market for South African beetroot. At the same time, there was a considerable increase in beetroot export to Europe. During 2015, the Africa region continued to be the preferred primary export market for beetroot from South Africa. In the same year, beetroot export to the Europe region has notably increased, while the unallocated beetroot export has doubled. In 2016, the African region was still the primary recipient of beetroot exported from South Africa, followed by the European region. Exports to Asia were less significant, whilst an unallocated beetroot export declined by 43% when compared to 2015 exports. During 2017, the African region remained the main primary recipient of beetroot export originating from South Africa. At the same time, there was a notable increment in beetroot exports to Europe and Asia whilst exports to the Oceania region was less significant. In 2018, the Africa region was still the preferred export market for beetroot originating from South Africa and the export volume has increased by 24%. Beetroot export to America has increased whilst exports to Asia and Americas regions has declined relative to the previous year (2017). As of 2019, South Africa beetroot export destined to Africa region declined by 16.6%, exports destined to Europe has increased by 10.6% and the unallocated export declined sharply by 59% relative to 2018 exports. In 2020, African region was still the primary recipient of beetroot exported from South Africa, however, the export volume has declined by 3%. The export destined to Asia grew notable to 11 tons, a notable volume was exported to Oceania and unallocated export volume declined by sharply by 36%.

Figure 7: South Africa's beetroot exports to the regions

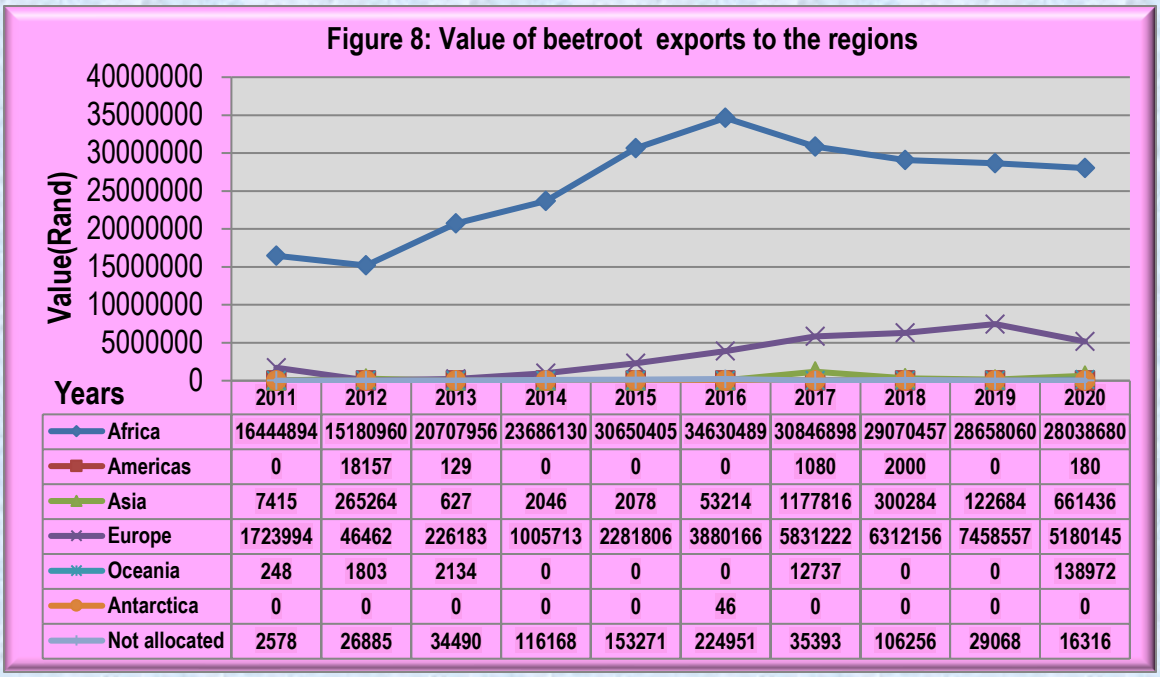


Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	5043555	4205734	3825296	4069532	5898709	5630516	5089379	6320563	5270646	5089379
Americas	0	971	60	0	0	0	3	250	0	3
Asia	287	1504	59	170	170	459	11290	3671	1740	11290
Europe	129347	421	6674	16452	21100	34591	73777	71034	78553	73777
Oceania	135	158	351	0	0	0	3057	0	0	3057
Antarctica	0	0	0	0	0	5	0	0	0	0
Not allocated	364	37615	6713	27067	57044	32536	5439	21171	8524	5439

Source: Quantec Easydata

Values of beetroot exports to the various regions of the world are presented in Figure 8 below. High exports values were recorded for African countries as high quantities of beetroot were exported to those countries. During 2011, export values for unallocated exports have dropped significantly when compared to the other years. In 2012, it was more profitable to export beetroot to Asia, than to Europe and the Americas regions. During 2013, Africa's export value has increased significantly due to a 7.2% increment in beetroot volume exported to this region. In the same year, Europe remained by far the most profitable export market, followed by the Asia region, and unallocated beetroot export has high value. During 2014, the African region recorded the highest export value and Europe export value has significantly increased when compared to the previous year export values. In the same year, the European region continued to be the most profitable export market, followed by Asia, and then Africa. During 2015, Europe was still by far the most profitable export market for beetroot from South Africa.

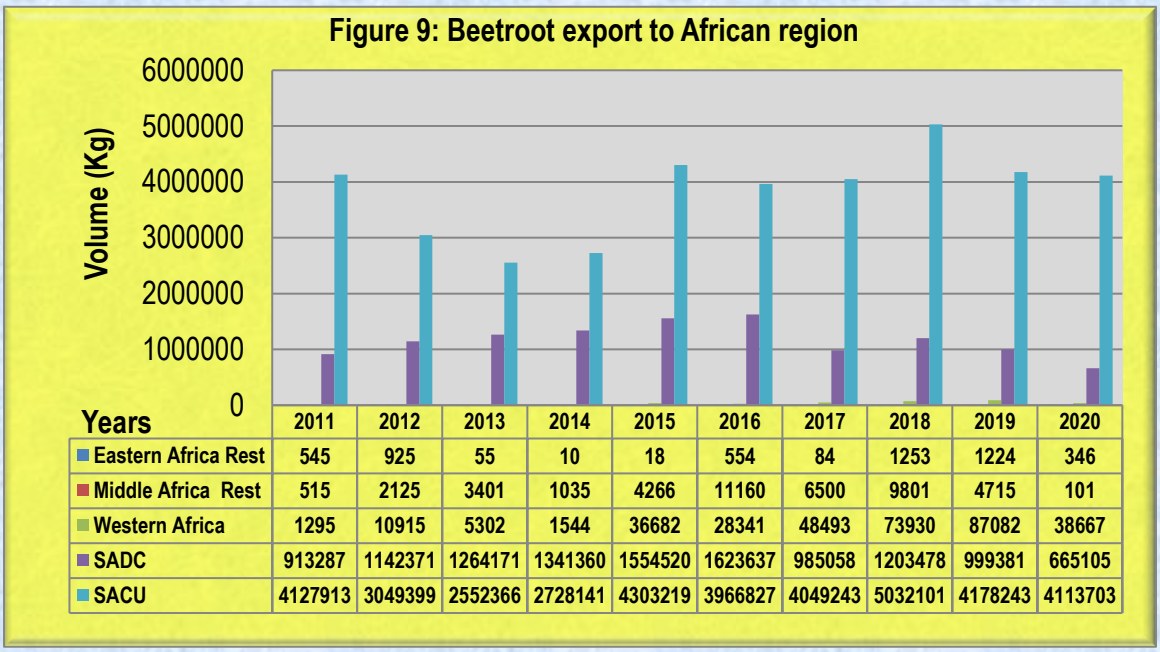
In 2016, Africa export value was a record high in ten years due to the high volume destined for this region. However, beetroot export destined to Europe was relatively more profitable, followed by the Asia region and export to Africa was least profitable. During 2017, Asia was by far the most profitable market for beetroot exports from South Africa, followed European region whilst Africa was the least profitable. As of 2018, Europe was the more profitable market for beetroot exported from South Africa, followed by the Americas, whereas Africa was still least profitable. In 2019, Europe, followed by Asia were the most profitable export market for originating from South Africa. At the same time, beetroot export destined to Africa region fetched higher export values relative to the export value recorded for the same region in the previous year (2018). During 2020, it was more profitable to export beetroot to the Europe region, followed by the Asia region and Oceania, whilst the beetroot to Africa region has registered lower export value.



Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	16444894	15180960	20707956	23686130	30650405	34630489	30846898	29070457	28658060	28038680
Americas	0	18157	129	0	0	0	1080	2000	0	180
Asia	7415	265264	627	2046	2078	53214	1177816	300284	122684	661436
Europe	1723994	46462	226183	1005713	2281806	3880166	5831222	6312156	7458557	5180145
Oceania	248	1803	2134	0	0	0	12737	0	0	138972
Antarctica	0	0	0	0	0	46	0	0	0	0
Not allocated	2578	26885	34490	116168	153271	224951	35393	106256	29068	16316

Source: Quantec Easydata

Figure 9 below shows South Africa's beetroot exports to the African region from 2011 to 2020



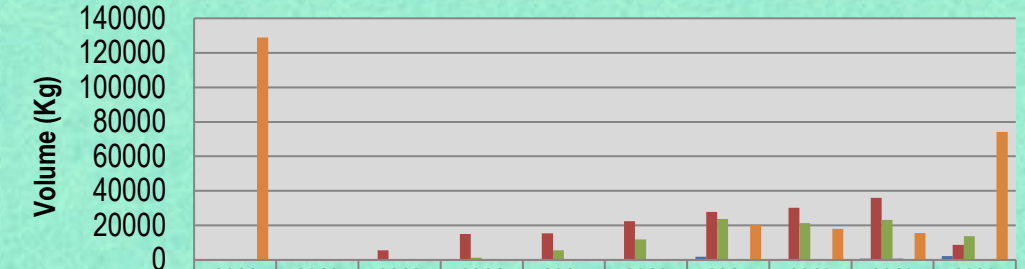
Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Eastern Africa Rest	545	925	55	10	18	554	84	1253	1224	346
Middle Africa Rest	515	2125	3401	1035	4266	11160	6500	9801	4715	101
Western Africa	1295	10915	5302	1544	36682	28341	48493	73930	87082	38667
SADC	913287	1142371	1264171	1341360	1554520	1623637	985058	1203478	999381	665105
SACU	4127913	3049399	2552366	2728141	4303219	3966827	4049243	5032101	4178243	4113703

Source: Quantec Easydata

Figure 9 above shows South Africa beetroot exports destined for Africa region in ten years. In 2011, SACU followed by the SADC region was the primary recipient of beetroot exports from South Africa. From 2012 to 2013, exports to SADC have notably increased, while the export to SADC has sharply decreased. In 2014 and 2015, there was a notable increment in beetroot export to SADC (Angola

and Zambia) and SACU countries (Botswana, Namibia and Lesotho). During 2015, a considerable volume of beetroot was destined for West Africa (Senegal and Ghana) countries. In 2016, South African beetroot exports to the SADC region increased by 4.4%, whereas exports to the SACU region decreased by 7.8% in comparison to 2015 exports to this region. During 2017, SACU countries were still the primary market for South Africa's beetroot exports and the export volume has increased slightly by 2%, export to SADC countries has eased lower by 39% whilst export West Africa surged by 71% relative to 2016 exports. As of 2018, there was a notable increment in export volumes destined to SACU, SADC, West Africa, Middle Africa and eastern Africa. Beetroot exports destined to SACU and SADC have declined whereas exports destined to Western Africa grew by 17.1% when compared to 2018 exports. As of 2020, SACU and SADC regions were still the primary recipients of beetroot exports originating from South Africa. However, there was a further decline in beetroot export destined to all African regions.

Figure 10 : Beetroot export to Europe countries

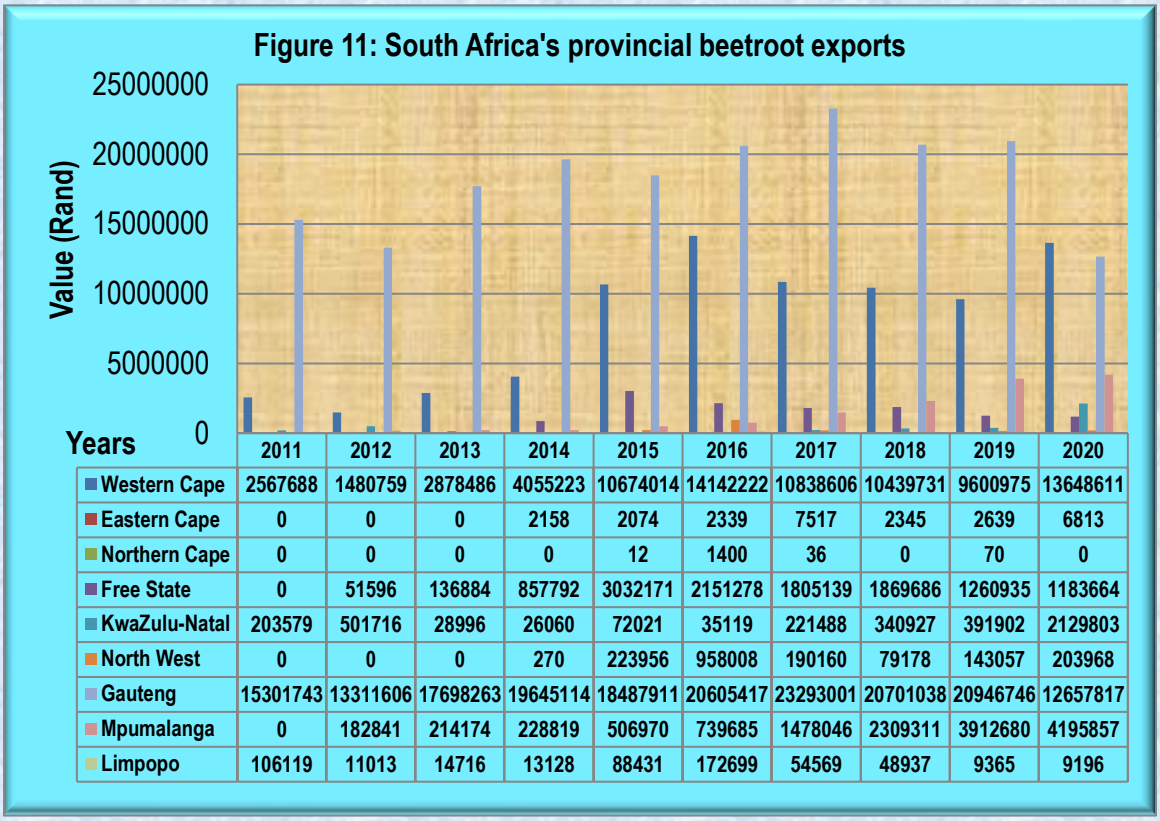


Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
France	0	2	130	208	152	242	1892	540	834	2320
United Kingdom	25	417	5666	14987	15393	22428	27737	30278	35917	8697
Netherlands	0	0	198	1252	5555	11883	23767	21318	23210	13825
Greece	0	0	0	0	0	0	0	403	810	48
Hungary	0	0	0	0	0	0	0	49	344	231
Germany	128946	2	0	0	0	38	20370	17993	15555	74218

Source: Quantec Easydata

Figure 10 above illustrates South Africa's beetroot export destined for the European region. European Union countries are the primary export market for beetroot from South Africa. A record-high volume of beetroot was exported to European Union countries during 2011 and the export volume has drastically dropped in the following year (2012). There was a notable increase in export volume to European Union countries during 2014 and 2015. During 2016, South Africa's beetroot export to European Union (Germany, France, United Kingdom and the Netherlands) increased significantly by 64%, when compared to 2015 export. In 2017, (Germany, France, the United Kingdom and the Netherlands) were still the preferred countries for South Africa's beetroot exports and there was a surge in export volume destined to Germany. As of 2018, beetroot export destined for the United Kingdom has increased 9%, whilst exports to France, Netherlands and Germany have dropped. At the same time, beetroot exports to Hungary and Greece were trivial. In 2019, there was a notable increase in volume exported to the United Kingdom, Netherlands whilst the exports destined to Germany dropped by 13.5%. As of 2020, there was a surge in beetroot exports destined to Germany and France. In the same year, there was a notable decline in beetroot exports to the Netherlands and the United Kingdom.

Figure 11 below illustrates the value of beetroot export by South African provinces.



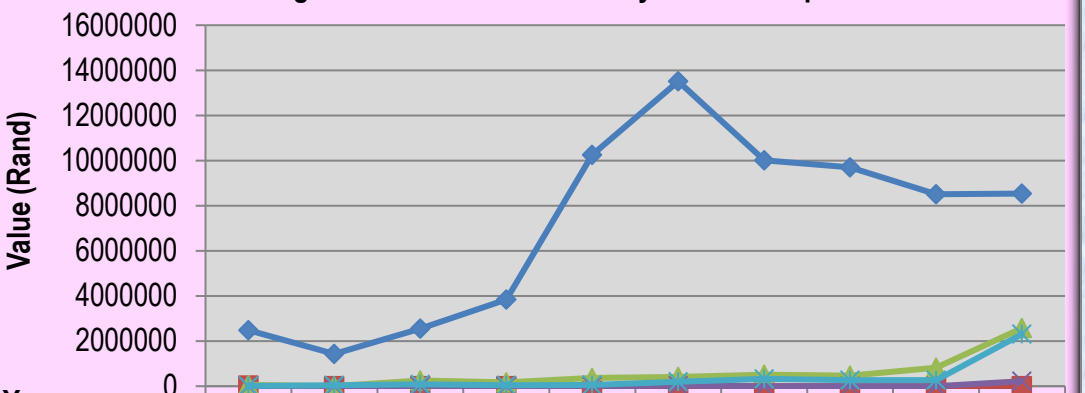
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Western Cape	2567688	1480759	2878486	4055223	10674014	14142222	10838606	10439731	9600975	13648611
Eastern Cape	0	0	0	2158	2074	2339	7517	2345	2639	6813
Northern Cape	0	0	0	0	12	1400	36	0	70	0
Free State	0	51596	136884	857792	3032171	2151278	1805139	1869686	1260935	1183664
KwaZulu-Natal	203579	501716	28996	26060	72021	35119	221488	340927	391902	2129803
North West	0	0	0	270	223956	958008	190160	79178	143057	203968
Gauteng	15301743	13311606	17698263	19645114	18487911	20605417	23293001	20701038	20946746	12657817
Mpumalanga	0	182841	214174	228819	506970	739685	1478046	2309311	3912680	4195857
Limpopo	106119	11013	14716	13128	88431	172699	54569	48937	9365	9196

Source: Quantec Easydata

South Africa exported beetroot mainly through Western Cape and Gauteng during the ten years. In 2011, there was a significant decrease in beetroot value exported from Gauteng, whereas Limpopo and Western Cape export values have sharply increased. In 2012, Free and Mpumalanga province have recorded their first export value in 10 years. In the same year, KwaZulu Natal export value has experienced a substantial increment. Free State contributed considerably to South Africa's beetroot exports during 2013 and 2014. In 2013, Gauteng and Western Cape continued to contribute substantially to South Africa's beetroot exports. Free State and North West and Limpopo provinces have substantially increased their beetroot exports. The increase in beetroot exports from the Free State and North West can be attributed to an increase in beetroot exports to neighbouring Lesotho and Botswana. During 2014, Gauteng export value has notable dropped, while export values for Western Cape, Limpopo, KwaZulu Natal and Mpumalanga has notably increased. In 2015, there was a substantial increase in export value for Western Cape, Free State, Gauteng, North West, Limpopo and Mpumalanga. In the following year (2016), Western Cape, North West, Mpumalanga, Gauteng, Free State, Limpopo beetroot export values have drastically risen, while Free State and KwaZulu Natal export values experienced decrement when compared to 2015 export values. High exports values for Limpopo, Mpumalanga and North West can be attributed to significant increment in beetroot exports destined to neighbouring Zimbabwe, Mozambique and Botswana. During 2017, Gauteng was still the primary exit point for South Africa's beetroot export and the export value has gone up by 13%, Mpumalanga export value grew by 99%, KwaZulu Natal export value was incomparably higher relative to 2016 value, whilst Western Cape export value declined 23%. As of

2018, Western Cape and Free State were still the preferred exit point for beetroot exports from South Africa. At the same time, there were significant increases in exports values recorded for KwaZulu Natal, Free State and Mpumalanga whilst export values for Eastern Cape, North West and Limpopo has dropped relative to the previous year (2017). The high export values from Western Cape, Gauteng and KwaZulu-Natal can be attributed to the exports exit points and the registered exporters located in these provinces. In 2019, Gauteng was still the preferred exit point for South Africa's beetroot exports. In the same year, Mpumalanga, KwaZulu Natal and North West have contributed significantly to South Africa's beetroot exports. In 2020, Western Cape and Gauteng province were still the primary exit point for beetroot exports originating from South Africa. At the same time, there was a notable increment in beetroot export values recorded for Mpumalanga, KwaZulu Natal and North West, whilst Free State beetroot export value has notably declined relative to 2019 export value The following figures (Figure 12-17) show the value of beetroot exports from the various districts of the different provinces of South Africa.

Figure 12: Value of beetroot by Western Cape Province



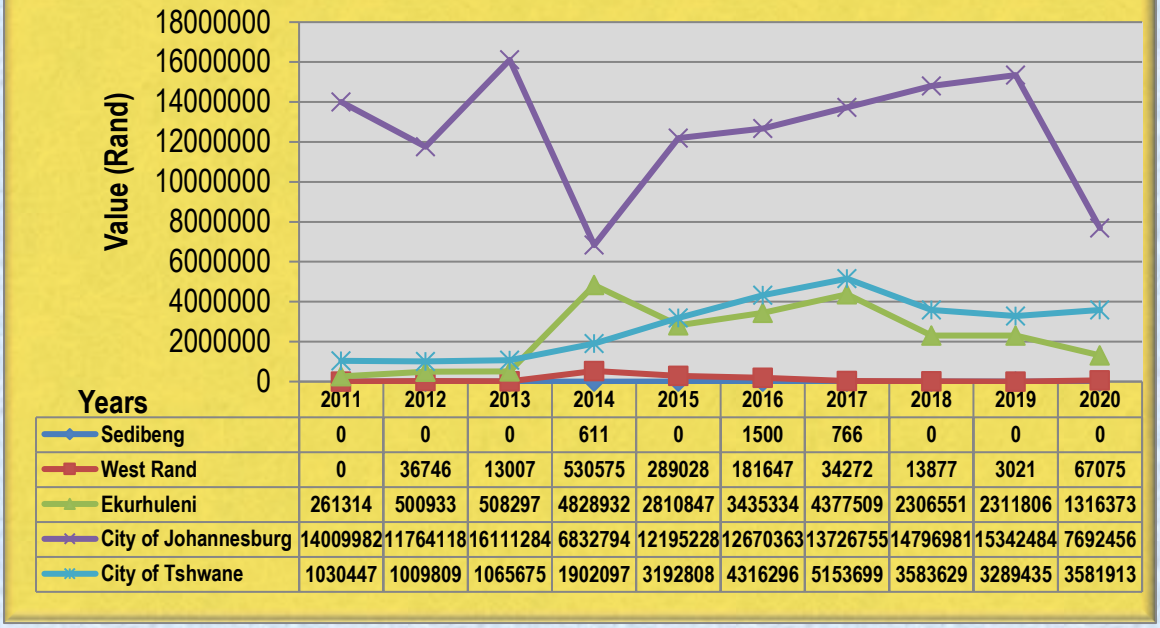
Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
City of Cape Town	2481513	1430293	2545819	3843445	10258889	13510987	10007308	9698743	8511114	8542378
West Coast	20250	0	0	0	314	500	130	430	873	0
Cape Winelands	54990	3785	248205	167278	361597	415802	504306	466264	826421	2573639
Overberg	0	0	0	0	0	23431	0	0	0	221658
Eden	10935	46681	84462	44500	53214	191502	326862	274294	262567	2310936

Source: Quantec Easy data

Figure 12 above indicates that beetroot exports by Western Cape province were mainly from the City of Cape Town. During 2011, the City of Cape Town export value was the primary exit point for Western Cape beetroot export, Cape Winelands, West Coast and Eden has contributed to a lesser extent. As of 2012, beetroot export value for the City of Cape Town has significantly decreased while the export value for Eden has significantly increased. In the same year, there were no exports recorded for West Coast. In 2013, City of Cape Town export value has substantially increased by 63.1%, when compared to the 2012 export value. During 2014, the City of Cape Town export value was significantly higher when compared to 2013. At the same time, the export value for Cape Winelands has doubled while the export value for Eden has dropped by 47% when compared to the 2013 value. There was a surge in the City of Cape Town export value during 2015, while Cape Winelands export value has declined in comparison to the previous year export value. The surge in Western Cape export value can be attributed to an increase in beetroot export to the neighbouring

country. In 2016, City of Cape Town has continued to lead in Western Cape beetroot exports and the export value has gone up by 32% compared to the 2015 export value. At the same time, Eden and Cape Winelands export values have notably increased. The high export value by the City of Cape Town can be attributed to the Cape Town harbour, which serves as an exports exit point. There was a sharp decline of 26% in City of Cape Town beetroot export value during 2017, Eden export value surged by 70% and Cape Winelands has experienced a 21% increment relative to the 2016 export value. As of 2018, City of Cape Town export value has dropped by 3%, Cape Winelands export value has declined by 7% and Eden has decreased by 16% whereas West Coast has registered trivial export value. In 2019, the City of Cape Town was still by far the preferred exit point for Western Cape beetroot export, however, the export declined by 12%, Cape Winelands was incomparably higher and Eden export value dropped by 4.2% relative to 2018 export value. During 2020, the City of Cape Town export value increased slightly by 0.4% and there was a surge in Cape Winelands, Eden and Overberg beetroot export values relative to 2019 export values.

Figure 13: Value of beetroot exports by Gauteng Province



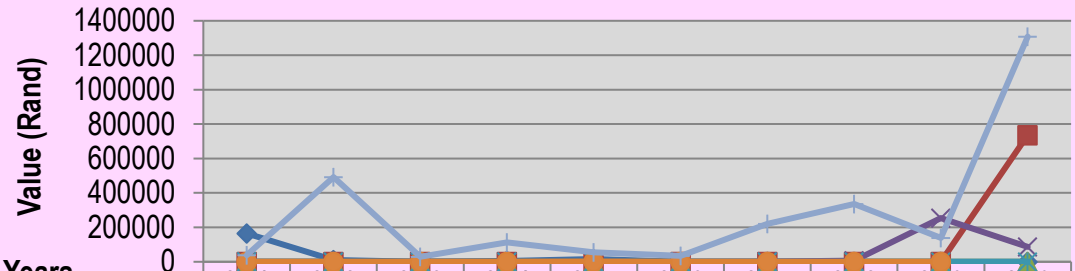
Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sedibeng	0	0	0	611	0	1500	766	0	0	0
West Rand	0	36746	13007	530575	289028	181647	34272	13877	3021	67075
Ekurhuleni	261314	500933	508297	4828932	2810847	3435334	4377509	2306551	2311806	1316373
City of Johannesburg	14009982	11764118	16111284	6832794	12195228	12670363	13726755	14796981	15342484	7692456
City of Tshwane	1030447	1009809	1065675	1902097	3192808	4316296	5153699	3583629	3289435	3581913

Source: Quantec Easydata

Figure 13 above indicates that beetroot exports by Gauteng province from 2011 to 2020. City of Johannesburg, City of Tshwane and Ekurhuleni were the primary exit point for Gauteng provincial exports. In 2012, Ekurhuleni export values have doubled, City of Johannesburg export value has decreased by 38% and the export value for the City of Tshwane has decreased slightly by 2% when compared to the 2011 export values. In 2013, Ekurhuleni export value has increased, while the City of Johannesburg export value has slightly increased when compared to the 2012 export value. In 2014, West Rand, Ekurhuleni and City of Tshwane have contributed considerably to beetroot exports from Gauteng province. In the same year, City of Johannesburg export value has notably decreased in comparison to the previous year export value. During 2015, City of Johannesburg has continued to record high export values for Gauteng beetroot export, City of Tshwane export value has sharply increased while the West Rand export value has notably dropped when compared to 2014 values. In 2016, City of Tshwane, City Of Johannesburg and Ekurhuleni have substantially contributed to

beetroot exports from Gauteng province, whilst West Rand export value has dropped by 37% in comparison to 2015 exports. During 2017, City of Johannesburg was still the primary exit point for Gauteng beetroot export and the export value rose by 8.3%, City of Tshwane export value increased by 19.4%, Ekurhuleni export value eased higher by 27% whilst West Rand has substantially dropped by 81% relative to 2016 value. As of 2018, City of Johannesburg beetroot export value has increased by 7.6%, Ekurhuleni export value has increased by 47% whilst, West Rand export value has dropped by 39% Tshwane export value has declined by 30% relative to 2017 export values. In 2019, City of Johannesburg was still far the primary exit point for Gauteng beetroot exports, followed by City of Tshwane and Ekurhuleni. As of 2020, City of Johannesburg was still the primary exit point for Gauteng provincial export however the export value has sharply declined by 49.8% relative to 2019. At the same time, West Rand beetroot export value surged, City of Tshwane beetroot export value increased by 8.8% and Ekurhuleni export value declined sharply by 43% in comparison to 2019 export value.

Figure 14: Value of beetroot exports by KwaZulu Natal Province



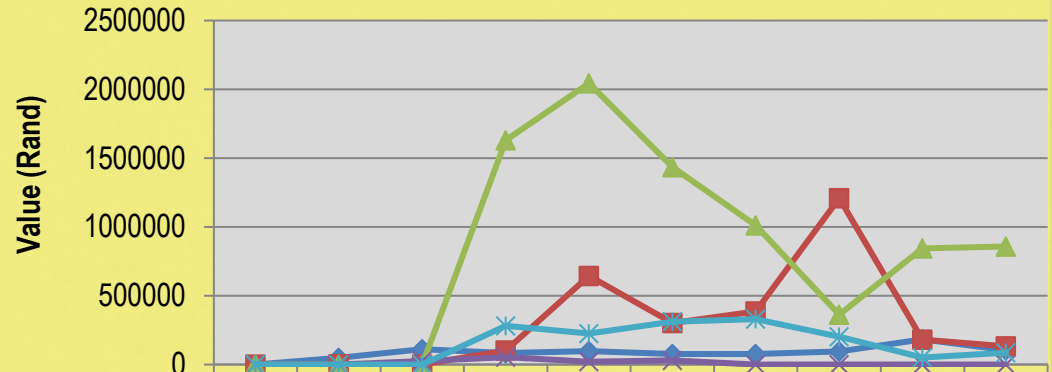
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ugu	164600	10000	0	4200	16500	0	0	0	0	0
Umgungundlovu	0	0	0	0	0	0	0	0	0	736046
Amajuba	0	0	0	0	0	0	50	0	0	0
Zululand	0	0	0	0	0	0	1120	6024	253945	85790
Uthungulu	102	0	0	0	0	0	0	0	0	0
Sisonke	0	0	0	0	1050	0	0	0	0	
Ethekwini	38877	491716	28996	112421	54471	35119	220318	334903	137957	1307967

Source: Quantec Easydata

Figure 14 above indicates that the beetroot exports by KwaZulu-Natal province were mainly from the Ethekwini district municipality. Ugu district municipality has notably contributed to beetroot exports from KwaZulu Natal province during 2011, whereas Uthungulu export value was insignificant. In 2012, beetroot export value for the Ethekwini has significantly increased, while the export value for Ugu has considerably dropped when compared to a 2011 period. During 2013, Ethekwini beetroot export value has substantially dropped, when compared to the previous year export value. In 2014, Ethekwini export value has notably increased while the Ugu export value was less significant. Ugu export value has notably increased during 2015. At the same time, Ethekwini beetroot export value has drastically dropped. In 2016, KwaZulu Natal exported beetroot solely through Ethekwini. However, the export value has dropped by 35.5% in comparison to the 2015 export. During 2017, Ethekwini has continued to be the primary exit point for beetroot exports from KwaZulu Natal and the export value was incomparably higher relative to the 2016 export value. At the same time, Zululand

and Amajuba have contributed for the first time to KwaZulu Natal export value however, the export values were trivial. The high export value in KwaZulu Natal beetroot export value can be ascribed to a 19% increase in the value of beetroot export destined to Swaziland. As of 2018, Ethekwini municipality was still by far the main exit point for KwaZulu Natal beetroot export and Zululand has registered a less significant value. In 2019, Zululand was the primary exit point for KwaZulu Natal beetroot export and Ethekwini export value dropped sharply compared to 2018 export value. During 2020, Ethekwini and Umngungundlovu export values have surged whilst Zululand export has sharply declined relative to 2019 export value.

Figure 15: Value of beetroot exports by Free State Province



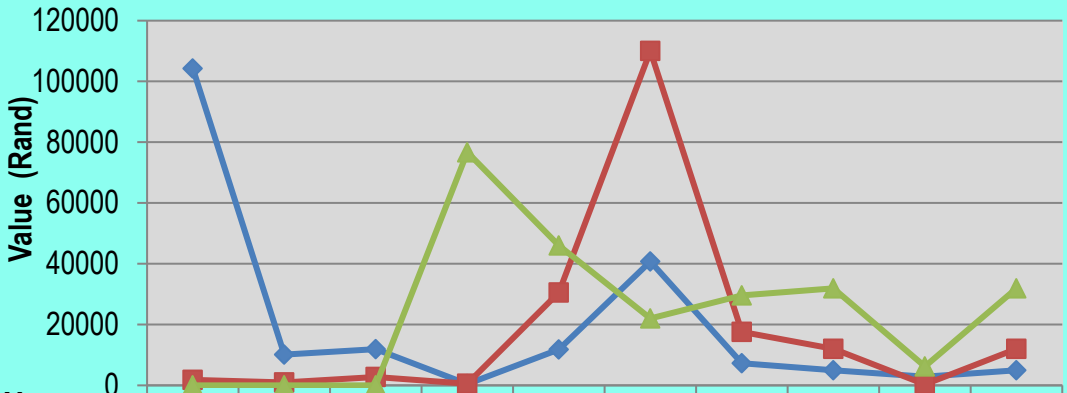
Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Xhariep	0	49136	111434	83553	96476	77434	75994	96353	182803	105544
Lejweleputswa	0	2460	0	101671	645192	301157	386945	1208526	181618	133577
Thabo Mofutsanyane	0	0	0	1629603	2043922	1435538	1012439	362995	844605	858795
Fezile Dabi	0	0	25450	53400	21000	29005	28	0	0	0
Mangaung	0	0	0	282221	225581	311269	329733	201812	51909	85748

Source: Quantec Easydata

Figure 15 above shows that, in 2011, there were no beetroot exports recorded for Free State province. The province exported beetroot in 2012, from Xhariep and Lejweleputswa district municipalities. In 2013, Xhariep district contributed significantly to the Free State provincial beetroot exports, at the same time Fezile Dabi has contributed for the first time to Free State export. During 2014, Thabo Mofutsanyane, Lejweleputswa and Mangaung have substantially contributed to Free State provincial beetroot exports. At the same time, the export value for Fezile Dabi has doubled, while Xhariep export value has dropped. In 2015, Free State provincial export value has increased and this can be attributed to a notable increase in beetroot export to neighbouring Lesotho. High export values, were recorded for Xhariep, Lejweleputswa and Thabo Mofutsanyane. During 2016, Mangaung and Fezile Dabi export values have notably increased, whilst Xhariep, Lejweleputswa and Thabo Mofutsanyane export value dropped significantly in comparison to 2015 export values. In 2017, Thabo Mofutsanyane has dropped further by 29% relative to the 2016 export value, Lejweleputswa export value rose by 28%, Mangaung export value has increased by 5.9%, Xhariep export value has slightly declined by 1.8%, whilst Fezile Dabi has recorded a trivial value. As of 2018, Lejweleputswa beetroot export value has surged, Xhariep export value has increased by 26.7%, whereas Thabo Mofutsanyane export has dropped by 64% and Mangaung export value has decreased by 38% relative to 2017 export value. During 2019, Free State beetroot was exported

mainly through Thabo Mofutsanyane and Xhariep districts. At the same time, Lejweleputswa and Mangaung export values have sharply dropped in comparison to 2018 export values. As of 2020, Thabo Mofutsanyane beetroot export value grew slightly by 1.7%, Mangaung export value surged by 65% whereas Xhariep and Lejweleputswa export values have dropped by 42% and 26% respectively.

Figure 16: Value of beetroot exports by Limpopo Province

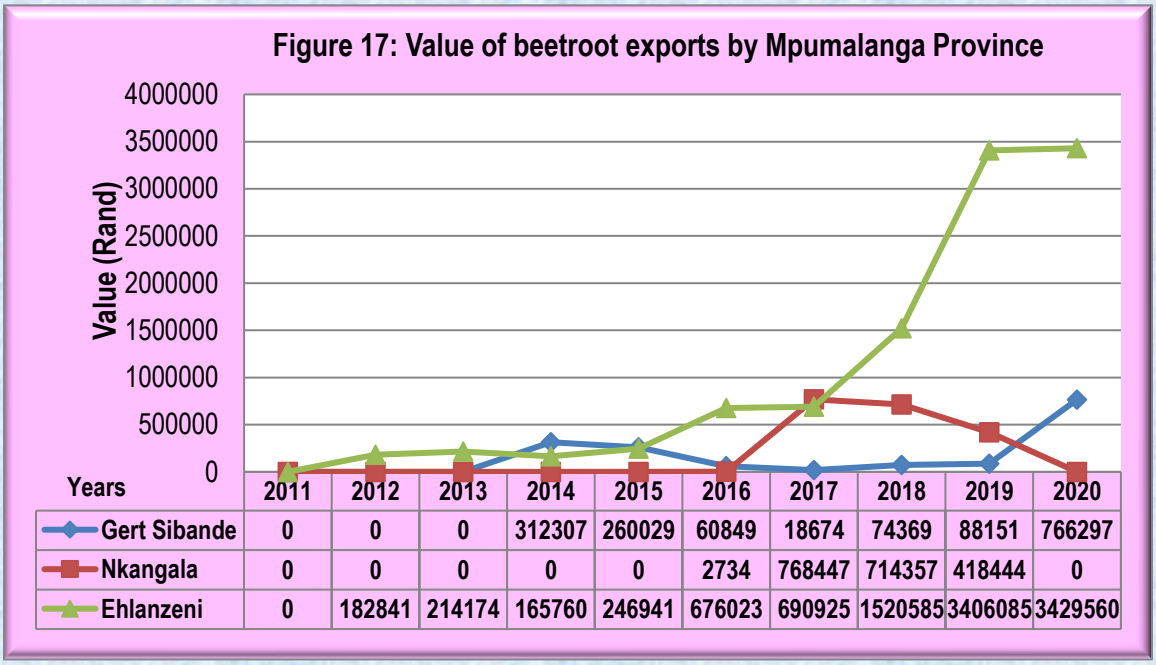


Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Vhembe	104289	10090	11927	437	11811	40714	7330	4960	2850	4960
Capricorn	1830	923	2789	516	30540	110004	17645	12004	316	12004
Waterberg	0	0	0	76718	46080	21983	29594	31973	6199	31973

Source: Quantec Easydata

Figure 16 above illustrates the value of beetroot exports by Limpopo province. The higher export value was recorded in 2011, through the Vhembe district. During 2012, beetroot export value for Vhembe has dropped significantly when compared to the 2011 export value. In 2013, Limpopo exported beetroot through Vhembe and Capricorn districts and the values have slightly increased, when compared to the 2012 export values. In 2014, Limpopo exported considerable beetroot through the Waterberg district and export values for Vhembe and Capricorn were less significant. Capricorn and Vhembe export value has drastically increased in 2015, while Waterberg export value has notably decreased, in comparison to 2014 export values. During 2016, there was a substantial increment in Capricorn and Vhembe beetroot export values which can be ascribed to a significant increase in beetroot export destined to neighbouring Zimbabwe. In the same year, Waterberg export value has sharply gone down by 52%, when compared to the 2015 export value. In 2017, Waterberg was the primary exit point for Limpopo beetroot export, Capricorn and Vhembe export values have significantly declined relative to 2016 export value. The overall Limpopo beetroot export value has drastically dropped and this can be ascribed to a notable decline of 33% in the value beetroot exported to neighbouring Zimbabwe. As of 2018, Waterberg has registered a higher value for beetroot from Limpopo province, whilst Vhembe and Capricorn beetroot export values have notably dropped relative to the previous year (2017). During 2019, overall Limpopo beetroot exports have drastically declined and beetroot was exported through Waterberg, Vhembe and Capricorn districts. As of 2020, there was a notable increase in beetroot export values recorded for Vhembe, Capricorn and Waterberg districts. The overall increase can be ascribed to a 171% increase in beetroot value of exports destined to neighbouring Zimbabwe between 2019 and 2020.

Figure 17 below illustrates the value of beetroot export by Mpumalanga province



Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gert Sibande	0	0	0	312307	260029	60849	18674	74369	88151	766297
Nkangala	0	0	0	0	0	2734	768447	714357	418444	0
Ehlanzeni	0	182841	214174	165760	246941	676023	690925	1520585	3406085	3429560

Source: Quantec Easydata

Figure 17 above, shows Mpumalanga provincial beetroot export from 2011 to 2020 period. In 2011, Mpumalanga has recorded a zero trade for beetroot. During 2012 and 2013, Mpumalanga has exported beetroot solely through Ehlanzeni district. Gert Sibande has recorded its first export value during 2014, while Ehlanzeni export value has considerably dropped when compared to the previous value. Gert Sibande export value has slightly gone down during 2015, while Ehlanzeni has experienced a notable increment in beetroot export value. During 2016, Ehlanzeni district has significantly contributed to Mpumalanga provincial beetroot export value, whilst Gert Sibande export values have notably declined. The higher beetroot export value by Ehlanzeni district can be ascribed to a notable increase in beetroot export destined to neighbouring Mozambique. In 2017, Nkangala was the primary exit point for KwaZulu Natal beetroot export and the export value was incomparably higher relative to the 2016 export value. At the same time, Ehlanzeni export value rose slightly by 2.2%, whereas Gert Sibande export value has declined marginally by 69.3%. During 2018, Ehlanzeni was still the preferred exit point for beetroot export from Mpumalanga province. Nkangala and Gert Sibande has also contributed to Mpumalanga beetroot exports. As of 2019, Ehlanzeni beetroot export value surged by 123%, Gert Sibande export value grew by 18. % whereas Nkangala export value dropped notably by 41% relative to 2018 export value. During 2020, there was a surge in Ehlanzeni and Gert Sibande beetroot export values and this can be ascribed to a 5% increment in the export value of beetroot destined to the neighbouring Eswatini.

2.3 Share Analysis

Table 3 below is an illustration of provincial shares towards national exports. The Western Cape, KwaZulu Natal and Gauteng provinces commanded the greatest share of South Africa beetroot exports from 2011 to 2019 period. In 2011 and 2012 Gauteng has recorded high beetroot export

share. In 2013, Western Cape province has slightly increased its export share by commanding 13.73% and KwaZulu-Natal export share has dropped to 0.14% of the total share of South Africa beetroot exports. There was a 1.25% decrease in beetroot export share for Gauteng province. Mpumalanga province contributed to export share from 2012 to 2014, but the export shares were insignificant. During 2014, Free State province commanded an 8.65% share of South Africa's beetroot export and Gauteng export share has dropped from 84.39% to 56.78%. In the same year, Western Cape export share has notably increased from 13.73% to 31.82%. Gauteng and Western Cape have continued to command the greatest share of beetroot export shares in 2015. At the same time, North West export share has increased to 0.68% and Free State has increased to 9.16%. During 2016, Gauteng has continued to lead in beetroot export however, the export share has slightly dropped to 53.12%. Western Cape export share increased slightly to 36.40%, Free State export share dropped to 5.55%, North West and Limpopo have also recorded a slight increase in their export shares.

In 2017, Gauteng export share grew to 61.48%, Western Cape export share eased lower to 28.61%, and Mpumalanga has commanded 3.90% share whilst Free State export share declined to 4.76% share. As of 2018, Gauteng province beetroot export share dropped slightly to 57.84%, Western Cape export share has increased to 29.17% and Mpumalanga export share has increased notably to 6.45% share. In 2019, Gauteng has commanded the greatest share of 57.75% share, Western Cape export share declined slightly to 26.47%and Mpumalanga export share grew slightly to 10.79%. As for 2020, Western Cape has commanded the greatest share of 40.10% of South Africa's beetroot export, Gauteng export share declined to 37.19% share, Limpopo has recorded a notable increase of 12.33% share, KwaZulu Natal export share grew to 6.26% and Mpumalanga exports share declined to from 10.79% to 0.03 % share.

Table 3: Share of provincial beetroot exports to the total RSA beetroot exports (%)

Year Province	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Western Cape	14.12	9.53	13.73	31.82	32.26	36.40	28.61	29.17	26.47	40.10
Eastern Cape	0	0	0	0.02	0.01	0.01	0.02	0.01	0.01	0.02
Free State	0	0.33	0.65	8.65	9.16	5.55	4.76	5.22	3.48	3.48
KwaZulu-Natal	1.12	3.23	0.14	0.47	0.22	0.09	0.58	0.95	1.08	6.26
Gauteng	84.17	85.66	84.39	56.78	55.88	53.12	61.48	57.84	57.75	37.19
North West	0	0	0	0.02	0.68	2.47	0.50	0.22	0.39	0.60
Limpopo	0.58	0.07	0.07	0.31	0.27	0.45	0.14	0.14	0.03	12.33
Mpumalanga	0	1.18	1.02	1.92	1.53	1.91	3.90	6.45	10.79	0.03
South Africa	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easydata

Table 4: Share of beetroot exports to the total Western Cape provincial beetroot exports (%)

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
City of Cape Town	97.41	96.59	88.44	93.34	96.11	95.70	92.33	92.90	88.65	62.59
West Coast	0	0	0	0	0	0	0	0	0.01	0.00
Cape Winelands	2.16	0.26	8.62	6.09	3.39	2.94	4.65	4.47	8.61	18.86
Overberg	0	0	0	0	0	0.17	0	0	0	1.62
Eden	0.43	3.15	2.93	0.56	0.50	1.36	3.02	2.63	2.73	16.93
Western Cape	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easydata

Table 4 above shows that the City of Cape Town commanded the greatest share of beetroot exports from Western Cape province from 2011 to 2020 period. In 2011 and 2012, the City of Cape Town has continued to dominate the Western Cape beetroot exports by commanding 97.41% and 96.59% share of exports. During 2013, the City of Cape Town commanded an 88.44% share of beetroot exports and Cape Winelands export share has increased from 0.26% to 8.62%. In 2014, the City of Cape Town export share increased to 93.34%, while the export shares for Cape Winelands and Eden have dropped. City of Cape Town has continued to high export share and in 2015, the district has commanded 96.11%. During 2016, City of Cape Town continued to be the primary exit point for beetroot from Western Cape province. City of Cape Town has recorded 95.70%, Eden has recorded 1.36% while Cape Winelands export share has dropped to 2.94%. Cape Town harbour renders an exit point for beetroot exports from the City of Cape Town municipality. In 2017, City of Cape Town export share has dropped to 92.33%, Cape Winelands export share has increased to 4.65% and Eden has registered a 3.02% share of export. As of 2018, City of Cape Town has continued to lead in Western Cape beetroot export share by commanding 92.90%, Cape Winelands and Eden beetroot export shares were less significant. During 2019, City of Cape Town export share declined to 88.65%, Cape Winelands export share eased higher to 8.61% and Eden has registered a 2.73% share. As of 2020, City of Cape Town beetroot export share declined notably to 62.59%, Cape Winelands export share grew to 18.86% and Eden export share increased notably from 2.73% to 16.93%.

Table 5: Share of beetroot exports to the total Gauteng provincial beetroot exports (%)

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sedibeng	0	0	0	0	0	0.01	0	0	0	0
West Rand	0	0.28	0.07	3.76	1.56	0.88	0.15	0.07	0.01	0.53
Ekurhuleni	1.71	3.76	2.87	34.26	15.20	16.67	18.79	11.14	11.04	10.40
City of Johannesburg	91.56	88.37	91.03	48.47	65.96	61.49	58.93	71.48	73.25	60.77
City of Tshwane	6.73	7.59	6.02	13.50	17.27	20.95	22.13	17.31	15.70	28.30
Gauteng	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easydata

Table 5 above indicates that City of Johannesburg has commanded the greatest share of beetroot exports from Gauteng province. During 2011, City of Johannesburg commanded a 91.56% share of beetroot exports and City of Tshwane commanded 6.73% of Gauteng beetroot exports. In 2012, City of Johannesburg beetroot export share has dropped from 91.56% to 88.37%, while Ekurhuleni has increased its share from 1.71% to 3.76%. In the same year, the City of Tshwane export share has increased from 6.73% to 7.59% share when compared to 2011. During 2013, City of Johannesburg continued to dominate in beetroot export share by commanding 91.03% share. In 2014, Ekurhuleni has notably increased its beetroot export share by commanding 34.26% share and City of Johannesburg export share has dropped drastically to 49.47%. City of Johannesburg export share has increased to 65.96% during 2015. In the same year, City of Tshwane export value has increased to 17.27%, while Ekurhuleni export share has dropped to 15.20%. During 2016, City of Johannesburg was still leading in Gauteng provincial beetroot export, however, the export share dropped slightly to 61.49%, whilst Ekurhuleni and City of Tshwane export values experienced notable increments. In 2017, City of Johannesburg export share has dropped further to 58.93%, City of Tshwane export share rose slightly to 22.13% and Ekurhuleni export share increased to 18.79%. As of 2018, City of Johannesburg has continued to lead in Gauteng beetroot export by commanding 71.48%, City of Tshwane has recorded 17.31% and Ekurhuleni has commanded an 11.14% share. During 2019, City of Johannesburg beetroot export share grew further to 73.25%, City of Tshwane registered 15.70% and Ekurhuleni has commanded an 11.04% share. In 2020, City of Johannesburg beetroot export share dropped to 60.77%, City of Tshwane export share grew notably to 28.30% and the Ekurhuleni export share declined slightly to 10.40%.

Table 6: Share of beetroot exports to the total KwaZulu Natal provincial beetroot exports (%)

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ugu	80.85	1.99	0	3.60	22.91	0	0	0	0	0
Umgungun-dlovu	0	0	0	0	0	0	0	0	0	34.56
Amajuba	0	0	0	0	0	0	0.02	0	0	0
Zululand	0	0	0	0	0	0	0.51	1.77	64.80	4.03
Uthungulu	0.05	0	0	0	0	0	0	0	0	0
Sisonke	0	0	0	0	1.46	0	0	0	0	0
Ethekwini	19.10	98.01	100	96.40	75.63	100	99.47	98.23	35.20	61.41
KwaZulu Natal	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easydata

Table 6 above illustrates that in 2010, Ugu has commanded an 80.85% share of beetroot exported through KwaZulu Natal province and Uthungulu export share was insignificant. In the same year, Ethekwini export share has decreased from 100% to 19.10%, when compared to the 2010 export share. During 2012, Ethekwini increased its export share from 19.10% to 98.01%, while Ugu has dropped from 80.85% to 1.99% share. In 2013, Ethekwini commanded a 100% export share. During 2014, the export share dropped slightly to 96.40%, while ago has commanded a 3.60% export share. In 2015, Ugu export share has increased to 22.91%, Sisonke has contributed for the first time to

KwaZulu Natal export share. At the same time, Ethekwini export share has dropped to 75.63%. During 2016, Ethekwini has continued to lead in KwaZulu Natal beetroot exports by commanding a 100% export share. The greatest share by Ethekwini can be attributed to Durban harbour which renders exports exit point. Ethekwini export share has slightly dropped to 99.47% during 2017, Amajuba and Zululand have registered trivial export shares. As of 2018, Ethekwini has commanded the greatest share of 98.23% of KwaZulu Natal beetroot export and Zululand has commanded a 1.77% share. In 2019, Zululand has commanded the greatest share of 64.80% and Ethekwini export share declined notably to 35.20% share. As of 2020, Ethekwini beetroot export share grew notably from 35.20% to 61.41% share, Umgungundlovu has commanded the greatest share of 34.56% whilst Zululand export share declined sharply to 4.03% share.

Table 7: Share of beetroot exports to the total Free State provincial beetroot exports (%)

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Xhariep	0	95.23	81.41	3.89	3.18	0.91	4.21	5.15	14.50	8.92
Lejweleputswa	0	4.77	0	4.73	21.28	9.26	21.44	64.64	14.40	11.29
Thabo Mofutsanyane	0	0	0	75.77	67.41	71.65	56.09	19.41	66.98	72.55
Fezile Dabi	0	0	18.59	2.49	0.69	3.19	0	0	0	0
Mangaung	0	0	0	13.12	7.44	14.99	18.57	10.79	4.12	7.24
Free State	**0**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easy data

In 2011, the Free State province has recorded zero trade in beetroot. In 2012, Xhariep commanded 95.23% of beetroot export share and Lejweleputswa has commanded 4.77% share from Free State province. During 2013, Xhariep beetroot export share has dropped to 81.41% while Fezile Dabi has commanded 18.59%. In 2014, Thabo Mofutsanyane commanded 75.77% and Mangaung has commanded 17.85% of Free State provincial beetroot export share. In the same year, Xhariep export share has dropped from 84.41% to 3.89%. During 2015, Lejweleputswa has commanded a notable share of 21.28%, while Thabo Mofutsanyane export share has gone down to 67.41% and the Mangaung export share has dropped to 7.44% when compared to 2014 export shares. Thabo Mofutsanyane beetroot export share increased notably to 71.65%, Mangaung export share has increased to 14.99%, whilst Lejweleputswa export share has dropped to 9.26%. Thabo Mofutsanyane export share has declined to 56.09% during 2017, Lejweleputswa export share increased to 21.44%, Xhariep has registered a 4.21% share and Mangaung has recorded an 18.57% share. As of 2018, Lejweleputswa export share has commanded 64.64% of Free State beetroot export share, whilst Thabo Mofutsanyane export share has dropped to 19.41% share. During 2019, Thabo Mofutsanyane export share eased higher to 66.98%, Xhariep has increased to 14.50% and Mangaung export share declined to 4.12% share. As of 2020, Thabo Mofutsanyane was still in the lead with a 72.55% share of Free State beetroot export, Lejweleputswa export share decreased to 11.29% whilst Mangaung export share grew to 7.24% share.

Table 8: Share of beetroot exports to the total Limpopo provincial beetroot exports (%)

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Vhembe	98.28	91.62	81.05	0.56	13.36	23.57	13.43	10.14	30.43	10.14
Capricorn	1.72	8.38	18.95	0.66	34.54	63.70	32.34	24.53	3.37	24.53
Waterberg	0	0	0	98.77	52.11	12.73	54.23	65.34	66.19	65.34
Limpopo	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easy data

Table 8 above illustrates that Vhembe district was a major role player in beetroot export from Limpopo province. During 2012, Vhembe export share has slightly dropped from 98.28% to 91.62%, while the Capricorn export share has gone up from 1.72% to 8.38% share. Vhembe export share declined further to 81.05% and Capricorn export share has gone up to 18.95% during 2013. In 2014, Waterberg has commanded a 98.77% share of Limpopo beetroot exports and in the same year, Vhembe export share has drastically dropped from 81.05% to 0.56%. Vhembe export share has notably increased to 13.36% during 2015, Capricorn export share has sharply gone up to 34.54%, while Waterberg export share has dropped to 52.11%. In 2016, Capricorn beetroot export share has gone up to 63.70%, Vhembe export share increased to 23.57%, whilst Waterberg export share dropped notably from 52.11% to 12.73%. In 2017, Waterberg export share rose notably to 54.23%, Capricorn export share has dropped from 63.70% to 32.34% and Vhembe export share declined to 13.43%. As of 2018, Waterberg district has commanded 65.34% of Limpopo beetroot export share, Capricorn export share declined to 24.53% and Vhembe has registered a 10.14% share. In 2019, Waterberg export share eased slightly higher to 66.19%, Vhembe export share increased notably to 30.43% and Capricorn export share dropped sharply to 3.37% share. By 2020, Waterberg district was still in the lead with a 65.34% share of Limpopo provincial beetroot export, Capricorn export share grew notably to 24.53% share whereas Vhembe export share dropped sharply to 10.14% shares.

Table 9: Share of beetroot exports to the total Mpumalanga provincial beetroot exports (%)

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gert Sibande	0	0	0	65.29	51.29	8.23	1.26	3.22	2.25	18.26
Nkangala	0	0	0	0	0	0.37	51.99	30.93	10.69	0
Ehlanzeni	0	100	100	34.71	48.71	91.40	46.75	65.85	87.05	81.74
Mpumalanga	**0**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Calculated from Quantec Easy data

Table 9 above shows the Mpumalanga provincial beetroot export shares from 2011 to 2020. During 2011, Mpumalanga province has recorded zero trade for beetroot. In 2012 and 2013, Ehlanzeni district has commanded a 100% share of Mpumalanga beetroot export. During 2014, Gert Sibande

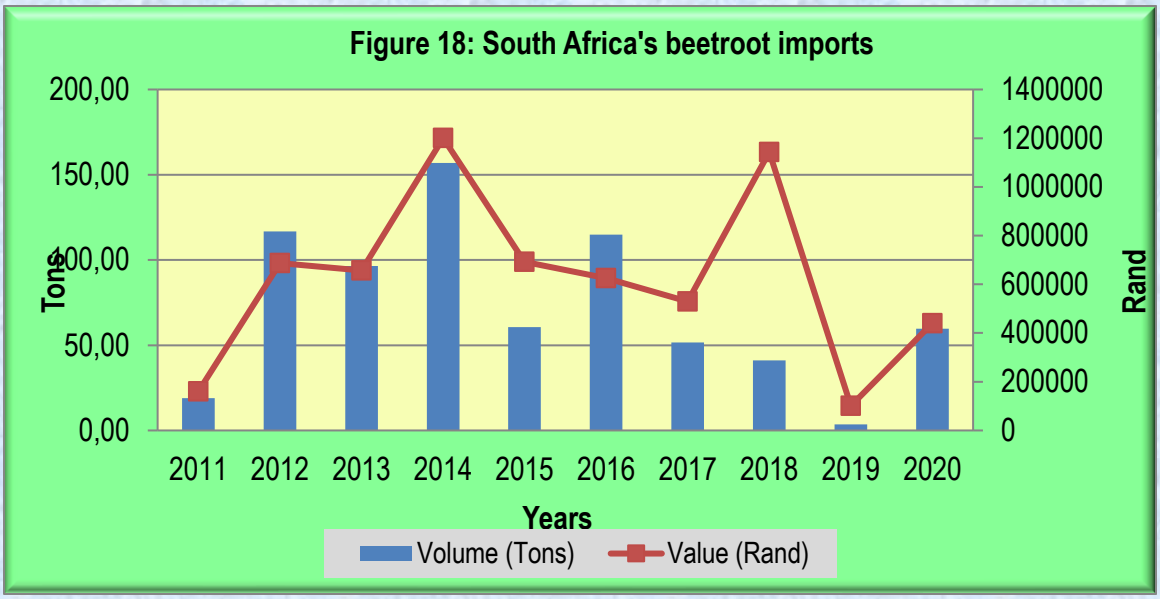
has contributed significantly to beetroot export share by recording 65.29% share, while Ehlanzeni export share has declined to 34.71%. Ehlanzeni export share has gone up to 48.71% during 2015, while Gert Sibande export share has decreased to 51.59%. In 2016, Ehlanzeni export share has notably gone up to 91.40%, whereas Gert Sibande export share dropped to 8.23%. During 2017, Nkangala has commanded the greatest share of Mpumalanga beetroot export share by recording 51.99%, Ehlanzeni export share eased lower from 91.40% to 46.75% whilst Gert Sibande has recorded an insignificant export share. As of 2018, Ehlanzeni has commanded the greatest share of Mpumalanga beetroot export share while Nkangala export share has dropped from 51.99% to 30.93%. In 2019, Ehlanzeni exports share grew notably to 87.05%, Nkangala export share dropped to 10.69% and Gert Sibande export share eased lower to 2.25% share. Nkangala beetroot export share dropped further to 81.74% in 2020 and Gert Sibande export share grew notably to 18.26%.

2.4 South African beetroot Imports

South Africa is not a major beetroot importer. In 2020, it represented 0% of world imports and its ranking in the world import was 106. South Africa's beetroot import has notably increased when compared to 2019 beetroot imports. In 2019, South Africa was ranked 125 in the world beetroot imports. In 2020, Eswatini and China were the primary suppliers of South Africa beetroot imports. Globally, the United States of America, China, Germany, Japan, United Kingdom, Hong Kong France, Netherlands, Republic of Korea and Italy were the top countries importing beetroot.

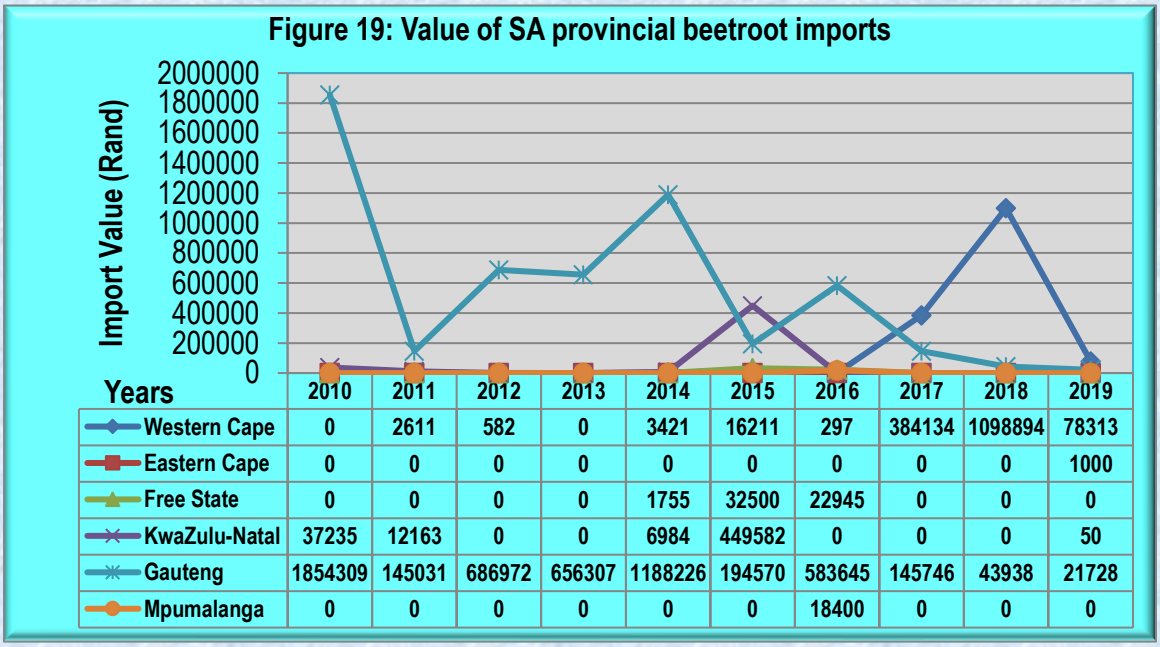
Figure 18 below shows the beetroot imports by South Africa from 2011 to 2020. As of 2011, South Africa beetroot import volume was 18.9 tons and in 2012, South Africa's beetroot imports grew higher, when compared to 2011 imports, despite a 13.2% increase in the domestic production output. During 2013, South Africa beetroot imports have dropped by an 83% when compared to the previous year beetroot import. Beetroot imports have gone down, despite an 8.3% decrease in domestic beetroot output. In 2014, beetroot imports increased notably by 62.5% relative to 2013 imports. This can be ascribed to a 4.3% drop in the domestic production output during the same year.

In 2015, South Africa beetroot import has notably dropped by 62.6% in comparison to 2014 imports and this can be attributed to a notable increase of 31.7% increase in the domestic production output. It was more expensive for South Africa to import beetroot in 2015 since less volume was imported at a higher value. During 2016, there was a sharp increase of 89% in South Africa's beetroot imports and this can be ascribed to a 6.2% drop in the domestic beetroot output. In 2017, South Africa's beetroot import decreased notably by 55% relative to 2016 import volume despite a 5.5% decrement in the domestic production output. As of 2018, South Africa's beetroot import has notably dropped to just 41 tons and this can be ascribed to a 21.8% increment in the domestic beetroot output that occurred in the same year. In 2019, South Africa beetroot import dropped further by 91% and it was more expensive to import beetroot relative to 2018 imports. As of 2020, South Africa's beetroot imports surged from 3.6 tons to 59.6 tons and this can be attributed to a notable 3% decline in domestic production output. It was also cheaper to import beetroot in 2020 relative to 2019 import value.



Source: Quantec Easydata

Values of South Africa provincial beetroot import are presented in Figure 19.



Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Western Cape	0	2611	582	0	3421	16211	297	384134	1098894	78313
Eastern Cape	0	0	0	0	0	0	0	0	0	1000
Free State	0	0	0	0	1755	32500	22945	0	0	0
KwaZulu-Natal	37235	12163	0	0	6984	449582	0	0	0	50
Gauteng	1854309	145031	686972	656307	1188226	194570	583645	145746	43938	21728
Mpumalanga	0	0	0	0	0	0	18400	0	0	0

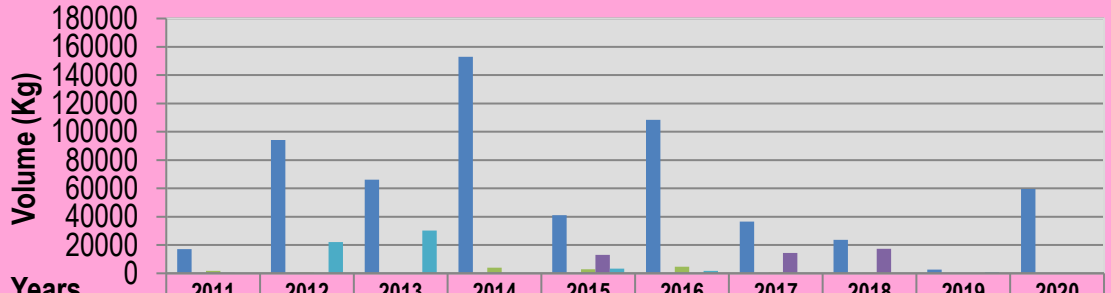
Source: Quantec Easydata

Figure 19 above shows South Africa's provincial beetroot imports. Beetroot was imported largely through Gauteng province. From 2011 to 2014, Gauteng has continued to be the primary entry point for South Africa's beetroot imports. During 2015, South Africa has imported beetroot through KwaZulu Natal, Gauteng, Free State and Western Cape provinces. In 2016, Gauteng was still the primary entry point for South Africa's beetroot imports, followed by Free State and Mpumalanga provinces. During 2017, South Africa's beetroot was imported through Western Cape and Gauteng. Western Cape import value was incomparably higher relative to 2016 import value, whilst Gauteng

import value dropped by 75%. In 2018, Western Cape province was still by far the primary entry point for South Africa's beetroot import whilst the import value recorded for Gauteng province has sharply dropped. In 2019, South Africa beetroot was imported through Western Cape and Gauteng province. At the same time, Eastern Cape has contributed to South Africa's beetroot import for the first time in ten year period. During 2020, Western Cape province was still the primary entry point for South Africa's beetroot import, however, the value of import has sharply declined, Gauteng import value has declined by 69.8% and Eastern Cape has recorded a less significant import value.

Figure 20 below illustrates South Africa's beetroot imports from various regions from 2011 to 2020. From 2011 to 2014, there were no beetroot imports from the Americas region. During 2012, South Africa's beetroot imports were sourced from Africa, Asia and Europe, but the import from Europe was insignificant. In 2013, South Africa beetroot imports were sourced from Africa and Asia region. In the same year, there was no beetroot import from the Americas and Europe regions. During 2012 and 2013 a notable volume was not allocated to any region. In 2014, South Africa sourced a high volume of beetroot from the African region and notable the volume was imported from the Asia region. In 2015, South Africa beetroot imports were largely sourced from Africa (Eswatini) and Europe (Italy) regions. In the same year, there was an increase in unallocated imports. During 2016, African region remained the main supplier of South Africa beetroot imports followed by Asia region. At the same time, the unallocated import has declined by 52% in comparison to the previous year import. In 2017, Africa (Eswatini) region followed by Europe (United Kingdom) region were still the primary suppliers of beetroot imported by South Africa. At the same time, there was a notable decrement in the volume of imports sourced from Asia and unallocated import has also experienced a sharp decline. As of 2018, the Africa region has remained as the main supplier of beetroot imports, followed by the European region and Asia import volume was less significant. In 2019, Africa was still the primary supplier for South Africa's beetroots, followed by imports from the Asian region whereas imports from Europe has notably dropped. In the same year, there was a surge in unallocated imports. In 2020, beetroot imports from the African region were incomparably higher relative to 2019 import volume whereas the imports sourced from Asia were insignificant.

Figure 20: Beetroot import from the regions

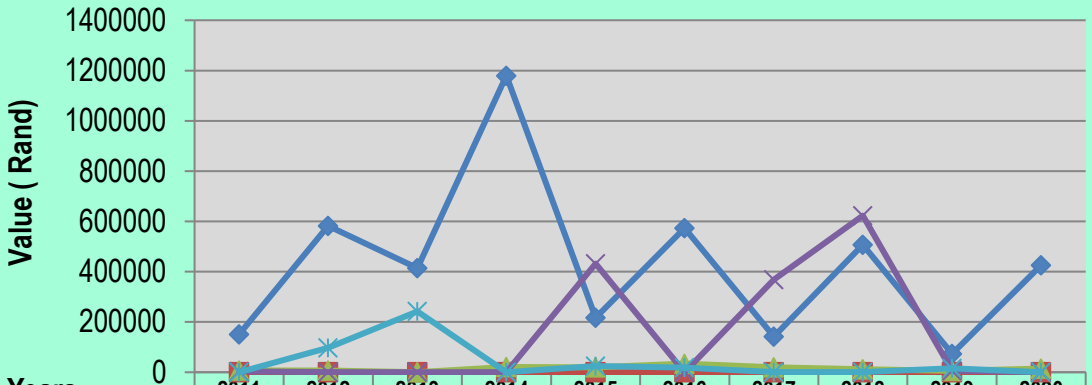


Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	17012	94134	66189	152899	41124	108401	36531	23601	2696	59625
Americas	0	0	0	0	2	0	0	0	0	0
Asia	1630	528	88	3975	2963	4750	511	263	48	65
Europe	289	8	0	1	13128	0	14470	17239	4	0
Not allocated	0	22000	30250	0	3400	1620	10	35	884	0

Source: Quantec Easydata

Figure 21 below shows South Africa beetroot import values from various regions from 2011 to 2020. During 2011, beetroot sourced from Africa had high value and import values recorded for Asia and Europe were less significant. In 2012 and 2013, unallocated beetroot imports had higher values. During 2014, Africa region beetroot import value surged by 285% in comparison to the 2013 import value. In 2013, it was cheaper to import beetroot when compared to 2012 imports. It was more expensive to import beetroot from Europe and imports from Asia were cheaper during 2014. It was still more expensive to import beetroot from Europe during 2015, while the import from African region was relatively cheaper. It was more expensive to import beetroot from the Asia region during 2016, whilst beetroot from Africa region was cheaper. In 2017, it was still more expensive to import beetroot from Asia, followed by Europe whilst it was relatively cheaper to import beetroot from the African region. As of 2018, it was more expensive to import beetroot from Asia region, followed by the European region and imports from Africa were fairly cheaper. In 2019, it was more expensive to import beetroot from Europe, followed by the Asia region whilst it was cheaper to import beetroot from the African region. As of 2020, there was a surge in Africa beetroot import value and this can be ascribed to high import volume sourced from the same region. At the same time, it was relatively more expensive to import beetroot from Asia.

Figure 21: Value of beetroot imports from the regions



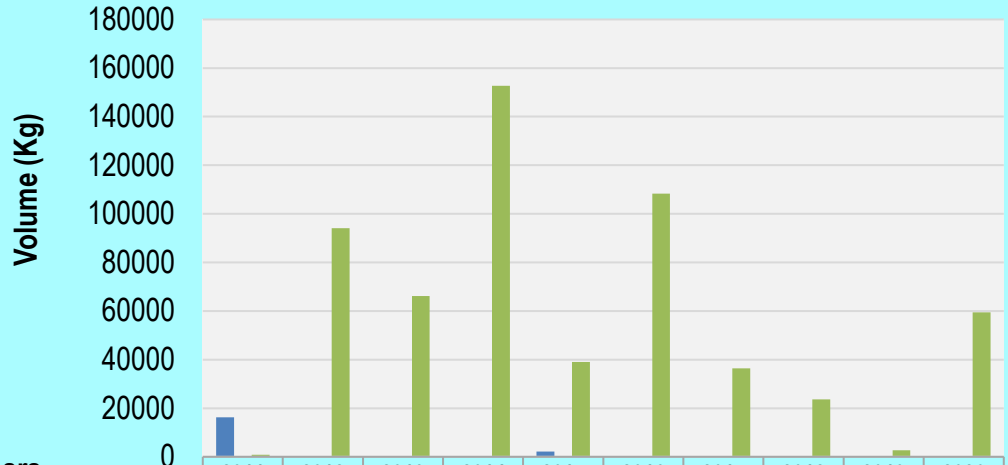
Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	150341	582620	414029	1179527	216701	573302	141192	507075	73372	425050
Americas	0	0	0	0	416	0	0	0	0	0
Asia	6745	7416	336	20513	19365	34185	19772	12453	5894	14413
Europe	2719	37	0	346	431970	0	368563	622813	5484	0
Not allocated	0	97481	241942	0	24350	17800	353	491	16341	0

Source: Quantec Easydata

Figure 22 below is an illustration of South Africa's beetroot imports from the Africa region. In 2011, South Africa imported beetroot from SACU and a notable import was sourced from Western Africa from 2012 to 2013, there were no imports from SADC countries. High imports volumes were recorded in 2010 from SACU and the following year the import from SACU has drastically dropped. From 2012 to 2014, South Africa imported high volumes of beetroot from SACU countries. Imports from SADC were in 2014, but the import volumes were less significant. In 2015, South Africa has imported beetroot from SACU (Eswatini, Lesotho and Namibia) and Western African countries. During 2016, SACU country (Eswatini) was the main supplier of South Africa's beetroot imports from Africa region.

In 2017, SACU country (Eswatini) was still the primary supplier of South Africa's beetroot imports, whilst imports from SADC and West Africa were insignificant. During 2018, SACU (Lesotho, Botswana and Namibia) was still the main supplier of South Africa's beetroot imports. As of 2019, the SACU region was still the primary supplier of South Africa beetroot imports and imports from SADC and Western Africa were less significant. In 2020, South Africa beetroot imports were sourced mainly from SACU (Eswatini) and imports from SADC region was less significant.

Figure 22: South Africa's beetroot import from Africa region

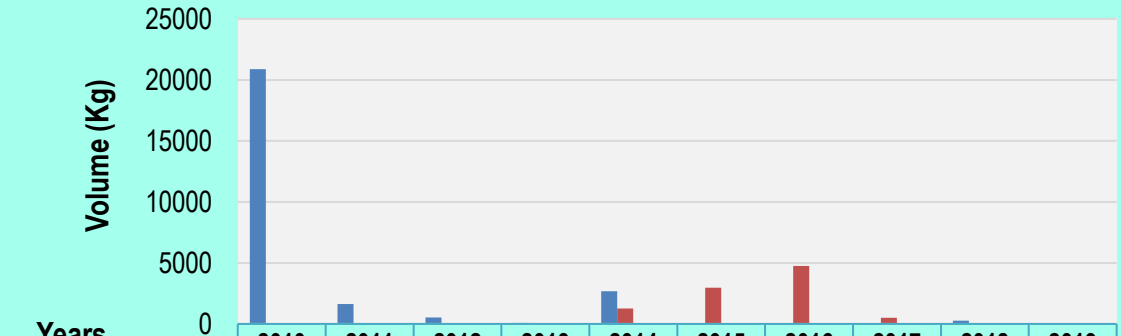


Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Western Africa	16219	0	0	0	2100	0	45	0	5	0
SADC (excluding SACU)	0	0	0	224	0	33	82	22	60	225
SACU (Excluding RSA)	793	94134	66189	152675	39024	108367	36404	23580	2631	59400

Source: Quantec Easydata

Figure 23 below shows that beetroot imports from Asian countries were mainly from Eastern Asia China. Beetroot imports from Hong Kong, Japan, Korea and Taiwan were less significant. In 2011, South Africa imported beetroot from China only. In 2012, South Africa imported considerable quantities from Hong Kong and Japan, imports from China were less significant. In 2013, South Africa imported beetroot solely from China, but the volume was less significant. During 2014, South Africa has imported beetroot mainly from Eastern Asia and South-Eastern Asia. In 2015 and 2016, South Africa has sourced beetroot solely from South central Asia (India). In 2017, South Africa imported beetroot from Eastern Asia (China) and South Central Asia. However, there was a sharp decline in the volume of imports sourced from South Central Asia. As of 2018, Eastern Asia (China) was still the sole supplier of beetroot imports by South Africa. In 2019, Eastern Asia remained the primary supplier of South Africa beetroot from the Asian region. As of 2020, South Africa has sourced beetroot from Eastern Asia (China) however, the import volume was insignificant.

Figure 23: South Africa beetroot imports from Asia region



Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Eastern Asia	20889	1629	527	88	2668	0	0	21	263	48
South-central Asia	0	0	0	0	1253	2963	4750	490	0	0
South-eastern Asia	21	0	0	0	54	0	0	0	0	0
Western Asia	0	0	0	0	0	0	0	0	0	0

Source: Quantec Easydata

2.5 Processing

Beetroot can be eaten raw, cooked, pickled and then eaten cold as a condiment. It can add a refreshing touch to a salad, sandwich or an accompaniment to vegetables. Pickled beet is a traditional food for many countries. Beetroot can be steamed cooked in boiling water. Beetroot can be used in food colouring and it is used in ice cream, frozen desserts to give colour without impacting flavour. Beetroot red is used to enhance the redness of tomato paste, strawberry ice cream, sauces, desserts, jams, jellies, sweets, breakfast cereals and yoghurt. There have been repeated attempts to use beetroot as a natural dye for textiles. Beetroot is also a common health drink and it also makes wines. Beetroot can also be pickled and canned. Table 9 below indicates that beetroot that went for canning have shown fluctuations over the period under review. In 2012, there was a 9.6% increase in beetroot canning activities compared to the previous year which can be ascribed to a 13% increase in domestic production. In 2013, beetroot volumes that went to canning activities increased by 11%, when compared to 2012 volumes. 8 830 tons were canned during 2014, and this represents a drop of 13.7% in canning activities. During 2015, there was a notable increase of 54.9% in beetroot volumes that were processed, and this can be ascribed to 31.7% in production output. There was a 3% increase in canning activities in 2016, and the value of canning has gone up by 10% in comparison to 2015 values. In 2017, the canned volume declined significantly by 61.7% relative to the previous year (2016) canned volume and this can be ascribed to a 5.5% decrement in domestic production output. As of 2018, there was a slight increase of 0.1% in the volume of processed beetroot, when compared to 2017 processed beetroot. During 2019, beetroot volume destined for canning activities declined notably by 18.8% relative to 2018 processed volume. As of 2020, there was a notable 57.7% increment in the volume of beetroot processed and the value of processed beetroot was 76.8% more relative to the 2019 value.

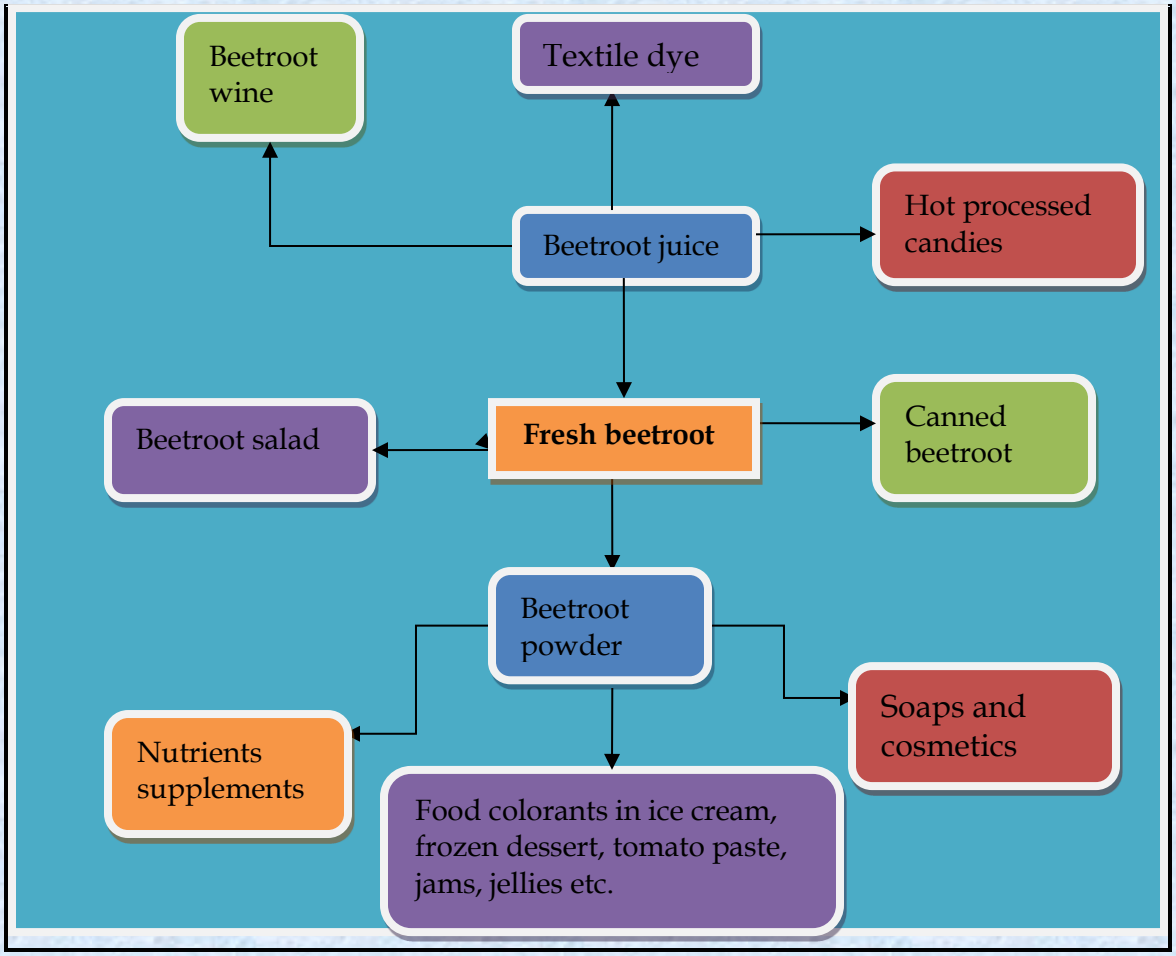
Table 9: Processed beetroot

Year	Canning	
	Volume (Tons)	Value (Rand)
2011	10 495	1 528 982
2012	11 507	12 638 344
2013	10 232	11 436 152
2014	8 830	10 365 966
2015	13 679	16 785 473
2016	14 099	18 501 225
2017	8 719	12 770 812
2018	8 728	13 638 398
2019	8 591	13 677 975
2020	13 548	24 193 662

Source: Statistics and Economic Analysis, DALRRD

The beetroot value chain tree explaining its uses is illustrated in Figure 24 below.

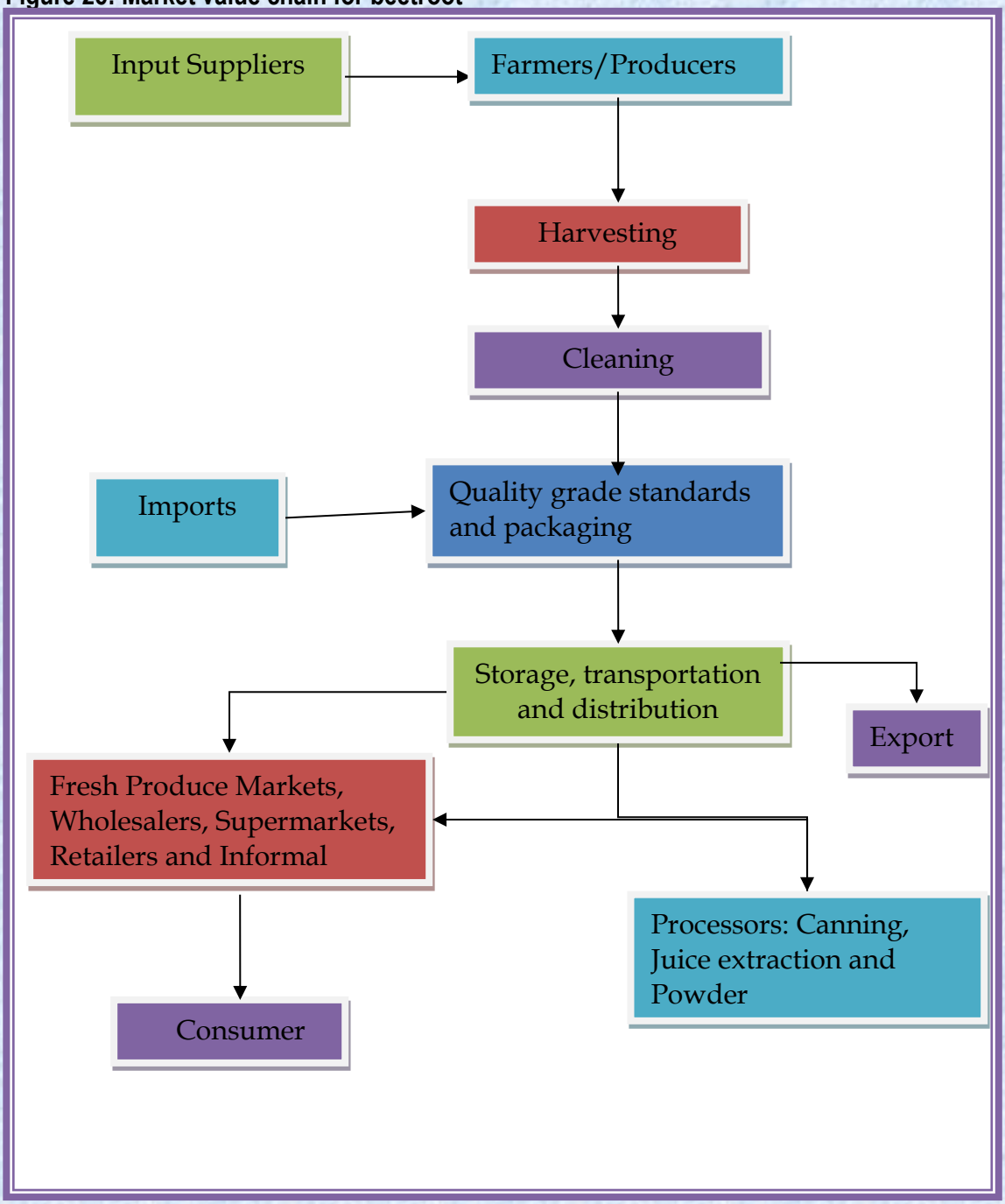
Figure 24: Beetroot Value Chain Tree explaining its uses



2.6 Market value Chain for beetroot

The market value chain for beetroot is illustrated in Figure 25. The beetroot value chain can be broken down into the following levels: the producers of beetroot (farmers); pack house owners (cleans, grade and quality control); cold storage and transport facilities (store and transport beetroot on behalf of farmers); traders in beetroot (market and sell beetroot); processors (add value to beetroot and process beetroot to other usable forms); and end-users (consumers)

Figure 25: Market value chain for beetroot



3. MARKET INTELLIGENCE

3.1 Tariffs

Tariffs applied by the various markets to beetroot originating from South Africa during 2019 and 2020 are presented in Table 10.

Table 10: Tariffs applied by various exports markets to beetroot from South Africa.

Country	Product description (H07069010)	Trade regime description	2019		2020	
			Applied tariff	Estimated total ad valorem equivalent tariff	Applied tariff	Estimated total ad valorem equivalent tariff
Angola	Fresh or chilled salad beetroot	MFN duties (Applied)	50.00%	50.00%	50.00%	50.00%
Botswana	Fresh or chilled salad beetroot	Intra SACU rate	0.00%%	0.00%	0.00%%	0.00%
Canada	Fresh or chilled salad beetroot	MFN duties (Applied)	0.00%	0.00%	0.00%	0.00%
China	Fresh or chilled salad beetroot	MFN duties (Applied)	13.00%	13.00%	13.00%	13.00%
Germany	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
Senegal	Fresh or chilled salad beetroot	MFN duties (Applied)	20.00%	20.00%	20.00%	20.00%
Japan	Fresh or chilled salad beetroot	MFN duties (Applied)	2.50%	2.50%	2.50%	2.50%

Country	Product description (H07069010)	Trade regime description	Applied tariff	Estimated total ad valorem equivalent tariff	Applied tariff	Estimated total ad valorem equivalent tariff
			2019		2020	
Greece	Fresh or chilled salad beetroot	MFN duties (Applied)	20.00%	20.00%	20.00%	0.00%
Lesotho	Fresh or chilled salad beetroot	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
United Arab Emirates	Fresh or chilled salad beetroot	MFN duties (Applied)	20.00%	20.00%	20.00%	20.00%
Mauritius	Fresh or chilled salad beetroot	MFN duties (Applied)	0.00%	0.00%	0.00%	0.00%
France	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
Qatar	Fresh or chilled salad beetroot	MFN duties (Applied)	0.00%	0.00%	0.00%	0.00%
Mozambique	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
Malawi	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
Namibia	Fresh or chilled salad beetroot	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
Netherlands	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
Seychelles	Fresh or chilled salad beetroot	Preferential tariff for SADC	15.00%	15.00%	0.00%	0.00%

Country	Product description (H07069010)	Trade regime description	Applied tariff	Estimated total ad valorem equivalent tariff	Applied tariff	Estimated total ad valorem equivalent tariff
			2019		2020	
Russian Federation	Fresh or chilled salad beetroot	MFN duties (Applied)	12.00%	12.00%	12.00%	12.00%
Eswatini	Fresh or chilled salad beetroot	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
United Kingdom	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
United States of America	Fresh or chilled salad beetroot	Preferential tariff for AGOA countries	0.00%	0.00%	0.00%	0.00%
Zambia	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%
Zimbabwe	Fresh or chilled salad beetroot	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%

Source: Market Access Map

In 2020, South Africa's beetroot export market was still destined to South African Customs Union (SACU) members (Lesotho, Botswana, Namibia and Eswatini). These countries have commanded 65.9% of South Africa's beetroot export and they apply a 0% Intra SACU rate to beetroot originating from South Africa. Germany has received 5.9% of beetroot export, the Netherlands has accounted for 4.5%, Zambia has recorded 3.7% and Angola received 1.4% of South Africa's beetroot export. Angola is still highly protected by tariffs of 50%, despite the existence of the SADC-FTA. South Africa can look for a beetroot export market in Zambia as it applies a 0% preferential tariff to beetroot originating from South Africa due to SADC-FTA. Malawi, Seychelles and Senegal have increased beetroot imports from South Africa. Malawi. Mozambique applies a 0% tariff, thereby adhering to SADC-FTA. Other lucrative export markets for beetroot from South Africa, is in European markets (Netherlands, France and the United Kingdom) preferential tariff of 0% is applied to beetroot originating from South Africa this is due to the EU – SA Free Trade Agreement (FTA). Senegal has increased beetroot imports from South Africa by 5% in value and 7% in quantity during 2016 and 2020. Malawi imports have increased by 15% in value and 9% in quantity between 2016 and 2020. Malawi applies a 0% preferential tariff whilst Seychelles is protected by a 15% tariff. Senegal has also increased its beetroot imports from the world and its domestic market is protected by a 20% tariff.

3.2 Non-tariff barriers

3.2.1 The European Union

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

Product legislation: quality and marketing

Several pieces of EU legislation govern the quality of produce that may be imported, marketed and sold within the EU.

General Food Law 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 Control Points, of HACCP).

EU Marketing Standards, which govern the quality and labelling of vegetables, are laid out in the CAP framework under regulation EC 2200/96. These regulations include diameter, weight and class specifications, and any product that does not comply with these standards are not allowed to be sold on the EU markets (detailed lists of products and their standards can be found in the annexes to the directive). The legislation (under EU 1148/2001) also dictates that a Certificate of Conformity must be obtained by anyone wishing to export and sell vegetables in the EU if that particular vegetable falls under the jurisdiction of the EU marketing standards, vegetables to be used in further processing needs a Certificate of Industrial Use, whilst another legislative directive covers the Maximum Residue Limits (MRL) of various pesticides allowed.

3.2.1 (b) Product legislation: phytosanitary regulations

The international standard for phytosanitary measures was set up by the International Plant Protection Committee (IPPC) to protect against the 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 crops with harmful organisms from elsewhere in the world.

The crux of the directive is that it authorizes the Plant Protection Services to inspect a large number of vegetable products upon arrival in the EU. This inspection consists of a physical examination of a consignment deemed to have a level of phytosanitary risk, identification of any harmful organisms and certification of the validity of any phytosanitary certificate covering the consignment. If the consignment does not comply with the requirements, it may not enter the EU, although certain organisms can be fumigated at the expense of the exporter.

3.2.1(c) 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 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 reusable packaging, they may be liable for the costs incurred by the importing companies. Wood packaging is subject to phytosanitary controls (see Directive EC 2002/89) and may need to undergo heat treatment, fumigation, etc.

3.2.1. (d) Non-legal market requirements: social and environmental accountability

To access a market, importers must not only comply with the legal requirements set out above but also with market requirements and demands. For the most part, these revolve around quality and the perceptions of European consumers about the environmental, social, health and safety aspects of both the products and the production techniques. Whilst supplying vegetables 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 responsibility is becoming important in the industry, not only amongst consumers but also for retail outlets and wholesalers. The Social Accountability 8000 (SA8000) certification is a management system based on International Labour Organization (ILO) conventions, and deals with issues such as a 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 for accessing any European market successfully. The major retailers in the EU also play an important role in tackling environmental issues, which means that exporters have to take these into account when negotiating exporting arrangements.

(ii) Environmental issues are becoming increasingly important with European consumers. Consumer movements are lobbying against purchasing non-environmental friendly or non-sustainable produce. To this end, both governments and private partners have created standards (such as ISO 14001 and EUREPGAP) and label to ensure produce adhere to particular specifications. Labels are an absolute must for exporters attempting to enter the rapidly expanding organic produce market. The EU Commission has recently adopted and EU label for identifying food produced according to EU organic standards in the directive EEC 209/91

3.2.1 (e) Consumer health and safety requirements

Increasing consumer conscience about health and safety issues has prompted several 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 procedures and working methods), which is certified by the International Standards Organization (ISO).

3.2.2 The United States

The USDA has quality standards for vegetables that provide a basis for domestic and international trade and promote efficiency in marketing and procurement. At the same time, the USDA issues quality certificates based on these standards and a comprehensive grading system. Graders are located around the country at terminal markets. These certification services, which facilitate the ordering and purchasing of products by large-volume buyers, assure these buyers that the product they purchase will meet the terms of the contract in terms of quality, processing, size, packaging and delivery.

3.2.3 Asian Market Access

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 can compete more effectively with outside competition, often on the grounds of higher quality.

Perhaps the biggest barrier to trade with Japan in vegetable 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

4. GENERAL DISTRIBUTION CHANNELS

There are roughly three distinct sales channels for exporting vegetables. One can sell directly to an importer with or without the assistance of an agent (usually larger, more established commercial farms). One can supply a vegetable 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, vegetable combines might also supply large retail chains. One can also be a member of a private or co-operate export organization (including marketing boards) which will find agents or importers and market the produce collectively. Similar to a vegetable combine, an export organization can either supply wholesale markets or retail chains depending on particular circumstances. Export organizations and marketing boards will wash, sort and package the produce.

5. LOGISTICAL ISSUES

5.1 Mode of transport

The transportation of vegetables falls within two categories – ***ocean cargo*** and ***air cargo*** – with ocean cargo taking much longer to reach the desired location but costing considerably less. Of course, the choice of transportation method depends, for the most part, on the fragility of the product and how long it can remain relatively fresh. With the advent of technology and container improvements, the feasibility, cost and attractiveness of sea transportation have improved

considerably. As more developing countries begin to export and supply major developed countries markets, so the number and regularity of maritime routes, and the container vessels travelling these routes, increase.

Presently South American countries like Peru benefit from the asparagus trade, which has led to some level of economies of scale with other vegetable products, and this has enabled cheaper transport prices for their other vegetable varieties. Such economic scale could benefit SADC countries if more producers became exporters and took advantage of the various ports which have special capabilities in handling vegetable produce (for example, the proposed terminal in Maputo). For some products, to reach the destination market with an acceptable degree of freshness, air transport is the only option (asparagus, for example, is flown from Peru to the sufficient to cover the transport costs, and collective agreements between farmers of different commodities with different harvest periods can become particularly important.

5.2 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 (and their pre-cooling capability), onto the actual shipping vessels and their containers, and finally on to the importers and distributors that must clear the produce and transport it to the markets/retail outlets, etc. For every 10^{o}C increase above the recommended temperature, the rate of respiration and ripening of produce can increase twice or even thrice. Related to this are the increasingly important traceability standards, which require an efficiently controlled supply chain and internationally accepted business standards.

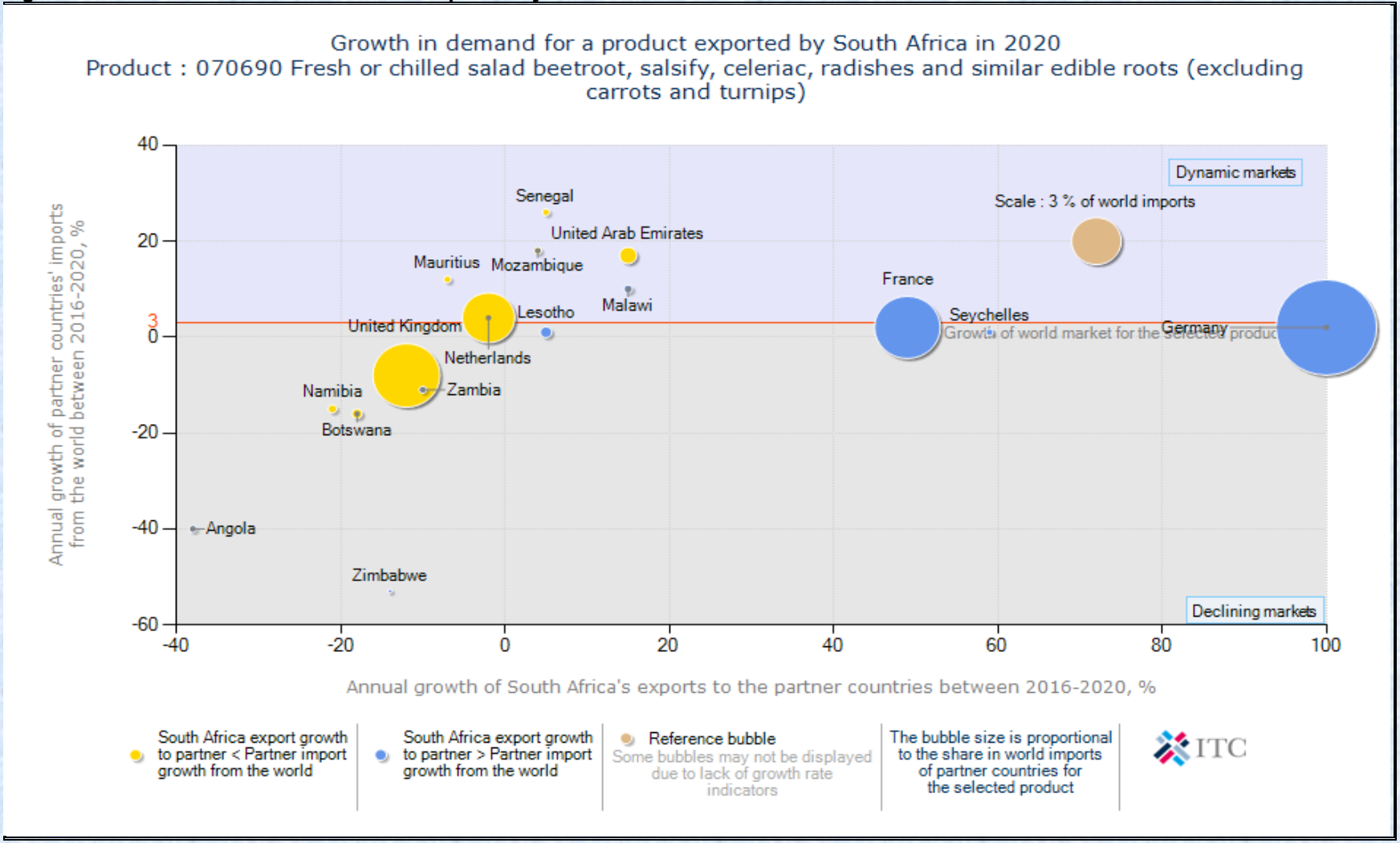
5.3 Packaging

Packaging also plays a vital role in ensuring safe and efficient transport of a product and conforming to handling requirements, uniformity, recyclable materials specifications, phytosanitary requirements, proper storage needs and even attractiveness (for marketing purposes).

6. COMPETITIVENESS OF SOUTH AFRICA BEETROOT EXPORTS

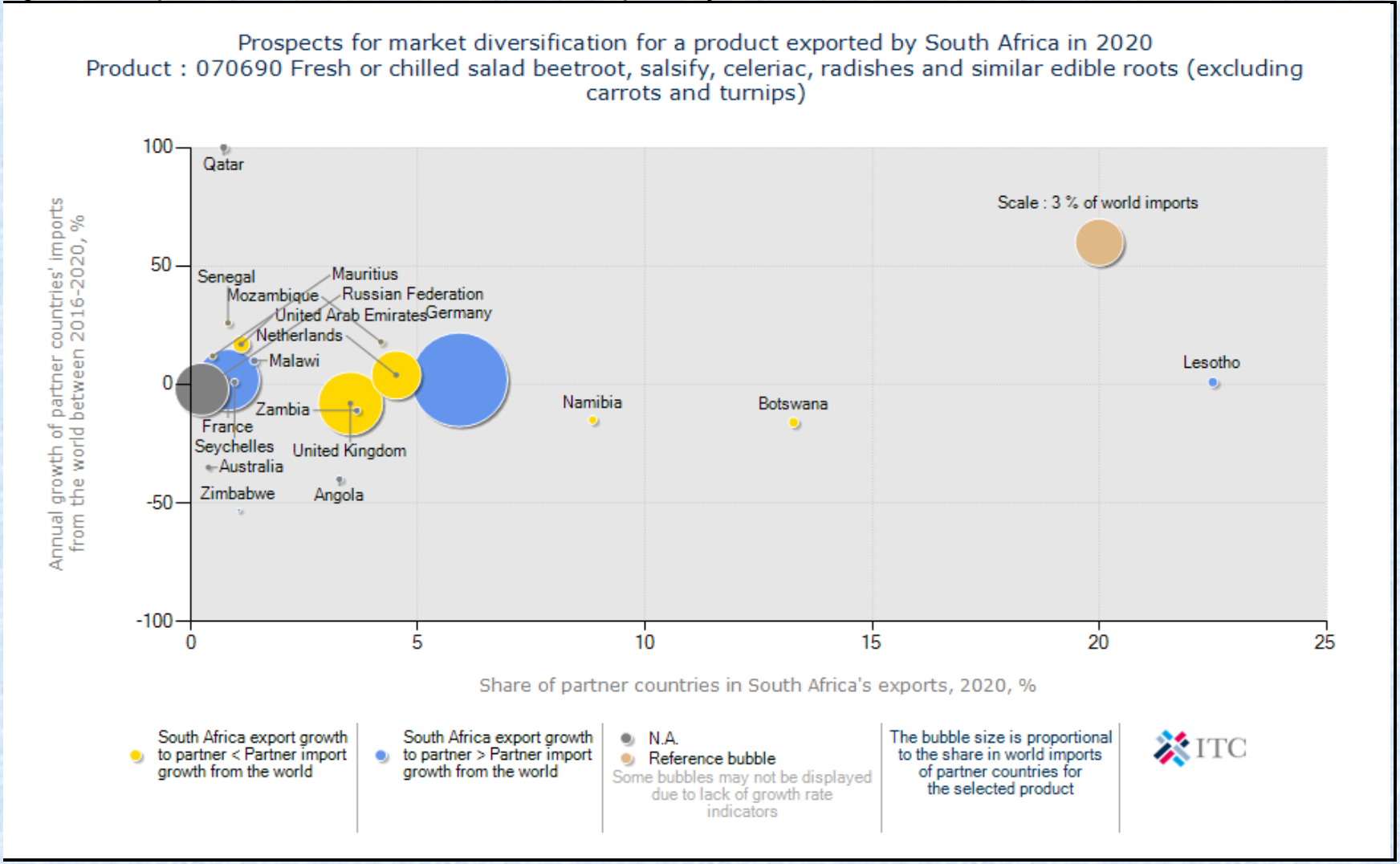
Figure 26 below illustrates that South African beetroot exports to Mauritius, Mozambique, Senegal and the United Arab Emirates are growing faster than the world imports into these countries. South Africa's performance is regarded as a gain in dynamic markets. South African beetroot export to Germany, Seychelles, France, Malawi and Lesotho are growing slower than the world import into these countries. This is regarded as a loss in dynamic markets and South Africa's performance in these countries is regarded as underachievement. South African beetroot exports are declining faster than the world imports into Namibia, the United Kingdom and Botswana. South Africa's exports are growing while the world imports are declining into Zambia, Zimbabwe and Angola. South Africa performance is regarded as a gain in declining markets.

Figure 26: Growth in demand for beetroot exported by South Africa in 2020



Source: ITC Trade Map

Figure 27: Prospects for market diversification for beetroot exported by South Africa in 2020



Source: ITC Trade Map

Figure 27 above shows that during 2020, Lesotho, Botswana and Namibia were the primary export markets for beetroot exports from South Africa. Prospective export markets for beetroot from South Africa are mainly in the United Arab Emirates, Senegal and Mozambique. Other smaller markets exist in Mauritius, Malawi and Seychelles. However, if South Africa is to diversify its beetroot exports the most lucrative markets exist in Qatar has increased its beetroot imports from the world by 279%. Beetroot imports from the world to Australia, Zambia, Zimbabwe, United Kindom and Russian Federation have declined between 2016– 2020 and as a result, these countries have recorded a negative growth rate.

7. ACKNOWLEDGEMENTS

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Quantec Easy Data
www. easydata.co.za

Market Access Map
www.macmap.org
www.trademap.org

www.wikipedia.co.za