A PROFILE OF THE SOUTH AFRICAN LETTUCE MARKET VALUE CHAIN

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TABLE OF CONTENTS

1. DESCRIPTION OF THE INDUSTRY	3
1.1 Production areas	4
1.2 Production Trends	4
1.3 Production vs. Consumption of lettuce	5
2. MARKET STRUCTURE	5
2.1 Domestic Market and prices	5
2.2 South Africa's Lettuce Exports	7
2.3 Share Analysis	18
2.4 South Africa's lettuce imports	21
2.5 Market value chain for lettuce	24
3. MARKET INTELLIGENCE	25
3.1 Tariffs	25
3.2 Non-tariff barriers	27
 3.2.1 The European Union 3.2.1 (a) Product legislation: quality and marketing 3.2.1 (b) Product legislation: phytosanitary regulations 3.2.1 (c) Product legislation: packaging 3.2.1 (d) Non-legal market requirements: social and environmental accountability 3.2.1 (e) Consumer health and safety requirements 3.2.2 The United States 3.2.3 Asian Market Access 4. GENERAL DISTRIBUTION CHANNELS	27 27 28 28 28 28 29 29 29 29 29
5. LOGISTICAL ISSUES	29
5.1 Mode of transport	29
5.2 Cold chain management	30
5.3 Packaging	30
5.4 Storage	31
6. COMPETITIVENESS OF SOUTH AFRICAN LETTUCE EXPORTS	31
7. ACKNOWLEDGEMENTS	34

1. DESCRIPTION OF THE INDUSTRY

The Lettuce (*Lactuca sativa*) is a temperate annual or biennial plant of the daisy family Asteraceae. It is most often grown as a leaf vegetable, but sometimes for its stem and seeds. In many countries, it is typically eaten cold and raw, in salads, hamburgers, tacos, wraps and many other dishes. In South Africa, lettuce has caught vegetable growers' attention since it has become increasingly popular in salads. In some places, including China, lettuce is typically eaten cooked and the use of the stem is as important as the use of the leaf. Mild in flavour, it has been described over the centuries as a cooling counterbalance to other ingredients in a salad. It is a valuable source of vitamin A and folic acid, potassium, and fibre. Despite its beneficial properties, lettuce when contaminated is often a source of bacterial, viral and parasitic outbreaks in humans, including *E.coli and Salmonella*. The dark green leaves provide more nutrition than light green or yellow. As with most vegetable lettuces are marketed through the national fresh produce markets, restaurants and chain stores. In addition to its main use as a leafy green, it has also gathered religious and medicinal significance over centuries of human consumption. Figure 1 below illustrates the contribution of the lettuce industry to the gross value of agricultural production for a decade.



Source: Statistics and Economic Analysis, DALRRD

Figure 1 above illustrates the gross value of lettuce in ten years. The gross value increased by 10% during the 2011 production season and this can be attributed to strong producer prices that occurred in the same production seasons. In 2012, the gross value has increased by 11.4% and this can be attributed to an increase in production output and good producer prices during the same year. As of 2013, there was a slight fall of 4.75% in industry contribution due to a decline in production output and low producer price in the same season. There was a 17% increment in lettuce gross value during 2014, and this can be ascribed to an increase in producer price in the same year. In 2015, lettuce's gross value has risen by 8.8%, which can be attributed to a slight increase in production output and good producer output and good producer price. There was an 11.8% increase in lettuce gross value during 2016 and the increment can be ascribed to an increase in producer

price in the same season. In 2017, lettuce's gross value fell by 5% relative to the 2016 gross value and this can be attributed to lower producer prices that occurred in the same season. As of 2018, lettuce gross value grew slightly by 5% relative to the previous year's gross value (2017), despite a 7% decrement in the lettuce production output. The increment in the gross value can be ascribed to higher producer prices that occurred in the same season. In 2019, South Africa's lettuce gross value has increased by 21% relative to the 2018 gross value. As of 2020, lettuce gross value declined slightly by 5.4% relative to the 2019 gross value and this can be ascribed to a 2.8% decline in domestic production output.

1.1 Production areas

Lettuce is a cool-weather annual crop that is not badly damaged by winter cold and light frosts, although differences in tolerance to cold (or heat) may vary appreciably among cultivars. Heavy frosts will, however, severely scorch the leaves. Lettuce production is concentrated in the Western Cape, KwaZulu-Natal, Mpumalanga, Gauteng, Eastern Cape, Limpopo and North West provinces. Globally, China is still by far the largest producer of cucumber in the world, followed by the United States, India, Spain, Italy and Iran are the top countries producing lettuce.

1.2 Production Trends



Figure 2 illustrates the total production of lettuce nationally over a decade.

Source: Statistics and Economic Analysis, DALRRD

In 2011, production output was just above 35 978 tons and in 2012, production output slightly increased by 0.9% when compared to the previous year. In 2013, production volume dropped further by 0.04%, when compared to the 2012 production output. During 2014, lettuce production output slightly dropped by 0.2% in comparison to the previous year's production. In 2015, production output has increased by 0.9% when compared to 2014 production output. There was a 4.9% drop in lettuce production output during 2016, in comparison to 2015 output. During 2017, lettuce production output dropped slightly by 2.5% relative to

2016 production output. As of 2018, South Africa's lettuce production output decreased slightly by 7% relative to the previous season (2017). When compared to the output in 2019, the level of lettuce production in South Africa has declined by 2.8% as of the year 2020.

1.3 Production vs. Consumption of lettuce

Figure 3 below depicts the local consumption of lettuce compared to the production over 10 years. The figure indicates that the production of lettuce is higher than the consumption. This shows that South Africa is self-sufficient in terms of lettuce production and the surplus is also exported to the other countries. However, the surplus is minimal, which illustrates that South African lettuce production is primarily for the local fresh market. In 2020, South African average lettuce consumption was approximately 30 636 tons per annum. The lettuce consumption has slightly decreased when compared to 31 330 tons recorded in 2019.



Source: Statistics and Economic Analysis, DALRRD

2. MARKET STRUCTURE

There is no regulation or restriction on the market of lettuce. The prices of lettuce are determined by the market forces of demand and supply. Fresh lettuce is sold through fresh produce markets, restaurants, hawkers, retailers and chain stores. A low volume of lettuce is also exported to other countries through export agents and marketing companies. South Africa also imports lettuce from other countries. Lettuce exports decreased slightly by 2.7% during 2020, which can be attested to a 2.8% decline in domestic lettuce production output during the same year. At the same time, there was a notably 22% decrement in lettuce sold through the fresh produce market when compared to the previous year.

2.1 Domestic Market and prices

The distribution of total local lettuce production between NFPMs and exports is presented in Table 1.

Years	National Fresh Produce Markets (Tons)	Exports (Tons)
2011	24 841	1 694
2012	24 352	1 556
2013	25 115	1 066
2014	25 107	1 081
2015	25 255	1 094
2016	23 910	1 087
2017	24 773	990
2018	22 980	1 195
2019	22 020	1 304
2020	21 482	1 013

Table 1: Lettuce sold through different market channels	Ta	abl	е	1:	Let	tuce	sold	through	different	market	channels
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Source: Statistics and Economic Analysis, DALRRD

It can be observed in Table 1 that, the local lettuce producers are highly dependent on the local fresh produce market (NFPMS) for distribution. Approximately 69% of total lettuce output is sold through local fresh produce markets. The proportion exported each year is fairly minimal when compared to local sales.





Figure 4 above illustrates the sales of lettuce in the fresh produce markets over 10 years. Lettuce volumes have been fluctuating over the years and in 2011, a lettuce volume of 24 840 tons was supplied at the market. There was a notable 14.7% increment in market price when compared to the 2011 price. During 2013, lettuce volume supplied in the market increased by 3.1%, which resulted in an 8.3% drop in market

price. In 2014, lettuce volume dropped by 0.03% and this has resulted in a 17.8% increase in market price. There was a 3.7% increment in market price during 2015 despite a 0.6% increase in lettuce volume supplied at the market and this can be attributed to the strong uptake of lettuce during the same year. During 2016, there was a 5.3% drop in lettuce volume supplied across the markets and this has resulted in a notably 23% increment in the market price. There was a 3.6% increment in volume supplied in the market in 2017, and this has negatively impacted the lettuce price by 7.3% relative to the 2016 price. As of 2018, the lettuce volume supplied at the market dropped by 7.2% and as a subsequence, the market price notably increased by 11.7% relative to the previous year (2017). In 2019, there was a 4.2% decline in the sales volume at the fresh produce market and as a subsequent, the market price notably increased by 26.7% relative to the 2018 price. The price of lettuce decreased by 23.8% as of the year 2020, despite a 22% drop in the volume of lettuce that was supplied at the market. This can be attributed to a low level of demand for lettuce in the market.

2.2 South Africa's Lettuce Exports

South Africa is not a major lettuce exporter. In 2020, it still represented 0.1% of world exports and its ranking in the world was number 31 in the world. South Africa has lost its competitiveness as during 2019, it was ranked number 28. South Africa is self-sufficient in terms of lettuce production. Almost 95% of lettuces produced in South Africa are for domestic consumption. In 2020, South African lettuce exports were destined for Namibia, Lesotho, Botswana, Mozambique, Botswana, Eswatini, Zambia and Malawi. In 2019, there was a slight increase in unallocated South Africa's lettuce exports, which were left in ship stores and bunkers. According to ITC (Trade Map), Spain, the United States of America, Netherlands, Mexico, China, Italy, Belgium, Canada, Egypt and Sweden are the top countries exporting lettuce. Egypt is the only African country ranked in the top ten of world lettuce exports. Figure 5 below illustrates South African lettuce export destinations in 2020.



Source: ITC Trademap

Further details relating to the exports of lettuce in 2020 are presented in Table 2.

Table 2 indicates that during 2020, Namibia was still the primary export market for lettuce exports originating from South Africa and it has commanded 33.5% of lettuce exports. Lesotho was in second place and it has registered an 18.2% share of lettuce export, Botswana commanded 16.9%, while Mozambique has commanded 16.3% of South Africa's lettuce exports. Export to Namibia has decreased by 34% in value between the 2019-2020 period. South Africa's lettuce exports to the world have decreased by 33% in value between 2019-2020. Eswatini and Zambia have commanded 5.8% and 4.3% export shares respectively. South African lettuce exports to Botswana have decreased by 1% in value and has increased by 13% in quantity respectively between the 2016-2020 period. Figure 6 depicts South African lettuce exports from 2011 to 2020.

Importer	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	910	910	100	1013	0	1	-33
Namibia	305	305	33.5	395	0	5	-34
Lesotho	166	166	18.2	127	1	0	-7
Botswana	154	154	16.9	146	-1	13	-32
Mozambique	148	148	16.3	228	5	-4	-44
Eswatini	53	53	5.8	46	-6	-14	-30
Zambia	39	39	4.3	39	90	58	-55
Malawi	27	27	3	19	5	-7	17
Mauritius	11	11	1.2	9	17	22	
Seychelles	4	4	0.4	1	253		

Table 2: South African lettuce exports in 2020

Source: ITC Trademap

Figure 6 is an illustration of South Africa's lettuce exports. During 2012, lettuce exports dropped by 8% despite a 0.9% growth in domestic production output. In 2013, South Africa's lettuce export dropped by 31%, when compared to 2012 exports and this can be attributed to a slight decline in domestic production output during the same year. South Africa's lettuce export grew by 1.4%, despite a 0.2% drop in production output in 2014. It appears that it was relatively less profitable to export from 2011 to 2012 since fewer export values were recorded for volumes exported. In 2015, lettuce export has slightly risen by 1.2% in comparison to 2014 export volumes. In 2013 to 2015, it was relatively more profitable to export lettuce since higher export values were recorded for volumes exported. Lettuce exports dropped slightly by 0.6% during 2016, which can be ascribed to a 4.9% decline in domestic lettuce production output during the same year. In 2017, South Africa's lettuce exports have dropped by 9% in comparison to the 2016 export volume and this can be attributed to a 2.5% decrement in domestic production output. During the same year, it was less profitable to export lettuce relative to the 2016 export value. As of 2018, South Africa's lettuce export grew by 20.7% and it was less profitable to export lettuce in comparison to the previous year's value (2017). During 2019, there was a 9% increment in South Africa's lettuce export volume despite a 3.2% decline in the domestic production output. It was also more profitable for South Africa to export

lettuce relative to the 2018 export value. In 2020, lettuce exports declined by 2.7%, which can be attributed to a 2.8% fall in domestic lettuce production output during the same year. At the same time, South Africa's lettuce export had a lesser export value when compared to 2019 exports.



Source: Quantec Easydata

Figure 7 below illustrates South Africa's lettuce exports to the various regions. South Africa exports lettuce mainly to African countries. This can be attributed largely to lettuce being a highly perishable vegetable. From 2011 to 2012, the African region remained the primary recipient of South Africa's lettuce export. In 2013, the African region was still the preferred export market for lettuce originating from South Africa and at the same time, exports to the Americas and Asian region were insignificant. Unallocated volume of export has increased by 19.7% when compared to the 2012 export volume. In 2014, South Africa exported lettuce to Africa and Europe regions, while other regions have recorded zero trade. In 2015, lettuce to the African region expanded, while the exports to Europe dramatically decreased and there were no unallocated exports. In the same year, lettuce exports to the Americas, Asia, and Oceania were trivial. During 2016, African region remained the primary recipient of South Africa lettuce export, followed by Oceania, whilst exports destined to the Europe region were trivial. In 2017, Africa region was still the main export market for lettuce originating from South Africa, export to Asia has notably increased whilst exports to Oceania has experienced a sharp decrement relative to 2016 exports. The values of South African lettuce exports during the past ten years are presented in Figure 8 below. As of 2018, Africa region was still by far the most preferred export market for South Africa's lettuce export and the export volume grew by 21%, Export to Asia has dropped by 37.5% and there was a sharp increase in unallocated lettuce export relative to 2017. In 2019, Africa region was still by far the primary recipient for lettuce originating from South Africa and there was also a notable increase in lettuce volume destined to the European region. As of 2020, African region remained the primary export market for lettuce export from South Africa, export to American region was less significant whilst the unallocated exports grew notably by 36% relative to the 2019 exports.



Source: Quantec Easydata

Figure 8 below illustrates the value of South Africa's lettuce exports to the various regions



Source: Quantec Easydata

Figure 8 shows that the lettuce exported to European countries generally has a higher value than the lettuce exported to African countries. During 2011, it was still more profitable to export lettuce to the European

region followed by African region. In 2012, unallocated exports fetched higher value, followed by African region. During the same year, it was less profitable to export lettuce to the European region when compared to other years. In 2013, unallocated exports had a higher value and it was more profitable to export lettuce to Asian followed by African region. European region continued to be the most profitable market for South Africa's lettuce exports during 2014. At the same time, Africa region also fetched higher values when compared to the 2013 export value. It was more profitable to export lettuce to Africa region during 2015, while exports to Europe were less profitable. In Africa region, it was more profitable to export lettuce during 2016 in comparison to the 2015 export value. During 2017, Europe was by far the most profitable market for exports from South Africa, followed by Asia and Africa was the least profitable market. As of 2018, it was less profitable to export lettuce to Africa, Asia, and European region relative to the 2017 export value. At the same time, there was a notable increment in export value recorded for unallocated exports. In 2019, Europe was still the most profitable export market for lettuce originating from South Africa whilst the lettuce destined for Africa region fetched lower values. As of 2020, it was less profitable to export lettuce to Africa relative to the 2019 export value.



Source: Quantec Easydata

Figure 9 above illustrates lettuce exports destined to Africa region. From 2011 to 2012, significant volumes of lettuce were destined to SACU countries. In 2013 and 2014, there was a notable decline in lettuce destined to SACU region. In 2015, lettuce exports to SADC and SACU countries experienced notable gains. During 2016, SACU and SADC countries continued to be the main recipients of South Africa's lettuce exports. In 2017, SADC and SACU countries were still the primary export market for South Africa's lettuce exports. In 2017, SADC and SACU countries were still the primary export market for South Africa's lettuce exports. In the same year, there was an increase in volume exported to Eastern Africa, Middle Africa and West Africa. As of 2018, SACU (Namibia, Botswana, Lesotho and Eswatini) and SADC countries have remained the primary recipients of South Africa's lettuce export, exports to Middle Africa Rest and West Africa have slightly increased when compared to the 2017 exports volume. In 2019, SACU (Namibia, Botswana and Lesotho) and SADC (Mozambigue and Zambia) countries were still the primary export

markets for South Africa's lettuce exports, there was a slight increment in lettuce destined to West African countries. South Africa's lettuce exports were primarily destined for SACU (Namibia, Botswana, and Lesotho) and SADC (Mozambique and Zambia) countries in 2020, with a sharp decline in lettuce exports to West African countries.



Figure 10 illustrates the value of lettuce export by South African provinces.

Source: Quantec Easydata

Values of lettuce exports by various provinces are illustrated in Figure 10 above. In 2011, Gauteng and Western Cape were the primary exit point for South Africa's lettuce exports. During 2012, the export values have dropped slightly when compared to 2011 export value. In the same year, Mpumalanga and Free State provinces have also contributed to South Africa's lettuce exports. The high export values of Gauteng, Western Cape and KwaZulu-Natal can be attributed to the Durban harbour, OR Tambo International Airport, Cape Town harbour located in these provinces as they serve as exports exist points. During 2013, Free State export value has surged by 84%, which can be attributed to export to neighbouring Lesotho. At the same time KwaZulu Natal, Gauteng and Western Cape export values have dropped. In 2014, North West contributed notably to South Africa's provincial lettuce exports and this can be ascribed to the lettuce export to neighbouring Botswana. At the same time, Free State, Western Cape and Mpumalanga export values have notably increased, which can be attributed to increased exports to Lesotho, Mozambigue and Namibia. In 2015, there was a significant increment in lettuce exports recorded for Gauteng and Mpumalanga province. North West and KwaZulu Natal export values have also increased. A notable high export value for Mpumalanga can be ascribed to an increase in exports to neighbouring Mozambigue. In 2016, Gauteng, Western Cape, Free State and Mpumalanga have notably increased their lettuce export values. High export value for Mpumalanga can be ascribed to a 35% increase in the quantity of lettuce

destined for Mozambique and a 30% increase in the quantity of lettuce destined for Swaziland. In 2017, Gauteng and Western Cape have remained the primary exit points for South Africa lettuce export however, the export values have dropped by 28% and 6% respectively. At the same time, Mpumalanga, Limpopo and Free State export values have notably dropped, whilst North West export value has experienced a significant increment relative to 2016 export values. As of 2018, Western Cape and Gauteng provinces were still by far the main exit points for South Africa's lettuce exports. The export value from Western Cape and Gauteng provinces have increased by 16% and 15% respectively. In the same year, notable export values were also recorded for Mpumalanga, Free State, KwaZulu Natal and North West. In 2019, Western Cape and Gauteng were still by far the primary exit points for South Africa's lettuce exports and the export values grew by 29% and 25% respectively. During the same period, Limpopo and Free State have also contributed notably to South Africa's lettuce exports. In 2020, the Western Cape and Gauteng remained by far the leading exit points for South Africa's lettuce exports, but the export value declined by 19% and 32%, respectively. In the same year, there was a surge in Eastern Cape, Free State, KwaZulu Natal and Mpumalanga lettuce export values. The following figures (Figures 11-15) show the value of lettuce exports from the various districts in the provinces of South Africa.



Values of lettuce exports from the Western Cape province are presented in Figure 11.

Figure 11 above indicates the lettuce exports from Western Cape province. In 2011, City of Cape Town was the primary exit point for Western Cape provincial lettuce export, Cape Winelands and Eden exports values were less significant. During 2012, export value for the City of Cape Town has dropped by 28.9% when compared to the previous year. In 2013, Eden export value was insignificant, while the City of Cape Town export value has significantly dropped. In the year 2014, City of Cape Town export value was higher when compared to 2013. During 2015, City of Cape Town has continued to contribute significantly to Western Cape lettuce exports. However, the export value has slightly dropped by 3% in comparison to the previous season. In the same year, Cape Winelands export value has also increased. In 2016, City of Cape Town continued to lead in Western Cape lettuce export. Cape Winelands and Eden also recorded notable

Source: Quantec Easydata

increases in lettuce export values. During 2017, City of Cape Town was still the primary exit point for Western Cape lettuce export, but the export value has declined by 10% relative to 2016. In the same year, Cape Winelands lettuce export value has surged when compared to the 2016 export value. As of 2018, City of Cape Town was still the preferred exit point for lettuce exports and value increased by 15% and this can be ascribed to a 40% increment in the export value of lettuce destined to neighbouring Namibia. At the same time, Cape Winelands export value has sharply increased by 68% relative to the 2017 value, whilst Eden district has recorded a trivial export value. During 2019, City of Cape Town export value increased notably by 29% and Cape Winelands export value grew slightly by 3% relative to 2018 export value. As of 2020, City of Cape Town was still the primary exit point for Western Cape lettuce export however the export value declined by 16% relative to the 2019 export value.



Source: Quantec Easydata

Figure 12 above illustrates that lettuce exports from Gauteng province were mainly from the City of Johannesburg. In 2011, City of Johannesburg and Ekurhuleni were the primary exit point for Gauteng lettuce export. During 2012, Ekurhuleni and City of Johannesburg continued to be major role players in lettuce exports from Gauteng even though their export values have decreased. In the same year, export value for City of Tshwane export value has significantly increased when compared to the previous year. In 2013, City of Johannesburg continued to contribute significantly to Gauteng lettuce export, but the value has gone down by 8% when compared to the 2012 export value. At the same time, City of Tshwane export values have decrease an exit point for exports from these municipalities. In 2014, City of Johannesburg export value has gone down by 53.7%, while Ekurhuleni and City of Tshwane export values were higher compared to the 2013 values. In the same year West Rand has contributed notably to Gauteng lettuce exports. There was a dramatic increment in the City of Johannesburg and Ekurhuleni export values, while West Rand and City of Tshwane export values have slightly dropped. There were notable increments in Ekurhuleni, City of Tshwane and West Rand lettuce export values during 2016, whilst City of Johannesburg lettuce export value has dropped by 14% when compared to 2015 export value. In 2017, City of Johannesburg and Ekurhuleni were still the primary exit

points for Gauteng lettuce export, however, the export values have declined by 29% and 26% respectively. City of Tshwane and West Rand export values have also experienced notable decrements during the same period. As of 2018, City of Johannesburg was still the main exit point for lettuce exports and the export value surged by 62%, City of Tshwane export value increased sharply by 34%, West Rand export value grew by 6.9% whilst Ekurhuleni export value has declined by 5% relative to 2017 export values. During 2019, City of Johannesburg export value eased higher by 37%, City of Tshwane export value increased sharply by 68%, whilst Ekurhuleni and West Rand have experienced 3% and 5% decrements in export values. In 2020, Ekurhuleni's export value fell by 43.3%, City of Johannesburg's export value dropped by 32% and City of Tshwane lettuce export value declined by 20% to 2019.



Source: Quantec Easydata

Figure 13 above indicates that lettuce exports from KwaZulu-Natal Province, Ethekwini district municipality was the primary exit point. During 2012, there was a 213% increase in value of exports recorded for Ethekwini district. In 2013, the export value for Ethekwini has dropped by 22%, when compared to the 2012 export value. During 2014, KwaZulu Natal continued to export lettuce through Ethekwini municipality but the export value has dropped further by 98% in comparison to the 2013 export value. Durban harbour serves as an exit point for exports from Ethekwini municipality. During 2015, Ethekwini export value was trivial, in comparison to the export values of other years. In 2016, the lettuce export value dropped further by 8.7%, when compared to the previous year export value. During 2017, Ethekwini was still the primary exit point for KwaZulu Natal lettuce export, Zululand has recorded a trivial export value. In 2018, Ethekwini export value was incomparably higher compared to the previous year (2017), Zululand and Uthungulu lettuce export values have notably increased when compared to 2017 export value. During 2019, Zululand was the primary exit point for KwaZulu provincial lettuce exports and Ethekwini export value was significantly lower relative to the 2018 export value. Ethikwini was the main exit point for KwaZulu provincial lettuce exports in 2020, and the export value was significantly larger than the 2019 export value.

Figure 14 below illustrates that lettuce exports from the Free State province were mainly from Xhariep district municipality. In 2011, the province has registered zero trade of lettuce. During 2012 and 2013, Free State exported lettuce through Xhariep district. In 2014, Thabo Mofutsanyane municipality significantly contributed to Free State lettuce export for the first time in ten years. This can be attributed to lettuce exports to neighbouring Lesotho. At the same time, Xhariep export value has drastically increased while Mangaung and Fezile Dabi export values were less significant. During 2015, Free State has exported lettuce through Xhariep, Thabo Mofutsanyane, Lejweleputswa, Mangaung and Fezile Dabi. Thabo Mofutsanyane has recorded a higher value while Fezile Dabi and Mangaung export values were insignificant. In 2016, Fezile Dabi lettuce export value was incomparably higher, when compared to 2014 value, Mangaung export value increased by 9.8%, whilst Xhariep, Lejweleputswa and Thabo Mofutsanyane have experienced decrements in lettuce export values. During 2017, Xhariep was still the preferred exit point for Free State lettuce export and the export value grew by 57%, Lejweleputswa export value surged by 60%, whereas Thabo Mofutsanyane export value has gone down by 34% relative to the 2016 value. As of 2018, Xhariep lettuce export value sharply dropped by 39.4%, Lejweleputswa export value grew by 26% and Thabo Mofutsanyane export value declined marginally by 54% relative to 2017 lettuce export value. During 2019, Xhariep was the primary exit point for Free State provincial lettuce export and the export value surged by 71%. In the same year, Thabo Mofutsanyane export value was incomparably higher relative to the 2018 export value whilst Mangaung export declined sharply by 67%. As of 2020, Thabo Mofutsanyane was the main contributor to Free State provincial lettuce export. At the same time, there were notable declines in Xhariep, Lejweleputswa and Mangaung lettuce export values.



Source: Quantec Easydata

Figure 15 below indicates that lettuce exports from the Mpumalanga province were from Ehlanzeni district municipality. In 2011, Mpumalanga has recorded a zero trade for lettuce. In 2012 and 2013, lettuce export value has notably increased and the notably higher export value was recorded during 2014. During 2015, Ehlanzeni export value has substantially increased, while Gert Sibande has contributed for the first time to Mpumalanga lettuce export. In 2016, Ehlanzeni lettuce export value surged by 83%, in comparison to 2015 export value whilst Gert Sibande has drastically dropped. There was a sharp decline of 48% in Ehlanzeni

export value compared to the 2016 export value. As of 2018, Ehlanzeni was the sole exit point for Mpumalanga lettuce export and the export value rose marginally by 37% relative to the previous year (2017) export value. During 2019, Ehlanzeni was still the main role player in Mpumalanga provincial lettuce exports, however, the export value declined sharply by 52% when compared to the 2018 export value. Ehlanzeni's lettuce export value in 2020 was significantly greater than the value of the lettuce exported in 2019.



Source: Quantec Easydata

Figure 16 below illustrates the value of Limpopo provincial lettuce exports.

	Figure 15: Value of lettuce exports by Limpopo Province														
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Allee (Kand) 250000 200000 150000															
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000021 A															
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50000										-					
Years ⁰	2014	2042	2042	2044	2045	2040	2047	2040	2010	2020					
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020					
Vhembe	14155	12302	7216	0	0	0	0	0	0	690					
Capricorn	0	0	0	0	644	84	0	0	0	0					
Waterberg	0	0	0	3789	0	743	710	2333	2497	0					
Greater Sekhukhune	0	0	0	0	0	0	0	0	319602	0					

Source: Quantec Easydata

Figure 16 above indicates the lettuce exports from Limpopo province. During 2011, Limpopo lettuce export was sourced from Vhembe district. In 2012, the export value for Vhembe district has dropped by 15% when and during 2013, Vhembe export value has dropped further by 41%, when compared to the previous year (2012) export value. During 2014, Limpopo lettuce was exported through Waterberg district, but the export values were less significant. Limpopo has exported lettuce through Capricorn district, but the export value was insignificant. In 2015 and 2016, Limpopo lettuce exports were sourced from Capricorn and Waterberg districts, however the registered export values were trivial. During 2017, Limpopo lettuce was exported solely through Waterberg district but the export value was insignificant. In 2018, Waterberg was still the primary exit point for Limpopo provincial lettuce export and the value of export has substantially increased relative to 2017. As of 2019, Greater Sekhukhune has contributed significantly to Limpopo provincial lettuce export was recorded for Vhembe district however, the export value was less significant.

2.3 Share Analysis

Table 3 below illustrates the provincial shares towards national lettuce exports. In 2011, Gauteng has commanded 85.46% and Western Cape has commended 13.35% share of South Africa lettuce exports. During 2012, Western Cape export share dropped to 9.76%, while the Gauteng export has commanded an 84.92% share. In 2013, Western Cape export share dropped further to 7.03% and Gauteng export share has increased to 88.65%. In the same year, Free State has increased its export share from 0.40% to 1.19%. Western Cape export share has notably increased from 7.03% to 47.29%, whereas Gauteng export share has dropped to 50.27% and Free State export share has gone up to 1.83%. During 2015, Western Cape export share has slightly dropped to 44.28%, whereas Gauteng export share has increased to 51.58% and Mpumalanga export share has gone up to 2.25%. In 2016, Gauteng has continued to lead South Africa's lettuce export share however, the export share dropped slightly to 48.61%, Western Cape lettuce export increased to 46.45% and Mpumalanga has registered a 3.29% share of lettuce exports. During 2017, Western Cape export share has slightly increased to 53.20%. Gauteng export share dropped to 42.69% and other provinces has commanded insignificant export shares. As of 2018, Gauteng lettuce export share increased slightly to 43.54%, Western Cape export share dropped to 52.54%, and export shares recorded for other provinces were trivial. In 2019, Western Cape was still in the lead in South Africa's lettuce export share and it has commanded 52.56% and Gauteng has commanded a 43.50% share. In the same year, Limpopo's export share grew to 1.65%, Free State commanded 1.17% and Northern Cape contributed for the first time in ten years however, the export share was insignificant. As of 2020, the Western Cape still had a 55.37% of South Africa's lettuce exports, Mpumalanga registered while Gauteng held 38.65%.

Table 5. Share of Provincial lettuce exports to the total South Anican lettuce exports (%)												
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
Province												
Western Cape	13.35	9.76	7.03	47 <mark>.2</mark> 9	44.28	46.45	53.20	52.54	52.56	55.37		
Eastern Cape	0	0	0	0	0	0	0	0	0	0.02		
Northern Cape	0	0	0	0	0	0	0	0	0.03	0		
Free State	0	0.40	1.19	1.83	1.80	1.57	1.72	1.06	1.17	0.50		
KwaZulu-Natal	1.09	4.54	2.62	0.04	0.05	0.04	0.05	0.16	0.06	1.90		
Gauteng	85.46	84.92	88.65	50.27	51.58	48.61	42.69	43.54	43.50	38.65		
Mpumalanga	0	0.28	0.43	0.54	2.25	3.29	2.07	2.46	0.92	3.28		

Table 3: Share of Provincial lettuce exports to the total South African lettuce exports (%)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Province										
North West	0	0	0	0	0.04	0.03	0.26	0.23	0.10	0.28
Limpopo	0.09	0.11	0.07	0.03	0	0.01	0.01	0.02	1.65	0
RSA	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

Table 4 below shows that the City of Cape Town district's municipality commanded greatest share of lettuce exports from the Western Cape province. During 2011, City of Cape Town has commanded a 97.22% share of Western Cape lettuce export share and Eden registered an insignificant share of lettuce exports. In 2012, City of Cape Town has commanded 100% share of lettuce exports from Western Cape Province. The City of Cape Town continued to contribute significantly to Western Cape lettuce export and during 2013, this municipality has commanded 99.52% export share. During 2014, City of Cape Town has commanded 100% share of Western Cape lettuce exports. In 2015, City of Cape Town export share has slightly dropped to 99.66% and Cape Winelands export share was trivial. During 2016, City of Cape Town continued to lead in Western Cape lettuce export share by commanding 99.62%. In 2017, there was a slight decrement from 99.62% to 95.97% in City of Cape Town lettuce export share whilst Cape Winelands export share has increased to 4.03%. As of 2018, City of Cape, was still in the lead in Western Cape lettuce export share and it has registered 94.16%, Cape Winelands export value has increased slightly to 5.80% and Eden has commanded a trivial export share. During 2019, City of Cape Town has registered a 95.38% share of Western Cape lettuce export share and Cape Winelands commanded a 4.62% share. As of 2020, City of Cape Town export share grew to 99.14% whereas Cape Winelands export share declined to 0.77% relative to the 2019 share.

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
City of Cape Town	97.22	100	99.52	100	99.66	99.62	95.97	94.16	95.38	99.14
Cape Winelands	0	0	0	0	0.34	0.35	4.03	5.80	4.62	0.77
Eden	2.78	0	0.48	0	0	0.04	0	0.04	0	0.09
Western Cape	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

Table 5 below illustrates that the City of Johannesburg commanded the greatest share of exports from the Gauteng province. In 2011, City of Johannesburg has commanded 97.63%, whereas City of Tshwane has recorded a 2.02% share of lettuce exports. During 2012, City of Tshwane export share increased to 3.67% and Ekurhuleni export share was insignificant. In 2013, City of Johannesburg has recorded a 95.64% share, while Ekurhuleni's export share has gone up from 0.47% to 1.74%. During 2014, Ekurhuleni export share has notably increased to 19.90%, whereas City of Johannesburg export share has dropped to 58.17% share. In the same year, West Rand has recorded 12.53% of Gauteng lettuce export share. City of Johannesburg has continued to lead in Gauteng lettuce export share and in 2015, it has recorded a 58.28% share. Ekurhuleni has commanded 24.92%, whereas West Rand export share has slightly dropped to 8.30%. During 2016, City of Johannesburg export share dropped to 45.20%, Ekurhuleni export share

increased to 33.64% and City of Tshwane export share has gone up to 13.11%. In 2017, City of Johannesburg export value has slightly gone up to 46.47%, City of Tshwane export share rose from 13.11% to 17.23%, whereas West Rand export share declined from 8.06% to 3.02%. OR Tambo International Airport serves as an export exit point from these municipalities. As of 2018, City of Johannesburg export share has increased from 46.47% to 61.97% share, Ekurhuleni and City of Tshwane export shares have dropped to 26.01% and 9.35% respectively. During 2019, City of Johannesburg has commanded 66.28%, Ekurhuleni export share declined to 19.51% and City of Tshwane exports share grew to 12.25% share. In 2020, the City of Johannesburg has a 66.47% export share, Ekurhuleni export declined by 16.32%, and the City of Tshwane commanded a 14.33% share.

Table J. Offare of u			por to to	the tota	Ouutor	ig prom		ade exp		
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
West Rand	0	0	0	12.53	8.30	8.06	3.02	2.67	1.96	2.88
Ekurhuleni	0.34	0.47	1.74	19.90	24.92	33.64	33.28	26.01	19.51	16.32
City of		T IL-I								
Johannesburg	97.63	95.86	95.64	58.17	58.28	45.20	46.47	61.97	66.28	66.47
City of Tshwane	2.02	3.67	2.61	9.40	8.50	13.11	17.23	9.35	12.25	14.33
Gauteng	100	100	100	100	100	100	100	100	100	100

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

Source: Calculated from Quantec Easydata

In 2011, the province has recorded a zero trade for lettuce (see Table 6). In 2012 and 2013, Xhariep district municipality has commanded a 100% share of lettuce exports from Free State province. In 2014, Xhariep export share has dropped to 76.86%. Thabo Mofutsanyane has recorded a 19.54% share of lettuce exports from Free State province. In the same year, Fezile Dabi and Mangaung districts has recorded 0.95% and 2.65% of Free State provincial lettuce export respectively. In 2015, Lejweleputswa has commanded an 11.39% export share, Thabo Mofutsanyane has recorded a 29.56% share, while Xhariep export share has decreased to 53.85%. During 2016, Xhariep's export share dropped to 35.48%, Fezile Dabi's export share increased notably its export share to 32.69%, Thabo Mofutsanyane's lettuce export share has notably dropped to 19.43%. In 2017, Xhariep export share has drastically increased from 35.4% to 62.41%, Lejweleputswa export share grew to 16.89%, whilst Fezile Dabi export share has dropped from 32.69% to 0%. As of 2018, Xhariep export share has dropped to 51.43%, Leiweleputswa export share grew to 29.05%, Thabo Mofutsanyane export share slightly dropped to 8.96% and Mangaung export share increased to 10.56% relative to the 2017 share. During 2019, Xhariep has commanded the greatest share of 61.99%, Thabo Mofutsanyane export share grew to 20.71% while, Lejweleputswa export share declined to 14.88% share. As of 2020. Thabo Mofutsanyane export share grew further to 57.98%, Xhariep lettuce export share declined sharply from 61.99% to 27.27% and Lejweleputswa has registered a 13.60% share.

Table 6: Share of District lettuce ex	ports to the total Free State	provincial lettuce exports (%)

Table 0. Share of District lettuce exports to the total Tree State provincial lettuce exports (78)											
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
District											
Xhariep	0	100	100	76.86	53.85	35.48	62.41	51.43	61.99	27.27	
Lejweleputswa	0	0	0	0	11.39	9.39	16.89	29.05	14.88	13.60	

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
Thabo Mofutsanyane	0	0	0	<u>19.54</u>	29.56	19.43	14.34	8.96	20.71	57.98
Fezile Dabi	0	0	0	0.95	2.38	32.69	0	0	0	0.00
Mangaung	0	0	0	2.65	2.82	3.02	6.36	10.56	2.43	1.14
Free State	0	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

Table 7 above illustrates that from 2011 to 2013, Vhembe district has recorded a 100% share of lettuce exports from Limpopo province. During 2014, Waterberg district commanded a 100% share of lettuce exports from Limpopo province. Capricorn district has recorded the greatest share of 100% of Limpopo provincial exports. In 2016, Waterberg commanded 89.84% share, while Capricorn export share dropped from 100% to 10.16% share. During 2017, Waterberg district has commanded a 100% share of Limpopo lettuce exports. As of 2018, Waterberg has commanded a 100% share of Limpopo provincial exports. During 2019, Greater Sekhukhune has commanded the highest share of 99.22% and Waterberg export share declined sharply from 100% to a trivial share of 0.78%. As of 2020, Vhembe district has registered a 100% share of Limpopo lettuce export.

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
Vhembe	100	100	100	0	0	0	0	0	0	100
Capricorn	0	0	0	0	100	10.16	0	0	0	0
Waterberg	0	0	0	100	0	89.84	100	100	0.78	0
Greater Sekhukhune	0	0	0	0	0	0	0	0	99.22	0
Limpopo	100	100	100	100	100	100	100	100	100	100

Table 7: Share of district lettuce exports to the total Limpopo provincial lettuce exports (%)

Source: Calculated from Quantec Easydata

2.4 South Africa's lettuce imports

South Africa is not a major lettuce importer. In 2020, it still represented 0% of world imports and lettuce was not ranked. Globally, Germany, the United States of America, Canada, United Kingdom, Italy, Poland, France and Sweden were the top countries importing lettuce during 2020.Figure 17 below shows South Africa's lettuce imports during ten years. In 2012, lettuce imports were incomparably higher, despite a slight increase in domestic lettuce production. It was more expensive to import lettuce during 2012 when compared to 2011 imports. During 2013, South Africa's lettuce import dropped by 68.4%, despite a slight decline of 0.04% in the domestic output and it was also more expensive to import lettuce during the same year. In 2014, South Africa imports dropped further by 52.9% in comparison to 2013 import value and it was also cheaper to import lettuce. South Africa lettuce imports were incomparably higher during 2015, despite a slight increase in the domestic production output. In the same year, it was relatively cheaper to import lettuce compared to 2014. South African lettuce imports dropped significantly by 70% during 2016, in comparison to 2015 import volume. During 2017, South Africa's lettuce imports grew by 15.6% relative to 2016 imports and this can be ascribed to a 2.5% decrement in the domestic production output. As of

2018, South Africa's lettuce imports volume sharply dropped by 95% and it was relatively more expensive to import lettuce relative to 2017 imports. South Africa's lettuce imports declined notably 29% when comparing 2019 and 2018 import volumes and were also relatively much cheaper to import lettuce. Despite a 2.8% fall in domestic production output, South Africa's lettuce imports were insignificant in 2020.



Source: Quantec Easydata



Figure 17 below is an illustration of lettuce imports from the regions.

Source: Quantec Easydata

Figure 18 above shows South Africa's lettuce imports by the regions. During 2011, South Africa imported lettuce from African region (Kenya) and the Americas region (United States of America). During 2012, South Africa continued to source high volumes of lettuce from the African region (Kenya) and the volume was incomparably higher when compared to the 2011 imports. In the same year, South Africa also imported a small volume of lettuce from the European region (Belgium) and a notable volume of imports was not allocated to any region. In 2013, South Africa imported lettuce solely from African region (Kenya and Swaziland). During 2014, South Africa sourced lettuce imports from Africa region and the import has gone down by 53.5% when compared to 2013 imports. In 2015, Lettuce imports from Africa region (Swaziland) have notably increased. During 2016, Africa (Egypt) region was the only supplier of South Africa lettuce imports. In 2017, Africa region (Swaziland) was still the sole supplier of South Africa's lettuce imports. As of 2018, Africa region has remained the primary supplier of South Africa's lettuce imports from Europe was trivial. In 2019, Africa region (Namibia) was the sole supplier of South Africa's lettuce imports. During 2020, South Africa has sourced lettuce solely from Africa region, however the import volume was insignificant.



Source: Quantec Easydata

Figure 19 above illustrates the value of South Africa's lettuce from the region from 2011 to 2020. In 2011, it was more expensive to import lettuce from the Americas region and the imports from African region were much cheaper. During 2012, it was more expensive to import lettuce from the African region and it was cheaper to import from the European region. It was more expensive to import lettuce from the African region during 2013 when compared to 2012 imports. In 2014, lettuce imports were cheaper when compared to 2012 imports. In 2014, lettuce during 2015 in comparison to the previous year imports. During 2016, it was relatively more expensive to import lettuce, in comparison to 2016 lettuce imports from Africa region. As of 2018, it was relatively more expensive to import lettuce relative to 2017 imports from the same region. In 2019, South Africa's lettuce imports from Africa region was relatively cheaper when compared with the 2018 import value from the same region. As of 2020, South Africa's lettuce import value was trivial.

2.5 Market value chain for lettuce

The market value chain for lettuce is presented in Figure 20. The lettuce value chain can be broken down into the following levels: the producer of lettuce (farmers), pack house owner (cleans, grade and quality control); cold storage and transport facilities (store and transport lettuce on behalf of the farmers); traders in lettuce (market and sell lettuce); and consumers.



Figure 20: Market value chain for lettuce

3. MARKET INTELLIGENCE

3.1 Tariffs

Tariffs applied by the various markets for lettuce originating from South Africa during 2019 and 2020 are presented in Table 9.

Country	Product Description(H070511)	Trade Regime description	Applied Tariff	Estimated total ad valorem equivalent tariff	Applied Tariff	Estimated total ad valorem equivalent tariff
			2019		2020	
Angola	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	50.00%	50.00%	50.00%	50.00%
Botswana	Lettuce (Head Lettuce Fresh or chilled	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
Canada	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	16.57\$/Ton	16.50%	16.57\$/Ton	16.50%
China	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	10.00%	10.00%	10.00 <mark>%</mark>	10.00%
DRC	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	10.00%	10.00%	10.00%	10.00%
Uganda	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	25.00%	25.00%	25.00%	25.00%
France	Lettuce (Head Lettuce Fresh or chilled	Preferential Tariffs for South Africa	0.00%	0.00%	0.00%	0.00%
Nigeria	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	20.00%	20.00%	20.00%	20.00%
India	Lettuce (Head Lettuce Fresh or chilled	MFN duties Applied	30.00%	30.00%	30.00%	30.00%
Lesotho	Lettuce (Head Lettuce Fresh or chilled	Intra SACU rate	0.00%	0.00%	0.00%	0.00%

Table 9: Tariffs applied by various export markets to lettuce from South Africa

	Product	Trade Regime	Applied	Estimated total ad valorem equivalent	Applied	Estimated total ad valorem equivalent
Country	Description(H070511)	description	Tariff	tariff	Tariff	tariff
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South				
Malawi	chilled	Africa	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or					
Mauritius	chilled	MFN duties Applied	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or					
Mozambique	chilled	Preferential Tariffs for SADC	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or					
Namibia	chilled	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South			1-1000	
Netherlands	chilled	Africa	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South				
Poland	chilled	Africa, EPA EU-SADC	0.00%	0.00%	0.00%	0.00%
United Arab	Lettuce (Head Lettuce Fresh or				1.00	
Emirates	chilled	MFN duties Applied	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for SADC		1.00		1 1 1 1 1 1
Seychelles	chilled	countries	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or			Party Internet	1.4.3	
Swaziland	chilled	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South				
Tanzania	chilled	Africa	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South				
United Kingdom	chilled	Africa	0.00%	0.00%	0.00%	0.00%
United States of	Lettuce (Head Lettuce Fresh or					
America	chilled	Preferential Tariffs for AGOA	0.00%	0.00%	0.00%	0.00%
100 million -	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South			11/10	
Zambia	chilled	Africa	0.00%	0.00%	0.00%	0.00%
	Lettuce (Head Lettuce Fresh or	Preferential Tariffs for South				
Zimbabwe	chilled	Africa	0.00%	0.00%	0.00%	0.00%

Source: Market Access Map

In 2020, Namibia, Lesotho, Botswana and Mozambique were the preferred markets for lettuce originating from South Africa. These markets (Namibia, Lesotho and Botswana) account for 68.6% of lettuce exports and they apply a 0% Intra SACU rate to lettuce exports originating from South Africa. Other African markets are Angola, Malawi and Mozambique. In 2019, Angola is still protected by a high tariff of 50%, and Mozambique and Malawi apply a 0% preferential tariff. Angola market applies high tariffs despite the existence of the SADC-FTA. Zimbabwe and Zambia also apply a 0% preferential tariff to lettuce originating from South Africa, thereby complying with SADC-FTA. The lucrative export markets for lettuce from South Africa are Poland, Seychelles and France since they apply 0.00% preferential tariffs to lettuce originating from South Africa due to EU-SADC Free Trade Agreement. China and India are top lettuce producers and their markets are still protected by a 10% and 30% tariff respectively.

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.

3.2.1 (a) Product legislation: quality and marketing

There are a number of pieces of EU legislation that 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 produce 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 attempt 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 downs 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 packaging which is reusable, 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 requirement s 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 successful. 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 labels 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 a number of safety initiatives in Europe, such as EUREPGAP on good agricultural practices (GAP) by the main European retailers, the international management system of HACCP, which is independently certified and required by legislation for European producers as well as food imported into Europe (EC 852/2004), and the ISO 9000 management standards system (for 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 Cooperation and Development (OECD) estimating that almost 60% of the value of Japan's farm production comes from trade barriers or domestic subsidies. Japan uses tariff rate quotas (TRQ) to protect its most sensitive products, and reserves the right for trading many of these products (within the quota) for one or two state trading enterprises. However, these extremely protective measures apply only to some products; others are able to compete more effectively with outside competition, often on the grounds of higher quality.

Perhaps the biggest barrier to trade with Japan in 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/orchards). 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 produce 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 of 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, in order 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.

Transportation of lettuce to the market, travelling should preferably be done in the evening (lower temperatures) and the crop must be protected from the drying breezes caused by movement.

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°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. At home, store lettuce in a plastic bag in the refrigerator crisper. Iceberg lettuce should be cored, rinsed lightly and drained thoroughly before storing. Lettuce should keep in the refrigerator from two to five days or more.

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).

5.3.1 Packaging of lettuce - It is most important to grade the heads by size, with each size grouping being packed separately. The crop is usually packed in either 2 or, occasionally, 4 layered crates or cartons. The lowest layer is packed with the cut ends down; the next with the cut ends facing up, and so on. This result in the butt ends facing outwards, with the heads being better protected. Care must be taken in packing not to damage the wrapper leaves, as this detracts from the appearance of the consignment, and can result in lower prices. In KZN, lettuce is often packed into either the lids or bases of banana boxes, where a count of 12 - two layers of six - is ideal. It is advisable not to harvest directly after rain, or while the plants are still wet, because leaves that have absorbed much water are particularly crisp and brittle, and thus break easily. Wet foliage is also more likely to commence rotting in transit. Lettuce is highly perishable and wilts easily under hot or windy conditions.

5.4 Storage

Lettuce is a delicate vegetable and great care should be taken when selecting and storing. Most lettuce is showcased on ice or in refrigeration. When selecting your leaves, be sure that they are fresh and crisp, with no signs of wilting, slim, or dark spots or edges. Remember when selecting your lettuce that the darker outer leaves are the most nutritious. Lettuce tends to keep well in plastic bags in the crisper section of the refrigerator. Iceberg lettuce keeps the best, lasting around two weeks, while Romaine, ten days, and butter heads types and endives lasts approximately four days. The very delicate greens don't last very long, so it's best to buy only as much as you need at one time and use immediately.

Salad greens should not be stored near fruits that produce ethylene gases (like apples) as this will increase brown spots on the lettuce leaves and increase spoilage. Greens that are bought in bunches should be checked for insects. Those leaves that have roots should be placed in a glass of water with a bag over the leaves and then placed in the refrigerator.

6. COMPETITIVENESS OF SOUTH AFRICAN LETTUCE EXPORTS

Figure 21 below shows that South Africa's lettuce exports in Zambia, Botswana, Tanzania and Malawi are growing slower than the world imports into these countries. South Africa's performance in these countries can be regarded as a loss in the dynamic market. South Africa's lettuce exports to Angola and Mozambique are declining faster than the world imports into these countries. South Africa's lettuce exports are growing into Seychelles, Lesotho, Namibia and Mauritius while world imports are declining in these countries.

Figure 22 below shows the prospective export markets for lettuce from South Africa. In 2020, Namibia held bigger market shares of South African lettuce exports, followed by Lesotho. South Africa's lettuce exports are primarily destined for Southern African Customs Unions (SACU) members (Namibia, Botswana, Eswatini and Lesotho). Namibia holds 33.5%, Lesotho has registered an 18.2% share, Botswana has commanded 16.9% share, Mozambique holds 16.3% and Eswatini has commanded a 5.8% share of South Africa's lettuce exports. In terms of market size, Germany, the United States of America, Canada, Saudi Arabia, Italy, Poland, France and Sweden are the leading markets/importers of lettuce. However, if South Africa is to diversify its lettuce exports the most lucrative markets exist in Zambia, which has increased its lettuce imports by 100% from the world between 2016 and 2020. Other markets exist in Poland and Italy. Seychelles experienced an annual negative growth rate of 8%, Mauritius and Lesotho have experienced 3% and 11% annual negative growth rates between 2016 to 2020 period.



Figure 21: Growth in demand for lettuce exported by South Africa in 2020

Source: International Trade Centre (ITC)



Figure 22: Prospects for market diversification for lettuce exported by South Africa in 2020

Source: International Trade Centre (ITC)

7. ACKNOWLEDGEMENTS

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Quantec Easy Data www.easydata.co.za

Market Access Map www.macmap.org

Trade Map www.trademap.org

www.wikipedia.co.za

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