

A PROFILE OF THE SOUTH AFRICAN BARLEY MARKET VALUE CHAIN

2020



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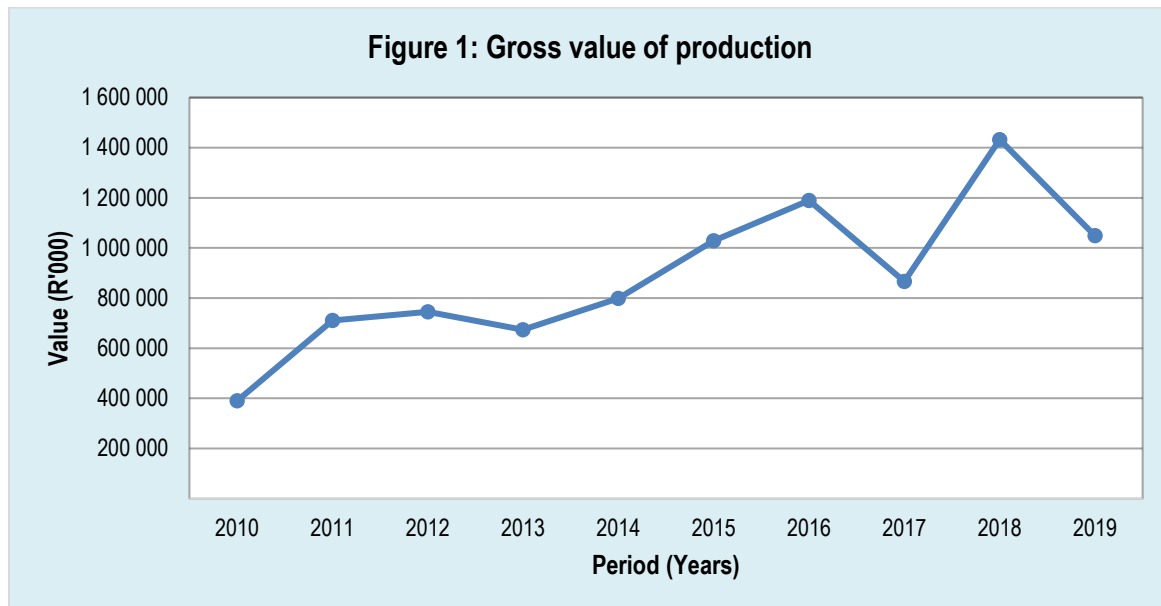
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TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
1. DESCRIPTION OF THE INDUSTRY	2
2. PRODUCTION	2
2.1 Major producing countries in the world	2
2.2 Producing Areas in South Afric	4
2.3 Production Trends	6
3. MARKET STRUCTURE.....	7
3.1. Domestic Market and Prices	7
3.2 Local Consumption.....	7
3.3 Processing, value addition and utilization.....	9
3.4 Barley Market Value Chain	10
4. TRADE	11
4.1. Import-Export Analysis.....	11
4.1.2 Share Analysis	14
4.1.3 Imports	14
5. MARKET INTELLIGENCE	18
5.1 Tariffs.....	18
5.2 Performance Analysis	19
6. ACKNOWLEDGEMENTS	24

1. DESCRIPTION OF THE INDUSTRY

In South Africa, barley is the most important small grain after wheat. It is mainly used for the production of malt (which is used for brewing of beer), animal feed as well as pearl barley. A very small part of barley crop produced in South Africa that is generally less suitable for malting purposes is used for animal feed. On average, the annual commercial production for barley in South Africa is about 313 000 tons while the local consumption requirements for the product is around 320 000 ton per year. The contribution of the barley industry to gross value of agricultural production is summarized in Figure 1 below.



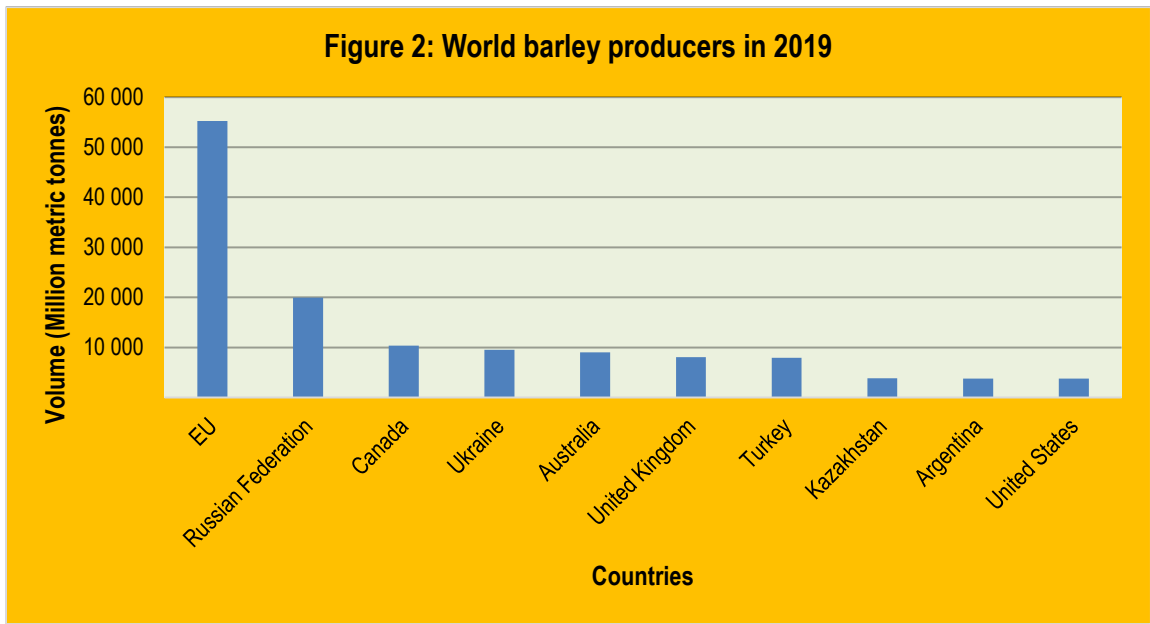
Source: Statistics and Economic Analysis

The period under review opened with lower gross value of barley production in 2010 conforming to producer prices during the same period. This was followed by a notable increase in gross value of agricultural production for barley during the years 2011 and 2012, following an increase in both production volumes and producer prices during that period. Figure 1 further shows that there was a slight decrease in gross value of production for barley in 2013 and this has been attributed by a slight decrease in production volumes during the same year. Additionally In 2017, the gross value of barley production decreased significantly by 27% as compared to the previous year 2016, corresponding to a decrease in both production and producer price for barley. The gross value of barley production reached record highs during the year 2018 following a significant increase in producer prices for barley. The period under review closed with moderate gross value of production in 2019. This is mainly due to a decrease in production as well as producer prices for barley during the same period.

2. PRODUCTION

2.1 Major producing countries in the world

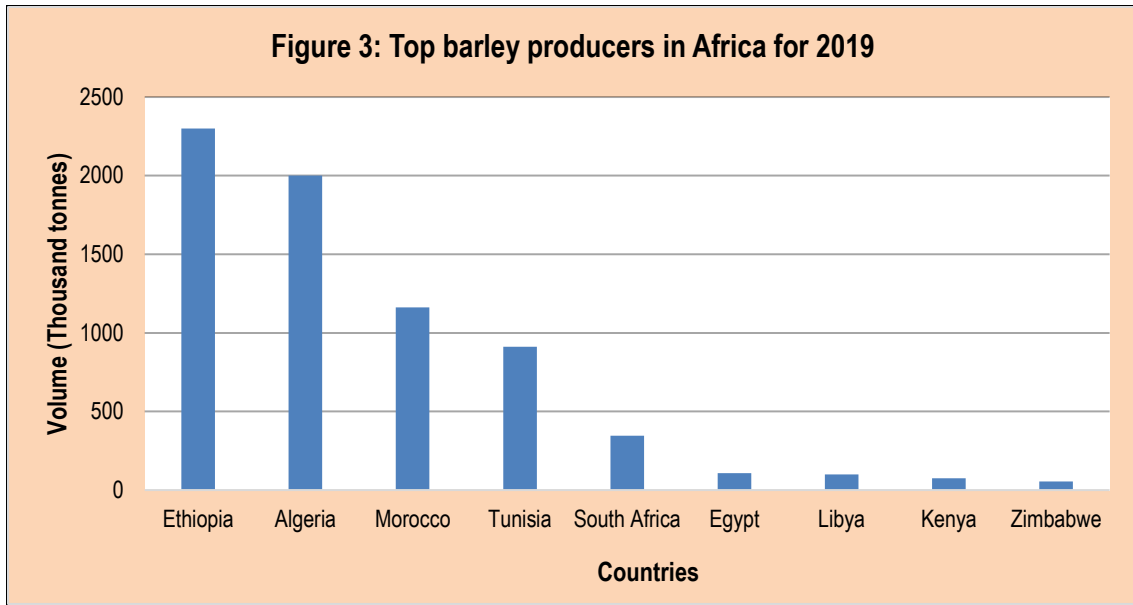
Figure 2 shows world major producers of barley during the year 2019.



Source: USDA Foreign Agricultural Service

The world major producers for barley in 2019 include European Union (EU), Russian Federation, Canada, Ukraine, Australia, United Kingdom, Turkey, Kazakhstan, Argentina and United States. The European Union produced large quantities of barley in 2019, with a total production of approximately 55.270 million tons followed by Russian Federation with a production of about 19.939 million tons. South Africa is ranked number 23 in the world in terms of barley production and produced only 345 000 tons of barley during the year 2019.

Figure 3 provide a picture of major barley producing countries in the African continent during the year 2019. The top nine barley producers were Ethiopia, Algeria, Morocco, Tunisia, South Africa, Egypt, Libya, Kenya and Zimbabwe, having produced between 55 thousand and 2.3 million tons respectively. Amongst all countries that produce barley on the African continent Ethiopia recorded the largest barley production with over 2 million metric tons, whereas South Africa remained fifth largest producer of barley with 345 000 metric tons produced in 2019.



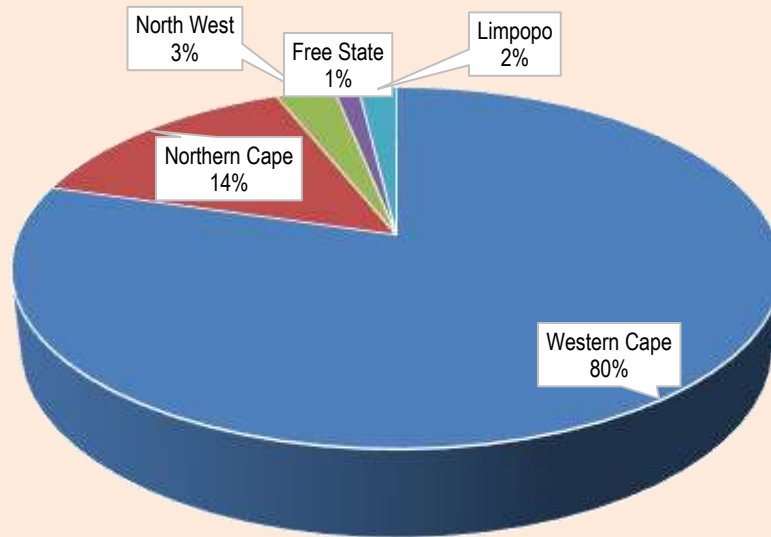
Source: USDA Foreign Agricultural Service

2.2 Producing Areas in South Africa

Barley is a winter cereal crop whose production is restricted to specific areas in the Northern and Southern Cape (two-thirds of our barley production happens here) as well as the North West Province. In the Southern Cape (Overberg region) barley is grown in areas surrounding Caledon, Bredasdorp, Riviersonderend, Napier and Swellendam and is grown under dry land conditions and in the Northern Cape under irrigation (Vaalharts Douglas, Barkley West, Rietrivier and Hopetown Area). Barley is also grown by some emerging farmers at Taung in the North West Province. In the Northern Cape and North West Provinces, barley production takes place close to stable water sources namely the Vaal River, Harts River, Orange River and the Vaalharts Irrigation scheme. The main world barley producers are Russian Federation followed by France, Germany Canada, Ukraine, Australia, Spain, United Kingdom, Turkey and Argentina respectively. In Africa, barley is produced mainly in Ethiopia, Morocco, followed by Algeria, Tunisia and South Africa respectively.

Contribution of various provinces to the total South African barley production is represented by Figure 4 below. During 2019, Western Cape Province produced the largest volumes of barley in South Africa with a share of 80% followed by the Northern Cape and North West Provinces with shares of 14% and 3% respectively. Smaller quantities of barley were also recorded in Limpopo and Free State Provinces which commanded respective shares of 2% and 1% each. Larger barley production volumes in the Western Cape can be attributed to the fact that the latter is a winter rainfall area, which makes it a suitable location for production of barley and other winter cereals.

Figure 4: Barley production by province in 2019



Source: Statistics and Economic Analysis

Table 1 below confirms the earlier observation that Western Cape Province is the largest producer of barley in South Africa. Table 1 further shows that barley production in South Africa fluctuated considerably over the period and ranging between 194 thousand and 422 thousand tons per annum. During the years from 2013 to 2019, barley production volumes in the Western Cape Province was more than 200 thousand, which continues to contribute significantly towards an increase in national production. It is also clear from the table that barley production volumes for the two provinces (Western Cape and Northern Cape) were slightly higher during the year 2013, while in the other three provinces (North West, Limpopo and Free State) lower volumes in barley production were recorded. In 2018 barley production showed some significant increases in all provinces, except for the North West Province which produced the same amount as compared to the previous year. The period under review closed with higher volumes of barley production from the three provinces (Northern Cape, North West and Free State) in 2019, while lower volumes of barley production were recorded from Western Cape and Limpopo province respectively.

Table 1: Barley Production by provinces

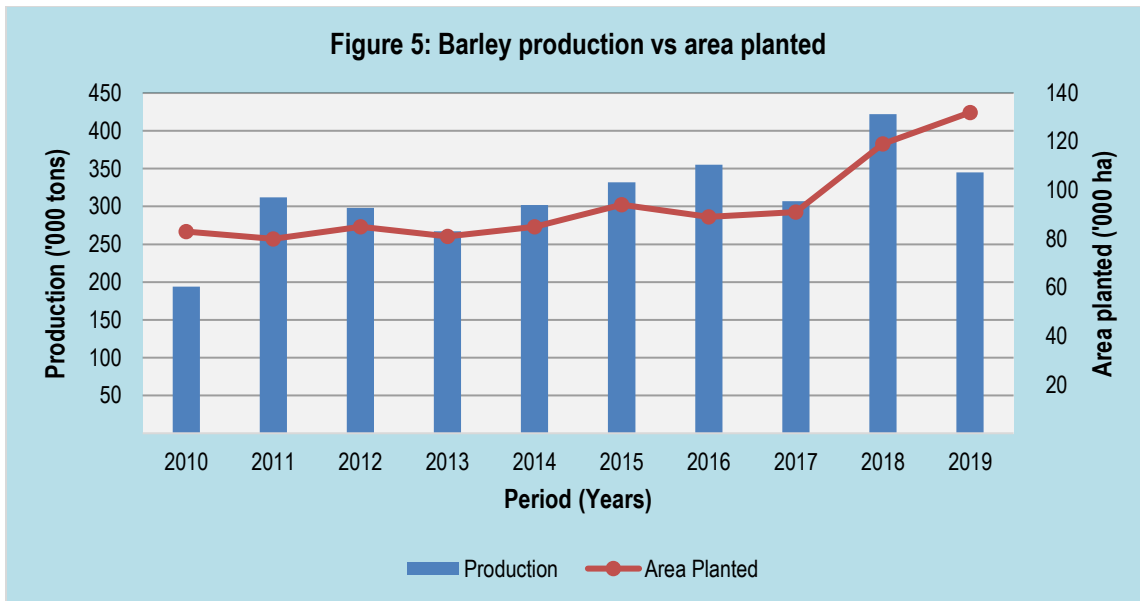
Province	Production in 2013 (tons)	Production in 2014 (tons)	Production in 2015 (tons)	Production in 2016 (tons)	Production in 2017 (tons)	Production in 2018 (tons)	Production in 2019 (tons)
Western Cape	201.6	212.0	256.0	317.0	263.5	357,5	274,5

Province	Production in 2013 (tons)	Production in 2014 (tons)	Production in 2015 (tons)	Production in 2016 (tons)	Production in 2017 (tons)	Production in 2018 (tons)	Production in 2019 (tons)
Northern Cape	58.3	81.6	53.9	19.7	25.7	40,5	49,6
North West	6.3	6.3	9.0	9.1	9.7	9,7	10,1
Free State	1,0	0,8	1,2	2,0	0,5	2,2	4,2
Limpopo	0.3	1.3	12.2	7.1	7.3	11,9	6,6

Source: Statistics & Economic Analysis

2.3 Production Trends

Domestic barley production trends and areas planted to barley in South Africa from 2010 to 2019 are represented by Figure 5 below.



Source: Statistics & Economic Analysis

The marketing year 2010 opened with higher area planted to barley, while lower production volumes were recorded during the same period. This may be attributed to a decrease in market prices for barley experienced during the same period. Barley production volumes increased substantially in 2011 of approximately 61 percent as compared to the lowest attained in 2010, primarily as a result of improved yields and increment in production volumes in the major producing province (Western Cape). The production volume was relatively high during 2012 and a slight decline was recorded in

2013 and this may be well explained by slight decline in area planted. In 2014 the area planted and production volumes for barley increased significantly compared to 2013. The figure shows that both barley production volumes and area planted increased between 2015 and 2018, with both production volumes and area planted reaching the highest records during the year 2018. This is mainly due to the record high producer prices attained during the marketing year 2018. The period under review closed with decreasing volumes of barley production in 2019 despite reaching record highs in area planted. This is mainly due to uncertainties caused by poor weather conditions on intentions to plant in major barley producing regions and lower prices attained in the market during the same period.

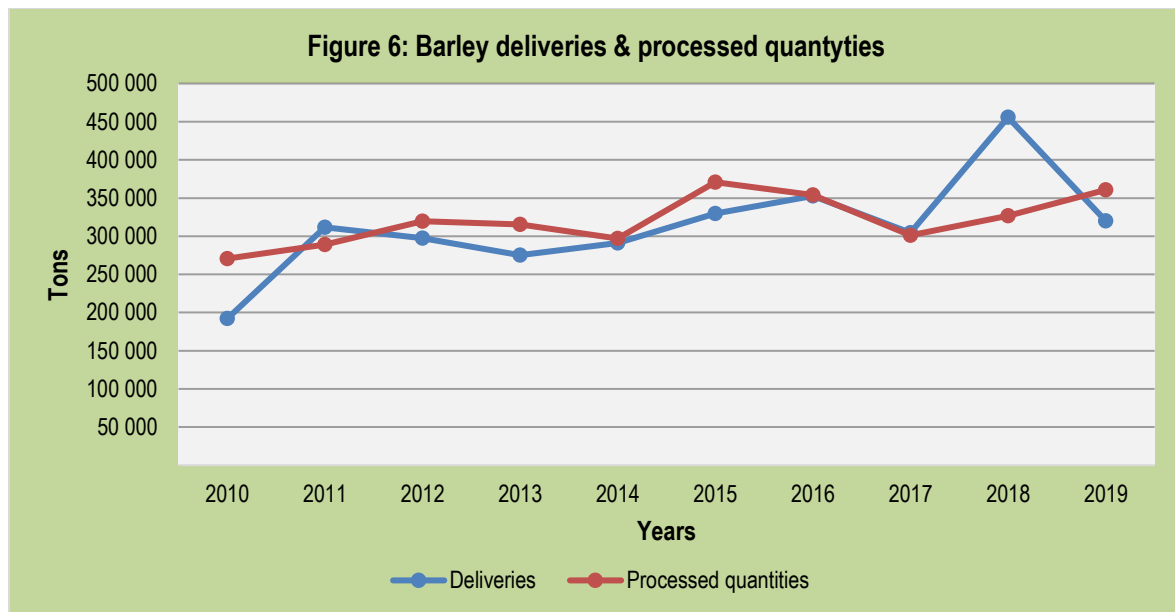
3. MARKET STRUCTURE

3.1. Domestic Market and Prices

In South Africa barley is planted mainly for malting purposes, as there is no significant feed market for barley due to the large volumes of maize produced in the country that serve as a main ingredient in animal feed production. Barley varies from most other agricultural commodities in that producers are mainly limited to only one major barley buyer in South Africa, namely ABInBev, previously the South African Breweries Maltings (Pty) Ltd (SABM). This company supplies its major stakeholder, South African Breweries, with malted barley. Barley producers in the country have a guaranteed market for their produce as well as fixed price contracts with the buyer.

3.2 Local Consumption

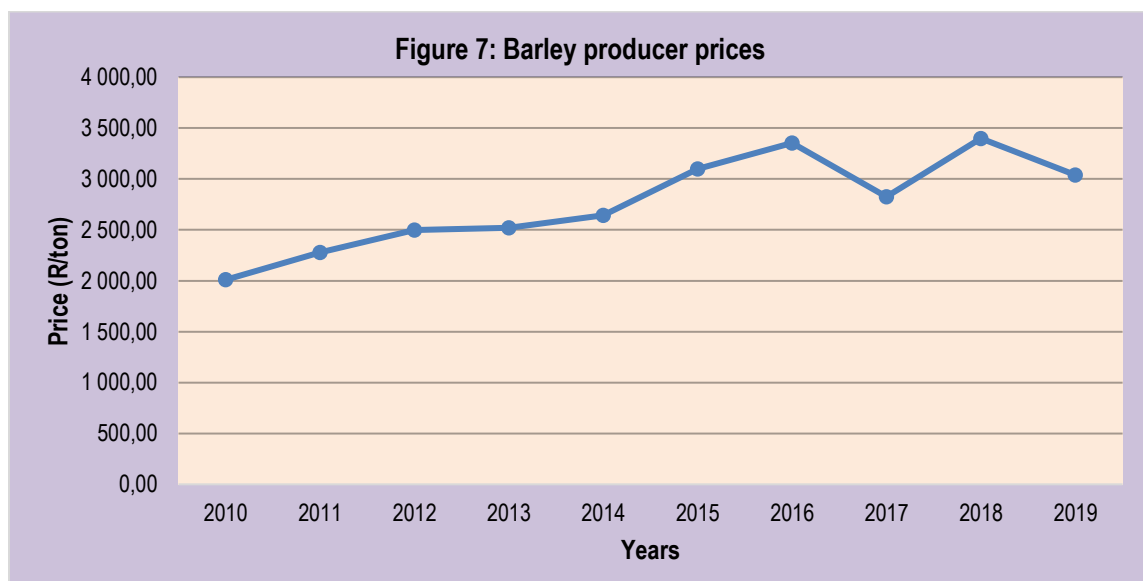
Figure 6 depicts local barley consumption in relation to producer deliveries for each year to assess if the country is barley self-sufficient or not.



Source: Statistics and Economic Analysis

Figure 6 shows that during the year 2010, domestic barley supply was lower than local consumption. In general the figure shows that more barley is consumed in South Africa than it is produced, forcing the country to resort to imports of barley from other countries in order to satisfy the domestic demand. During the year 2010, domestic deliveries for barley were relatively lower when compared to quantity processed for local consumption. However, a significant increase in deliveries was experienced in the year 2011 surpassing the quantity processed. This was followed by a decline in deliveries in the year 2012 and 2013 and an increase in quantity processed in the same period. The producer deliveries for barley begin to move higher above quantity processed during the years 2016 and 2017 respectively, this was followed by record highs in producer deliveries attained during the year 2018. This can be attributed to favourable weather conditions in the major barley producing regions, improved yields and higher producer prices attained during the same period. Furthermore, South Africa produced 345 thousands metric tons of barley in 2019, a decrease of 18 percent from 422 thousands metric tons attained in the previous year 2018.

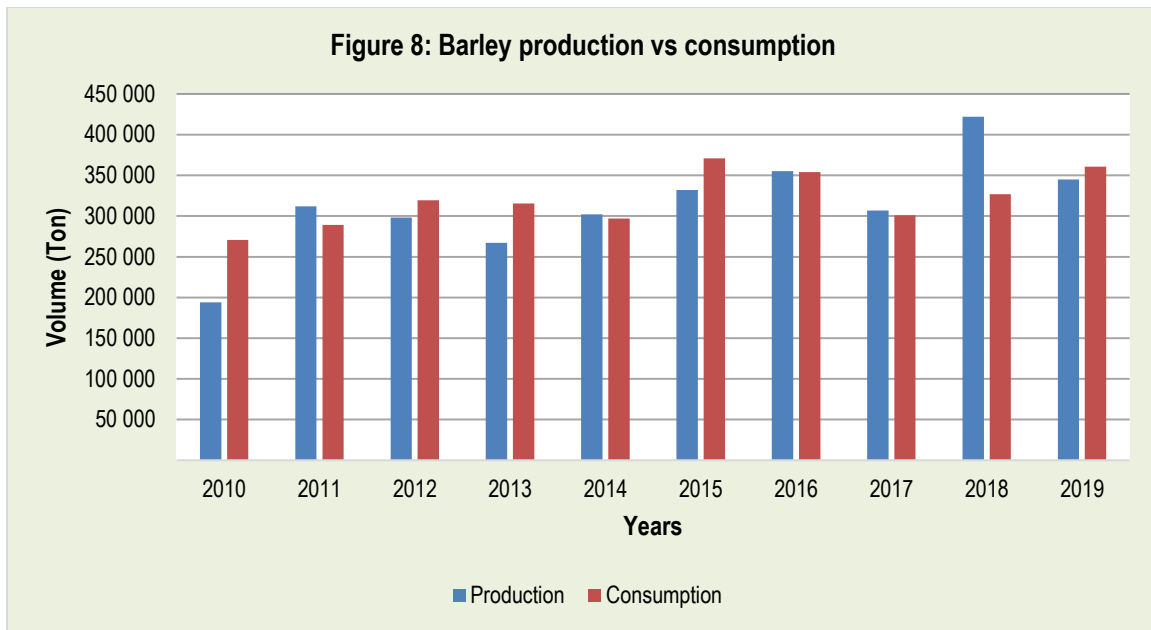
Average producer prices for barley from the year 2010 to 2019 are as depicted in Figure 7 below. Figure 7 shows that barley producer prices have been trading higher for the most part of the period under review with the exception of 2010 and 2011. However, from 2010 barley producer prices have increased significantly until a slight decrease in prices were recorded in 2017. The lowest price for barley was experienced during the year 2010 (R2 009.1/ton) while the highest was recorded in 2018 at about R3 398.63/ton, where the quantity delivered by producers were higher than the quantity processed. Following record high producer prices attained during the year 2018, the period under review closed with moderate producer prices for barley during the marketing year 2019.



Source: Statistics and Economic Analysis

Barley production and consumption trends are depicted in Figure 8 below. On average, between years 2010 and 2019, the domestic production for barley in South Africa was below domestic consumption¹ requirements.

¹ Consumption includes animal consumption



Source: Statistics and Economic Analysis

Despite increased domestic demand for barley, South African farmers have been unable to respond and meet this demand, owing to the fact that most part of the country is unsuitable for barley production. Dry-land barley production can only be practiced in the Western Cape Province where climatic conditions are suitable for the production. This on its own is a great limitation for the expansion of the industry as all other regions in the country can only produce barley under irrigation while water is also a scarce resource. The domestic barley production experienced a dramatic increase and reached the highest level (422 thousand tons) during the year 2018. This can be attributed to favourable weather conditions, improved yields and high producer prices offered in the market during the same period, which influenced farmer's decisions to increase production. Following record high supplies of barley in 2018, the period under analysis closed with lower production volumes of barley below local consumption in 2019. This is mainly due to lower market prices offered for the crop during the same period.

3.3 Processing, value addition and utilization

Malting barley is a particular type of barley used in making beer, flavourings, and extracts. Only a portion of the malting barley planted each year has the specific qualities needed to be selected for malt. To produce malt, barley kernels are soaked, germinated, and dried. Although the kernels look the same on the outside, this process causes chemical changes inside. The malted barley can now be used to make malt extract, beer and flour. Like regular barley, hulless barley does have a hull, but it is only weakly attached to the kernel and therefore easily removed during harvesting. The hull is the inedible outer coating of the kernel that protects the seed like a jacket. Hulless barley is convenient and is becoming increasingly popular both for human nutrition and as feed for livestock.

Barley grain may be milled to produce barley flour, flakes, and bran. Milling involves crushing the seed kernel and separating the outside (bran) from the endosperm, which is the inside part of the

kernel where food is stored to nourish a new plant. The endosperm is then ground to make flour. To improve its digestibility, barley grain is cracked or rolled for cattle feed and ground to make feed for hogs and chickens.

Barley straw is the dried stems of the barley plant after the head that holds the grain kernels has been removed. Straw is often used as a soft, dry bed for livestock. It can also be made into building materials, paper and fibre board. To make silage, the entire plant is cut down, piled, compacted, and then allowed to ferment. Fermentation preserves this highly nutritious feed for beef and dairy cattle.

3.4 Barley Market Value Chain

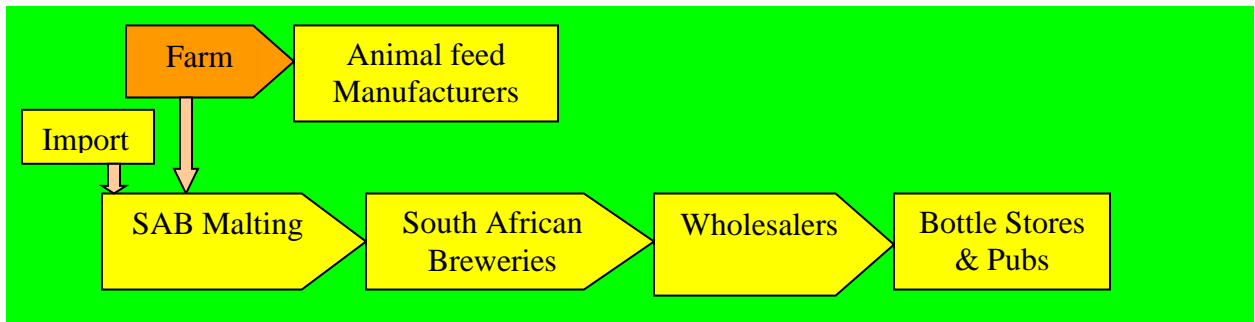
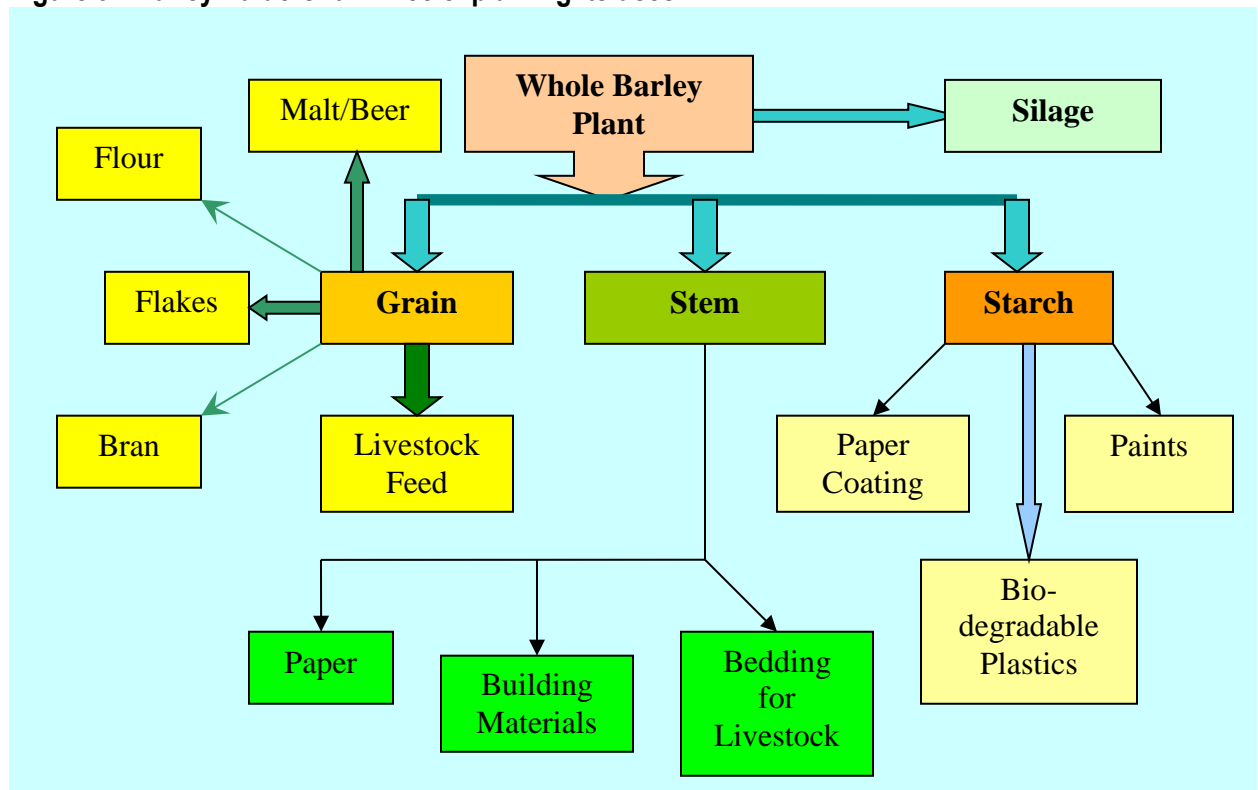


Figure 9: Barley Value Chain Tree explaining its uses

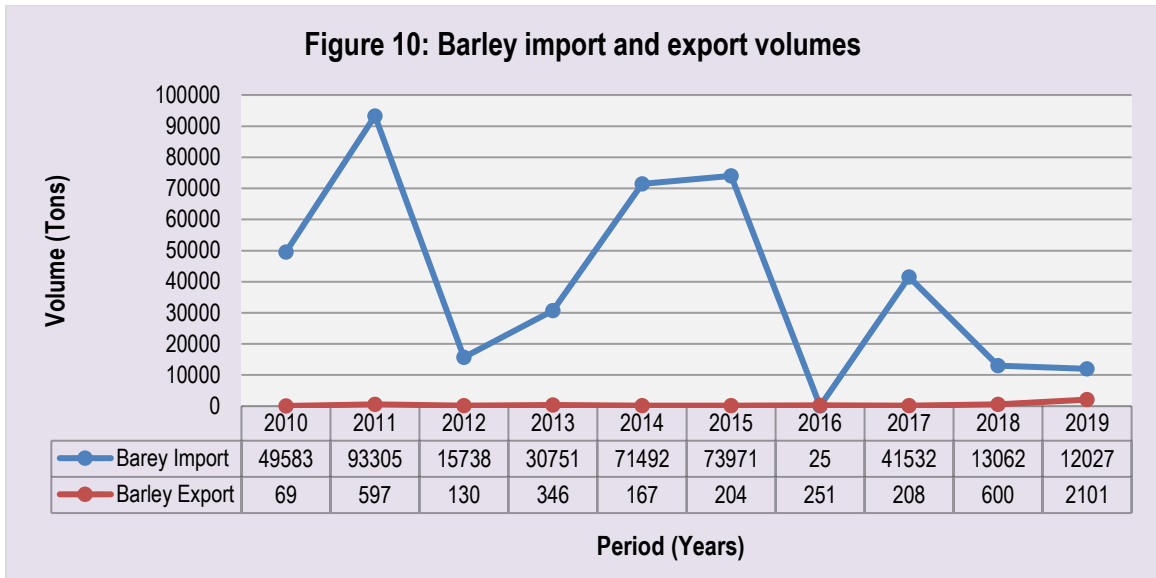


Source: Alberta Barley Commission

4. TRADE

4.1. Import-Export Analysis

Figure 10 compares the volumes of imports and volumes of exports of barley from 2010 to 2019. Generally, South Africa has been a net importer of barley over the period under analysis. This means that the country consumes more barley than it produces. This could be explained by the fact that in South Africa, barley is only planted for malting purposes, where there is only one major buyer (ABInBev) and farmers find it too risky to participate in such a market since they are aware that failure to meet ABInBev quality requirements would result in their product having no or limited market.

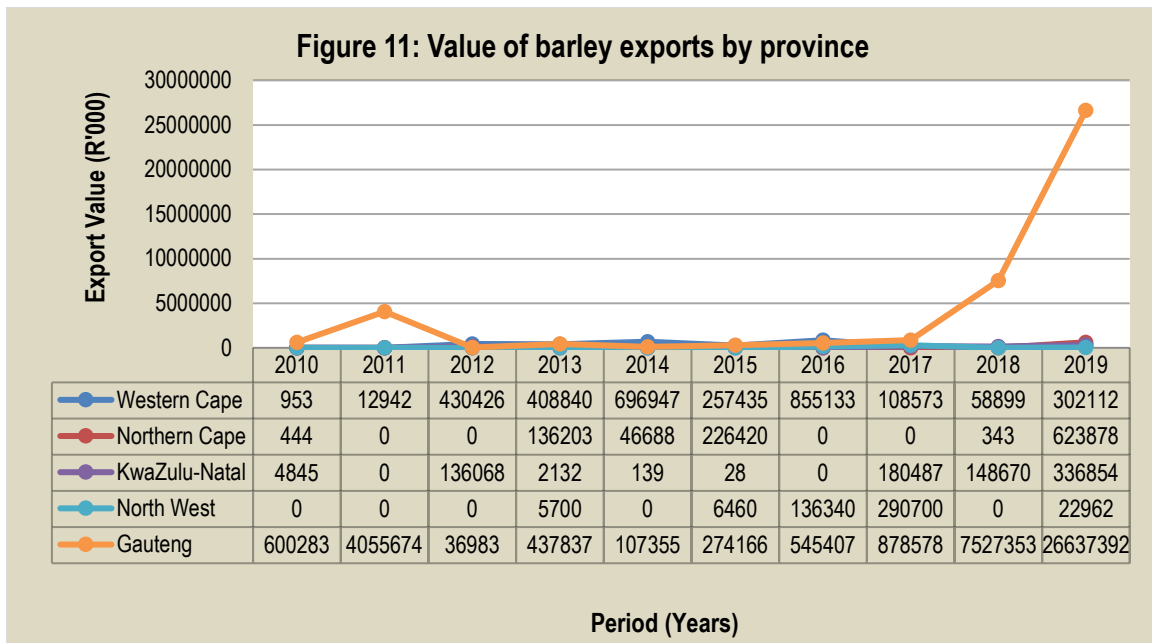


Source: Quantec Easy data

Figure 10 shows that the period under review opened with lower volumes of both barley imports and exports during the year 2010. This was followed by a dramatic increase in imports volumes of barley until a peak was attained in 2011. The volume of imports fluctuated considerably throughout the period under analysis and closed with a relatively low import volumes during the year 2012. Barley imports increased significantly in 2015 as results of severe drought experienced in the country during that period. During the year 2016, very minimal volumes for both barley imports and exports were recorded, although export volumes surpassed the imports. This was followed by a drastic increase in barley imports in 2017, way above exports. In comparison to the preceding marketing year 2017, the volumes of barley imports decreased in year 2018 and 2019 respectively. As shown in the figure, barley exports were relatively low throughout the period under review, owing to decreasing and lower levels of barley production in the country.

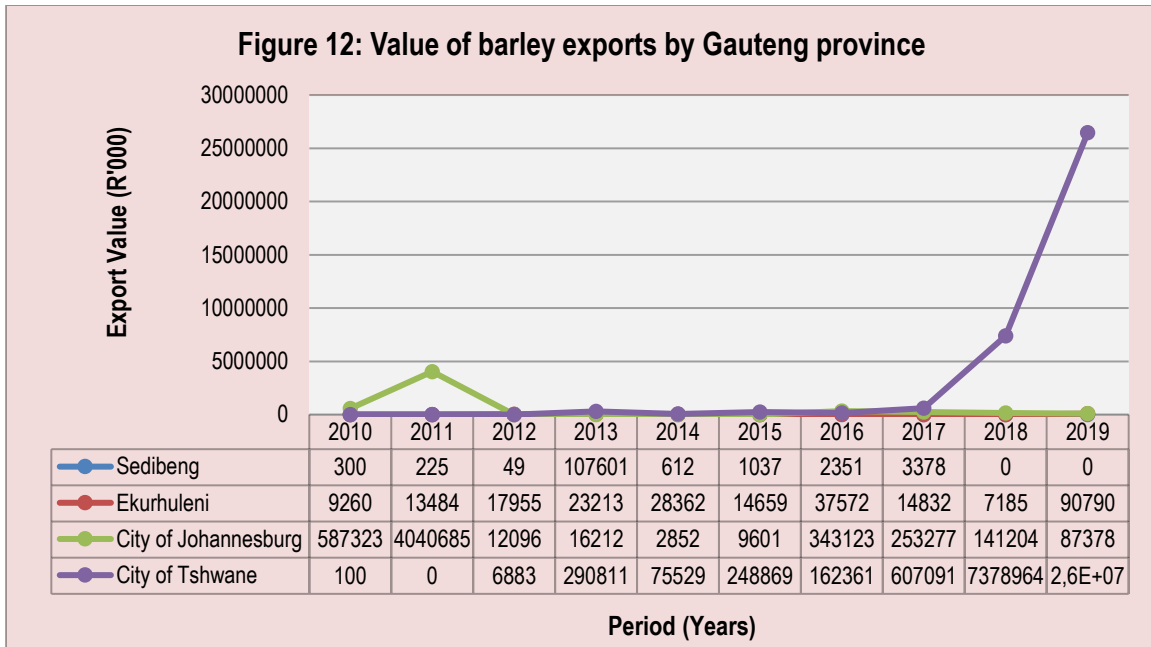
4.1.1 Exports

Figure 11 illustrate the value of barley exports by province measured in Rands from the period 2010 to 2019.



Source: Quantec Easy Data

The figure above displays Gauteng Province as South Africa's largest exporter of barley, despite the fact that it does not form part of the main producers of barley. This is mostly due to the Gauteng Province's availability of sufficient infrastructure for storage and value-adding services, which encourages many growers to bring their products to this province after harvest. KwaZulu-Natal and Western Cape Provinces also take part in the exportation of barley mainly because of availability of harbours in these provinces which serve as an overpass for barley exports to other countries, but exports from these provinces are minimal. Figure 11 also indicates that exports from Western Cape, Free State, Northern Cape, Mpumalanga and KwaZulu-Natal were very low and erratic over the period under analysis. During 2016, the value of barley exports from Western Cape were slightly above those from Gauteng Province. However, in 2017, exports from Gauteng Province climbed significantly higher than those from other regions, and this trend maintained in 2018. Gauteng Province's exports of barley were much greater than those of other provinces at the end of the 2019 marketing season. The values of barley exports from Gauteng Province's major barley producing districts are illustrated in Figure 12 below.

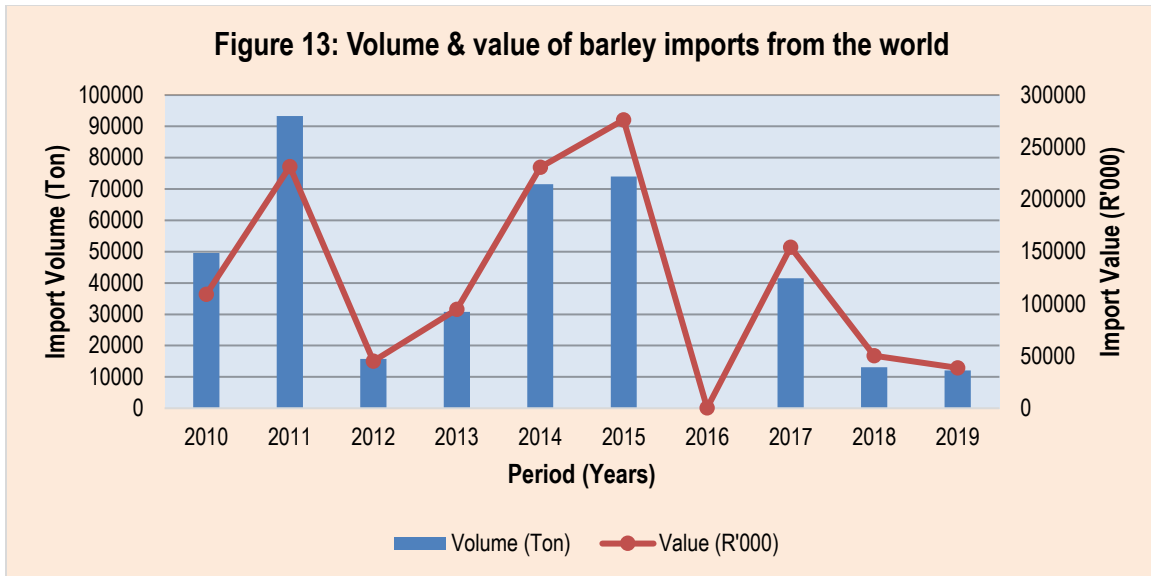


Source: Quantec Easy Data

Figure 12 above shows the value of barley exports from Gauteng province from the period 2010 to 2019. During the period under review, the City of Tshwane Metropolitan Municipality emerged to be the leading exporter of barley from the province and it was followed by the City of Johannesburg Metropolitan Municipality with contributions from 2010 up to 2019. Notable contributions from Ekurhuleni and Sedibeng towards the value of barley exports from Gauteng Province were achieved throughout the period under review, with no values of barley exports recorded for Sedibeng in 2018 and 2019 respectively. In general, from 2010 to 2019, values of barley exports in Gauteng province were very low and this may be explained by low volumes of barley produced in the country during these years. Values of barley exports from Gauteng Province opened lower during the year 2010, with notable export values recorded mainly from the City of Johannesburg. This was followed by a sharp increase during the year 2011. The period under analysis closed with record high values of barley exports from the City of Tshwane, followed by City of Johannesburg during the year 2019.

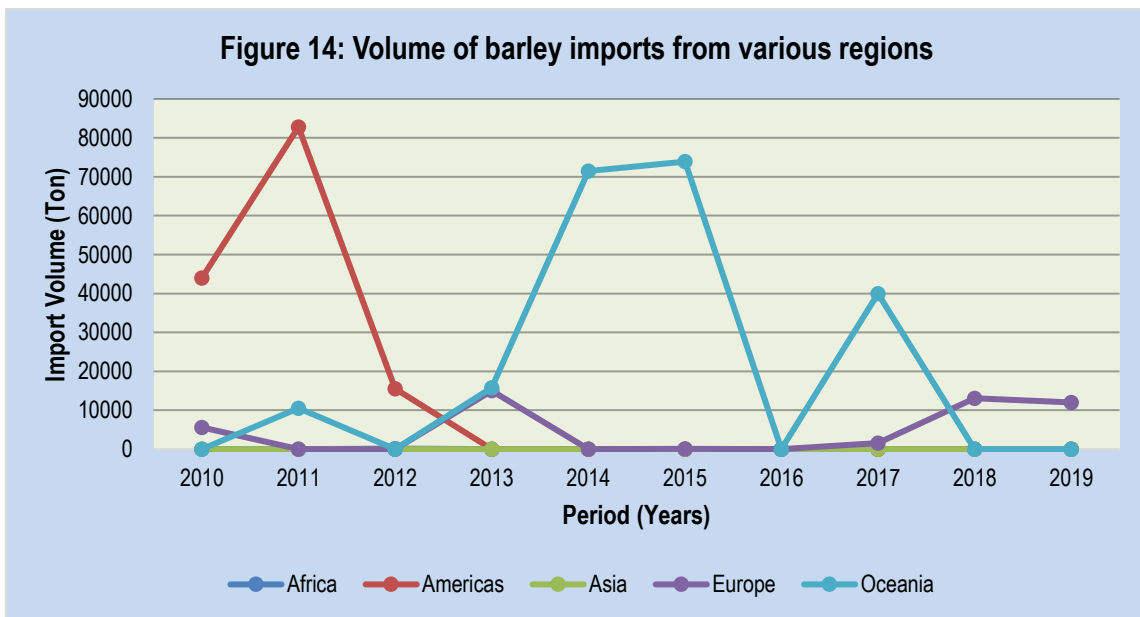
4.1.3 Imports

South African barley processors depend mainly on barley imports to successfully carry out their daily operations and as such South Africa imports on average between 41 and 120 thousand tons of barley per year. Over the past four to five years, unfavourable weather conditions that resulted in below average rainfall and drought has caused fluctuations in barley quality and yields in South Africa. When the local crop has fallen short of requirements, the local malting companies relied on imports mostly originating from Australia, France, and Germany and to a lesser extent from the USA and Netherlands. The volumes of barley imports from 2010 to 2019 pursue the pattern shown in figure 13 below.



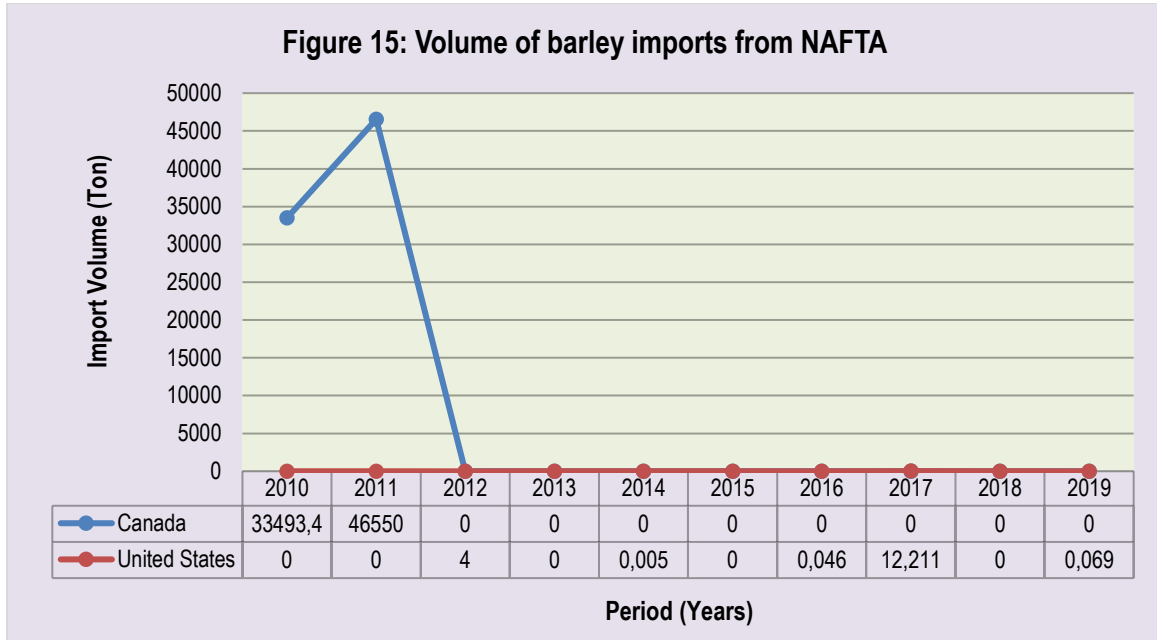
Source: Quantec Easy Data

Figure 13 show the volume and value of barley imports from various regions by South Africa from 2010 to 2019. The quantity of barley imports opened higher above its values during the year 2010. This is due to the fact that barley consumption in South Africa exceeds production, making it critical for South African processors to import barley from other countries at all times. Volume and value of barley imports further increased dramatically during the year 2011, reaching the record highs in volumes during the same period. This was followed by another significant decline in both volume and value of barley imports in 2012. The imports of barley continued to increase in both quantity and value between the years 2013 and 2015, until a peak was attained in the value of imports in 2015. However, the period under analysis closed with the lowest volumes and value of barley imports attained during the respective years 2018 and 2019. This is mainly as a results of much increased local production volumes of barley during the same period.



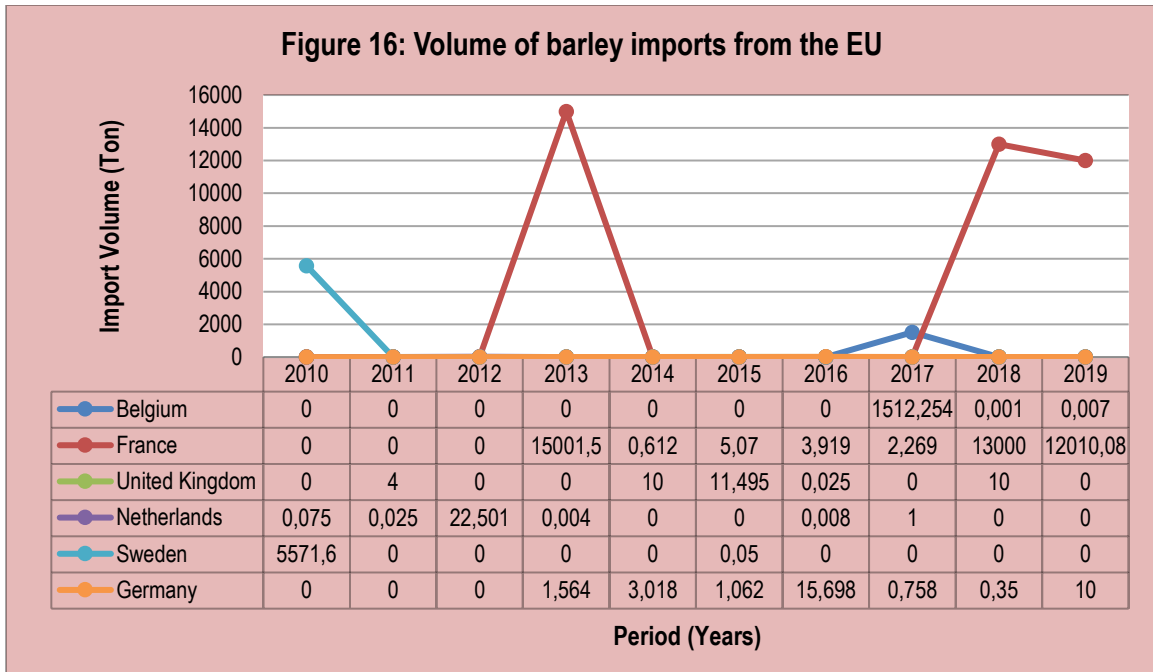
Source: Quantec Easy Data

Figure 14 shows that South Africa imports barley mainly from the Americas, Europe and Oceania. The period under review opened with moderate levels of barley imports from the Americas in 2010. In general, between the years 2010 and 2012, the Americas continued to be the largest exporter of barley to South Africa followed by Europe and Oceania. Starting from the year 2013 to 2017, barley imports from Oceania took the lead, followed by low and inconsistent imports from Europe. Throughout the period under review, imports from Africa and Asia remained very low. However the period under review closed with declining volumes of barley imports originating mainly from Europe in 2019.



Source: Quantec Easy Data

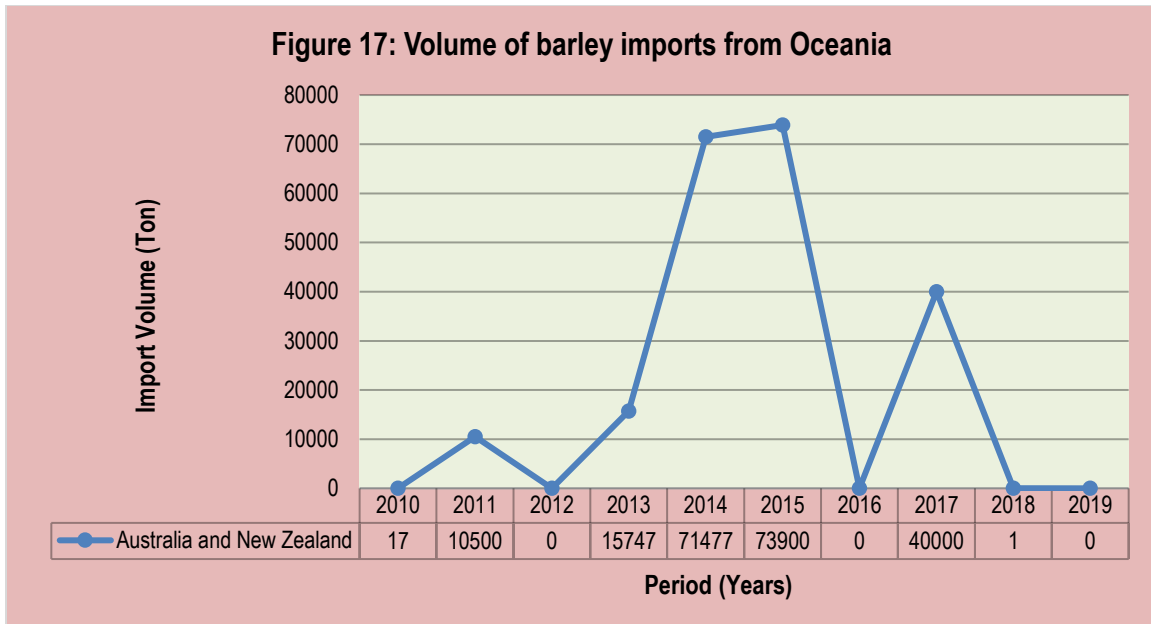
Figure 15 above indicates that in the North American Free Trade Area (NAFTA) South Africa obtained its imports of barley mainly from Canada between the years 2010 and 2011. South Africa did not import barley from the USA between the years 2010 and 2011, including the years 2013, 2015 and 2018 respectively. During the years 2012 and 2015, South Africa imported 4 tons and 12 respectively from that region. Generally, volumes of barley imports from NAFTA were low and erratic throughout the period under analysis, except for 2010 and 2011. The period under analysis closed with low and erratic imports of barley recorded from NAFTA during the marketing year 2019.



Source: Quantec Easy Data

In the EU South Africa imports barley mainly from France, Germany, Netherlands, Belgium, United Kingdom and Sweden. During the period between 2010 and 2012, very minimal barley imports were recorded from the EU and were replaced by imports originating mainly from the Americas. During the year 2010, South Africa's main market for barley imports in the EU was Sweden, with very minimal imports originating from the Netherlands. In 2013, South Africa imported the record high volumes of barley from the EU, originating mainly from France which amounted to 15 thousand tons. According to the figure, Germany was a continuous exporter of barley to South Africa from 2013 to 2019. The period under review closed with France being the major exporter of barley to South Africa, followed by Germany in 2019.

Figure 17 below shows the South African imports volumes of barley from the Oceania. In Oceania, South Africa imports barley from Australia, with smaller quantities originating from New Zealand. The period under review opened with less volumes (17 tons) of barley imports originating from Australia in 2010. Imports of barley from Oceania increased slightly to close higher at about 10 thousand tons during the year 2011. However, South Africa did not import barley from Oceania during the year 2012. In 2013, South Africa then imported above 15 thousand tons of barley from Australia and New Zealand as it is shown in the figure below. South Africa imported greatest volumes of barley from Australia and New Zealand during the year 2014 and 2015, which then dropped drastically in 2016 due to an increase in the local production. The period under review closed with no imports of barley recorded from Australia and New Zealand in 2019.



Source: Quantec Easy Data

5. MARKET INTELLIGENCE

5.1 Tariffs

South Africa does not impose tariffs on barley imports from other countries. This is due to the fact that South Africa is a net importer of barley and it is considered that imposing an import tariff would make it expensive to import. Although South Africa is a net importer of barley, it does however export minimal volumes of barley to few other countries. These countries include Zambia, Namibia, Lesotho and Botswana. The following tariffs are applied by the various exports markets on barley originating from South Africa.

Table 9: Tariffs faced by South African barley exports

COUNTRY	PRODUCT DESCRIPTION	TRADE REGIME DESCRIPTION	APPLIED TARIFFS	ESTIMATED TOTAL VALOREM ^{AD} EQUIVALENT TARIFF
2019				
Uganda	Barley (Other:100390)	Preferential tariff for South Africa	0.00%	0.00%
Zambia	Barley (Seed:100310)	Preferential tariff for South Africa	0.00%	0.00%
	Barley (Other:100390)	Intra SACU rate	0.00%	0.00%
	Barley (Seed:100310)	Intra SACU rate	0.00%	0.00%

COUNTRY	PRODUCT DESCRIPTION	TRADE REGIME DESCRIPTION	APPLIED TARIFFS	ESTIMATED TOTAL VALOREM EQUIVALENT TARIFF <i>AD</i>
Lesotho	Barley (Other:100390)	Intra SACU rate	0.00%	0.00%
	Barley (Seed:100310)	Intra SACU rate	0.00%	0.00%
Botswana	Barley (Other:100390)	Intra SACU rate	0.00%	0.00%
	Barley (Seed:100310)	Intra SACU rate	0.00%	0.00%

Table 9 shows that the South African barley industry does not experience any market barriers in all the countries where it exports it barley.

5.2 Performance Analysis

Table 10: South Africa's barley exports during 2019

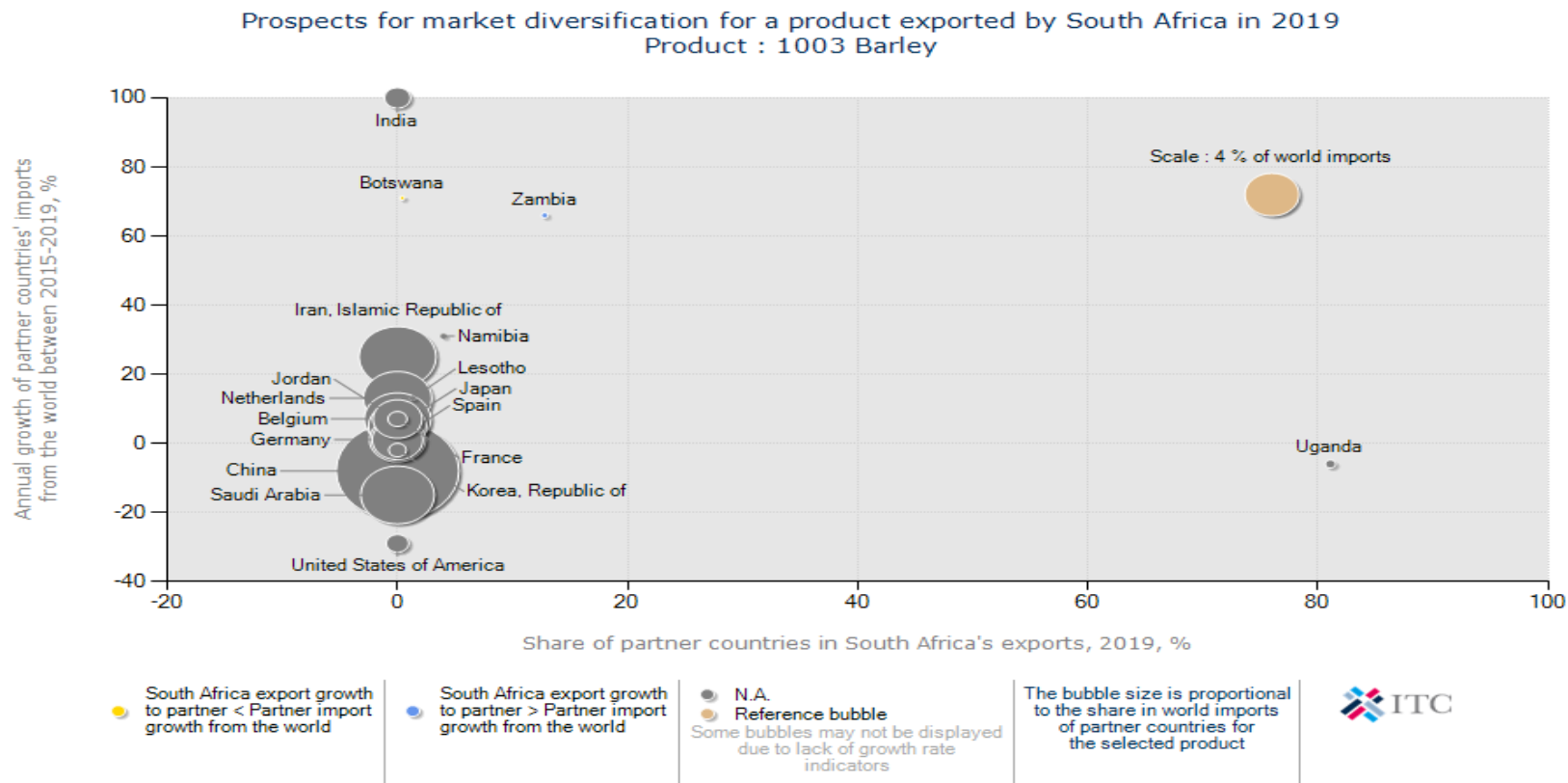
Source: ITC Trade Map

Table 10 and Figure 18 indicate that in 2019, South Africa exported lower volumes of barley to mostly African countries including Uganda, Zambia, Lesotho, Botswana and very minimal to Togo and

Importers	Exported value 2019 (thousand US\$)	Share in SA's imports (%)	Exported quantity in 2019 (tons)	Unit value (US\$/unit)	Export growth in value between 2015 - 2019(% p.a.)	Export growth in quantity between 2015 - 2019(% p.a.)
World		100			133	
Uganda						
Zambia						
Lesotho						
Botswana	8	0.4	48	167	-16	0
Togo	5	0.3	2	2500	0	0
Burkina Faso	2	0.1	1	2000	0	0

Burkina Faso. The greatest share of South African barley exports were destined for Uganda and Zambia, which both absorbed about 81% and 12.8% respectively of South Africa's total barley exports during the year 2019 followed by Lesotho and Botswana, which absorbed about 1.3% and 0.4 % respectively. On average, South Africa exports for barley to the world increased in value as well as in quantity by 133% and 74% respectively between 2018 and 2019.

Figure 18: Prospect for market diversification for Barley exported by South Africa in 2019.



Source: ITC Trade Map

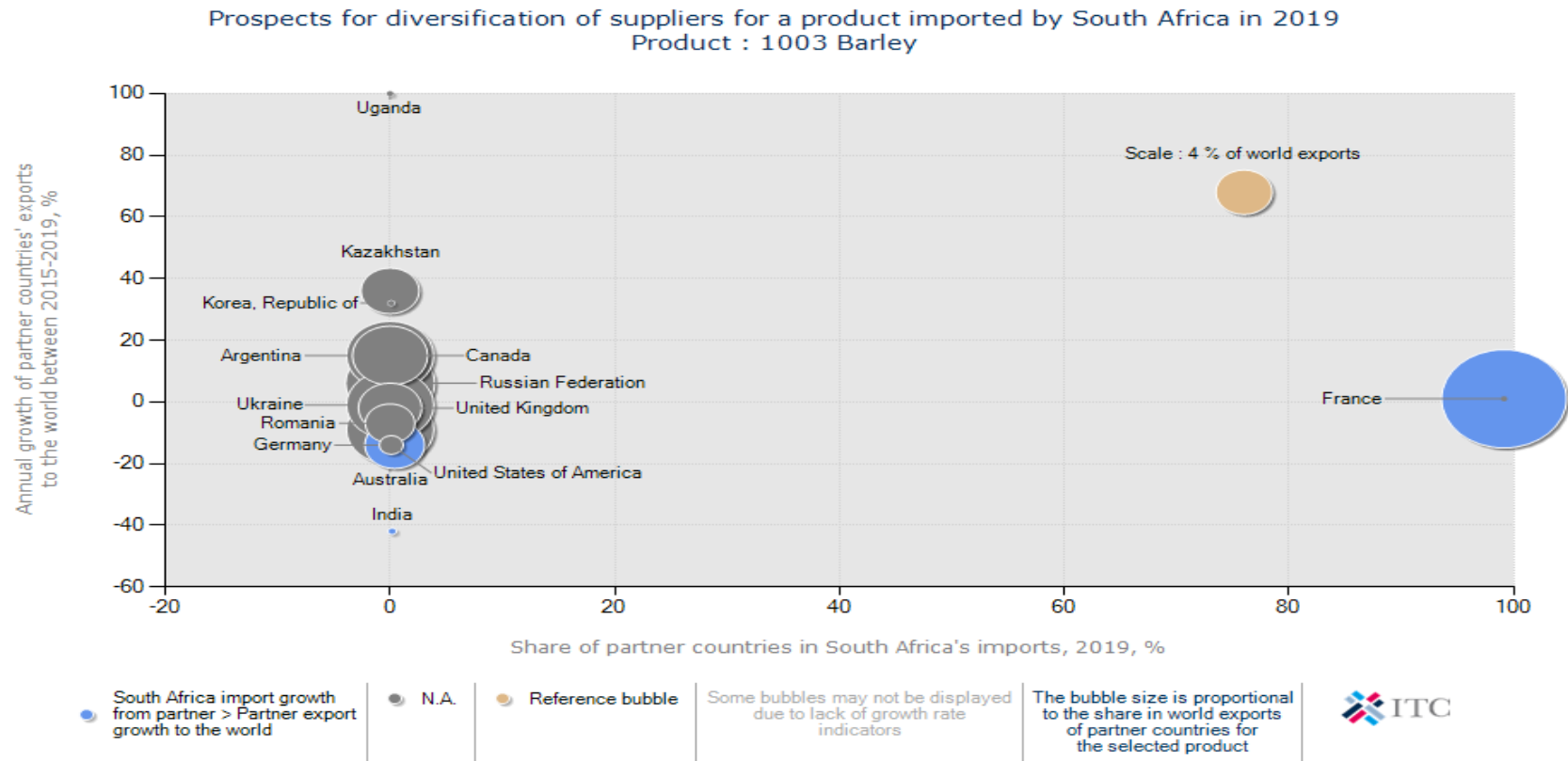
Table 11: South Africa's barley imports during 2019

Exporter	Imported value 2019 (thousand US\$)	Share in SA's imports (%)	Imported quantity in 2019 (tons)	Unit value (US\$/unit)	Import growth in value between 2015-2019(% p.a.)	Import growth in quantity between 2015-2019 (% p.a.)
World	2689	100	12027	224	12	30
France	2666	99.1	12010	222	672	965
Germany	11	0.4	10	1100	21	78
India	5	0.2	4	1250	92	0
United States of America	3	0.1	0	0	0	0
Republic of Korea	3	0.1	2	1500	164	0

Source: ITC Trade Map

During the year 2019, South Africa imported a total of 12 027tons of barley from the world. South Africa's barley imports for 2019 originated mainly from France, Germany and India. It is clear from Table 11 and Figure 19 that France was the greatest supplier of barley to South Africa after accounting for 99.1% of South Africa's total barley imports in 2019. On average, imports of barley to South Africa from the world increased in value as well as in quantity by 12% and 30% respectively between 2018 and 2019. If South Africa is to diversify its imports of barley from the world, the biggest markets exist in Australia, Canada, Russian Federation, Argentina, Ukraine, United States and United Kingdom. During 2019, South Africa did not import barley from most of these countries while they commanded the greatest share of the world's total barley exports.

Figure 19: Prospect for diversification of suppliers for barley imported by South Africa in 2019.



Source: ITC Trade Map

6. ACKNOWLEDGEMENTS

The following organizations are acknowledged:

Statistics and Economic Analysis: Department of Agriculture, Forestry and Fisheries

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P.O.Box 35466

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Tel: 012 361 5154

Fax: 012 348 5874

Website: www.quantec.co.za

ITC Trade Map

Website: <http://www.trademap.org.za>

ITC Market Access Map

www.macmap.org

USDA Foreign Agricultural Service

Website: www.fas.usda.gov

Food and Agriculture Organization of the United Nations

Website: www.fao.org/faostat

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