

The South African Groundnut Forum

The Groundnut Value Chain –
update 2019

by the
**Bureau for Food and Agricultural
Policy (BFAP)**



BFAP

DATA
DRIVEN
INSIGHT

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Executive summary

The South African groundnut industry continues to find itself at a crossroad, just this time around with the possibility of more extensive and irreversible consequences for the future existence of this R 2.5 billion industry in South Africa. Since the 2012 BFAP-Groundnut Forum evaluation report, various industry actions were introduced to support turn around initiatives, but like any specialised industry, this task is continuous and requires timeous actions. This study provides an update of the initial 2012 study and further focuses on the trade competitiveness challenges that the industry is facing and the impact of inconsistent tariff applications. The key indicators for industry growth and continuation were refined and updated to:

- **Trade, tariffs and competitiveness**

Local processors are facing an import duty of 10% on imported groundnuts, yet groundnut butter and roasted groundnut imports are landed virtually duty free. Groundnut butter imports are rapidly increasing and consequently putting pressure on the local processing industry. The impact of groundnut butter imports is exacerbated by the fact that local groundnut production has collapsed from 57 000 tonnes in the 2017/18 production season to a mere estimated 18 000 tonnes in the current 2018/19 production season. The continuous imports of groundnut butter at 0.03% tariff level can possibly result in a R 283 million reduction in Gross Value Added (GVA) for the industry as well as the possible shedding of 3000 jobs in the industry.

- **Market development and consistency of supply**

Groundnut price formation is dependent on the various markets and prices for the respective groundnut qualities produced. The high-quality Spanish groundnut produced in South Africa is in high demand for the snack industries in Europe as well as Japan due to its shape and taste attributes. New market development and consistency in supply (like Japan and the Netherlands) is key to maintain a higher producer price locally.

- **Price discovery**

Uncertainty still surrounds the determination of prices, especially with pre-seasonal contracts informing the decision of the farmer to plant. Innovative research is recommended to establish a transparent price determination mechanism.

- **Yields**

It is re-emphasised that the future of the industry will, to a large extent, be determined by the success of adapted new or improved cultivars. Over the past 20 years, South Africa's groundnut yields decreased by an average annual of 0.21%. It seems as though the remaining large groundnut processing firms will have to grow the capacity of local breeding programs to compete on international export markets and more importantly against imported groundnuts as is currently the case. The consecutive



droughts in recent years have forced marginal production regions out of production and the industry is basically left with more suitable production areas. It is critical to increase yields in these production regions.

One can ask the question what the future for the industry entails in the absence of a turnaround strategy. A plausible answer is that one could see in the near future that groundnuts will only be produced by a handful of large existing firms and hardly any production of groundnuts will be viable outside of this model. As this study indicates, this implies major losses in GVA and jobs, which is the last thing that South Africa can afford at this stage. Economies of scale are important to ensure long-term competitiveness, not only by reducing costs and securing consistent supplies, but also by continuous improvement of cultivars or having access to improved cultivars irrespective of origin or type.

The model of a few large firms producing all the groundnuts will continue until it is not able to compete anymore on export markets that are supplied by industries that do have the economies of scale with comprehensive research and development programs. The South African groundnut industry will then likely enter a new phase where some of the large firms will cease their operations and South Africa will become a net importer of groundnuts, which implies that local prices will break away from export parity and trade significantly higher at import parity levels. Under this scenario, only the firms (or firm) that can produce sustainably at import parity levels will survive.



Introduction

In 2012 BFAP compiled a report for the Groundnut Forum entitled Evaluating the Sustainability of the South African Groundnut Industry. This report provided a comprehensive overview of the industry, highlighting key constraints and opportunities and providing a detailed analysis of gross margins at each node in the value chain. This report provides an update of the initial 2012 study and focuses on the current challenge that the industry is facing with respect to the rapid increase of groundnut butter and roasted groundnut imports and the added financial (and social) pressure on the local processing industry. The impact of groundnut butter imports is exacerbated by the fact that local groundnut production has collapsed from 57 000 tonnes in the 2017/18 production season to an estimate of a mere 18 000 tonnes in the current 2018/19 production season, local processors and facing an import duty of 10% of imported groundnuts, yet groundnut butter and roasted groundnut imports are landed duty free. This report focussed on an update of the global industry context and the declining trend in the South African industry. The farm-level gross margin analysis was updated and the value chain dynamics unpacked. Finally, the impact and competitiveness implication of abovementioned increase in the groundnut butter and roasted groundnut import increases was analysed.

Groundnut Market Overview

Global context

Over the past 45 years, the area under groundnut production has remained relatively constant, posting only marginal gains from just below 20 million hectares in the early 1970s to just over 25 million hectares in 2018 (see Figure 1). Over the past five years, the area under production has remained just above 25 million hectares. However, the production of groundnuts has increased significantly, especially since the early 1990s, when the introduction of new cultivars boosted average yields from approximately 1.1 tonne per hectare to 1.8 tonne per hectare by 2018, and average production volume from just over 15 million tonnes to between 40 and 45 million tonnes.

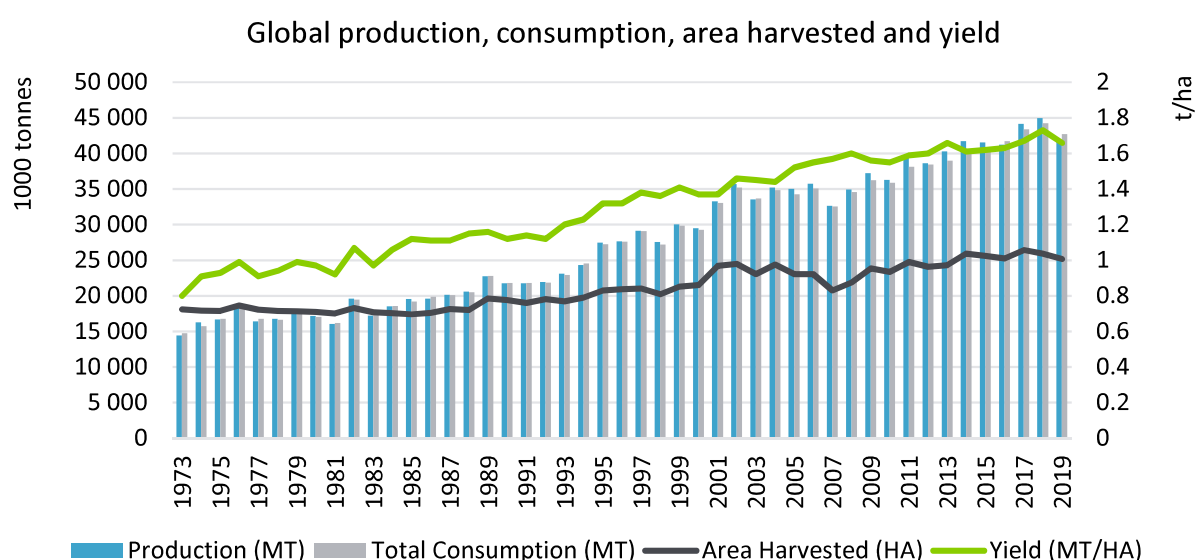


Figure 1 - Global supply and demand

Source: USDA

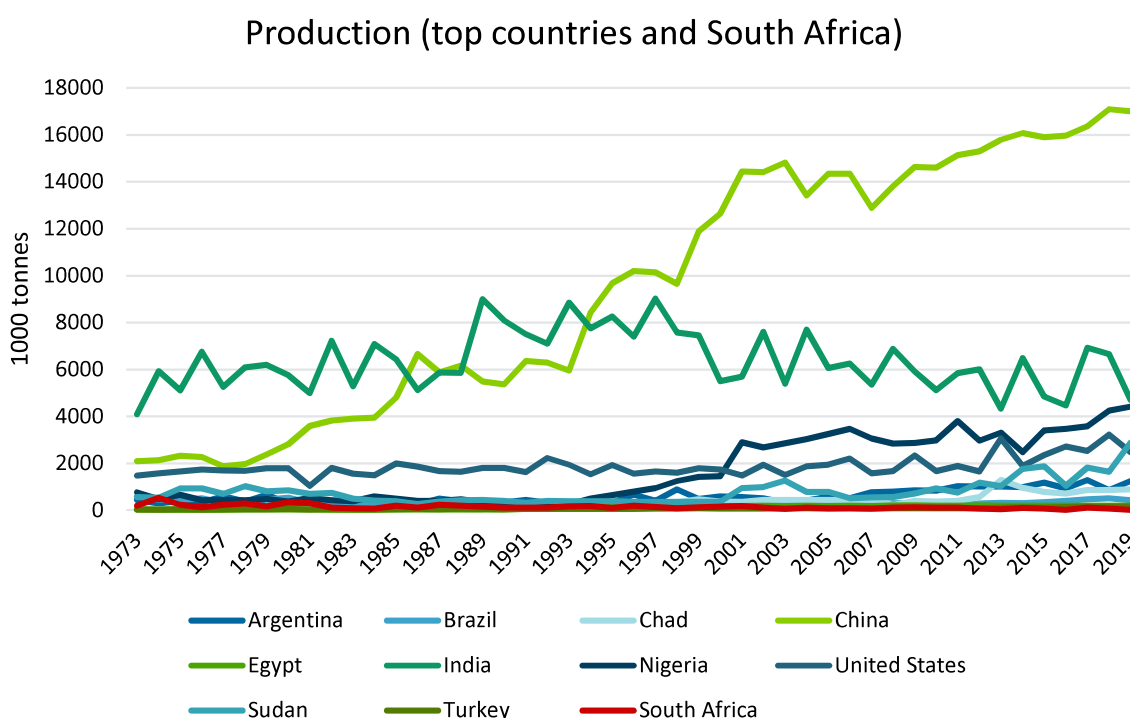


Figure 2 - Leading groundnut producers

Source: USDA

China is the leading groundnut producing country since 1994. In the last ten years China produced over 15 million tonnes per year reaching 17 million tonnes last year. India is second, and has slowly been declining ever since China took the lead. However, looking at the area harvested, India exceeded China, until recently. This is because China has much better yields that have been increasing in the last 45 years, while India's yields have been relatively constant at 1 tonne per hectare.

Chad and Nigeria increased their area harvested over the last twenty and thirty years. This increased Nigeria's production to around four million tonnes in 2018.

The United States of America has been the overall leader of yield in the past 45 years. In the last twenty years they have increased their yield from an average of 2.5 tons per hectare to 4.5 tons per hectare. They predominantly plant the Runner cultivar. This used to be considered an advantage to South Africa's Spanish cultivar. India's Java variety is similar to the Spanish cultivar and it is doing very well. Besides the United States' extremely fertile soils and mostly perfect altitudes (low altitudes 50-200m above sea level), they also have the "mechanization revolution" which leads to increasing yields. In terms of production practices, they can definitely be seen as the leaders.

The Chinese groundnut consumption has been constantly growing since 1980. For this, hectares were increased as well as yields with advanced high yielding cultivars.



It should also be noted that China's production methods differ from the other leading countries. China also predominantly produces Runner groundnuts.

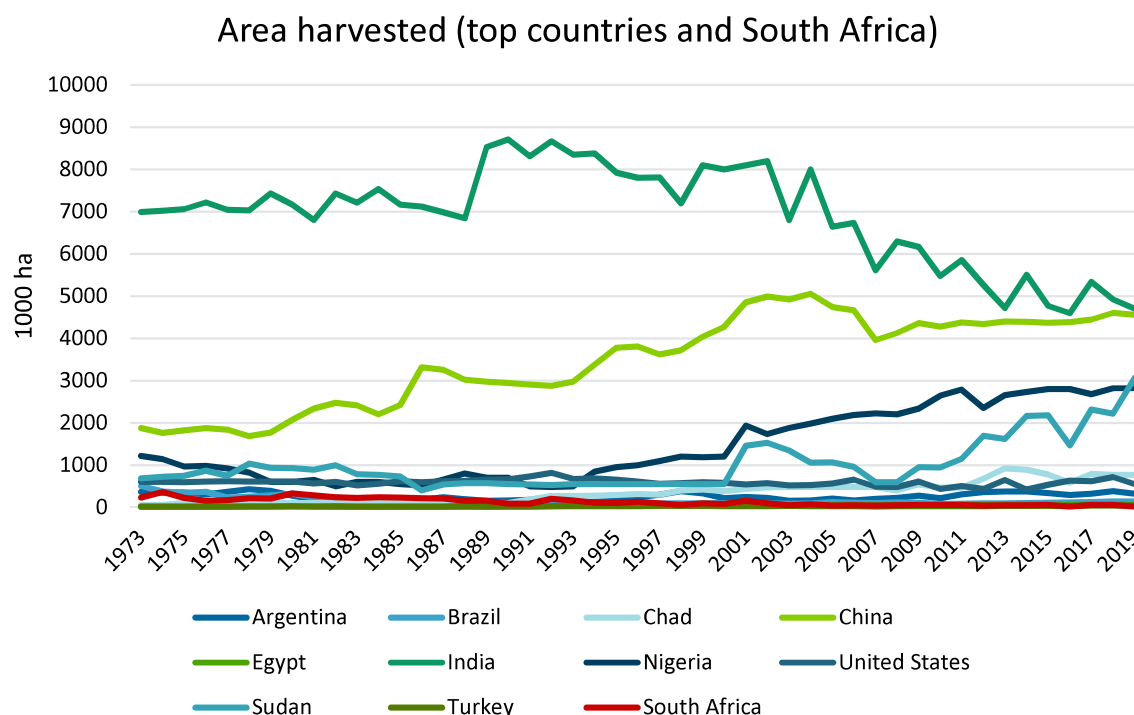


Figure 3 - Leading groundnut area

Source: USDA

Food use and domestic use make up 80% of groundnut consumption in South Africa, while 18% is typically crushed. Unlike the global market, where 40% of groundnut consumption goes towards crush (groundnut oil) and 49% is food use. With the increase in production, the global consumption has also increased. In 2001 the food use domestic consumption started to exceed the crush consumption. The feed waste domestic consumption has stayed relatively constant until 2007 when it started to increase from 2.5 million tonne to 5 million tonne in 2018.

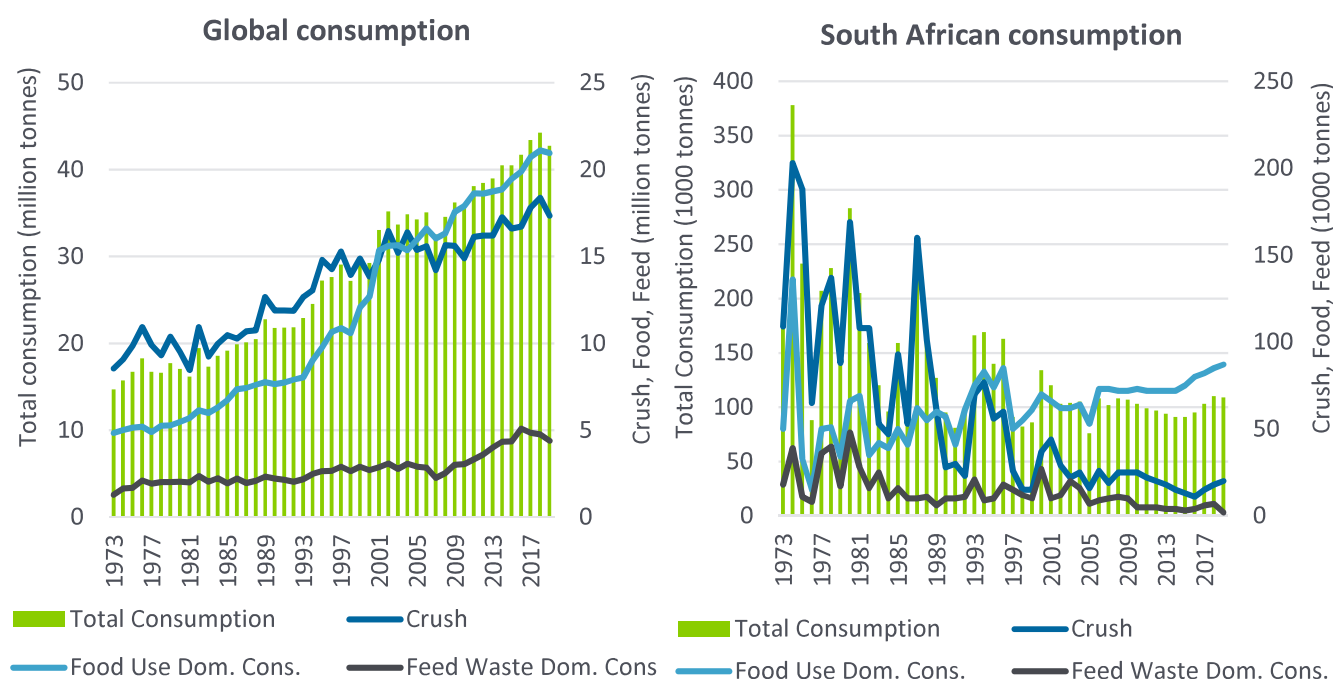


Figure 4 - Global and South African Consumption

Source: USDA

India and the United States are the largest groundnut exporters, with China, Argentina and Netherlands also exporting large amounts. Netherlands and recently also Indonesia are the main importers. Most groundnuts that are imported by Netherland are further exported to the rest of Europe.

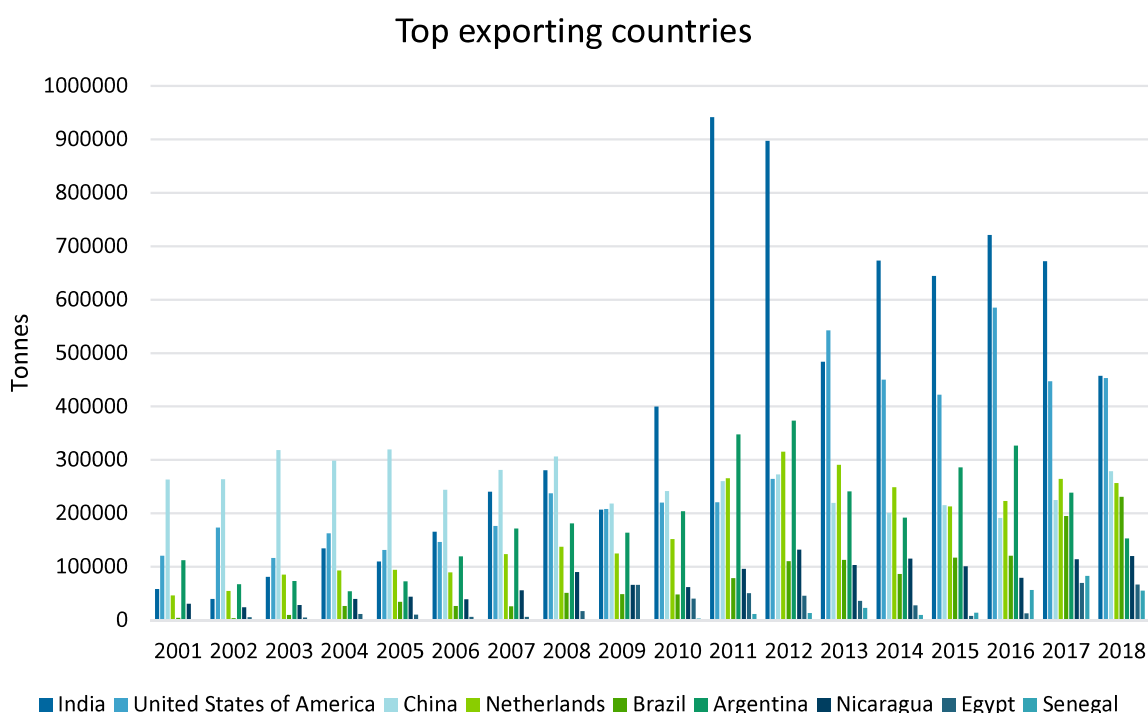


Figure 5 - Top exporting countries

Source: Trade Map

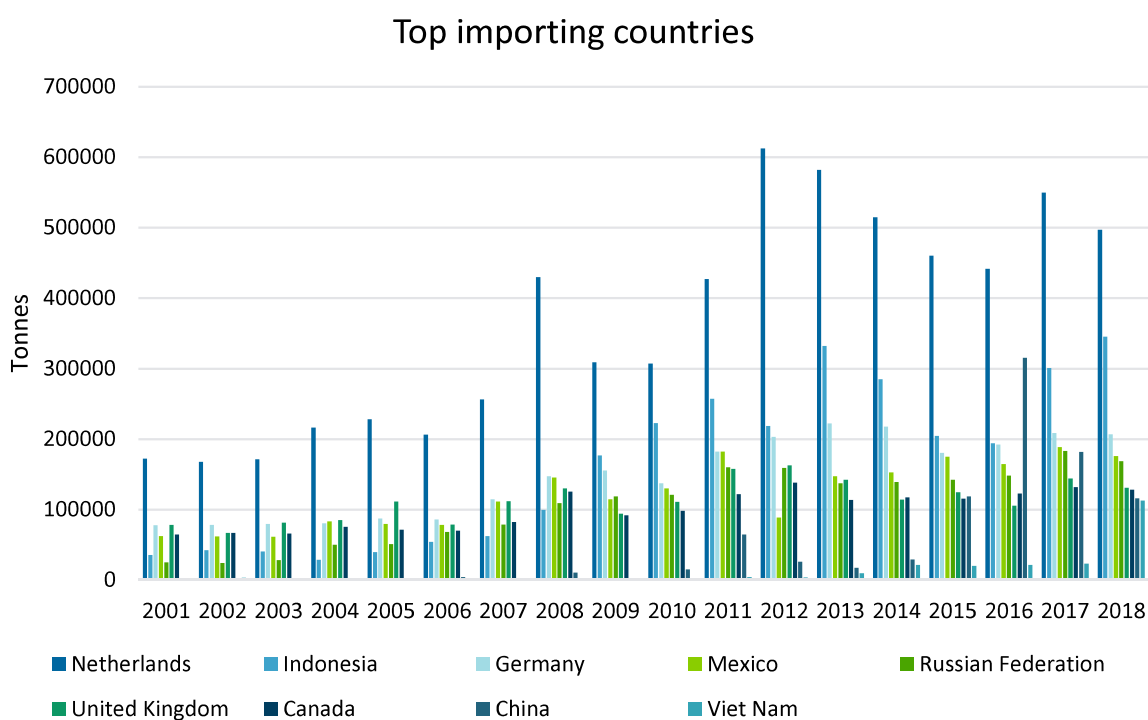


Figure 6 - Top importing countries

Source: Trade Map



Figure 7 illustrates international field crop prices, including the US price of runner groundnuts. It can be seen that the groundnut price was highly correlated with the other crop prices, especially the sunflower price, before 2011. After 2011, it seems that groundnut prices moved away from sunflower and other field crop prices, likely due to the nuances regarding various markets for levels of groundnut quality and the linked price differences. In the international market, Runner groundnuts continue to have a higher producer price compared to soybeans, maize and sorghum (Figure 7).

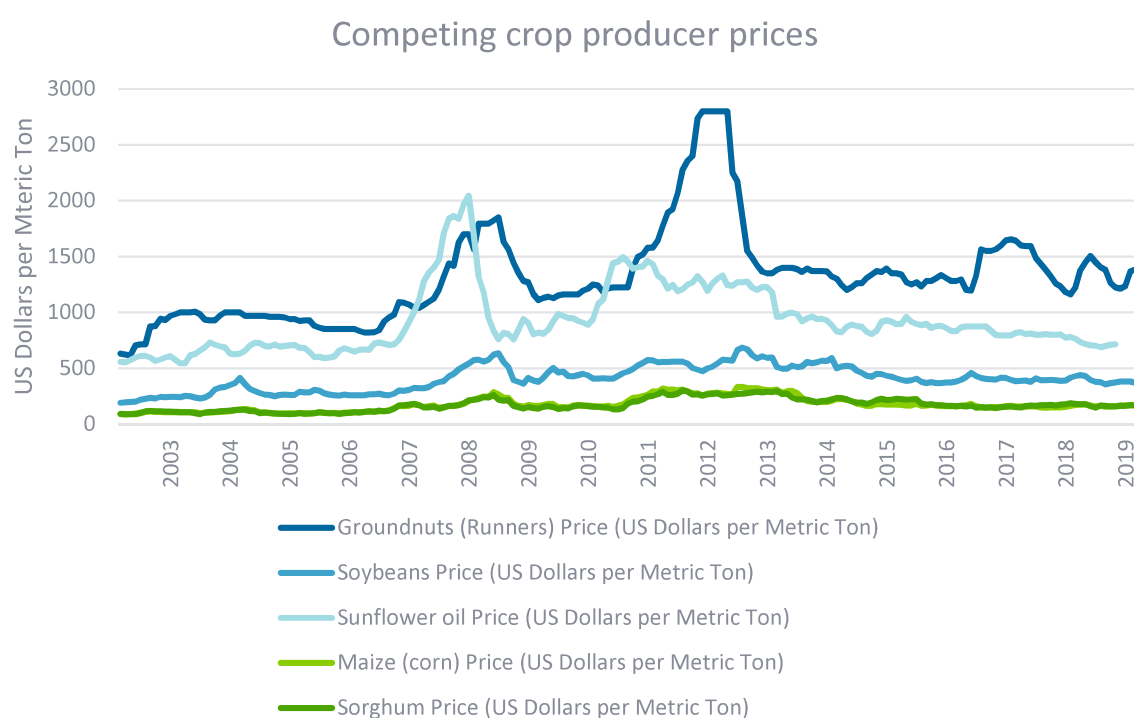


Figure 7 - International grain crop prices (Source: Index Mundi; 2019)

Source: Index Mundi

South African context

In South Africa the groundnut area harvested has been decreasing constantly over time. Although there has been an upward trend (with a lot of fluctuation) in yields over the past two decades (Figure 2), yields have not been increasing enough to compensate for the loss in hectares. Consequently, production levels have also been declining over time.

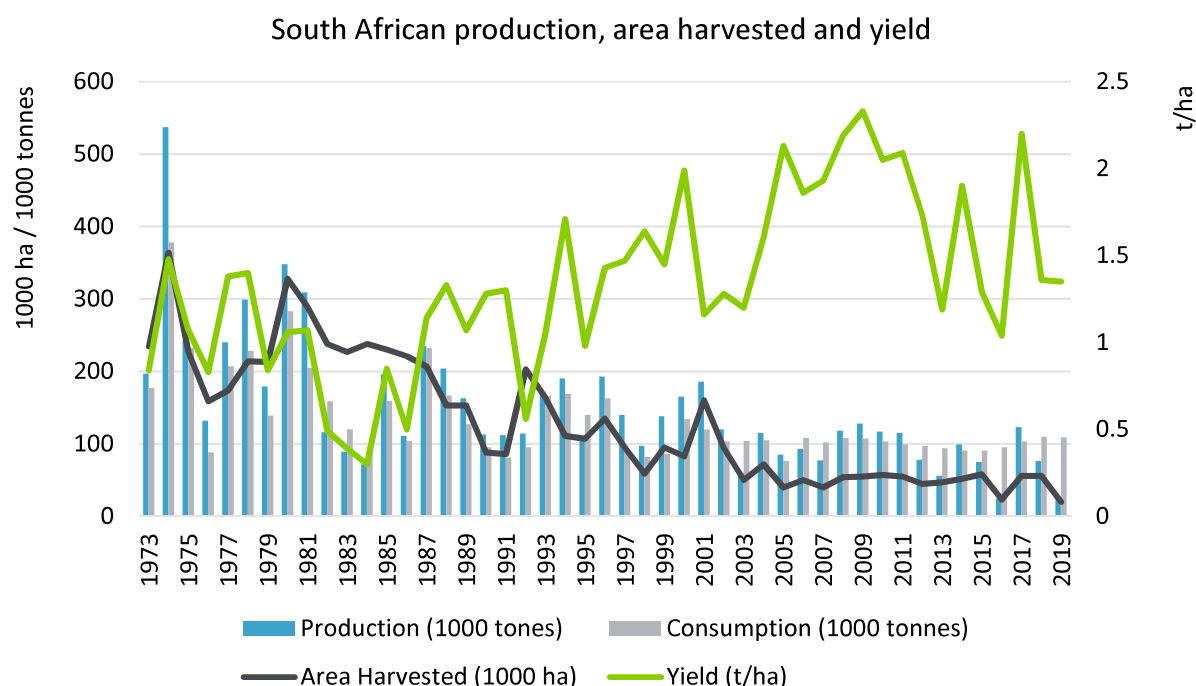


Figure 8 - South African supply and demand

Source: USDA

From Figure 88 it is clear that the South African production decrease was largely driven by a reduction in area however, yield increases have also not kept up to global trends. Figure 9 compares South Africa's yield history with the world's major producers and traders of groundnuts. While groundnut yields in the United States, Argentina, Brazil, China and India grew by an annual average 2.35%, 2.29%, 3.63%, 1.52% and 1.99% respectively over the past 20 years, South Africa's groundnut yields decreased by an average annual 0.21% over the same period.

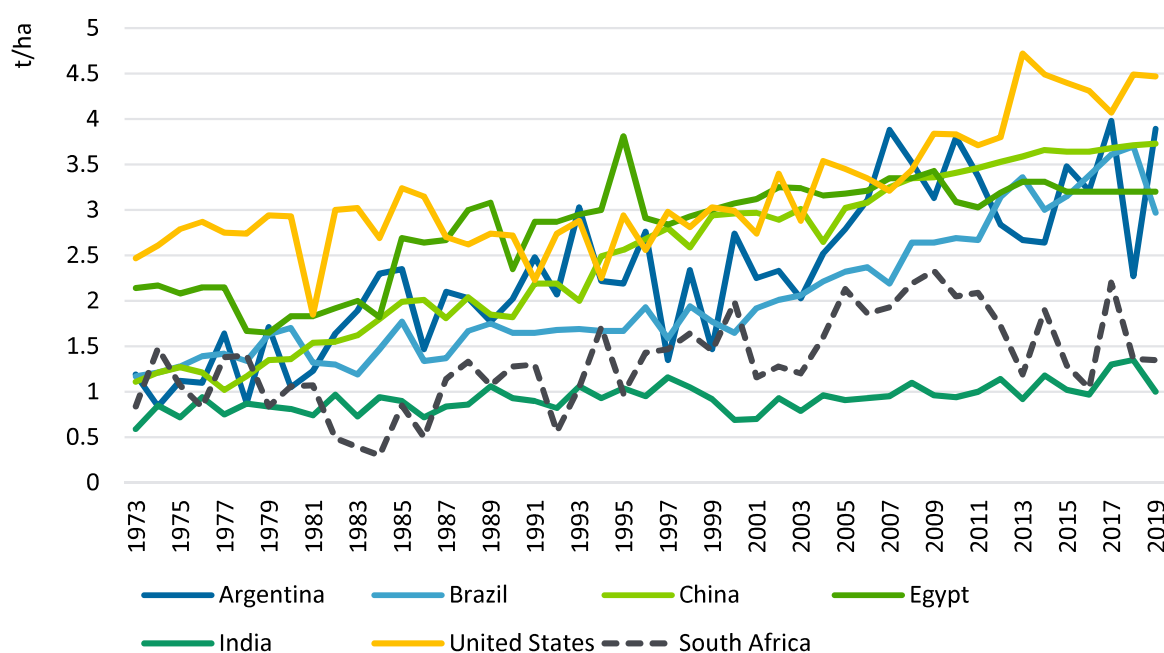


Figure 9 - International yield trends

Source: USDA

Groundnuts are mainly planted in the Northern Cape, Free State, Limpopo and North West province. In the Free State the area declined significantly mainly due to an increase in soybean production; the Free State and North West groundnut plantings are mainly dryland while the Northern Cape and Limpopo plant mainly groundnuts under irrigation.

Production per Province (10-year average)

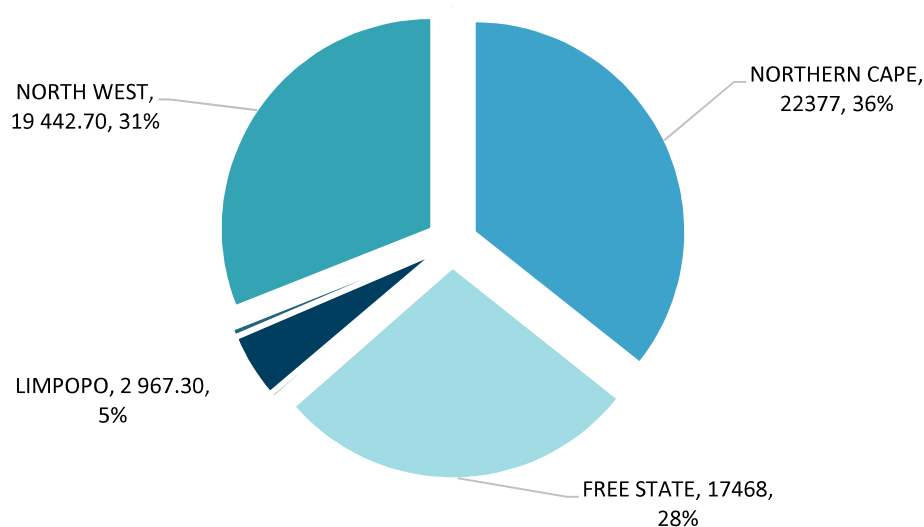
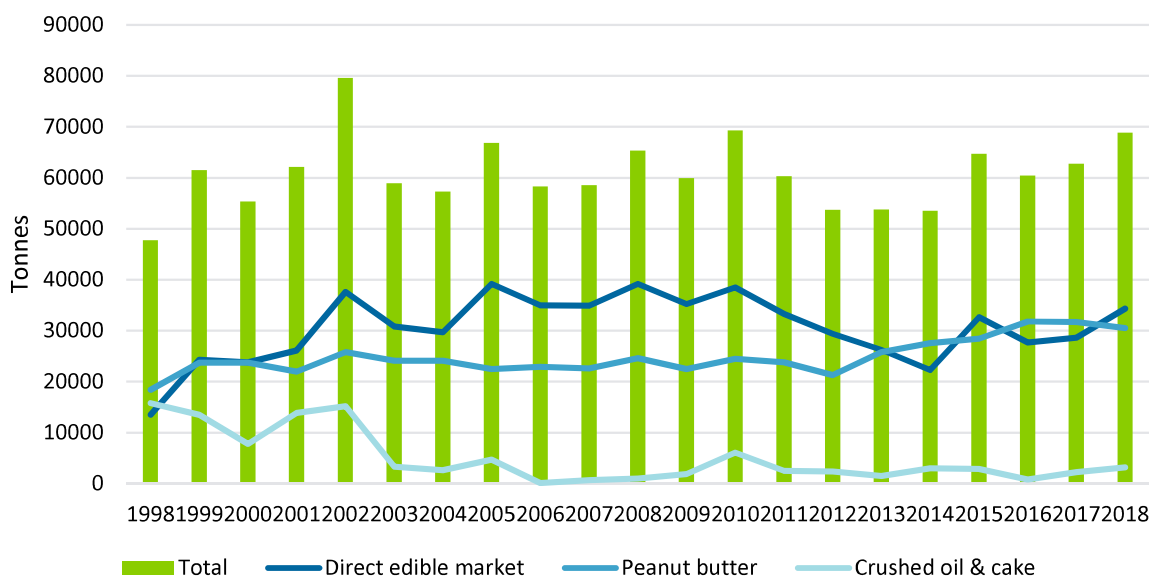


Figure 10 - South African groundnut production by province

Source: SAGIS



South African consumption



Source: SAGIS

Over the last ten years, the domestic direct edible market has been declining slightly and the groundnut butter market has been increasing and both these markets are now consuming around 30 000 tonnes per annum. The edible market includes the roasted groundnuts which are typically bought in 400g packets, either salted or with raisins. The groundnut butter brands that are typically found on retail shelves are Black Cat, Yum-Yum, Skippy, Thokoman and certain no-name brands which are either sold as retailer house-brands or sold in bulk to the informal market. Crushed oil and cake has decreased a lot during the last twenty years, becoming almost insignificant like pods that remain a small percentage of the consumption.

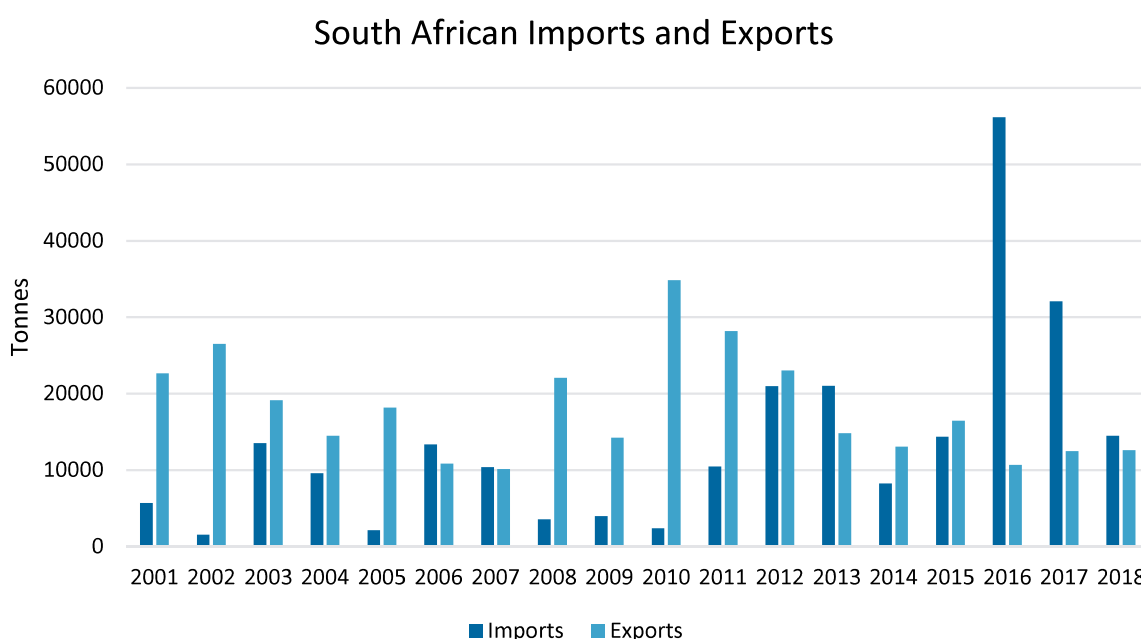


Figure 11 - South African groundnut trade

Source: Trade Map

South Africa has become a net importer of groundnuts. From previously being a net exporter. Groundnut product imports, like groundnut butter and roasted groundnut, have increased significantly over the past 3 years.

Farm Level Competitiveness

When looking at the groundnut gross margins per hectare, irrigation is much higher as can be expected, but what is important to note is that for the gross margins **per tonne**, groundnut production under dryland is very profitable in comparison to any other dryland crop. The gross margins for dry land and irrigation differ by R890 per tonne in favour of dryland. Dryland production requires a yield of 0.9 tonnes per hectare to break even, where irrigation requires 2.2 tonnes per hectare. To cover the direct costs, dryland currently requires a minimum price of R6122 per tonne and irrigation has a break-even price of R9252 per tonne. Irrigation is higher due to higher costs for water and irrigation facilities. According to the calculation, dryland seems to be the preferred production method, but it has much higher risks due to South Africa's uneven rainfall in the past few years. Table 1 illustrates these calculations and the average prices and costs. Only direct specified costs were considered because overhead costs are very difficult to allocate due to producers using overheads for more than one crop.

Table 1: Dryland and Irrigation Gross Margins

		Dry land	Irrigation
PRODUCT PRICE	R/ton	10200.0	12740.0
ESTIMATED YIELD	ton/ha	1.5	3.0
INCOME FROM HAY	R/ha	900.0	900.0
GROSS PRODUCT INCOME(GPI)	R/ha	16200.0	39120.0
A: DIRECT ALLOCATABLE COSTS	R/ha		
Fertilizer		2266.0	6626.0
Seed		1300.0	2860.0
Fuel		1088.0	1088.0
Herbicide		295.0	295.0
Pesticide		359.0	3796.0
Repairs and maintenance		667.0	667.0
Drying cost		900.0	2400.0
Labour		162.0	162.0
Seed-inoculation		179.0	179.0
B: OTHER SPECIFIED COSTS	R/ha		
Crop insurance		207.0	207.0
Harvesting Costs		1760.0	3520.0
Irrigation - Electricity		0.0	2883.0
Irrigation - Water		0.0	942.0
Irrigation - Other expenditure: Scheduling / Irrigation Equipment R&M		0.0	2132.0
TOTAL COSTS	R/ha	9183.0	27757.0
TOTAL COSTS	R/ton	6122.0	9252.3
GROSS MARGIN: DETERMINISTIC YIELD	R/ha	7017.0	11363.0
GROSS MARGIN: DETERMINISTIC YIELD	R/ton	4678.0	3787.7
BREAK-EVEN PRICE	R/ton	6122.0	9252.3
BREK-EVEN YIELD	ton/ha	0.9	2.2

Source: GWK and BFAP calculation

The price sensitivity is illustrated in Table 2 and Table 3 below for dryland and irrigation respectively. It illustrates how a change in producer price and yield affect the gross margin in Rand per hectare received by the producer.

*Table 2: Dryland gross margin sensitivity (R/ha)*

R/ha		Yield						
		0.75	1	1.25	1.5	1.75	2	2.25
Producer Price	9800	295	2340	4385	6415	8460	10499	12544
	10000	445	2540	4635	6715	8810	10899	12994
	10200	595	2740	4885	7015	9160	11299	13444
	10400	745	2940	5135	7315	9510	11699	13894
	10600	895	3140	5385	7615	9860	12099	14344

Source: GWK and BFAP calculation

Table 3: Irrigation gross margin sensitivity (R/ha)

R/ha		Yield						
		2	2.5	3	3.5	4	4.5	5
Producer Price	12340	-2177	3993	10163	16333	22503	28673	34843
	12540	-1777	4493	10763	17033	23303	29573	35843
	12740	-1377	4993	11363	17733	24103	30473	36843
	12940	-977	5493	11963	18433	24903	31373	37843
	13140	-577	5993	12563	19133	25703	32273	38843

Source: GWK and BFAP calculation

Comparing Groundnuts to other crops

Comparing the gross margins of groundnuts to other competing crops in their relative districts illustrates a much larger margin for groundnuts than for the other crops. However, risk factors that need to be taken into account for groundnuts specifically include:

- Additional mechanisation requirements for groundnut production adds up to R1.25 million in asset costs to a farming enterprise.
- There is no published / traded groundnut price like for other crops (e.g. SAFEX), as a result farmers' risk mitigation ability is limited with a contracted price.
- Lastly, the average farmers' stock price is directly dependent on the quality produced and adverse weather conditions could doubly affect returns on the groundnut crop: yield reductions and higher percentages of lower-quality groundnuts.

The last few years have been very tough due to the drought. Even though groundnuts are more drought-resistant, normal rainfall is necessary to stabilise the crop growth.

Groundnuts are mostly mechanically harvested. Currently bulk handling *mechanical harvesting* is at 60-70% with manual handpicking the rest. In the future it is expected to increase to 80-90% mechanical harvesting. It is slightly more expensive to harvest mechanically and the price realisation is slightly higher, but more significant is that it is



much easier and more advantageous for producer to harvest mechanically. Mechanical harvesting has also proven to yield higher groundnut quality.

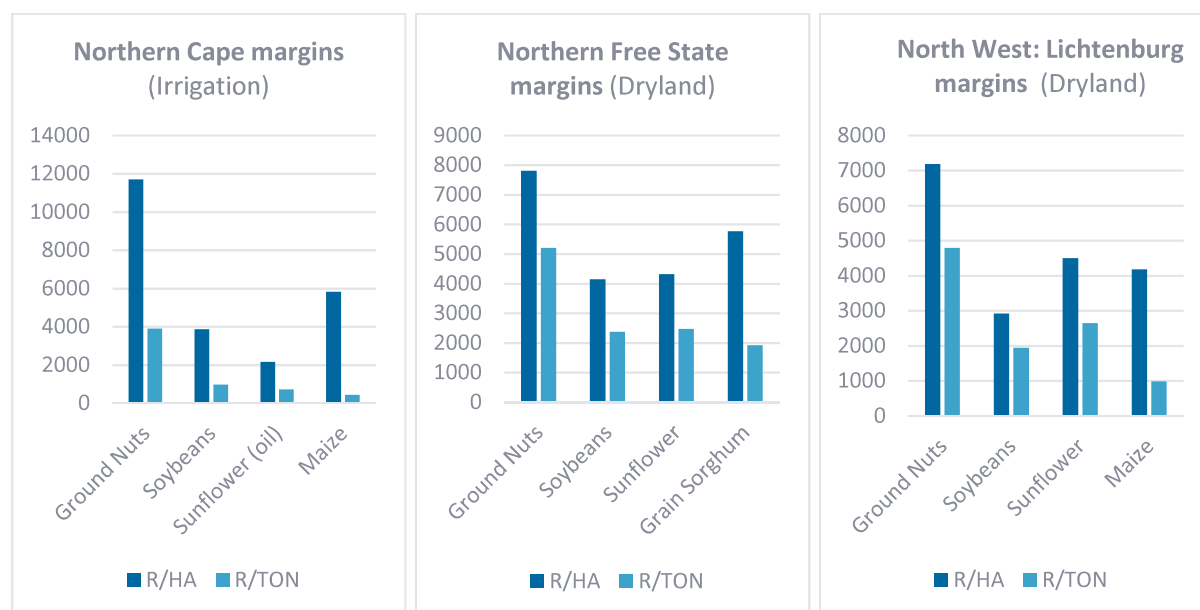


Table 4: Gross Margin for competing crops in the Northern Cape

Area		Northern Cape			
Crop		Ground Nuts	Soybeans	Sunflower (oil)	Maize
Production System		Irrigation	Irrigation	Irrigation	Irrigation
Yield: Deterministic	T/HA	3.00	4.00	3.00	13.50
SAFEX SIMULATED PRICE: 2019 / PRODUCER PRICE	R/TON	12740.00	5098.49	5195.74	2661.78
GROSS INCOME	R/HA	38220.00	20157.94	15587.22	31141.55
TOTAL VARIABLE EXPENDITURE	R/HA	26525.20	16295.63	13429.74	25321.29
TOTAL VARIABLE EXPENDITURE	R/TON	8841.73	4073.91	4476.58	1875.65
3.1) GROSS MARGIN: DETERMINISTIC YIELD	R/HA	11694.80	3862.31	2157.47	5820.25
3.2) GROSS MARGIN: DETERMINISTIC YIELD	R/TON	3898.27	965.58	719.16	431.13
BREAK-EVEN PRICE	R/TON	8841.73	4073.91	4476.58	1875.65
BREK-EVEN YIELD	TON/HA	2.08	3.20	2.58	9.51

Table 5: Gross Margin for competing crops in the Northern Free State

Area		Northern Free State			
Crop		Ground Nuts	Soybeans	Sunflower	Grain Sorghum
Production System		Dryland	Dryland	Dryland	Dryland
Yield: Deterministic	T/HA	1.50	1.75	1.75	3.00
SAFEX SIMULATED PRICE: 2019 / PRODUCER PRICE	R/TON	10200.00	5098.49	5195.74	3355.79
GROSS INCOME	R/HA	15300.00	8812.10	8575.42	9828.87
TOTAL VARIABLE EXPENDITURE	R/HA	7496.48	4664.10	4253.67	4063.15
TOTAL VARIABLE EXPENDITURE	R/TON	4997.65	2665.20	2430.67	1354.38
3.1] GROSS MARGIN: DETERMINISTIC YIELD	R/HA	7803.52	4148.00	4321.75	5765.72
3.2] GROSS MARGIN: DETERMINISTIC YIELD	R/TON	5202.35	2370.28	2469.57	1921.91
BREAK-EVEN PRICE	R/TON	4997.65	2665.20	2430.67	1354.38
BREK-EVEN YIELD	TON/HA	0.73	0.91	0.82	1.21

Table 6: Gross Margin for competing crops in the North West: Lichtenburg

Area		North West: Lichtenburg			
Crop		Ground Nuts	Soybeans	Sunflower	Maize
Production System		Dryland	Dryland	Dryland	Dryland
Yield: Deterministic	T/HA	1.50	1.50	1.70	4.25
SAFEX SIMULATED PRICE: 2019 / PRODUCER PRICE	R/TON	10200.00	5098.49	5195.74	2864.30
GROSS INCOME	R/HA	15300.00	7557.73	8372.06	11068.27
TOTAL VARIABLE EXPENDITURE	R/HA	8117.71	4637.41	3873.49	6892.04
TOTAL VARIABLE EXPENDITURE	R/TON	5411.81	3091.61	2278.52	1621.66
3.1] GROSS MARGIN: DETERMINISTIC YIELD	R/HA	7182.29	2920.32	4498.57	4176.23



3.2)	GROSS DETERMINISTIC YIELD	MARGIN:	R/TON	4788.19	1946.88	2646.22	982.64
	BREAK-EVEN PRICE		R/TON	5411.81	3091.61	2278.52	1621.66
	BREK-EVEN YIELD		TON/HA	0.80	0.91	0.75	2.41

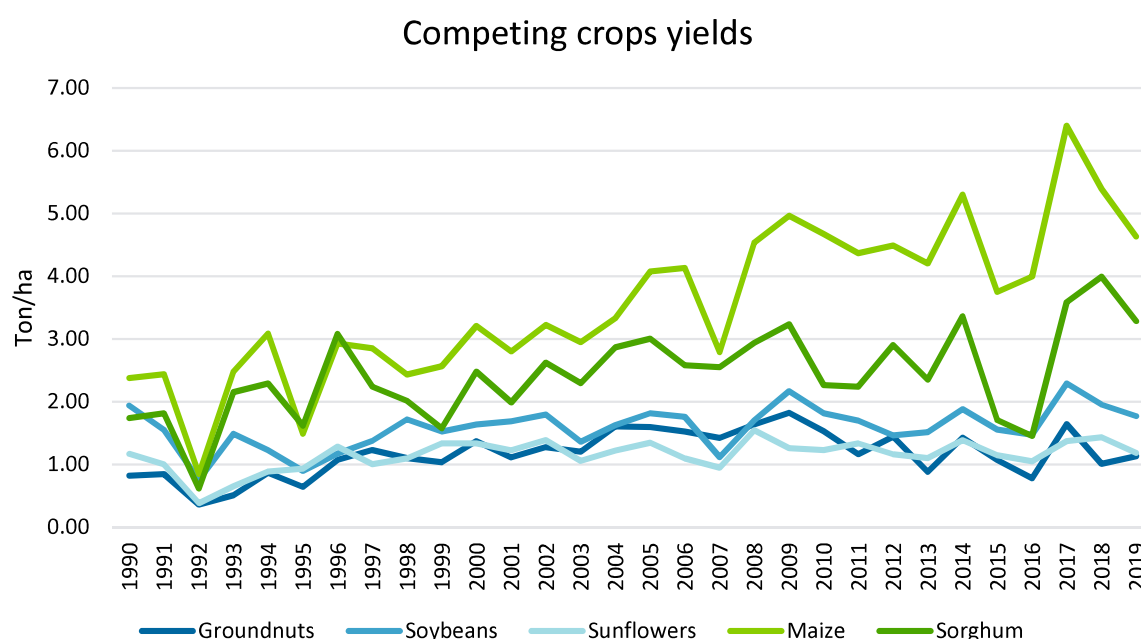


Figure 12 - South African historic grains and groundnut yields

Source: SAGIS

In South Africa, groundnuts have stayed behind when looking at yields, compared to other crops. The groundnut yield has only increased slightly from 0.9 tonnes per hectare to around 1.19 tonnes per hectare since 1990 (average annual 0.97% increase). While other crops, like maize, have increased from about 2 tonnes per hectare to 5 tonnes per hectare over the same period (average annual increase of 3.21%). And soybeans, which have taken a lot of groundnuts hectares, has continuously exceeded groundnuts in terms of yield.

In addition input costs including fuel, fertiliser, requisites and intermediate goods and services, have increased by an average annual 9.11% per annum; with yields increasing only marginally, groundnut producer prices would have had to increase by more than inflation to remain profitable.

Cultivar Varieties

The bulk of the global groundnut market is based on Runner varieties. Since 2011 South Africa has increasingly transitioned to Spanish variety production. The Spanish

groundnut market is a niche market representing only between 3% and 6% of globally produced groundnuts. Only a few countries produce Spanish type groundnuts, including South Africa and the US; India's Java type is comparable to the Spanish type as well.

The South African groundnut cultivar development is much slower than other crops and other countries due to the industry being smaller and having less funding.

The Agricultural Research Council (ARC) is involved with cultivar development and is testing new cultivars and comparing them to commercial cultivars. They developed "ARC Akwa Plus" and "ARC Sellie Plus" about six years ago, which are performing well. Currently the ARC is busy developing about six new cultivars, of which two might be registered this year (2019). All the cultivars are of the Spanish variety. The ARC is focusing on developing cultivars with high yields and that are disease-resistant.

However, it takes long to develop new cultivars which resulted in the ARC losing funds. But, recently the ARC is receiving more funds, with the groundnut forum and OPOT supporting them as well. But more support is needed, or other options like importing cultivars should be considered.

The private sector has also invested in groundnut cultivar research in recent years. For example, Trio Trade has identified a Spanish cultivar from the United States that is showing good potential. Care should however be taken when importing cultivars from large groundnut producing countries like the United States, because South Africa cannot compete with these countries. These countries have safety nets like their government, which South Africa does not have. Due to lack of funds, effort is also being put into keeping the current cultivars clean.

The Groundnut Value Chain

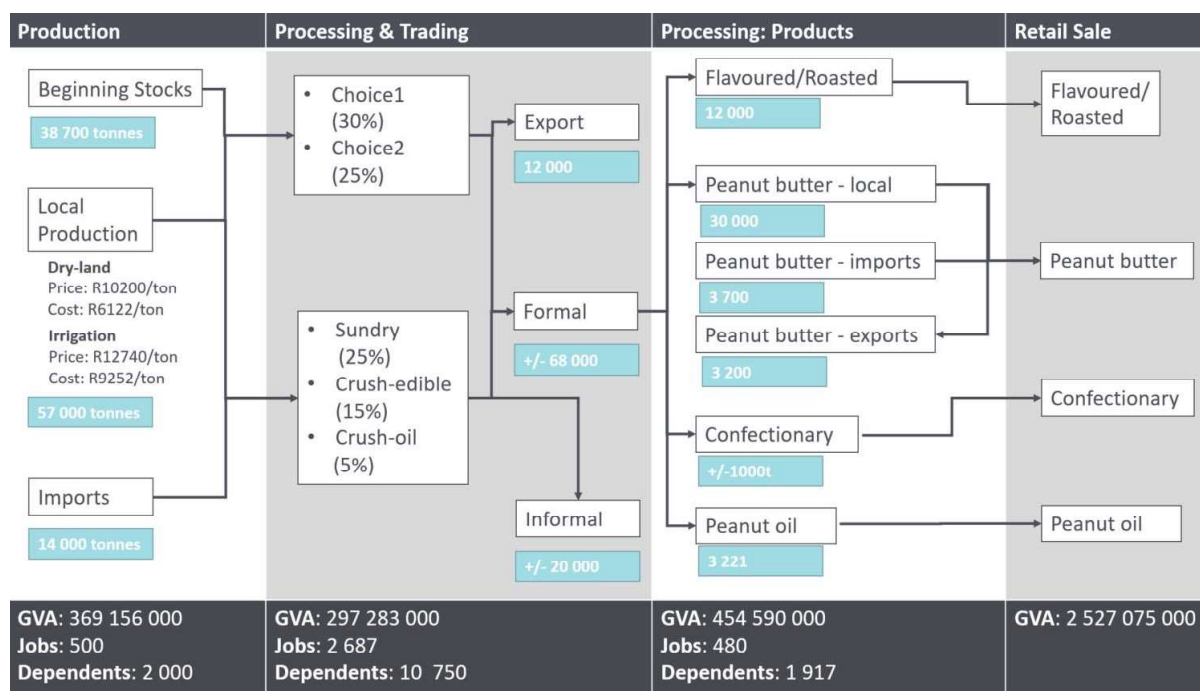


Figure 13 - Groundnut value chain map

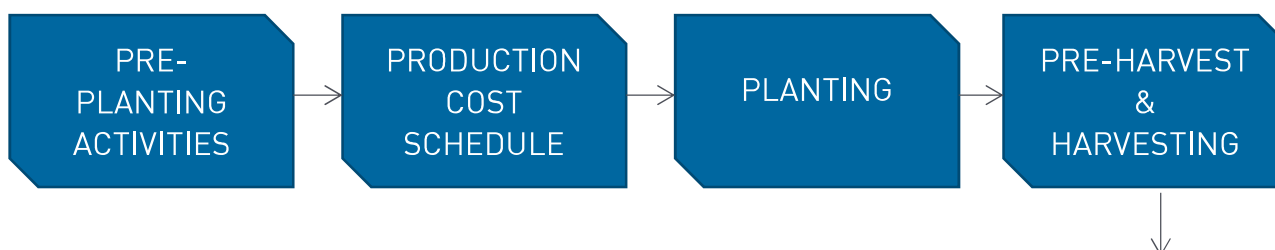
The South African groundnut value chain is mapped out in Figure 13 and 2018 or average volumes are indicated at each node. Some key points from the value chain map to point out:

- Farmers produce a mixed bag in terms of quality (see Table 7 and Table 8) however, high quality and lower quality groundnuts have different market-destinations respectively.
- Higher quality groundnuts (referred to as Choice 1 and Choice 2) are either exported (Japan and the Netherlands predominantly) or locally sold into the edible (flavoured / roasted), snack and confectionary markets.
- Groundnuts for groundnut butter production are predominantly sourced from “Sundry” quality groundnuts as well as “splits” from the local market but are also supplemented with imported product from Argentina, USA, Brazil, China and Nicaragua. Imports are partly due to seasonality of local groundnut production but in recent years also due to a shortage of local groundnut supply.
- As was pointed out in Figure 4, groundnut crushing and groundnut oil production are very small parts of the South African market.
- Processing in the second stage of the value chain includes the cleaning, blanching, testing and transport of raw groundnuts (see the activities in Chain 2 below). Depending on the number of tests done, the processing cost is R4500 per ton on average.
- Processing in the third stage of the value chain (see processing activity in Chain 3 below) includes the production of groundnut butter from blanched or raw

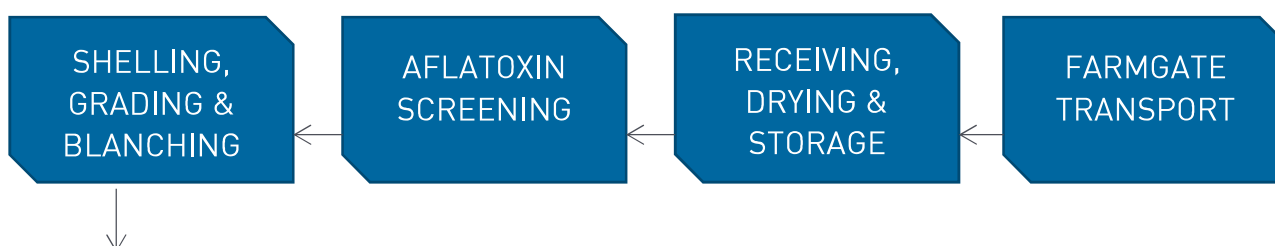


groundnuts as well as groundnut roasting. In the case of roasting groundnuts, the second and third stage are often combined in one step.

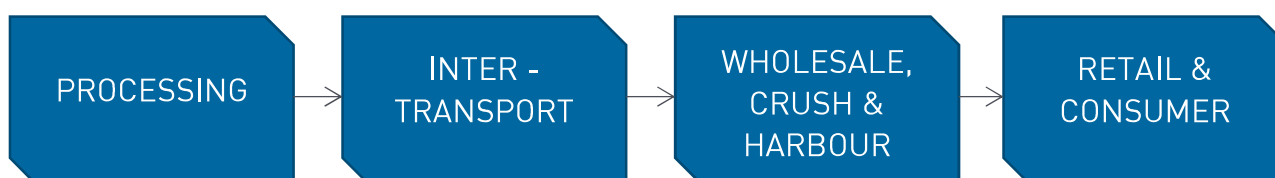
Chain1



Chain2



Chain3





Price Analysis

Farmer stock price formation

The groundnut price is mostly dependent on the supply and demand of groundnuts. The price differs from other crops like maize and sunflowers because it does not have a SAFEX or CBOT reference price. Thus, a fixed or minimum price is used for contracting purposes. A minimum price is the minimum amount that a farmer will get for the upcoming harvest, set by primary processors like Golden Peanut and GWK. If the national harvest is underperforms, there is an under-supply and the actual price that the farmer receives for his harvest is higher. If there is an over-supply the producer will receive the minimum price. **The minimum price** is determined by taking factors like opening stock, the budgeted production, climate foresight, the import price and the price of the previous seasons into account. Then a risk factor between 20-30% is added. The minimum price is always lower than the fixed price. The fixed price is the price received in a contract. The farmer and processor conclude a contract for a specific percentage of the crop for at a specific price, also referred to as the **Farmer's Stock Price**. The Farmer's Stock Price method is gaining popularity, because both the producer and processor can plan better. The best option is a combination of the two practices.

The groundnut harvest is divided into different grades with different prices. Choice 60/70, 50/60 and higher grade is used for the snack market. Sundries, splits and some Choice grade groundnuts, are used for groundnut butter. Good quality, like Choice 60/70 and 70/80 are exported, mainly to Europe and Japan (including some Choice 50/60). The Spanish type groundnut is desirable in the European snack market, due to its round (rather than oval) shape and related favourable coating attributes. The local informal market also buys smaller amounts at more affordable prices.

Since quality compositions for irrigation production generally contain more Choice grade groundnuts relative to dryland production, two different average Farmer's Stock Price calculations are shown in Table 7 and Table 8 below.

Table 7: Irrigation Farmer Stock Price

	Yield	Price/ton	Product (R/ton)	Price
Choice 40/50 - 60/69	0.5	16000	8000	
Choice 70/79	0.16	14000	2240	
Sundries	0.18	11000	1980	
Crush	0.1	4000	400	
Oil Crush	0.06	2000	120	
Net	1	47000	12740	



Table 8: Dryland Farmer Stock Price

	Yield	Price/ton	Product	Price
Choice 40/50 - 60/69	0.2	16000	3200	
Choice 70/79	0.2	14000	2800	
Sundries	0.3	11000	3300	
Crush	0.15	4000	600	
Oil Crush	0.15	2000	300	
Net	1	47000	10200	

South African Groundnut Producer Prices

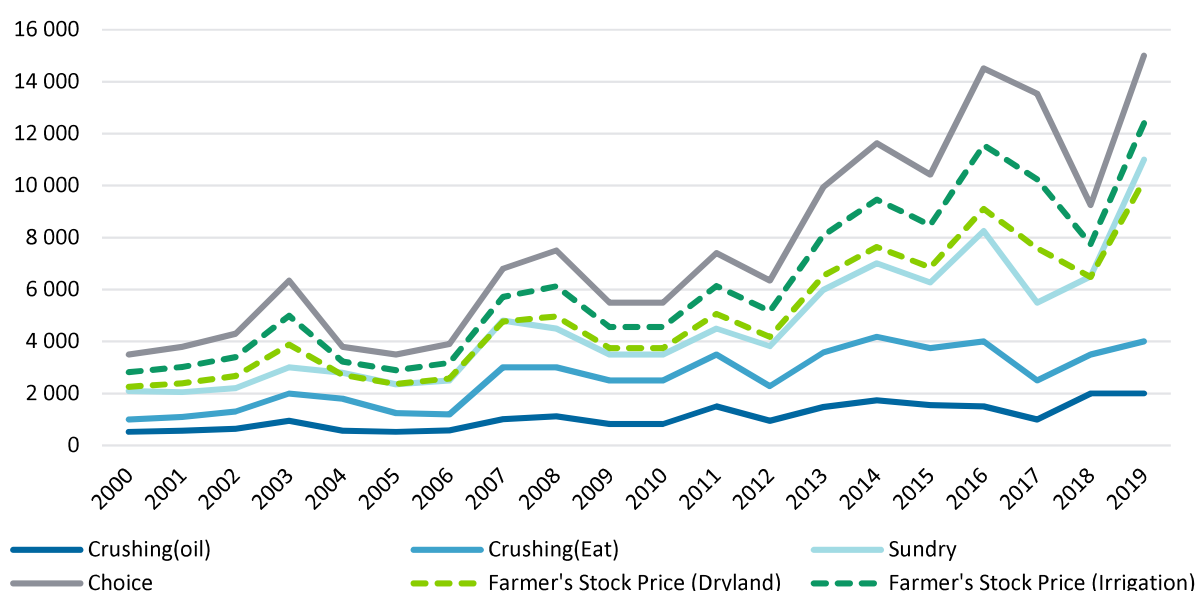


Figure 14 - Historic Farmer's Stock Price

Source: GrainSA, GWK and BFAP calculations

The Spanish groundnut price is guided but not directly influenced by the Runner price, which is largely produced in the United States and Argentina.

Various spot and historic international prices, in CIF equivalents, are shown in Figure 15 below, indicating the different prices received by various groundnut types and grades. This goes to show, that higher grade Spanish type groundnuts receive a significantly higher price abroad when compared to Runner type groundnuts.

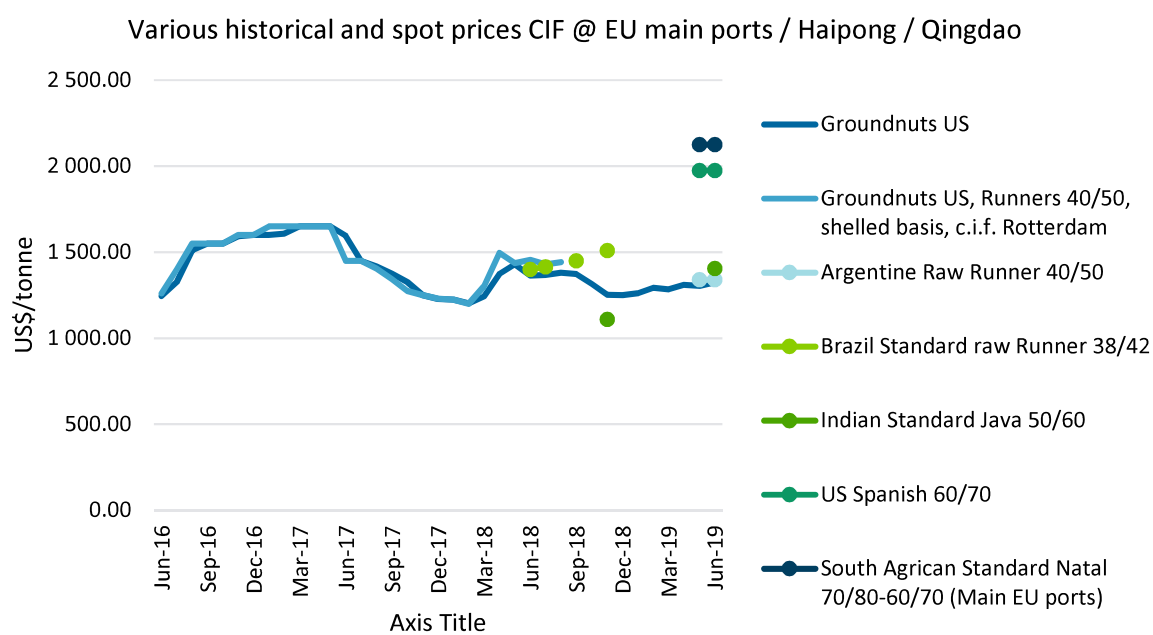


Figure 15 - Spanish international price comparison

Competitiveness & Trading in the Groundnut Products Market

As mentioned earlier, the imports of groundnut products have increased drastically over the past 3 years. The processing production costs and trade policies (tariffs) for the groundnut market will be investigated, to gain understanding of underlying reasons for these recent changes.

Tariffs are implemented to protect domestic producers and processors (industry), in cases where they face structural or other challenges in terms of competitiveness. Consequently tariffs are implemented to in turn protect in-country job offerings and value add. In Table 9 the current ad valorem tariffs as they apply to groundnuts and groundnut products are given as well as the relevant bound tariffs.

Bound tariffs are commitments made by countries who are members of the WTO. The members negotiate bound trade levels, namely the maximum tariff level of specific commodities. These rates then apply to all members of the WTO. South Africa has been a WTO member since 1 January 1995. The bound tariff level is not necessarily the applied rate, members can increase and decrease their tariffs as long as they stay below or the same as the bound tariff level and implement the changes on a non-discriminatory basis. It is also known as a bound rate, bound tariff or tariff binding.

Table 9 - Tariffs and bounding rates

Description	Code	Tariff (%)	Bound rate (%)
Groundnut seed, for sowing	12023000	10	70
Groundnuts, in shell (excl. seed for sowing, roasted or otherwise cooked)	12024100	10	70
Groundnuts, shelled, whether or not broken (excl. seed for sowing, roasted or otherwise cooked)	12024200	10	70
Crude groundnut oil : Marketed and supplied for use in the process of cooking food	15081010	9,8	49
Groundnut oil and its fractions, whether or not refined (excl. chemically modified and crude) : Marketed and supplied for use in the process of cooking food	15089010	9,8	49
Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of groundnut oil	23050000	6,6	49



Groundnuts, prepared or preserved (excl. preserved with sugar) : Groundnut butter	20081111, 20081115, 20081119	0,03 ¹	70
Groundnuts, prepared or preserved (excl. preserved with sugar), groundnuts roasted	20081120, (20081190)	1	70

Source: Trade Map

Table 9 shows that even though the raw or base product – groundnuts – have a 10% tariff, the products derived from groundnuts (groundnut butter and roasted groundnuts) have very low tariffs. This creates imbalances in the pricing of products and leaves local processors vulnerable to relatively cheaper imports. These aspects will be unpacked in more detail in this section.

Groundnut butter

In the past 3 years, groundnut butter imports have increased dramatically, from less than 1 000 tonnes before 2016 to more than 3 000 tonnes in recent years, see Figure 16. At the same time, retail prices were consistently increasing while the unit-values (trade values divided by trade quantities as a proxy for import parity price) remained relatively constant. The implied margin for imported groundnut butter (difference between import parity price and retail price) seems to have increased drastically over the past 10 years, offering opportunities for groundnut butter importers.

¹ Groundnut butter tariff codes were split from 20081110 to 20081111, 20081115 and 20081119 to distinguish between smooth and crunchy groundnut butter trade (in packaging ready for retail sale) and other bulk groundnut butter trade. Groundnut butter has a specific tariff of 0.99c/kg which translates to an estimated ad valorem tariff as indicated in the table.

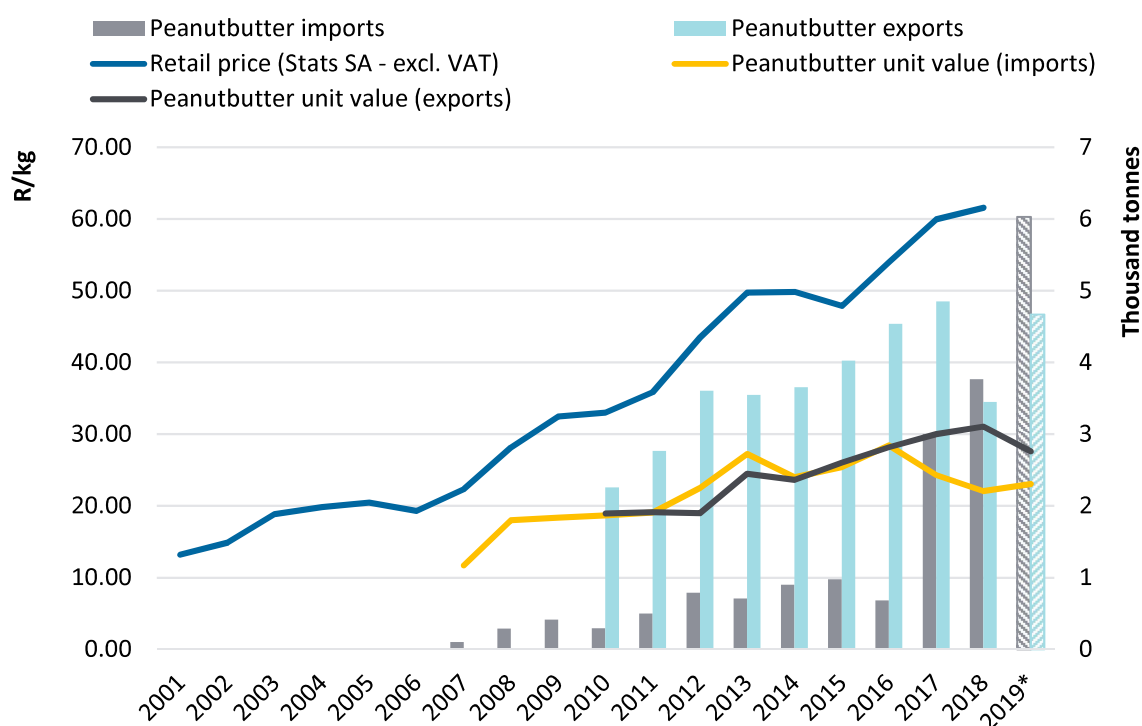


Figure 16 - Groundnut butter trade and prices (*2019 Trade values extrapolated from first 5 months' data.)

Table 10 compares the average production costs of groundnut butter in South Africa from both locally procured and imported groundnuts, with the average cost of importing groundnut butter (bulk and pre-packaged) into South Africa over the past 3 years. At an average production cost of R26.36, it is R2.39 (10%) more expensive to produce groundnut butter locally than to import pre-packaged groundnut butter.

The imported product is simply out-competing the locally produced product and as a result, local processors are also considering to import bulk groundnut butter or groundnut butter paste which is turning out to be more cost effective.

Table 10 - Groundnut butter processing costs

	Groundnut butter paste/bulk imports (based on imported unit value 20081119)	Groundnut butter packaged imports (based on imported unit value 20081111, 20081115)	Imported groundnuts , shelled & blanched (10% tariff)	Local groundnut sourcing
	R/tonne	R/tonne	R/tonne	R/tonne
Groundnut price with duty	20 261.43	22 716.30	18 000.00	16 231.95
Groundnutbutter yield loss	1 100.00	0.00	948.00	1 623.19
Groundnut price after yield loss	21 361.43	22 716.30	18 948.00	17 855.14
Packaging	4 325.00	0.00	4 325.00	4 325.00



Imported groundnutbutter equivilant cost	25 686.43	22 716.30	23 273.00	22 180.14
Transport	1 250.00	1 250.00	1 250.00	1 250.00
Conversion / processing costs			2 925.00	2 925.00
Production cost (R/tonne)	26 936.43	23 966.30	24 523.00	26 355.14
Production cost (R/kg)	26.94	23.97	24.52	26.36

To measure the impact of such a change on the groundnut value chain, a scenario was run, where it was assumed that:

- all groundnut butter would be imported (albeit pre-packaged or in bulk/paste form) and therefore, another market would have to be found for the local Sundry and Splits quality groundnuts, formerly supplied to local groundnut butter producers.
- As a result, a 25% price cut would be expected for the Sundry-quality groundnuts and therefore, the farmer's stock price would decrease by 8% for dryland and 4% for irrigated production.
- Groundnut butter processing from locally sourced raw groundnuts is assumed to close down, with production switching to the imported product (groundnut butter in paste or bulk form).

The gross value added and job impacts are therefore presented as an extreme worst-case scenario.

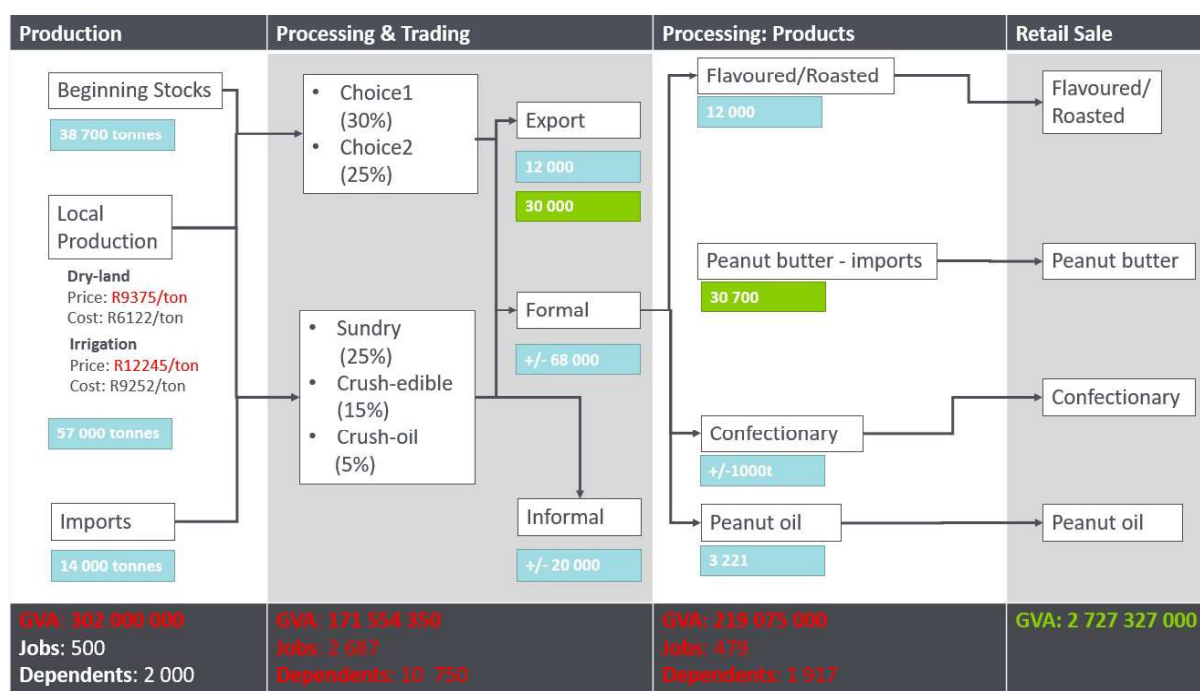


Figure 17 - Groundnut value chain map - groundnut butter import scenario

The gross value added for the production of groundnut butter was calculated for each stage of the “as-is” value chain (refer to Figure 13) as a 2018 snapshot. The bulk of value added is recovered in the retail sale (difference between the production cost and the average retail price of groundnut butter) under the as-is value chain. In the scenario (Figure 17), gross value added (GVA) by producers and primary processors as it relates to groundnut butter disappears while the groundnut butter processing GVA declines by 73% and the retailer GVA increases by 45% (Figure 18).

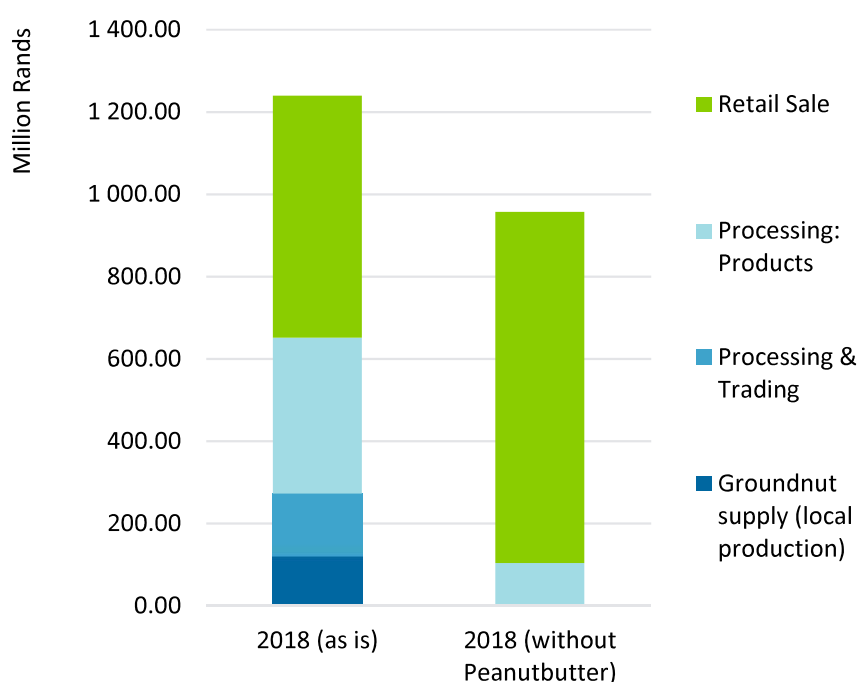


Figure 18 - Groundnut butter Gross Value Added

The scenario implies a total loss of R283 million (23%) in the groundnut butter industry and over 3 000 job losses, providing for an estimated 12 600 dependents. While groundnut butter processing takes place in industrial areas surrounding South Africa's metropolises, the primary processing plants (cleaning, blanching and drying groundnuts) are located in otherwise rural areas, therefore leaving employees with very few (or no) alternative employment choices.

The impact of the scenario on on-farm profitability is illustrated in Figure 19. For a typical Northern Cape irrigation farm a 4% decrease in Farmer's Stock Price (scenario assumption) decreased the gross margin for groundnut production by 13%. For a typical dryland North West farm, a 8% decrease in the Farmer's Stock Price (scenario assumption) decreased the gross margin for groundnut production by 16%. This goes to show that a small percentage change in farm-gate price has a large impact on the profitability of groundnut production (also see the sensitivity analyses in Table 2 and Table 3). The Farmer's Stock Price is a function of various quality prices, which are linked to the respective off-take markets for those groundnut qualities. If the market for Sundries changes as in the scenario, the reliance on other markets for price stability increases (other markets like the export market and prices on high quality to Japan and the edible market groundnut prices).

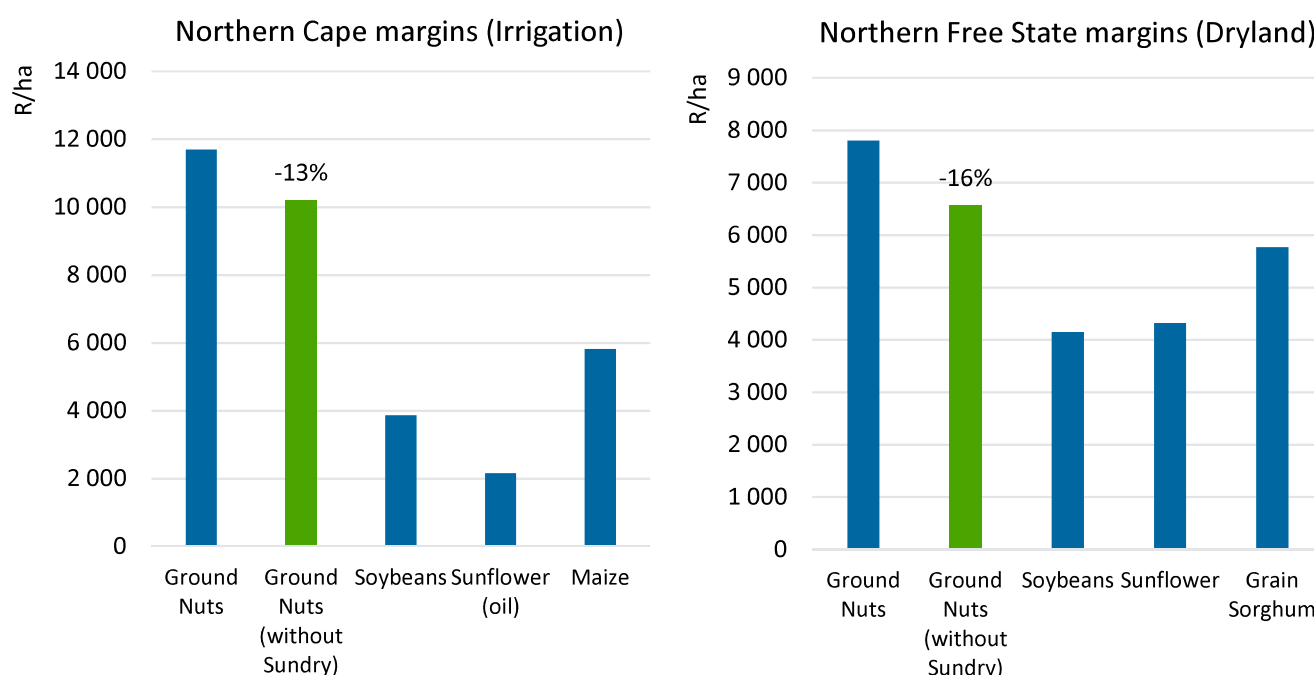


Figure 19 - On-farm gross margin in scenario

In order to compensate for the South Africa's groundnut butter competitiveness disadvantage (see cost of production in Table 10), a tariff adjustment was considered for the various groundnut butter HS codes. Figure 20 illustrates the cost of producing groundnut butter by comparison with the cost of importing groundnut butter. Since groundnuts (raw materials) carry a 10% tariff and by law groundnut butter should include 90% groundnuts; suggested tariff of 11.11% was therefore calculated by dividing 10% by 0.9 (proxy for a conversion ratio from groundnuts to groundnut butter). This correlates very well with the locally sourced production cost calculations.

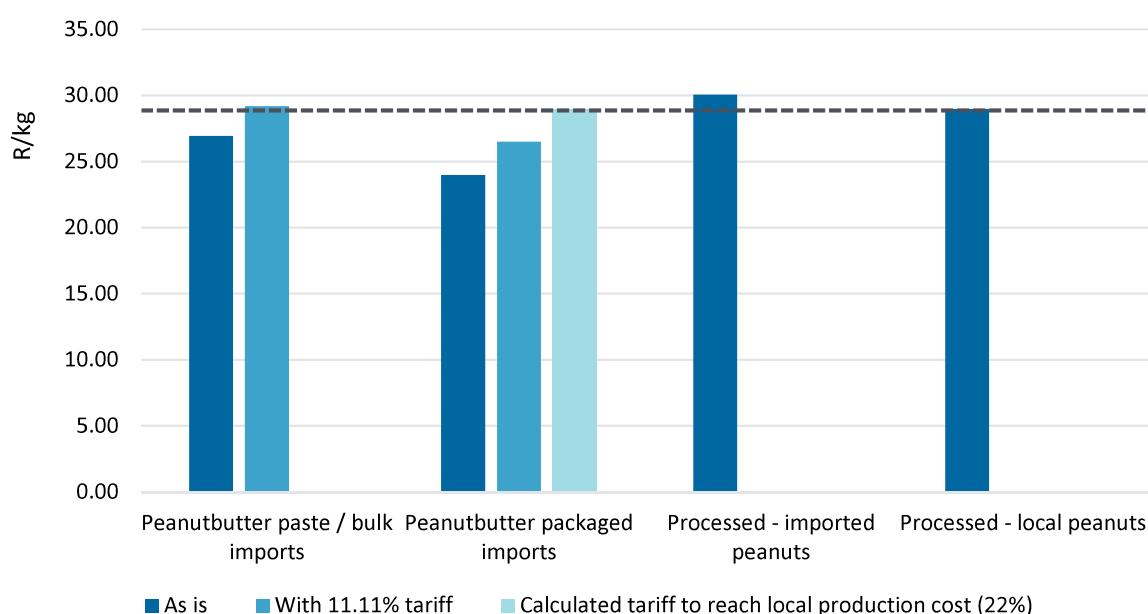


Figure 20 - Groundnut butter production costs

A “raw-to-processed product” relation is often used in agricultural tariff lines to resemble the actual extraction rate that is applicable in the processing of that product. Wheat is a good example as a product of which South Africa is a net importer. The tariff on wheat grain is linked to an international reference price which is currently set at \$272/tonne. The wheat tariff level is automatically triggered based on global price movements relative to the reference price. The further the global price falls below \$272/tonne, the larger becomes the tariff. Meanwhile the tariff on wheat flour is 1/0.66 times that of wheat grain (see Table 11) which can be related to the extraction rate of flour from a tonne of wheat grain.

Table 11 - Wheat tariff measures

HS Code	Description	Tariff (2018)
100199	Wheat and meslin (excl. seed for sowing, and durum wheat)	71.63 c/kg
110100	Wheat or meslin flour	107.45 c/kg

Roasted groundnuts

Roasted groundnut imports have levelled off in recent years to an average 3 000 tonnes per annum while the import parity prices (SARS unit values) have increased marginally.

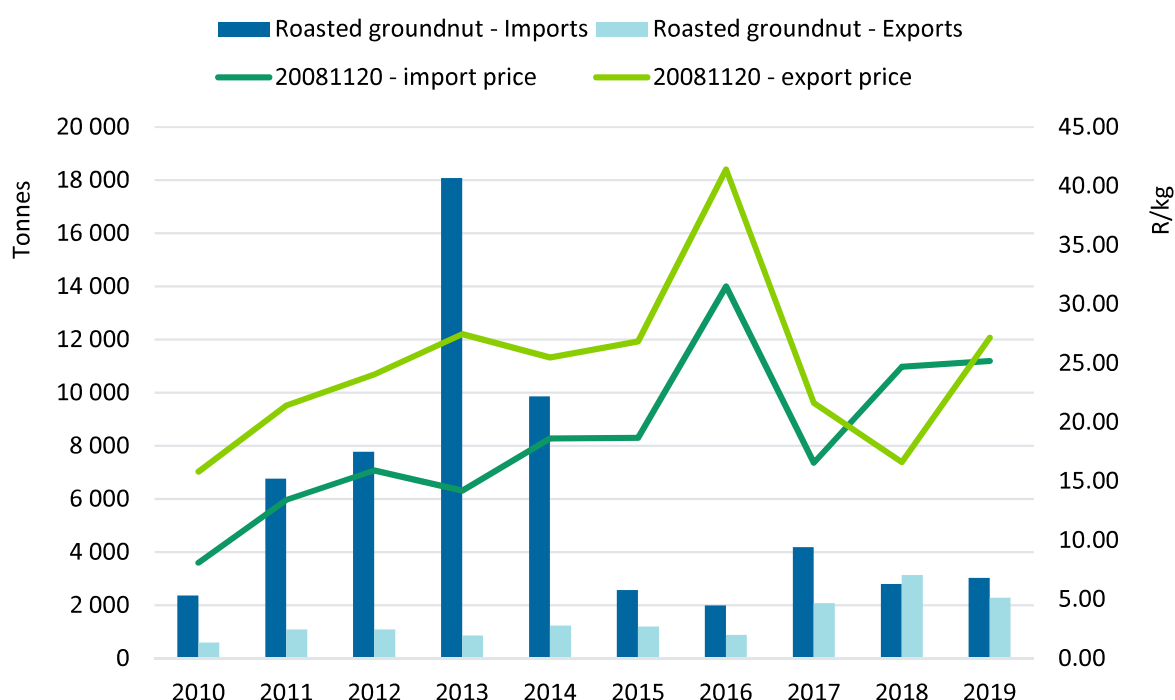


Figure 21 - Roasted groundnut trade and unit values

The average production costs of roasted groundnuts are compared in Table 12 for various groundnut supply options. Since no additional packaging, cleaning and processing costs apply, the roasted groundnut import parity price compares directly with the locally processed product. It is on average R2 509/tonne (11.39%) more expensive to produce roasted groundnuts in South Africa, than it is to import the product from abroad.

Table 12 - Roasted groundnut production costs

		Imported Roasted	Imported blanched nuts	Locally produced nuts
Groundnut price	R/ton	22 018.03	18 707.38	16 231.95
Cleaning	R/ton	0.00	0.00	1 200.00
Blanch/Roast	R/ton	0.00	1 750.00	1 750.00
Losses & other variable costs	R/ton	0.00	4 863.92	4 544.95
Packaging	R/ton	0.00	800.00	800.00
Total	R/ton	22 018.03	26 121.30	24 526.90

To compensate for South Africa's competitiveness disadvantage (as illustrated in the cost of production comparison), a change in tariff was considered as a remedy. Figure 22 compares local production costs of roasted groundnuts to the cost of importing groundnuts at the current 1% ad valorem tariff. The average losses from raw to roasted product of 12% (including moisture, skins and unsound nuts) implies a conversion rate of 0.88 from raw to roasted product. Therefore, following the raw-to-



processed product principle, a suggested tariff of 11.36% (10% divided by 0.88) was applied to the imported roasted product which pushed the imported product price to R24 520 per tonne, very close to the local processing cost.

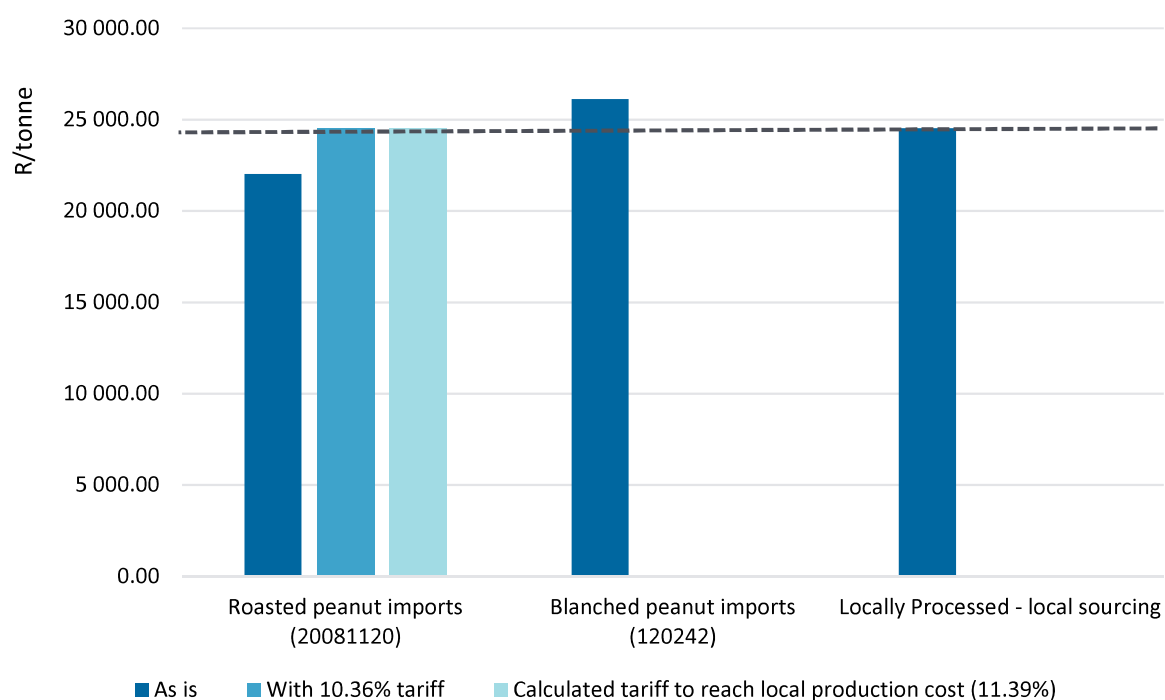


Figure 22 - Roasted groundnut production costs

Conclusions and recommendations

The South African groundnut industry continues to find itself at a crossroad, just this time around with the possibility of more extensive and irreversible consequences for the future existence of this R 2.5 billion industry in South Africa. Since the 2012 BFAP-Groundnut Forum evaluation report, various industry actions were introduced to support turn around initiatives, but like any specialised industry, this task is continuous and requires timeous actions. This study provides an update of the initial 2012 study and further focuses on the trade competitiveness challenge that the industry is facing and the impact of inconsistent tariff applications. Some key measures need to be taken to turn the industry from extensive and irreversible consequences. Due to the intricate nature of the industry, the turn-around strategy will have to include a combination of factors:

- Impacts of tariff imbalances need to be addressed

The impacts of the current tariff imbalances (see Table 9) can prove detrimental to the local groundnut market for groundnut butter and / or roasted groundnut production industry. A worst-case scenario of 3000 job losses and R 283 million in-country gross value added lost was illustrated and policies need to be addressed to avoid the unfolding of such a scenario.

- Maintenance and improvement of global competitiveness

Even though South Africa's groundnut production is a drop in the proverbial global bucket, South Africa has maintained demand for its product due to the varietal choices (producing predominantly Spanish type groundnuts) that created a niche market opportunity. It is crucial to maintain competitiveness at primary production level (in terms of cultivar adoption and yield achievement) if exports markets are to be maintained to support the farmers' stock price. The second crucial factor contributing to competitiveness in the global market is a quality action plan, ensuring the adherence to the latest quality standards. Consistency in quality and quantity supplied to the international market (including off-takers like Japan and the Netherlands) will prove vital for local price support and the ultimate sustainability of the groundnut industry.

- Price discovery & publication

Uncertainty still surrounds the determination of prices, especially with pre-seasonal contracts informing the decision of the farmer to plant. Innovative research is recommended to establish a transparent price determination mechanism.