

Baseline and market dynamics for the coming season

By Jodie Hattingh, Divan van der Westhuizen and Tracy Davids, Bureau for Food and Agricultural Policy (BFAP)

For any agricultural industry, there exists a series of core drivers or fundamental factors that can determine the direction of supply, demand and ultimately prices. One can also differentiate between drivers influencing an industry in the short term and the more long-term strategic drivers.

Considering such interactions simultaneously enables the generation of forward-looking projections for the potato industry, which are based on a range of assumptions and therefore represent a single plausible outcome that captures the impacts of fundamental drivers, as opposed to exact predictions of the future.

The market simulation model

These projections are generated by BFAP's partial equilibrium market simulation model, which is based on well-accepted structures and specifications of total supply (comprising production, imports and beginning stocks), and total demand (comprising consumption, export and ending stock).

The model strives to simulate decision-making by producers and consumers, based on economic factors. Demand is generally driven by income levels, together with the price of potatoes, as well as substitute products such as maize and wheat. On the supply side, area decisions are based on relative profitability between crops, while yields are determined by a combination of technological improvements and weather-related dynamics.

Potato prices are ultimately a function of all the relative supply and demand dynamics, and represent the point of equilibrium where total supply is equal to total demand. International trade is determined as

a function of relative prices in South Africa and its trade partners – but the role of trade is comparatively smaller than domestic production and consumption, given that potatoes aren't typically traded in bulk.

Establishing plausible assumptions

Many of the drivers that influence potato markets are exogenous to the sector and so, one of the biggest challenges is to establish realistic and plausible assumptions relating to what the future of such factors might look like. Furthermore, interrelationships between such drivers are typically determined based on historic indications, but it must be acknowledged that relationships can change and anticipation of such changes in future is critical.

Some international factors that have injected additional dynamism into agricultural markets in recent years include the continued impact of the Russian war in Ukraine, consequent inflationary challenges and responses by most central banks of rising interest rates to control inflation.

Macro-economic assumptions

Table 1 presents the macro-economic assumptions that underpin the baseline outlook. Although international growth prospects have improved somewhat in recent months due to an improved global risk appetite and China's reopening after years of Covid-19 restrictions, expectations still reflect a substantial slowdown from

2022 and ample risks remain – mainly on the downside.

Domestic GDP growth is expected to come in at only 0.5% in 2023 compared to the preceding two years of 5.5% (2021) and 2.3% (2022). The lower growth is due to the persistent and worsening power crisis in South Africa, which is severely constraining and has led to major institutions slashing growth expectations since the beginning of 2023. The GDP growth rate is a representation of consumer income and any changes in the consumer situation has a significant implication on the demand for potatoes.

The Rand exchange rate remains exceptionally volatile, reflecting global risk sentiments and South Africa's deteriorating domestic environment, which took a further credibility knock with the grey listing announced in February, and continues to be influenced by persistently high levels of loadshedding.

At the same time, US interest rates should ease before local rates, suggesting that some appreciation could occur in 2024. The volatility and depreciation in the Rand against the US dollar will affect domestic agriculture in many ways, in particular the cost of inputs.

The international reference price of energy (natural gas and Brent crude oil) has declined significantly from the highs in 2022, supporting lower costs in fertilisers and fuel. However, the weaker exchange rate since the start

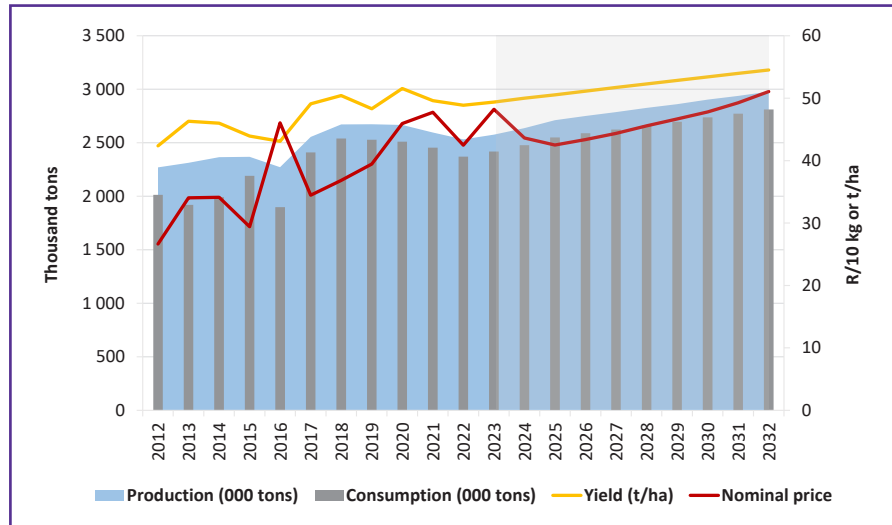
Table 1: Macro-economic assumptions for the 2023 baseline.

	2021	2022	2023	2024	2025
Exchange rate (R/USD)	14.51	16.43	17.24	16.44	16.46
Real GDP growth rate (%)	5.5	2.3	0.5	1.4	1.8
Interest (%)	7.0	10.5	11.0	10.7	10.3
CPI (%)	6.4	6.9	5.5	4.3	4.5
Brent crude oil (USD/barrel)	70.8	100.8	90.3	80.5	75.0

Table 2: Baseline summary.

	2021	2022	2023	Average annual growth 2012–2022	2030	Average annual growth 2023–2032
Area ('000 ha)	52.31	51.82	52.16	0.2%	54.62	0.4%
Yield (t/ha)	49.61	48.87	49.39	1.2%	54.52	1.1%
Production ('000 tons)	2 595	2 532	2 576	1.3%	2 977	1.5%
Domestic consumption ('000 tons)	2 453	2 370	2 418	2.5%	2 811	1.6%
Nominal market price (R/10kg)	47.75	42.48	48.23	3.8%	51.06	1.3%

Figure 1: Potato production, consumption and price: Ten-year outlook (2032).



of 2023 will counterbalance this effect locally, since South Africa is a net importer of agricultural inputs (such as fertilisers and chemicals). Despite a weaker exchange rate, the cost of fertilisers reported a decrease of 21% since November 2022.

BFAP outlook for potatoes

The projections generated by BFAP's potato partial equilibrium model are based on a set of macro-economic assumptions as well as the latest industry information.

South Africa's potato production has increased by an average of 1.3% per annum over the past decade (see Table 2 and Figure 1). During this period, the potato area has remained relatively constant at an average of 52.5 thousand ha while yield improvements (1.2% average increase per annum) fuelled production

increases. The rate of increase in yields is projected to decelerate marginally over the outlook period to reach an average yield of 54.5 tons per hectare by 2032. Yield gains are assumed to be primarily driven by factors such as research, cultivar development, better production practices and better plant protection products. Area under potatoes is projected to increase by an average of 0.4% per annum to reach 54.62 thousand ha by 2032, which is largely driven by a reduction of alternative crop prices and production costs.

Commodities such as maize and wheat are suitable replacement crops for some potato production regions. Local prices of these commodities increased substantially over the last two years (Table 3), consequently decreasing potato supply. In the short run, these substitute crop prices are

forecast to return to normal, leading to a reduction in producer profitability for these crops, compared to the previous two years. This in turn is driving potato producers to return maize and wheat hectares to potato hectares.

For 2023, potato production is projected to increase by 1.7% to 2.49 million tons (see Figure 1). This is due to the 0.7% increase in potato area in 2023 to 52.16 thousand ha, which is associated with the relief of production costs seen in the last few months.

Domestic consumption, which includes fresh, processing and seed consumption is forecast to increase by 2% in 2023, driven by consumers' substitution of other higher-priced starches due to constrained disposable income.

The combined effect of these factors is driving the increase in nominal price in 2023 to R48.23 per 10 kg bag. In the short run, the nominal prices are expected to decrease slightly as supply responds to higher prices; however, in the long run an annual increase of 1.3% per annum is expected.

The last few years have been challenging for potato producers with unfavourable macroeconomic conditions and high input costs among only a few of the constraints faced by producers. Ample challenges still remain; however, they are mainly on the downside. Given the current economic forecast, the prospects for potato producers are looking positive during the outlook period. **G**

Table 3: Commodity prices for 2023 baseline.

	2021	2022	2023	2024	2025
White maize Safex price (R/ton)	3 253.01	4 448.78	4 490.22	3 670.98	3 785.94
Wheat Safex price (R/ton)	5 428.00	7 113.30	6 865.81	5 770.27	5 859.58

For more information, contact Jodie Hattingh on 083 290 6479 or visit www.bfap.co.za.

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**MARKET AGENTS REMAIN
A CRITICAL LINK
IN THE POTATO VALUE CHAIN**

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**SUIDWES-VRYSTAAT KULTIVARPROEF
ONDER BESPROEING
OP PETRUSBURG IN 2022**

Weerstandigheid
teen plaagdoders

Oorlewing van *Ralstonia* spp.
in die grond