Area shifts expected in South Africa's 2021 winter crop season

By Divan van der Westhuizen and Tracy Davids, Bureau for Food and Agricultural Policy

Over the past year the Covid-19 pandemic and the measures implemented to contain its spread, sent shockwaves through the global economy. Initially, this period saw a decline in investor confidence, which resulted in a major sell-off in financial markets and a drastic depreciation in many emerging market currencies, including South Africa.

Reduced economic activity and a persistent price war in major oil-producing countries caused the largest oil price crash in decades. As the global vaccine roll-out continues and economic recovery gains momentum, oil prices have risen once more, and the rand has recovered to levels last observed prior to the first lockdown in South Africa.

By the second half of 2020, the signs of a perfect storm brewing in agricultural commodity markets became more evident, with different factors considerably shifting supply-and-demand dynamics. This article highlights some of these trends and provides context on how they affect domestic agricultural markets, with specific focus on prices as well as supply-and-demand movements for the upcoming winter crop season and profitability at farm level.

Sharp rise in commodity prices

Globally, agricultural commodity prices have increased sharply. According to the FAO Food Price Index, which is indicative of underlying agricultural commodity prices, a steady increase has been observed since June last year, which accelerated in recent months. By February 2021 it had increased by almost 17% relative to February last year, mainly driven by vegetable oil prices (+51% y/y), followed by cereals (+27% y/y), sugar (+10% y/y) and dairy products (+10% y/y).

These price increases were driven by a combination of supply-and-demand dynamics. Import demand from China has been particularly strong for both maize and soya beans. This is predominantly due to the rapid rebuilding of its pig herd, which had been reduced by roughly 30% in 2019 amid the outbreak of African swine fever, as well as a fast-growing poultry sector.

On the supply side, palm oil production growth had been under pressure. This was exacerbated by labour shortages in Malaysia caused by Covid-19-related travel restrictions. At the same time, sunflower seed harvests in the Black Sea region were below average due to weather-related challenges, and persistently drier weather in South America raised concerns about soya bean supply.

Winter crop production outlook

Global price dynamics spill over into South African markets. They will continue to influence planting decisions for the upcoming South African winter crop season. Domestically, several lockdowns over the past year prohibited the sale of alcoholic beverages in South Africa, reducing the demand for malting barley.

This follows a period of growing production and increased stock levels in the barley industry. To compound the situation, exceptional yields provided a record barley crop last year and, combined with weather-related quality issues, resulted in more volumes being diverted to animal feed. A lower anticipated malting barley demand for the beer market and remaining higher stocks, will result in decreased barley mandates for the 2021 season.

Consequently, the area under production will decline and a shift to alternative crops are likely, especially in

Table 1: Area and production of winter crops in South Africa from 2017 to 2021. (Source: BFAP, 2021)

Crops	Area – ha ('000)			
	Average 2017 to 2019	2020	2021 projection	Absolute change: 2020 to 2021
Wheat				
Winter region	323	326	352,1	26,1
Summer dryland region	102,7	94	78,9	-15,1
Summer irrigation region	86	89,8	91,9	2,1
Total	511,7	509,8	522,9	13,1
Barley				
Winter region	105,7	132	82,9	-49,1
Summer region	8,4	9,7	10,2	0,5
Total	114,1	141,7	93,1	-48,6
Canola	78	74,1	89,3	15,2
Crops	**Production – tons ('000)**			
	Average 2017 to 2019	2020	2021 projection	Absolute change: 2020 to 2021
Wheat	1 646	2 109	1 857	-253
Barley	358	590	335	-255
Canola	98	167	137	-30

the dryland Western Cape production regions. *Table 1* provides a comparison between winter crop area and production over the past four years. It also provides the Bureau for Food and Agricultural Policy's (BFAP) latest projections for the upcoming wheat, barley and canola season in 2021.

The likely reduction in contracted barley volumes creates a scenario where area under barley production in the Western Cape can decrease by 49 000 hectares relative to last year, with production declining by 255 000 tons. This decline in area will most likely be substituted with wheat, canola and alternative crops such as oats, lupines and pastures.

Given favourable wheat prices, the likely retraction in barley mandates, and the risk associated with lower prices for feed grade barley, the South African wheat area is projected to increase by 13 100 hectares, largely due to expansion in the Western Cape and despite a further decrease in the summer production region. The area under canola production is projected to increase by 15 200 hectares, underpinned by robust yield performance last year and price support from vegetable oil markets.

Figure 1 presents the projected gross margins for dryland winter crop production in the Western Cape. The gross margin figures represent a weighted average for the Swartland and Southern Cape production regions.

The gross margins are computed by multiplying the region's targeted yield (which is based on agro-ecological potential) with a farm gate price (South African Futures Exchange or derived price minus deductions, including grade and transport differentials), minus direct expenditure.

It is important to note that overhead costs such as production finance interest, depreciation, administration, land rent and owner remuneration are not included in the calculations.

Figure 1: Winter crop gross margin projections for 2021. (Source: Own calculations using data from a collaboration with Overberg Agri, Sentraal-Suid Koöperasie and Kaap Agri, 2021)

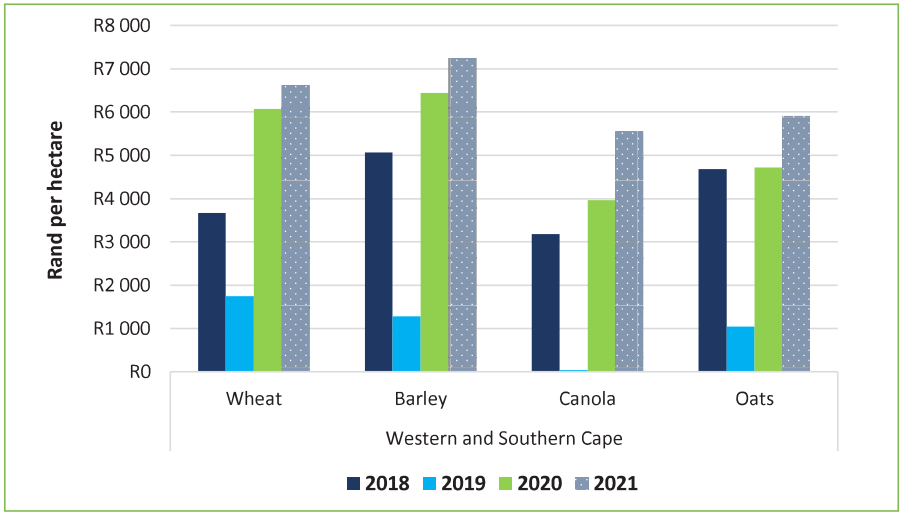
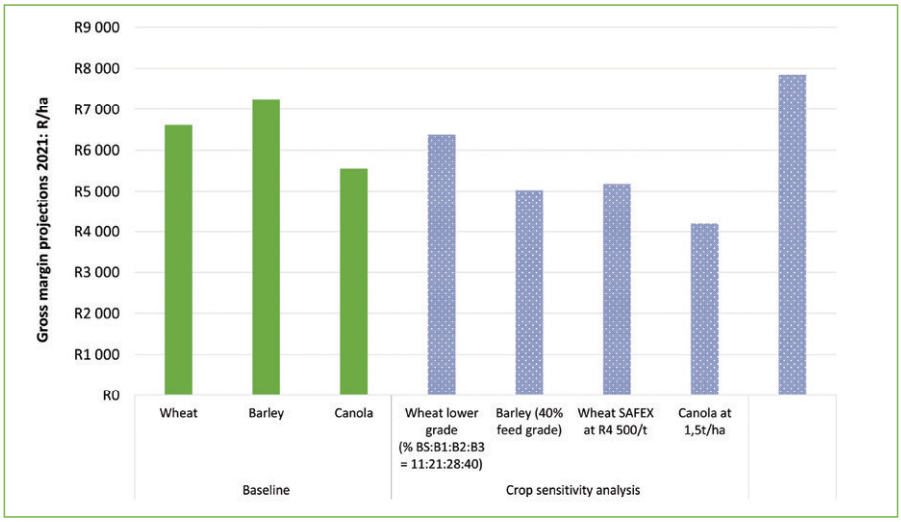


Figure 2: Winter crop gross margin sensitivity analysis for the 2021 production season. (Source: Own calculations using data from a collaboration with Overberg Agri, Sentraal-Suid Koöperasie and Kaap Agri, 2021)



Robust performance is expected

The baseline projection for the 2021 season points to robust performance for all winter crops relative to previous seasons. The analysis shows that barley can perform well under the strict assumption that only malting grade is produced and in fact sold as malting barley.

Compared to last year, the gross margin for canola is projected higher, underpinned by a higher contracted price assumption for the upcoming season. *Figure 2* compares the 2021 baseline gross margin projection against sensitivity that accounts for lower quality for wheat and barley, as well as varying yield assumptions for canola production in the Western Cape.

For wheat only a modest impact is experienced, given that a larger share of output is allocated to B2 and B3 quality grade (B2 and B3 share is equal to 68% relative to the baseline of 37%). For barley, however, assuming that 40% of production is graded at feed grade and sold at 75% of a yellow maize SAFEX equivalent price, the gross margin decreases by more than R2 000/ha.

For canola, gross margins are more sensitive to yield relative to winter grain production. The analysis shows that an increase in yield from the baseline assumption of 1,6 to 2t/ha (+400kg/ha) will result in canola outperforming alternative crops and will improve the gross margin by 41%.

For more information, contact Tracy Davids at tracy@bfap.co.za or Divan van der Westhuizen at divan@bfap.co.za.