# The effect of fertiliser prices on the grain industry

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Traditionally, between 30 and 50% of a grain and oilseed producer's existing input costs are spent on fertiliser. Fertiliser makes up such a large portion of input costs that any change, especially a price increase, can affect profitability drastically.

Because South Africa is a net importer of fertiliser, it further aggravates the situation since all imported fertilisers are not only affected by their actual price, but by a whole range of factors such as the exchange rate and transport costs.

## Import volume and price changes

*Figure 1* illustrates South Africa's fertiliser imports of monoammonium phosphate (MAP), ammonia, urea, potassium chloride and ammonium sulphate from various countries since 2009. Although not the only fertilisers imported, these are five of the most important products imported.

As of 2009, fertiliser imports for these five products have increased by 165% in total. During 2021, South Africa imported a total of 2 155 233 tons of just these five fertiliser products from various countries. Besides the increase in import volume, the exchange rate of the rand to other major currencies also weakened sharply from 2009 onwards, which further intensified the effect of price increases. For the year 2022 up until May, more than 500 000 tons had already been imported, which is only 24% of 2021's total.

*Table 1* shows the average price changes for nitrogen (N), phosphate

**Table 1: Price comparison of nitrogen, phosphate and potassium for July 2021 and July 2022.**

| | Nitrogen | Phosphate | Potassium |
|---|---|---|---|
| **Average price: July 2021 (R/kg)** | R26 | R60 | R21 |
| **Average price: July 2022 (R/kg)** | R42 | R94 | R47 |
| **Change (year-on-year)** | 65% | 57% | 124% |

Table 2: Change in fertiliser cost per hectare for July 2021 compared to July 2022.

| | Nitrogen | Phosphate | Potassium | Price: July 2021 | Price: July 2022 | Change |
|---|---|---|---|---|---|---|
| **Eastern Free State: Average units (kg/ha)** | 100 | 19 | 27 | R4 267 | R7 275 | 70% |
| **West Free State: Average units (kg/ha)** | 72 | 16 | 14 | R3 097 | R5 200 | 68% |
| **Irrigation: Average units (kg/ha)** | 286 | 52 | 80 | R12 122 | R20 717 | 71% |

Figure 1: The five most important fertilisers imported to South Africa.

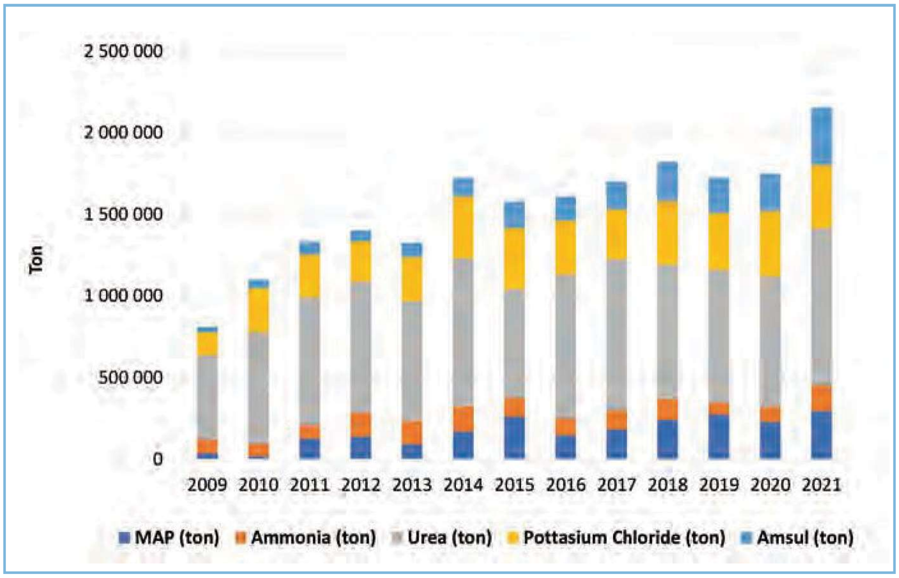


Figure 2: The affordability of fertiliser.


(P) and potassium (K) during July last year, compared to July 2022. It is staggering to see how sharply the prices for these products have increased in a matter of a year.

When looking at the fertiliser requirements of different parts of the country, one notices that the Western Free State uses an average of 72 units of N, 16 units of P and 14 units of K per hectare.

The Eastern Free State uses 100 units of N, 19 units of P and 27 units of K per hectare. Irrigated areas use 286 units of N, 52 units of P and 80 units of K per hectare.

*Table 2* provides a comparison of the average fertilisation requirements for these three regions for July 2021 and July 2022. On average, the cost of fertiliser increased by 70%. This means that prices have almost doubled.

## Fertiliser affordability

*Figure 2* provides an indication of the affordability of fertilisers compared to the SAFEX price of maize. Fertilisers, which account for between 30 and 50% of input costs, have become less and less affordable, which means that the producer's margin for trade has weakened excessively. This puts pressure on the producer's profitability and can result in fewer hectares being planted, especially maize.

This information paints a clear picture of the extreme challenges that producers face every day to try and stay afloat. Fertiliser is not the only input cost that has seen sharp price hikes; the costs of energy sources such as fuel and electricity have also risen sharply, as has the price of seed and chemicals. It is becoming progressively more difficult for farming operations to remain profitable and sustainable.

Since there is little room for mistakes, producers must make sure they are not being taken for a ride by fertiliser suppliers. Do the homework, make sure the representative's prices are market related, compare offers to find the best price, and select the most suitable offer for your purposes.

For more information, contact Grain SA at 086 004 7246 or visit *www.grainsa.co.za.*