



**NAMMC**  
Promoting market access for South African agriculture



# Input

## Cost Monitoring

December 2021

An update on selected items



## EXECUTIVE SUMMARY

### ❖ International and domestic price trends for selected fertilisers

From October 2015 to October 2021. International prices (Rand terms) for Urea, Muriate of Potash (MOP) and Di-Ammonium Phosphate (DAP) increased by 207.8% (from R3 418.03/ton to R10 521.56/ton), 120.5% (from R3 850.35/ton to R8 488.48/ton) and 59.3% (R5 944.40/ton to R9 467.92/ton), respectively. During the depicted period, the Rand/US Dollar (R/\$) exchange rate depreciated by 9.8% (from R/\$13.51 to R/\$14.84).

In terms of local fertilizers between October 2020 to October 2021, domestic fertilizer price for Potassium Chloride (KCL), Urea and Mono-Ammonium Phosphate (MAP) increased by 104% (from R6 467/ton to R13 190/ton), 91.6% (from R7 241/ton to R13 878/ton) and 67.1% (from R9 150/ton to R15 286/ton), respectively. The fluctuation of the domestic prices of fertilisers is subjected to price volatility in the global market as South Africa is a net importer. Since the beginning of 2021 international fertiliser prices have been rising steeply, in response to lower global supply. Oil prices have been limiting fertilizer production expansion globally and that has put prices under pressure across the board. This means international availability and price of fertilisers have a direct impact on local producer. For net importing countries, macroeconomic factors such as the exchange rate plays a crucial role in this regard.

### ❖ Fuel prices & Illuminated paraffin

Between November 2015 and November 2021 diesel and petrol prices increased by 58.4% (from R10.85/litre to R17.19/litre) and 57.7% (from R12.39/litre to R19.54/litre), respectively. During the same period, the price of illuminated paraffin in both Coastal and Gauteng regions increased by 81.7% (R5.74/litre to R10.43/litre) and 71.8% (R6.55/litre to R11.25/litre), respectively. Crude oil prices in US dollar terms increased by 86.2% from US\$44.03/barrel to US\$81.99/barrel, with a 0.3% appreciation of the Rand (R15.51/\$ to R15.47/\$). These fluctuations in South Africa's fuel prices have been largely driven by higher oil prices, and lately, fuel tax increases have become a prominent factor.

### ❖ Freight Indices

From November 2020 to November 2021, the GOFI and BDI increased by 89.2% and 88.5%, respectively. The shipping sector had been volatile since 2020 due to the global effects of the COVID-19 pandemic on demand for commodities and this had affected freight rates. In November 2021, the BDI reached 2 825 index points and the GOFI reached 220 index points.

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## Introduction

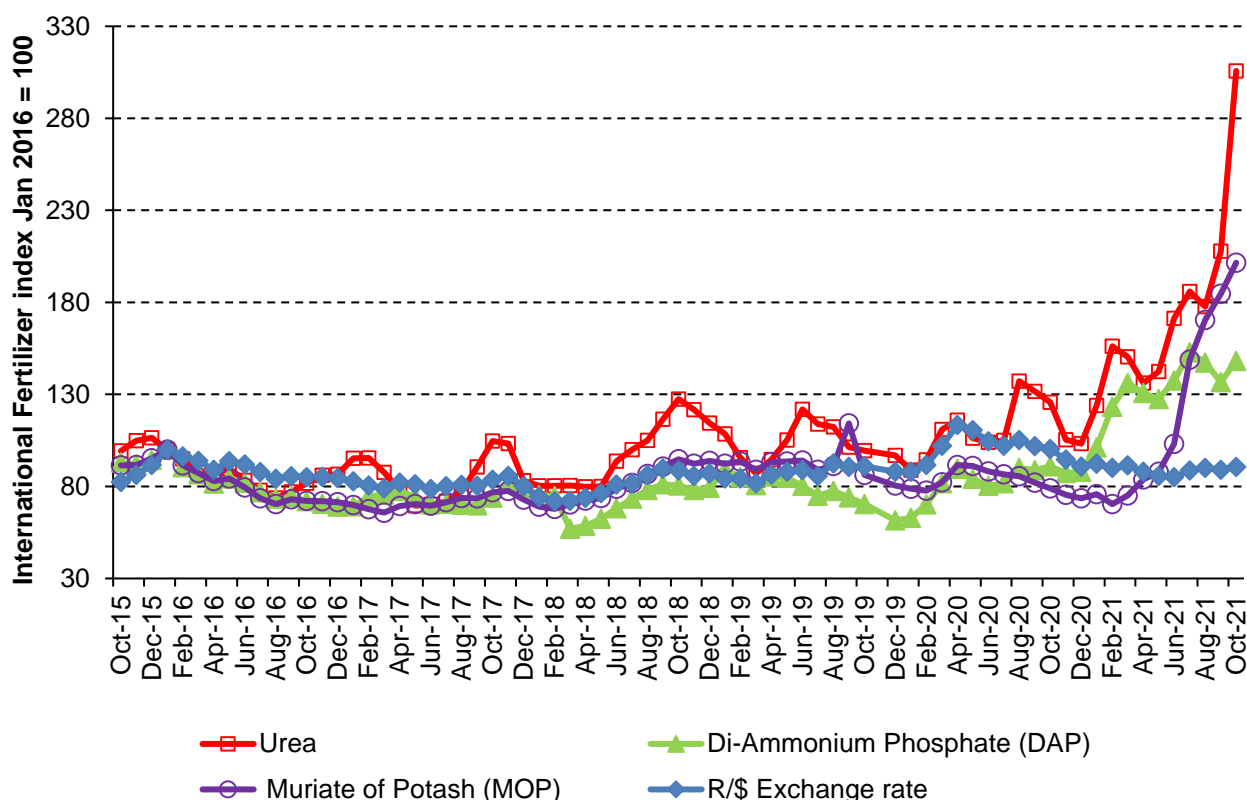
Agricultural inputs such as fertilisers, play an important role in increasing agricultural productivity and yield. The Input Cost Monitoring (ICM) report, published by the National Agricultural Marketing Council (NAMC) is a quarterly report analysing historic and current trends from selected agricultural production input prices in both domestic and international markets.

The data for this publication is obtained from Grain South Africa (Grain SA), the Department of Energy (DoE) and the South African Grain Information Service (SAGIS).

### International price trends for selected fertilisers

**Figure 1** illustrates international fertiliser prices for selected fertilisers from October 2015 to October 2021. International prices (**Rand terms**) for Urea, Muriate of Potash (MOP) and Di-Ammonium Phosphate (DAP) increased by 207.8% (from R3 418.03/ton to R10 521.56/ton), 120.5% (from R3 850.35/ton to R8 488.48/ton) and 59.3% (R5 944.40/ton to R9 467.92/ton), respectively. During the depicted period, the Rand/US Dollar (R/\$) exchange rate depreciated by 9.8% (from R/\$13.51 to R/\$14.84). In terms of the US Dollar prices Urea, MOP and DAP increased by 180.2% (from US\$253/ton to US\$709/ton), 100.7% (from US\$285/ton to US\$572/ton) and 45% (from US\$440/ton to US\$638/ton), respectively.

From October 2020 to October 2021, international price (**Rand terms**) for MOP, Urea and DAP increased by 155.5% (from R3 322.90/ton to R8 488.48/ton), 143.2% (from R4 326.35/ton to R10 521.56/ton) and 63.0% (from R5 806.85/ton to R9 467.92/ton), respectively. During the same period the R/\$ exchange rate appreciated by 9.8% from R/\$16.45 to R/\$14.84.



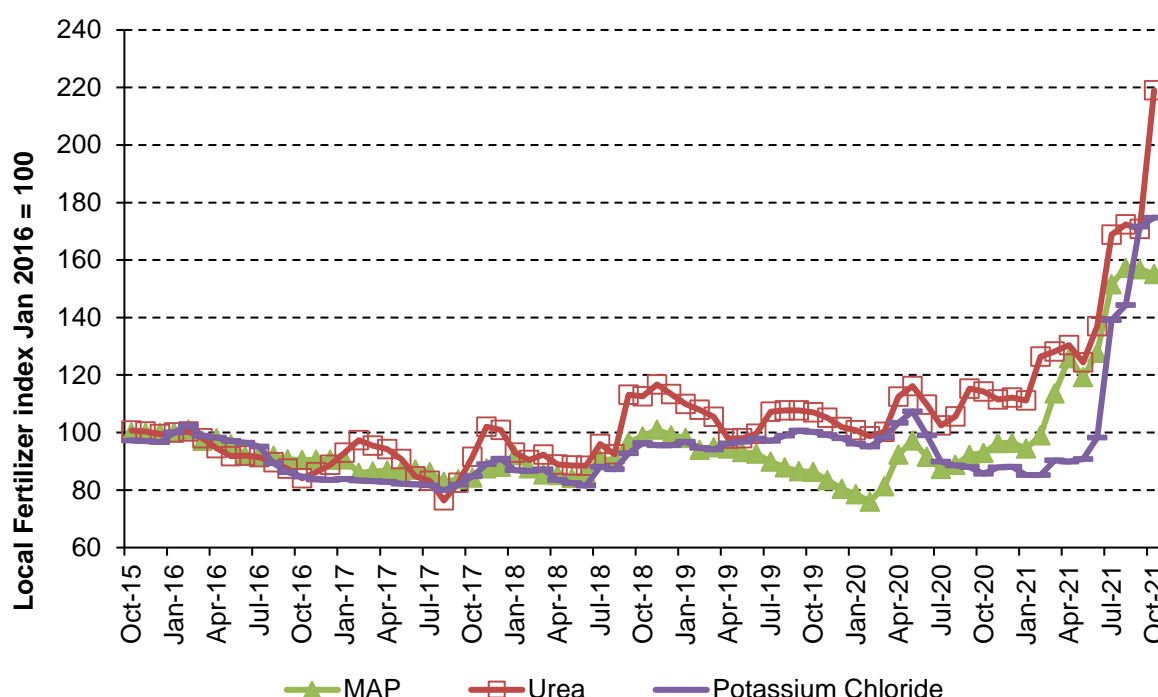
**Figure 1: International price trends for selected fertilisers**

Source: Own calculations based on data from Grain SA, 2021.

## Domestic price trends for selected fertilisers

**Figure 2** shows price trends for domestic fertiliser between October 2015 and October 2021. Over the depicted period the local fertiliser prices for Urea, Potassium Chloride (KCL) and Mono-Ammonium Phosphate (MAP) increased by 117.5% (from R6 382/ton to R13 878/ton), 79.7% (from R7 341/ton to R13 190/ton) and 55.1% (from R9 857/ton to R15 286/ton), respectively.

From October 2020 to October 2021, domestic fertilizer price for KCL, Urea and MAP increased by 104% (from R6 467/ton to R13 190/ton), 91.6% (from R7 241/ton to R13 878/ton) and 67.1% (from R9 150/ton to R15 286/ton), respectively. The fluctuation of the domestic prices of fertilisers is subjected to price volatility in the global market as South Africa is a net importer. Since the beginning of 2021 international fertiliser prices have been rising steeply in response to lower global supply. Oil prices have been limiting fertilizer production expansion globally and that has put prices under pressure across the board. For net importing countries, macroeconomic factors such as the exchange rate plays a crucial role in this regard.



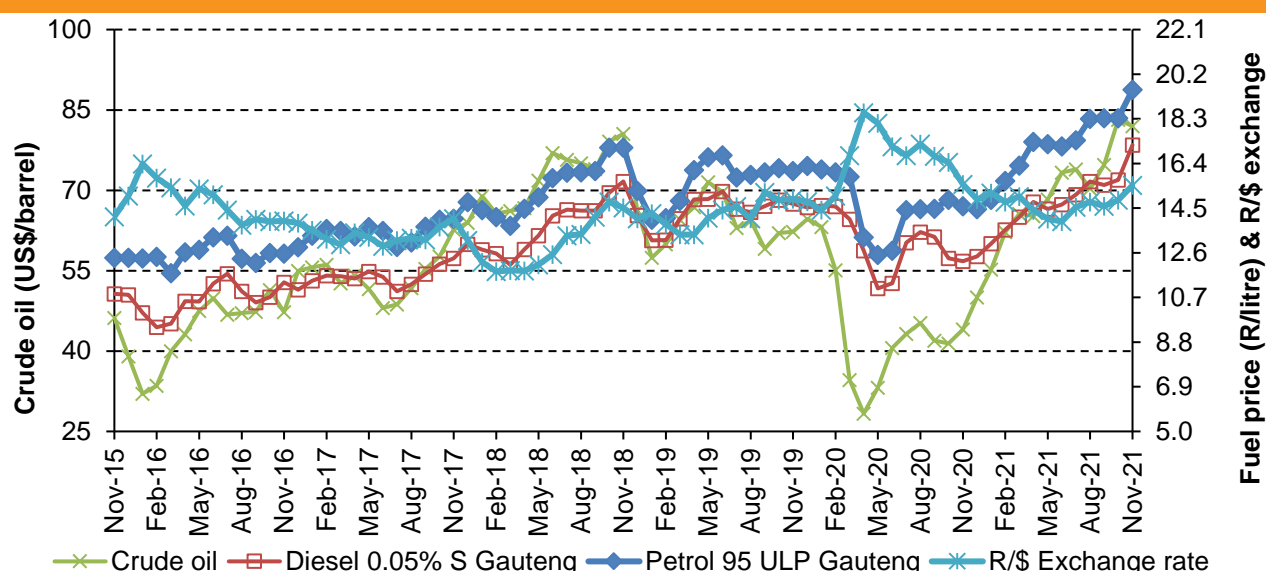
**Figure 2: Domestic price trends for selected fertilisers**

Source: Own calculations from price lists, 2021.

## Fuel prices

Domestic fuel prices are linked to factors such as international crude oil price (US\$ per barrel) and the R/\$ exchange rate. **Figure 3** presents crude oil price, petrol price, diesel price and the R/\$ exchange rate trends between November 2015 and November 2021. During this period, diesel and petrol prices increased by 58.4% (from R10.85/litre to R17.19/litre) and 57.7% (from R12.39/litre to R19.54/litre) , respectively. In **US dollar terms**, crude oil prices increased by 77.6% (from US\$46.17/barrel to US\$81.99/barrel). During the same period crude oil prices in **Rand terms** increased by 94.3% (from R652.79/barrel to R1 268.39/barrel).

Between November 2020 and November 2021 diesel and petrol prices increased by 40.3% (from R12.25/litre to R17.19/litre) and 33.9% from R14.59/litre to R19.54/litre, respectively. Crude oil prices in US dollar terms increased by 86.2% from US\$44.03/barrel to US\$81.99/barrel, with a 0.3% appreciation of the Rand (R15.51/\$ to R15.47/\$). These fluctuations in South Africa's fuel prices have been largely driven by higher oil prices, and lately, fuel tax increases have become a prominent factor.



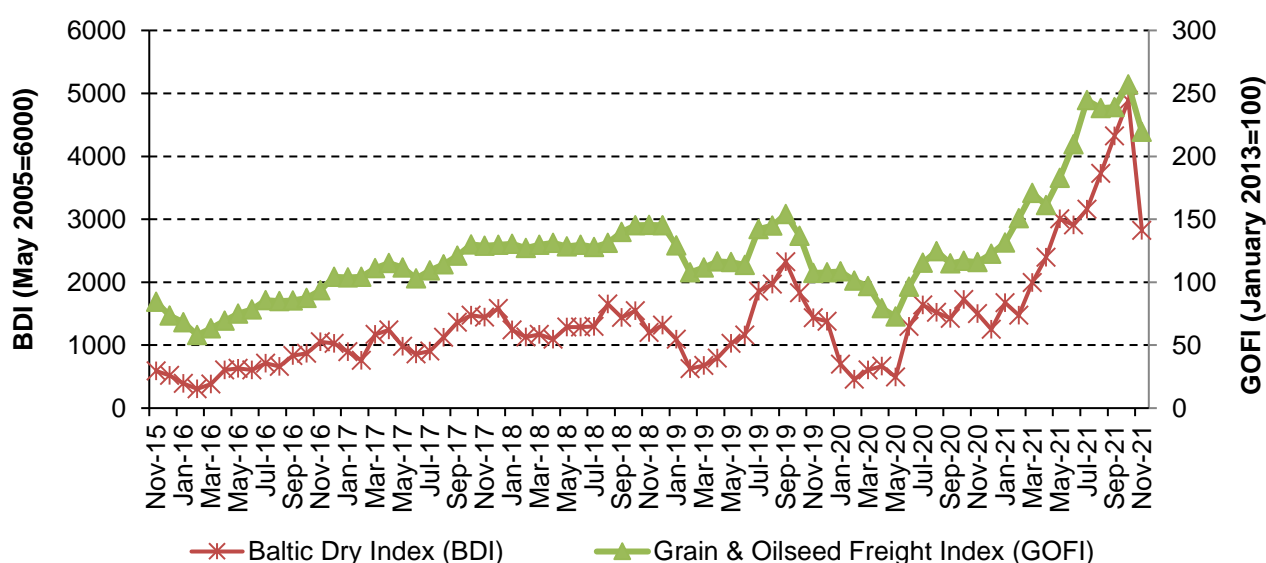
**Figure 3: Crude oil and fuel prices**

Source: Grain SA and DoE, 2021.

## Baltic Dry Index

The Baltic Dry Index (BDI) measures international freight rates for dry bulk cargo which is affected by both the demand to move raw materials across international markets and the supply of shipping capacity. Using 2005 as a base year of 6000, the BDI is calculated monthly. The International Grains Council (IGC) introduced a new Grain and Oilseeds Freight Index (GOFI) with January 2013 used as a base year which represents 68 major grain routes.

**Figure 4** presents BDI and GOFI between November 2015 and November 2021. The BDI and GOFI during this period increased by 377.3% and 160.3%, respectively. This can be attributed to changes in shipments times, congestions in ports and demand across the world. From November 2020 to November 2021, the GOFI and BDI increased by 89.2% and 88.5%, respectively. The shipping sector had been volatile since 2020 due to the global effects of the COVID-19 pandemic on demand for commodities and this had affected freight rates. In November 2021, the BDI reached 2 825 index points and the GOFI reached 220 index points.



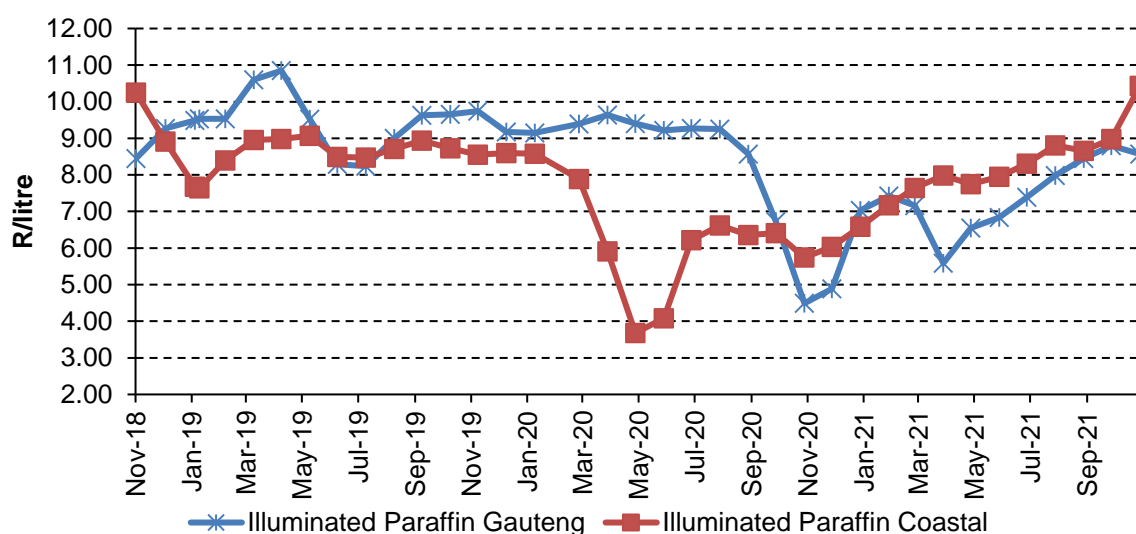
**Figure 4: Baltic Dry Index versus Grain and Oilseeds Freight Index**

Source: SAGIS, 2021.

## Illuminated paraffin price

Consumers utilise paraffin as an alternative source of household energy, as result is classified as an essential backup fuel. **Figure 5** shows illuminated paraffin prices for both the Coastal and Gauteng regions from November 2018 to November 2021. During this period, illuminated paraffin prices for Gauteng and Coastal regions increased by 3.7% (from R10.85/litre to R11.25/litre) and 1.8% (from R10.25/litre to R10.43/litre), respectively.

Between November 2020 and November 2021, the price of illuminated paraffin in both Coastal and Gauteng regions increased by 81.7% (R5.74/litre to R10.43/litre) and 71.8%% (R6.55/litre to R11.25/litre), respectively. The movement of paraffin prices is typically affected by two main factors, international petroleum costs, and the movement in the rand/dollar exchange rate.



**Figure 5: Comparison of illuminated paraffin price between Coastal and Gauteng regions**  
 Source: Department of Energy, 2021.

## Conclusion

International fertiliser prices have increased due to several factors such as low stock levels caused by the COVID-19 pandemic, rising natural gas prices, disturbances in fertilizer production plants in the US following the cyclone Ida and earlier plantings in the United States (US) and European Union (EU), which increased demand for fertilisers. Lower supply from China also supported price hikes. South African fertiliser prices followed a similar trend in rand terms, although the increases had less of an impact locally because of the stronger currency, an increase in crude oil prices could push fertiliser prices higher. Furthermore, as aforementioned, South Africa's fuel prices are influenced by international and local factors. International factors include the fact that South Africa imports both crude oil and finished products at a price set at the international level, including importation costs, e.g. shipping costs. The continued increases in input costs might affect the ability of grain and oilseed farmers in South Africa to continue farming sustainably and profitably. Grains and oilseeds are components that are required in the poultry industry and other industries where feed plays a crucial role, and higher demand going forward will require substantial investment in coarse grains and oilseeds.

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