



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



# Input

## Cost Monitoring

June 2022

An update on selected items



## EXECUTIVE SUMMARY

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

From May 2021 to May 2022, international prices (**Rand terms**) for Muriate of Potash (MOP), Di-Ammonium Phosphate (DAP) and Urea increased by 303.8% (from R3 707/ton to R14 968/ton), 119.5% (from R8 143/ton to R17 876/ton) and 78.0% (from R4 900/ton to R8 724/ton), respectively. During the same period the R/\$ exchange rate depreciated by 13.2% from R/\$14.04 to R/\$15.89.

From May 2021 to May 2022, domestic fertilizer price for Potassium Chloride (KCL), Urea and Mono-Ammonium Phosphate (MAP) increased by 179.1% (from R6 856/ton to R19 136/ton), 139.4% (from R7 880/ton to R18 862/ton) and 101.8% (from R11 753/ton to R23 718/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.

### ❖ Fuel prices & Illuminated paraffin

Between June 2021 and June 2022 diesel and petrol prices increased by 57.5% (from R14.66/litre to R23.09/litre) and 41.1% (from R17.13/litre to R24.17/litre), respectively. Crude oil prices in US dollar terms increased by 56.8% from US\$73.34/barrel to US\$115.00/barrel, with a 14.5% depreciation of the Rand (R13.93/\$ to R15.95/\$). Between June 2021 and June 2022, the price of illuminated paraffin in both Coastal and Gauteng regions increased by 119.0% (R7.95/litre to R17.41/litre) and 107.5% (R8.77/litre to R18.20/litre), respectively. The movement of paraffin prices is typically affected by two main factors, international petroleum costs, and the depreciation in the rand/dollar exchange rate.

### ❖ Freight Indices

From May 2021 to May 2022, the Grain and Oilseeds Freight Index (GOFI) increased by 29.1%, while the Baltic Dry Index (BDI) decreased by 5.2%. 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 May 2022, the BDI reached 2 847 index points and the GOFI reached 236 index points.

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## Introduction

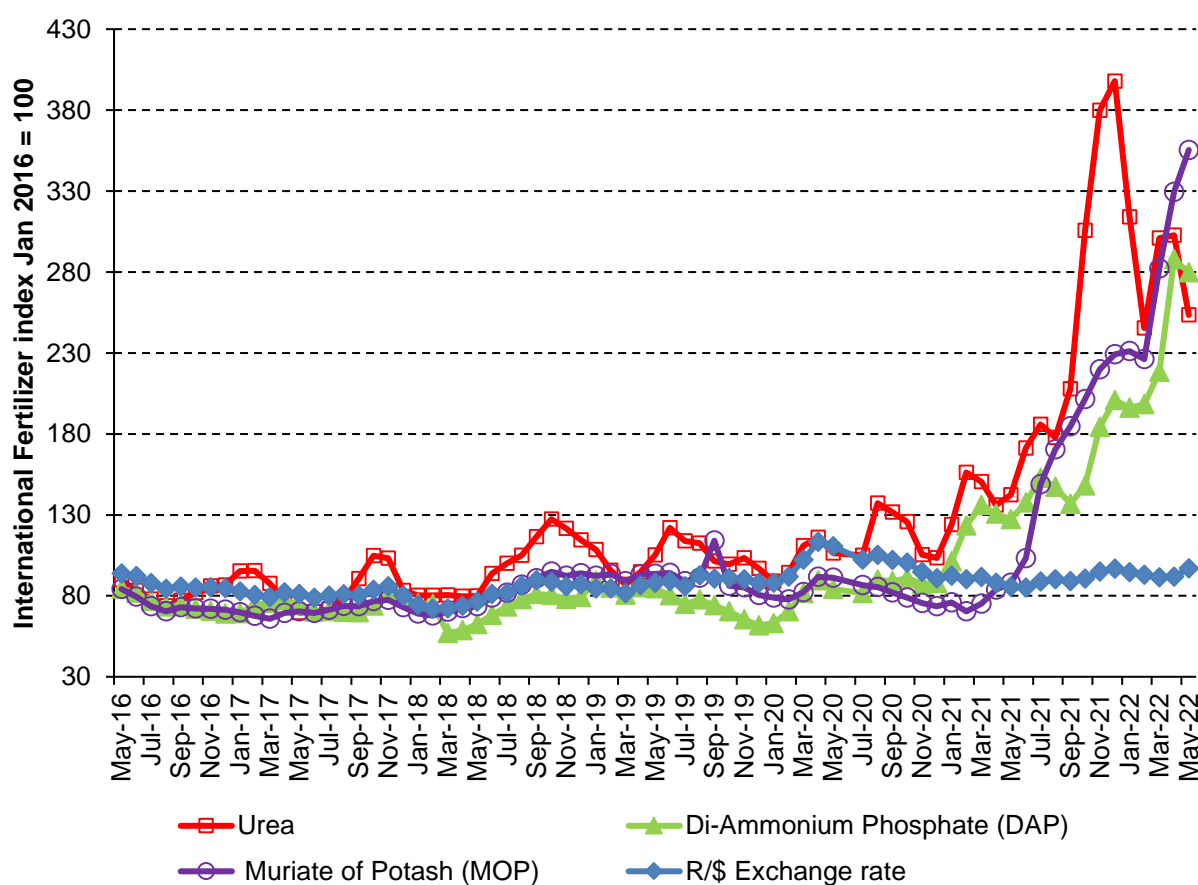
Agricultural inputs such as fertilisers, play an important role in increasing agricultural productivity cost and yield. The Input Cost Monitoring (ICM) report, published by the National Agricultural Marketing Council (NAMC) is a quarterly report analysing historic and current trends from selected agricultural 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 May 2016 to May 2022. International prices (**Rand terms**) for Muriate of Potash (MOP), Di-Ammonium Phosphate (DAP) and Urea increased by 321.8% (from R3 549/ton to R14 968/ton), 231.5% (R5 392/ton to R17 876/ton) and 182.5% (from R3 088/ton to R8 724/ton), respectively. During the depicted period, the Rand/US Dollar (R/\$) exchange rate depreciated by 3.4% (from R/\$15.36 to R/\$15.89). In terms of the US Dollar prices, MOP, DAP and Urea increased by 307.8% (from US\$231/ton to US\$942/ton), 220.5% (from US\$351/ton to US\$1 125/ton) and 173.1% (from US\$201/ton to US\$549/ton), respectively.

From May 2021 to May 2022, international prices (**Rand terms**) for MOP, DAP and Urea increased by 303.8% (from R3 707/ton to R14 968/ton), 119.5% (from R8 143/ton to R17 876/ton) and 78.0% (from R4 900/ton to R8 724/ton), respectively. During the same period, the R/\$ exchange rate depreciated by 13.2% from R/\$14.04 to R/\$15.89.



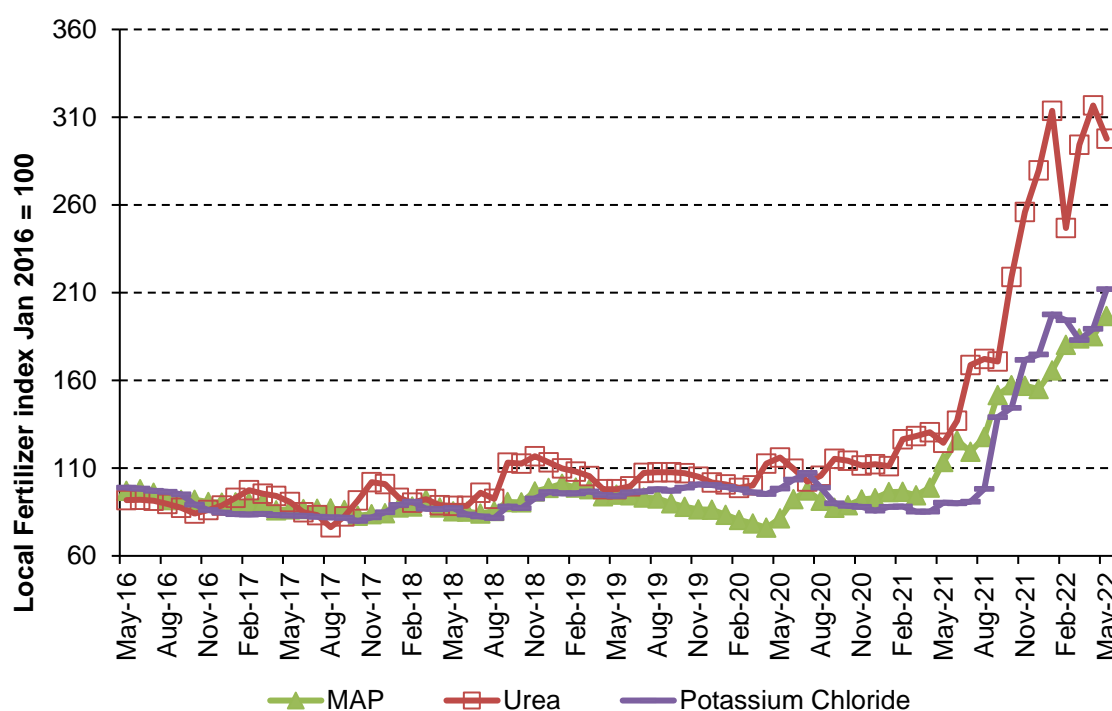
**Figure 1: International price trends for selected fertilisers**

Source: Own calculations based on data from Grain SA, 2022.

## Domestic price trends for selected fertilisers

**Figure 2** shows price trends for domestic fertiliser between May 2016 and May 2022. Over the depicted period the local fertiliser prices for Urea, Potassium Chloride (KCL) and Mono-Ammonium Phosphate (MAP) increased by 224.5% (from R5 813/ton to R18 862/ton), 161.1% (from R7 330/ton to R19 136/ton) and 150.9% (from R9 455/ton to R23 718/ton), respectively.

From May 2021 to May 2022, domestic fertilizer price for KCL, Urea and MAP increased by 179.1% (from R6 856/ton to R19 136/ton), 139.4% (from R7 880/ton to R18 862/ton) and 101.8% (from R11 753/ton to R23 718/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. Export restrictions by China and Russia of fertilizers and the high international price of gas are aggravating the local fertilizer price hikes. For net importing countries, macroeconomic factors such as the exchange rate also play a crucial role in this regard.



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

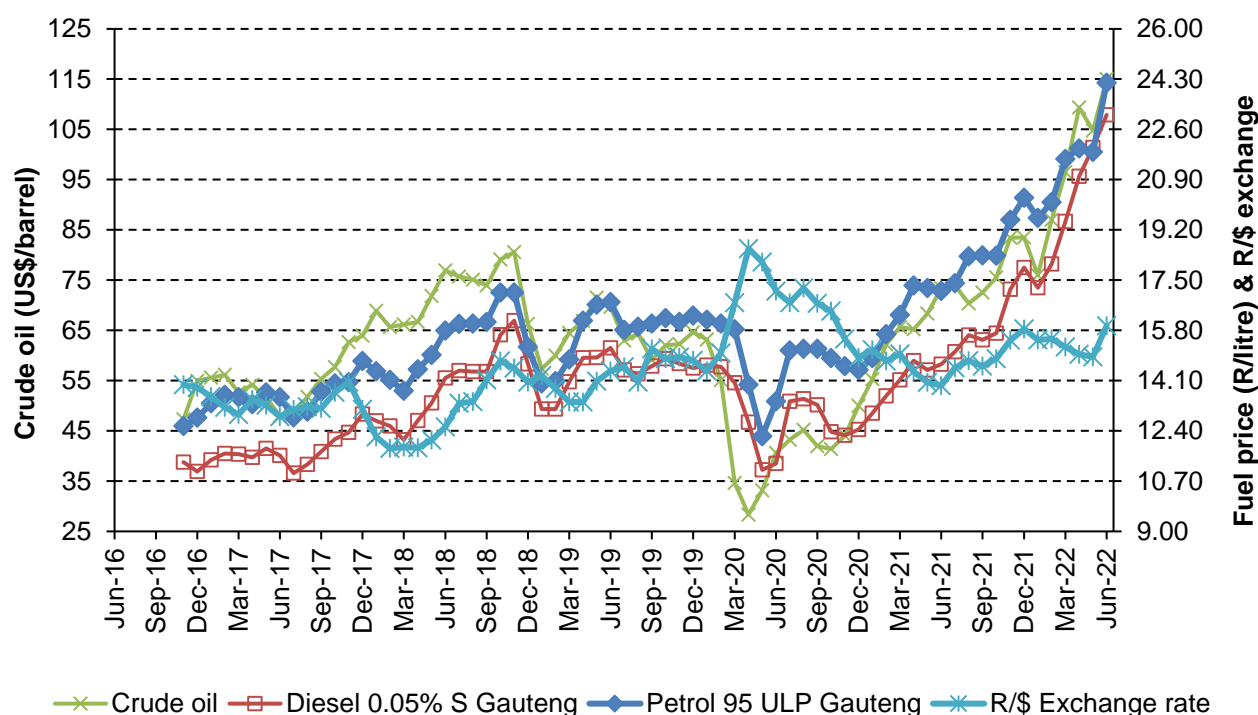
Source: Own calculations based on data from Grain SA, 2022.

## 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 June 2016 and June 2022. During this period, diesel and petrol prices increased by 104.5% (from R11.29/litre to R23.09/litre) and 82.3% (from R13.26/litre to R24.17/litre), respectively. In **US dollar terms**, crude oil prices increased by 130.7% (from US\$49.86/barrel to US\$115.00/barrel). During the same period, crude oil prices in **Rand terms** increased by 143.9% (from R752.06/barrel to R1 834.25/barrel).

Between June 2021 and June 2022 diesel and petrol prices increased by 57.5% (from R14.66/litre to R23.09/litre) and 41.1% (from R17.13/litre to R24.17/litre), respectively. Crude oil prices in US dollar terms increased by 56.8% from US\$73.34/barrel to US\$115.00/barrel, with a 14.5% depreciation of the Rand (R13.93/\$ to R15.95/\$). These fluctuations in South Africa's fuel prices have been driven by the rising price of international petroleum. The R1.50 reduction on the General Fuel Levy (GFL)

announced by the Minister of Finance at the end of March 2022 is welcome and will take some pressure off embattled consumers. This reduction was extended for June and July 2022.



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

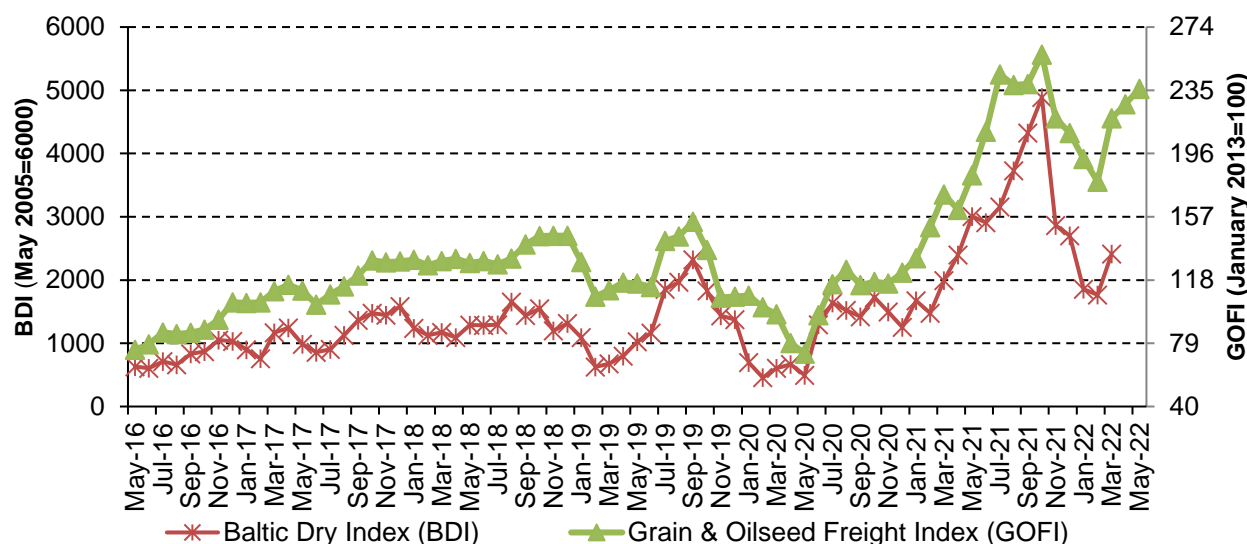
Source: DoE, 2022.

## 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 May 2016 and May 2022. The BDI and GOFI during this period increased by 352% and 214.7%, respectively. This can be attributed to changes in shipments times, congestions in ports and demand across the world. From May 2021 to May 2022, the GOFI increased by 29.1%, while the BDI decreased by 5.2%. 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 May 2022, the BDI reached 2 847 index points and the GOFI reached 236 index points.





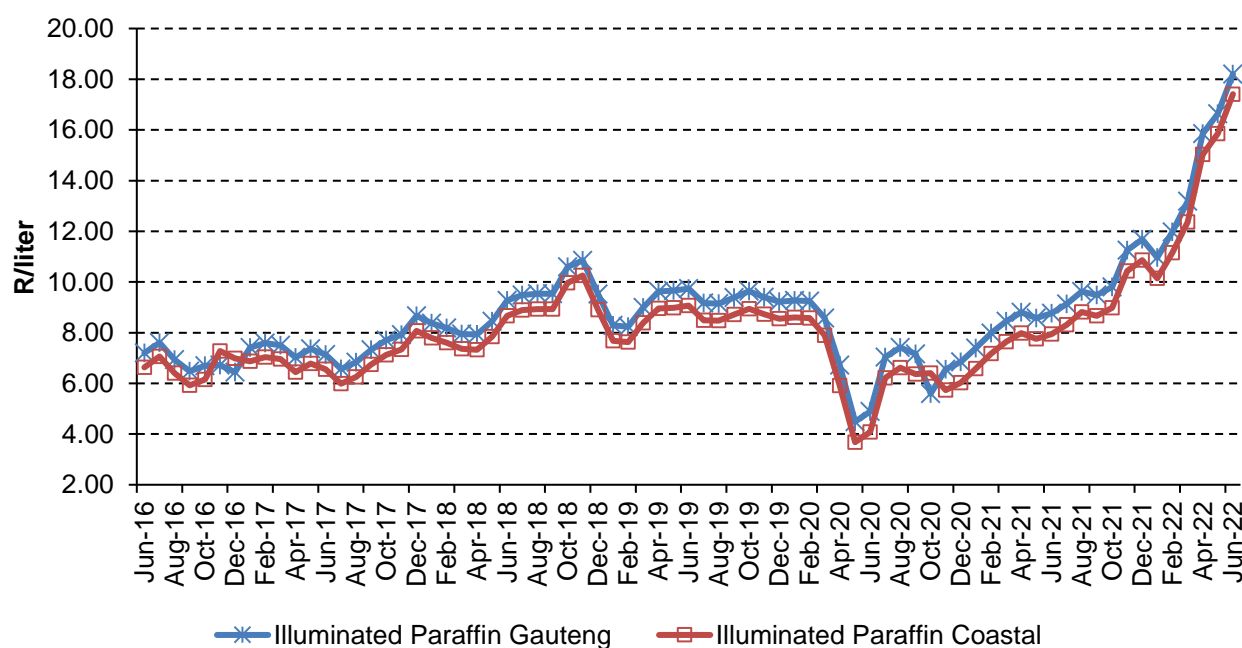
**Figure 4: Baltic Dry Index versus Grain and Oilseeds Freight Index**

Source: SAGIS, 2022.

## Illuminated paraffin price

Consumers utilise paraffin as an alternative source of household energy. As result, paraffin is classified as an essential backup fuel. **Figure 5** shows illuminated paraffin prices for both the Coastal and Gauteng regions from June 2016 to June 2022. During this period, illuminated paraffin prices for Coastal and Gauteng regions increased by 162.6% (from R6.63/litre to R17.41/litre) and 152.8% (from R7.20/litre to R18.20/litre), respectively.

Between June 2021 and June 2022, the price of illuminated paraffin in both Coastal and Gauteng regions increased by 119.0% (R7.95/litre to R17.41/litre) and 107.5% (R8.77/litre to R18.20/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, 2022.

## Conclusion

International fertiliser prices have increased due to several factors such as low stock levels caused by the COVID-19 pandemic, high natural gas prices and the Russia and Ukraine crisis. 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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