



NAMMC
Promoting market access for South African agriculture



Input

Cost Monitoring

September 2022

An update on selected items



EXECUTIVE SUMMARY

❖ International and domestic price trends for selected fertilizers

From August 2021 to August 2022, international prices (Rand terms) for Muriate of Potash (MOP), Di-Ammonium Phosphate (DAP) and Urea increased by 88.4% (from R7 178/ton to R13 527/ton), 48.7% (from R9 408/ton to R13 995/ton) and 37.4% (from R6 115/ton to R8 400/ton), respectively. During the same period, the R/\$ exchange rate depreciated by 13.1% from R/\$14.77 to R/\$16.70.

From August 2021 to August 2022, domestic fertilizer prices for Potassium Chloride (KCL), Urea and Mono-Ammonium Phosphate (MAP) increased by 117.1% (from R10 897/ton to R23 660/ton), 40.0% (from R10 919/ton to R15 291/ton) and 48.3% (from R15 498/ton to R22 978/ton), respectively.

❖ Fuel prices & Illuminated paraffin

Between September 2021 and September 2022 diesel and petrol prices increased by 54.8% (from R15.48/litre to R23.96/litre) and 27.5% (from R18.34/litre to R23.38/litre), respectively. Crude oil prices in US dollar terms increased by 29.6% from US\$72.55/barrel to US\$94.00/barrel, with a 14.5% increase in R terms (from R10.48/litre to R12.18/litre). During the same period, the price of illuminated paraffin in both Coastal and Gauteng regions increased by 94.1% (R8.66/litre to R16.81/litre) and 85.7% (R9.48/litre to R17.60/litre), respectively.

❖ Freight Indices

From August 2021 to August 2022, the Grain and Oilseeds Freight Index (GOFI) decreased by 62.2% and 29.2%, 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 August 2022, the BDI reached 1 411 index points and the GOFI reached 169 index points.

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Introduction

Agricultural inputs such as fertilisers, play an important role in increasing agricultural production 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 fertilizers

Figure 1 illustrates international fertilizer prices for selected fertilizers from August 2016 to August 2022. International prices (**Rand terms**) for Muriate of Potash (MOP), Urea and Di-Ammonium Phosphate (DAP) increased by 356.2% (from R2 965/ton to R13 527/ton), 231.1% (from R2 537/ton to R8 400/ton) and 198.5% (R4 689/ton to R13 995/ton), respectively. During this period, the Rand/US Dollar (R/\$) exchange rate depreciated by 21.1% (from R/\$13.79 to R/\$16.70). In terms of the US Dollar prices, MOP, Urea and DAP increased by 276.7% (from US\$215/ton to US\$810/ton), 173.4% (from US\$184/ton to US\$503/ton) and 146.5% (from US\$340/ton to US\$838/ton), respectively.

From August 2021 to August 2022, international prices (**Rand terms**) for MOP, DAP and Urea increased by 88.4% (from R7 178/ton to R13 527/ton), 48.7% (from R9 408/ton to R13 995/ton) and 37.4% (from R6 115/ton to R8 400/ton), respectively. During the same period, the R/\$ exchange rate depreciated by 13.1% from R/\$14.77 to R/\$16.70. Fertilizer consumption in South Africa represents about 0.5% of the total global consumption and as such the local fertilizer industry is a price taker. For this reason, it is important to study the international fertilizer supply and demand balances and other factors such as exchange rate which influence the market as they have a direct impact on the domestic market.

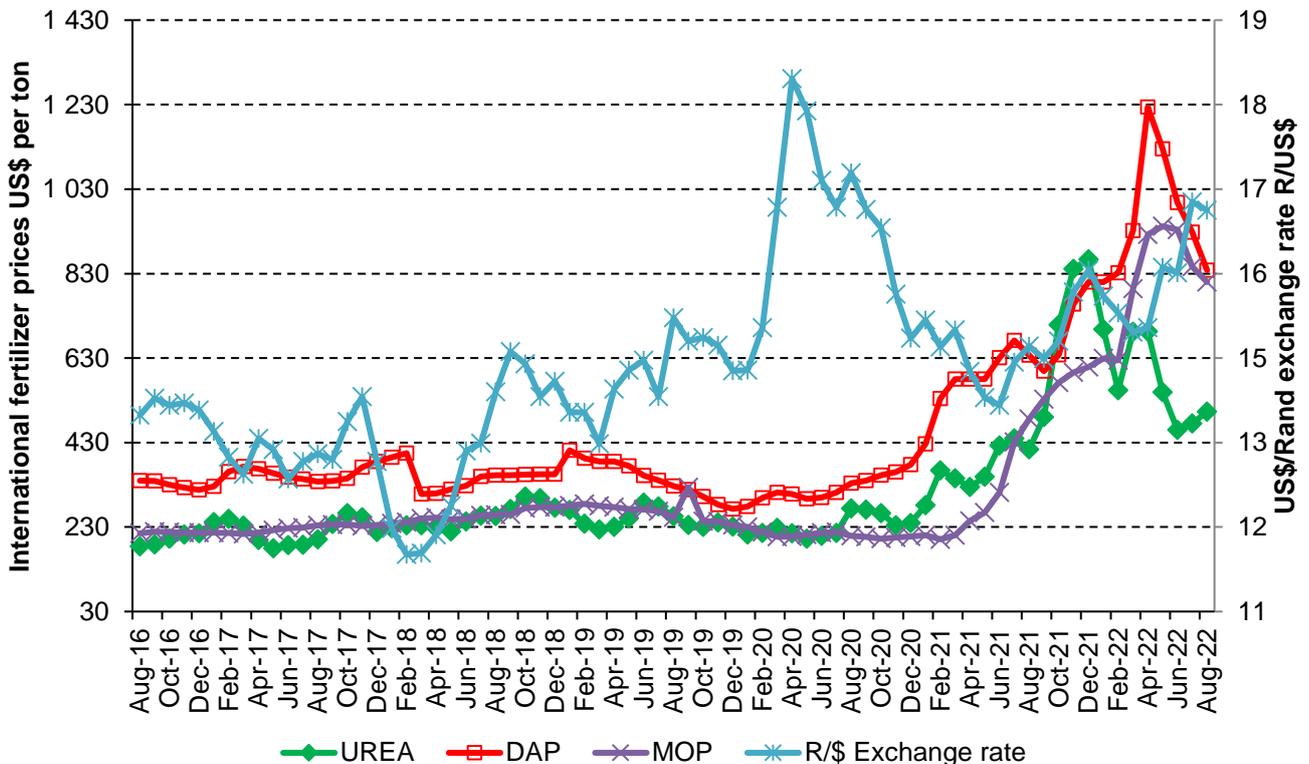


Figure 1: International price trends for selected fertilizers and R/\$ exchange rate

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

Domestic price trends for selected fertilizers

Figure 2 shows price trends for domestic fertilizer between August 2016 and August 2022. Over this period the local fertilizer prices for Potassium Chloride (KCL), Urea, and Mono-Ammonium Phosphate (MAP) increased by 251.0% (from R6 741/ton to R23 660/ton), 169.1% (from R 5 681/ton to R15 291/ton) and 153.7% (from R9 057/ton to R22 978/ton), respectively.

From August 2021 to August 2022, domestic fertilizer prices for KCL, Urea and MAP increased by 117.1% (from R10 897/ton to R23 660/ton), 40.0% (from R10 919/ton to R15 291/ton) and 48.3% (from R15 498/ton to R22 978/ton), respectively. The fluctuation in the domestic prices of fertilizers is subjected to price volatility in the global market. Since the beginning of 2021 international fertilizer prices have been rising steeply in response to lower global supply. For net importing countries, such as South Africa, macro-economic factors such as the exchange rate also play a crucial role in this regard since fertilizer is procure in countries of origin and in foreign currency terms.

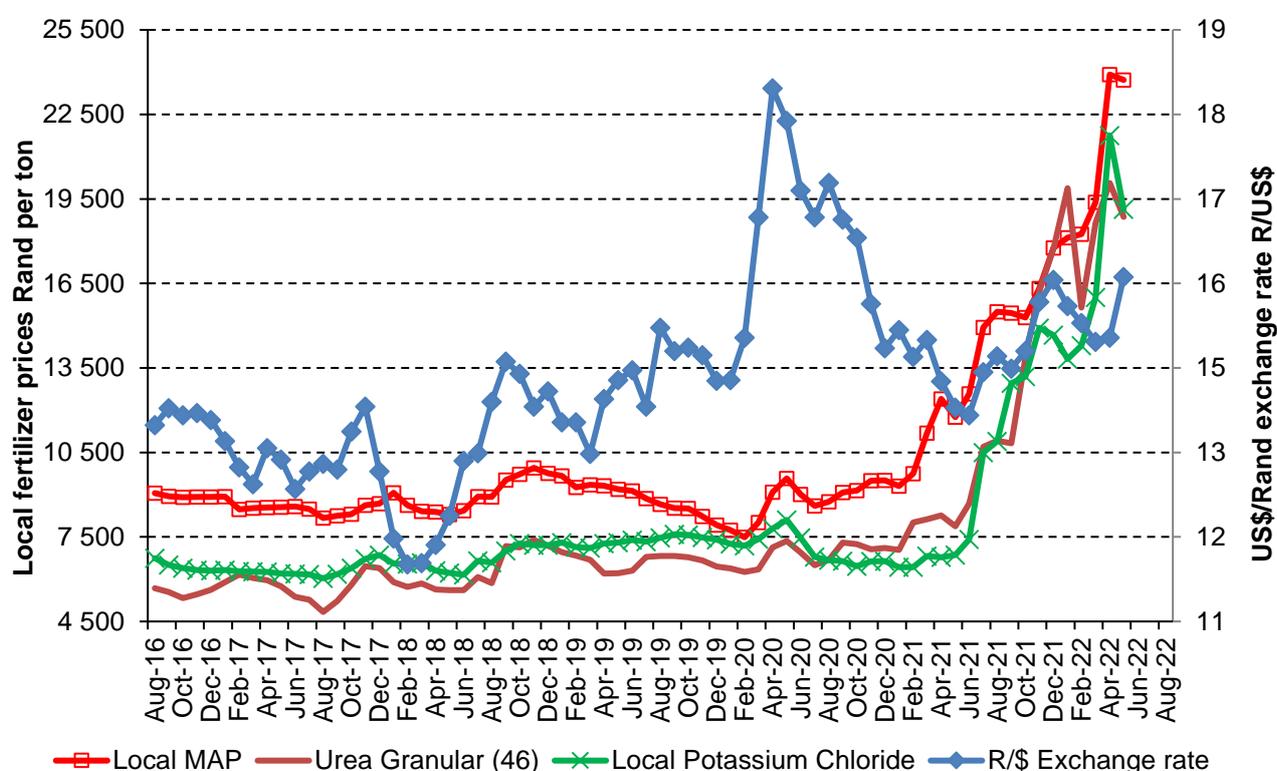


Figure 2: Domestic price trends for selected fertilizers and R/\$ exchange rate

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 the price of crude oil, petrol, diesel and the R/\$ exchange rate trends between September 2016 and September 2022. During this period, diesel and petrol prices increased by 128.4% (from R10.49/litre to R23.96/litre) and 92.1% (from R12.17/litre to R23.38/litre), respectively. In **US dollar terms**, crude oil prices increased by 98.5% (from US\$47.36/barrel to US\$94.00/barrel). During the same period, crude oil prices in **Rand terms** increased by 136.3% (from R664.46/barrel to R1 569.80/barrel).

Between September 2021 and September 2022 diesel and petrol prices increased by 54.8% (from R15.48/litre to R23.96/litre) and 27.5% (from R18.34/litre to R23.38/litre), respectively. Crude oil

prices in US dollar terms increased by 29.6% from US\$72.55/barrel to US\$94.00/barrel, with a 14.5% depreciation of the Rand (R14.59/\$ to R16.70/\$). These fluctuations in South Africa’s fuel prices have been driven by the rising price of international petroleum.

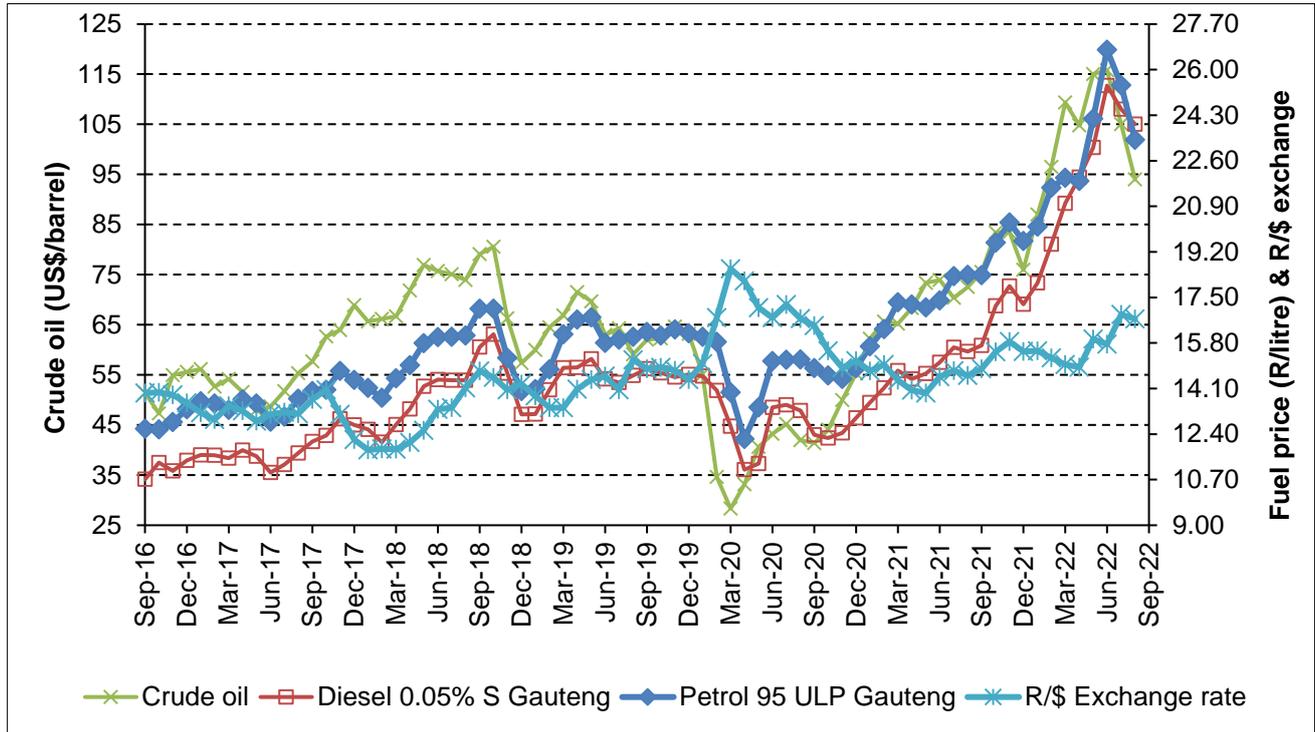


Figure 3: Crude oil and fuel prices
 Source: DoE, 2022.

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 August 2016 and August 2022. The BDI and GOFI during this period increased by 112.6% and 99.0%, respectively. This can be attributed to changes in shipment times, congestions in ports and demand across the world. From August 2021 to August 2022, the BDI and GOFI decreased by 62.2% and 29.2%, 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 August 2022, the BDI reached 1 411 index points and the GOFI reached 169 index points.

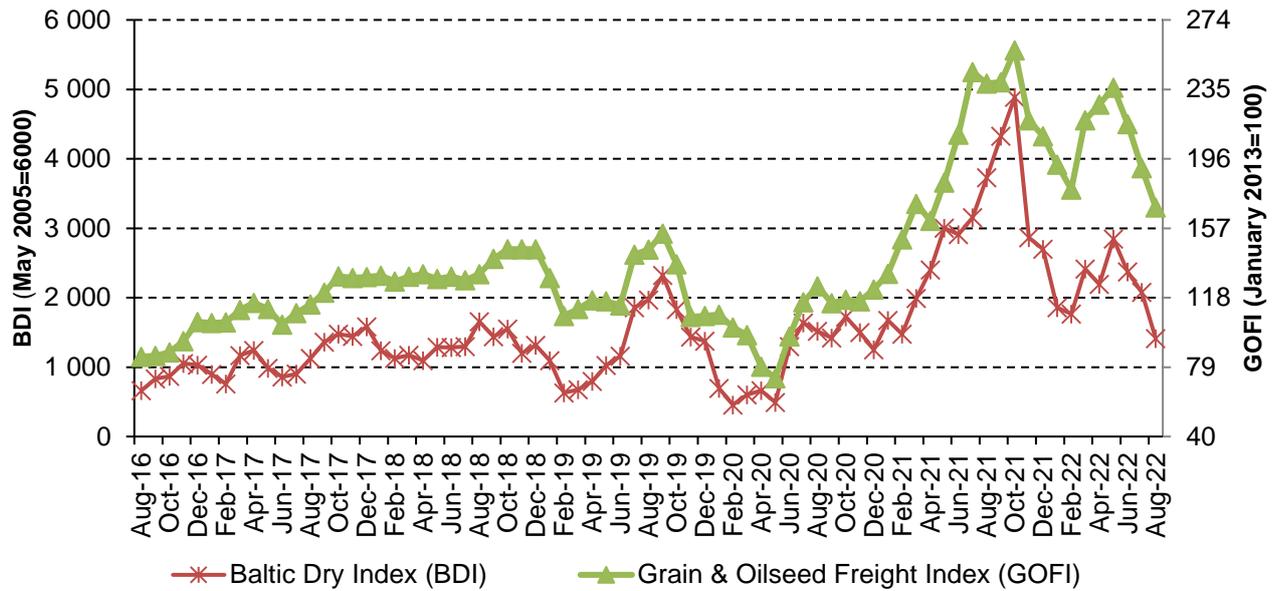


Figure 4: Baltic Dry Index versus Grain and Oilseeds Freight Index
 Source: SAGIS, 2022.

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 September 2016 to September 2022. During this period, illuminated paraffin prices for Coastal and Gauteng regions increased by 183.5% (from R5.93/litre to R16.81/litre) and 171.6% (from R6.48/litre to R17.60/litre), respectively.

Between September 2021 and September 2022, the price of illuminated paraffin in both Coastal and Gauteng regions increased by 94.1% (R8.66/litre to R16.81/litre) and 85.7% (R9.48/litre to R17.60/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.

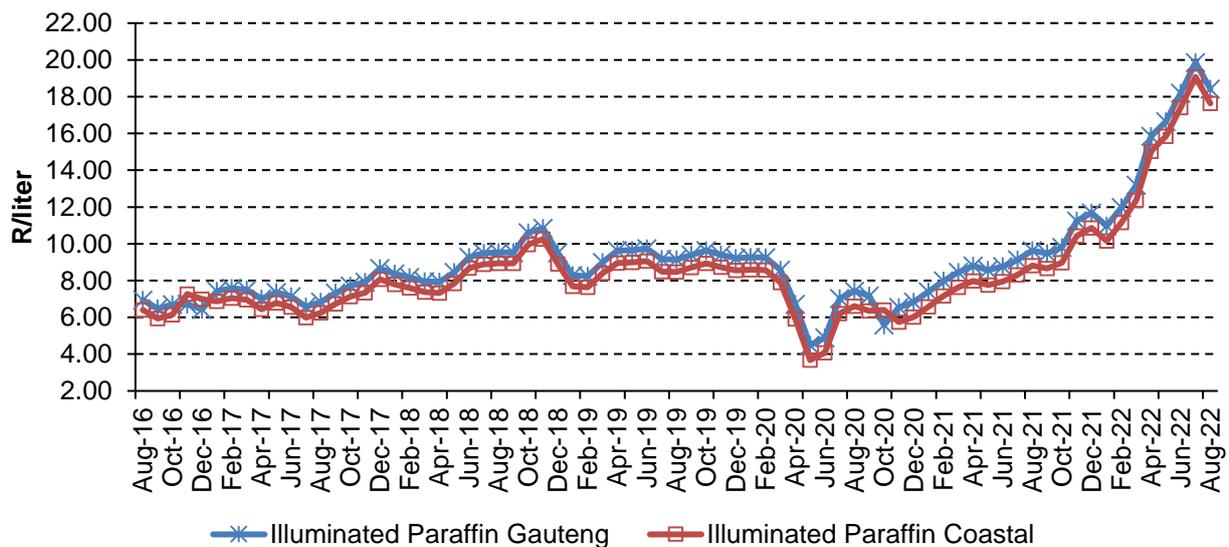


Figure 5: Comparison of illuminated paraffin price between Coastal and Gauteng regions
 Source: Department of Energy, 2022.

Conclusion

International fertilizer 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 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 farmers in South Africa to continue farming sustainably and profitably.

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