Fertilizer market developments

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The Fertilizer Market Update provides an overview of key developments in global fertilizer markets since the June edition of Food Outlook, covering production and consumption, input costs, prices, trade, as well as the short-term outlook.

Production, utilization and fertilizer input costs

Nitrogen and potash fertilizer production rebounded sharply in the 2024/25 season (July/June), though plant utilization rates remain below the highs of the 2010s, as capacity expansion of production plants continues to outpace fertilizer demand. By contrast, phosphate capacity growth has been slower, keeping utilization at the production plant level steady amid a gradual, affordability-driven demand recovery. Global forecasts foresee steady nutrient capacity growth of around 2 percent annually through 2030.

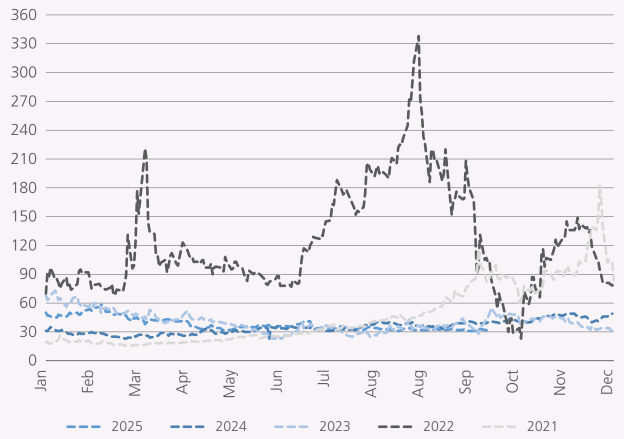
On the demand side, the International Fertilizer Association (IFA) reports that after two years of decline due to elevated price levels, including the price peaks of 2022, global fertilizer utilization rose by 6 percent to 200 million tonnes of nutrients in 2024, just below the 2020 record high of 203 million tonnes. Nitrogen use reached a record level of 115 million tonnes, 2 million tonnes more than in 2020, driving a 2 kg/ha increase in the average global fertilizer application rate across all planted crops.

The partial rebound in global fertilizer use in 2024 was mainly driven by lower fertilizer prices, a trend that continued through the first half of 2025, when prices began to increase before softening as of August 2025.

Demand for nitrogen and potash rose in 2024 and 2025, while phosphorus demand remained stable. In the first half of 2025, demand for all three nutrients showed signs of decline compared to 2024, as fertilizer use is closely tied to its affordability. Overall, nitrogen demand proved more resilient than phosphorus and potassium, reflecting its critical role in crop development and thus yields.

Nitrogen demand growth has been driven mainly by India, supported by increased urea subsidies and a reduction in the goods and services tax (GST) on agricultural inputs and farm machinery (down from 18 percent to 5 percent). The growth was also supported by China, where a renewed focus on agricultural self-sufficiency via an increased use of inputs has played a key role.

Figure 2.1. TTF daily price movement (2021–2025)



Source: Intercontinental Exchange. 2025. ICE Index: Dutch TTF Natural Gas Futures. [Accessed on 15 October 2025]. Atlanta, USA, ICE. https://www.ice.com/products/27996665/Dutch-TTF-Natural-Gas-Futures/data.

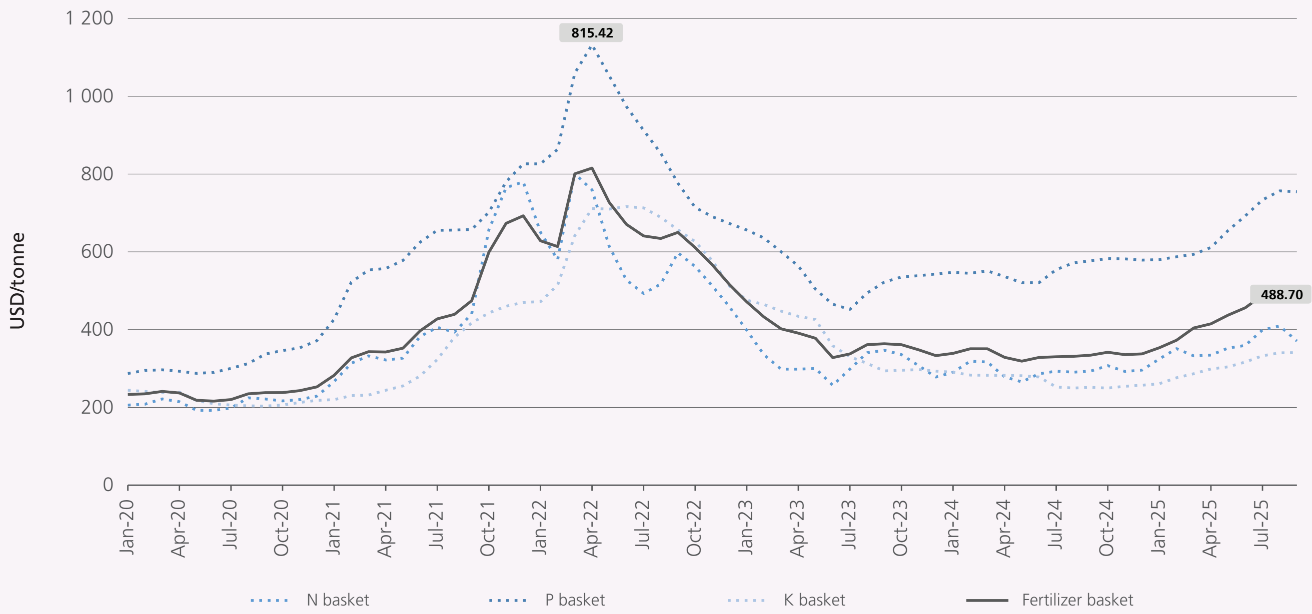
As of October 2025, phosphorus demand remains in recovery, with persistent weakness in East Asia, South Asia, Eastern Europe, and Central Asia, as elevated phosphate prices have led farmers to reduce usage or switch to products with lower phosphorus content.

The rebound in potash demand has been driven by Brazil, China, Indonesia and Malaysia, which together increased potash use by over 2 million tonnes in the past two years compared to 2023, due to improved affordability.

The cost of productionx – and thus the availability - of mineral fertilizers is closely tied to energy prices. Natural gas is a critical input for all nitrogen fertilizers, as well as for widely used phosphorus fertilizers such as monoammonium phosphate (MAP) and diammonium phosphate (DAP), and for various nitrogen, phosphorus and potassium (NPK) blends.

Stable natural gas prices support predictable fertilizer production and supply. In 2024, the Dutch natural gas Title Transfer Facility (TTF) index – the main reference market for gas trading in Europe - averaged EUR 35/megawatt hour, down 15 percent (or EUR 6/megawatt hour) compared to the 2023 annual average.

Figure 2.2. Nitrogen, phosphate and potassium prices (2020–2025)



Source: Author's elaboration based on Fertilizer Week. 2025. London, CRU. [Cited 15 October 2025]. https://www.crugroup.com/prices/

Early in 2025, the TTF index surged to EUR 58/megawatt hour, driven by a burst of cold weather across parts of the Northern Hemisphere and a shortfall in North Sea wind output, although prices remained well below the 2022 levels. Since that spike, prices have eased substantially. By September 2025, the TTF benchmark was trading at EUR 32–33/megawatt hour, roughly half the February peak, as summer refill activity, weaker near-term demand, and ample liquefied natural gas (LNG) flows weighed on the market. EU gas inventories reportedly reached about 75 percent of working capacity by late August 2025 after a large injection effort and additional LNG imports. Inventory rebuilding has reduced immediate price pressure, with the latest reports suggesting that the European Union has achieved its storage target of 90–95 percent. However, ongoing geopolitical risks mean that price volatility remains a concern heading into the winter.

In 2025 to date, natural gas prices have been less volatile than during the spikes of late 2021 and throughout 2022. However, price levels rose by 19 percent to an average of EUR 38/megawatt hour for January–October 2025, an increase of EUR 6/megawatt hour compared to the same period in 2024.

Despite higher natural gas prices, the increase in fertilizer production costs has been more moderate in 2025 to date than during previous peak years. In addition to more contained changes in natural gas prices compared to 2022, increased structural resilience in fertilizer production, particularly among those plants that have the option to import natural gas and/or ammonia from regions with lower productions costs such as the Near East and North Africa, has also played a role. Plant shutdowns in 2025 were mainly related to maintenance works rather than feedstock supply shocks. Nonetheless, regional conflicts continued to weigh on energy markets, occasionally triggering short-lived spikes in fertilizer prices. Intra-month energy cost volatility remains a challenge for fertilizer producers, particularly in Europe, where the cost base of production is higher due to other structural factors such as labour costs and environmental mitigation requirements.

Prices

In 2024 the average export price of a fertilizer basket[1] was USD 336/tonne, compared to USD 375/tonne in 2023, representing a decline of 10 percent. In

[1] The basket consists of the weighted average of export (free on board [FOB]) prices for nitrogen, phosphate, and potassium. It includes the following products: urea, urea ammonium nitrate (UAN), ammonium nitrate and ammonium sulphate, diammonium phosphate (DAP), monoammonium phosphate (MAP), triple-superphosphate (TSP), and muriate of potash (MOP). The weights used for each nitrogen (0.50), phosphorus (0.19) and potassium (0.31) reflect the percentage share of exports over 2019–2023.

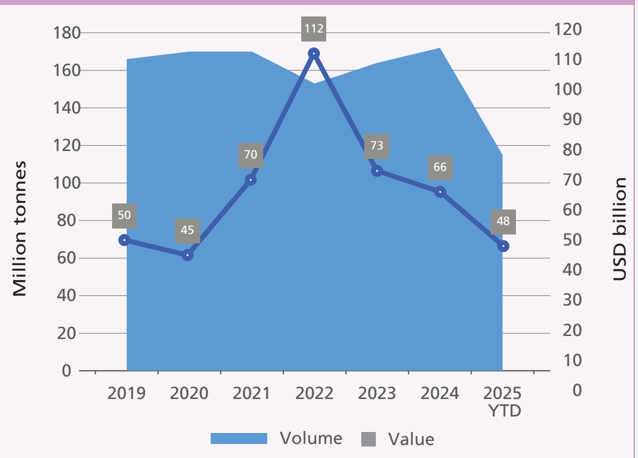
September 2025, export prices of a fertilizer basket of nitrogen, phosphorus and potassium averaged USD 489/tonne – 46 percent higher than in September 2024, but still 40 percent below the historical peak of USD 815/tonne recorded in April 2022.

The effect of higher natural gas prices in 2025 is most readily reflected in nitrogenous fertilizer prices, which averaged USD 359/tonne in January–September 2025, higher 23 percent than during the same period in 2024. Phosphatic fertilizers (diammonium phosphate, monoammonium phosphate and triple superphosphate) also recorded a steep price increase in the first nine months of 2025, averaging USD 662/tonne, up 21 percent from USD 547/tonne in the same period in 2024.

The only fertilizers not directly linked to natural gas price developments are potassic fertilizers (muriate of potash and sulphate of potash), whose prices recorded a milder increase in the first nine months of 2025, averaging USD 306/tonne compared to USD 272/tonne during the same interval in 2024, a rise of 13 percent year on year.

Different nutrients are influenced by distinct market fundamentals and development in trade policies. The price increases across all three nutrient groups were driven by a myriad of concurrent factors, including regional demand seasonality, maintenance-related supply disruptions at production plants, stable natural gas supply, and trade policy measures. By the end of August, nitrogen and phosphates prices began to show signs of easing, driven by lower demand from key markets such as Brazil and India, where persistently high prices had started to erode affordability.

Figure 2.3. Global fertilizer trade (2019–2025)



Source: Global Trade Tracker. 2025. Kehrsatz, GTT. [Cited 15 October 2025]. https://www.globaltradetracker.com/

Global fertilizer trade

In 2024, global fertilizer trade volume – measured in gross product tonnes rather than nutrients – returned to the 2020 and 2021 levels, exceeding 170 million tonnes and representing a 4 percent increase from the 164 million tonnes traded in 2023. Despite the higher volumes, total trade value declined by 10 percent in 2024 to USD 66 billion, on account of lower international prices.

So far in 2025, trade data indicate that between January and September, global fertilizer trade volumes reached 115 million tonnes, while trade value totaled USD 48 billion. For the same period in 2024, volumes were higher at 132 million tonnes, valued at USD 51 billion. The smaller decline in trade values compared to volumes highlights the price increases through much of 2025 relative to 2024.

The lower year-to-date volume can be partly explained by a delayed start of the 2025/26 application season due to unfavourable weather conditions across much of the northern hemisphere.

Uncertainty around changes in trade policies and the impact of tariffs, as well as exchange rate volatility and credit financing issues, have altered buyers' behaviour. Overall, total fertilizer trade in 2025, in both volume and value terms, will ultimately depend on fertilizer price trends and their affordability relative to crop prices.

Short-term outlook (from November 2025 to March 2026)

Nitrogen supply is likely to remain adequate, even though no major capacity additions are expected in the remainder of the year. After a two-year absence from global markets, China resumed urea exports In July and extended its export window through the end of the year, allowing shipments of up to 2 million tonnes. Between June and September, China exported over 1 million tonnes, with the top destinations being Brazil, Ethiopia, Pakistan, the Republic of Korea, and Sri Lanka. Demand for urea is expected to remain robust, with India continuing to issue tenders periodically to ensure sufficient domestic supplies ahead of rabi season 2026 (October–March). Upward price pressure could develop if the main demand windows in Brazil, India and Europe overlap, particularly as major European buyers (France, Italy and Spain) have delayed spring purchases. In Europe, prices of nitrate are expected to decline as weak affordability constrains demand, but they could recover toward December 2025 as buyers advance purchases ahead of the planned implementation of the carbon border adjustment mechanism (CBAM). In Brazil, ammonium sulphate demand has picked up since August 2025, causing a modest rebound of free on board (FOB) prices from Europe and China, the country's main suppliers. However, increases remain limited by abundant export supply from China, continued port storage bottlenecks, and softer urea prices.

Phosphate prices have continued to decline since August but remained well above their levels at the start of the year. Further easing is anticipated in the coming months, though prices are likely to stay historically high due to limited supply. Indian DAP import demand is foreseen to stay firm, although buyers are in a strong position given high stock levels while awaiting clarity on rabi season subsidies, potentially pushing for lower price. Ethiopia's shift from one type of compound fertilizers (nitrogen, phosphate and sulphur blends) to diammonium phosphate (DAP) has added over 1 million tonnes of demand to the global market in 2025 – a trend likely to persist through 2026. In Brazil, MAP prices have eased, butt buyers are expected to remain cautious due to weak barter ratios, credit constraints, and ample stocks supported by strong imports of alternative phosphate sources such as triple superphosphate (TSP).

Potash prices are predicted to remain steady, with a gradual downward trend expected across most regions over the coming months, as weak demand continues to pressure spot markets. Muriate of potash (MOP) prices peaked in July but have since eased due to weakening affordability and ample supply from Belarus, Canada, and the Russian Federation. While demand is expected to remain generally steady, it may soften in key markets such as China, India and the United States of America. By contrast, Southeast Asia is set to lead global demand growth, supported by high palm oil prices pushing up MOP prices, whereas Brazil is likely to face affordability pressures.

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