



Public Summary Short-Term Fertilizer Outlook 2020 – 2021

Market Intelligence and Agriculture Services
International Fertilizer Association (IFA)

IFA Virtual Strategic Forum

17-19 November 2020



This Public Summary was prepared by the Market Intelligence and Agriculture Services on the occasion of the IFA Virtual Strategic Forum held on 17-19 November 2020.

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ECONOMIC AND POLICY CONTEXT

COVID-19 has disrupted global health, trade and economies, creating significant uncertainty. As of October 2020, the International Monetary Fund (IMF) projected a 4.4% drop in global economic growth in 2020 and a rebound of 5.2% in 2021. Nonetheless, the extent and speed of economic recovery are highly uncertain. Economic output in both advanced economies and emerging and developing economies is projected to decrease in 2020. One notable exception is China, which has shown signs of a strong and sustainable recovery.

The World Trade Organization (WTO) has reported a sharp contraction in global trade in the first quarter of 2020. Energy prices collapsed in March-April 2020 but have since partially recovered.

In addition to the public health risks surrounding the pandemic, there is rising uncertainty about financial conditions. Financial market levels are currently assuming that the pandemic will be under control by the end of 2021, but progress could be slower.

Trade in agricultural goods has been less disrupted than trade in other commodities. According to the WTO, year-on-year growth of global trade in agricultural goods contracted by 5% in the second quarter of 2020 compared with 21% for all goods. Food and agriculture are essential sectors, in which production and transportation continued during lockdowns. Moreover, bulk shipping, the main transport mode for agricultural goods, has been far less affected by restrictions than other forms of transport. Strong and proactive public and private collaboration efforts throughout the world have anticipated potential trade and supply chain problems.

In addition to categorizing agriculture and fertilizers as essential, major jurisdictions have moved swiftly to support their agriculture and fertilizer sectors.

The focus on environmental issues associated with fertilizers has increased, and a number of governments are introducing measures to reduce emissions related to agriculture.

FERTILIZER DEMAND

IFA expects global fertilizer use to rebound by 1.6% to 189.8 Mt in 2019/20, following an estimated decline of 1.7% to 186.8 Mt in 2018/19. The contraction in 2018/19 is partly explained by a significant drop in US consumption due to poor weather.

The recovery in global fertilizer use in 2019/20 is led by India, where the monsoon brought abundant rainfall, and the US, where weather conditions improved considerably. Fertilizer use increased in most regions but remained almost stable in West and Central Europe (WCE) and Oceania and was estimated to be down in Africa and East Asia.

In 2020/21 IFA anticipates a 2% increase in global fertilizer use to 193.5 Mt despite the COVID-19 pandemic. Phosphorus (P_2O_5) consumption is expected to increase by 3%, compared with 1.6% for nitrogen (N) and 1.4% for potassium (K_2O).

Several factors are contributing to greater fertilizer demand in 2020, including government measures, resilient crop prices, a more attractive relationship between crop and fertilizer prices, weakening of domestic currencies in large agricultural exporting countries, and favorable weather in key consuming countries. In addition, some farmers may have purchased fertilizers earlier than usual as a precaution against potential delivery delays or financing difficulties.

Despite the overall growth in global fertilizer use, some countries are experiencing difficulties and may see their fertilizer use decline. Moreover, the pandemic has also affected some specific sectors such as biofuel crops and fruits and vegetables.

South Asia is expected to be the main positive driver of global fertilizer use in 2020/21, followed by Latin America and North America. Four regions could gain around 100,000 tonnes of nutrients each: EECA, Africa, Oceania and WCE. In contrast, East Asia and West Asia face reduced use. In relative terms, the fastest growing markets would be South Asia, followed by Latin America, Oceania, Africa and North America.

Global Fertilizer Demand (Mt nutrients)				
	N	P ₂ O ₅	K ₂ O	Total
2017/18	105.8	46.5	37.7	190.0
2018/19	103.8	45.9	37.1	186.8
2019/20 (e)	106.7	47.1	36.1	189.8
Change	+2.7%	+2.5%	-2.8%	+1.6%
2020/21 (f)	108.4	48.6	36.6	193.5
Change	+1.6%	+3.2%	+1.4%	+2.0%
2021/22 (f)	109.5	49.0	37.0	195.6
Change	+1.0%	+0.9%	+1.3%	+1.1%

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IFA expects global fertilizer use to grow by 1% in 2021/22, much more slowly than in 2020/21. N, P₂O₅ and K₂O use would each increase by around 1%. South Asia would continue to drive the expansion of global fertilizer use, followed by EECA, Latin America and Africa. In relative terms the fastest growing markets would be EECA and Africa, followed by South Asia.

The lingering COVID-19 pandemic will probably not affect fertilizer logistics significantly, as already demonstrated in 2020. However, the uneven nature of global economic recovery could affect consumer food demand, government budgets, farmers' input purchasing behavior and their financing conditions.

Significant uncertainty remains regarding the duration of the pandemic and the pace of vaccine development and distribution. In addition, advance fertilizer purchases made in 2020/21 could lessen sales in 2021/22 although the extent of these purchases needs to be clarified. On the positive side, crop prices have mostly recovered from their drop in early 2020 and are supported by rebuilding of the Chinese swine herd and governments' concerns about food security.

FERTILIZER SUPPLY

World fertilizer supply in 2020 remained relatively resilient globally. Despite uncertainties and new challenges related to the COVID-19 pandemic. Temporary shutdowns or closures of plants in the nitrogen and potassium market segments were balanced by the start-up of new facilities, leading to overall global net capacity growth in 2020. As for phosphate products, capacities remained almost unchanged compared with 2019. Global fertilizer market conditions were marked by a fall in natural gas prices, notably in Europe and the US, rising inflation, exchange rate volatility, escalating trade tensions, new trade defense measures and tariff changes.

Geopolitics (coupled with feedstock supply issues and capacity closures) continue to have an impact on operational performance, particularly in Latin America (Brazil, Mexico, Trinidad and Venezuela).

The COVID-19 crisis confronts policymakers with challenges and opportunities for global sustainability, climate change mitigation and decarbonization. As a consequence, many countries announced their intent to invest in green ammonia projects and to support a global hydrogen and clean fuel economy, notably in Australia, Spain, the Netherlands, Chile or the US, to name a few. There are also promising perspectives for using ammonia as a marine fuel since its energy density makes it a realistic option for deep sea shipping.

Despite uncertainties associated with the COVID-19 pandemic, operational performance results for the main fertilizer raw materials have demonstrated moderate growth. Based on preliminary estimates, the 2020 global output trend would show the following:

- ammonia production up by 1%;
- phosphate rock production up by 1%;
- primary potash output up by 1%;

Fertilizer demand (79% of total demand) was estimated at 191 Mt *nutrients* in calendar year 2020. Net industrial uses, non-allocated tonnages and distribution losses totaled 52 Mt nutrients.

Prospects for 2021

World fertilizer demand would pick up in calendar year 2021, expanding by 1.8%. Nitrogen, phosphate and potassium nutrient demand is expected to register robust growth of 1.7%, 2.1% and 1.6%, respectively.

Global supply of primary raw materials (ammonia, phosphate rock and potash) for all uses in 2021 would grow by 2% to 259 Mt *nutrients*.

Nitrogen Outlook

Global ammonia production in 2020 is estimated to have increased moderately by 1.1% to 179.4 Mt NH₃, mostly driven by higher production in Russia, the US and Saudi Arabia.

It is anticipated that ammonia production in China would grow by a modest 1% despite tighter environmental controls and feedstock supply shortfalls. China would account for 27% of global output in 2020, a level equivalent to the one registered for 2019.

Reductions in ammonia production were observed in Latin America, South Asia and Oceania whereas output is expected to grow in North America and, to a lesser extent, West Asia. Excluding China, world ammonia production increased by a net 1% compared with 2019, to 130.9 Mt NH₃.

Global ammonia trade in 2020 was estimated at 19.7 Mt, a modest increase of 0.4% compared with 2019.

Global ammonia capacity is projected to reach 181 Mt N in 2020 compared with 179 Mt N in 2019 (+1.3%). New ammonia capacity will be commissioned in 2020/21 in Brunei, the EECA (Russia and Uzbekistan), Egypt, India, Iran, Nigeria and Oman. Capacity shutdowns and idling occurred in Bolivia, Brazil, Trinidad and North Korea.

The global nitrogen supply/demand balance in 2020 indicates an increase in the potential surplus due to a substantial supply increment (+2.3 Mt N) and modest demand growth (+1.2 Mt N).

In 2021 the global nitrogen balance is expected to remain steady compared with 2020 at 8.3 Mt N of potential surplus. This pending imbalance, equating to 5% of potential supply in 2021, will put pressure on high-cost producers (or those with chronic shortfalls of feedstock supply) in favor of operators with sustained competitive advantages in terms of resources and access to markets.

World Nitrogen Supply/Demand (Mt N)			
	2019	2020	2021
Supply	152.6	154.9	158.0
Demand	145.3	146.5	149.7
Balance	7.2	8.4	8.3

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Urea outlook

World urea production is expected to increase by 2.8% to 182 Mt product. Excluding China, which accounted for 31% of global production, world urea output rose by 2.8% to 125 Mt thanks to higher production levels in South Asia, Africa and North America. On average, the global urea industry operated at 86% of nameplate capacity.

Chinese urea production is expected to grow by 2.9% compared with 2019 to reach 57 Mt in 2020. Globally, Latin America will be the only region to register lower urea output levels in 2020 than in 2019 due to the shutdown and temporary idling of capacity and feedstock issues in Bolivia, Brazil and Venezuela.

Global exports of urea in 2020 are anticipated to increase vigorously by 3.4%, from 50.5 Mt in 2019 to 52.2 Mt.

The main trade feature in 2020 was the restoration of Ukraine's urea exports after four years of decline, reaching export levels last observed in 2016. Urea exports would also increase significantly in Indonesia. The largest reduction of urea exports is expected in China.

Global urea capacity is projected to be 209 Mt in 2019, 212 Mt in 2020 and 223 Mt in 2021.

New urea capacity additions between 2019 and 2021 are seen in India, Nigeria, the EECA, Brunei and Iran.

The derived balance for 2021 shows an increase in the potential surplus to 11.3 Mt, equating to 6% of potential supply.

World Urea Supply/Demand (Mt urea)			
	2019	2020	2021
Supply	186.2	190.3	196.7
Demand	178.3	181.3	185.4
Balance	7.9	9.0	11.3

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Phosphate Outlook

Global production of phosphate rock in 2020 is expected to slightly rise, by 1% year-on-year, to 207.7 Mt following two years of contraction in 2018 and 2019. Exports of phosphate rock in 2020 would remain steady at around 30 Mt based on preliminary estimates. Global phosphoric acid output is expected to increase by 1% to 48 Mt P_2O_5 .

Global production of processed phosphate fertilizers (MAP, NPS/MES, DAP and TSP) in 2020 is expected to remain flat at 33.5 Mt P_2O_5 (68 Mt products).

While MAP production is expected to increase by 4% in 2020, a decline in production of 3% and 7%, respectively, is foreseen for DAP and TSP.

Global trade of DAP in 2019 was 17.7 Mt product. In 2020 DAP exports are expected to grow to 18 Mt product based on preliminary estimates (+1.8% against 2019).

Capacity development 2020-2021

Global phosphoric acid capacity is projected to expand in 2019-2021 by an overall 2.3% compared with 2019 (+1.3 Mt) to reach 59.1 Mt P_2O_5 in 2021.

Incremental phosphoric acid capacity in 2019-2021 would mainly occur in Morocco, Brazil, Tunisia and India. Restructuring of phosphate capacity is still ongoing in China due to rationalization and environmental pressures.

No additional capacity is foreseen there in the short term. The COVID-19 pandemic and weaker macroeconomic conditions have slightly shifted forward the timeline of some of these capacity changes.

Global processed phosphates capacity is projected at 46.1 Mt P_2O_5 in 2020 and 47.3 Mt P_2O_5 in 2021 (+2.5%).

Global phosphoric acid supply in 2021 is expected to increase to 51.2 Mt P_2O_5 , representing 2.4% overall growth compared with 2019 (50.0 Mt P_2O_5).

Focus on 2021

Global phosphoric acid demand for all uses is estimated at 49.3 Mt P_2O_5 in 2021 compared with 47.0 Mt P_2O_5 in 2019, representing annual growth of 2.4% per annum.

Global phosphate nutrient demand is projected to increase by 3.2% in 2020 and by 2.1% in 2021.

The estimated supply/demand balance would decrease between 2019 and 2021, to a potential surplus of 1.9 Mt P_2O_5 in 2021; this level equates to 4% of global potential supply in 2021, compared with 6% in 2019.

World Phosphoric Acid Supply/Demand (Mt P_2O_5)			
	2019	2020	2021
Supply	50.0	50.7	51.2
Demand	47.0	48.3	49.3
Balance	2.9	2.4	1.9

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Potash Outlook

Following lower production in 2019 (-3.3%), world primary potash production would slightly recover by 0.8% to 42.1 Mt K_2O in 2020 in response to better market fundamentals and rising potash demand, based on preliminary estimates. Global production of muriate of potash (MOP) in 2019 is estimated to increase by almost 1% to 67 Mt product.

Global MOP trade in 2020 would expand to 51.4 Mt (+5.8%) based on preliminary estimates.

Capacity development in 2020-2021

Between 2019 and 2021 global potash supply is projected to increase by 5% (+2.5 Mt K₂O) to reach 50 Mt K₂O by year-end 2021.

Global potassium demand (for both fertilizer use and industrial applications) is projected to increase in 2020 and 2021 by 1.2% and 1.7%, respectively.

Global potassium demand is projected to reach 42.9 Mt K₂O in 2021.

Focus on 2021

The derived potash supply/demand balance shows a larger imbalance continuing in 2021 (reaching 7.3 Mt K₂O by late 2021). This level would equate to 14% of potential global supply.

The global potash market will likely remain supply-driven in the near term since very large new capacity projects in EECA (Russia and Belarus) would increase substantial potential supply.

World Potassium Supply/Demand (Mt K₂O)			
	2019	2020	2021
Supply	47.6	48.4	50.1
Demand	41.6	42.1	42.9
Balance	5.9	6.3	7.3

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