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## Short-Term Fertilizer Outlook 2017 – 2018

Production & International Trade and Agriculture Services International Fertilizer Association (IFA)

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## ECONOMIC AND POLICY CONTEXT

# Slow recovery of the world economy is continuing

Following the year 2016, described by the International Monetary Fund (IMF) as "the weakest since the global financial crisis" with output growth at 3.2%, 2017 saw global improvement in activity that is expected to be confirmed in 2018, with projected growth at 3.6% and 3.7%, respectively. As in previous years, it is anticipated that this recovery will be driven mainly by the emerging and developing economies while the developed economies continue to recover slowly, although at a more rapid pace than previously forecast.

## The environment is still a focus of policy developments

Policies in developed countries continue to focus on environmental stewardship. In the EU, discussions around the new Fertilizer Regulation continue. A final round of negotiations will take place in the coming months. The final version of the Fertilizer Regulation is expected to be voted on by mid-2018, with implementation from 2020.

Developing countries and emerging economies are shifting their focus towards sustainable agriculture as well. In India, China, and Brazil, new measures are being taken to optimize nutrient use and limit environmental impacts.

WORLD AGRICULTURE

# International cereal and oilseed prices are stabilized by relatively balanced supply and use

Favourable weather in major production areas pushed global cereal output to a new record in 2016/17. Coarse grains, rice and wheat all reached production highs. Global use of cereals increased significantly, boosted by the wide availability of attractively priced grains. However, consumption remained below production for the fourth consecutive season and global stocks continued to accumulate, keeping international prices under pressure.

Global cereal production is expected to decline slightly in 2017/18, but will remain close to the 2016/17 record. Most of the decline is related to lower coarse grain output, but production of wheat and rice could also contract slightly. Global use of cereals is expected to continue rising to reach a new high in 2017/18, exceeding production for the first time in five years. As a result, global cereal stocks are projected to decrease, driven by reduction of the maize stockpile (particularly in China). However, early expectations are that the stock drawdown will be small, leaving stocks-to-use ratios at comfortable levels. Unlike coarse grains and rice, wheat stocks could continue increasing in 2017/18. Preliminary prospects for 2018/19 suggest a slight contraction in global wheat harvested area.

Despite an expansion of harvested area, global soybean production in 2017/18 is expected to decline slightly from the previous year's bumper crop due to lower average yield. Soybean use is forecast to continue increasing firmly, driven by increased feed demand in Asia, and could rise above production. However, the resulting reduction in global stocks would not be sufficient to significantly alter the comfortable supply situation.

After a partial price recovery in 2016/17, palm oil, sugar and cotton prices will be under downward pressure from rising production in 2017/18.

### FERTILIZER DEMAND

# Following a firm rebound of world fertilizer demand in 2016/17, the outlook for 2017/18 is quite bearish

Following modest 0.9% growth in 2015/16 and supported by favourable weather conditions, world fertilizer demand expanded firmly in 2016/17 by 2.4% to 189.1 Mt nutrients.



Prospects for 2017/18 are more bearish (+0.9% to 190.7 Mt), reflecting persisting low international prices for most agricultural commodities, an increasing emphasis on more efficient use of mineral fertilizers, and greater recycling of organic nutrient sources.

Consistent with the medium-term trend, world demand is forecast to grow faster for potassium (K; +1.8%), followed by phosphorus (P; +0.9%) and nitrogen (N; +0.5%), owing to the need to rebalance fertilization in many regions.

Regionally, demand in 2017/18 is seen as dropping in West Asia, remaining stable in South Asia and rising elsewhere. The strongest yearon-year change in relative terms is expected in Africa, while the main increase in volume is forecast in East Asia.

### Demand stagnation in East Asia, reflecting anticipated contraction in China, dampens the outlook for 2018/19

World fertilizer demand is expected to grow in 2018/19, but at a slow pace compared with historical trends due to prospects for low international crop prices, increasing pressure to reduce nutrient losses to the environment, increased recycling, and China having reached the tipping point for domestic N and P fertilizer consumption.

This unfavourable market context is partly offset by improving world economic prospects and the need to feed the still fast-growing and wealthier world population. World fertilizer demand is anticipated to increase by 1.0% in 2018/19 to 192.5 Mt, assuming no major shock (weatherrelated, geopolitical or economic) that could significantly alter the outlook.

Pulled by China, India and Indonesia, world K demand is forecast as up by 2.3%. In contrast, global P demand growth is seen as modest (+0.9%), as firm growth in India would be more than counterbalanced by a drop in P demand in China. N demand expansion would contract to 0.5%, i.e. below the average medium-term trend, reflecting gains in N use efficiency in developed countries plus China, which together account for slightly over half of world N fertilizer demand. Fertilizer demand is forecast to remain unchanged in East Asia; it would expand by less than 1% year-on-year in Western & Central Europe, North America, Oceania, West Asia and Latin America. Stronger growth is anticipated elsewhere, especially in Africa and Eastern Europe & Central Asia (EECA). The largest increase in volume is anticipated in South Asia.

	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total
2014/15	102.5	46.6	33.9	183.1
2015/16	103.8	46.9	33.9	184.7
2016/17 (e)	106.2	47.9	35.0	189.1
Change	+2.3%	+2.0%	+3.0%	+2.4%
2017/18 (f)	106.8	48.3	35.6	190.7
Change	+0.5%	+0.9%	+1.8%	+0.9%
2018/19 (f)	107.3	48.8	36.4	192.5
Change	+0.5%	+0.9%	+2.3%	+1.0%

(e): estimates; (f): forecasts

### FERTILIZER SUPPLY

World fertilizer demand was rather subdued in 2017, following a firm 2.8% recovery in 2016. The industry faced stiff competition and relatively weak market conditions in the first half of the year. Market demand rebounded in the second half, leading to rising import demand and firming prices in view of improving farm input affordability and pent-up demand in large fertilizer-consuming countries.

World production of primary raw materials in 2017 was estimated at 249 Mt nutrients, growing 2% compared with the previous year. World nutrient sales were projected at 251 Mt *nutrients*, increasing 2.3% over 2016 and showing larger volume than production thanks to massive destocking in the first half of 2017. Global sales of primary nutrients were essentially supported by strong exports.

Fertilizer sales, which accounted for 76% of total sales of primary raw materials, were estimated at 190 Mt *nutrients*, expanding by 0.6% over 2016. Net industrial uses and non-allocated tonnages totaled 61 Mt *nutrients*.

Further industry restructuring took place in 2017, in part associated with massive consolidation of the fertilizer industry in North America (the merger of equals between Agrium and PotashCorp), but also due to rising South-South direct investments in Africa and Asia. As expected, massive capacity increments occurred in 2017; large expansions are seen as continuing into 2018.

### Prospects for 2018

World fertilizer demand is seen as rather flat in 2018, apart from 2.4% growth in potassium nutrient demand compared with 2017. Global sales for all uses will grow by 1.4% to 254 Mt *nutrients*.

Additional capacity will be commissioned in 2018 in all three market segments, with close to 75 new production units and several expansion projects to be completed in 2017 and 2018, adding 20 Mt *nutrients* of incremental capacity for primary products (ammonia, phosphoric acid and potash).

### Nitrogen Outlook

Global ammonia production in 2017 dropped by 1.2% to 174 Mt NH<sub>3</sub>, mostly driven by a 7% drop in China. Global seaborne ammonia sales remained static at 15.6 Mt.

Close to 30 new large ammonia units are expected to come on stream in 2017 and 2018, bringing global ammonia capacity to 188 Mt *N* in 2018 compared with 179 Mt *N* in 2016.

The global nitrogen balance will show a large increase in the potential surplus in 2017, followed by a moderate expansion of the potential surplus in 2018.

### Urea Outlook

World urea production in 2017 dropped for the second consecutive year, reaching 170 Mt (-2%); close to 90% of the decrease was in China. Global domestic deliveries in 2017 decreased 2% to 121 Mt, mostly reflecting lower sales within China. Global urea exports dropped by 3% to 48 Mt.

Global urea capacity will reach 217 Mt in 2017 and 221 Mt in 2018. Large capacity additions are seen in the USA, Latin America and EECA.

Global urea supply was estimated at 191 Mt in 2017 and 194 Mt in 2018. The combination of rather static demand and large increases in urea supply will result in an acceleration of potential surpluses, from 11 Mt urea in 2016 to 18 Mt in 2017 and 20 Mt in 2018. This imbalance is essentially caused by the on-going commissioning of new capacity, combined with near-stagnant demand in maturing markets.

### Phosphate Outlook

Global production of phosphate rock in 2017 reached a record level of 212 Mt, rising 6% over 2016, while global production of processed phosphates (MAP, DAP and TSP) rose by 3% to 33.7 Mt  $P_2O_5$  (70 Mt products), supported by higher MAP and DAP output.

Global phosphoric acid capacity is projected to expand in 2017-2018 by an overall 6% compared with 2016 (+3.5 Mt) to reach 61 Mt  $P_2O_5$  in 2018. Incremental processed phosphate capacity in 2017-2018 will essentially occur in Morocco and Saudi Arabia.

The potential supply/demand imbalance will gradually increase in the period from 2016 to 2018, to reach a potential surplus of 4 Mt  $P_2O_5$  in 2018; this level equates to 8% of global potential supply, compared with 5% in 2016. The increase will result from flattish projected demand, combined with large capacity increments.

### Potash Outlook

Following depressed sales in 2016, world potash demand and production firmly recovered in 2017. Global production of MOP (Muriate of Potassium) rose by 5% to 66.5 Mt MOP, driven by firm exports, which grew by 10% to 52 Mt thanks to higher imports into India and South-East Asia.

Global potash capacity in 2017 is seen expanding by 10% to 60 Mt  $K_2O$ ; followed by a further 4% expansion In 2018, to reach 62 Mt  $K_2O$ . Most of the increases will occur in Canada and Russia.



Between 2016 and 2018 global potash supply is projected to increase by an overall 14% to reach 50 Mt  $K_2O$  by year-end 2018. Meanwhile, global potassium demand is projected to show annual growth of 2% in both 2017 and 2018, reaching 42 Mt  $K_2O$  in 2018.

The derived potash supply/demand imbalance shows an acceleration of the potential surplus with an increment of 2 Mt  $K_2O$  in 2017, to be followed by another 2.5 Mt  $K_2O$  in 2018. The potential surplus may then exceed 8 Mt  $K_2O$  by year-end 2018, mostly as a consequence of large supply increments.



