

# August 2020 – Market Update



# Forward Looking Statements & Non-GAAP Financial Measures

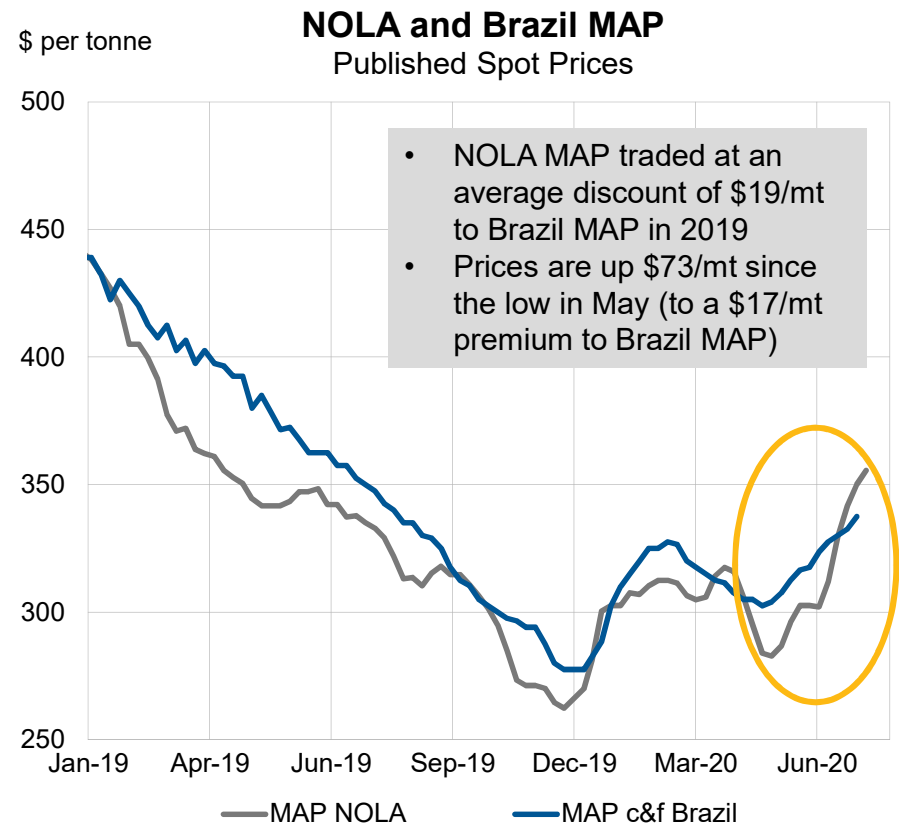
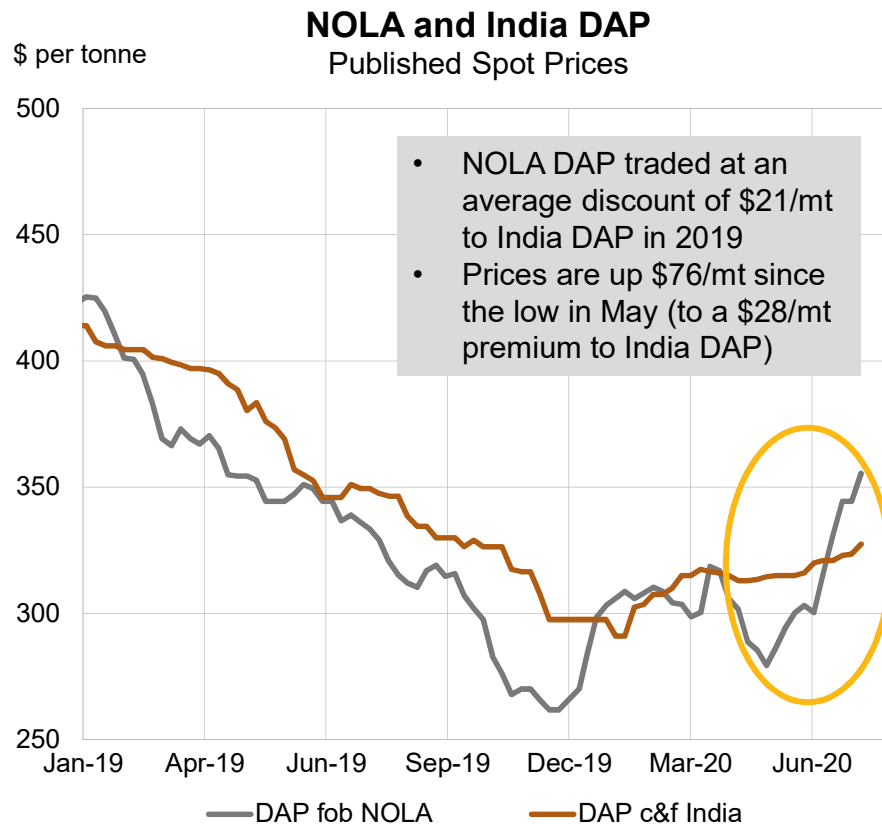
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*This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements about proposed or pending future transactions or strategic plans and other statements about future financial and operating results. Such statements are based upon the current beliefs and expectations of The Mosaic Company's management and are subject to significant risks and uncertainties. These risks and uncertainties include, but are not limited to: the economic impact and operating impacts of the coronavirus (Covid-19) pandemic, the potential drop in oil demand/production and its impact on the availability and price of sulfur, political and economic instability in Brazil or changes in government policy in Brazil, such as higher costs associated with the new mining rules or the implementation of new freight tables; the predictability and volatility of, and customer expectations about, agriculture, fertilizer, raw material, energy and transportation markets that are subject to competitive and other pressures and economic and credit market conditions; the level of inventories in the distribution channels for crop nutrients; the effect of future product innovations or development of new technologies on demand for our products; changes in foreign currency and exchange rates; international trade risks and other risks associated with Mosaic's international operations and those of joint ventures in which Mosaic participates, including the performance of the Wa'ad Al Shamal Phosphate Company (also known as MWSPC), the timely development and commencement of operations of production facilities in the Kingdom of Saudi Arabia, and the future success of current plans for MWSPC and any future changes in those plans; difficulties with realization of the benefits of our long term natural gas based pricing ammonia supply agreement with CF Industries, Inc., including the risk that the cost savings initially anticipated from the agreement may not be fully realized over its term or that the price of natural gas or ammonia during the term are at levels at which the pricing is disadvantageous to Mosaic; customer defaults; the effects of Mosaic's decisions to exit business operations or locations; changes in government policy; changes in environmental and other governmental regulation, including expansion of the types and extent of water resources regulated under federal law, carbon taxes or other greenhouse gas regulation, implementation of numeric water quality standards for the discharge of nutrients into Florida waterways or efforts to reduce the flow of excess nutrients into the Mississippi River basin, the Gulf of Mexico or elsewhere; further developments in judicial or administrative proceedings, or complaints that Mosaic's operations are adversely impacting nearby farms, business operations or properties; difficulties or delays in receiving, increased costs of or challenges to necessary governmental permits or approvals or increased financial assurance requirements; resolution of global tax audit activity; the effectiveness of Mosaic's processes for managing its strategic priorities; adverse weather conditions affecting operations in Central Florida, the Mississippi River basin, the Gulf Coast of the United States, Canada or Brazil, and including potential hurricanes, excess heat, cold, snow, rainfall or drought; actual costs of various items differing from management's current estimates, including, among others, asset retirement, environmental remediation, reclamation or other environmental regulation, Canadian resources taxes and royalties, or the costs of the MWSPC; reduction of Mosaic's available cash and liquidity, and increased leverage, due to its use of cash and/or available debt capacity to fund financial assurance requirements and strategic investments; brine inflows at Mosaic's Esterhazy, Saskatchewan, potash mine or other potash shaft mines; other accidents and disruptions involving Mosaic's operations, including potential mine fires, floods, explosions, seismic events, sinkholes or releases of hazardous or volatile chemicals; and risks associated with cyber security, including reputational loss; as well as other risks and uncertainties reported from time to time in The Mosaic Company's reports filed with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements.*

*This presentation includes certain non-GAAP financial measures, including adjusted EBITDA, adjusted operating earnings, adjusted gross margins, adjusted earnings per share. For important information regarding the non-GAAP measures we present, see "Non-GAAP Financial Measures" in our August 3, 2020 earnings release and the performance data for the second quarter of 2020 that are available on our website at [www.mosaicco.com](http://www.mosaicco.com) in the "Financial Information – Quarterly Earnings" section under the "Investors" tab. The earnings release and performance data are also furnished as exhibits to our Current Report on Form 8-K dated August 3, 2020.*



# Phosphate market tightens and NOLA discount to international benchmarks has reversed



Source: Argus, Green Markets

\*weekly average reported spot pricing for prompt delivery

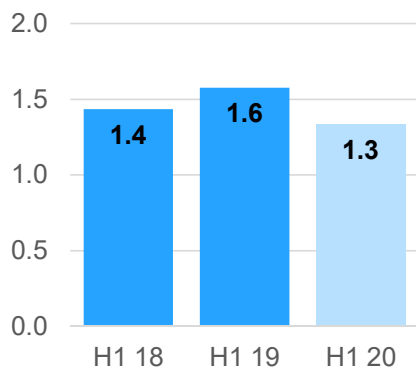


Data thru July 31, 2020

# A Tightening Phosphate Market (pre-CVD Petition): Solid Demand & Reduced Supply

## U.S. Imports

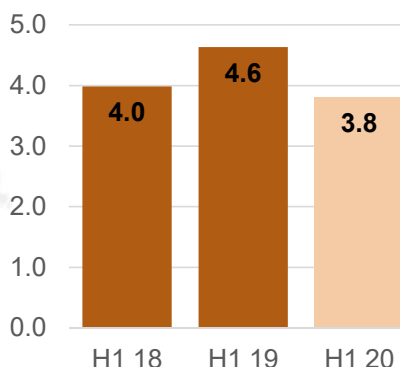
Mil Tonnes DAP/MAP/NPS/TSP



U.S. imports through H1 2020 were ~244,000 tonnes or 16% lower y-o-y, allowing high channel stocks to be depleted

## China Exports

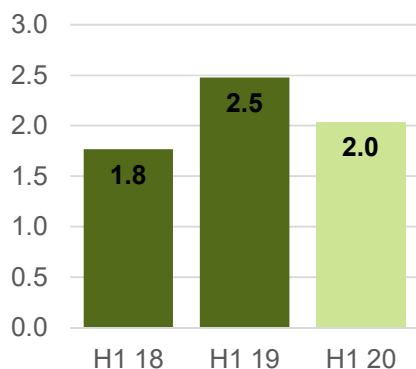
Mil Tonnes DAP/MAP/TSP



China exports through H1 2020 were ~835,000 tonnes or 18% lower y-o-y

## India Production

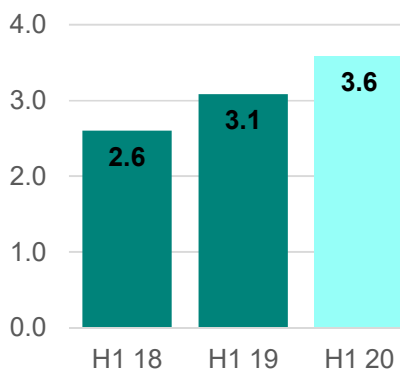
Mil Tonnes DAP



India DAP production through H1 2020 was down ~436,000 tonnes or 18% y-o-y

## Brazil Imports

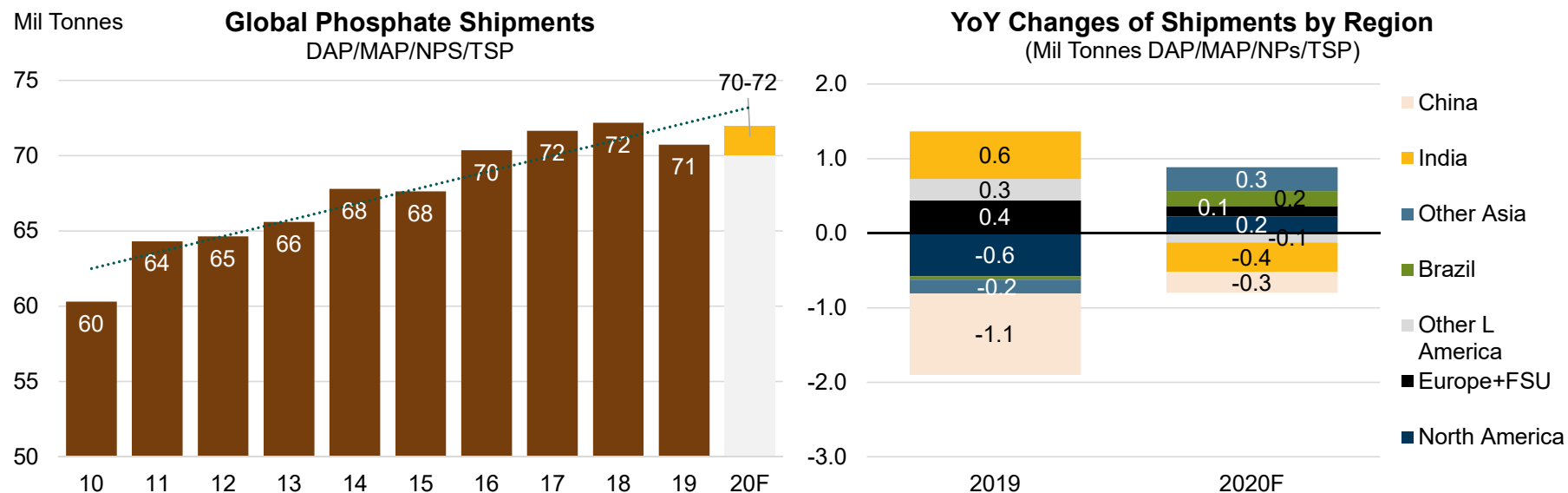
Mil Tonnes DAP/MAP/NPS/TSP



Brazil imports through H1 2020 were up ~503,000 tonnes or 16% y-o-y

Source: FAI, India Department of Fertilizer, Genscape, China Customs, Siaesp, GTIS, Mosaic

# Global Phosphate Demand



- We have narrowed our global phosphate shipments forecast to 70-72 MMT range for 2020 (up 1mmt at the low end)
- Our preliminary expectation for 2021 is 72-74 MMT

Source: IFA, CRU, TFI and Mosaic

\* NPS products included in this analysis are those with a combined N and P<sub>2</sub>O<sub>5</sub> nutrient content of 45 units or greater.



# Global Phosphate Shipment Forecasts by Region

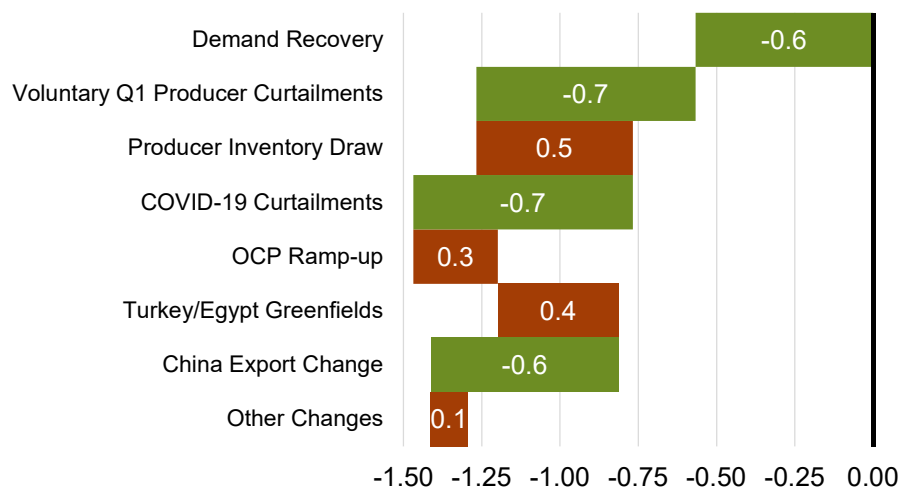
August 2020

DAP/MAP/NPS*/TSP Mil Tonnes	2018	2019	Low 2020F	High 2020F	Comments	Source: IFA, CRU and Mosaic (numbers may not sum to total due to rounding)
China	18.7	17.6	17.1	17.6	Our estimate for on farm phosphate demand in the spring season shows it having stabilized versus year-ago levels. While our China team's estimate of domestic shipments continues to show a circa 500,000 tonne decline in H1, this meant that channel inventories were drawn down to historically low levels, which will need to be replenished to meet what is expected to be continued stable (or slightly improved) on farm demand in the fall. We estimate that domestic production was down 0.9 million tonnes DAP/MAP in H1. DAP/MAP/TSP exports in H1 were down by over 800,00 tonnes y-o-y, and while higher prices should provide the impetus for a lift in export volume in the second half, we expect full-year imports to be down ~600,000 tonnes y-o-y.	
India	9.9	10.5	10.0	10.2	Our projection for 2020 is revised modestly higher on the timely onset and above-average monsoon, improved water reservoir storage, expectation for increased minimum support prices for Rabi crops, and fertilizer affordability supporting demand. Production continues to underperform versus last year – DAP is 436,000 tonnes lower y-o-y through H1 – while DAP imports are down about 750,000 tonnes y-o-y. With in-country DAP sales in H1 running about 600,000 tonnes higher y-o-y, company stocks at the end of June are down a massive 1.7mmt compared to a year ago.	
Other Asia/Oceania	10.1	10.0	10.2	10.5	Still-solid farm economics, including improved palm oil production economics, and accomodating weather provides confidence in our forecast for moderate growth in the region. As with India, we anticipate a flurry of import activity moving through Q3 in Pakistan, given that H1 production was about 100,000 tonnes lower y-o-y, imports in H1 were down slightly y-o-y and demand is poised to move higher on conducive weather and subsidy policy.	
Europe and FSU	5.8	6.2	6.1	6.4	Thin channel inventories and expectations for typical fall demand in Europe, coupled with continued growth in the FSU provides modest upside to our previous forecast. Moisture conditions and the weather outlook in the FSU has improved, mitigating the risk for the second half we'd flagged in our May forecast.	
Brazil	8.5	8.5	8.8	9.0	The ag sector continues to benefit from currency weakness and continued record-setting ag commodity exports, particularly to China. Strong farm economics have resulted in an acceleration of forward crop sales and forward input buying, which in turn resulted in H1 imports of DAP/MAP/NPS/TSP being 500,000 tonnes higher y-o-y. While we expect that this is partly a function of the acceleration of buying noted above, it is also in part of overall stronger demand. High-analysis phosphates production is estimated to be about 200,000 tonnes higher y-o-y in H1.	
Other Latin America	3.6	3.9	3.6	3.8	Generally favorable farm economics have resulted in strong buying activity early in H1 2020, though this was not consistent across countries. Our forecast for the region is unchanged.	
North America	10.3	9.7	9.8	10.0	Normal spring weather led to a rebound in phosphate applications this spring, allowing for the high carryover inventories of 2019 to be worked through. Lower y-o-y imports from the excessive levels seen in 2018 and 2019 have also contributed to keeping channel inventories at lower levels – H1 imports were ~244,000 tonnes lower y-o-y and are likely to be around 450,000 tonnes lower y-o-y through July. This sets the stage for higher shipments in H2, though we remain somewhat cautious on forward demand given weakness in corn prices (although 2021 pricing is nearly 10% higher than 2020 and we believe there is potential for further price upside upon ramped up Chinese import purchases).	
Other	5.2	4.3	4.2	4.5	Our forecast for this region is unchanged, though we continue to flag macroeconomic headwinds and farm economics as a risk.	
<b>Total</b>	<b>72.2</b>	<b>70.7</b>	<b>69.8</b>	<b>72.0</b>	We have raised the low end of our 2020 forecast range by 1mmt and now show 70-72mmt. This represents demand growth of circa 570,000 tonnes or 0.9% y-o-y. Our preliminary view on 2021 shows a reversion towards trend-line demand – at 2.4% y-o-y – and a shipment forecast of 72-74mmt.	

\* NPS products included in this analysis are those with a combined N and P<sub>2</sub>O<sub>5</sub> nutrient content of 45 units or greater.

# Global Phosphate S/D Balance: Tighter global market than what many analysts and buyers were expecting

**2020 Expected Phosphate Supply/Demand Changes**  
(Mil Tonnes DAP/MAP/NPS/TSP)

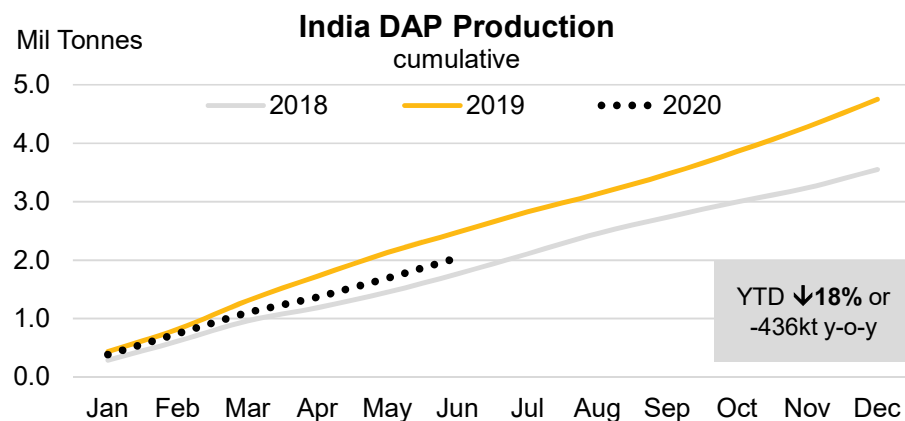
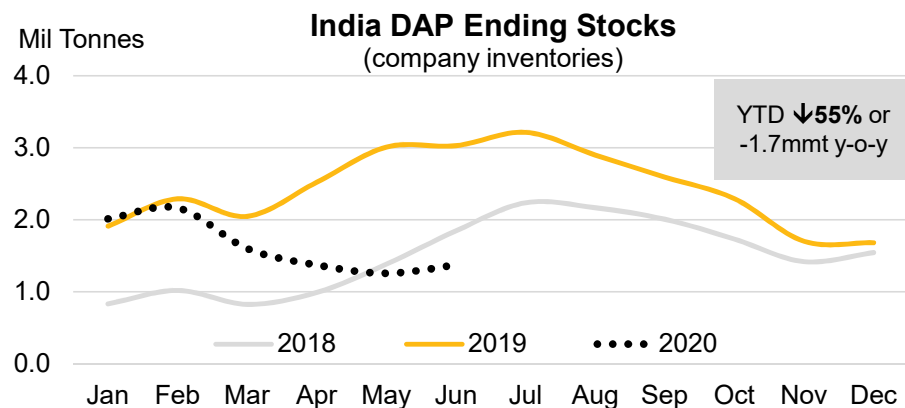


## Projected Phosphate Supply/Demand Changes

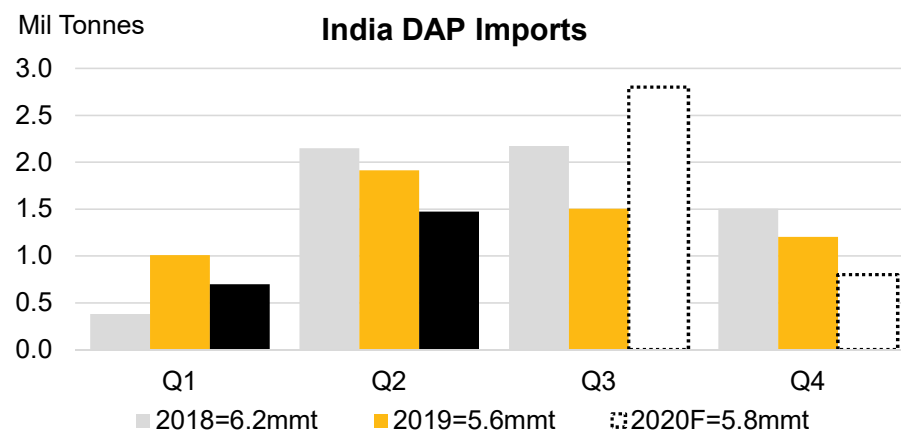
Mil Tonnes DAP/MAP/NPS/TSP	2020	2020F Production
<b>Projected Shipment Changes</b>	<b>0.57</b>	
Percent Change	0.8%	
<b>Projected Supply Changes</b>	<b>-0.13</b>	
Q1 Voluntary Producer Curtailments	-0.70	
Producer Inventory Draw	0.50	
COVID-19 Curtailments	-0.70	
OCP Line F Ramp-up and Debottlenecking	0.27	Line F: 45kt P <sub>2</sub> O <sub>5</sub>
Turkey (Eti Bakir) / Egypt (NCIC) Greenfield	0.39	Eti B.: 135kt P <sub>2</sub> O <sub>5</sub> NCIC: 105kt P <sub>2</sub> O <sub>5</sub>
Other Ramp-Ups/ Closures	0.12	
<b>S/D Surplus (+) / Deficit (-)</b> <i>Excluding China Export Changes</i>	<b>-0.70</b>	
<b>Base Case China Export Change</b>	<b>-0.60</b>	
<b>S/D Surplus (+) / Deficit (-)</b>	<b>-1.30</b>	

- Tightening S/D in the first half of 2020, resulting from: Q1 voluntary and COVID-19-related curtailments, as well as reduced production and exports from China.
- This tighter S/D is expected to persist throughout 2020.

# India expected to see import surge in Q3 on strong demand and low stocks



Source: FAI, India Department of Fertilizer, Mosaic India

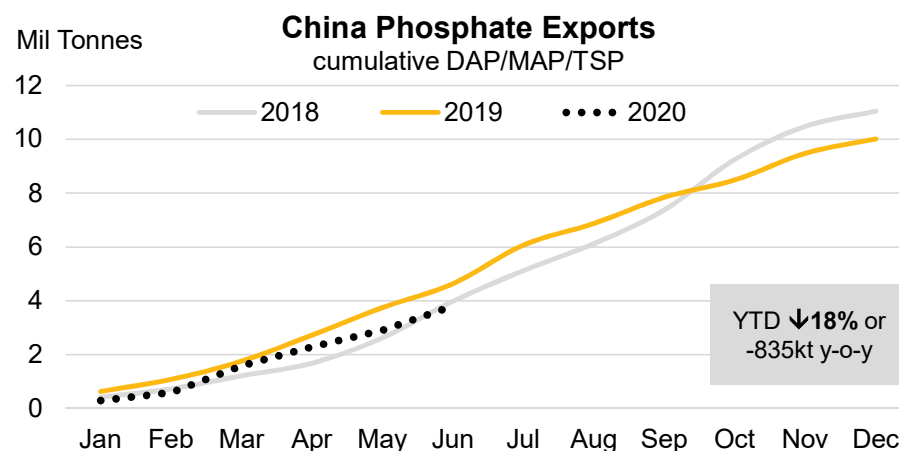


- Strong demand (coupled with reduced production and imports) resulted in significant pull-down of stocks in the last quarter. Through June, DAP inventories with companies were off 55% from a year ago.
- DAP imports are expected to surge in Q3 and annual imports are projected to slightly exceed last year's level.
- New regulation governing imports from China (announced at the end of July) is a potential wildcard, though we believe this is unlikely to have a significant impact on trade flows.



# China DAP/MAP/TSP exports fall y-o-y

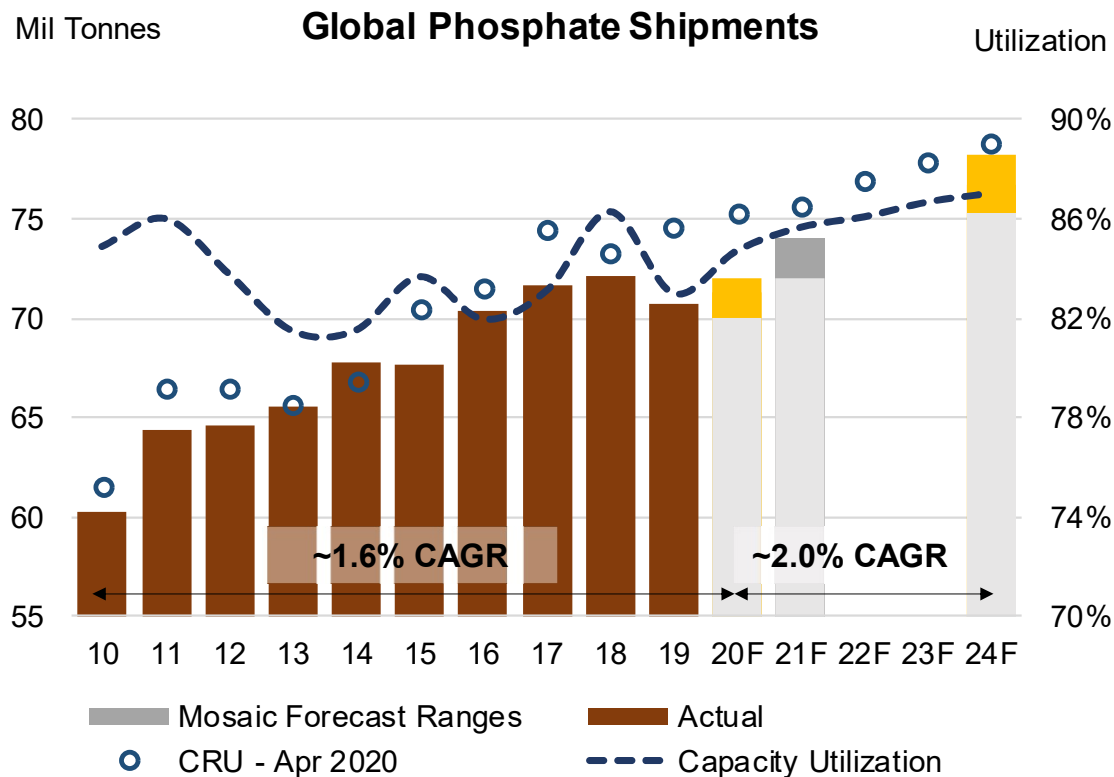
China Phosphate Exports							
1,000 Tonnes	January-June					2020 vs. 2019	
	2016	2017	2018	2019	2020	Change	%Chg
DAP	2,088	2,266	2,490	2,748	2,031	-717	-26%
MAP	825	1,357	1,016	1,320	1,236	-84	-6%
TSP	300	413	475	567	532	-34	-6%
Total	3,213	4,035	3,982	4,635	3,800	-835	-18%
Annual Total	9,507	10,116	11,041	10,010			
% Annual	34%	40%	36%	46%			



- Domestic phosphate demand appearing to stabilize and potentially recover (an analog for nitrogen is available from the China Nitrogen Fertilizer Industry Association, which noted in July that Jan-May domestic consumption had risen 4.3% y-o-y).
- Depleted domestic channel stocks of phosphate fertilizers moving into the fall season.
- Announcement in late July by GPCG that they intended to cut phosacid production by 300kt P<sub>2</sub>O<sub>5</sub> y-o-y (about 650,000 tonnes as DAP-equivalent).
- Structural change continues in China, with the closure of three facilities along the Yangtze in 2020.
- Production/logistics issues due to recent heavy rainfall in the Yangtze watershed could also curb output.

Source: China Customs

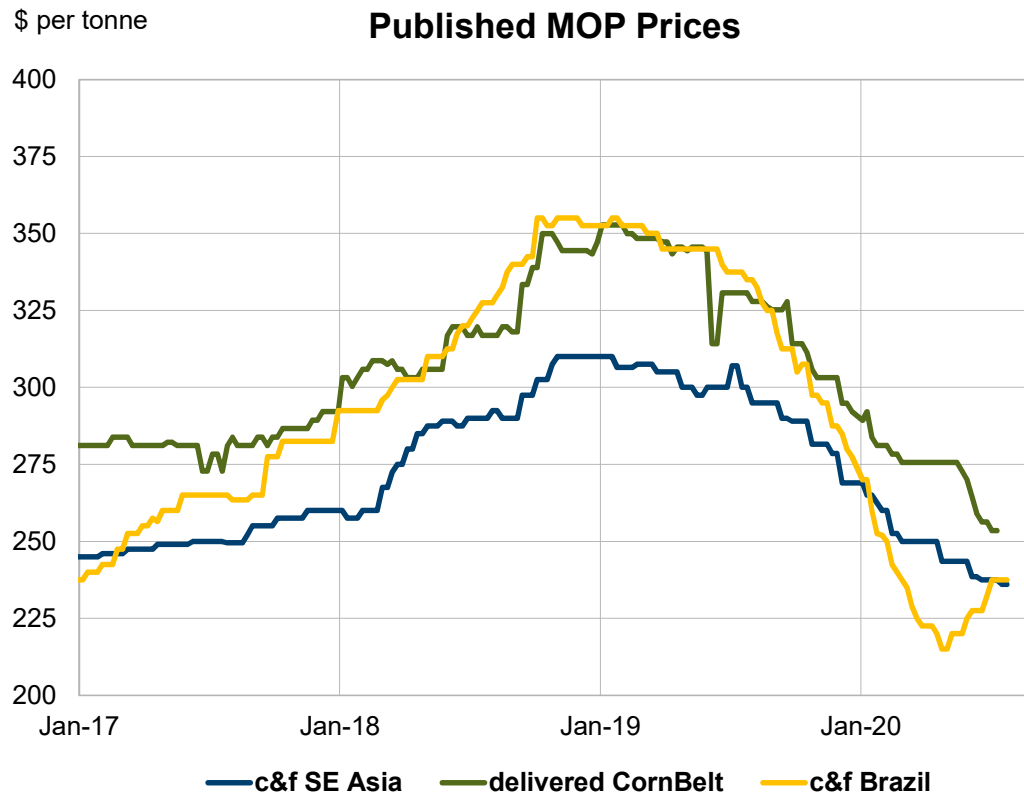
# Phosphate Outlook: Steady demand growth to outpace new supply, boosting operating rates



Source: IFA, CRU and Mosaic

- Our base case demand forecast is aligned with CRU's and shows a 2.0% CAGR from 2020 to 2024 (in line with the 2010-2018 growth rate prior to demand stepping back in 2019).
- We continue to project a steady uptick in the industry's capacity utilization rate over the forecast period.

# International prices converge after India/China contract settlements

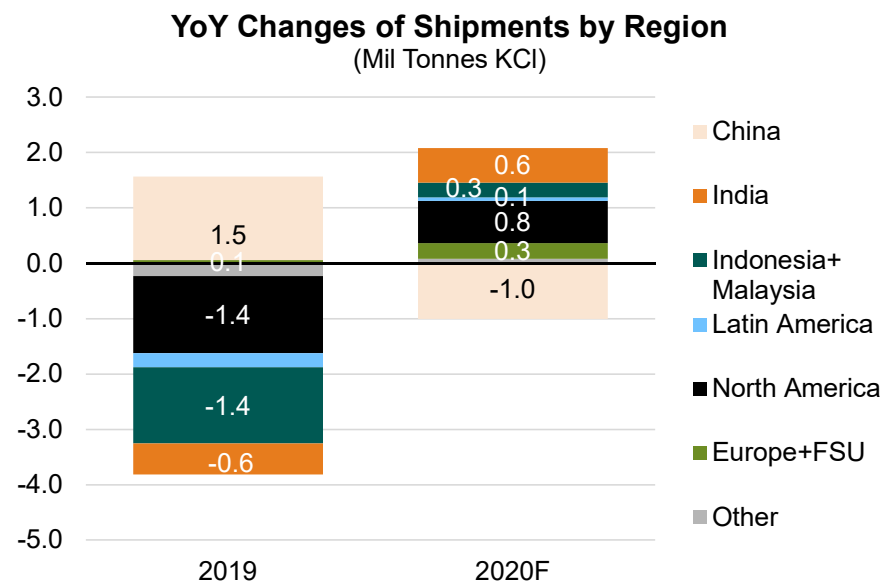
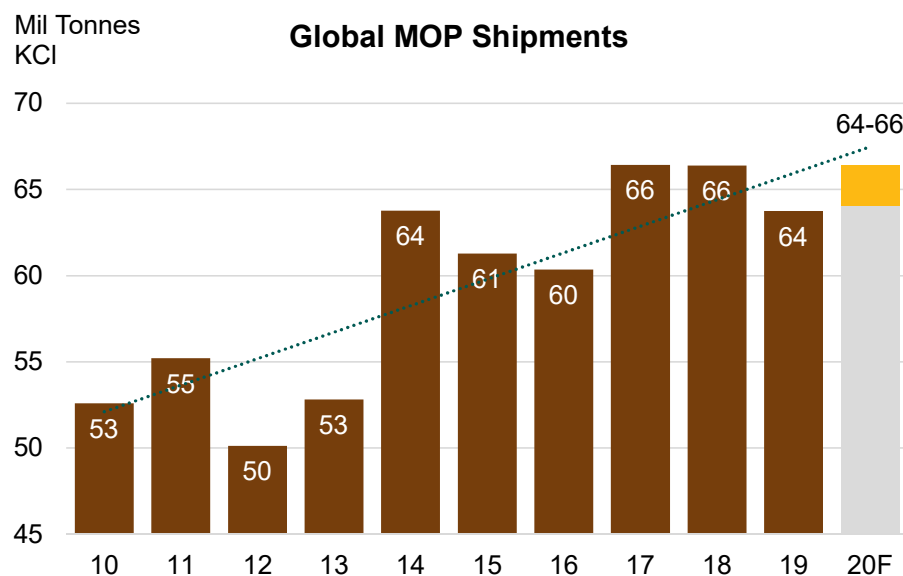


- Brazil prices have rebounded more than \$15/mt from the decade-low level seen in April.
- SE Asia prices have crept lower, but are expected to remain stable for remainder of 2020.

*\*weekly average reported spot pricing for prompt delivery*

Source: Argus, Green Markets

# Partial, but relatively broad-based recovery



- We maintain our global MOP shipments forecast in the 64-66 MMT range for 2020
- Our preliminary expectation for 2021 is 66-68 MMT

Source: IFA, CRU, TFI and Mosaic

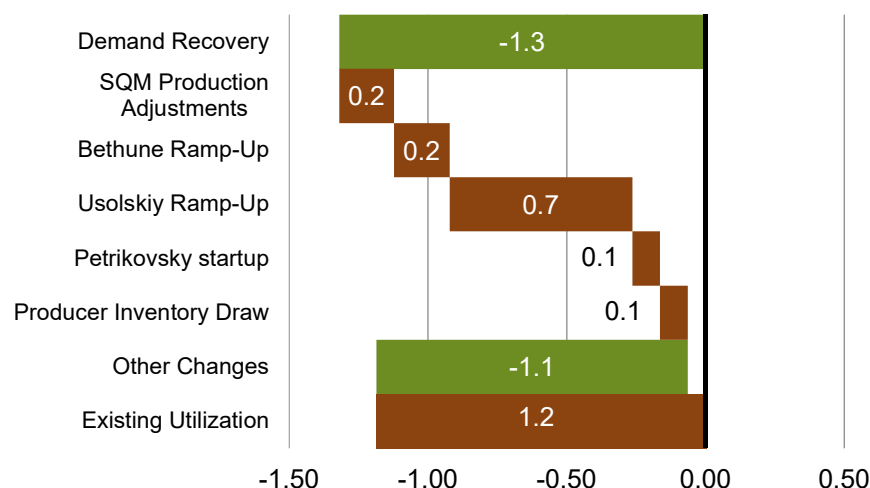
# Global Potash Shipment Forecasts by Region

August 2020

Muriate of Potash Mil Tonnes KCl	2018	2019	Low 2020F	High 2020F	Comments	Source: IFA, CRU and Mosaic (numbers may not sum to total due to rounding)
China	14.4	16.0	14.6	15.0	As expected, import volumes through the first half of the year were well behind last year's pace – Jan-Jun MOP <u>net</u> imports of 3.8 million tonnes are 1.6mmt or 30% lower y-o-y. Despite the drop in imports, port inventory remains around 3.5mmt. This generally slow pace of port inventory drawdown has led us to reduce our shipment forecast by 200,000 tonnes at both ends of the range, while still expecting that the generally low pricing level should prompt significant buying activity to meet second half on farm demand and replenish the country's strategic reserves that were drawn upon earlier in the year. This acceleration of buying was witnessed from late-June and is expected to pull port stocks below the 3 million tonne threshold in September.	
India	4.6	4.0	4.2	4.5	Good Rabi yields, historically low potash prices and an above-average monsoon spurred positive farmer sentiment and led to a very strong start to Kharif sowings (which as of July 24 were 18% higher y-o-y). MOP sales in the first half of the year were up nearly 10% from a year ago and we have revised our forecast shipment range higher by 300,000 tonnes at both ends. MOP company inventories are down nearly 800,000 tonnes y-o-y, so we expect a sharp uptick in import volume in Q3.	
Indonesia & Malaysia	5.3	3.9	4.1	4.5	We are maintaining our forecast for the region despite the recent rally in palm oil prices (from ~2100 MYR/t at end-April to ~2800/t at end-July), as labor shortages and recent flooding at some plantations may act to limit demand upside in the second half. This may prove to be conservative.	
Other Asia	4.8	4.4	4.6	4.8	We have made a slight upward revision to demand in the region, based on good weather and solid farm economics, which have resulted in an improved outlook for several countries (e.g. Vietnam in H1, Thailand in H2).	
W. Europe	4.8	4.6	4.4	4.7	Our forecast for West Europe is unchanged, with demand broadly flat versus last year. Drought conditions are moderately concerning, however, in the northern half of the region.	
E. Europe & FSU	5.5	5.8	5.9	6.2	After a strong spring season, most notably in Russia, our expectations for the second half continue to show moderate growth continuing (we had revised our forecast for this region higher in May). Drought conditions have showed improvement, supporting this growth thesis.	
Brazil	10.4	10.5	10.4	10.7	Our forecast is unchanged, as demand prospects in Brazil remain very good with currency weakness continuing to provide a tailwind to farmer profitability. Imports through H1 were about 400,000 tonnes higher y-o-y, though we continue to take a more conservative stance that a drawdown of channel inventories will allow the pace of imports to slip in H2.	
Other L. America	3.1	2.7	2.8	3.0	Shipments in the rest of Latin America now look set to increase only modestly year-over year, though we maintain our previous forecast range.	
North America	10.4	9.0	9.6	10.0	As anticipated, on-farm demand for fertilizers was robust during the North American spring, following three consecutive weather-impacted seasons. This uptick in demand allowed channel inventories to clear and has led to a normal summer fill season for shipments. We maintain our forecast range, as we believe intentions for higher corn acreage in 2021 should bolster fall potash applications. Of note, offshore potash imports through H1 were ~200,000 tonnes lower y-o-y.	
Other	3.1	2.9	2.8	2.9	Demand growth is expected to remain broadly flat year-over-year.	
<b>Total</b>	<b>66.4</b>	<b>63.7</b>	<b>63.6</b>	<b>66.5</b>	We maintain our forecast range of 64-66mmt, and with a point estimate that is little-changed at 65.0mmt. This represents y-o-y demand growth of 1.3mmt or 2.0%. Our first look into 2021 forecasts a range of 66-68mmt, with a point estimate in the top half of that range.	

# Global Potash S/D Balance: Demand recovery on pace with incremental new supply

**2020 Expected MOP Supply/Demand Changes**  
(Million Tonnes KCl)



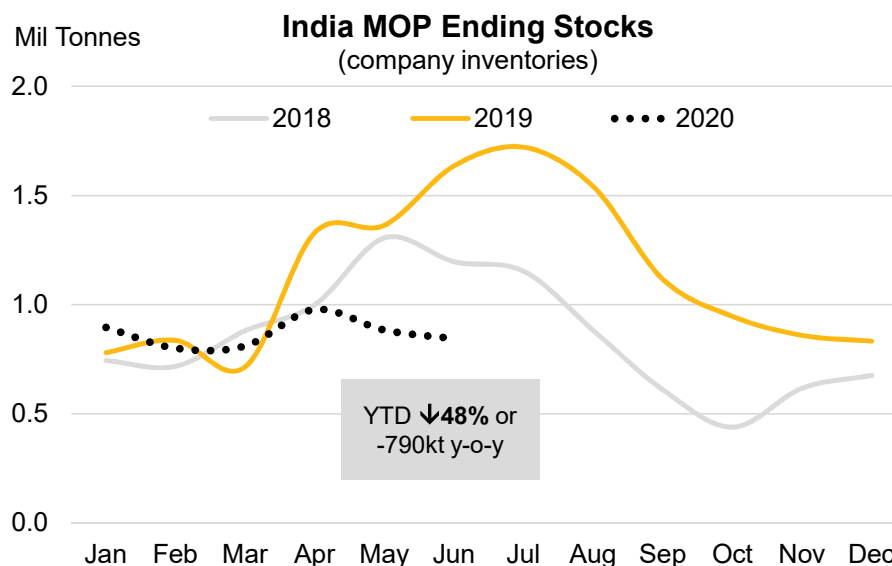
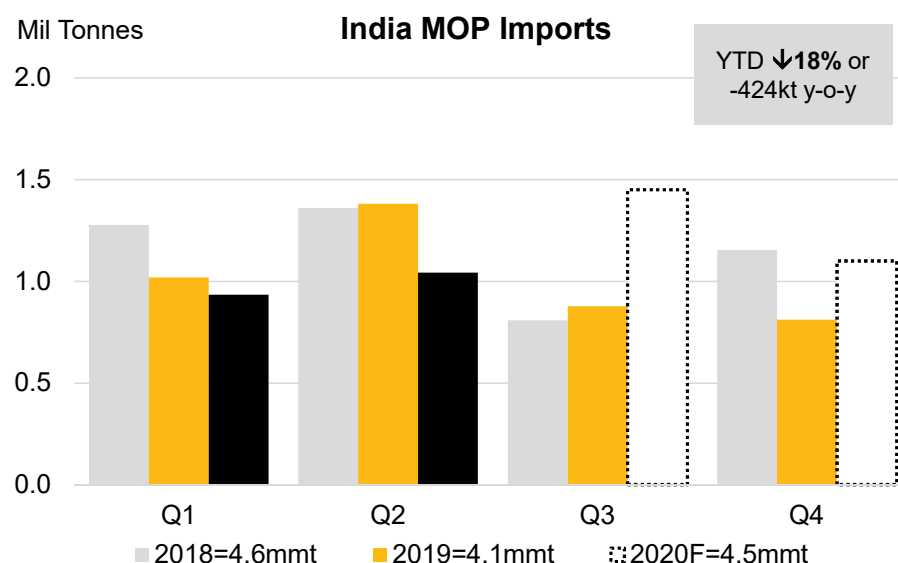
**Projected MOP Supply/Demand Changes**

Mil Tonnes KCl	2020	2020F Production
<b>Projected Shipment Changes</b>	<b>1.26</b>	
Percent Change	2.0%	
<b>Projected Supply Changes</b>	<b>1.36</b>	
Producer Inventory Draw	0.00	
SQM Production Adjustments	0.20	1.4mmt
K+S Bethune Ramp-Up	0.20	1.8mmt
Eurochem Usolskiy Ramp-Up	0.76	1.9mmt
Belaruskali Petrikovsky	0.20	200kt
Other Changes	-1.12	
Utilization of Existing Assets	1.19	
<b>S/D Surplus (+) / Deficit (-)</b>	<b>0.10</b>	

- Ramp-up from greenfield projects is still expected to supply about three-quarters of the demand recovery this year.
- Recently reported closure of ICL Sallent and *downsizing* of Nutrien Vanscoy (i.e. “Other Changes” in the table above) will require other existing operations in the industry to run at higher rates (“Utilization of Existing Assets”). Such higher rates are expected at other ICL and Nutrien facilities.

Source: IFA, CRU, TFI and Mosaic

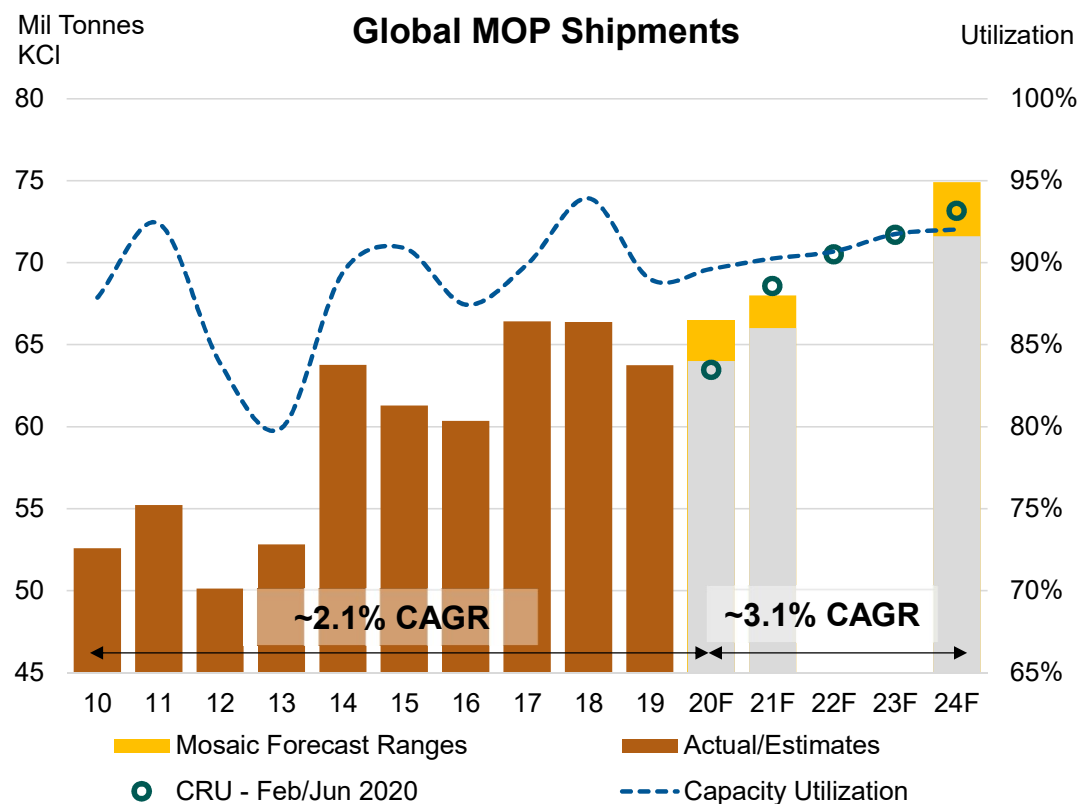
# India is a bright spot in the global potash S/D particularly in H2 2020



- MOP sales are expected to increase in Q3 on good farm economics. A surge of imports in Q3 is expected to be necessitated to meet this.
- MOP inventories with companies were off 48% from a year ago.

Source: FAI, India Department of Fertilizer, Mosaic India

# Potash Outlook: Supply to closely align with demand, leading to a stable to higher industry operating rate



Source: IFA, CRU and Mosaic

- Our base case demand forecast is similar to CRU's and shows a 3.1% CAGR from 2020 to 2024 (in line with the 2010-2018 growth rate, prior to the step down in 2019).
- We expect a gradual, modest increase in global capacity utilization, though this will depend on the timing of the commissioning and ramp-up of greenfield projects.



# 2020 grain prices have partially recovered as fundamentals appear more constructive

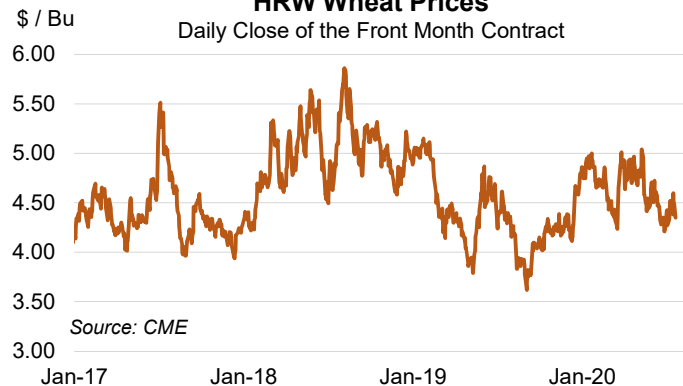
- US\$ corn and soybean prices have partially recovered from huge drops earlier.
- Lower-than-expected acreage (but potentially higher yield), coupled with the continued recovery of ethanol production and potential for stronger exports is providing some modest support corn prices.
- Healthy export prospects, particularly Chinese purchases, has helped soybean prices recover.

## Corn Prices



Corn -19% YTD as the market is discounting the impact of lower-than-expected acreage with higher yield and weak demand.

## HRW Wheat Prices



Wheat -9% YTD on ample global supplies, but is +1% y-o-y.

## Soybean Prices



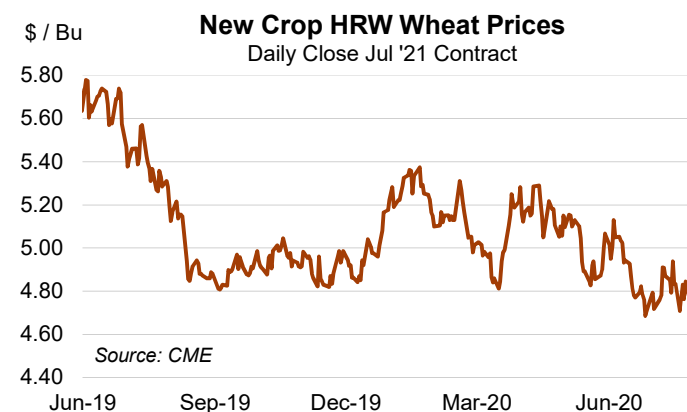
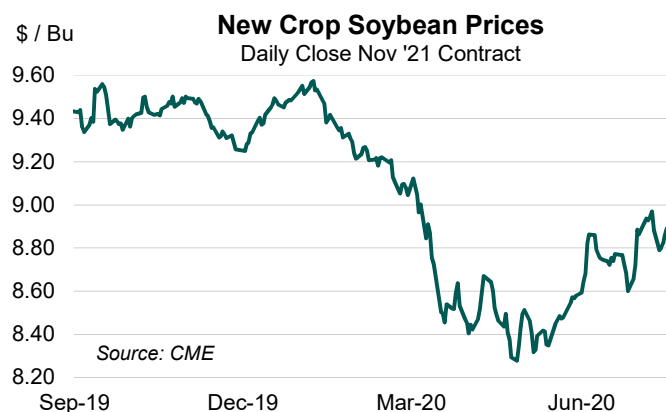
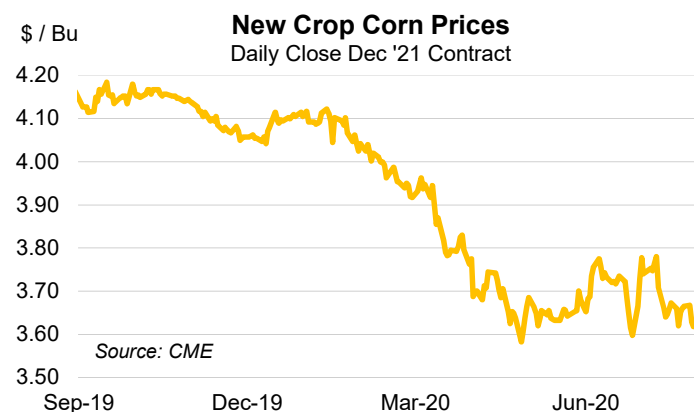
Beans -6% YTD (vs -10% end-April) on lower-than-expected acreage and decent export demand, primarily to China, but is +1% y-o-y.

# New Crop 2021 prices have held up better

New Crop	'20	'21
Corn	3.27	3.62
Beans	8.88	8.94
Wheat*	4.38	4.74

\*'20 wheat is the close of the July contract

- Dec '21 corn is **+11%** (+\$0.36/bu) vs. Dec '20
- Nov '21 beans are **+1%** vs. Nov '20
- July '21 wheat is **+8%** (+\$0.36/bu) vs. July '20



# COVID-19 impacts on other ag commodities have started to give way to fundamental drivers

- CPO prices have improved after briefly reaching its recent low in early May. The recovery of crude oil prices as well as stronger demand expectations (exports and biodiesel mandates) are supportive to prices.
- Rice prices retreated from the spike in April/May as fears of COVID-related supply disruptions faded and on an improved weather outlook boosting production.
- Sugar prices have partially recovered, but remain pressured by expectation of high global production.

**Sugar Prices**  
Daily Close of the Nearby Option



**Sugar -8% YTD (vs -30% in late April), but is now flat year-over-year after the recovery seen in May.**

**Malaysian Palm Oil Prices**  
Daily Close of the Nearby Option



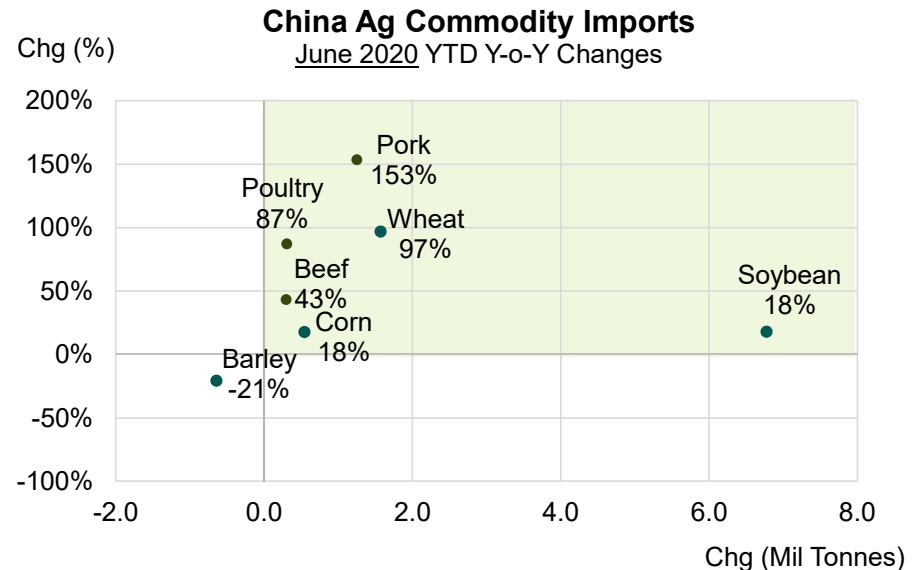
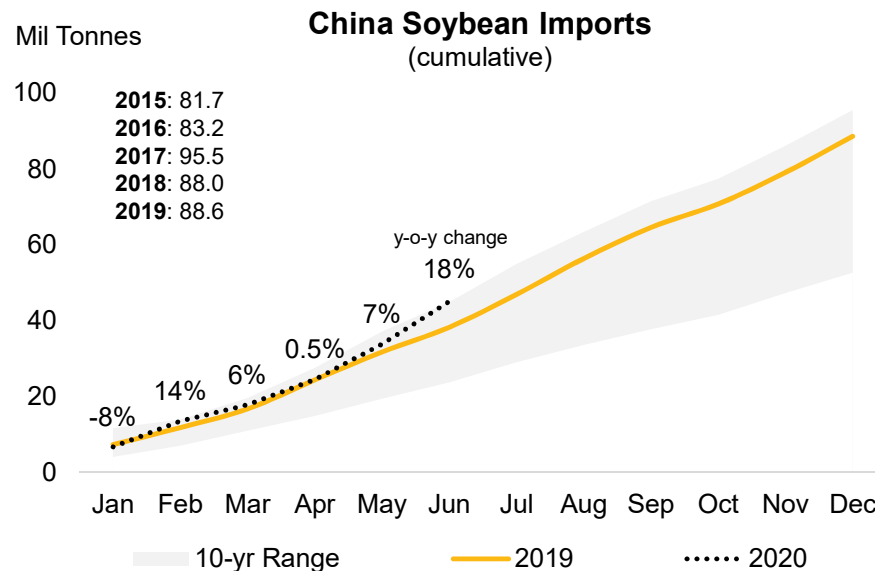
**CPO -11% YTD after rallying on tighter supply / demand fundamentals; prices are now +38% y-o-y.**

**Rice Prices**  
Daily Close of the Front Month Contract



**Rice -11% YTD (vs +71% early June), and is now -5% y-o-y.**

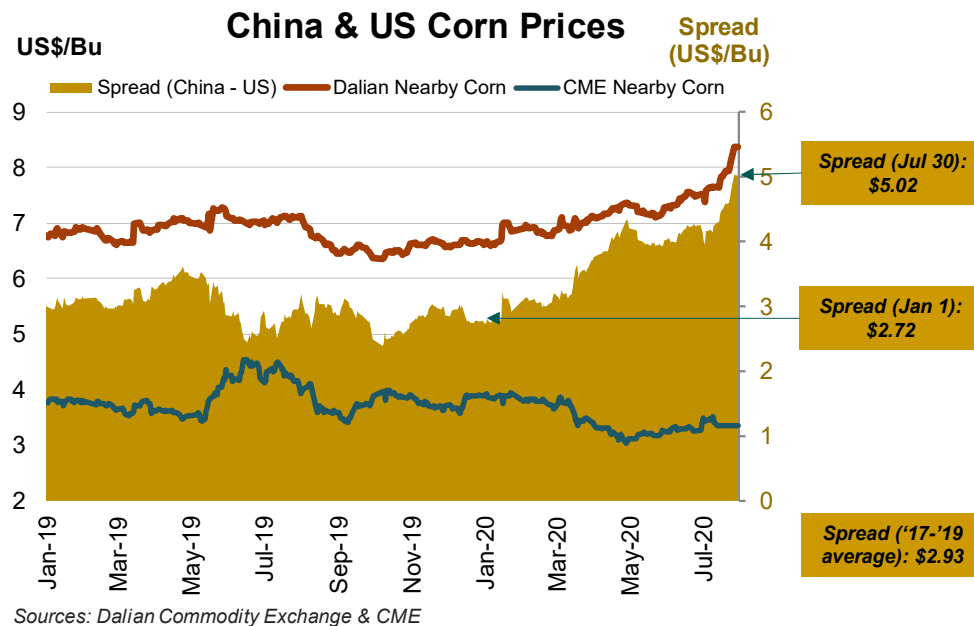
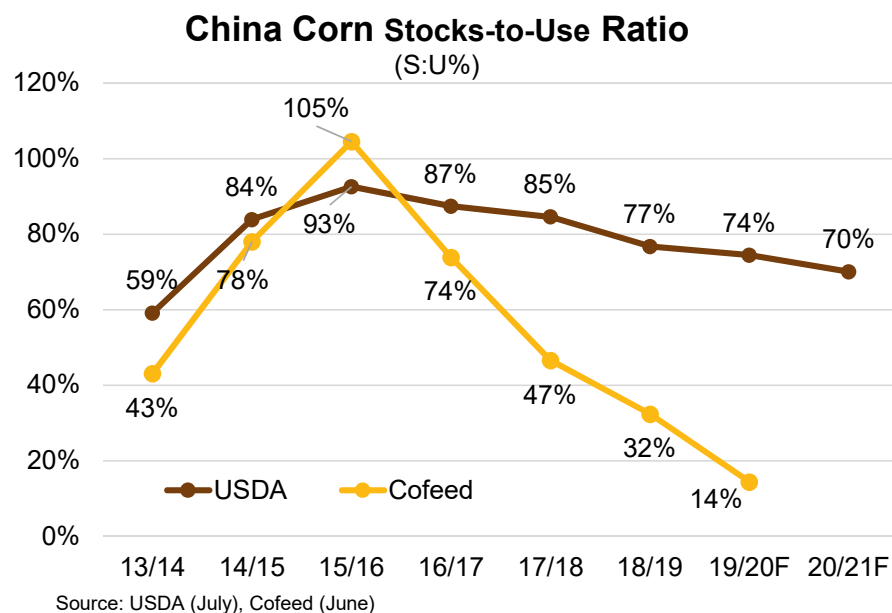
# Chinese appetite for ag commodity imports appearing to accelerate



Source: China Customs

- Monthly recording-setting soybean imports (June) as well as continued uptick of animal protein imports.
- Domestic pork prices have remained at elevated levels this year.
- China's progress to rebuild hog herd remained slow and pork production continued to fall (-19.1% Y-o-Y in H1 2020) as slaughter numbers dropped.

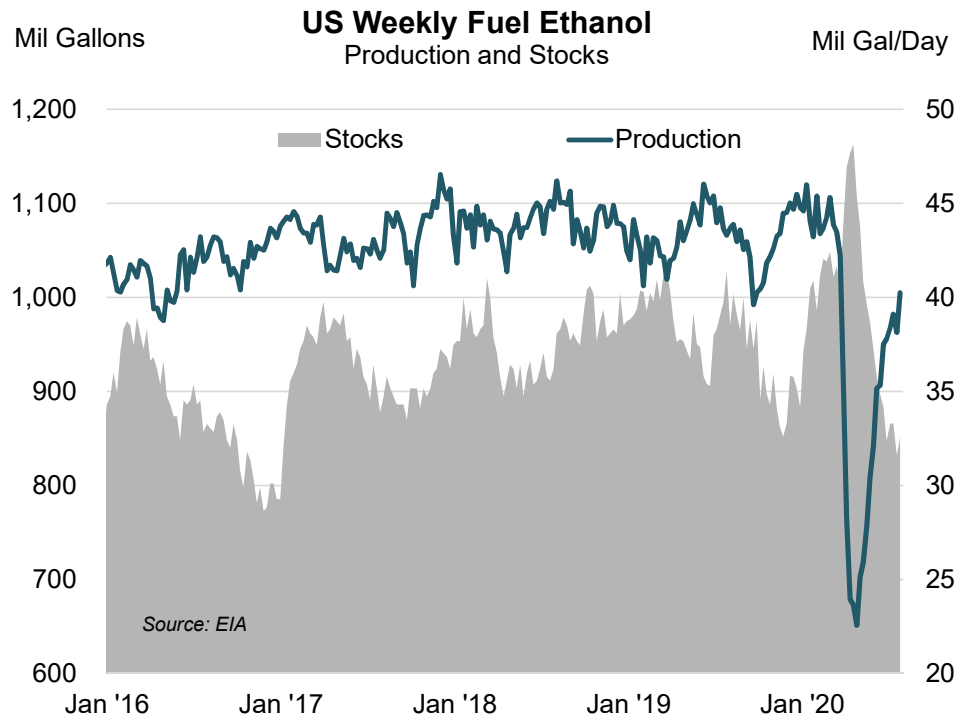
# More corn imports by China could be on the horizon; the China corn price premium surpasses \$5/bu



- The Cofeed S/D continues to show China reaching a precariously low stocks-to-use ratio this year without a surge of imports (Cofeed projected corn imports to increase to 7.2 MMT, up from 6.5 MMT in their May update).
- The Beijing government is reportedly allocating more quotas for corn this year, suggesting it may eventually reach a total of 7.0 MMT (USDA forecast), which would be the first time it has fully allocated its corn quota.
- The price spread between US CME corn and China corn continues to widen (well beyond historical norms).



# Ethanol recovery continues



- Since peaking at nearly 1.2 million gallons, ethanol stocks now appear to be stabilizing at around 850 million (versus the 2016-2019 average of about 950 million).
- In order to stem the decline in ethanol stocks, production has ramped back up – last week surpassing 40.2 million gallons per day.
- The above production level is ~93% of the 2019 average (43.2 million gpd).