



# Crop Input Fundamentals Report

March 2020

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## **North American Agriculture Fundamentals**

- US corn and soybean cash prices continue to trade above year-ago levels, however fears of a global coronavirus pandemic (COVID-19) have put pressure on global markets, including crop futures.
- We believe that the combination of tightened US supply/demand balances and more normal weather will lead to a 13 million acre increase in combined corn and soybean acreage in the US in 2020, which we expect will support a 5% increase in US crop input expenditures. We expect that the combination of affordable prices and below-average fall application is particularly supportive of spring nutrient demand.
- We also are seeing improved US-China trade post signing the Phase 1 trade agreement, providing US growers with renewed optimism of an overseas market to export grain production to. We expect there to be a significant improvement relative to the past two years of US agricultural exports to China.

## **Global Agriculture Fundamentals**

- Analysts are reporting good yields for the soybean harvest in Brazil through the first 2 months of 2020. However weather conditions have hampered the safrinha corn plant and analysts are projecting as much as 50% of the Brazilian crop will be planted late, increasing the risk for yields.
- The European Union and Former Soviet Union winter crop has been supported by a mild winter. The crop was planted late and is subject to damage if there is a late-winter or an early-spring freeze. Assuming good weather through March, we would expect strong winter crop production through the region.
- While recent rains have helped Australian drought conditions, the summer crops were heavily impacted. The Australian Department of Agriculture forecasts summer crop production to be down 66%. Cotton area planted is estimated to have fallen.

## **Potash Market**

- Global potash prices declined in 2019 and remained under pressure in major spot markets in early 2020, driven by seasonally slow demand and hand-to-mouth purchases.
- We estimate global potash deliveries were approximately 64.5 million tonnes in 2019, down from the 66.7 million tonnes in 2018. Customers in key offshore markets drew from inventories built by strong first-half 2019 shipments, while demand declined in North America due to adverse weather and in Southeast Asia due to weak palm oil prices.
- Global potash producers announced the equivalent of over 3 million tonnes of estimated production curtailments to rebalance supply. We believe potash production curtailments lowered inventory at the producer level, while continued grower consumption lowered distributor inventory in key markets outside of China.
- We expect global potash demand to rebound in 2020, driven by increased planting acreage in North America, a rebound in applications in Indonesia and Malaysia, lower beginning inventories and strong affordability. We estimate global potash deliveries in 2020 will be between 66 to 68 million tonnes, similar to the record global delivery levels of 2018.

## **Nitrogen Market**

- Global nitrogen prices declined in 2019, due to reduced demand in North America driven by challenging weather conditions and lower feedstock prices in some key producing regions.
- China exported nearly 5 million tonnes of urea to the global market in 2019, which was double the levels in 2018, largely driven by strong import demand from India, whose imports reached a record of almost 10 million tonnes in 2019 and where demand is expected to remain strong in 2020.
- We expect nitrogen fundamentals to improve in 2020, supported by higher North American planting, stable demand in other key regions and limited new global capacity.

## **Phosphate Market**

- Dry phosphate fertilizer prices have recently improved after reaching historically low levels in 2019.
- Some global phosphate producers have announced curtailments to rebalance supply and COVID-19 is likely to reduce Chinese export availability in the first quarter of 2020, however, this could be offset by increased supply from Saudi Arabia and Morocco.

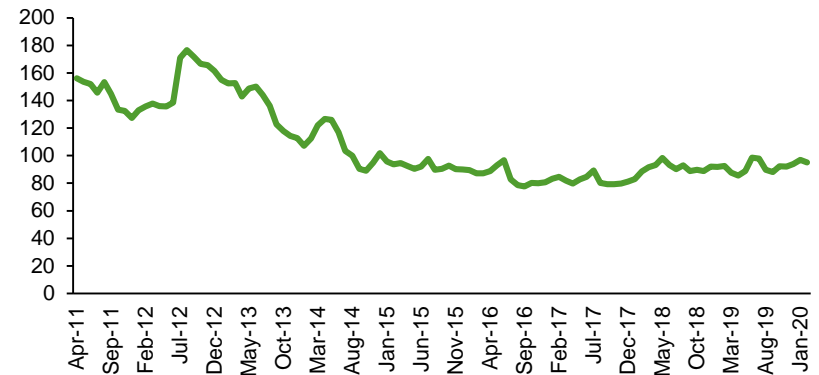
## Key Crop Prices

Monthly Average Cash Prices

	Corn US\$/bu	Soybeans US\$/bu	Wheat US\$/bu	Cotton US\$/cwt	Canola CN\$/t	Brz Soy BRL/t
Feb-20	3.75	8.73	4.18	67	428	77
Nov-19	3.66	8.81	3.74	64	432	81
Feb-19	3.54	8.61	4.63	72	468	66

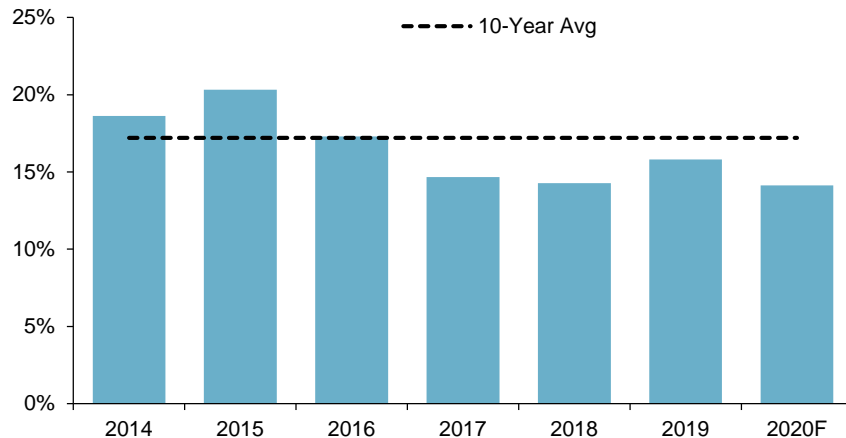
## Crop Price Index<sup>1</sup>

Index 2014-2015 = 100



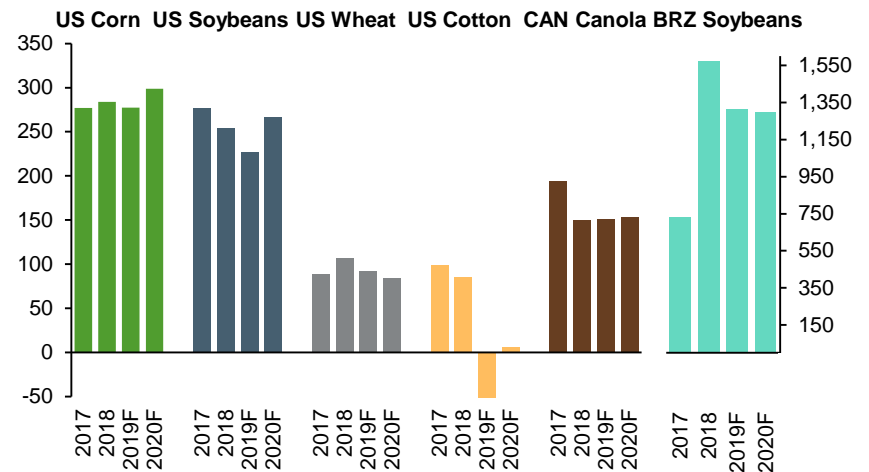
## Fertilizer Cost as a % of US Corn Revenue

Percentage



## Key Crop Grower Cash Margins

Local Currency Margin/Acre



Source: USDA, IMEA, Doane, Nutrien

1. Crop price index is calculated as a weighted average of the price displayed in the Key Crop Prices table, weighted by the production volume of the individual crops.

## Major Market Potash Imports

Thousand Tonnes KCl

Country	Year	Q1	Q2	Q3	Q4	CY
US (offshore)	2017	542	429	459	351	1,781
	2018	502	361	365	278	1,507
	2019	674	275	344	254	1,547
Brazil	2017	1,668	2,608	2,706	2,261	9,244
	2018	1,547	2,178	3,455	3,341	10,521
	2019	2,055	2,245	3,680	2,472	10,452
China	2017	2,868	1,045	1,581	2,048	7,542
	2018	2,753	1,715	1,126	1,890	7,484
	2019	2,952	2,532	2,267	1,373	9,124
India	2017	950	1,354	926	1,276	4,505
	2018	1,346	1,431	713	1,244	4,734
	2019	1,040	1,431	864	812	4,148

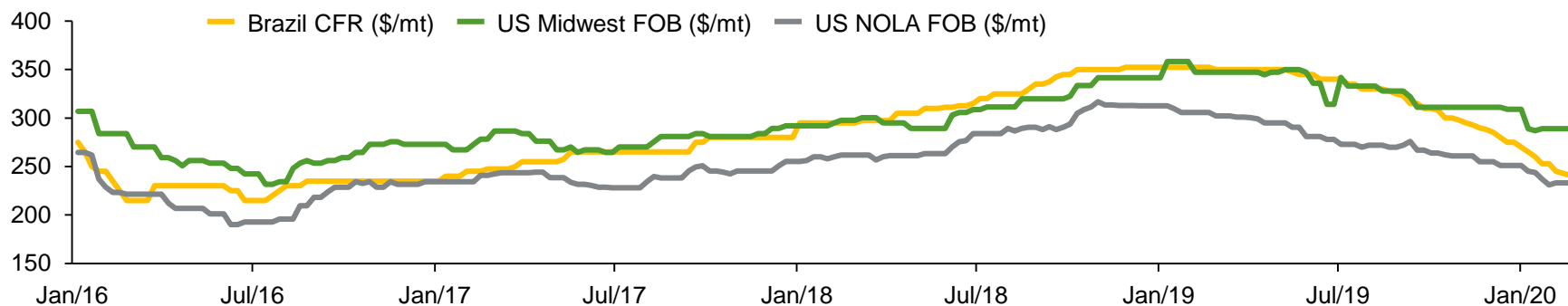
## Global Potash Shipments

Million Tonnes KCl

Country / Region	2015	2016	2017	2018	2019E	2020F
China	15.8	14.1	15.2	14.7	16.1	14.5-15.5
India	4.0	3.8	4.5	4.7	4.1	4.0-4.5
Other Asia	8.8	9.0	10.1	10.1	8.3	9.0-10.5
North America	8.6	9.7	10.4	10.6	9.1	10.0-10.5
Latin America	11.0	11.7	12.2	13.4	13.3	13.0-14.0
Other	12.2	12.0	12.8	13.2	13.4	13.5-14.0
<b>Total</b>	<b>60.4</b>	<b>60.3</b>	<b>65.2</b>	<b>66.7</b>	<b>64.3</b>	<b>66-68</b>

## Select Potash Prices

US\$/tonne



## Major Market Nitrogen Imports

Thousand Tonnes

Country	Year	Q1	Q2	Q3	Q4	CY
China Urea Exports	2017	1,241	1,515	777	1,126	4,659
	2018	294	423	421	1,321	2,459
	2019	1,309	459	1,471	1,706	4,945
India Urea Imports	2017	493	1,704	1,500	1,779	5,476
	2018	992	2,141	1,194	2,007	6,334
	2019	2,139	1,382	2,333	3,858	9,712
US Ammonia Imports	2017	1,083	1,066	890	718	3,758
	2018	869	779	644	787	3,079
	2019	654	587	577	641	2,459
US Urea Imports	2017	2,826	1,301	472	866	5,466
	2018	1,933	1,419	561	1,199	5,113
	2019	1,452	1,561	633	738	4,385

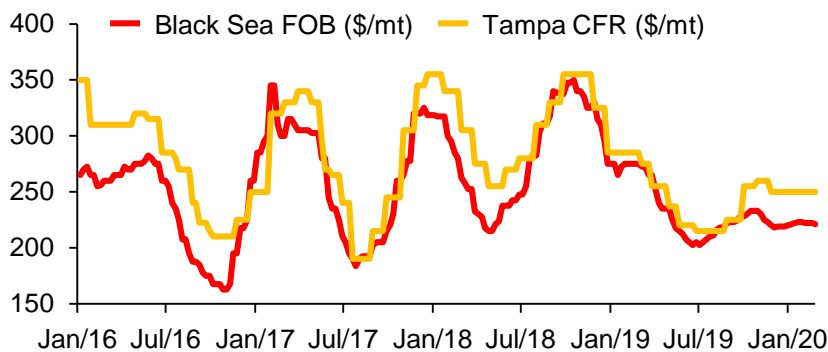
## Key Energy Prices

Monthly Average Prices

	Henry Hub (US\$/MMBtu)	AECO NG (US\$/MMBtu)	EUR TTF (US\$/MMBtu)	EUR Formula (US\$/MMBtu)	China Anthracite (US\$/mt)	Brent Crude Oil (US\$/bbl)
FEB 2020	\$1.93	\$1.68	\$3.50	\$6.90	\$147	\$56.19
NOV 2019	\$2.65	\$1.87	\$4.50	\$7.10	\$154	\$63.21
FEB 2019	\$2.69	\$1.49	\$6.10	\$8.60	\$177	\$63.96

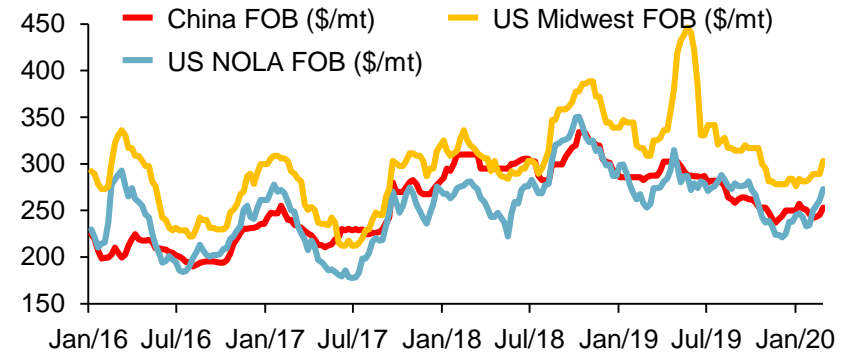
## Select Ammonia Prices

US\$/tonne



## Select Urea Prices

US\$/tonne



## Major Market Phosphate Imports

Thousand Tonnes

Country	Year	Q1	Q2	Q3	Q4	CY
US Imports (DAP/MAP)	2017	711	260	648	223	1,842
	2018	952	441	554	867	2,814
	2019	1,367	345	661	675	3,047
Brazil Imports (DAP/MAP)	2017	703	1,125	1,163	783	3,774
	2018	478	612	1,603	988	3,681
	2019	620	966	1,493	1105	4,184
India DAP Imports	2017	200	1,098	1,779	922	3,999
	2018	418	2,063	2,001	1,506	5,988
	2019	1,032	1,877	1,370	1,034	5,313

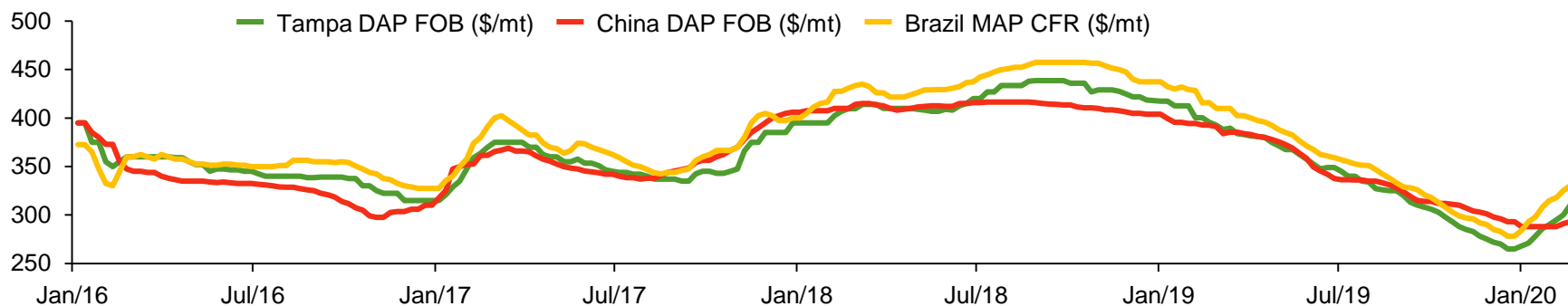
## Key Producer Phosphate Exports

Thousand Tonnes

Country	Year	Q1	Q2	Q3	Q4	CY
US Exports (DAP/MAP)	2017	815	1,059	937	996	3,807
	2018	879	778	753	871	3,280
	2019	873	1,025	975	881	3,754
China Exports (DAP/MAP)	2017	1,250	2,372	3,275	2,000	8,898
	2018	987	2,519	3,117	3,335	9,958
	2019	1,550	2,580	2,747	1,990	8,868

## Select Phosphate Prices

US\$/tonne





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