Investor Information

November 2019

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Forward Looking Statements & Non-GAAP Financial Measures

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 the anticipated benefits and synergies of our acquisition of the global phosphate and potash operations of Vale S.A. conducted through Vale Fertilizantes S.A. (now known as Mosaic Fertilizantes P&K Ltda) (the "Transaction"), other proposed or pending future transactions or strategic plans and other statements about future financial and operating results, fall fertilizer estimates and the benefits of the curtailment of potash and phosphates production. 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: difficulties with realization of the benefits and synergies of the Transaction, including the risks that the acquired business may not be integrated successfully or that the anticipated synergies or cost or capital expenditure savings from the Transaction may not be fully realized or may take longer to realize than expected, including because of political and economic instability in Brazil or changes in government policy in Brazil, such as higher costs associated with the new mining rules and remediation efforts, 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 Ma'aden Wa'ad Al Shamal Phosphate Company (also known as MWSPC), the ability of MWSPC to obtain additional planned funding in acceptable amounts and upon acceptable terms, 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; the risk that protests against natural resource companies in Peru extend to or impact the Miski Mayo mine, which is operated by an entity in which we are the majority owner; 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, its existing or future funding and Mosaic's commitments in support of such funding; 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 gross margins, adjusted earnings per share. For important information regarding the non-GAAP measures we present, see "Non-GAAP Financial Measures" in our November 4, 2019 earnings release and the performance data for the third quarter of 2019 that is available on our website at 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 November 5, 2019. We are not providing forward looking guidance for U.S. GAAP reported diluted net earnings per share or a quantitative reconciliation of forward-looking non-GAAP EPS, adjusted Gross Margins and adjusted EBITDA. Please see "Non-GAAP Financial Measures" in our November 4, 2019 earnings release for additional information.

The Mosaic Company Overview



Investment Thesis

Long-term demand growth driven by global population and income growth.

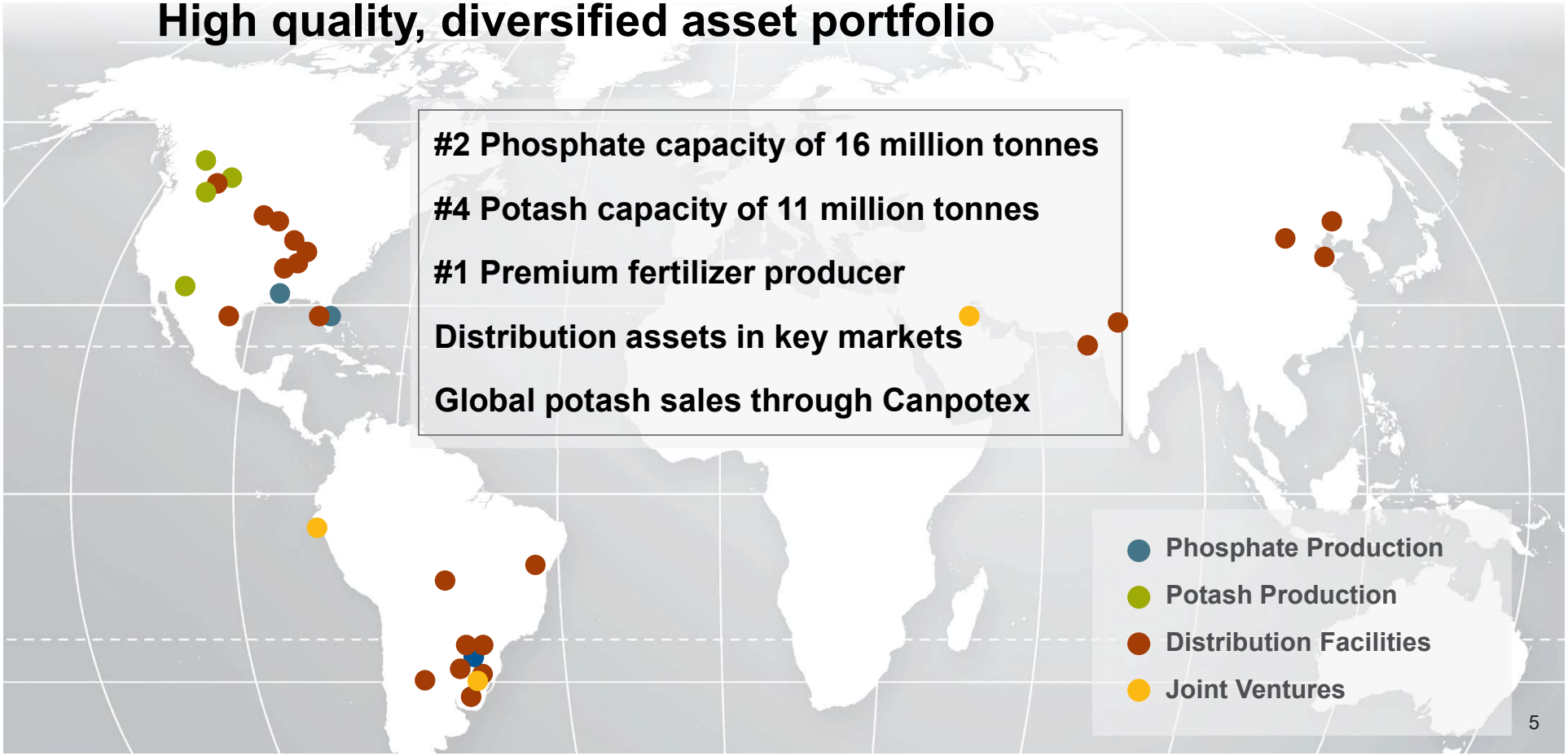
Mosaic has long lived, high quality, low cost assets to support our mission: helping the world grow the food it needs.

The company continues to execute well, increasing leverage to improving market conditions.

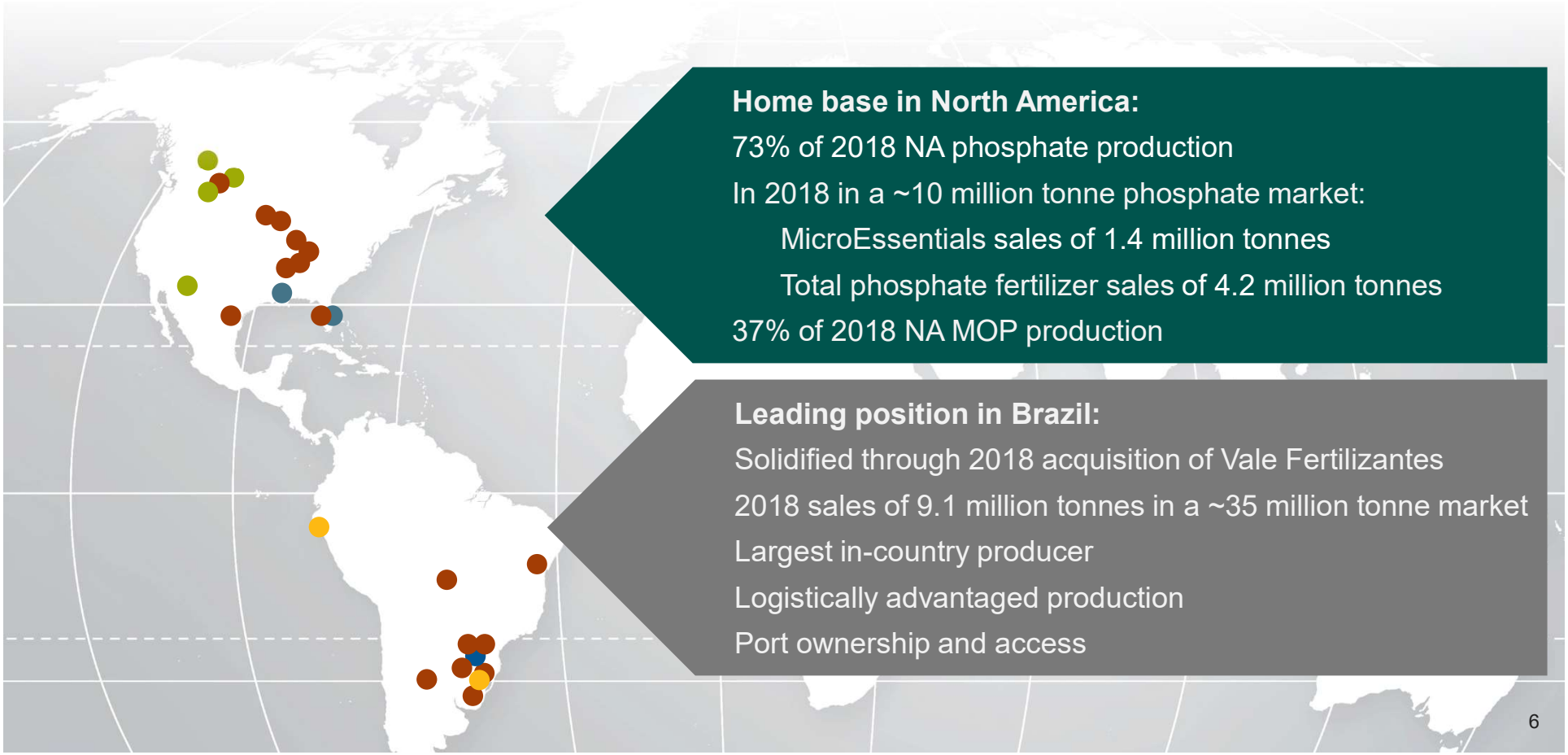
Attractive outlook for agriculture industry into 2020 and beyond.

Largest Global Finished Phosphate & Potash Producer

High quality, diversified asset portfolio



Focused on The Americas



Home base in North America:

73% of 2018 NA phosphate production

In 2018 in a ~10 million tonne phosphate market:

- MicroEssentials sales of 1.4 million tonnes
- Total phosphate fertilizer sales of 4.2 million tonnes

37% of 2018 NA MOP production

Leading position in Brazil:

Solidified through 2018 acquisition of Vale Fertilizantes

2018 sales of 9.1 million tonnes in a ~35 million tonne market

Largest in-country producer

Logistically advantaged production

Port ownership and access

Executing Our Strategy

By transforming business operations, lowering costs and increasing leverage to improving markets, Mosaic is well positioned to generate strong shareholder returns.



We Help the World Grow the Food it Needs.

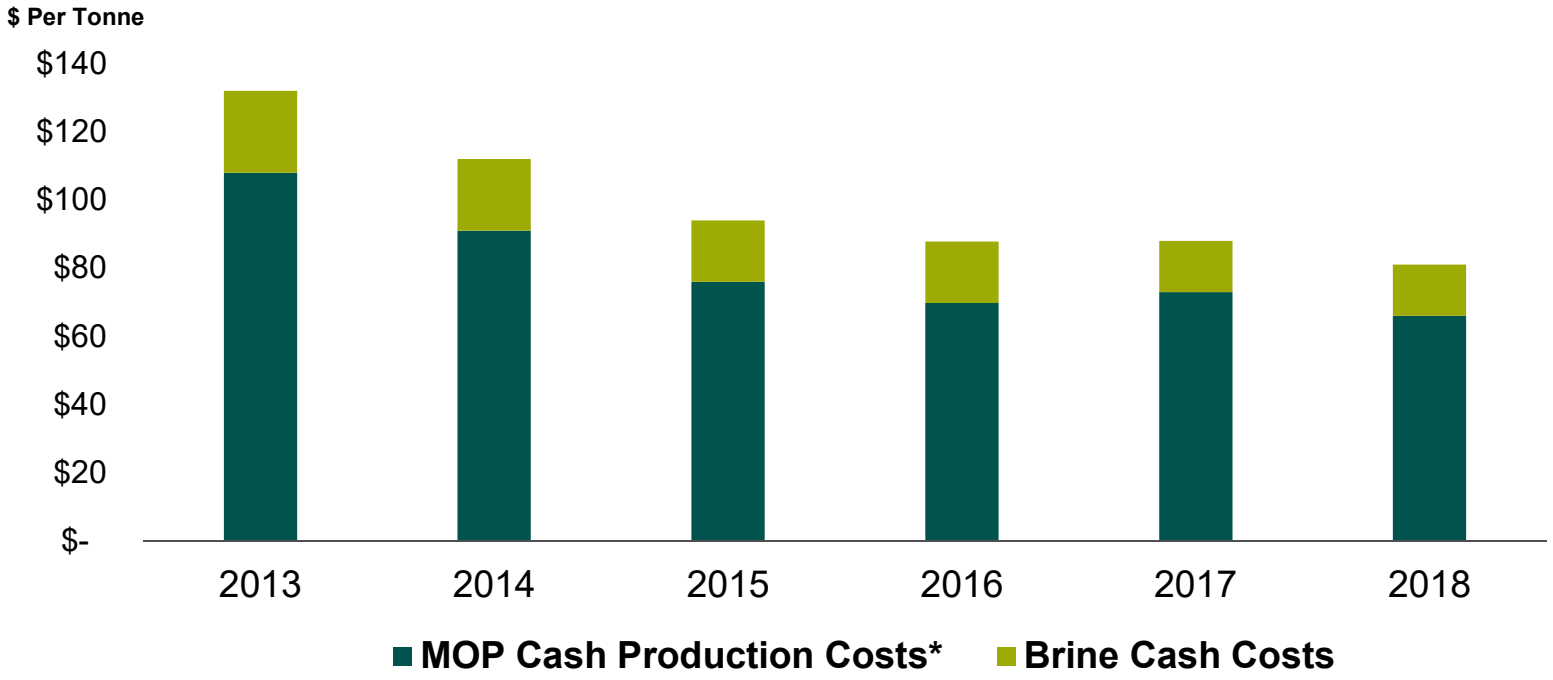
Increasing Our Competitiveness To Win

- Optimized our assets, driving permanent structural improvements
- Accelerated plan to complete K3, a path to de-risking our business and improving margins and costs
- Lowered SG&A / tonne to increase our operating leverage
- Lowered financial leverage to improve risk profile and create the capacity to capture opportunities

Growing Organically and Inorganically

- Delivered record volumes of premium margin products in 2018
- Acquired Mosaic Fertilizantes assets at the trough and are a full year early delivering on our $275 million integration and synergy targets.
  - Established new goal of $200 million incremental EBITDA generation by 2022.

Potash: Increasing Our Competitiveness



*MOP cash production costs are reflective of actual costs during the quarter, excluding CRT and realized mark-to-market gains and losses and including turnarounds. Turnaround costs are captured as period costs while the rest are capitalized into inventory. As such, the costs presented are not necessarily reflective of costs included in costs of goods sold for the period.

Potash K3 Acceleration 2.0

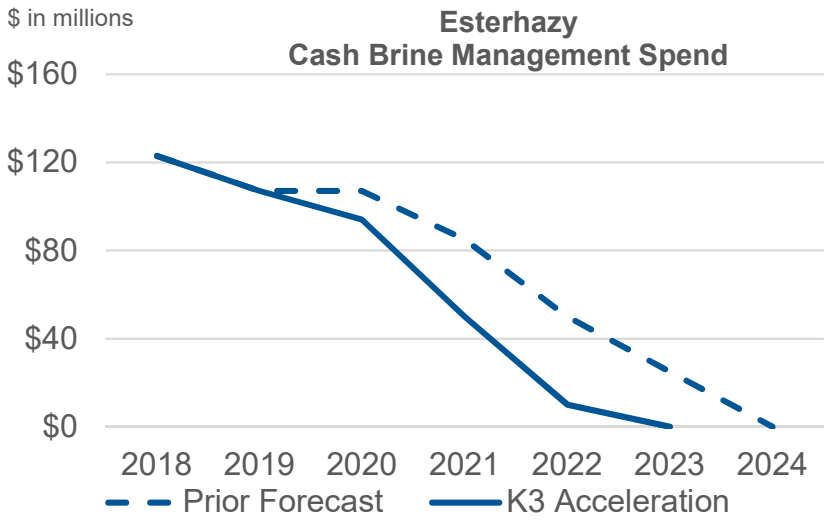


First miner in service date:
September 24

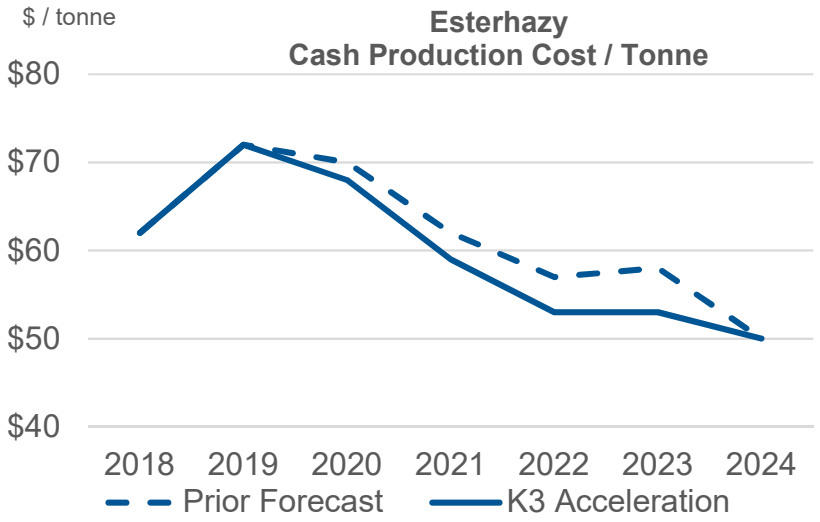
Second miner in service date:
Mid December

Esterhazy Acceleration Implications

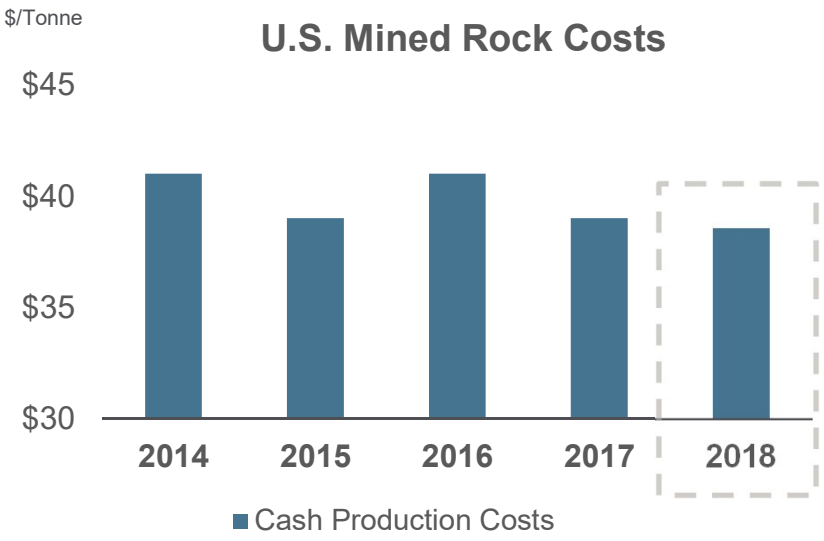
~$225 million of Expected
Brine Management Savings

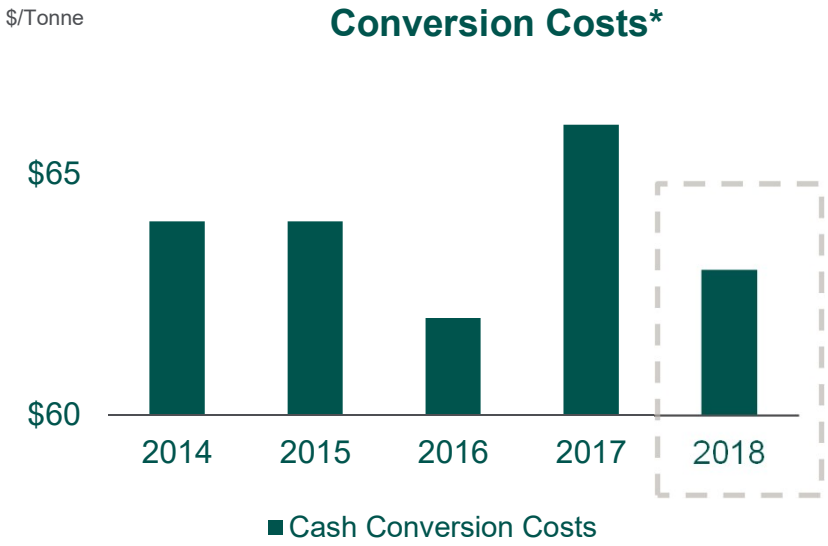


~$75 million of Expected
Esterhazy Production Savings



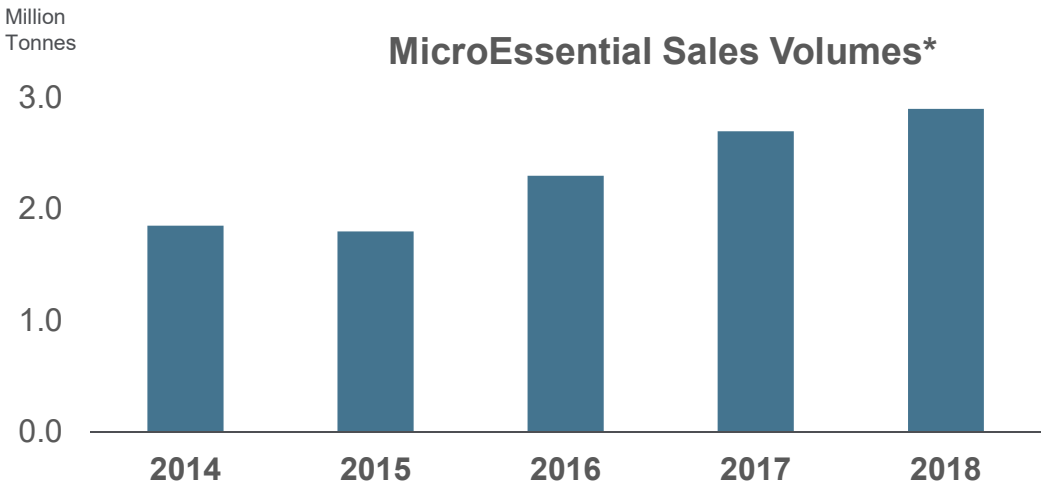
Phosphates: Increasing our Competitiveness





* Phosphate cash conversion costs, as shown, are reflective of actual costs, excluding realized mark-to-market gains and losses and the cost of turnarounds. Turnaround costs are captured as period costs while the rest are capitalized into inventory. As such, the costs presented are not necessarily reflective of cost of goods sold for the period.

Phosphates:
Growing Margin by Growing Premium Products with limited new capital investment



Approximately 60% of MicroEssential volumes are sold in North America, where 2019 fertilizer applications have been impacted by weather. Volumes in MicroEssentials have been more resilient than commodity phosphate products.

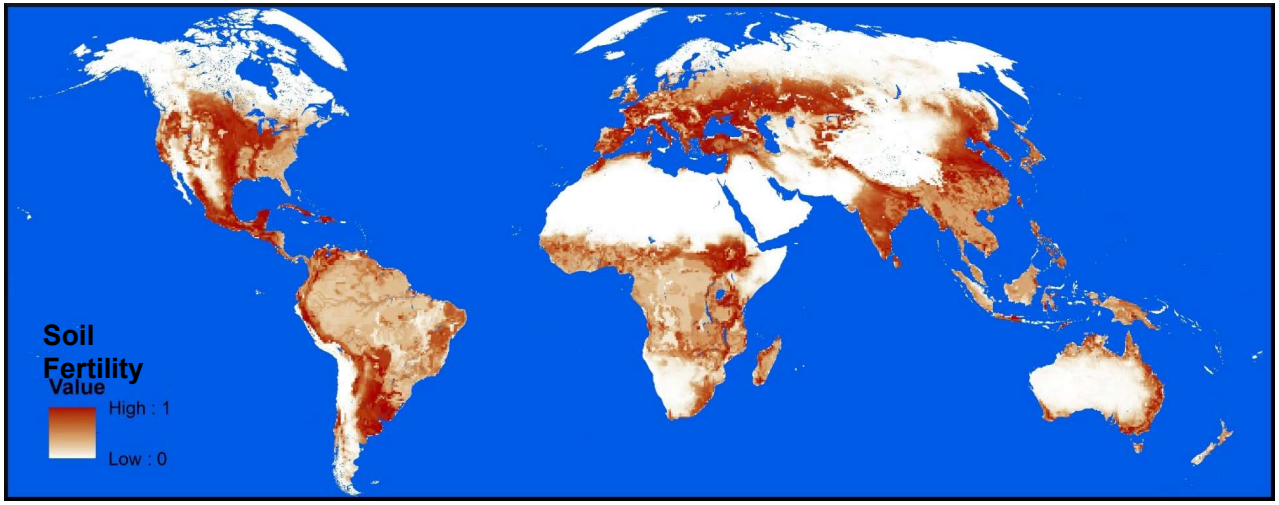
* Includes intercompany sales

Brazil is an Ag Powerhouse, But Poor Soil

Crop	Brazil fert. usage (2018)	Global rank 2018 (Production / Exports)
Soybean	43%	2nd / 1st
Corn	16%	3rd / 2nd
Sugar Cane	14%	1st / 1st
Coffee	6%	1st / 1st

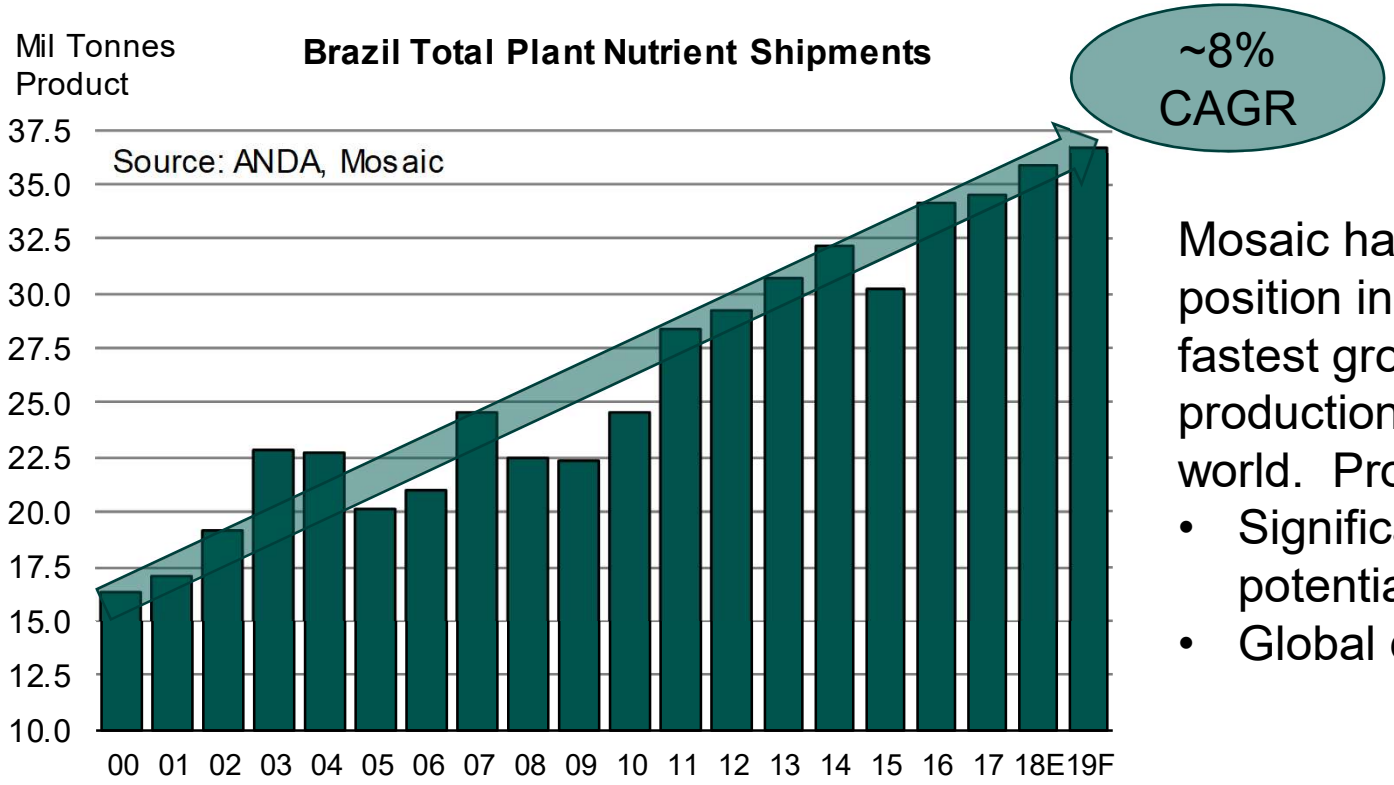
Soybean	AREA (K ha)	Yield (MT/ha)	Usage [1] Kg/Ha
USA	35.600	2.96	63.9
Brazil	**36.000**	**2.94**	**94.3**
World	**121.770**	**2.54**	**-**

Soybean / Source: USDA, Agroconsult and IFS / 1: Phosphates



Source: Based on 'Global Roadmap' / USDA data

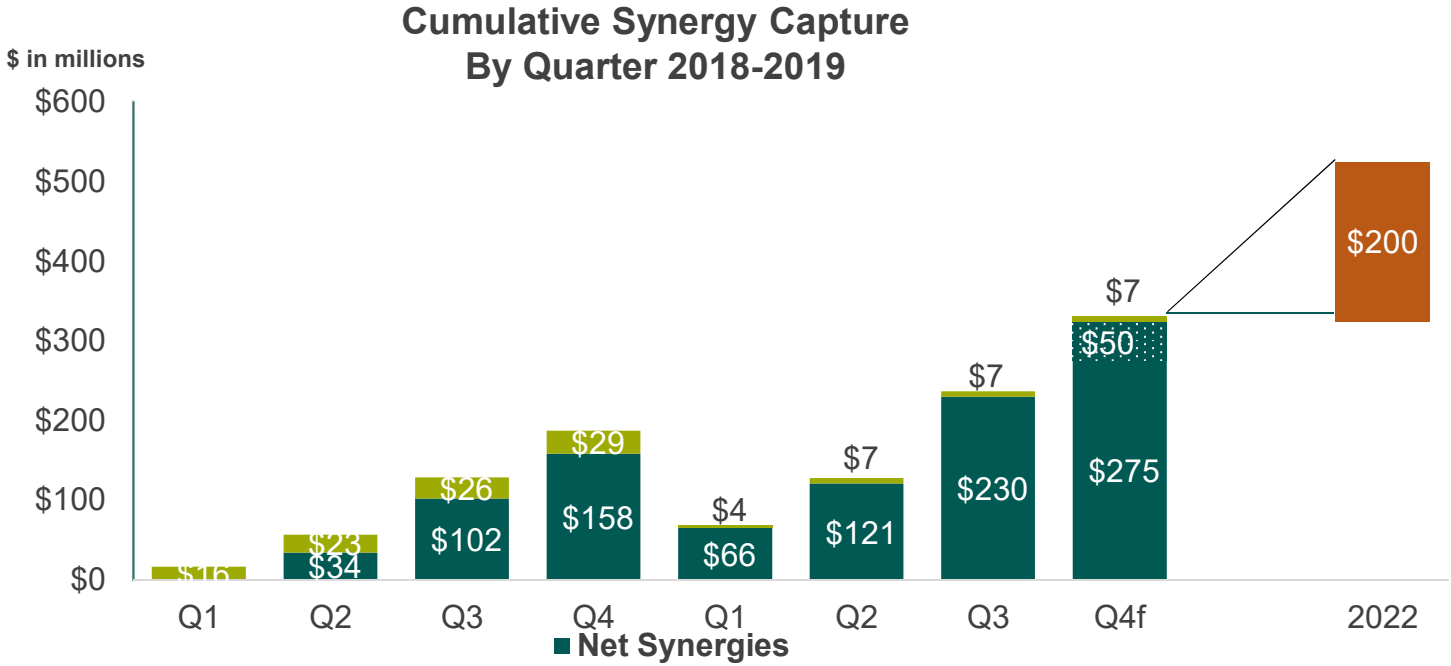
Brazil: A Large, Fast Growing Market



Mosaic has a leading position in one of the largest, fastest growing agricultural production regions in the world. Provides:

- Significant growth potential
- Global diversification

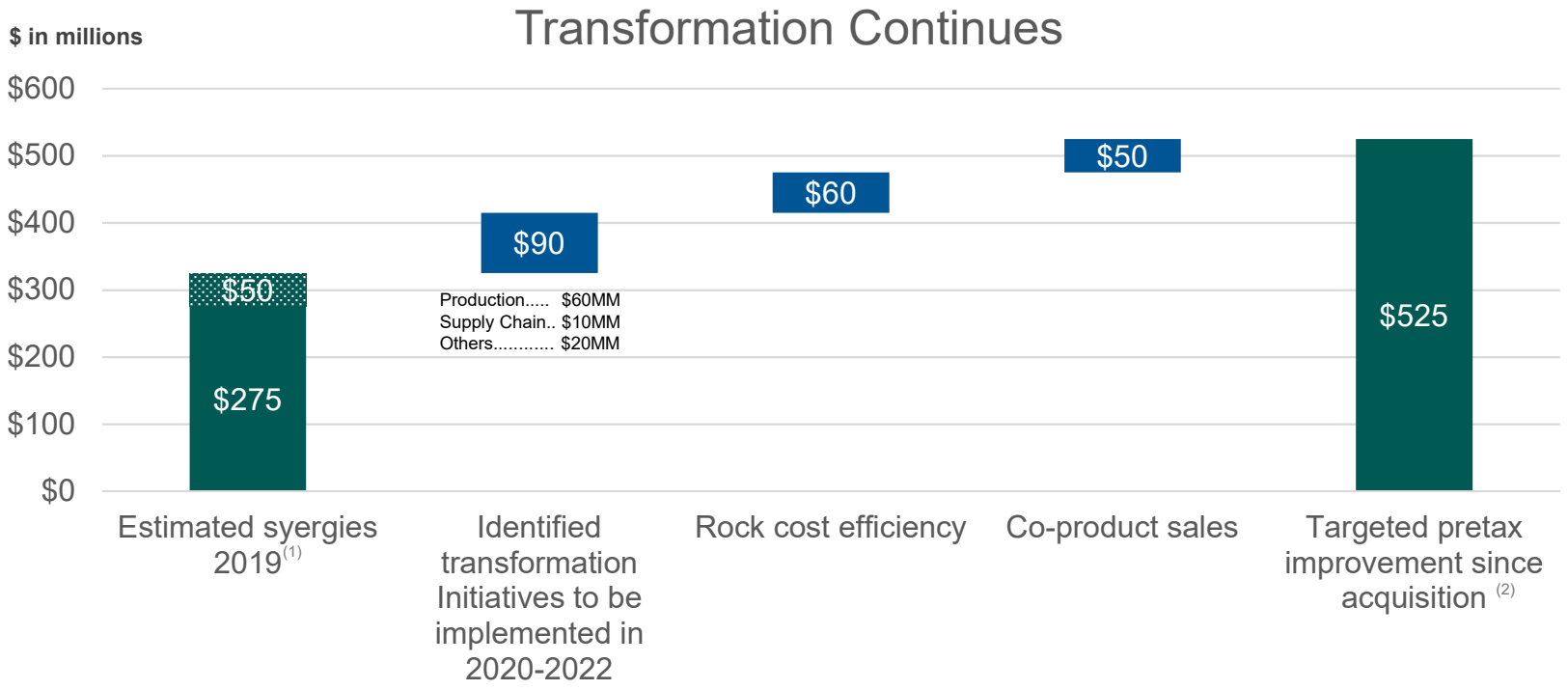
Strong Execution: Mosaic Fertilizantes



New target of $200 million incremental annual pretax income growth from 2019

- Despite dam regulatory driven challenges, expect to exceed target of $275 million of net annual synergies in 2019, by up to $50 million.
- Quarterly realization of synergies is seasonal, and driven by sales patterns.

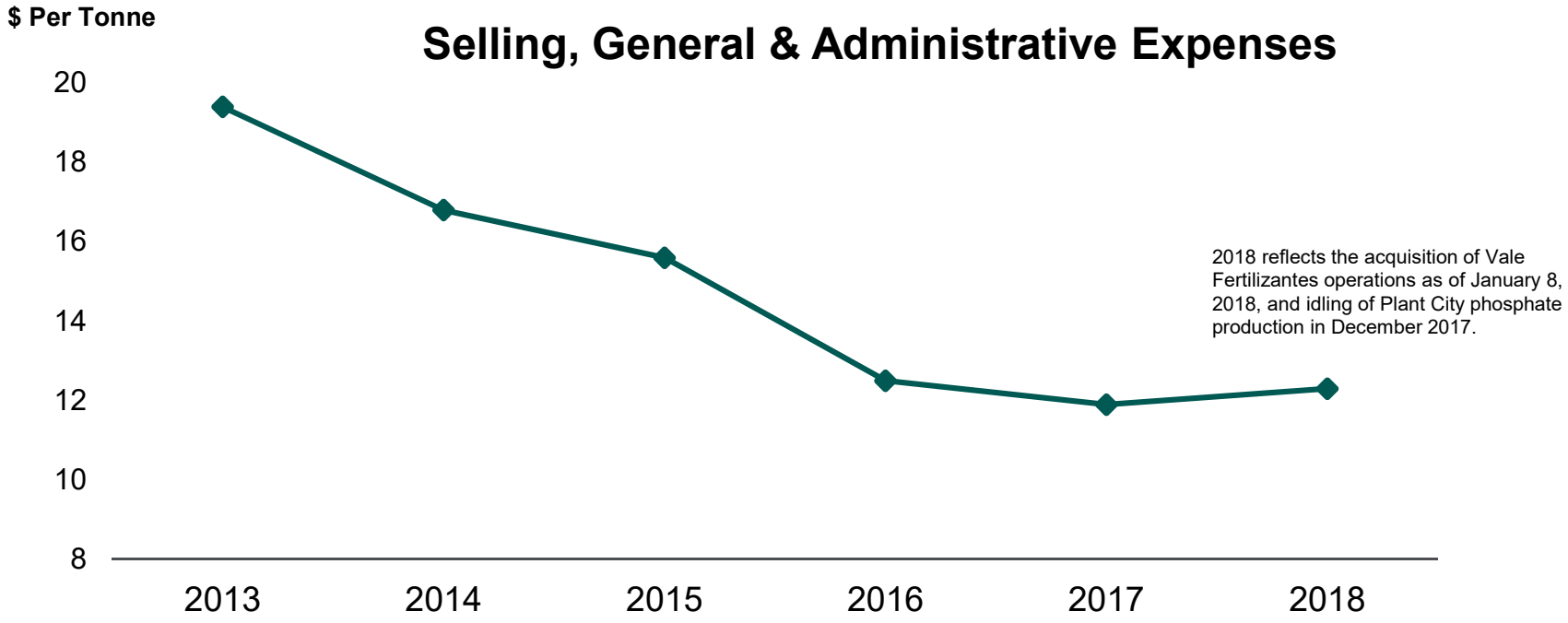
Targeting an additional $200 million in P&L impact between 2020 and 2022



(1) The Transformation Program has a targeted P&L impact of $275 plus up to $50 million by year-end 2019.

(2) Estimated capex of $60 MM to $90 MM over 3 years, beginning in 2020.

Visible Cost Controls



**Tonnes exclude the intra-segment volume eliminations, which negatively impacts SG&A/Tonne metric starting in 2018 as a result of the Vale Fertilizantes acquisition.*

Capital Allocation Philosophy:

Cyclical upswing would drive substantial excess capital to deploy.



Excess capital allocation is expected to be balanced across 1) continued strengthening of the balance sheet as our bonds mature in 2021 and 2022; 2) increased returns to shareholders through measured dividend increases and share repurchases; 3) strategic investments that exceed the benefits of share repurchases.

ESG Engagement and Recognition

CDP Climate	A-
CDP Water	B
Sustainalytics	57
MSCI	A
100 Best Corporate Citizens	77
FTSE ESG	3.7

















ESG Focus Areas		Priorities
People	We are unwavering in our focus on the safety, wellness and engagement of our employees.	**Safety and Wellness** **Diversity** **Engagement**
Environment	Mosaic is a committed steward of environmental resources, working efficiently and minimizing negative impacts.	**Water** **Air and Energy** **Land**
Society	We contribute to global food security. Mosaic maintains strong commitments to the communities where we have operations.	**Food Security** **Community** **Nutrient Stewardship** **Agricultural Productivity**
Company	We operate responsibly, build trusted relationships and help our constituents thrive. Our impact measurement and reporting is balanced, accurate and comparable, and drives progress on the issues that are most important to Mosaic and its constituents.	**Long-term Performance** **Ethics and Compliance** **Transparency**

Results Summary
September 30, 2019



Strong Execution: Controlling What We Can

ADDITIONAL ACCELERATION OF ESTERHAZY K3

- Expect to be fully ramped up by mid 2022
- Saves an additional ~$115 million in brine management costs
- Lowers production costs 30 months ahead of 2018 expectations
- Accelerates capital deployment and depreciation

REPURCHASED

7.1 million shares for
$150 million YTD

SG&A

Lowered 2019 expectations to $340 mm

PRODUCTION DISCIPLINE

Potash Curtailed

Up to 600,000 mt

Phosphates Curtailed

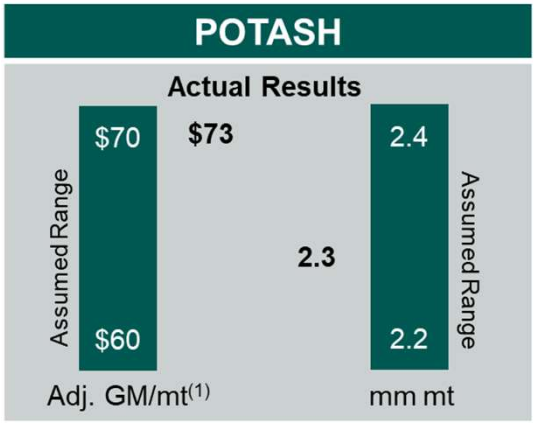
Up to 500,000 mt

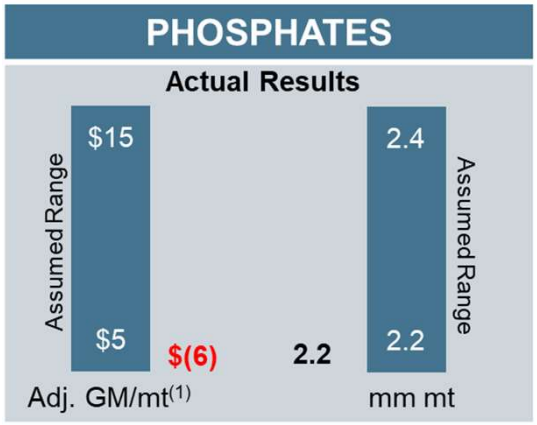
FERTILIZANTES: STRONG EXECUTION

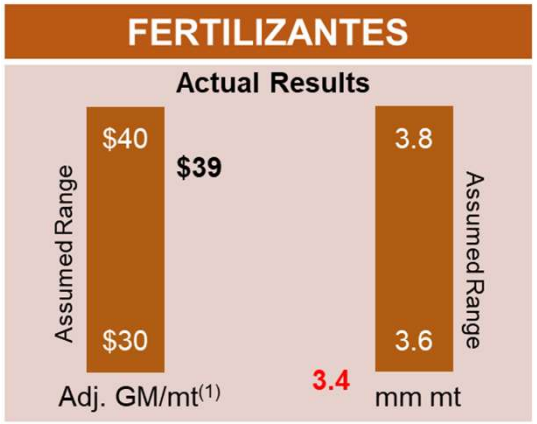
- Expect to exceed $275 mm 2019 target by up to $50 mm
- Incremental $200 mm in annual EBITDA enhancement 2020 - 2022
- Dam remediation costs remain steady ~$80 mm
- Full operations resumed

Third Quarter Results

$ in million, except per share	3Q 2019	YTD 2019
Diluted Earnings Per Share (EPS)	$(0.11)	$(0.38)
Adjusted diluted EPS[1]	$0.08	$0.45
Net Income	$(44)	$(146)
Adjusted EBITDA[1]	$366	$1,145
Cash from Operations	$486	$818
Capital Expenditures	$322	$931







(1)See Non-GAAP Financial Measures for additional information

Operating Driver Targets

		2018 actual	3Q 19 4Qtr Ave	2021 target
Phosphates	Cash cost of U.S. mined rock ($/tonne)	$38	$42	$39
	Cash costs of conversion ($/tonne)	$63	$64	$56
	Sales of MicroEssentials (mm tonnes)	2.9	2.8	3.7
	Average MicroEssentials margin, premium to MAP ($/tonne)[1]	$43	$48	$40 - $50
Potash	Cash costs of production (excluding brine) – MOP ($/tonne)	$66	$70	$62
	Cash brine management costs ($ in millions)	$123	$111	$85
Mosaic Fertilizantes	Cash costs of rock (R$/tonne)	R$346	R$337	R$320
	Cash costs of conversion - Phosphates (R$/tonne)	R$265	R$321	R$275
	Total Selling, General & Administrative Expenses ($ in millions)	$341	$340	$340

[1] *Includes margins earned locally on sales by Mosaic Fertilizantes and Mosaic China.*

Guidance Assumptions (as of November 5, 2019)

Fourth Quarter Assumptions	Volumes (mm tonnes)	Adjusted GM[(1)]
Potash	1.7 to 1.9	$60 - $70 / tonne
Phosphates	2.1 to 2.3	$(10) - $0 / tonne
Mosaic Fertilizantes	2.2 to 2.4	$40 - $50 / tonne
Corporate & Other	-----	$10 - $20 mm

Assumptions – Full year	
Potash Volumes	8.0 – 8.2 mmt
Phosphate Volumes	8.3 – 8.5 mmt
Mosaic Fertilizantes Volumes	9.3 – 9.5 mmt
Fourth Quarter Pricing Assumptions	Mosaic's published price dashboard as of October 24*

** DAP net pricing assumes approximately $10/tonne transportation costs included in FOB Tampa DAP benchmark price.*
MOP net pricing assumes approximately $50/tonne transportation costs included in Midwest warehouse MOP benchmark price.
Mosiac Fertilizantes pricing assumes $70/tonne in transport costs are added to the MAP price Brazil C&F port.

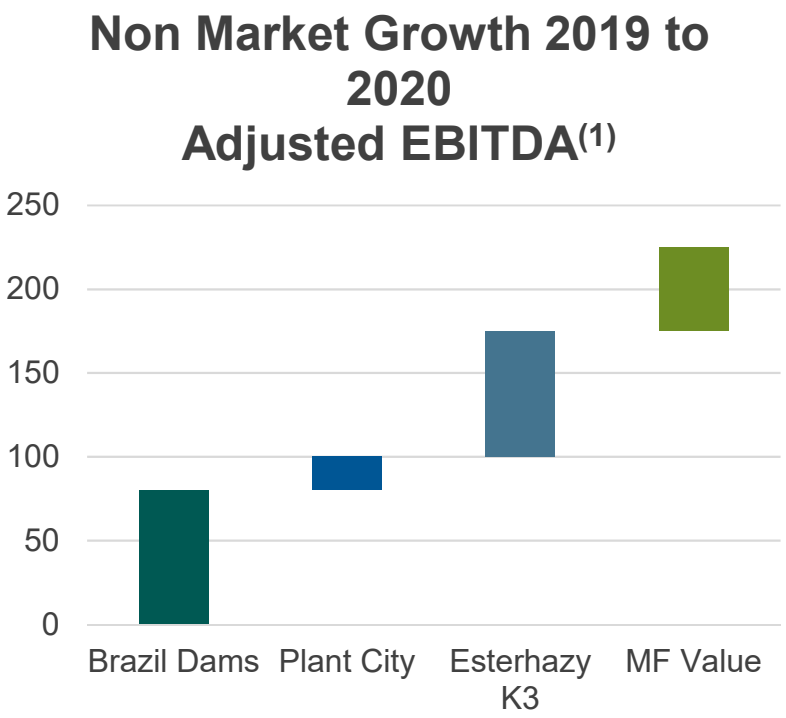
[(1)]See Non-GAAP Financial Measures for additional information

Modeling Assumptions (as of November 5, 2019)

Modeling Assumptions for Full year	
DD&A	~$875 million
SG&A	~$340 million
Brine Management Costs	~$140 million
BRL to USD Average Exchange Rate	3.8

Updated Assumptions for Full year	
MWSPC Equity Earnings	~$(55) million
Effective Tax Rate	Mid 30's
Total Capital Expenditures	~$1.1 billion

Driving Growth 2019 to 2020



(1)See Non-GAAP Financial Measures for additional information

Mosaic expects ~ $225 million of adjusted EBITDA (1) growth, all else equal, due to the following:

- The Brazilian phosphate mines resumed full operations in September, with the outages in 2019 expected to cost an estimated $80 million.
- Plant City costs to hold the plant idle will be eliminated with its closure announced in June of 2019, eliminating ~$20 million in costs.
- Increasing production by 600,000 tonnes from Esterhazy K3 is expected to increase EBITDA by ~$70 to $80 million.
- Mosaic Fertilizantes expects to realize incremental value from transformation of ~$200 million by 2022, $50 million in 2020.

Potash

(in millions except per tonne)	2018	2017	9mo 2019	9mo 2018
Sales Volumes (tonnes)	8.8*	8.6	6.35	6.48
Operating Earnings	$511	$344	$498	$362
Adjusted EBITDA[(1)]	$866	$648	$725	$596
Gross Margin $ / Tonne	$68	$45	$84	$61
Adjusted Gross Margin $ / Tonne[(1)]	$69	$47	$86	$63

- Gross Margin per tonne improved over the prior year as a result of higher realized prices.
- The company has accelerated the development of the K3 shaft at its Esterhazy potash mine and now expects to transition from mining K1 and K2 to mining K3 a full year earlier, by the second half of 2022.
- The company announced a temporary curtailment of its Colonsay potash mine, which is expected to save $40 to $50 million in cash in 2019, and lower overall costs of production.

(1)See Non-GAAP Financial Measures for additional information
* Year-over-year comparison negatively impacted by a change in the Canpotex revenue recognition policy.

Phosphates

(in millions except per tonne)	2018	2017	9mo 2019	9mo 2018
Sales Volumes (tonnes)	8.4*	9.5	6.17	6.48
Operating Earnings	$473	$256	$(419)	$389
Adjusted EBITDA[(1)]	$966	$640	$287	$726
Gross Margin $ / Tonne	$69	$35	$5	$65
Adjusted Gross Margin $ / Tonne[(1)]	$72	$35	$8	$69

- Realized finished phosphates prices remained pressured through the third quarter of 2019 due to reduced demand driven by adverse weather conditions in North America occurring during the first half of the year.
- For the nine months ended September 30, 2019, the Phosphates operating rate decreased slightly to 85% from 86% over the same period of the prior year.
- The company expects a short, but strong, fall application season in North America. Strong application combined with the announced idling of its Louisiana facilities are expected to to draw down inventories and strengthen the market in 2020.

[(1)]See Non-GAAP Financial Measures for additional information
*Year-over-year comparison reflects the impact of the idling of Plant City

Mosaic Fertilizantes

(in millions except per tonne)	2018	2017*	9mo 2019	9mo 2018
Sales Volumes (tonnes)	9.13	9.35	7.05	7.03
Operating Earnings	$238	$(35)	$128	$154
Adjusted EBITDA[(1)]	$429	$81	$226	$291
Gross Margin $ / Tonne	$41	$8	$30	$36
Adjusted Gross Margin $ / Tonne[(1)]	$41	$8	$30	$36

- Operating results for the nine months ended September 30, 2019 were favorably impacted by higher prices driven by product mix, product positioning and the timing of sales compared to the prior year period.
- Year to date 2019, the company incurred approximately $65 million in incremental expense related to the impact of the new tailings dam regulations in Brazil.
- The company expects to exceed its $275 million in net synergies in 2019, by up to $50 million.

[(1)]See Non-GAAP Financial Measures for additional information
* Pro forma segment results

Sensitivity Table: Estimated Full Year Impacts

Impacts to PL: ($ in millions)	Adjusted EBITDA Δ(1)	Adjusted EPS Δ(1)
Average MOP Price --> $10/mt	$82	$0.12
Average DAP Stripping Margin --> $10/mt	$86	$0.17
Potash Sales Volume --> 100k mt	$15	$0.02
Phosphates Sales Volume --> 100k mt	$5	$0.01
Canadian Dollar Change -->$0.01	$14	$0.03
Brazilian Real Change (unhedged) --> $0.10	$21	$0.04

(1)See Non-GAAP Financial Measures for additional information

Adjusted 2019 EBITDA to Adjusted EPS

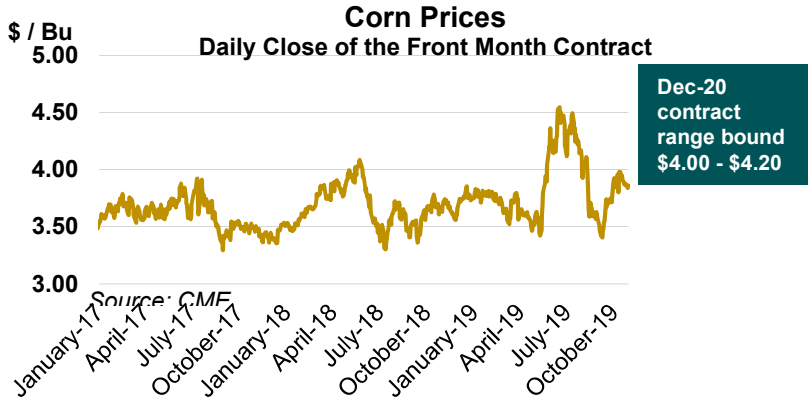
Estimated reconciling items	$ in millions
Adjusted EBITDA[1]	$1,400 to $1,500
Adjusted Depreciation, Depletion & Amortization	$875
Interest Expense	$205
Non-Notable Adjustments	$80
Estimated Pretax Earnings	~$240 to ~$340
Tax Expense (assumed mid-30% full year effective rate)	~$80 to $120
Estimated Net Earnings	~$160 to ~$220
Adjusted EPS[1] (using 380 mm shares)	~$0.50 to ~$0.60

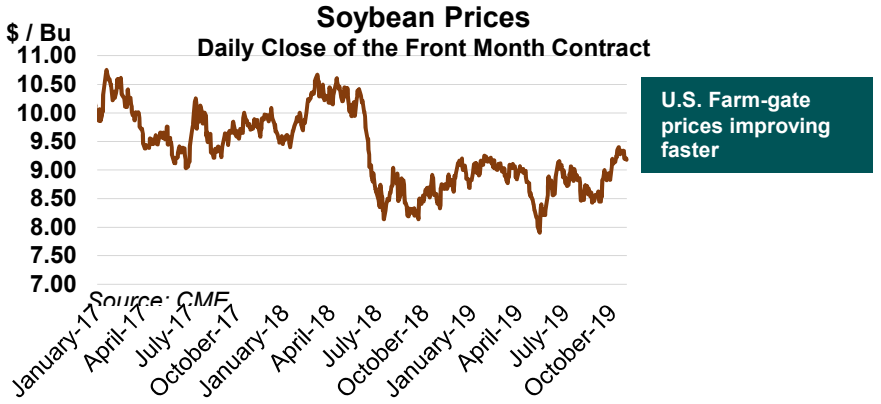
[1]See Non-GAAP Financial Measures for additional information

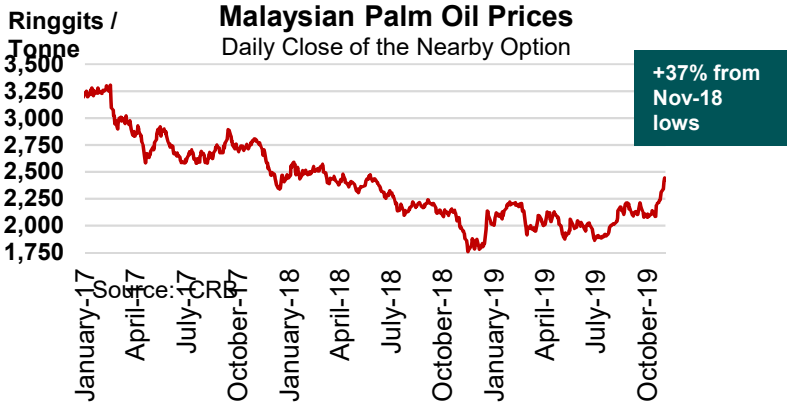
Markets



Strong Market Demand

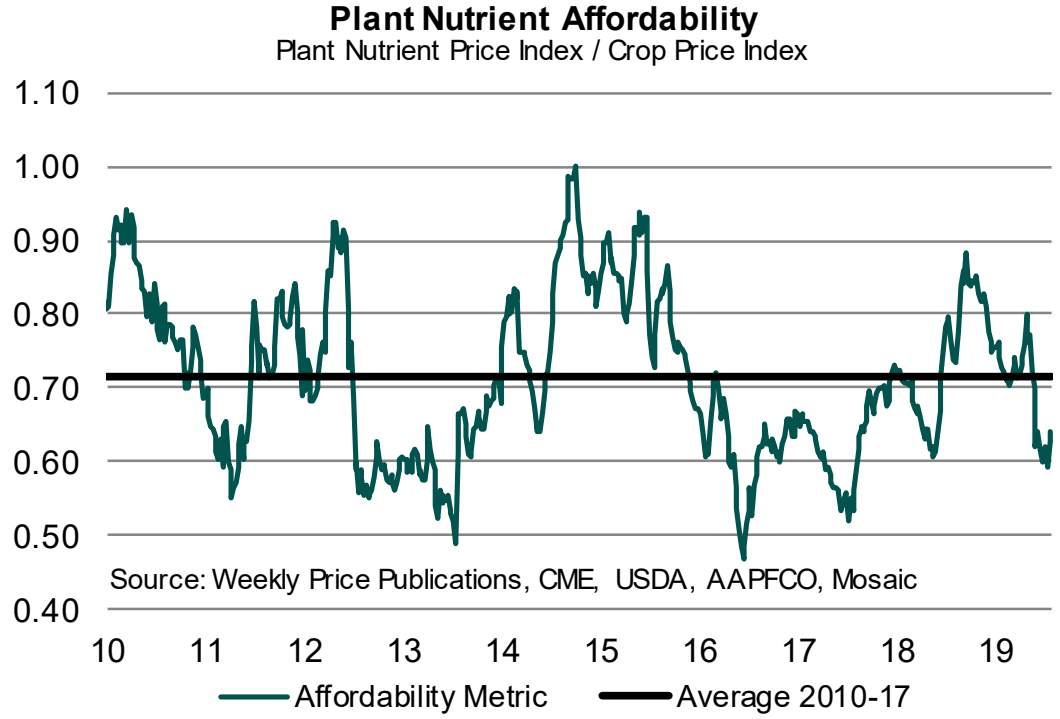




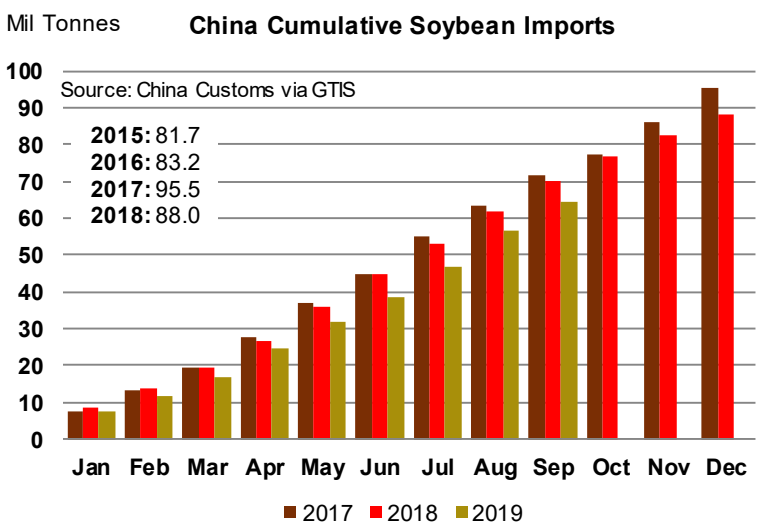


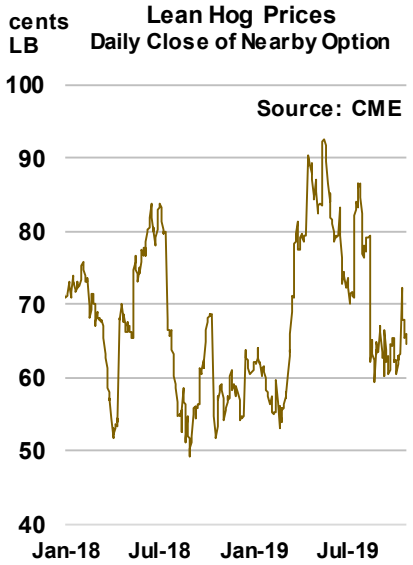
- Weather challenges have resulted in underapplication of fertilizer in North America.
- Increasing commodity prices mean strong economic incentives to maximize harvest in 2020, with increased acreage and applying the right amounts of fertilizer.
- Weather has delayed harvest and lowered yields, but fertilizer is moving to the field.

Strong market demand: Crop nutrients provide good value, particularly phosphates



ASF update: Grain imports↓ (but not nearly as much as many thought); U.S. pork prices going ↑?





- Chinese soybean imports through September are down just 8% y-o-y (~5.4mmt).
- Chinese pork price inflation is back in the headlines.
- Brazil has been the clear winner on pork exports – U.S./China trade dispute has limited U.S. exports and U.S. production has been sharply higher and brought about a sharp drop in CME prices.

U.S. Acreage/Yield remain wildcards; Our bias remains a carryout below 1.75 bil bushels

U.S. Corn Supply/Demand Balance Sheet

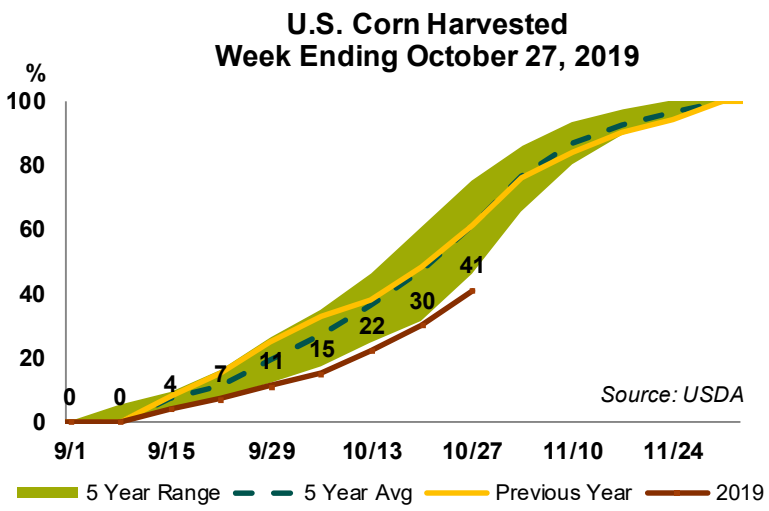
	USDA								Mosaic 2019/20		
(mil bu)	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Bull	Likely	Bear
Acreage and Yield											
Planted (mil acres)	97.3	95.4	90.6	88.0	94.0	90.2	89.1	89.9	89.0	89.0	89.9
Harvested (mil acres)	87.4	87.5	83.1	80.8	86.7	82.7	81.7	81.8	80.5	81.0	81.8
Yield (bu/acre)	123.1	158.1	171.0	168.4	174.6	176.6	176.4	167.0	164.0	165.5	168.5
Harvested Ratio (%)	*89.8%*	*91.7%*	*91.8%*	*91.7%*	*92.3%*	*91.8%*	*91.7%*	*91.0%*	*90.5%*	*91.0%*	*91.0%*
Supply											
Stocks+Imports	1,149	857	1,264	1,799	1,794	2,329	2,168	2,164	2,189	2,164	2,164
Production	10,755	13,831	14,217	13,602	15,148	14,609	14,420	13,661	13,209	13,404	13,779
Total	**11,904**	**14,688**	**15,481**	**15,401**	**16,942**	**16,939**	**16,588**	**15,825**	**15,399**	**15,568**	**15,944**
Use											
Total	**11,083**	**13,456**	**13,750**	**13,664**	**14,649**	**14,798**	**14,474**	**13,915**	**13,775**	**13,840**	**13,955**
Ending Stocks	**821**	**1,232**	**1,731**	**1,737**	**2,293**	**2,140**	**2,114**	**1,910**	**1,624**	**1,728**	**1,989**
Stocks as % of Use	*7.4%*	*9.2%*	*12.6%*	*12.7%*	*15.7%*	*14.5%*	*14.6%*	*13.7%*	*11.8%*	*12.5%*	*14.3%*

We still believe acreage is too high, though it's not clear USDA will adjust

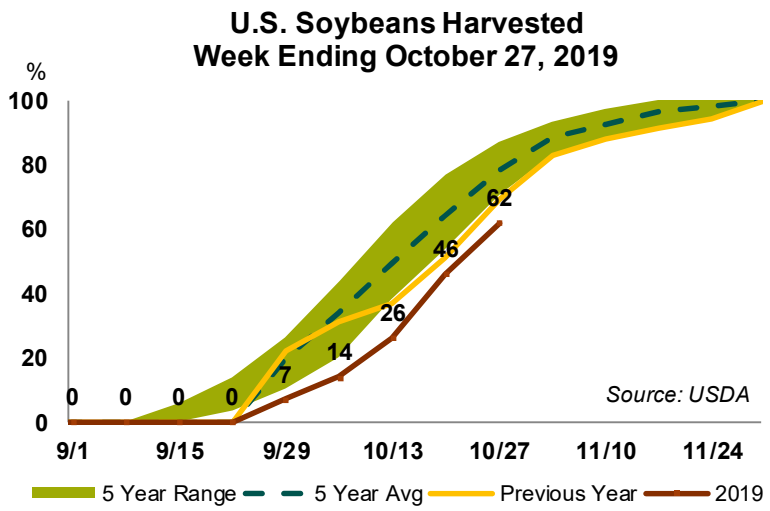
Yield remains a wildcard: USDA estimate was lowered 1.4 bu/ac in November

No surprise, harvest is behind, with reasonable concerns about the available window for fall fieldwork

Corn

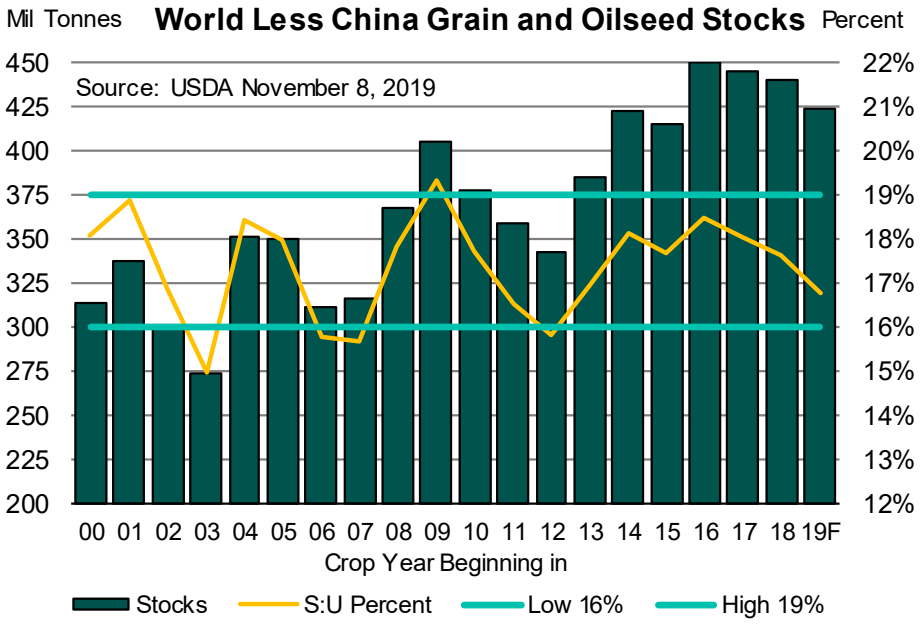


Soybeans



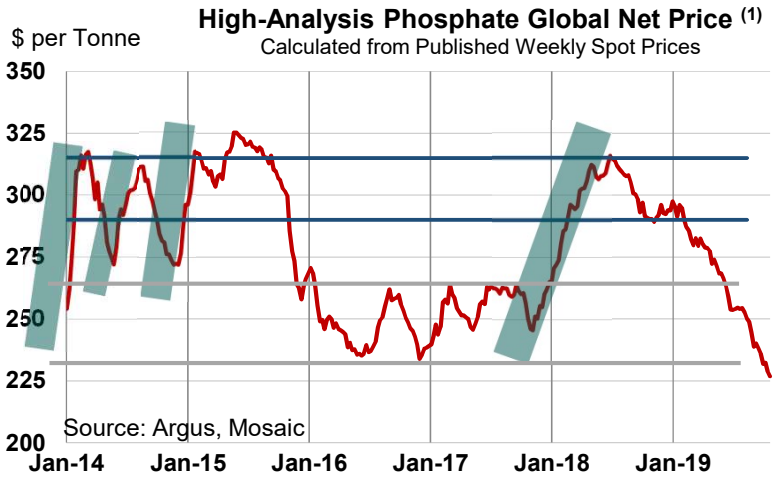
- Bear in mind that “fall” fieldwork can carry into the following calendar year, with no precise delineation of where fall work ends and spring work begins

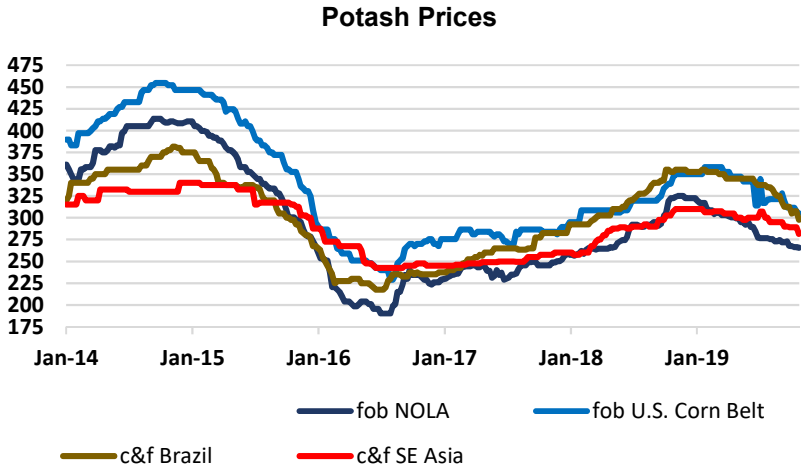
Agricultural Fundamentals to Tighten as Demand Overtakes Supply



- A big step-up in global production since 2012/13
- But continued strong and steady demand growth
- Stocks as a percentage of use projected to drop to the bottom half of the 16%-19% range by the end of 2019/20
- The Food Story is still intact

Long-term market outlook remains positive

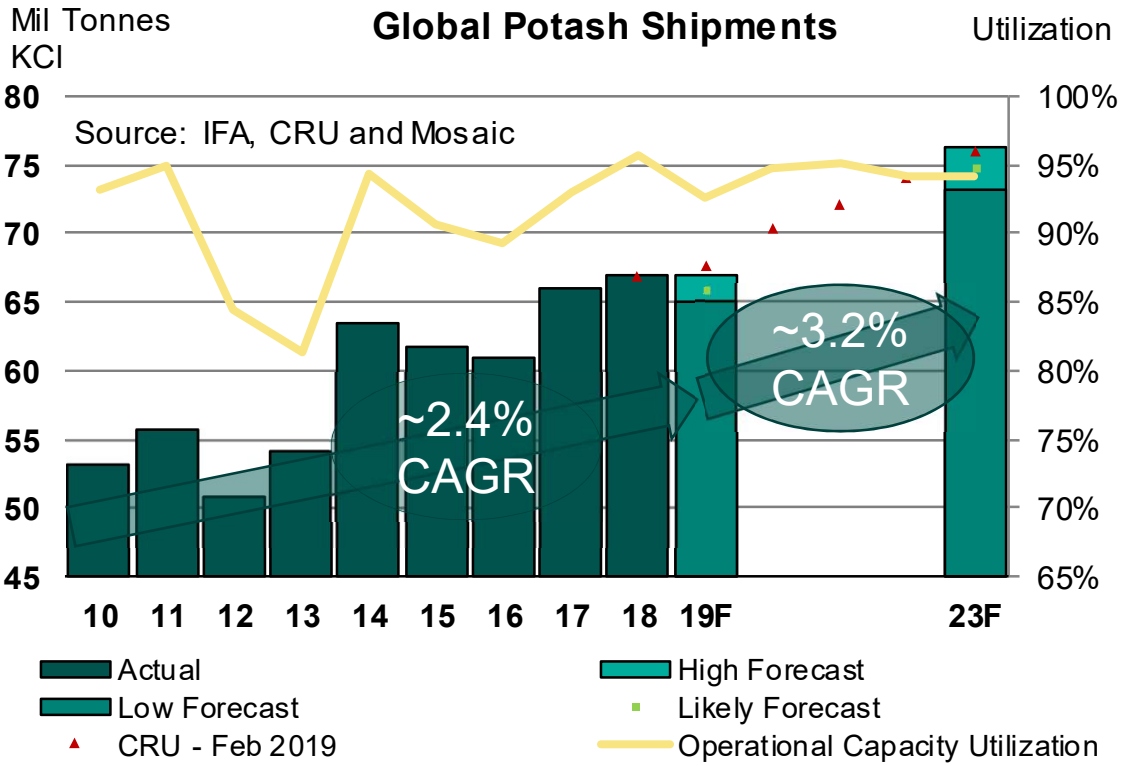




- Phosphate net price turns tend to be very sharp; Potash moves more gradually.
- Rapid phosphate price recovery is generally driven by fundamentals, exacerbated by sentiment. Potash supply aligns more quickly to demand.
- We believe strong demand pull will drive improved pricing in 2020.

(1) Global net price averages several global price benchmarks for finished phosphates and raw materials. It does not include any handling, storage, transportation or conversion costs.

Potash Outlook:
Strong, Broad-Based, Less Volatile Demand Growth



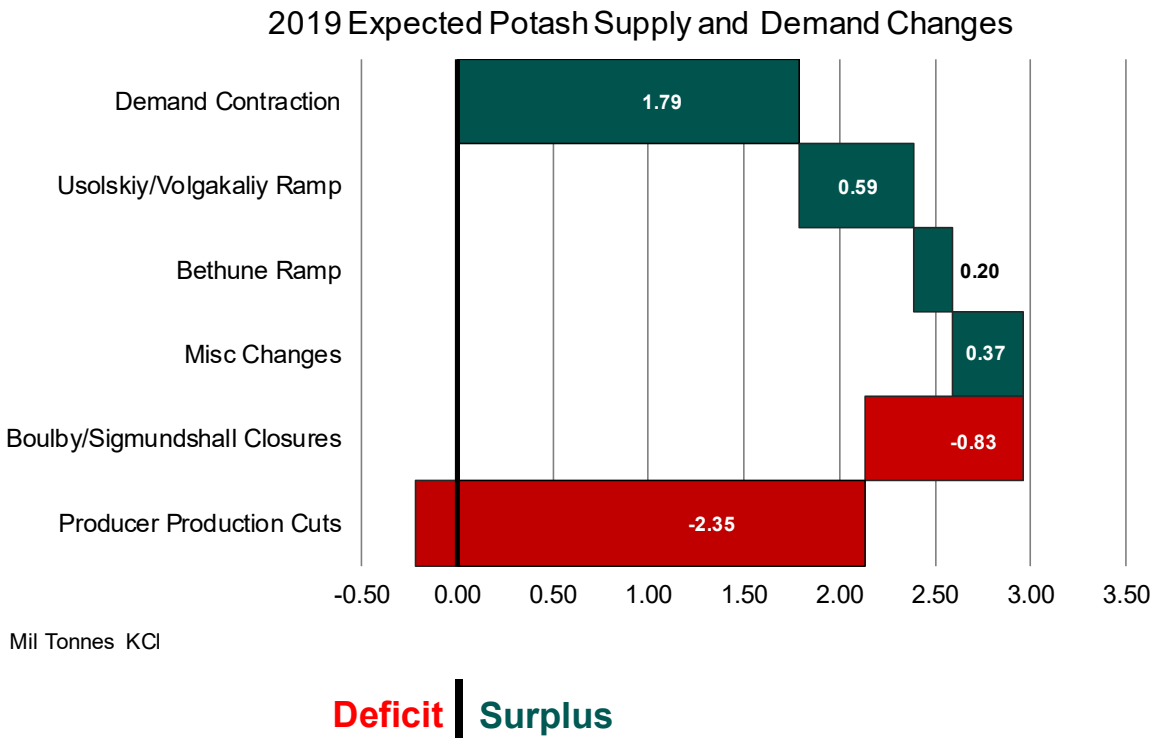
Our base case demand forecast (a more conservative view on demand than CRU) shows a 3.2% CAGR from 2019 to 2023

We also project a modest uptick in the industry's capacity utilization rate over the next couple of years

Global Potash Shipment Forecasts by Region (November 2019)

Muriate of Potash Million Tonnes (KCl)	2018	2019F	Low 2020F	High 2020F	Comments (Source: IFA, CRU and Mosaic (Numbers may not sum to total due to rounding))
China	14.8	15.4	15.2	15.6	We expect the delayed China contract settlement, higher domestic production from QSL and lackluster domestic demand will result in only modest shipment growth in 2019. While port inventories of circa 3.5mmt at the end of October are above average, we do not believe them to be onerous given limited inland inventories and expectations of minimal import volumes for the remainder of the year. Imports through September of 7.8mmt were up 2.2mmt or 39% y-o-y.
India	4.5	4.2	4.2	4.5	Our forecast for 2019 is little-changed, as higher y-o-y retail prices, a delayed monsoon in southern India and some channel destocking has pushed import requirements lower. The above average, albeit delayed monsoon provides a key driver for stronger consumption in 2020, along with expectations for the continuation of supportive government policies and a relatively range-bound rupee around 71 INR/$.
Indonesia+Malaysia	5.3	4.1	4.6	5.0	We have again reduced our 2019 shipment forecast, a function of the weakness that has characterized palm oil markets for much of the year, as well as apparent destocking taking place. With CPO prices rallying 37% from their November 2018 low to the end of October, we believe the stage is set for at least a moderate rebound in 2020, particularly given that there is little apparent threat from El Niño.
Other Asia	5.2	5.0	5.1	5.4	Our 2019 forecast is lowered on tepid demand and a drawdown of channel inventories. Farm economics remain OK in the region, though the weaker macroeconomic situation and the spread of African swine fever will temper the expected rebound in 2020.
W. Europe	5.0	4.8	4.8	5.0	We continue to project generally flat European shipments in 2019, as well as in 2020. Rising ag commodity prices in the region could provide modest upside potential, though drought threats remain.
E. Europe+FSU	5.3	5.6	5.6	5.9	Improved weather and ag commodity export economics set the stage for shipment growth seen in 2019, which we see persisting in 2020.
Brazil	10.2	10.5	10.5	10.7	Shipment growth in 2019 is expected to lead to a modest inventory build, which likely will limit any upside to our shipment forecast for 2020. Imports Jan-Sep of 8.2mmt were nearly 900,000 tonnes higher y-o-y. Very positive farm economics – particularly across corn, soybeans and livestock – are expected to lead to further gains in on farm demand in 2020, allowing for a drawdown of stocks along with a second consecutive year of ~0.5mmt production plus ~10.0mmt imports.
Other L. America	2.9	2.8	2.9	3.1	We project shipments in the rest of Latin America to rebound modestly in 2020 due to generally favorable farm economics and a destocking of inventory in 2019.
N. America	10.6	9.6	9.9	10.2	With harvest progress running a couple of weeks behind in many parts of the U.S., there remains some modest downside risk to our shipment forecast for 2019. Offsetting this are the prospects of a 3-5 million tonne increase in corn acreage next year and fresh memories of the difficulties of fertilizer applications in spring 2019 incentivizing farmers to get as much work as possible done this fall. Looking forward to 2020, channel inventories closing out the year at average levels provides upside to our forecast if restocking occurs.
Other	3.3	3.2	3.2	3.5	We maintain our expectation that shipments elsewhere in the world will hold broadly flat this year before returning to moderate growth in 2020, driven by higher NPK production for Africa.
Total	**67.0**	**65.2**	**66.0**	**68.9**	Our revised 2019 forecast places global shipments at 65.2mmt, towards the low-end of our range. This is a decline of 2.7% or 1.8mmt from the record 2018 shipments of 67.0mmt. We are quite optimistic for 2020, with a forecast range of 66-69mmt and a point estimate of 67.8mmt. This represents 2.6mmt or 4.1% y-o-y growth, with recent price declines further emphasizing to farmers the ROI of potash.

Potash: Supply adjustments to balance the market in 2019; 2020 balanced with demand rebound

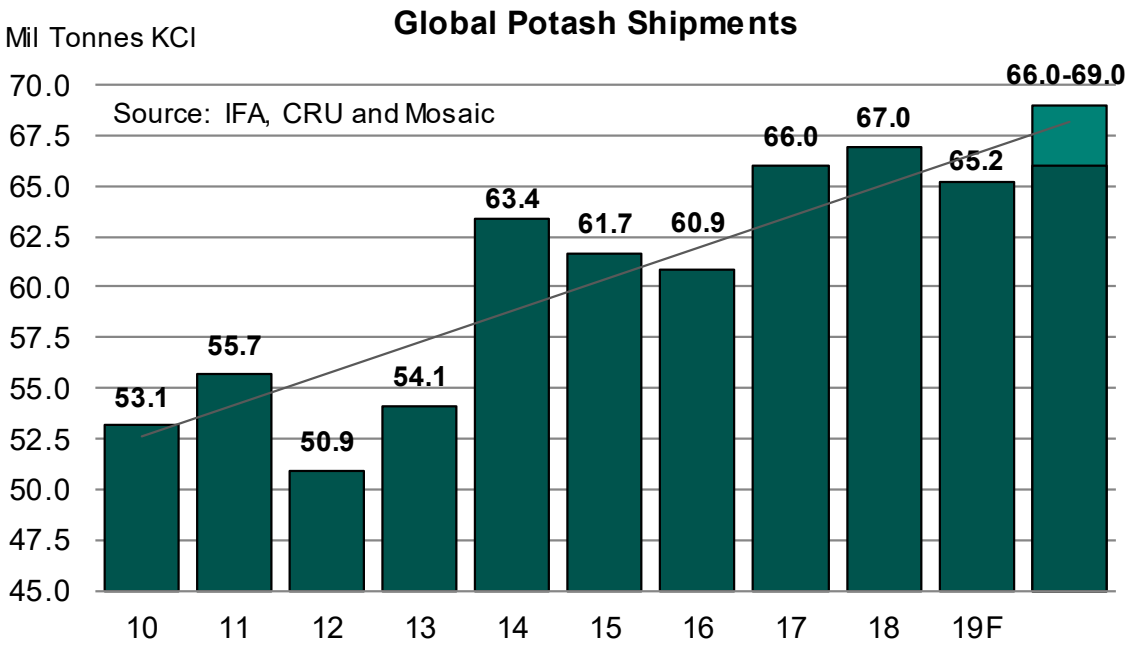


Potential Potash Supply and Demand Changes
(Excluding Canpotex Members)

Mil Tonnes KCl	2019	2020
Projected Shipment Changes	**-1.79**	**2.64**
Percent Change	*-2.7%*	*4.1%*
Potential Supply Changes	**-1.86**	**2.54**
Producer Inventory Draw (+) or Build (-)	-1.00	1.00
ICL Boulby Closure 6/30/18	-0.23	
SQM Maximizing Lithium Production	-0.31	
K+S Werra Mine Idlings (River Levels)	0.15	0.00
K+S Sigmundshall Closure 12/31/18	-0.61	
K+S Bethune Ramp-Up	0.20	0.30
Uralkali S-2 Inflow Net Impact	-0.70	0.10
Eurochem Usolskiy+Volgakaliy Ramp-Up	0.59	0.30
Usolskiy Ramp-Up	*0.58*	*0.28*
Volgakaliy Ramp-Up	*0.02*	*0.03*
Acron Talistsky Ramp-Up	0.00	0.00
Belaruskali Petrikovsky	0.00	0.80
Garlyk Ramp-Up	0.00	0.01
Miscellaneous Changes	0.03	0.03
S/D Surplus (+)/Deficit (-)	***-0.07***	***-0.10***

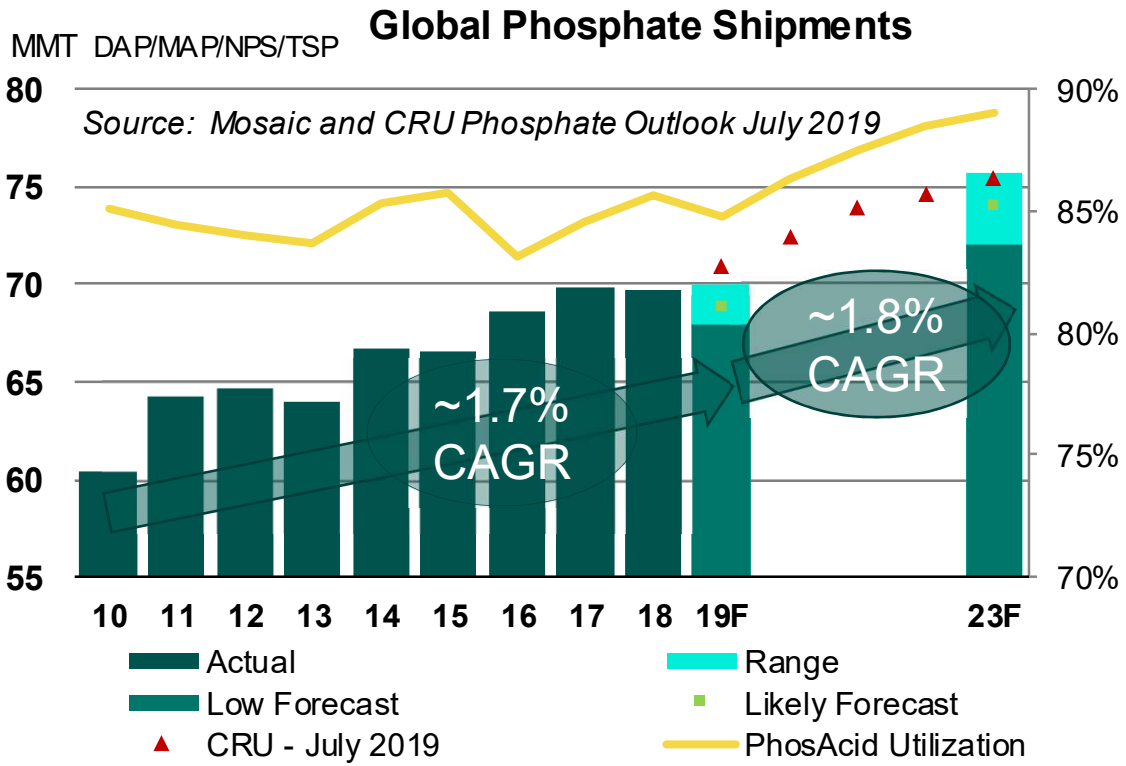
Source: Mosaic

Potash: 2020 shipment forecast back on trend



- Simple trendline growth would suggest 68mmt of shipments this year, very much in line with our expectations for 67.8mmt.

Phosphate Outlook: Continued Stable Strong Demand Growth



Our base case demand forecast (a more conservative view on demand than CRU) shows a 1.8% CAGR from 2019 to 2023

We also project a steady uptick in the industry's capacity utilization rate over the next couple of years

Global Phosphate Shipment Forecasts by Region (November 2019)

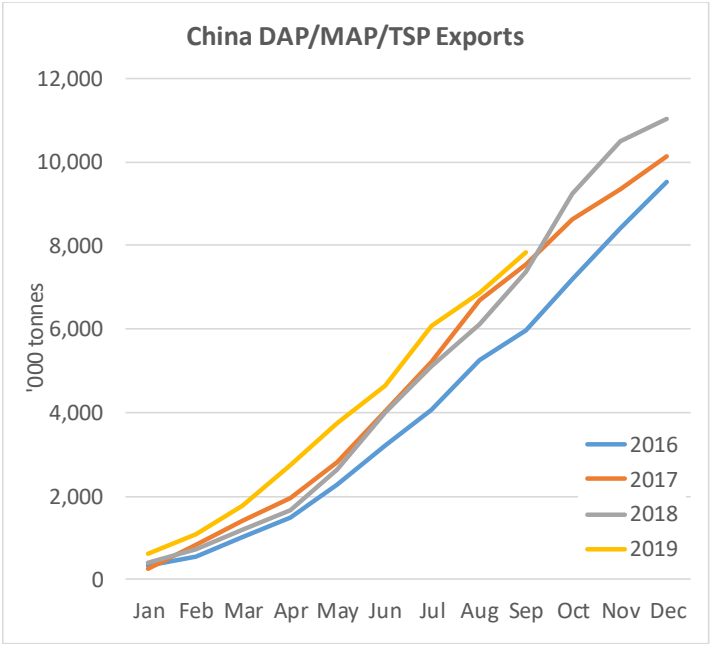
DAP / MAP / NPS* / TSP (Million Tonnes)	2018	2019F	Low 2020F	High 2020F	Source: IFA, CRU and Mosaic (Numbers may not sum to total due to rounding) Comments
China	16.5	15.4	14.9	15.4	Our estimate of 2019 shipments now shows a decline of over 1mmt y-o-y. We continue to believe that domestic shipments will stabilize around the 15mmt level after steadily declining for the past several years. This is currently most visible with DAP, as current in-season demand is showing stabilization y-o-y. Lower production in conjunction with domestic demand is diverting tonnes away from the export market in the second half. DAP/MAP/TSP exports of 7.9mmt through September are ahead of last year's pace by about 500,000 tonnes, which represents a sharp slowdown in the export run-rate after being nearly 1mmt higher y-o-y through July.
India	9.7	9.8	9.4	9.8	Our projection for 2019 includes a big jump in domestic production to nearly 4.5mmt (vs. 3.6mmt in 2018) and up to 5.5mmt of imports. Given this year's above average monsoon (and assuming a normal monsoon next year), lower MRP year-over-year, higher government support prices and a range-bound rupee, we anticipate on-farm demand will remain strong in 2020. We've kept our shipment forecast fairly conservative, however, as we expect some destocking next year in the face of rising phosphate prices.
Other Asia/Oceania	10.5	9.6	9.8	10.3	Poor palm oil production economics, along with spotty weather in a few countries drove phosphate shipments lower in 2019, though also led to a drawdown of channel inventories. A meaningful recovery in palm oil prices currently underway (prices are up 37% from their low in November 2018) and depleted channel inventories sets the stage for a rebound in shipments in 2020, though drought in a few places (e.g. Australia) may continue to act as a drag on demand.
Europe and FSU	6.0	6.3	6.3	6.5	This region continues to be quite bifurcated, with shipments in Western Europe continuing to be disappointing while growth characterizes Eastern Europe and Russia. Farm economics remain OK and we project modest growth in 2020, though drought in parts of this geography remains a yellow flag.
Brazil	8.5	8.8	8.8	9.0	Our shipment estimate for 2019 is unchanged and our 2020 forecast shows continued modest shipment growth. Farm economics remain attractive across most crops, notably soybeans and corn, and certainly for livestock. Lower domestic high-analysis phosphate production this year led to a slight uptick of imported product, with Jan-Sep DAP/MAP/TSP imports of 3.1mmt up by nearly 400,000 tonnes y-o-y. Inventories are expected to end the year around average levels, setting the stage for a strong pull in 2020.
Other Latin America	4.0	4.1	4.0	4.2	Demand was stable overall in 2019, with contractions in some markets (e.g. Mexico) offset by growth in others. Our 2020 forecast mimics this pattern, with modest demand growth predicated on solid farm economics.
North America	10.2	9.6	9.8	10.3	With 2019 harvest progress running a couple of weeks behind in many parts of the U.S., there remains some modest risk to our shipment forecast for 2019, which we have kept unchanged. Looking forward to next year, we believe that channel inventories resulting from excessive imports over the past year will be worked through this fall and next spring, facilitated by what is expected to be robust on farm demand given today's supportive farm economics environment and the historically low phosphate prices at present.
Other	4.7	5.1	5.3	5.5	Our 2020 forecast calls for stronger growth, particularly in many African markets, after demand stagnated somewhat in 2019.
Total	**70.1**	**68.6**	**68.3**	**71.0**	Our point estimate for 2019 is revised 0.8mmt lower to 68.6mmt, as shipments in most geographies appear likely to come in at the low end of our previously stated ranges (with India a big exception). Year-over-year, we now project global shipments will decline by ~1.5mmt (-2.1%), with the decline in China accounting for about two-thirds. For 2020, we expect a return to moderate growth in most markets – averaging 1.9% – to bring global shipments to 68-71 million tonnes, with our point estimate just shy of 70 million tonnes. Demand should also be pushed higher by the tailwind provided by historically-low prices relative to ag commodities.

** NPS products included in this analysis are those with a combined N and P_2O_5 nutrient content of 45 units or greater.*

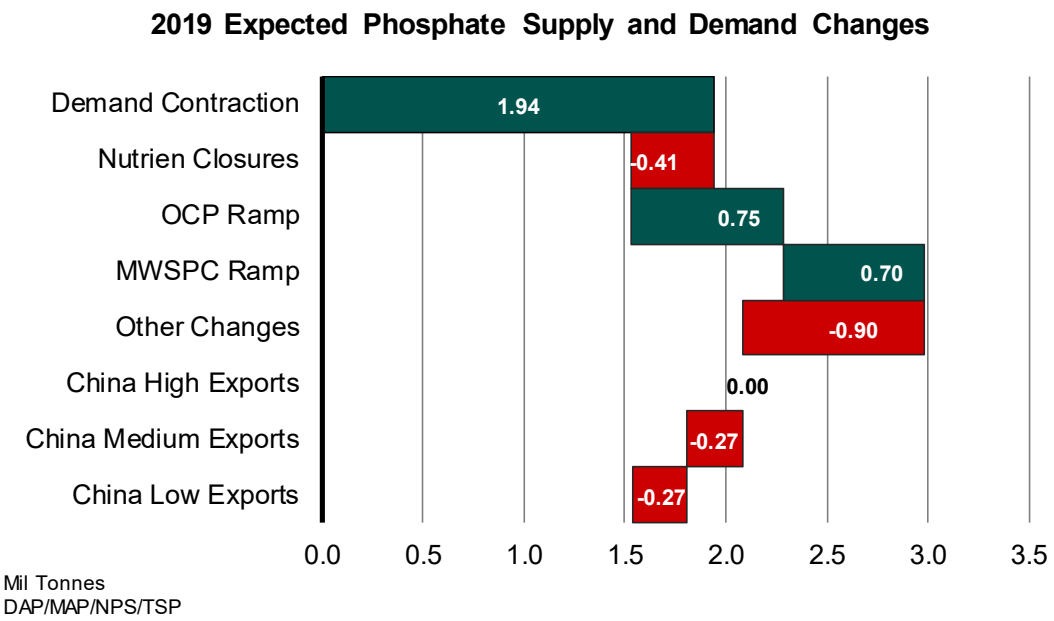
Phosphate: China exports slowing as forecast

China Phosphate Exports							
	January-September					2019 vs. 2018	
1000 Tonnes	2015	2016	2017	2018	2019	Change	Pct Chg
DAP	5,663	4,136	4,598	4,844	4,822	-22	-0.5%
MAP	2,031	1,324	2,300	1,779	2,040	261	14.7%
TSP	708	514	660	754	1,027	274	36.3%
Total	**8,402**	**5,974**	**7,558**	**7,377**	**7,889**	**512**	**6.9%**
Annual Total	**11,604**	**9,507**	**10,116**	**11,041**			

- September exports were down ~300,000t y-o-y (August was down ~200k).
- This has brought to run-rate down to only half a million tonnes higher y-o-y.
- October volumes will be key – last year saw 1.8mmt exports, but this year will be significantly lower.
- Currency remains weak, but strengthened over the month of October (from 7.15 RMB/$ to circa 7.0).



Phosphate: Further supply adjustments would balance the market, or wait until demand catches up



Potential Phosphate Supply and Demand Changes

Mil Tonnes DAP/MAP/NPS/TSP	2019	2020
Projected Shipment Changes	**-1.94**	**1.31**
Potential Supply Changes Excluding China	**0.14**	**2.25**
Producer Inventory Draw (+) or Build (-)	*0.00*	*0.00*
OCP / MOS Curtailments	*-0.70*	*0.00*
OCP Ramp-Up and Debottlenecking	*0.75*	*0.80*
MWSPC Ramp-Up	*0.70*	*0.60*
Nutrien Redwater Closure (May)	*-0.25*	*-0.15*
Nutrien Geismar Closure	*-0.17*	*0.00*
Other Ramp-Ups / Closures	*0.30*	*0.75*
Miscellaneous Changes (Tunisia/Mexico/Australia/South Africa)	*-0.50*	*0.25*
S/D Surplus (+)/Deficit (-) Excluding Chinese Export Changes	***2.08***	***0.94***
Chinese Export Changes		
Low Change	0.00	-1.00
Medium Change	-0.27	-1.25
High Change	-0.54	-1.50
S/D Surplus (+) / Deficit (-)		
Less-than-Expected Decline in Chinese Exports	**2.08**	**-0.06**
Expected Decline in Chinese Exports	**1.81**	**-0.31**
Greater-than-Expected Decline in Chinese Exports	**1.54**	**-0.56**

Source: Mosaic

Non GAAP Reconciliations



Reconciliation of non GAAP measures

Consolidated Earnings (*in millions*)	3Q 2019	3Q 2018	9M 2019	9M 2018
Consolidated net (loss) earnings attributable to Mosaic	$(44)	$247	$(146)	$358
Less: Consolidated interest expense, net	$(43)	$(41)	$(136)	$(135)
Plus: Consolidated depreciation, depletion and amortization	$211	$215	$650	$649
Plus: Accretion expense	$16	$13	$44	$37
Plus: Share-based compensation expense	$2	$3	$24	$25
Plus: Consolidated provision for (benefit from) income taxes	$69	$91	$64	$44
Plus: Notable items	$69	$13	$373	$257
Adjusted EBITDA	$366	$622	$1,145	$1,505
Diluted (loss) earnings per share	$(0.11)	$0.64	$(0.38)	$0.93
Notable items impact on earnings per share	$0.19	$0.11	$0.82	$0.42
Adjusted diluted earnings per share	$0.08	$0.75	$0.45	$1.35

Reconciliation of non GAAP measures

Phosphates Earnings (*in millions*)	2018	2017	9M 2019	9M 2018	3Q 2019	3Q 2018
Operating earnings (loss)	$473	$256	$(419)	$389	$(70)	$170
Plus: Depreciation, depletion and amortization	$403	$338	$317	$302	$109	$101
Plus: Accretion expense	$37	$21	$34	$29	$12	$10
Plus: Foreign exchange gain (loss)	$11	$(11)	$4	$4	$4	$(1)
Plus: Other income (expense)	$(15)	$(1)	$13	$(15)	$12	$(7)
Plus: Equity in net earnings (loss) from nonconsolidated companies	$(6)	$16	$(35)	$(5)	$(23)	$(2)
Less: Earnings (loss) from consolidated noncontrolling interests	$1	$2	$11	$2	$5	$2
Plus: Notable items	$64	$23	$384	$24	$6	$8
Adjusted EBITDA	$966	$640	$287	$726	$45	$277
Gross Margin / tonne	$69	$35	$5	$65	$(10)	$80
Notable items in gross margin / tonne	$3	$0	$3	$4	$4	$0
Adjusted gross margin / tonne	$72	$35	$8	$69	$(6)	$80

Reconciliation of non GAAP measures

Phosphates Earnings (*in millions*)	3Q 2019	3Q 2018	2Q 2019
Gross Margin	$(19)	$180	$(12)
Notable items in gross margin	$7	$0	$5
Adjusted gross margin	$(12)	$180	$(7)

Reconciliation of non GAAP measures

Potash Earnings (*in millions*)	2018	2017	9M 2019	9M 2018	3Q 2019	3Q 2018
Operating earnings	$511	$344	$498	$362	$148	$149
Plus: Depreciation, depletion and amortization	$302	$287	$220	$222	$63	$73
Plus: Accretion expense	$4	$4	$5	$3	$3	$1
Plus: Foreign exchange gain (loss)	$(117)	$80	$43	$(31)	$(20)	$22
Plus: Other income (expense)	$1	$0	$2	$0	$1	$0
Plus: Notable items	$165	$(67)	$(43)	$40	$20	$(22)
Adjusted EBITDA	$866	$648	$725	$596	$215	$223
Gross Margin / tonne	$68	$45	$84	$61	$68	$66
Notable items in gross margin / tonne	$1	$2	$2	$2	$5	$0
Adjusted gross margin / tonne	$69	$47	$86	$63	$73	$66

Reconciliation of non GAAP measures

Potash Earnings (*in millions*)	3Q 2019	3Q 2018	2Q 2019
Gross Margin	$158	$161	$181
Notable items in gross margin	$12	$0	$0
Adjusted gross margin	$170	$161	$181

Reconciliation of non GAAP measures

Mosaic Fertilizantes Earnings (*in millions*)	2018	2017*	9M 2019	9M 2018	3Q 2019	3Q 2018
Operating earnings (loss)	$238	$(35)	$128	$154	$98	$123
Plus: Depreciation, depletion and amortization	$159	$137	$98	$110	$34	$36
Plus: Accretion expense	$7	$0	$5	$5	$1	$2
Plus: Foreign exchange gain (loss)	$(85)	$(27)	$(51)	$(83)	$(39)	$(21)
Plus: Other income (expense)	$(1)	$(16)	$(6)	$(2)	$(2)	$(1)
Less: Earnings (loss) from consolidated noncontrolling interests	$3	$5	$1	$1	$1	$1
Plus: Notable items	$114	$27	$53	$108	$35	$25
Adjusted EBITDA	$429	$81	$226	$291	$126	$163
Gross Margin / tonne	$41	$8	$30	$36	$39	$42
Notable items in gross margin / tonne	$0	$0	$0	$0	$0	$0
Adjusted gross margin / tonne	$41	$8	$30	$36	$39	$42

*Pro Forma information