Investor Information

First Quarter 2019

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Forward Looking Statements

This presentation 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. previously conducted through Vale Fertilizantes S.A. (which, when combined with our legacy distribution business in Brazil, is now known as Mosaic Fertilizantes) (the "Transaction"), other 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: 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 freight tables and new mining regulations; 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 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.

Non-GAAP Financial Measures

This presentation includes certain non-GAAP financial measures, including EBITDA, 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 February 25, 2019 earnings release and the performance data for the fourth quarter of 2018 that is available on our website at www.mosaicco.com in the "Financial Information – Quarterly Earnings" section under the "Investors" tab.*

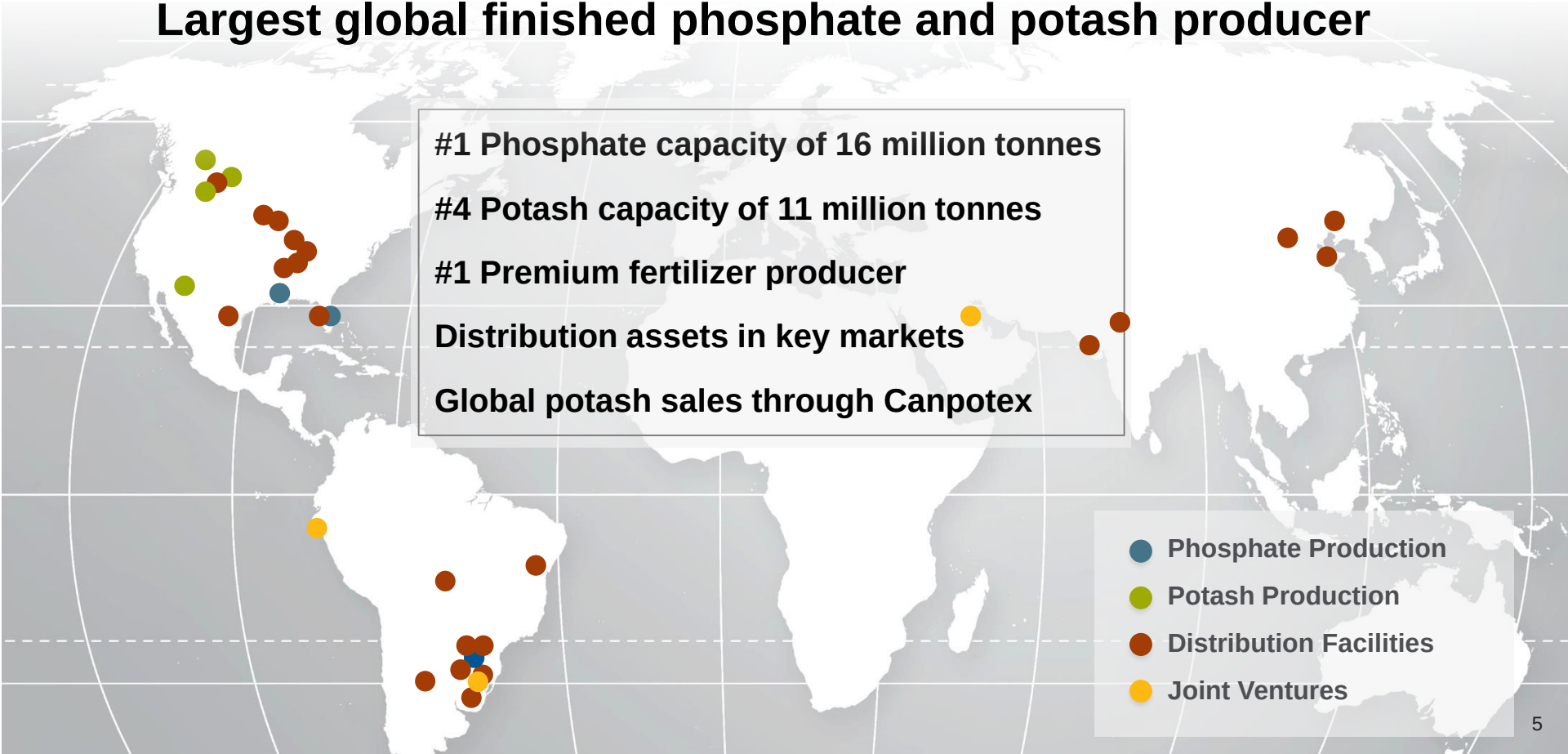
The earnings release and performance data are also furnished as exhibits to our Current Report on Form 8-K dated February 25, 2019. We are not providing forward looking guidance for U.S. GAAP reported diluted net earnings per share or a quantitative reconciliation of forward-looking non-GAAP EPS, adjusted Gross Margins and adjusted EBITDA. Please see "Non-GAAP Financial Measures" in our February 25, 2018 earnings release for additional information.

The Mosaic Company Overview

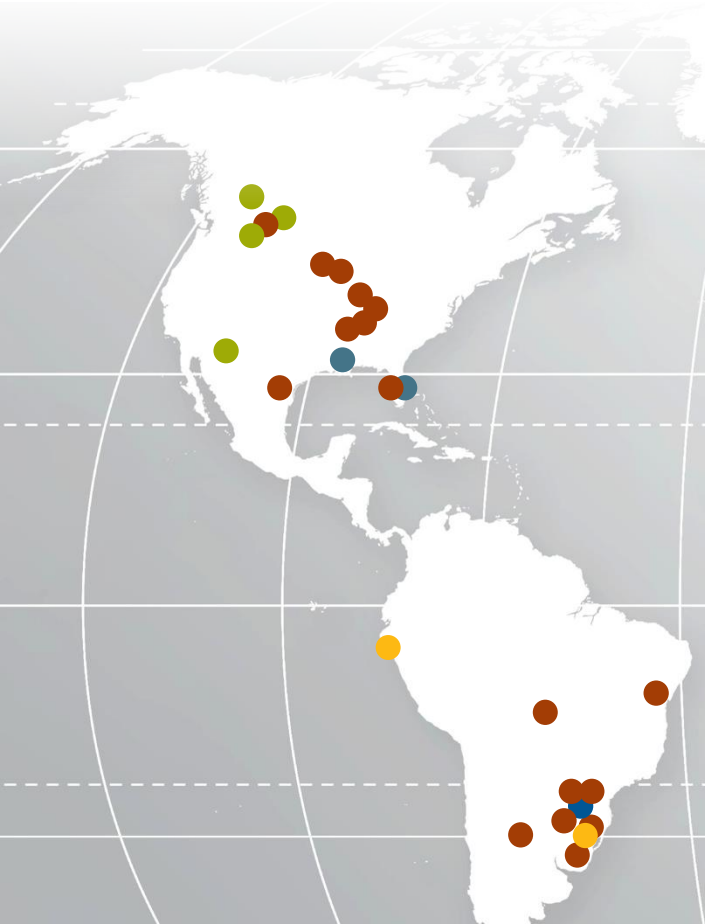


High Quality Asset Portfolio

Largest global finished phosphate and potash producer



Focused on The Americas



Home base in North America:

74% of 2017 NA phosphate production

In a 10 mm tonne phosphate market:

- MicroEssential sales of 1.6 mmt(1)
- Total phosphate fertilizer sales of 4.5 mmt(1)

39% of 2017 NA MOP production

Leading position in Brazil:

Solidified through 2018 acquisition of Vale Fertilizantes

Total sales of 9 mm tonnes(2) in a 35 mm tonne market

Largest in-country producer

Logistically advantaged production

Port ownership and access

(1) 2018 forecast; (2) midpoint of 2018 guidance

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
- Acquired Mosiac Fertilizantes assets at the trough and are a full year ahead of our integration and synergy targets

2018 Executive Summary

Accomplishments at all of our businesses were behind our strong 2018 performance and are expected to drive continued growth in 2019.

Mosaic Fertilizantes

- Delivered $227 million in operating earnings and $410 million in adjusted EBITDA[(1)] in 2018.
- Expect to reach our $275 million net synergy target in 2019, a full year ahead of schedule.

Potash

- Commissioned first K3 production hoist and overland conveyor to K2.
- Accelerated development by a full year, allowing us to eliminate brine management costs early.
- Record production in the quarter and year.

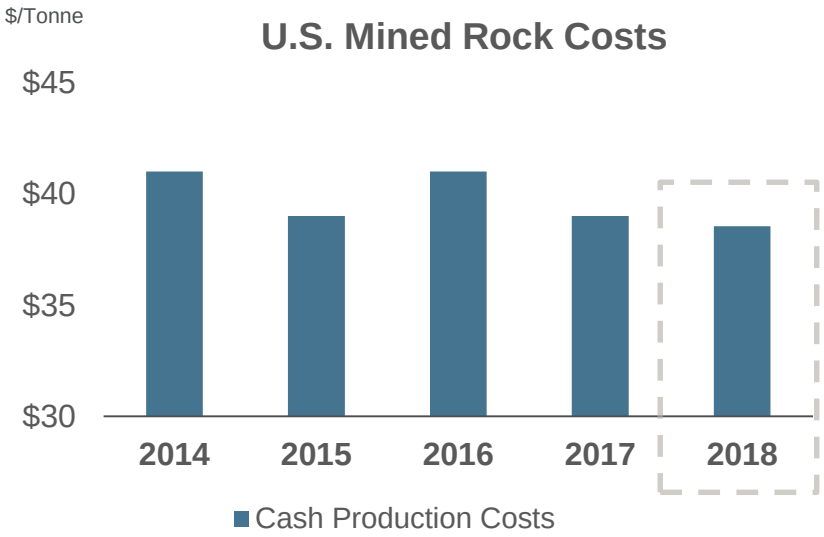
Phosphates

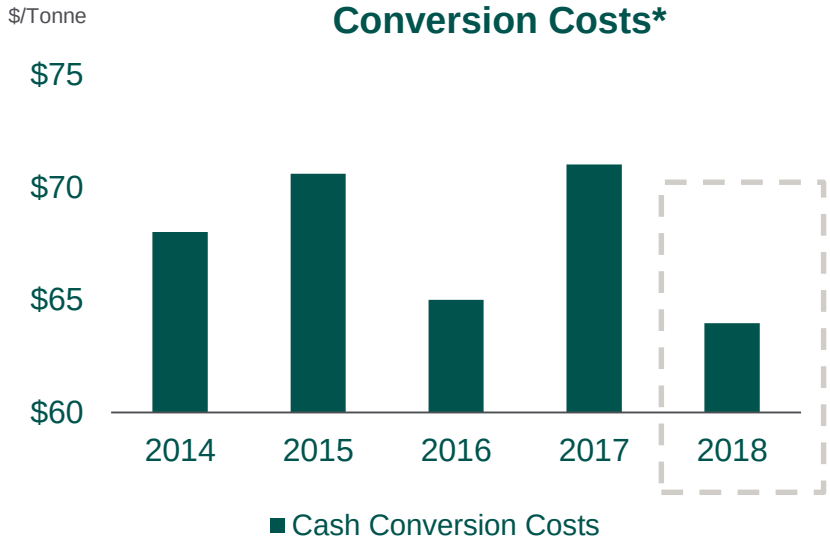
- Record MicroEssential sales, reflecting 18% average annual growth rate over the past decade.
- Received final permit for our Ona mine, extending our Florida reserves for decades.
- Record Miski Mayo production, costs and safety results.

Delivered record safety performance along with strong operating performance.

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

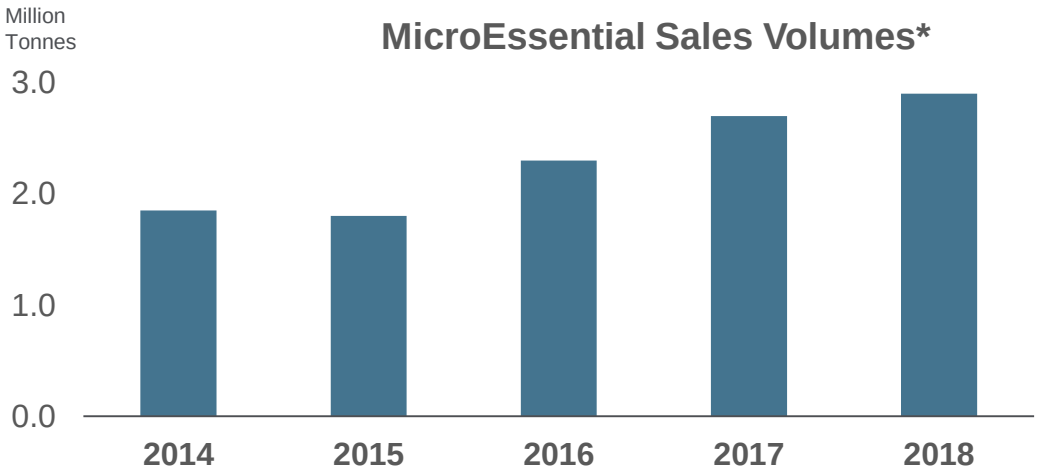
Phosphates: Increasing our Competitiveness





* Phosphate cash conversion costs are reflective of actual costs, excluding realized mark-to-market gains and losses. These costs are captured in inventory and are not necessarily reflective of costs included in costs of goods sold for the period.

Phosphates: Growing Margin by Growing MicroEssentials®



* Includes intercompany sales

Phosphates

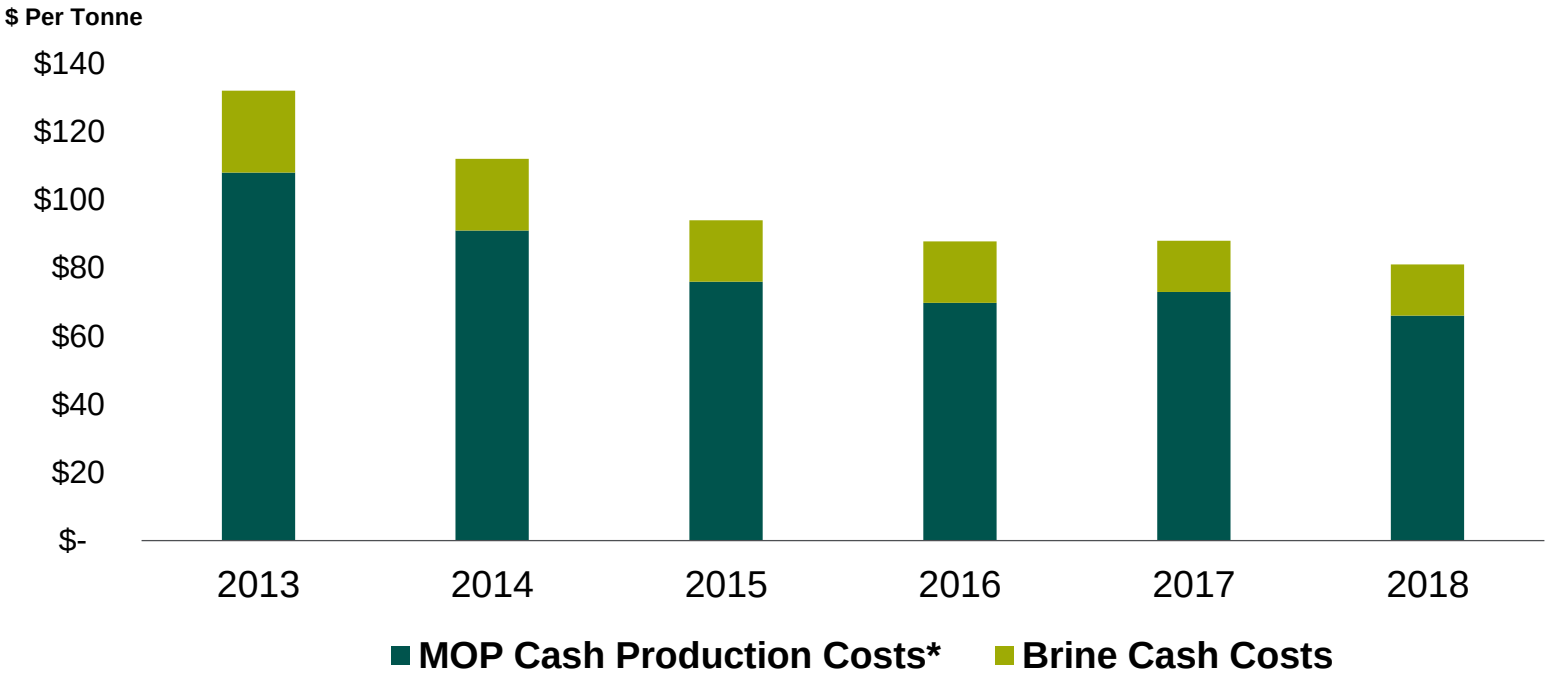
($ in millions except per tonne)	2018	2017
Sales Volumes[2] (mm tonnes)	8.4*	9.5
Operating Earnings	$415	$192
Adjusted EBITDA[1]	$872	$555
Q4 Sales Volumes (mm tonnes)	1.9*	2.5
Q4 Gross Margin $ / Tonne	$81	$53

*reflects idling of Plant City

For the fourth quarter 2018:

- Blended rock costs were up slightly due to a higher percentage from Miski Mayo.
- Cash conversion costs were $61 per tonne, down sequentially and year over year.
- Operating rate remained at 87% in the quarter.
- In 2018, Miski Mayo reported record production, cost per tonne and safety metrics.

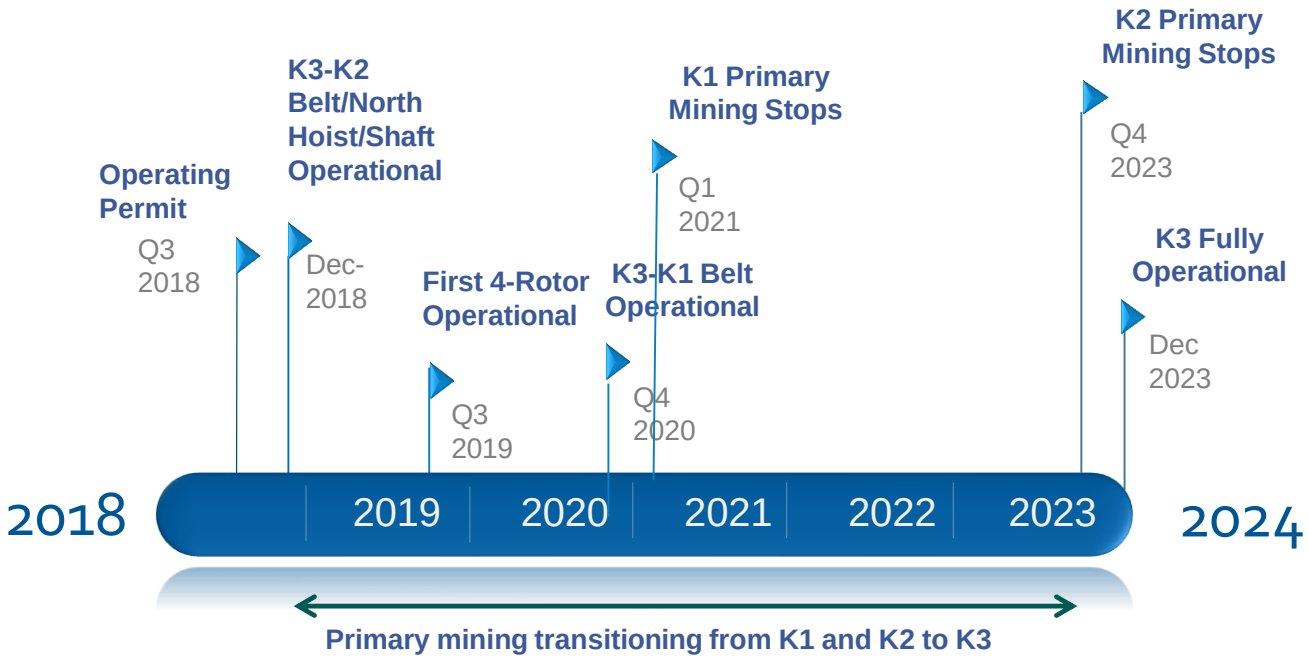
Potash: Increasing Our Competitiveness



*MOP cash production costs are reflective of actual costs during the quarter, excluding CRT and realized mark-to-market gains and losses. These costs are captured in inventory and are not necessarily reflective of costs included in costs of goods sold for the period.

Esterhazy: Our premier potash mine

Completion of K3 allows MOS to eliminate Esterhazy brine management expense and growth capital spend, improving free cash flow by a total of ~$400 million.



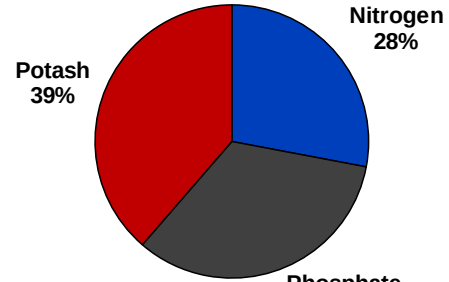
Potash

($ in millions except per tonne)	2018	2017
Sales Volumes (mm tonnes)	8.8*	8.6
Operating Earnings	$454	$281
Adjusted EBITDA[(1)]	$805	$581
Q4 Sales Volumes (mm tonnes)	2.3	2.2
Q4 Gross Margin $ / Tonne	$88	$51

- MOP cash costs of production were $72 / tonne in the quarter, down from $87 / tonne last year.
- Potash produced record volumes during the year and quarter, reporting a quarterly operating rate of 99 percent.
- K3 ramp up on schedule and on budget, and commissioned the first production hoist and the conveyor tie in to K2 mill.

Mosaic Fertilizantes: Well Positioned

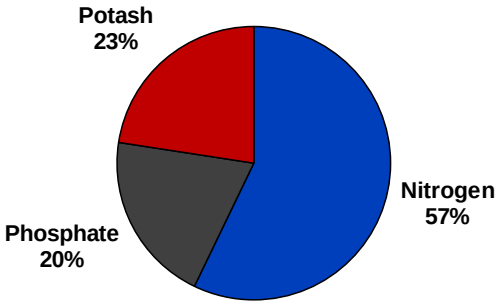
Brazil Plant Nutrient Use
2015-17 Average



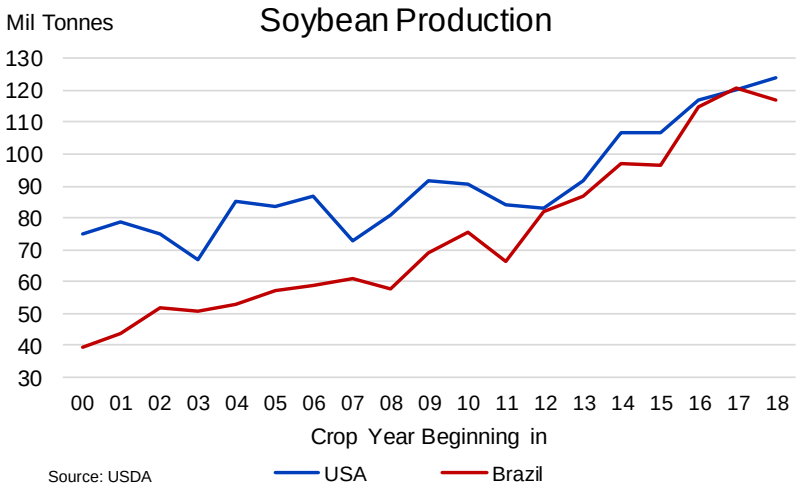
Source: ANDA

P&K accounts for almost three-fourths of all Brazilian Nutrient Use

U.S. Plant Nutrient Use
2014/15-16/17 Average



Source: TFI/AAFPCO

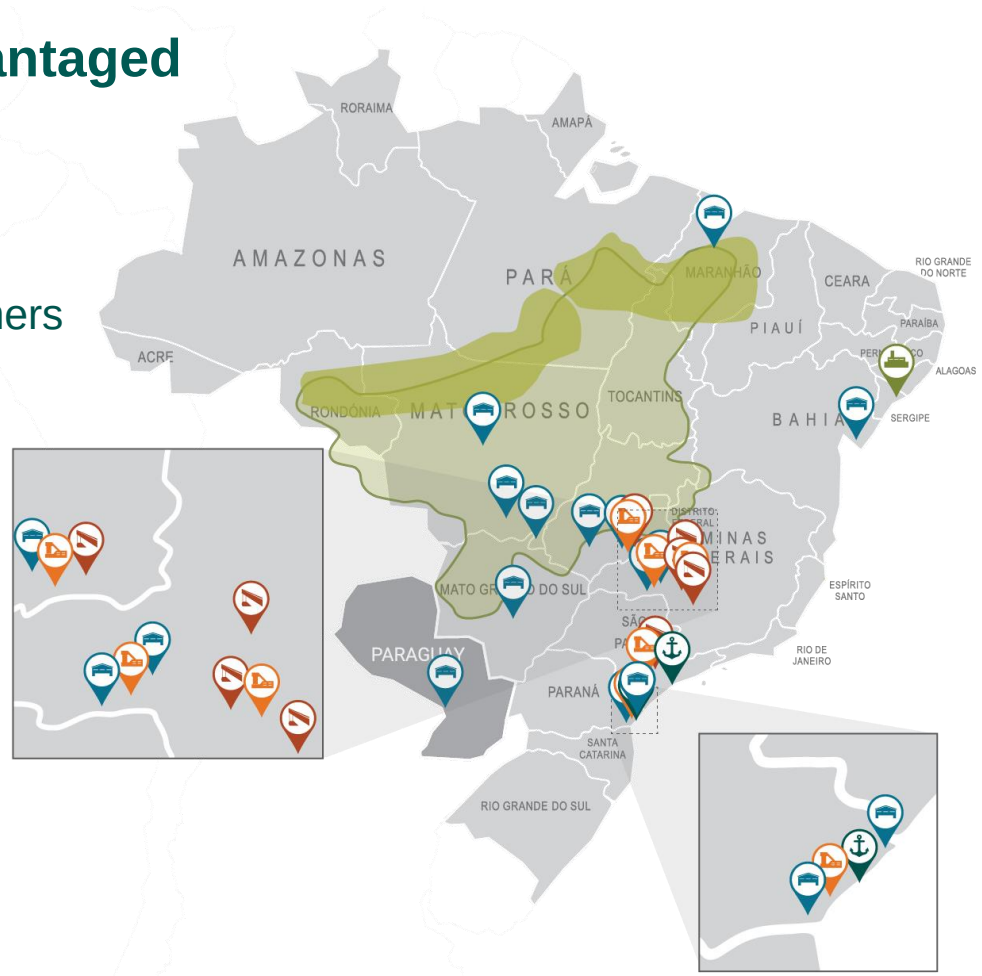


Source: USDA

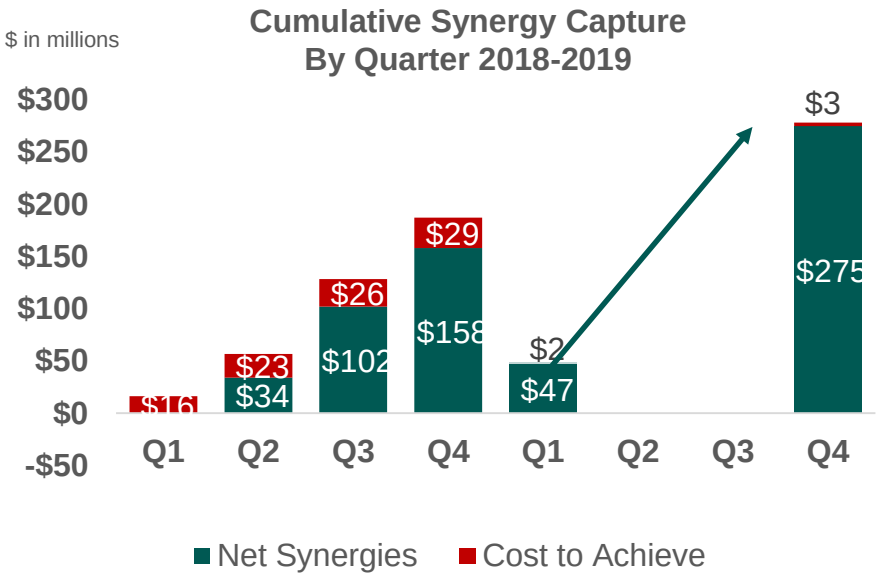
Brazil soybean production roughly matches that of the United States, and the country is positioned to become the largest producer in the world

Mosaic is Logistically Advantaged to Key Growing Areas

- Exposure to the Cerrado region
- Just-in-time deliveries
- Long-term relationship with customers
- Integrated logistics



Mosaic Fertilizantes Transformation Progress

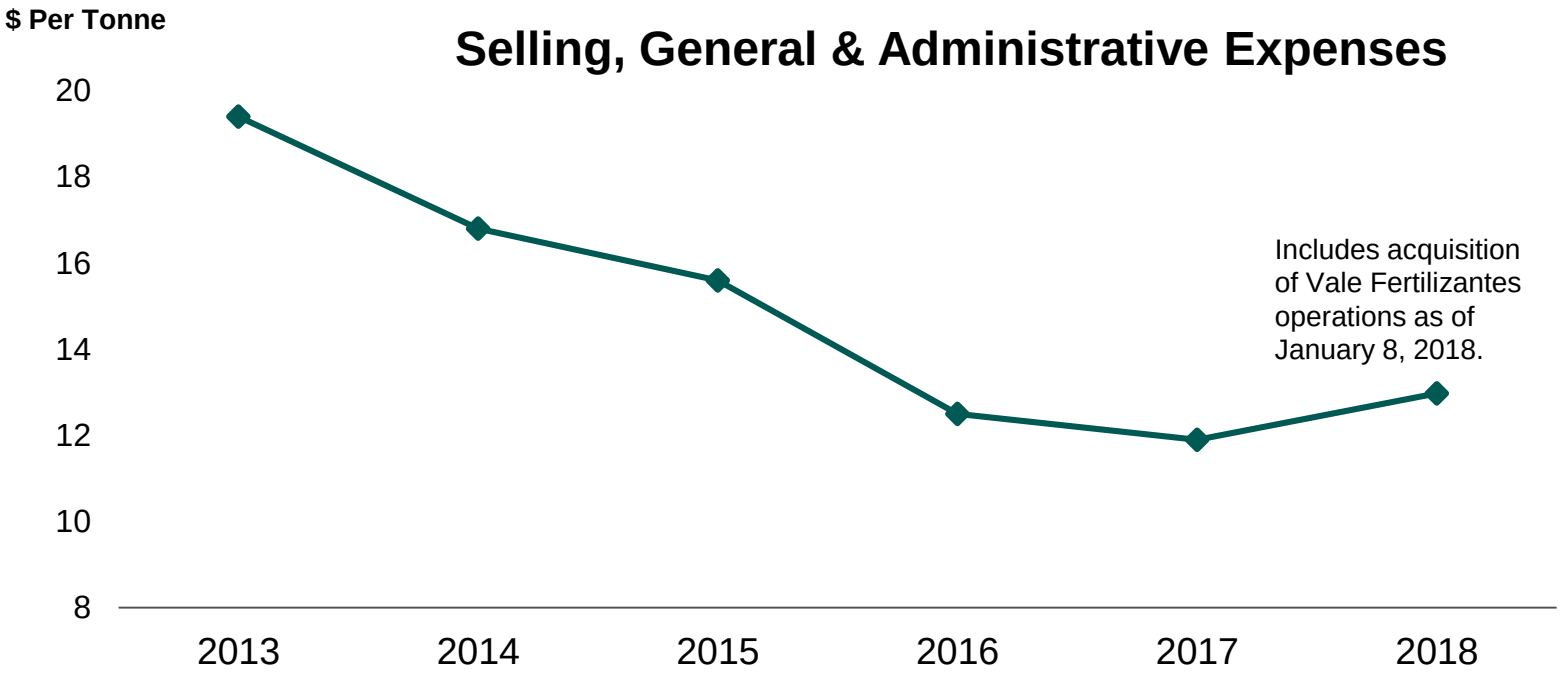


($ in millions except per tonne)	2018	2017
Sales Volumes (mm tonnes)	9.13	6.02
Pro Forma Sales Volumes		9.3
Operating Earnings	$227	$63
Pro Forma Operating Earnings		$(35)
Adjusted EBITDA[1]	$410	$73
Pro Forma Adjusted EBITDA [1]		$81
Q4 Sales Volumes (mm tonnes)	2.1	1.4
Q4 Pro Forma Sales Volumes		2.2
Q4 Gross Margin $ / Tonne	$56	$23

- Exited the fourth quarter with $158 million in annual net synergies, compared to original target of $100 million, and realized an additional $21 million of benefit from executing our business-to-business marketing strategy.
- Expect to realize target of $275 million of net annual synergies in 2019, a full year ahead of schedule.
- Quarterly realization of synergies is seasonal, and driven by sales patterns.

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

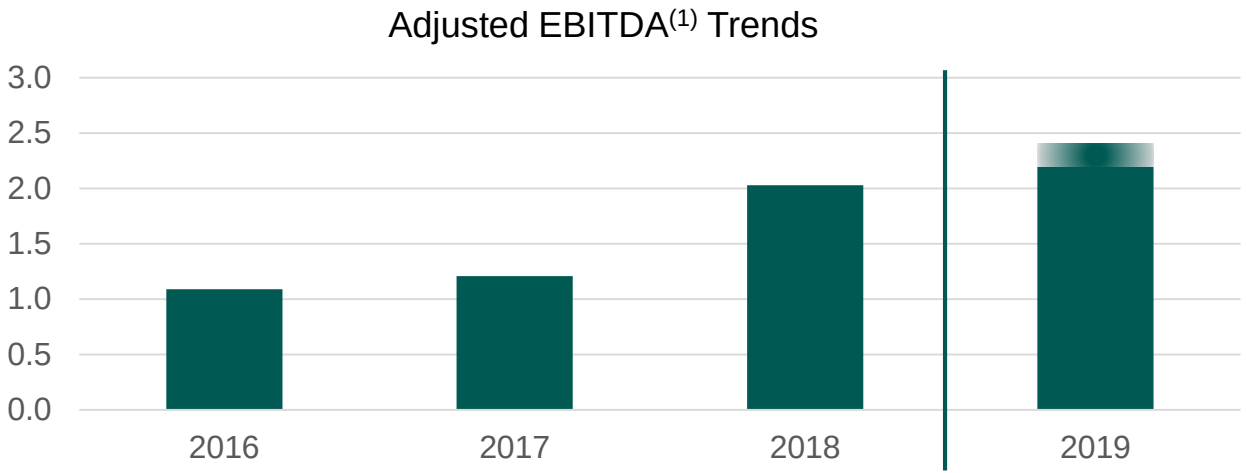
Visible Cost Controls



**Tonnes do not include the intra-segment volume eliminations, which are negative impacting SG&A/Tonne metric starting in 2018 as a result of the Vale Fertilizantes acquisition*

Full Year 2019 Guidance

Consolidated Full-Year Guidance	2019
Adjusted EBITDA[1][2]	$2.2 to $2.4 billion
Adjusted Earnings Per Share[1]	$2.10 to $2.50



[1]See Non-GAAP Financial Measures for additional information
[2] The definition of adjusted EBITDA will be changed in 2019 to exclude ARO accretion and stock compensation.

Capital Allocation Philosophy



Markets

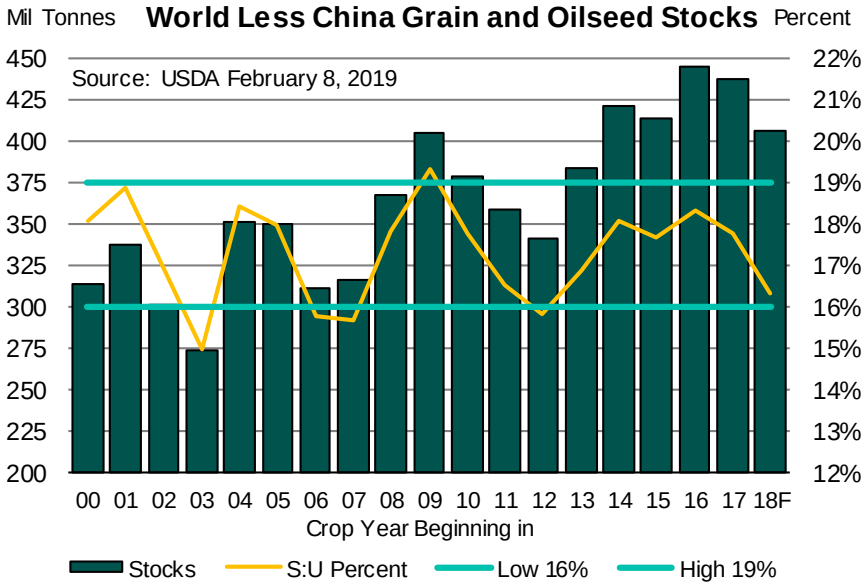
Agricultural Outlook



Take-Aways

- Key crop prices remain subdued due to the carryover from big global harvests the past few years, as well as uncertainty about global economic growth, how the U.S.-China trade war plays out, and a stronger dollar.
- However, droughts cut output in several key exporting regions in the past year, and steady demand growth has caught up to the last big step-up in global production.
- Global grain and oilseed inventories declined in 2017/18, and stocks are projected to drop again in 2018/19. Wheat and corn stocks are forecast to fall, but soybean inventories are projected to increase again in 2018/19 despite recent downward revisions to Brazil's crop.
- The long term food story is still intact.
- U.S. agriculture continues to be disadvantaged due to fall-out from the current trade dispute with China, though there appears to be meaningful progress towards a resolution in early 2019. The prospects for continuation of a strong dollar are also a headwind for prices.
- P&K agronomic and economic demand drivers still point positive.

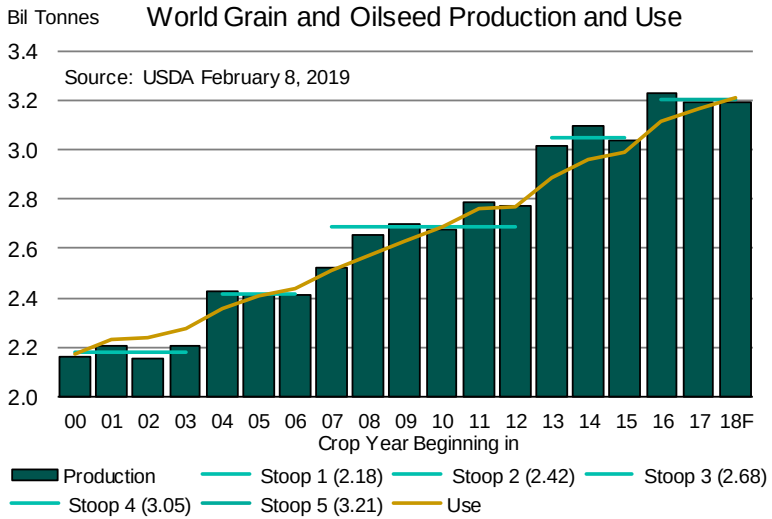
Agricultural Fundamentals Begin to Tighten as Demand Catches Up to Supply



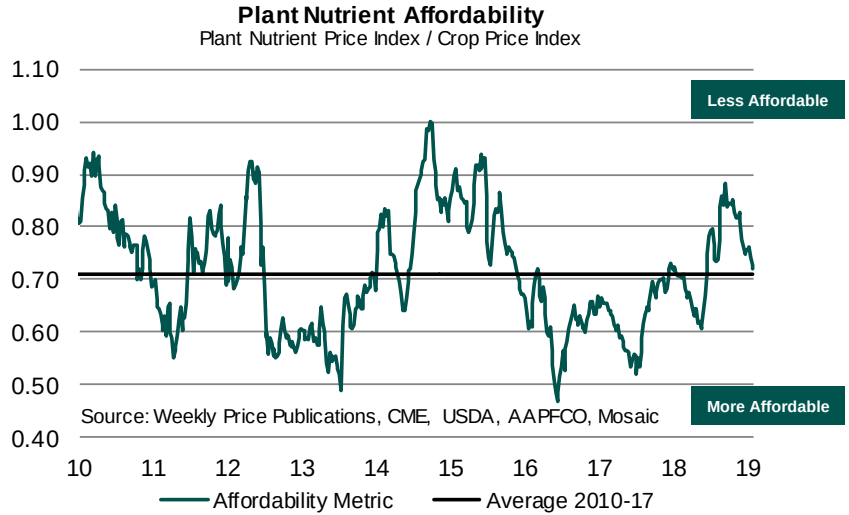
- A big step-up in global production since 2012/13
- But continued strong and steady demand growth
- Inventories ex China declined in 2017/18
- Stocks as a percentage of use projected to drop to the low end of the 16%-19% range by the end of 2018/19
- The Food Story is still intact

Positive Agronomic & Economic Demand Drivers

Record Harvests Remove Record Amounts of P&K



Plant Nutrients Still Affordable



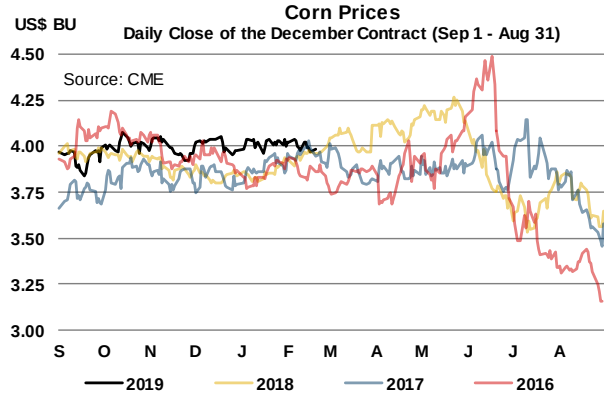
Estimated World Grain & Oilseed Nutrient Removal

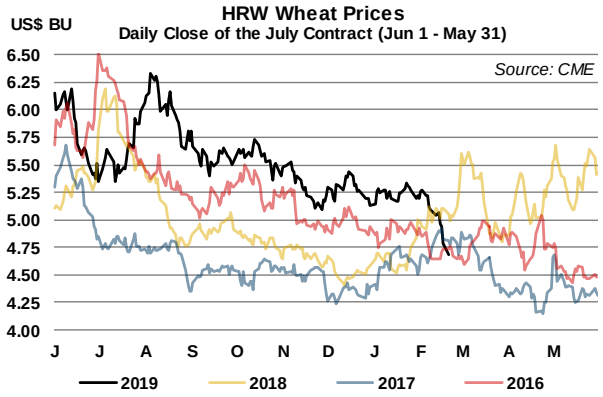
Mil Tonnes	2007-12 Stoop (2.67 bmt)	2016-18 Stoop (3.16 bmt)	Change	Percent Change
N Removal	57.7	69.2	11.5	19.9%
P_2O_5 Removal	22.2	26.3	4.1	18.3%
K_2O Removal	18.7	22.4	3.7	19.8%

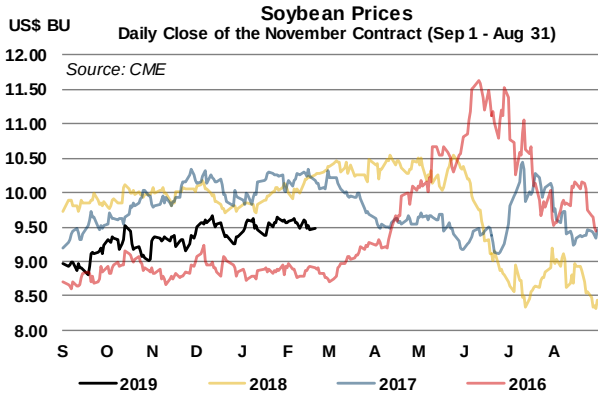
Source: USDA, IPNI, Mosaic

Positive Agronomic & Economic Demand Drivers

2019 new crop prices are about the same as values for the last three years

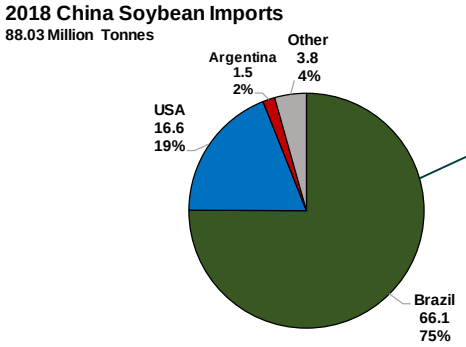






The 2019 new crop soybean/corn price ratio of 2.38 boosts the prospects for more corn acres

The U.S.-China Soybean War Battlefield

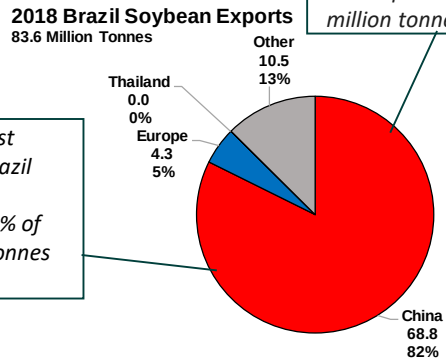


Source: China Customs via GTIS

Brazil and the United States are the dominant exporters of soybeans to China, accounting for 82.7% of the 88.03 million tonnes imported last year.

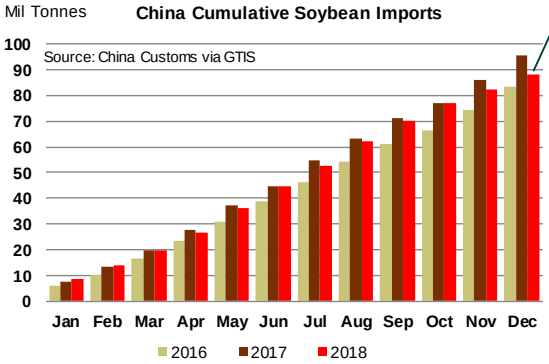
Brazil accounted for 75% of China's imports in 2018, up from an average of 49% in the prior three years, while the U.S. fell to 19% versus 36% from 2015-17.

Brazil exports were up 22.7% or 15.5 million tonnes from last year. Shipments to China were up 28% or 15 million tonnes.

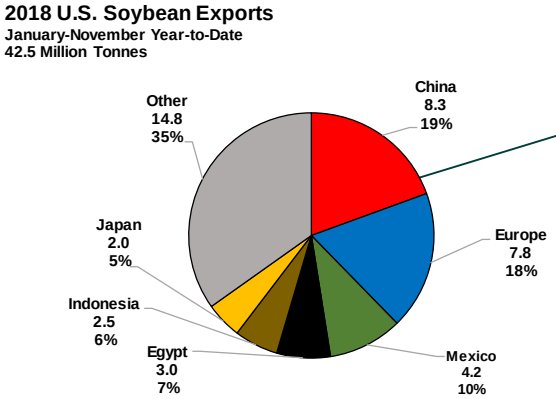


China is the largest destination for Brazil soybean exports, accounting for 82% of the 83.6 million tonnes exported in 2018.

China soybean imports this year totaled 88.03 million tonnes, off 8% from last year but up 6% from two years ago.



Statistics through November show that U.S. exports were down 13% or 6.6 million tonnes from last year. Shipments to China were down 70% or 19.5 million tonnes.



Source: SECEX via GTIS

China is still the largest single destination for U.S. exports, accounting for 19% of the 42.5 million tonnes exported through November 2018.

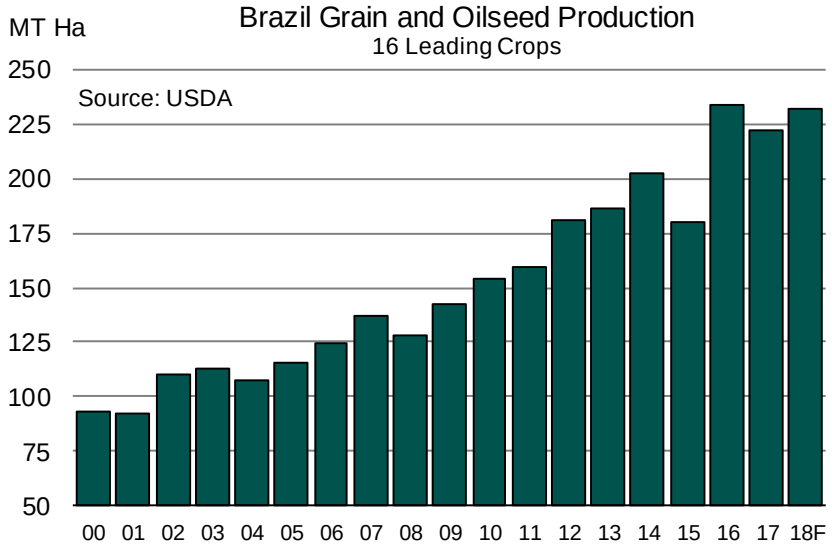
Source: U.S. Department of Commerce via GTIS

Markets

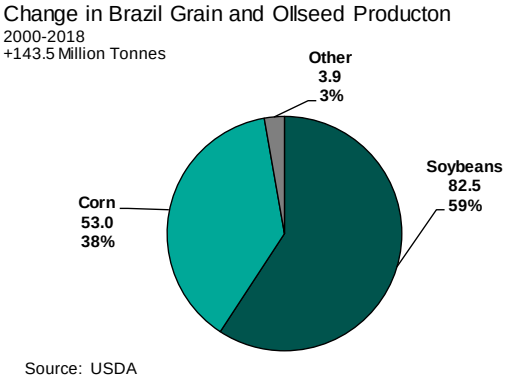
Brazil

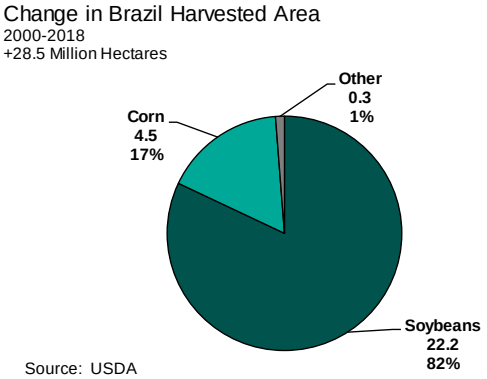


An Agricultural Powerhouse

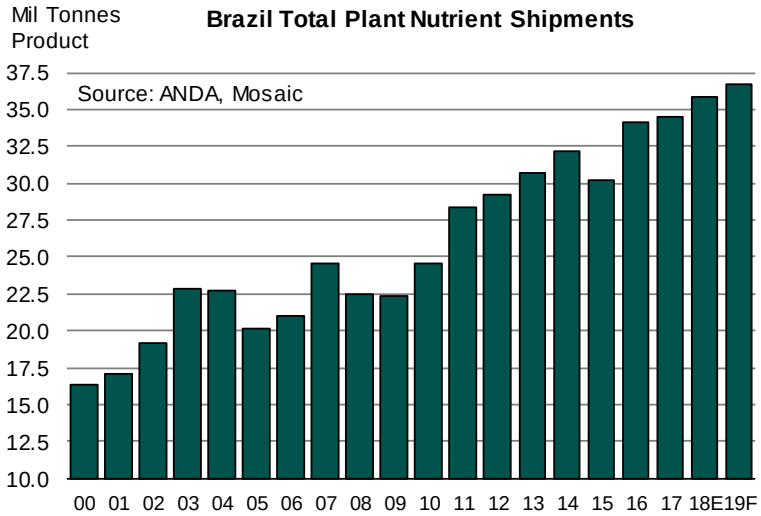


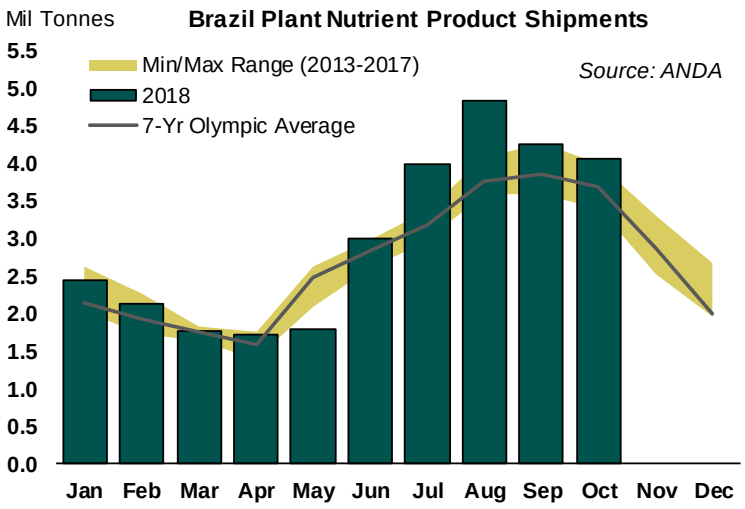
Grain and oilseed production has more than doubled since the turn of the century. Soybeans and corn have accounted for 94% of the gain in output and nearly all of the increase in harvested area during this period. The increase so far this century exceeds the largest crop ever produced in Argentina!





A Plant Nutrient Powerhouse





Plant nutrient use has more than doubled since the turn of the century. Shipments of plant nutrient products increased at a compound annual growth rate (CAGR) of 4.4% from 2000 to 2017.

Our Brazilian team has estimated that plant nutrient shipments increased 3.8% or 1.3 mmt to 35.8 million tonnes this year. Shipments are projected to increase another 2.7% or 1.0 mmt to 36.8 million in 2019.

The truckers' strike reduced May shipments, but shipments during peak months from June through October surged and set new monthly highs.

Shipments through October totaled 30 million tonnes, up 4% from a year ago (ANDA has moved to a delayed reporting schedule, and as such October data is the most current as of mid-February 2019)

Markets

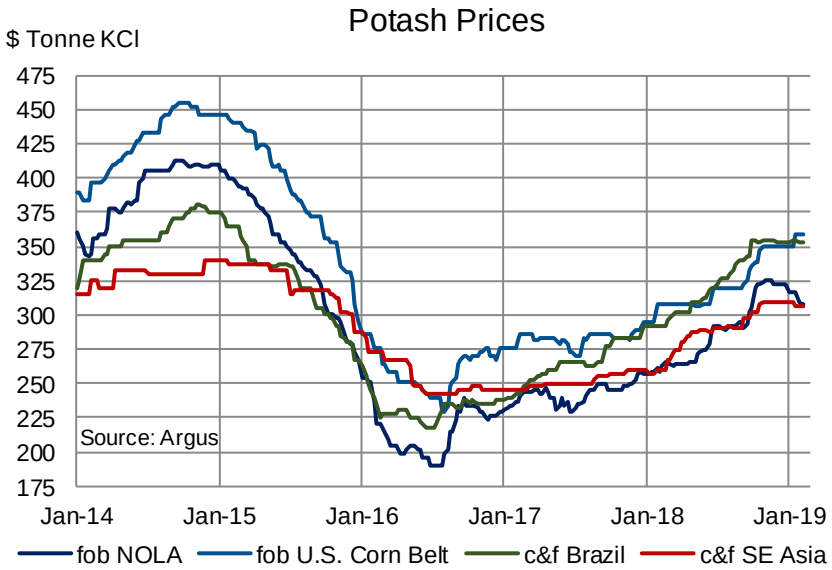
Potash Outlook



Take-Aways

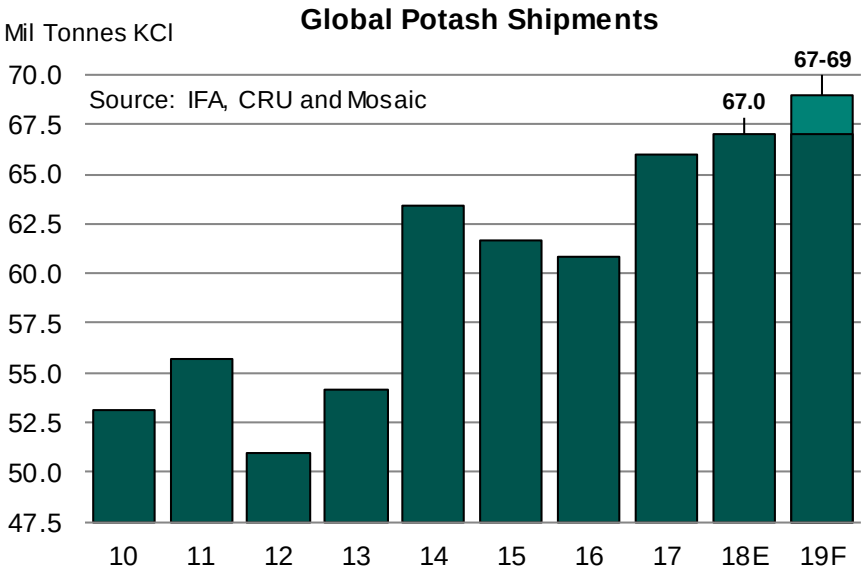
- Prices have plateaued recently, but constructive fundamentals still in play.
- Strong, broad-based demand growth remains a key driver.
- Producers are optimizing operations in order to meet demand and compete profitably.
- New capacity is starting up later and ramping up more slowly than expected.
- No chronic long term supply/demand imbalance is forecast, but demand gains may outpace supply increases at times (e.g. in 2018) and capacity surges may exceed demand growth at other times.

Prices Continue to Trend Up



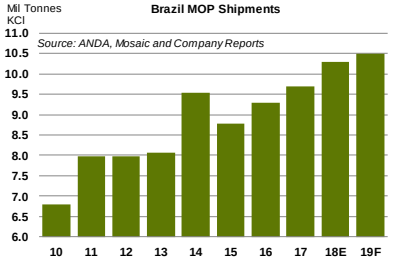
- Strong broad-based demand growth
- Cumulative impact of production outages/changes
- Optimized/restructured operations
- Slower-than-expected ramp up of new capacity

Strong, Broad-Based and Less Volatile Demand Growth

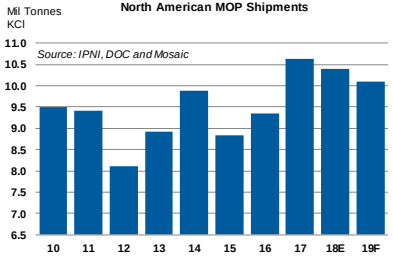


- Global potassium chloride (KCl) shipments now are estimated to have increased to 67.0 million tonnes in 2018, a 1.8% or 1.2 million tonne increase from the revised estimate for 2017. After declines in 2015 and 2016, shipments rebounded a whopping 8.1% or 4.9 million tonnes to 65.8 million in 2017.
- Shipments next year are forecast to increase to 67-69 million tonnes with a point estimate of 68.1 million, up another 1.7% or 1.1 million tonnes from our 2018 estimate.

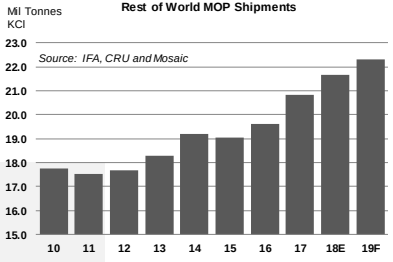
Strong and Broad-Based Demand Growth



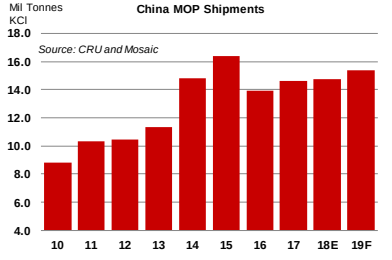
Brazil demand continues its upward march driven by steady increases in agricultural production. Shipments are estimated at 10.3 mmt in 2018 and should move higher this year on prospects for another good growing season and a ~3% expansion of soybean area.



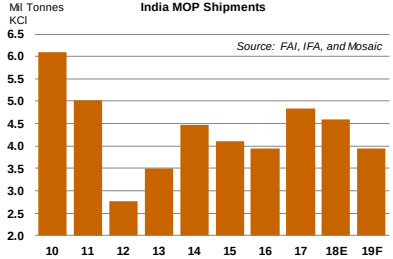
Poor weather conditions in the fall of 2018 led to a buildup of inventories in the distribution pipeline last year, so we are projecting that due to working through this inventory overhang that shipments will fall closer to the 10 mmt mark in 2019.



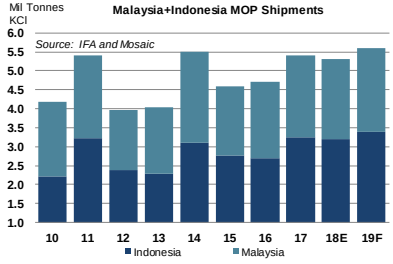
Shipments outside the “Big Six” countries/regions have taken off led mostly by other Asian and other Latin American countries, as well as a doubling of African use during the last five years (albeit from a low starting point).



Chinese shipments are trending up due to record crop production as well as efforts to improve nutrient balance. Higher domestic MOP production met much of the recent growth, but domestic output likely has plateaued, implying stronger growth in import demand.



India shipments have been slowly recovering following 2010/11 subsidy changes that resulted in a near tripling of retail potash prices. High minimum support prices for key crops, expectations for a normal monsoon and greater NPK use underpin demand. However, sharply higher MRPs in the face of higher international prices are limiting use.



Indonesian and Malaysian shipments also have trended upward with surges in 2011, 2014, and 2017. Demand looks steady with the recent recovery of palm oil prices. Demand deferral late in 2018 also bodes well for strong shipments in 2019 to replenish depleted channel inventories.

Global Potash Shipment Forecasts by Region (February 2019)

Muriate of Potash Million Tonnes (KCl)	2017R	2018E	Low 2019F	High 2019F	Comments Source: IFA, CRU and Mosaic (Numbers may not sum to total due to rounding)
China	14.6	14.8	15.3	15.5	Shipments came in below expectations in 2018 due to a late start to winter stockpiling, but we maintain our projection of 15.4 mmt in 2019 (~7.6mmt production plus ~7.8mmt of net imports). Net imports are expected to be given a boost in 2019 from greater volumes of NPK and SOP exports, the latter of which is now free of export tariffs.
India	4.8	4.6	4.0	4.3	We have revised lower our 2019 shipment forecast on anticipated weaker on-farm demand brought about by a 16,000 INR per tonne MRP. In addition, stocks closed the calendar year with a slight uptick. Our forecast is predicated on little or no change to the potash subsidy rate, a continuation of the weak rupee and a normal monsoon.
Indonesia+Malaysia	5.4	5.3	5.4	5.6	Shipments are estimated to have ticked slightly lower in 2018 on a slowdown of buying towards the end of the year. We expect that this demand deferral will be made up in 2019 and are showing modest growth. Underpinning demand are the recent recovery of palm oil prices (up about 10% year-to-date) and expectations of a normal monsoon.
Other Asia	4.9	5.2	5.5	5.8	Demand continues to grow rapidly in this region, with gains virtually across-the-board. Demand is buoyed by the combination of favorable policies and OK crop prices, while concerns over hot, dry weather this summer are a yellow flag.
W. Europe	4.9	5.0	4.8	5.0	European shipments are projected to stay stable in 2019 on an improved weather outlook after last year's severe drought.
E. Europe+FSU	5.3	5.3	5.5	5.7	An upward revision to 2017 shipments now suggests that shipments leveled out in 2018 as higher grain and oilseed production in Ukraine was insufficient to offset the decline seen in Russia due to drought. Improved weather for winter wheat sowings sets the stage for a resumption of shipment growth in 2019, aided by continued local currency weakness.
Brazil	9.7	10.3	10.5	10.7	Shipments are estimated at 10.3mmt in 2018 (a new record) but there are a few factors that have tempered our growth expectations for 2019: There was a small inventory build late in the year; The Brazil soybean price premium relative to the CME have retreated to historically normal levels; Late season dryness has lowered yield expectations and hence nutrient removal. The above noted, farmer economics remain solid and the real is expected to remain relatively weak.
Other L. America	2.9	2.9	2.9	3.0	Shipments in the rest of Latin America look to remain stable due to generally favorable farm economics and a mostly OK weather outlook.
N. America	10.6	10.4	9.9	10.1	The 2017 surge resulted from a strong fall application season and early positioning of 2018 needs ahead of announced price increases. Shipments in 2018 were also strong, but the poor fall application season led to a notable channel inventory build. We expect on-farm demand to be strong, particularly with a shift to more corn acreage (our baseline calls for 92 million acres), but full-year shipment volumes are expected to tick lower as the higher carry-in inventory is worked through.
Other	2.9	3.2	3.2	3.4	Africa posted moderate growth again, but there were notable increases elsewhere as well, with Australian imports moving higher on strong farmer demand. After the big jump last year, shipments in the region are forecast to increase modestly this year.
Total	**66.0**	**67.0**	**67.0**	**69.0**	2017 shipments were once again revised higher, from 65.6 to 66.0mmt. Despite this, shipments in 2018 still gained 1.0mmt to a new record of 67.0mmt, an increase of 1.5% year-over-year. Our point estimate for this year is revised slightly lower to 67.8mmt due primarily to the reduced expectations for India, with the 0.8mmt shipment gain adding another 1.3% to global demand.

Fundamentals Math: 2018-19

Potential Potash Supply and Demand Changes Excluding Canpotex

Mil Tonnes KCl	2018	2019
Projected Shipment Changes	**1.03**	**0.77**
Percent Change	*1.6%*	*1.1%*
Potential Supply Changes	**0.32**	**0.85**
Producer Inventory Draw (+) or Build (-)	*0.25*	*0.50*
ICL Boulby Closure 6/30/18	*-0.12*	*-0.23*
SQM Maximizing Lithium Production	*-0.19*	*-0.10*
K+S Werra Mine Idlings Due to Low River Levels	*-0.15*	*0.15*
K+S Sigmundshall Closure 12/31/18	*0.00*	*-0.45*
Uralkali Increased S-2 Inflow Net Impact	*-0.50*	*-0.30*
K+S Bethune Ramp-Up	*0.75*	*0.50*
Eurochem Usolskiy+Volgakaliy Ramp-Up	*0.26*	*0.74*
Belaruskali Petrikovsky	*0.00*	*0.00*
Garlyk Ramp-Up	*0.00*	*0.00*
Miscellaneous Changes	*0.02*	*0.03*
S/D Surplus (+)/Deficit (-)	*-0.71*	*0.08*

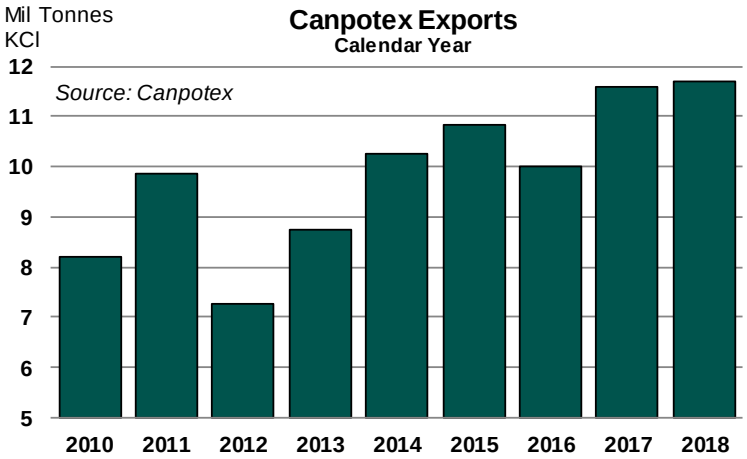
← *Solid broad-based and steady gains are forecast absent a large drop in agricultural commodity prices.*

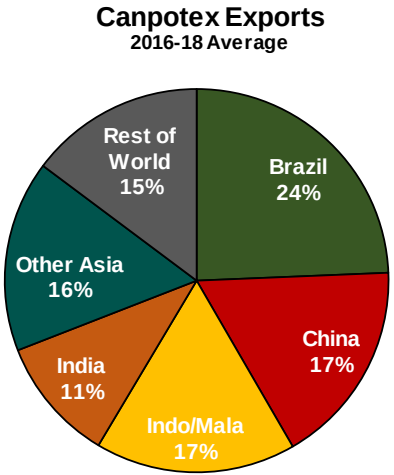
← *There are several puts and takes on the supply side. ICL ended KCl production at its UK Boulby mine around mid-year and K+S closed its Sigmundshall mine at the end of 2018. SQM is maximizing lithium production at the expense of KCl output, and K+S lost production at their Werra complex due to low river levels in 2018. Uralkali faced increased water inflow issues that impacted production at their S2 mine, which are expected to persist in 2019.*

← *The above are offset by output from the ramp up of the four greenfield projects, though these were fairly underwhelming in 2018. Moreover, it appears that output from the project in Turkmenistan may be many years away from achieving advertised rates. At Eurochem's Volgakaliy mine, shaft issues continue to delay progress.*

← *Based on these assumptions, the global market looks balanced through 2019, after running a roughly three-quarters of a million tonne deficit in 2018.*

Record Canpotex Exports Required to Meet Record Demand

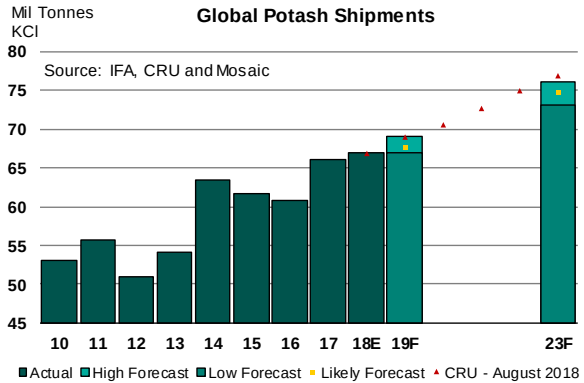


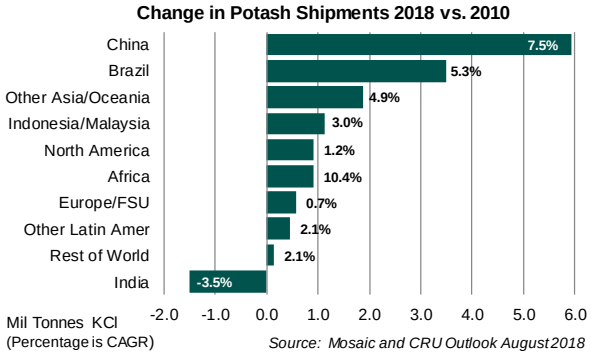


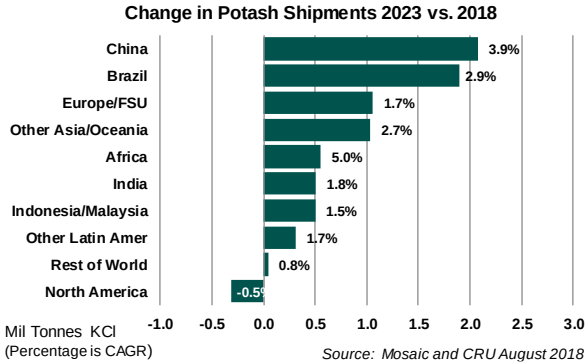
- Canpotex exported* a record 11.7 million tons in 2018 in order to meet the big jump in global demand last year.
- Exports are projected to increase to another record this year, climbing to around 13 million tonnes in 2019.

** The volume of Canpotex exports in 2018 reflects the change to revenue recognition*

Five-Year Outlook: Strong, Broad-Based and Less Volatile Demand Growth the Key Feature







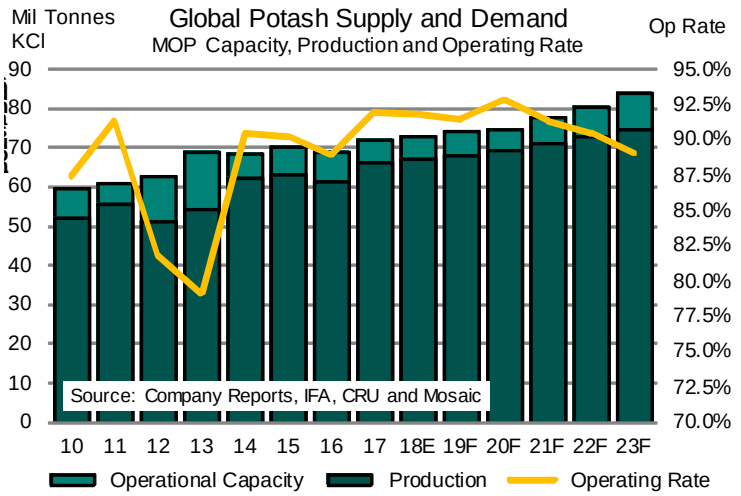
Global Potash Shipments

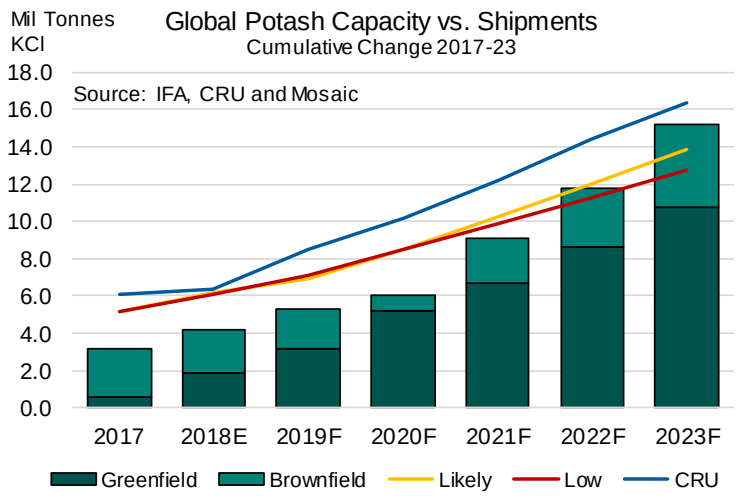
Mil Tonnes KCl	Mosaic Scenario Low	Likely	High	CRU Aug 18
2010 Shipments	na	53.1	na	53.6
2018 Shipments	na	67.0	na	66.8
Change 2010-18	na	13.9	na	13.2
CAGR 2010-18	na	2.9%	na	2.8%
2023 Forecast	73.1	74.7	76.2	76.8
Change 2018-23	6.1	7.7	9.2	10.0
CAGR 2017-23	1.7%	2.2%	2.6%	2.8%

Source: Mosaic, CRU Potash Outlook August 2018.

- By our most recent count, global shipments increased 2.9% per year or 13.9 million tonnes from 2010 to 2018. Growth was erratic with most of the gain coming in 2014 and 2017. Shipments increased in four years and decreased in three years. India was a drag on growth due to subsidy cuts and a tripling of retail MOP prices in 2010/11.
- Shipments are forecast to increase 2.2% per year or 7.7 million tonnes from 2018 to 2023. Agronomic and economic demand drivers continue to look positive, and strong and less volatile growth is expected during the next five years given more moderate and stable potash prices as well as stable to potentially stronger agricultural commodity prices during the forecast period. Continued growth in Brazil and China lead the demand parade.
- The traditional growth geographies - Brazil, China and elsewhere in Asia/Oceania – account for over 70% of the projected gain from 2018 to 2023, but other regions such the former Soviet Union (FSU)/Eastern Europe and Africa are expected to post notable increases as well.

Demand Growth Projected to Keep Pace with the Likely Ramp-Up of New Capacity





- We project no chronic or severe long term supply and demand imbalance. The global operating rate is forecast to range between 93% and 89% during the next five years.
- A comparison of cumulative changes in demand vs. new capacity shows that shipments are projected to increase 8.7 million tonnes from 2017 to 2023 while operational capacity is projected to increase 12.0 million tonnes (an increase of 15.2mmt from expansions, but offset by 3.2mmt of capacity reductions). Demand growth outpaces capacity additions until the last year of the 2017-2023 period when the Slavkaliy project in Belarus is expected on line and the first phases of the two projects in Russia have ramped up to full capacity.

Factors to Watch

- Agricultural commodity prices
  - Farm or food crisis and impact on potash demand?
- FSU production
  - Can Belaruskali maintain 2018 rates in 2019 and beyond? Is Uralkali S2/S1 at risk?
- Ramp-up of new capacity
  - Slower-than-expected by many analysts. How successful will Eurochem's Volgakaliy ramp-up be?
- Competitor strategies and behaviors
  - Price over volume or volume over price?
- Currency risks/opportunities and macroeconomic/political shocks
  - Devaluation or appreciation of the key 6R potash currencies? (Ruble, RMB, Real, Rupee, Rupiah, Ringgit)
  - Trade war(s) or peace?

Markets

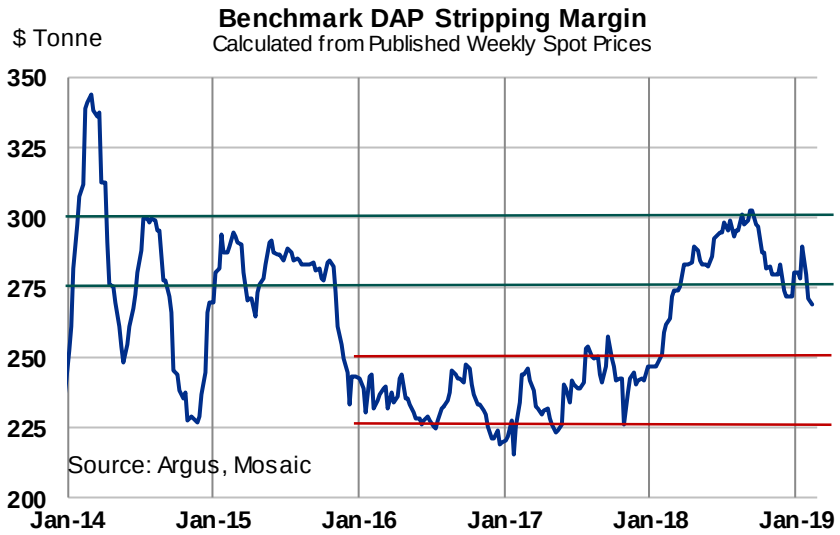
Phosphate Outlook



Take-Aways

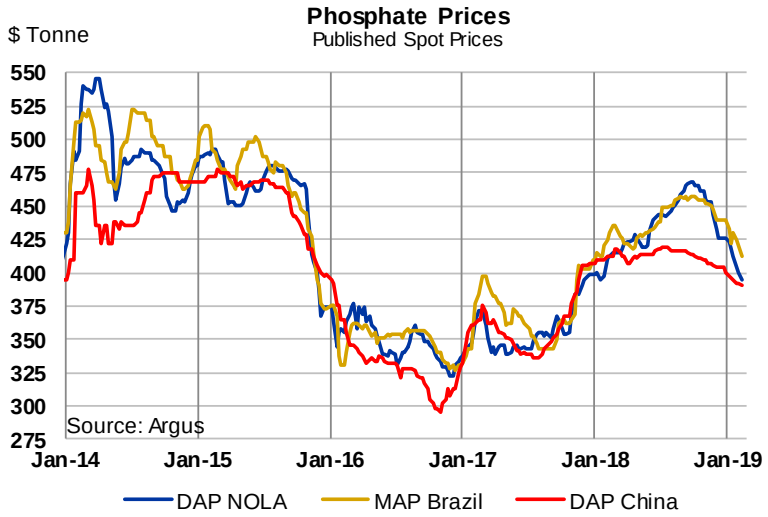
- 2018 recap: The benchmark DAP margin increased $77 tonne between the beginning of November 2017 and end of September 2018 as a result of several positive fundamental developments, including the temporary idling of the Plant City facility and the slow ramp ups of new capacity in Saudi Arabia and Morocco.
- Seasonal factors began pressuring prices and margins in Q4, and by mid-February the benchmark stripping margin had given back $34 from its September peak.
- Fundamentals look constructive due to solid demand growth and no world-scale projects in the pipeline behind the Moroccan and Saudi projects that are ramping up today.
- Despite the recent weakness, prices/margins are expected to remain elevated in order for the global market to reach an equilibrium by trimming a little demand and pulling out a bit more supply, with Chinese exporters to fill the role of swing supplier.
- Key factors to watch include China industry restructuring, the ramp up of new capacity, crop prices, and exchange rates.

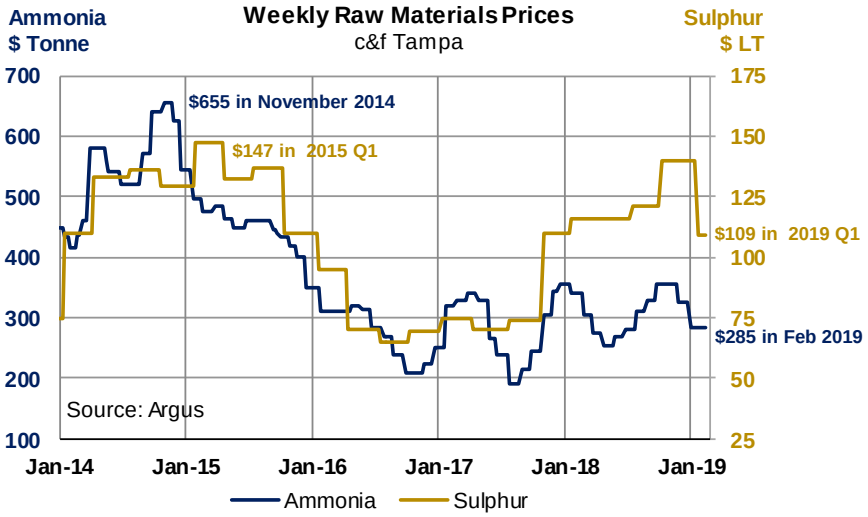
Margins Soften on a Seasonal Basis as S/D Moves into Better Balance than the Tight 2018



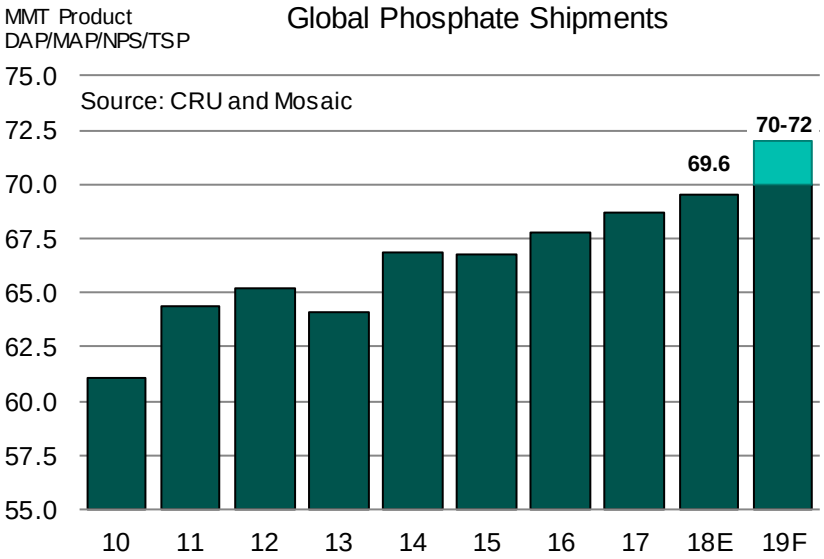
- Strong, broad-based (excluding China) demand
- Big supply adjustments take hold in 2018:
  - Temporary idling of Mosaic's Plant City facility
  - Slower-than-expected ramp-ups of new capacity
- Q4 seasonal pressure has spilled into Q1 2019 as the S/D has lengthened on demand deferral as sentiment has shifted…
- …but no big change in fundamentals

Seasonal Price Softness in Q4 2018 Extends into 2019; Raw Material Costs also Lower



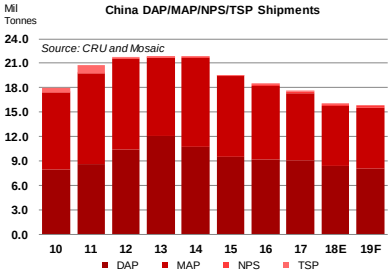


Strong, Broad-Based Demand Growth; Chinese Domestic Demand Remains a Drag

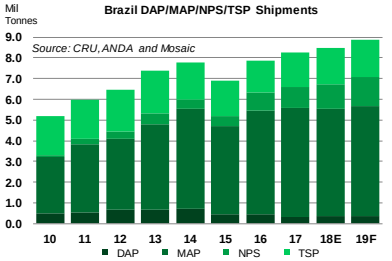


- Shipments of the leading finished phosphate products increased 1.3% or 0.9 million tonnes to 69.6 million in 2018.
- We maintain our shipment forecast range of 70-72 million tonnes for 2019, with a point estimate of 70.4 million, a 1.2% or 0.8 million tonne gain. We project shipments outside China will increase 2.1% or 1.1 million tonnes this year.
- China has been a significant drag on global shipments in the past few years. Excluding China, demand increased 4.4% or 2.1 million tonnes in 2016, 3.5% or 1.7 million tonnes in 2017 and 4.8% or 2.4 million tonnes in 2018.
- Our latest estimates for 2019 are a bit cautious due to: 1) continuation of subdued crop prices, 2) inventory overhang in a few geographies, 3) continued pullback in Chinese domestic demand, and 4) trade and other policy issues.

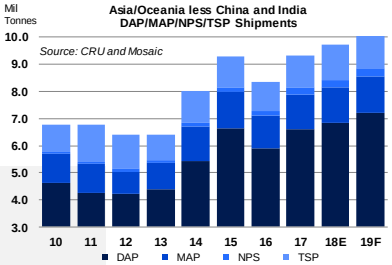
Broad-Based Demand Growth



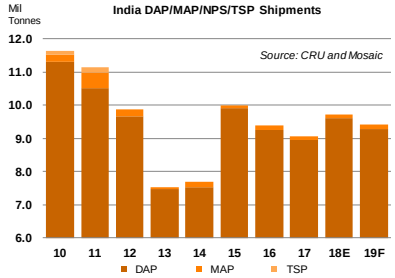
Chinese shipments peaked at more than 21 million tonnes in 2013, driven by high support prices for leading crops and a build-up of strategic reserves. Shipments are expected to stabilize in the 16 million tonne neighborhood in the new economic/policy environment.



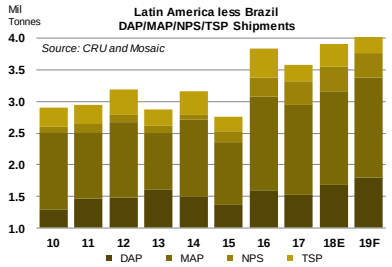
Phosphate demand in Brazil continues its strong upward trend driven by steady increases in agricultural production. The growth in NPS shipments – mostly Mosaic's MicroEssentials® – is noteworthy.



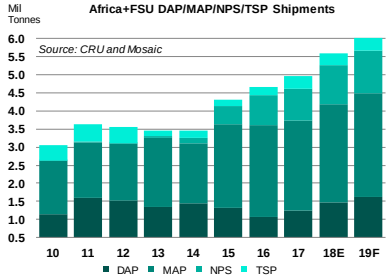
Shipments in the rest of Asia have increased significantly since 2013. The biggest gains were in India, Pakistan and Vietnam, but most countries registered increases during this period. Profitable farm economics due to steady crop prices and moderate phosphate costs underpinned demand growth.



Indian shipments plummeted following changes in the subsidy and a doubling of retail DAP prices in 2010/11. The quality of the monsoons and shifts in channel stocks explain most of the noise in the fairly flat shipment volumes for the past four years. Some channel build in 2018 likely portends a small decline in shipments this year.



Shipments in the rest of Latin America surged in 2016, led by large gains in Argentina following the elimination or reduction of grain export taxes. Demand dropped off but remained at elevated levels in 2017, with Argentina pulling back due to drought. Shipments posted a solid gain in 2018 throughout the region.



African demand is taking off (and these statistics exclude NPKs) due to good public-private sector programs to boost productivity. In addition, the pace of recovery in the former Soviet Union has been picking up in response to moderate crop prices, weak currencies and a run of generally good harvests.

Global Phosphate Shipment Forecasts by Region (February 2019)

DAP / MAP / NPS* / TSP (Million Tonnes)	2017R	2018E	Low 2019F	High 2019F	Comments Source: IFA, CRU and Mosaic (Numbers may not sum to total due to rounding)
China	17.7	16.1	15.8	16.2	*Our 2018 estimate has been revised lower by 600,000 tonnes after a very slow start to the winter stockpiling season. We believe that this shortfall cannot be fully ascribed to deferral, but that there is in fact a continued shift to lower overall phosphate use in China. As such, our 2019 forecast is revised lower by ~750,000 tonnes. Exports of DAP/MAP/TSP in 2018 beat most analyst expectation at 11.0mmt, versus 10.1mmt in 2017.*
India	9.1	9.7	9.2	9.5	*We have revised higher our 2018 shipments estimate as favorable importer economics resulted in atypical buying late in the calendar year. This resulted in a stock build, with DAP inventories ending the year nearly double last year's very low level. Our expectation is that on-farm demand will tick slightly higher in 2019, as lower international prices will likely result in some downward adjustment to the MRP, assuming no change to the subsidy. We expect domestic DAP production will be up modestly year-over-year at ~3.8mmt (versus 3.6mmt in 2018), prompting imports of ~5.5mmt (vs. 6.1mmt in 2018), with inventories projected to end the year around1.0mmt (vs. an end-2017 level of ~1.5mmt).*
Other Asia/Oceania	9.3	9.7	10.0	10.3	*Demand in this region continues to show strong growth, and our expectations are for this to continue, spurred by a generally favorable ag environment, though weather threats in parts of the region remains a yellow flag.*
Europe and FSU	6.0	6.4	6.5	6.7	*Demand remained robust despite drought across much of the region, and we have revised slightly higher our 2018 estimate as well as our 2019 forecast as drought conditions eased from late last year. Our 2019 forecast continues to be driven by growth in the East.*
Brazil	8.3	8.5	8.8	9.0	*Farm economics continue to look attractive despite the premium on Brazilian soybean export prices falling back to historically normal levels, aided by a generally weak currency. Demand deferral from late last year has kept phosphate inventories at average to below average levels, as DAP/MAP/TSP imports in 2018 were down modestly y-o-y at ~4.4mmt. Shipments in 2019 are expected to show similar growth as last year, getting an initial boost from strong on-farm demand for faster-than-average Safrinha plantings.*
Other Latin America	3.6	4.0	4.0	4.2	*Our 2018 forecast is revised higher on better-than-expected shipments, notably in Argentina and Mexico. Our 2019 forecast is revised higher to reflect the relatively strong buying sentiment that is starting to show in 2019, supported by solid farm economics.*
North America	9.9	10.0	9.8	10.0	*On-farm demand was negatively impacted by a weather-interrupted fall season, and our 2018 shipment estimate was revised lower in response. Despite the lower shipments, there was a meaningful channel inventory build, but we believe this will be cleared once spring fieldwork gets underway, as much of the shortfall in fall 2018 applications is "made up." Our 2019 shipment forecast is thus little-changed. Imports were notable, with 2018 DAP/MAP/NPS/TSP imports at a record-setting 3.3mmt (vs. 2.3mmt last year).*
Other	4.9	5.1	5.5	5.7	*Our 2018 estimate was revised lower on some demand deferral late in the year (e.g. delays to the Ethiopian tender shipments), but this demand is carried over into our 2019 forecast, giving it a small lift. Continued profitable farm economics and market development initiatives continue to drive growth in Africa. Middle East volumes were down slightly in 2018, but forecast to rebound this year.*
Total	**68.7**	**69.6**	**69.6**	**71.6**	*At 69.6mmt, our point estimate for 2018 is down slightly from our last forecast, but represents an increase of ~900,000 tonnes or 1.3% versus 2017. Excluding China, global shipments showed an increase of 2.4mmt or 4.8%. Our 2019 shipment forecast range remains at 70-72mmt, but our point estimate is now in the bottom half of the range at 70.4mmt, a function of the reduction to our China and India forecasts, with a current point estimate at 70.4mmt. Excluding China, global shipment growth is forecast at 1.9% or 1.0mmt.*

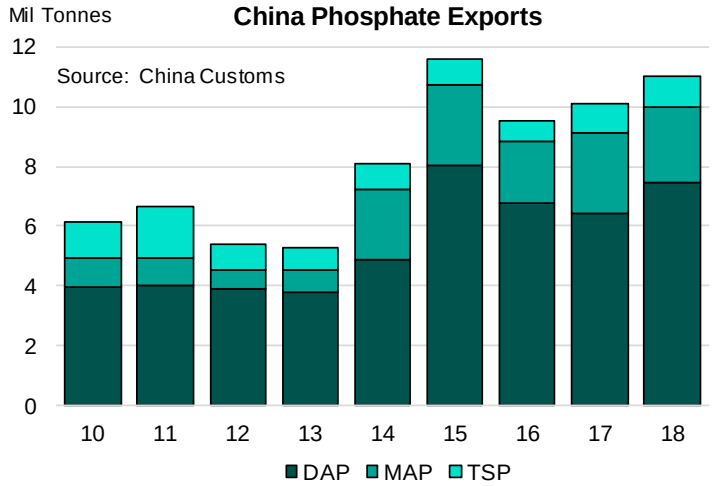
** NPS products included in this analysis are those with a combined N and P_2O_5 nutrient content of 45 units or greater.*

Supply Adjustments are Taking Hold

- Mosaic's idling of its Plant City facility in December 2017 took ~1.3 million tonnes off the market in 2018, while the slower ramp up of new capacity at the MWSPC JV in Saudi Arabia and the JPH 4 in Morocco resulted in output from those locations falling short of most expectations by over 1 million tonnes.
- Indian imports surged to 6.1 million tonnes (up 2.0 million tonnes year-over-year) in 2018.
- Chinese phosphate exports rose to meet the shortfall in supply, as margins were sufficient to incent those volumes (and it appears that domestic channel inventories were drawn down at the same time).

China Phosphate Exports						
	January-December				2018 vs. 2017	
1000 Tonnes	2015	2016	2017	2018	Change	Pct Chg
DAP	8.0	6.8	6.4	7.5	1.1	16.7%
MAP	2.7	2.0	2.7	2.5	-0.2	-8.2%
TSP	0.9	0.7	1.0	1.1	0.1	7.9%
Total	11.6	9.5	10.1	11.0	0.9	9.1%

Source: China Customs



Fundamentals Math: 2018-19

Potential Phosphate Supply and Demand Changes

Mil Tonnes DAP/MAP/NPS/TSP	2018	2019
Projected Shipment Changes	**0.87**	**0.84**
Potential Supply Changes Excluding China	**0.12**	**1.40**
Mosaic Plant City Idling	*-1.26*	*0.00*
OCP		
OCP JPH 3	*0.50*	*0.00*
OCP JPH 4	*0.40*	*0.50*
OCP Debottlenecking	*0.20*	*0.30*
OCP Line F Start-Up	*0.00*	*0.00*
OCP Laayoune	*0.00*	*0.00*
MWSPC Ramp-Up	*0.95*	*0.90*
Nutrien Redwater Closure	*0.00*	*-0.40*
Nutrien Geismar Closure	*0.00*	*-0.15*
Other Ramp-Ups / Closures		
GCT Sfax Closure/M'dilla Start-Up (Tunisia)	*-0.20*	*0.00*
Russia Debottlenecking	*0.15*	*0.15*
Yara (Brazil)	*0.00*	*0.00*
Turkey/Egypt Greenfields	*0.00*	*0.25*
Sterlite Shut-down (India)	*-0.28*	*0.00*
Miscellaneous Changes (S. Africa/Australia)	*-0.35*	*-0.15*
S/D Surplus (+)/Deficit (-) Excluding Chinese Export Changes	***-0.75***	***0.56***

← *Solid broad-based gains are forecast outside of China and India, absent a large drop in agricultural commodity prices.*

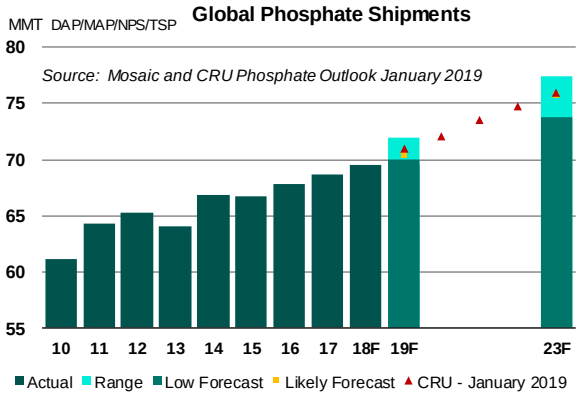
← *OCP ramp ups were the largest addition to global supply in 2018, but 2019 expected to see just incremental tonnes from JPH 4 and possibly some gains from debottlenecking other plants.*

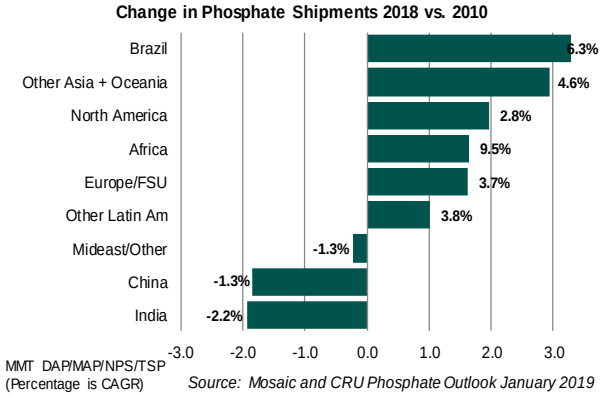
← *MWSPC expected to show similar production improvement in 2019 as they did a year ago, with the incremental improvement weighted towards the back half of the year.*

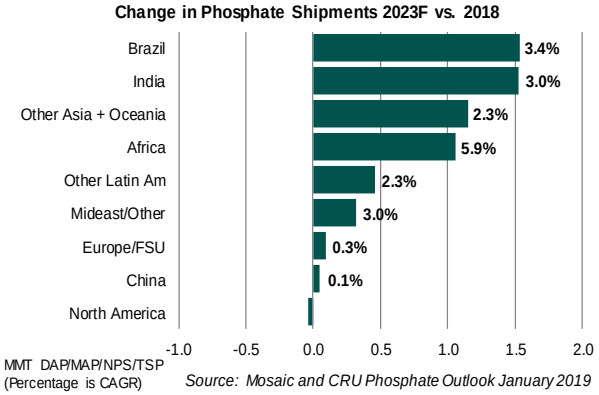
← *Nutrien closures will reduce P_2O_5 production, and invariably impact ammonium phosphate fertilizer output (either directly or indirectly – for example, by reducing merchant phosphoric acid sales to India that would have been used to produce phosphate fertilizers).*

← *Expected changes in supply and demand likely will result in a small surplus in 2019, before accounting for any changes to Chinese exports. If prices/margins remain at recent lower levels, we would expect that their export volumes will be constrained.*

Five-Year Outlook: Positive Demand Outlook







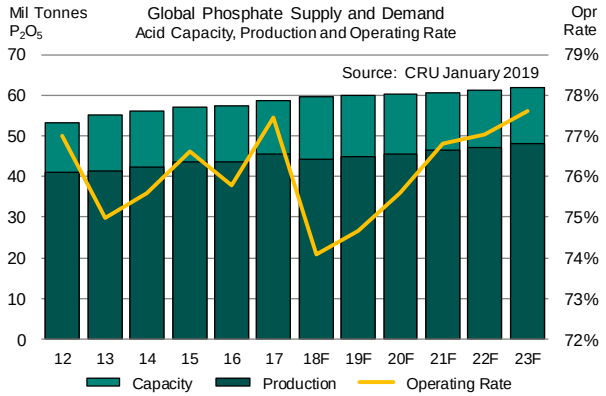
Global Phosphate Shipments

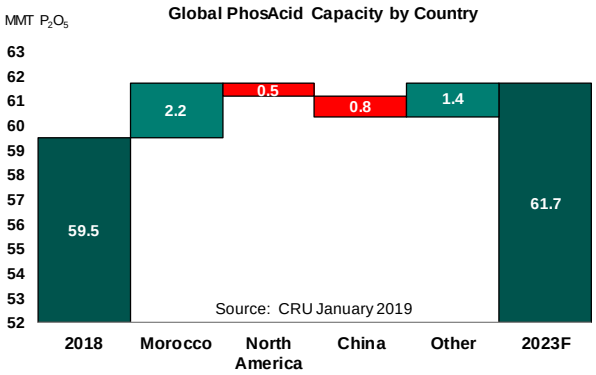
Mil Tonnes DAP/MAP/NPS/TSP	Mosaic Scenario Low	Likely	High	CRU Jan 2019
2010 Shipments		61.1		60.2
2018 Shipments		69.6		70.5
Change 2010-18		8.5		10.4
CAGR 2010-18		1.6%		2.0%
2023 Forecast	73.7	75.7	77.4	75.3
Change 2018-23	4.2	6.2	7.8	4.8
CAGR 2018-23	1.2%	1.7%	2.2%	1.3%

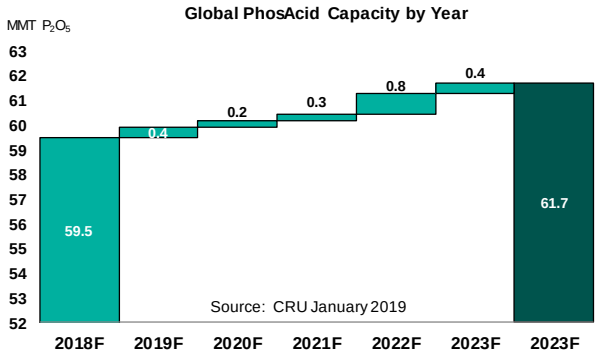
Source: Mosaic and CRU Phosphate Outlook January 2019

- By our most recent count, global shipments of the leading phosphate products increased 1.6% per year or 8.5 million tonnes from 2010 to 2018. India was a drag on demand with shipments dropping 1.9 million tonnes during this period due to subsidy cuts that resulted in a doubling of retail phosphate prices. Demand declined by a similar volume in China with shipments increasing significantly during the first half of this period but then declining during the second half.
- Shipments are forecast to increase 1.7% per year or 6.2 million tonnes from 2018 to 2023. Indian demand is expected to recover due to generally favorable farm economics and expectations of a workable subsidy. Chinese shipments are projected to stabilize following a notable drop in 2018. Brazil, Other Asian countries and Africa are projected to post strong gains during this period.
- CRU projects that demand will grow at 1.3% from 2018 to 2023, but that slower rate is primarily a function of their higher baseline demand estimate for 2018.

Five-Year Outlook: CRU Forecasts (January 2019)







- CRU projects that global phosphoric acid capacity will increase 2.2 million tonnes P_2O_5 from 59.5 million in 2018 to 61.7 million in 2023. Morocco accounts for all of the net increase.
- OCP is expected to add 2.2 million tonnes P_2O_5 from the ramp up of JPH 4 (0.26 mmt), the addition of Line F in 2020 (0.45 mmt), the debottlenecking other Jorf lines (0.5 mmt), the start-up of the Laayoune project in Western Sahara in 2021/22 (0.33 mmt) and the start-up of JPH 5 in 2022 (0.45 mmt) and JPH 6 commissioning in 2023 (0.23 mmt), though the latter two projects are not firm as yet.
- CRU assumes Chinese phosphoric acid capacity will shrink 800,000 tonnes P_2O_5 as a result of industry restructuring and the enforcement of more stringent environmental regulations during this period, and they note the Nutrien closures this year (-0.5 mmt). Several capacity changes are expected in the rest of the world, but the combined 1.4 million projected increase elsewhere in the world is offset by the China/North America closures.
- CRU estimates that the global operating rate dipped in 2018 due to a rapid ramp up of new capacity in Morocco and Saudi Arabia. The rate then trends upward during the rest of the forecast period.

Factors to Watch

- Agricultural commodity prices
  - Food or farm crisis and impact on phosphate demand?
- Demand developments in key regions
  - Zero growth or further declines in China?
  - Recovery in India?
  - An African take-off?
  - Trajectory of FSU/Eastern Europe growth
- Ramp-up of new capacity
  - Continues to be slower-than-expected?
- Restructuring of the Chinese phosphate industry
  - Significant closures due to environmental regulations or environmental policy backtracking and government lifelines?
  - China becomes the world's residual supplier
- Competitor strategies and behaviors
  - Price over volume or volume over price?
- Raw materials costs
  - Price/demand impact and relative advantage or disadvantage?
- Currency risks/opportunities and macroeconomic/political shocks
  - Devaluation or appreciation of key phosphate currencies? (Real, Rupee, RMB, Ruble, Dirham)
  - Trade war or peace?

Additional Information



Brazilian Tailings Dams

Mine Site	Dam ID	Height (m)	CRI[(1)] (Risk)	Construction Method*
Cajati	B1	35	Low	Downstream
	B2	67	Low	Downstream and berms upstream
	Cimpor	53	Low	Limestone stock pile
Catalao	BM	28	Low	Downstream
	BR	56	Low	Centerline (41m) and upstream (15m)
Tapira	BR	57	Low	Centerline
	BL-1	89	Low	Centerline
Araxa	B1/B4	58	Low	Centerline
	B5	75	Low	Centerline (62m) and upstream (13m)
Patos de Minas	A	12	Low	Starter dike
	B	25	Low	Downstream

[(1)] The risk (CRI) was sourced from the website of the National Mining Agency, a Brazilian regulator. CRI is defined in legislation, and in general identifies the a dam's risk of potential failure.
* Construction Method is sourced from Mosaic. We are working with the NMA to correct their data base, which does not align with our classifications.

Our Mosaic Fertilizantes operations in Brazil include 11 tailings dams. With the exception of the B1B4 dam at our Araxá mine, all have current certificates of stability issued by external consultants and are in compliance with Brazilian legal, operational and safety requirements. In addition, the company has arranged for an independent third-party assessment of all its dams, expected to be complete in approximately 90 days. We are working to meet the new safety factor requirement at the B1B4 dam to bring it into compliance with new dam safety rules.

The table shows that the Company has two centerline dams with partial upstream lifts.

1. BR at Catalão has all of the correct permits to operate and we will need to determine corrective actions in line with the new dam regulations.

2. B5 at Araxá is expected to be decommissioned as soon as our new downstream dam B6 is complete. If permitted, we expect that B6 will be ready in the 4th. quarter.

Patos de Minas mine is not operating. Neither of its dams are receiving tailings.

Construction method information for some dams is being updated in the Brazil's National Mining Agency files.

Reconciliation of non GAAP measures

Consolidated Earnings (*in millions*)	2018	2017	2016
Consolidated net earnings attributable to Mosaic	$470	$(107)	$298
Less: Consolidated net interest expense, net	$(166)	$(138)	$(112)
Plus: Consolidated depreciation, depletion and amortization	$884	$665	$711
Plus: Consolidated provision for (benefit from) income taxes	$77	$495	$(74)
Consolidated EBITDA	$1,597	$1,191	$1,047
Notable items included in EBITDA	$(432)	$(15)	$(42)
Adjusted EBITDA	$2,029	$1,206	$1,089