Investor Information

Third Quarter 2018

Laura Gagnon
Vice President Investor Relations
Tel 763-577-8213
Cell 612-201-7550
laura.gagnon@mosaicco.com

Anton Pshon
Director Investor Relations
Tel 763-577-2876
Cell 612-834-0988
anton.pshon@mosaicco.com

Safe Harbor Statement

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; 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.

Mosaic

The Mosaic Company Overview

Executive Summary

Raising full year guidance: adjusted EBITDA[1] to $1.80 - 1.95 billion; adjusted EPS[1] to $1.45 - $1.80

Strong Cash Flow and Earnings

- Second quarter adjusted EBITDA[1] of $461 million and first half 2018 of $833 million
- Second quarter adjusted EPS[1] of $0.40 and first half 2018 of $0.60
- Year to date cash flow from operations above $700 million
  - Paid down ~$500 million in debt as of 8/1/2018, well ahead of communicated $700 million pay-down target by end of 2020

Constructive Outlook and Solid Execution

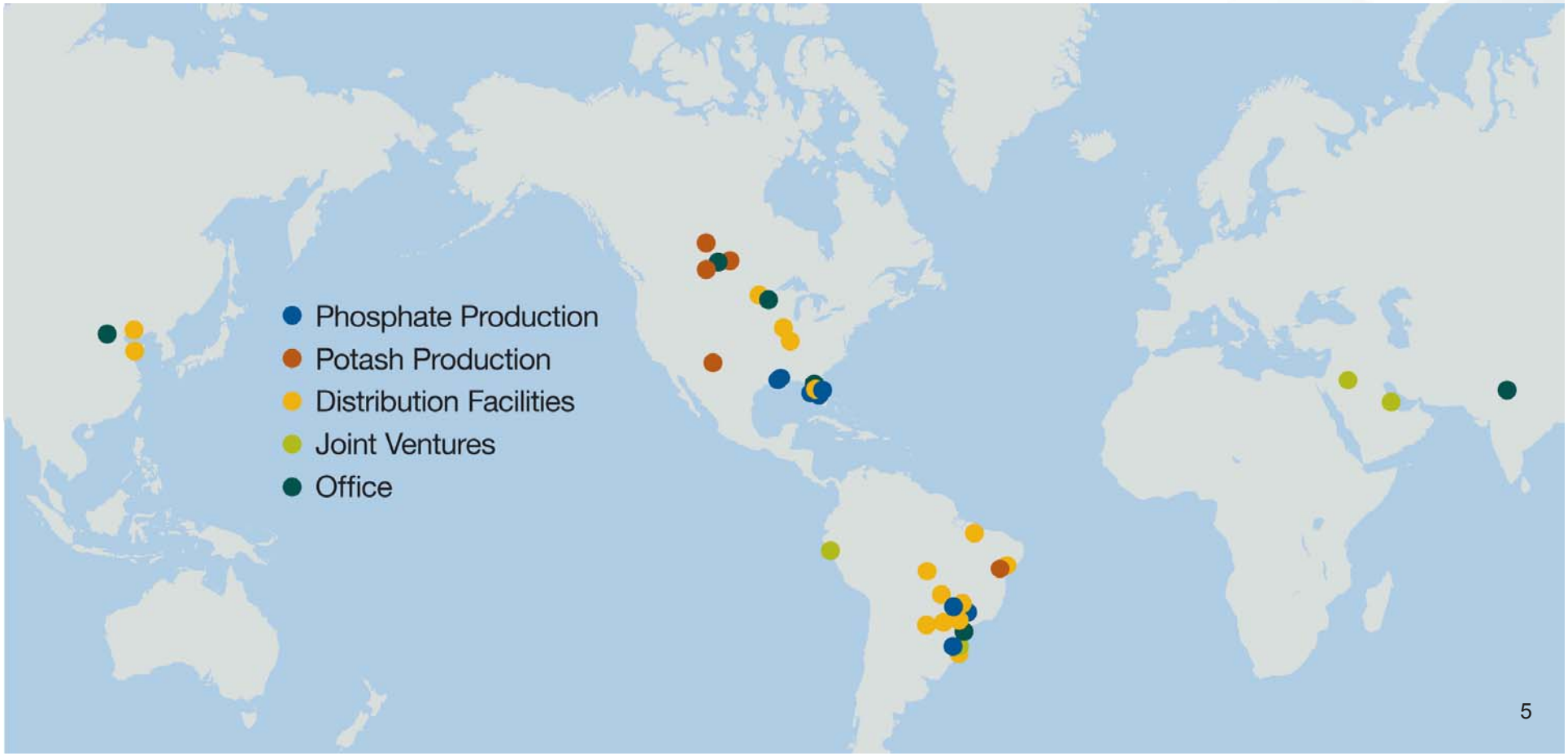
- Solid execution across three business units:
  - Cash costs of mined Florida rock down at $36 per tonne
  - MOP cash costs of production flat at $85 per tonne
- Expect market momentum to continue through 2018

Transformation progress

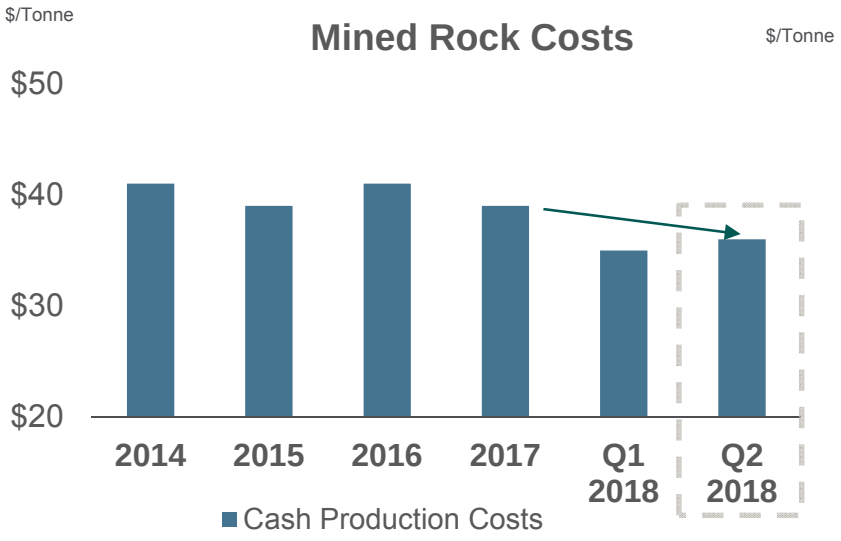
- Remarkable progress on Mosaic Fertilizantes transformation:
  - Actions taken in H1'2018 alone expected to deliver well over $100 million in run-rate EBITDA contribution
  - $56 million of year-to-date realized gross synergies, $34 million net of costs to achieve

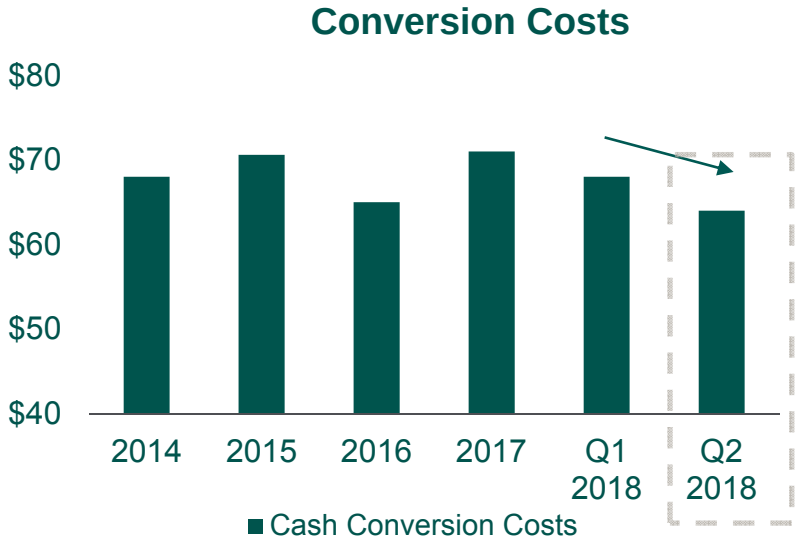
[1] See Non-GAAP Financial Measures for additional information

Mosaic Assets: Global, Long Life, Low Cost



Transformation:
Idled Plant City

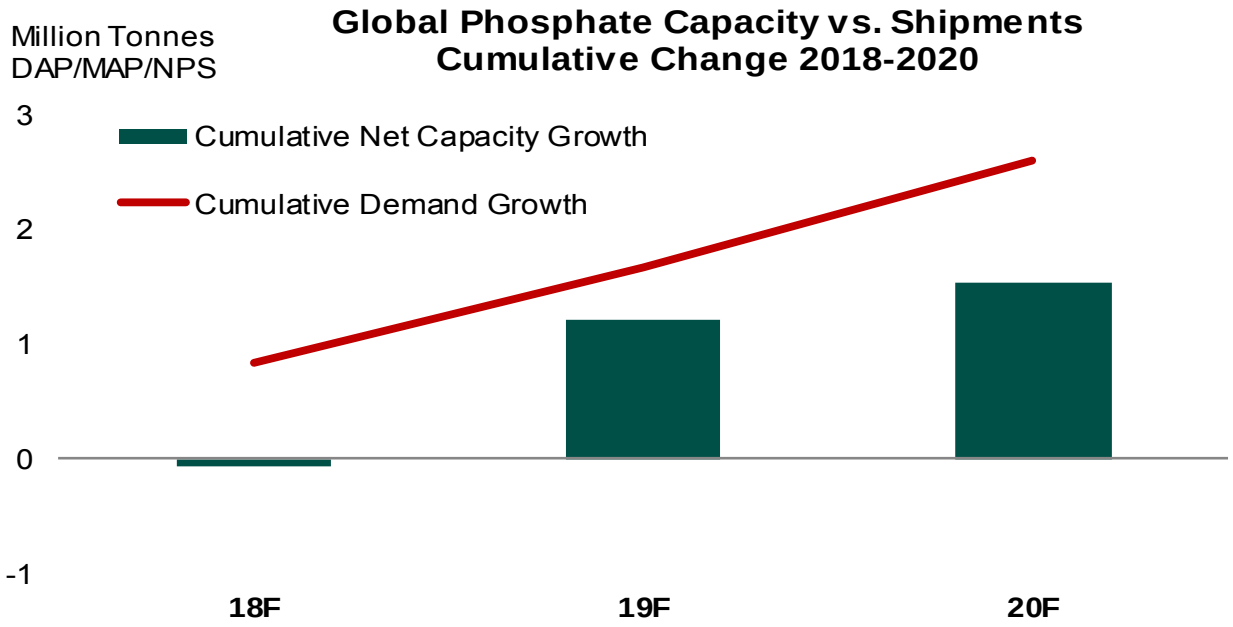




* Phosphate cash conversion costs are reflective of actual costs, excluding realized mark-to-market gains and losses. These costs are captured in inventory and are not necessarily reflective of costs included in costs of goods sold for the period.

Transformation:

Anticipated S&D Impact of Idling Plant City

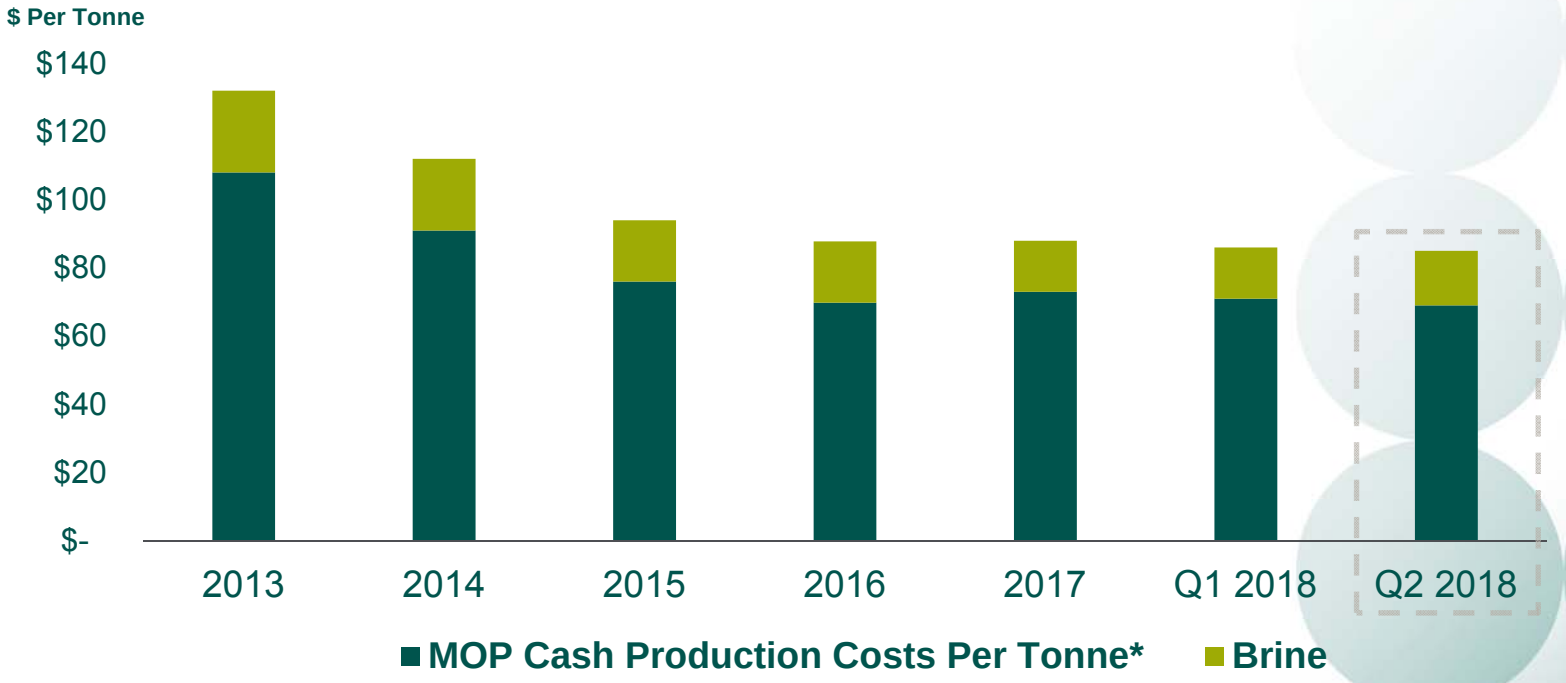


Source: CRU and Mosaic

Tightened phosphate supply & demand even without expected China capacity rationalization

Transformation in Potash:

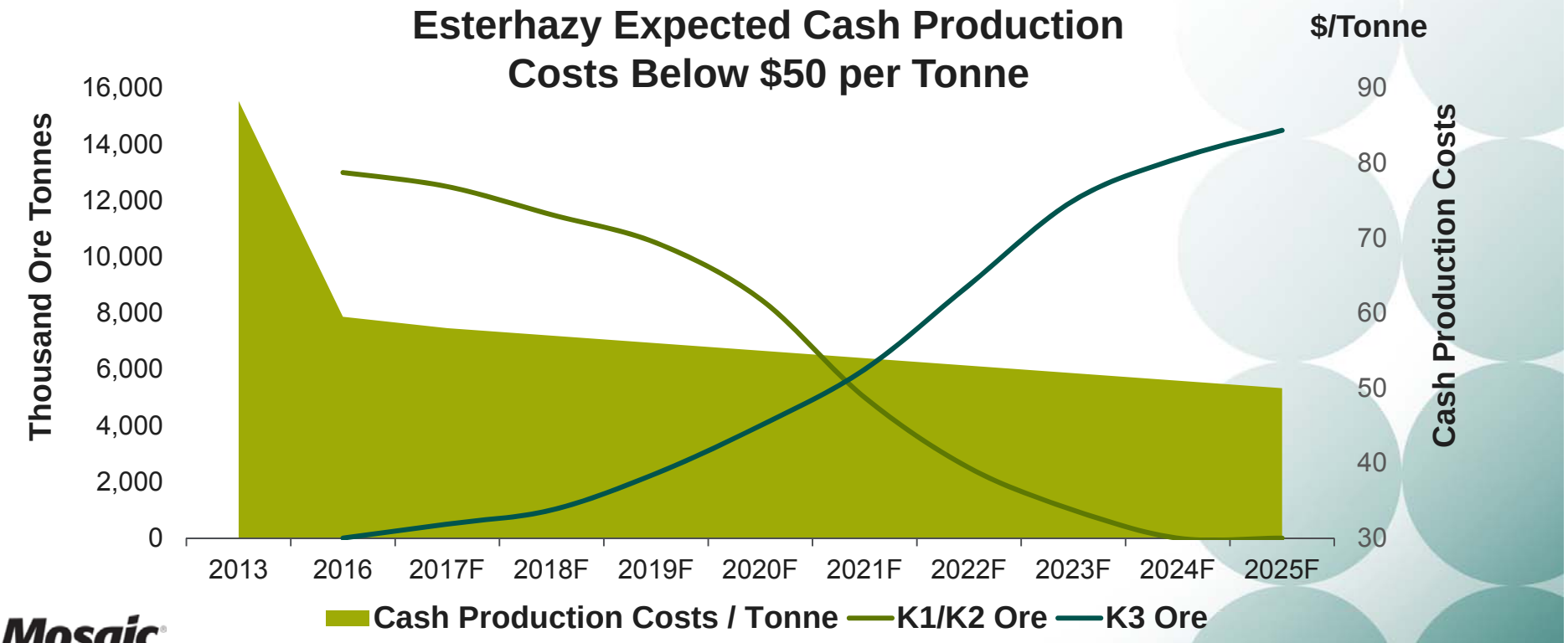
Asset Optimization and Cost Control



*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.

Transformation in Potash:

Expected Elimination of Brine Management Costs

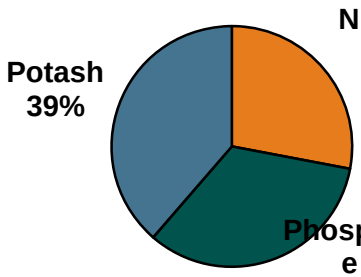


Forecast as of April 12, 2017

*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.

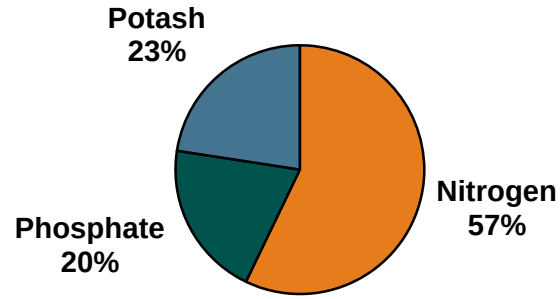
Mosaic Fertilizantes: Well Positioned

Brazil Plant Nutrient Use
2015-17 Average



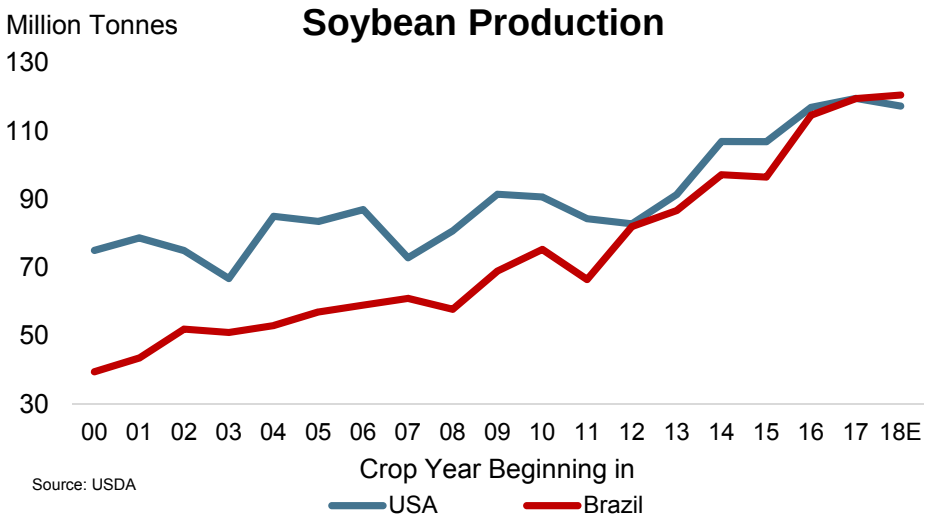
Source: ANDA

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



Source: TFI/AAFPCO

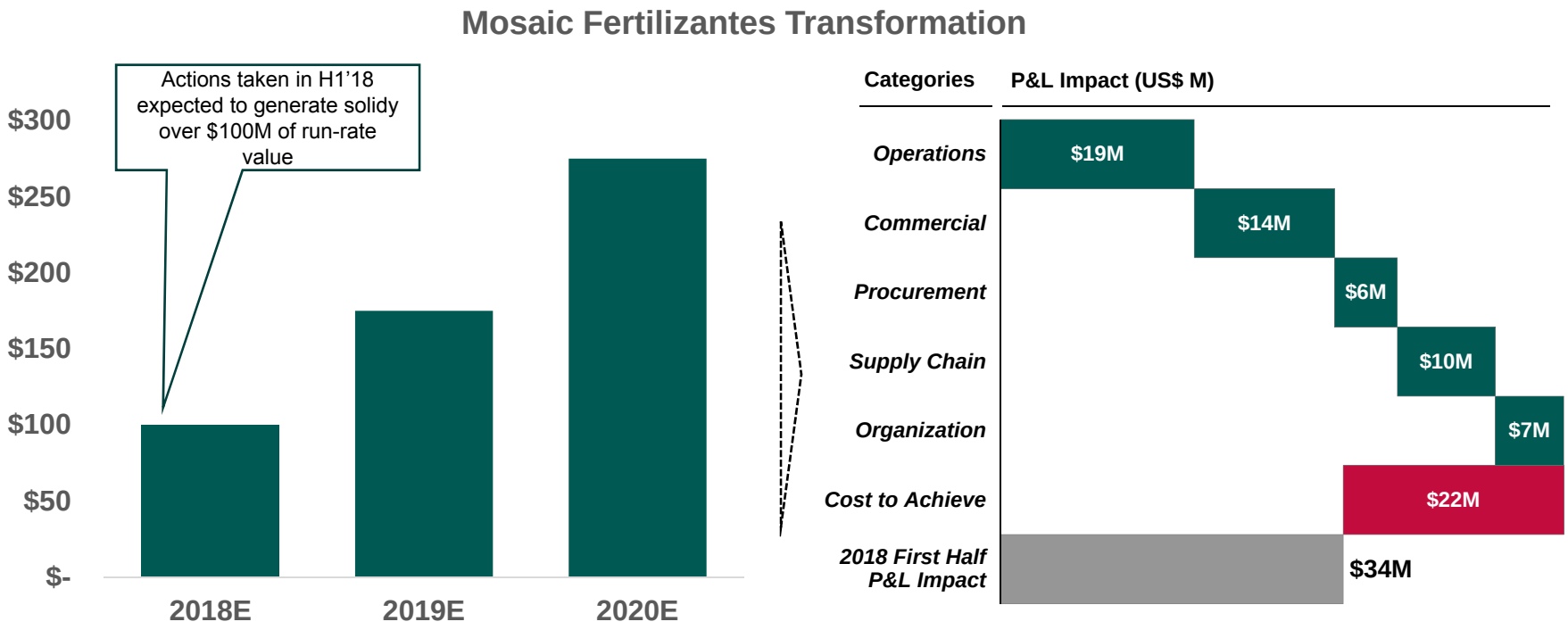
P&K accounts for ~2/3rds of all Brazil Nutrient Use



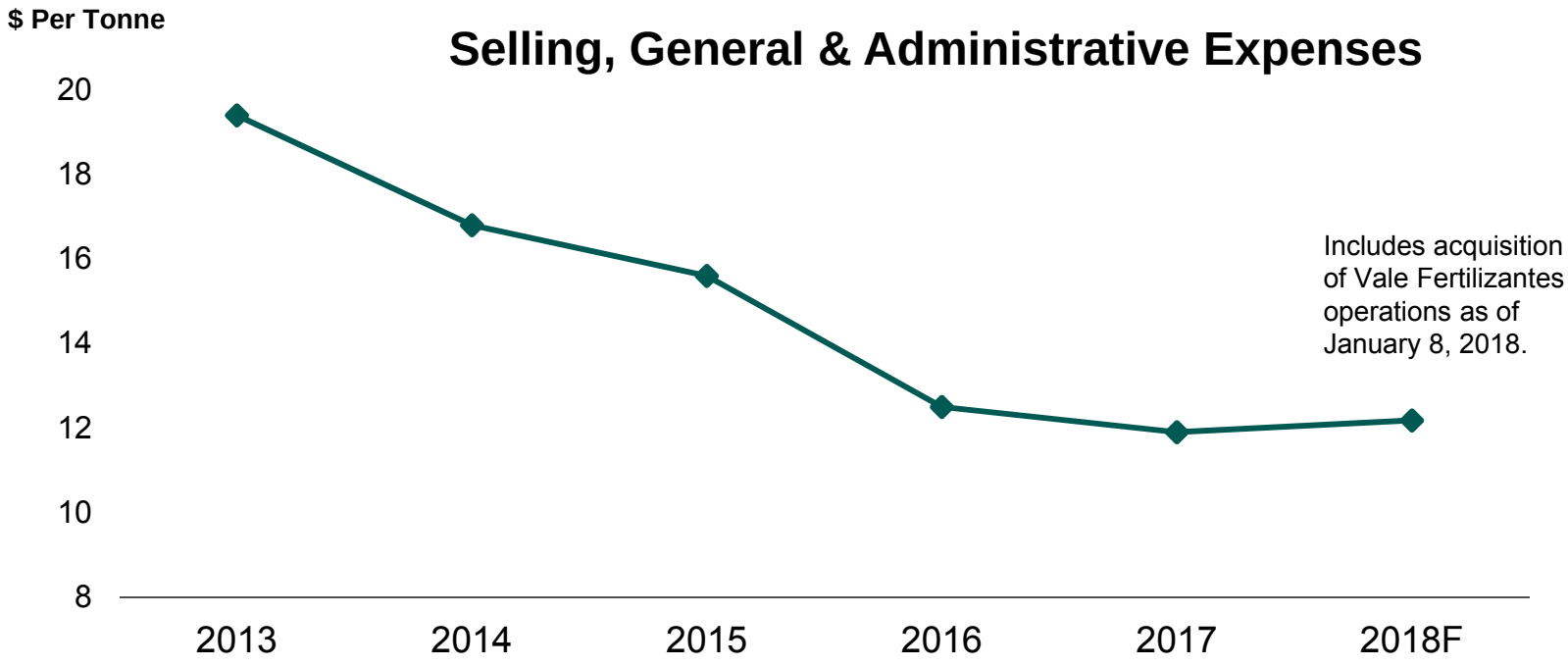
Source: USDA

Brazil expected to overtake US in soybean production in 2018/19 crop year

Mosaic Fertilizantes Transformation on Track

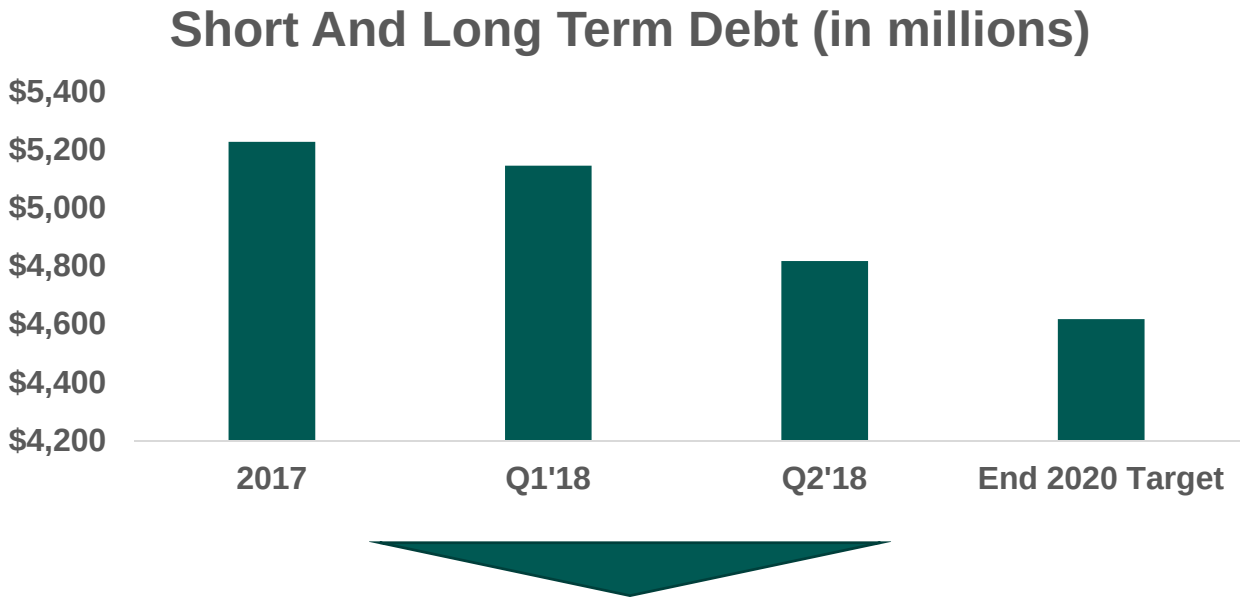


Visible Cost Controls



*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

Mosaic: Deleveraging Progress



Achieved ~$500 million debt pay down targeted for 2018 by August 1

**See Additional Detail in the Appendix*

Capital Allocation Philosophy



Further accelerated debt repayment in 2018

Markets

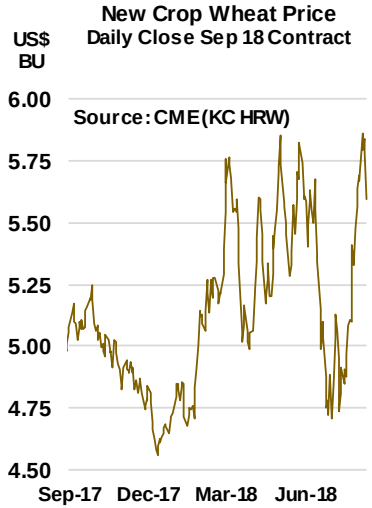
Agricultural Outlook



A Price Meltdown, a Bounce, and a Drop



The December 2018 corn contract dropped to $3.53 per bushel on July 11, a decline of 17% or 73 cents from a peak of $4.27 on May 23. The contract closed at $3.72 on August 10, recovering 19 cents or about one-quarter of the decline. Lower course grain crop estimates worldwide lifted prices in July, but a bearish August 10 WASDE report and prospects for a "big-crops-get-bigger" U.S. corn harvest still overhang the market.



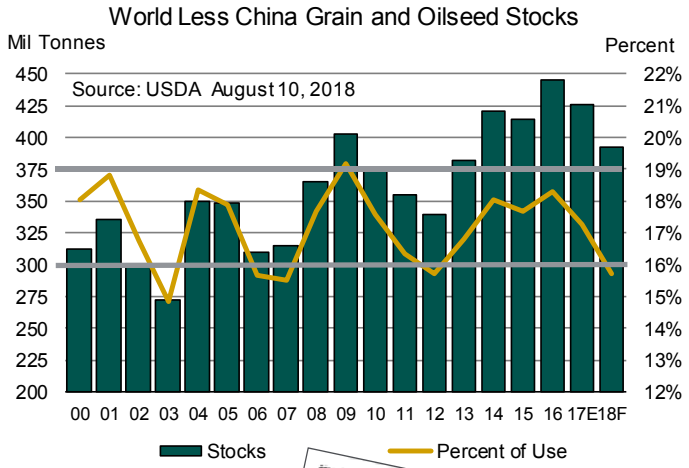
The September HRW wheat price declined to $4.71 per bushel on July 2, off 20% or $1.15 from its May 3 peak of $5.68 despite signs of crop problems in several key exporting regions. The September contract settled at $5.60 on August 10, clawing back almost 80% of the recent plunge. Prices have rebounded in response to recent estimates of drought-shriveled harvests in Europe, Russia, Ukraine, and Australia this year.



The November soybean contract closed at $8.34 per bushel on July 13, plunging 21% or $2.19 in 33 trading sessions from its May 25 peak of $10.54. The collapse was mostly a reaction to the first shots of the U.S.-China trade war on July 6. The new crop contract settled at $8.62 on August 10, up just 28 cents or 13% from the recent summer low. Expectations for a prolonged U.S.-China trade war coupled with an extremely bearish August 10 WASDE report ended the recent mini-rally.

Mosaic

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 decline 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
- More details in the July issue of Market Mosaic
- The Food Story is not in vogue but it still is intact

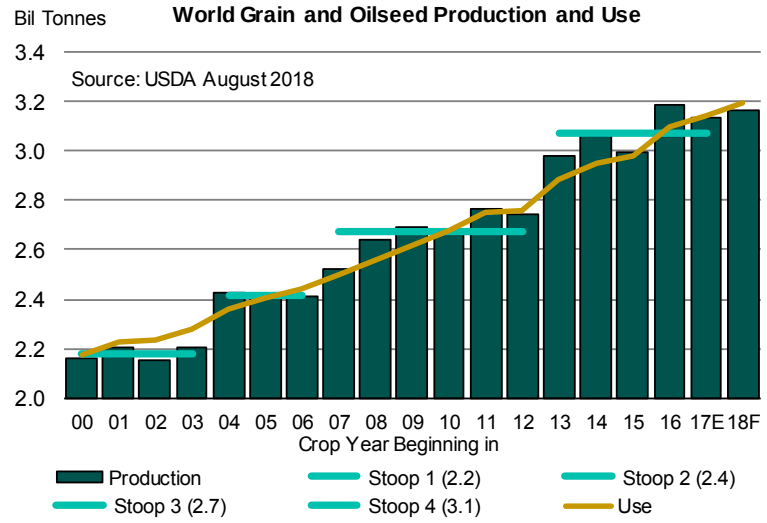
Available on the Mosaic website at:

www.mosaicco.com/resources/market_mosaic.htm

Mosaic

Positive Agronomic & Economic Demand Drivers

Record Harvests Remove Record Amounts of P&K

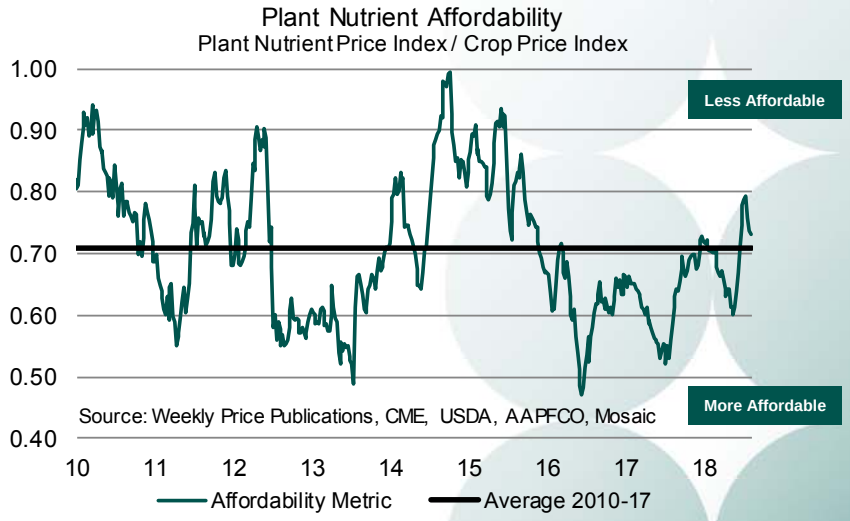


Estimated World Grain & Oilseed Nutrient Removal

Mil Tonnes	2007-12 Stoop (2.74 bmt)	2013-17 Stoop (3,06 bmt)	Change	Percent Change
N Removal	59.3	66.2	6.9	11.6%
P_2O_5 Removal	22.9	25.4	2.5	10.9%
K_2O Removal	19.2	21.5	2.2	11.7%

Source: USDA, IPNI, Mosaic

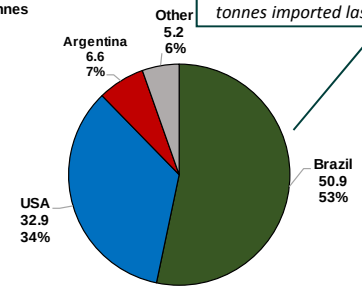
Plant Nutrients Still Affordable



The U.S.-China Soybean War Battlefield

Brazil and the United States are the dominant exporters of soybeans to China, accounting for 87% of the 95.5 million tonnes imported last year.

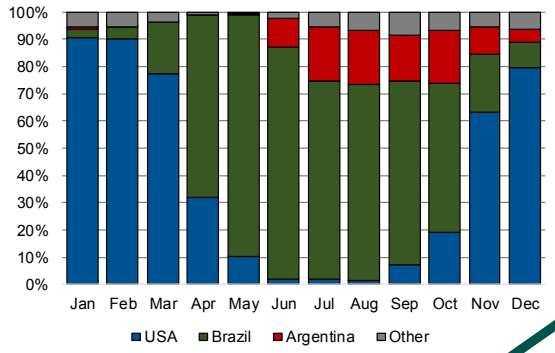
2017 China Soybean Imports
95.5 Million Tonnes



Source: China Customs via GTIS

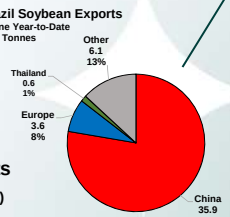
The USA supplies the majority of Chinese imports following its harvest or from November through March. South American producers account for the bulk of Chinese imports following their harvest or from April through October.

China Soybean Imports
Monthly Share by Origin
2013-17 Average

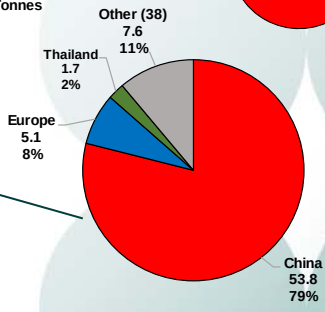


Statistics for the first half of this year show that Brazil exports were up 5% or 2.3 million tonnes, despite the recent truckers strike and on-going uncertainties about truck freight rates.

2018 Brazil Soybean Exports
January-June Year-to-Date
46.3 Million Tonnes



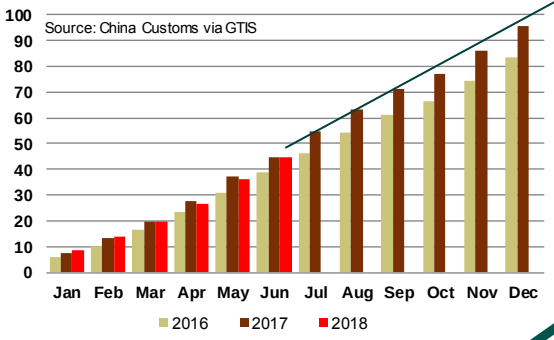
2017 Brazil Soybean Exports
68.2 Million Tonnes



Source: SECEX via GTIS

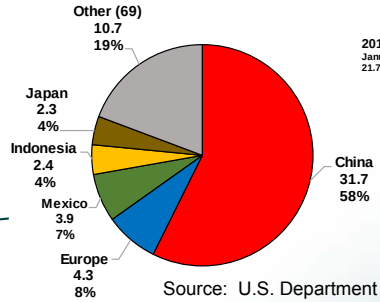
China is the largest destination for Brazil soybean exports, accounting for 79% of the 68.2 million tonnes exported in 2017.

Mll Tonnes **China Cumulative Soybean Imports**

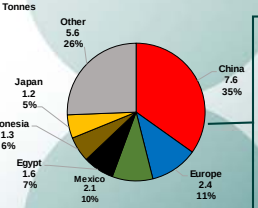


China soybean imports during the first half of this year totaled 44.9 million tonnes, one boatload greater than the same period last year.

2017 U.S. Soybean Exports
55.3 Million Tonnes



2018 U.S. Soybean Exports
January-June Year-to-Date
21.7 Million Tonnes



China also is the largest destination for U.S. exports, accounting for 58% of the 55.3 million tonnes exported in 2017. The numbers also show that Europe is no China.

Source: U.S. Department of Commerce via GTIS

Statistics for the first half of 2018 show that U.S. exports were up slightly, but shipments to China were down 2.0 million tonnes while shipments to other destinations were up.

Mosaic

Assessment of How the Trade War Plays Out

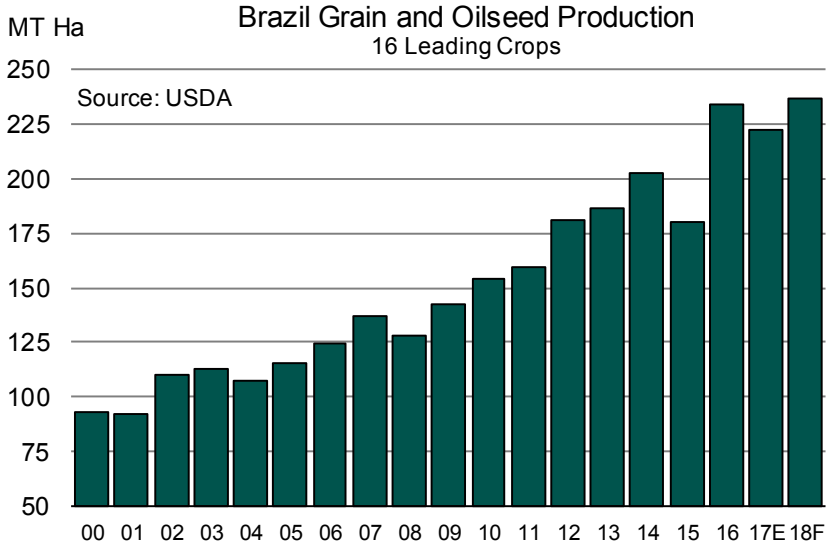
- China likely will still import ~95 million tonnes of soybeans this year despite recent claims of an expected 10 million tonne drop (implying 2018 LH imports of just 40.6 million tonnes or a drop of 20% from last year).
- China will draw down inventories, grow more, maximize imports from Brazil and elsewhere, import more soybean meal and protein substitutes in order to minimize U.S. soybean imports.
- Imports from the United States likely will be needed to meet demand due to seasonality and logistical constraints in both Brazil and China as well as smaller supplies from Argentina this year.
- Recent development such as the $12 billion farm aid package, trade talks with the EU, and plans to boost the tariff rate from 10% to 25% on the next $200 billion tranche of Chinese imports indicate that the Trump administration is prepared for drawn-out negotiations.
- The ultimate resolution to the dispute likely will include a commitment by China to increase imports of U.S. agricultural products in order to reduce its U.S. trade surplus.

Mosaic

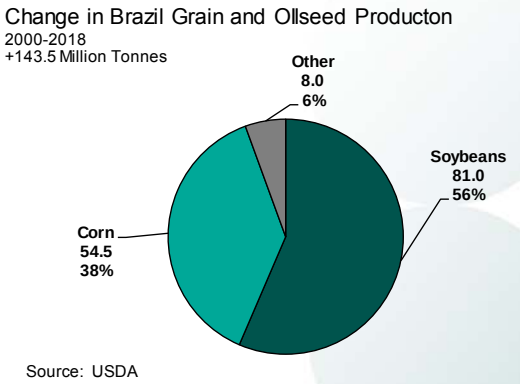
Markets

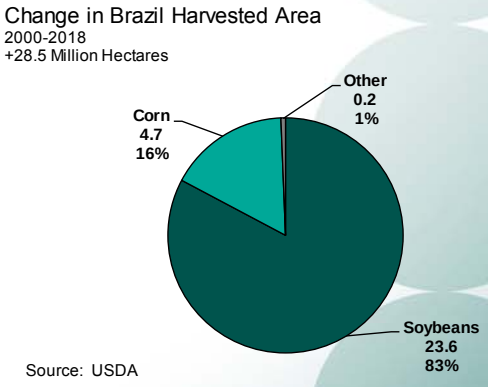
Brazil

An Agricultural Powerhouse

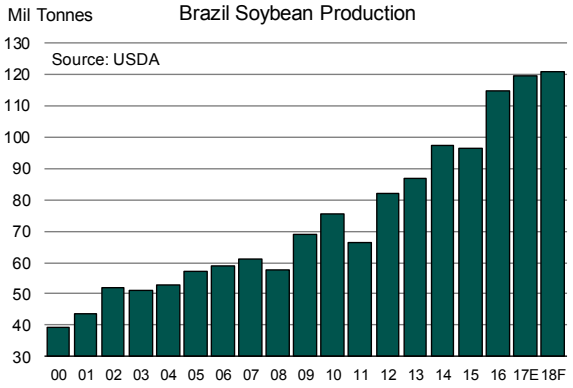


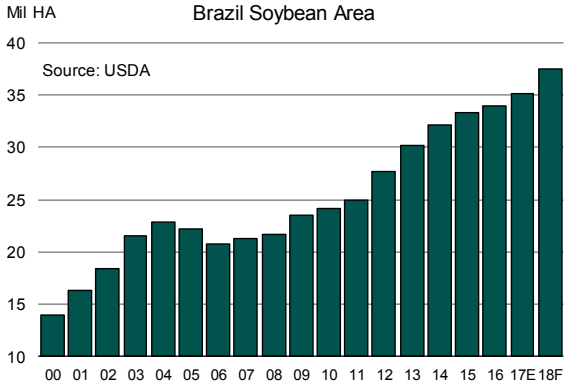
Grain and oilseed production has more than doubled since the turn of the century. Soybeans and corn have accounted for 94% of the gain in output and nearly all of the increase in harvested area during this period. The increase so far this century exceeds the largest crop ever produced in Argentina!

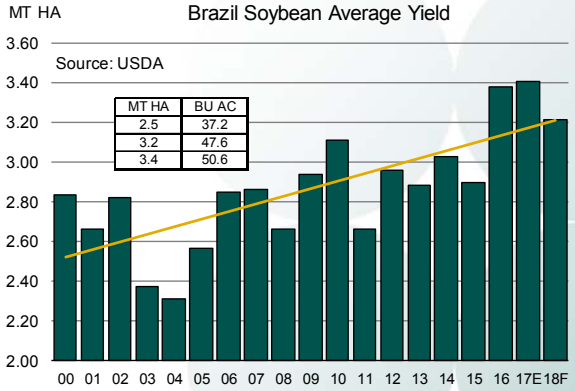


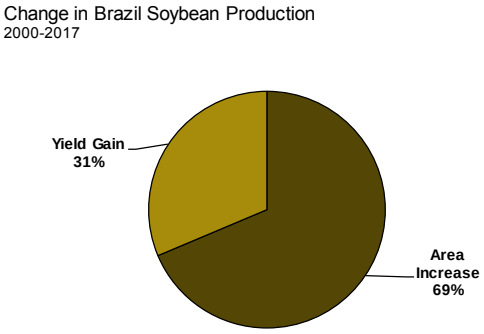


A Soybean Powerhouse

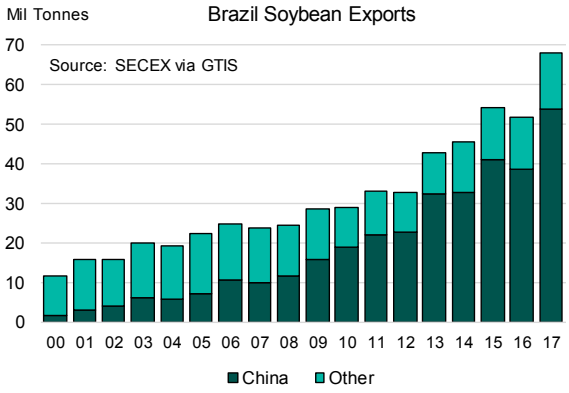








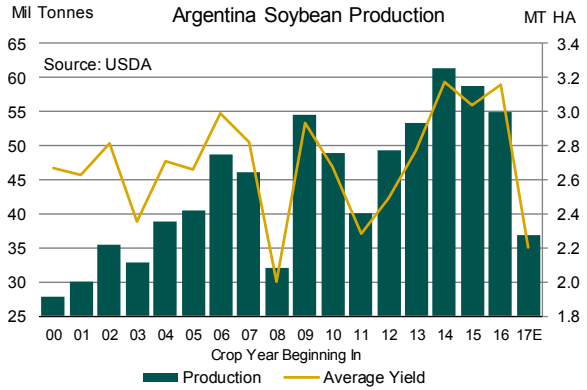
Source: USDA



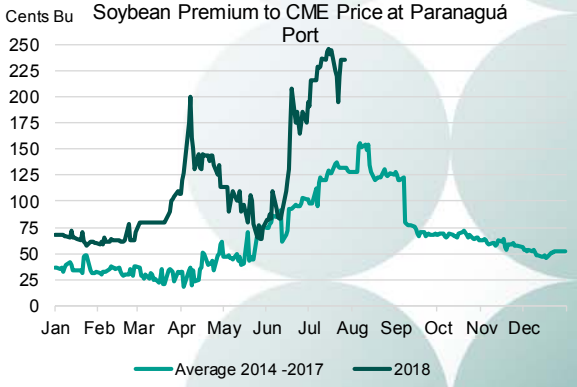
Soybean production has tripled so far this century. Increases in harvested area accounted for nearly 70% of the increase while yield gains accounted for the other 30%. Average soybean yields in Brazil are in line with those of the United States.

The increase in exports to China captured about two-thirds of the increase in soybean production.

Brazilian Farmers Benefit from the Argentine Drought, a Weaker *Real*, and the U.S.-China Trade War



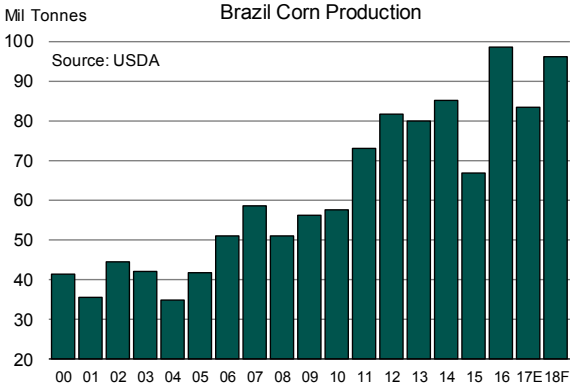


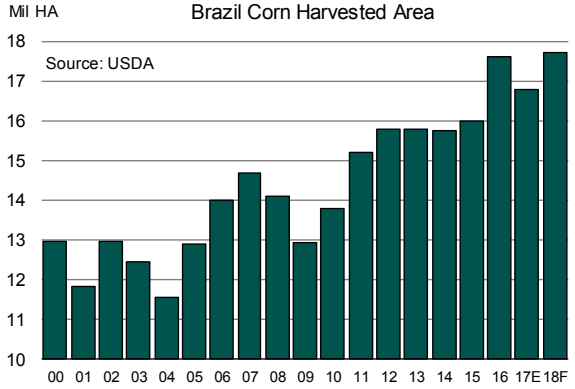


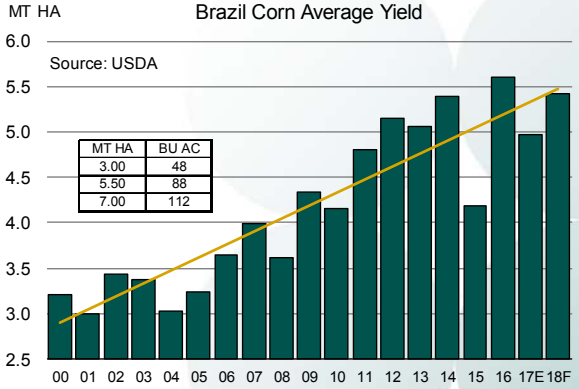
Soybean Premium at Paranaguá Port

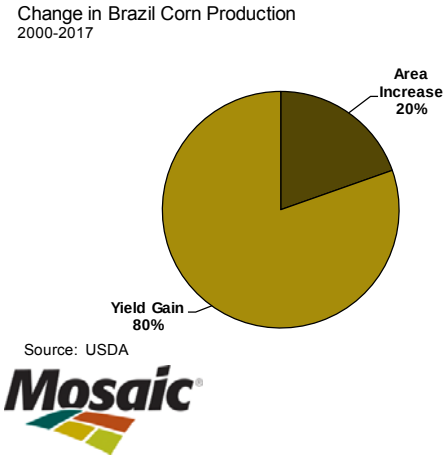
USD Bu	2018	Four-Year Average	Change
January	$0.64	$0.36	77%
February	$0.64	$0.34	91%
March	$0.88	$0.29	204%
April	$1.40	$0.38	265%
May	$0.91	$0.53	72%
June	$1.31	$0.87	50%
July	$2.26	$1.21	87%

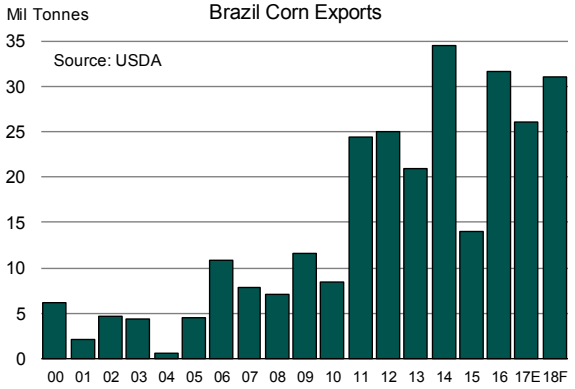
An Emerging Corn Powerhouse









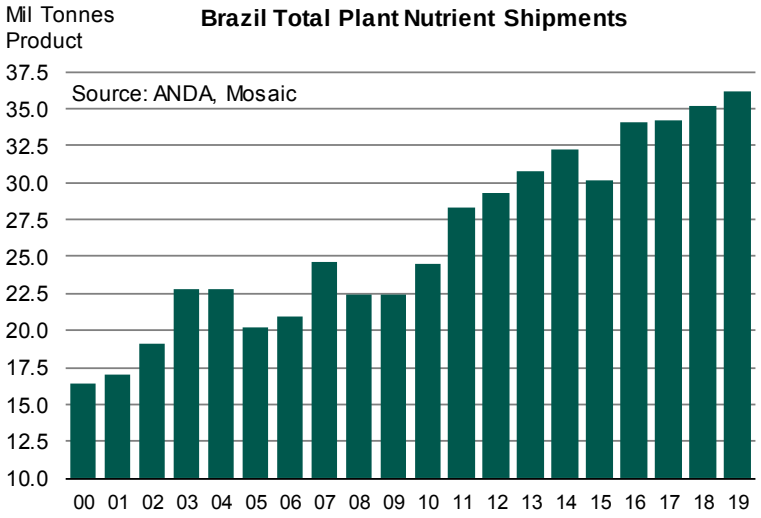


Corn production has more than doubled so far this century with nearly all the increase from the second or Safrinha crop that follows soybeans in the Midwest region. Increases in yields accounted for 80% of the gain in output while additional harvested area accounted for the other 20%. Average corn yields in Brazil still lag those in the United States. Exports captured about one-half of the increase in corn production during this period.

Brazil output has significant upside due to expected increases in soybean area as well as the potential for significant yield improvements. The key will be more profitable economics from the development of interior uses such as livestock and ethanol production.

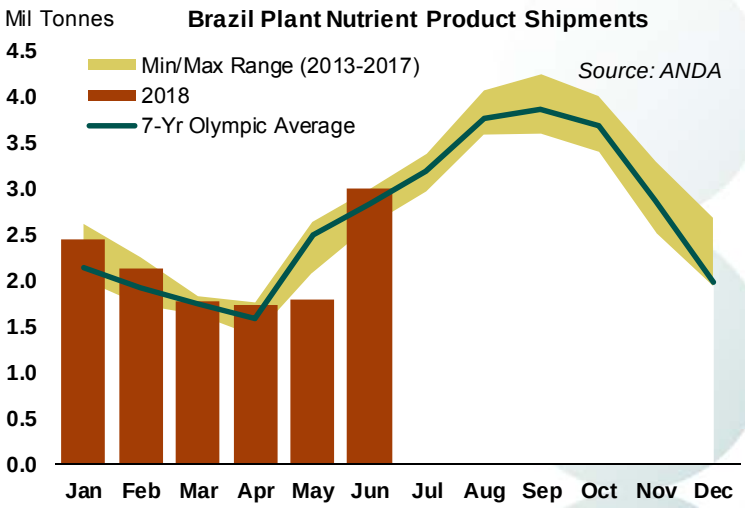
Mosaic

A Plant Nutrient Powerhouse



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

Our Brazilian team projects that plant nutrient shipments will increase 3.1% or 1.1 mmt to 35.2 million tonnes this year. Shipments are projected to increase another 2.8% or 1.0 mmt to 36.2 million in 2019.



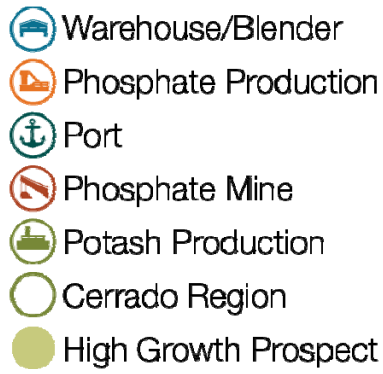
The truckers' strike reduced May shipments, but June shipments recovered nicely. First-half shipments totaled 12.8 mmt, down 2% from a year ago. We expect strong second-half shipments of 22.4 mmt, up 7% from the same period last year.

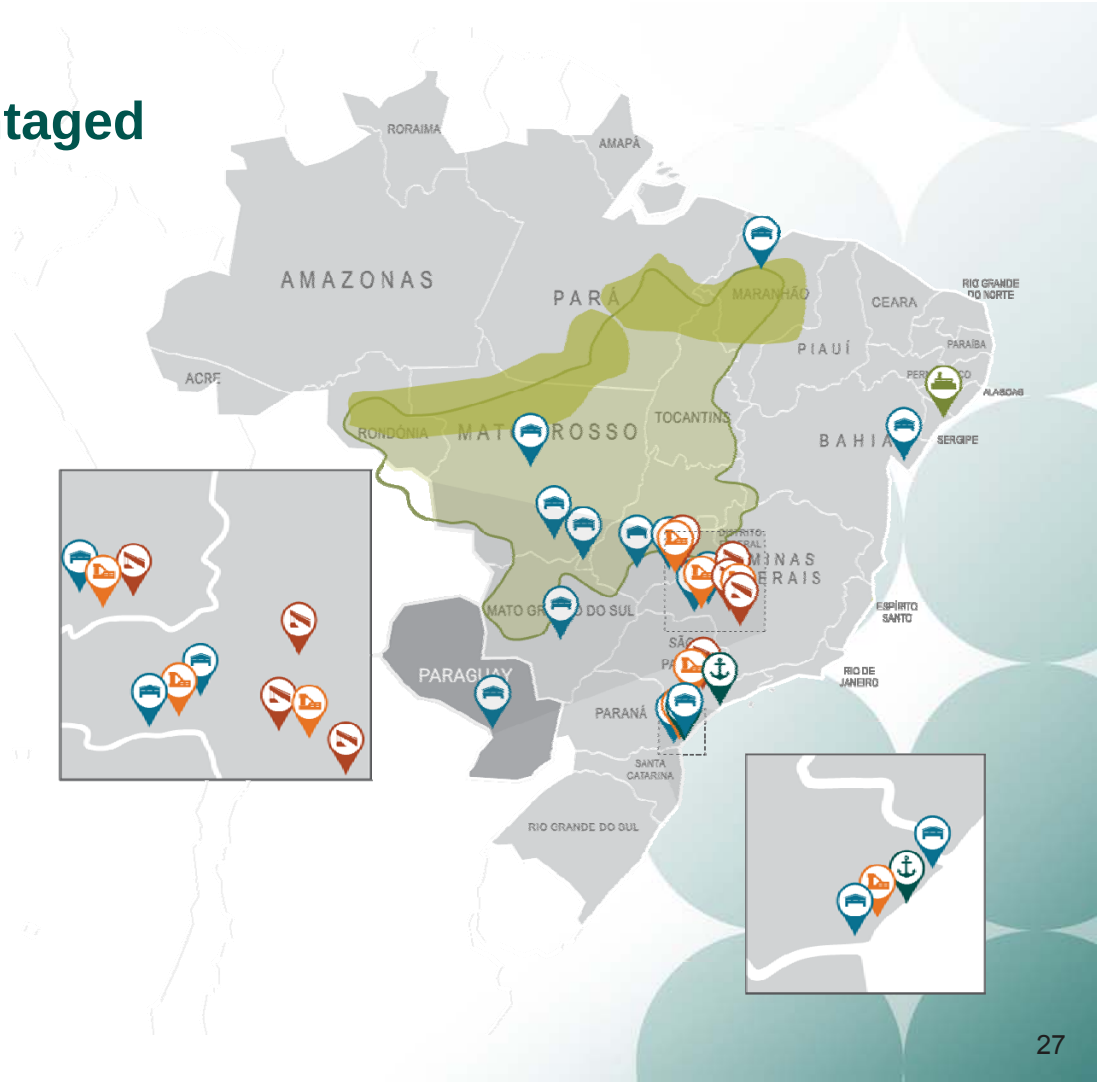
Shipments during the second half of the year typically are almost two times greater than first half shipments.

Mosaic

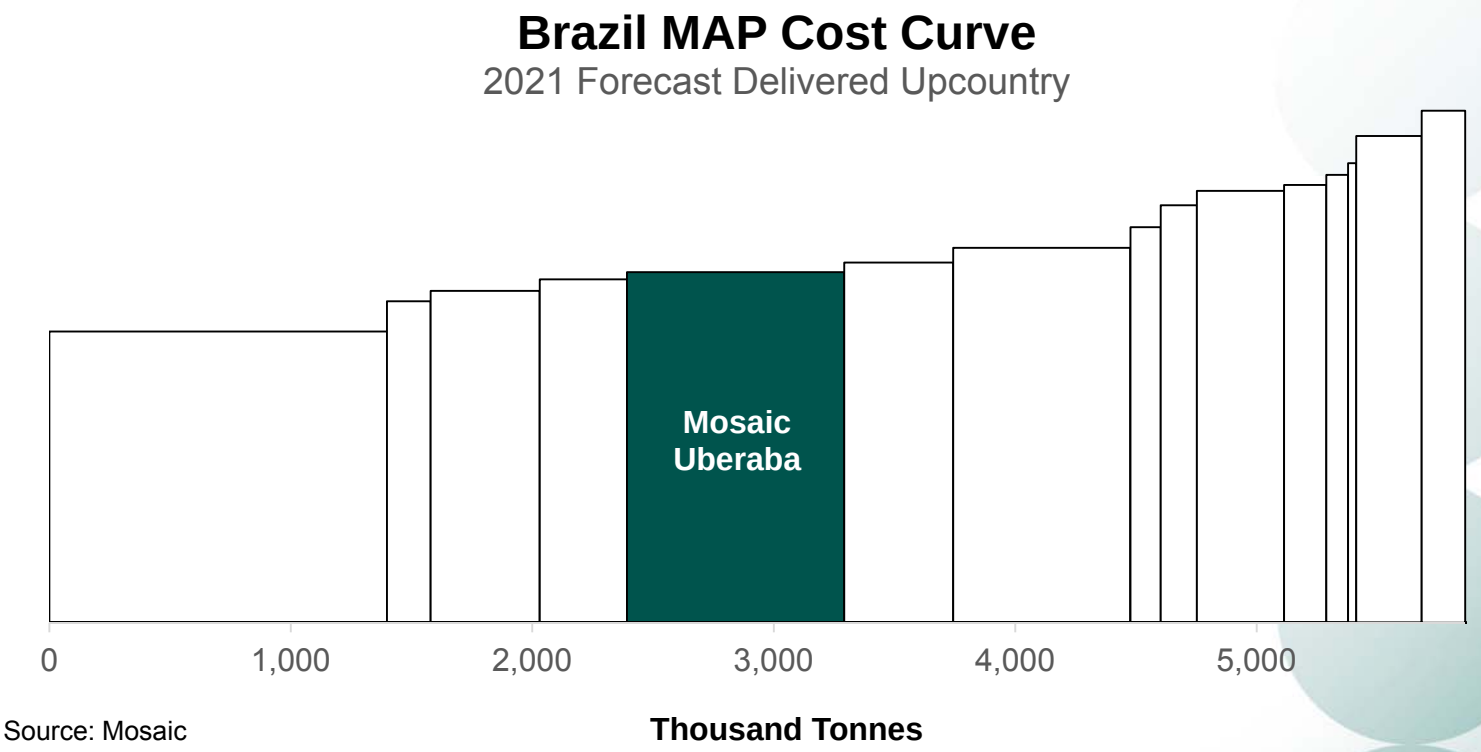
Mosaic is Logistically Advantaged to Key Growing Areas

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





Post Transformation: Competitive Delivered Basis

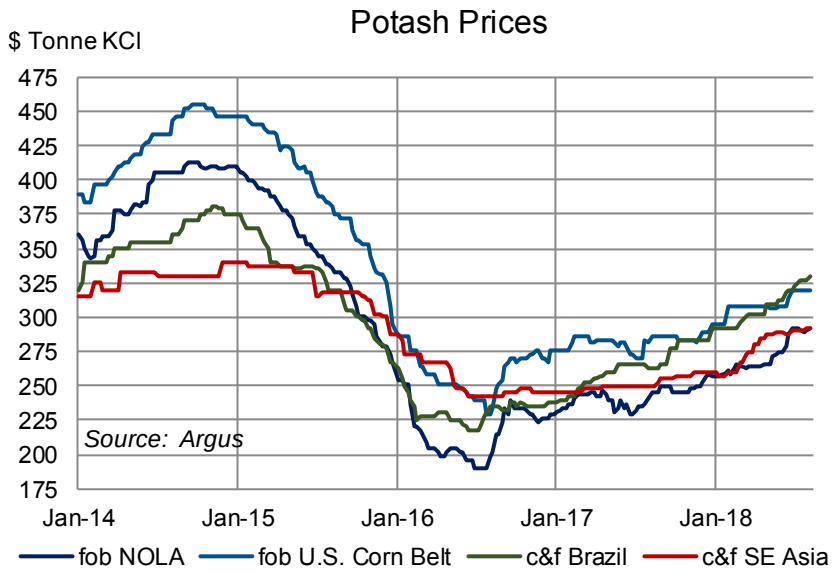


Source: Mosaic

Markets

Potash Outlook

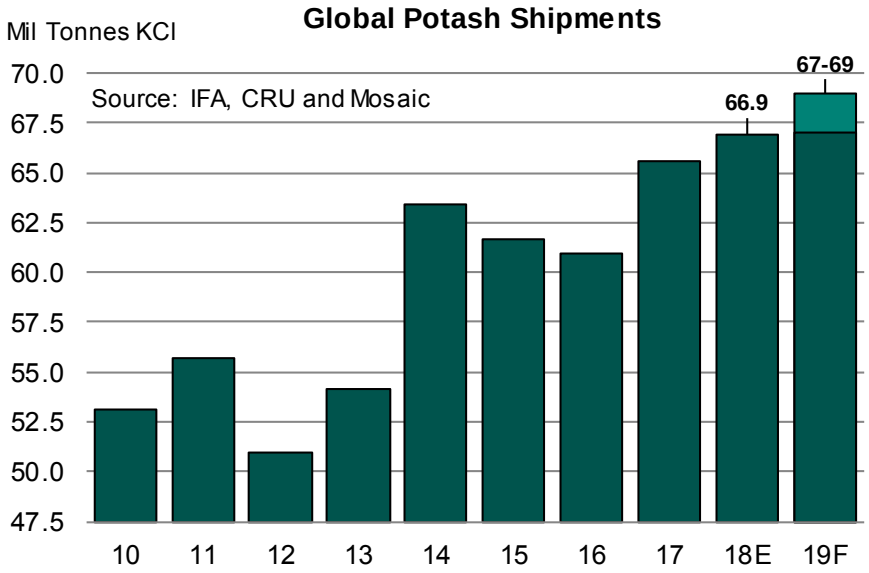
Prices Continue to Trend Up



- Strong broad-based demand growth
- Optimized/restructured operations
- No immediate threat from new capacity

Mosaic

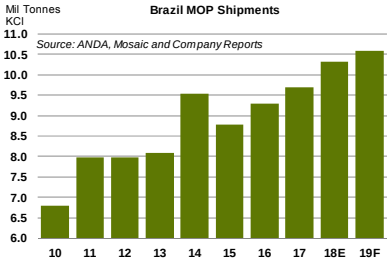
Strong, Broad-Based and Less Volatile Demand Growth



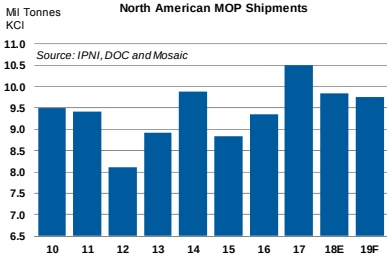
- Global KCl shipments now are projected to increase 2.7% or 1.8 million tonnes to 66.9 million this year. That follows the 6.9% or 4.2 million tonne recovery in shipments in 2017.
- In its outlook report released at the end of February, CRU estimated that MOP shipments totaled 65.5 million tonnes in 2017 and projected that shipments would increase to 66.6 million tonnes this year.
- Our first look at 2019 resulted in a shipment forecast in the 67-69 million ton range with a point estimate in the middle at 67.9 million.
- If our estimate for 2018 is on target, global shipments will have grown at a CAGR of 2.9% since 2010, although growth rate has fluctuated meaningfully until the last two years.

Mosaic

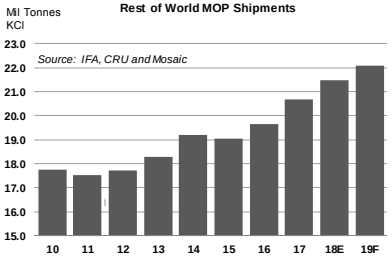
Strong and Broad-Based Demand Growth



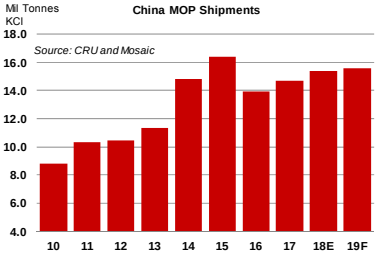
Brazil demand continues its upward march driven mainly by steady increases in soybean production. Shipments are forecast to breach the 10 million tonne mark this year.



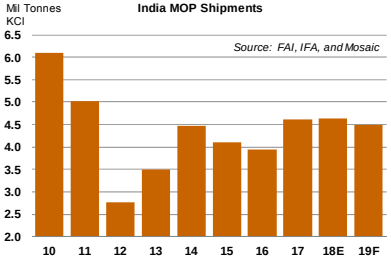
North American shipments surged to 10.5 million tonnes KCl in 2017 due to a strong fall application season and early positioning of 2018 needs. On-farm demand is expected to stay stable this year, but shipments are projected to drop to about 9.9 mmt.



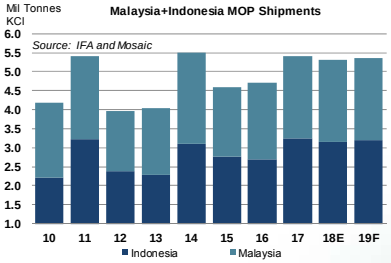
Shipments outside the “Big Six” countries/regions have taken off led mostly by other Asian and other Latin American countries as well as a doubling of African use during the last five years (albeit from a low starting point).



Chinese shipments also 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 strong growth in import demand.



India shipments are beginning to recover following 2010/11 subsidy changes that resulted in a near tripling of retail potash prices. Higher crop support prices and the likelihood of near normal monsoon rainfall also are aiding the recovery.



Indonesian and Malaysian shipments also have trended upward with surges in 2011 and 2014. Gains are driven mostly by increases in palm oil production, but positive rice profitability also has helped to underpin potash use in this region as well as in other Asian countries.

Global Potash Shipment Forecasts by Region (August 2018)

Source: IFA, CRU and Mosaic
(Numbers may not sum to total due to rounding)

Muriate of Potash Million Tonnes (KCl)	2016	2017R	2018F	Low 2019F	High 2019F	Comments
China	14.0	14.7	15.4	15.5	15.7	*Shipments are projected to rebound to 15.4 mmt in 2018 (~7.5 mmt production plus ~7.9 mmt of net imports). Demand is expected to increase modestly in 2019 as a result of lower-but-still-high domestic crop prices, moderate potash prices and the push to boost domestic crop/soybean production.*
India	3.9	4.6	4.6	4.4	4.6	*Shipments are forecast to remain steady in the 4.6 mmt range. High minimum support prices for key crops and another normal monsoon underpin steady on-farm use, but the increase in the MRP to offset a lower subsidy, weaker rupee, and higher potash prices is expected to limit demand gains.*
Indonesia+Malaysia	4.7	5.4	5.3	5.3	5.5	*2017 shipments were revised up based on IFA statistics released in May. Shipments are expected to hold near this level through 2019. Expectations of a normal monsoon and steady rice prices support demand, but lower palm oil prices as well as some hints of an El Nino are a yellow flag.*
Other Asia	4.8	5.0	5.4	5.5	5.7	*Demand continues to grow rapidly in this region. Across-the-board gains have occurred, but increases in Bangladesh, Thailand, and Vietnam are noteworthy. Demand is buoyed by the combination of generally good weather, favorable policies, OK crop prices and continued moderate K prices.*
W. Europe	5.0	4.8	4.8	4.7	4.9	*European shipments are projected to stay stable at around 4.8 mmt, but the severe drought this summer in some countries could threaten 2019 demand.*
E. Europe+FSU	4.6	5.1	5.3	5.4	5.6	*Shipments increased again in 2018 following big harvests in most parts of the region last year. Mostly favorable weather and weaker currencies have propelled crop production. That coupled with moderate K prices has underpinned demand. The severe drought this summer could constrain growth in 2019.*
Brazil	9.3	9.7	10.3	10.5	10.7	*Shipments are expected to blast through the 10.0 mmt mark this year and then notch a tick higher in 2019 due to continued good weather and positive agronomic and economic demand drivers. Soybean economics remain profitable despite lower CME prices due to a weaker real and a record local basis.*
Other L. America	2.8	2.9	2.8	2.8	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 at this point.*
N. America	9.4	10.5	9.9	9.7	9.9	*The 2017 surge resulted from a strong fall application season and early positioning of 2018 needs ahead of announced price increases. Shipments so far this year have remained strong, reflecting expectations of solid on-farm use. Shipments are projected to settle in the 9.7-9.9 mmt range.*
Other	2.4	3.0	3.1	3.2	3.4	*Africa accounts for much of the recent and projected gains in the rest of the world, but other regions such as Oceania have registered notable increases. After the big jump last year, shipments are forecast to increase moderately this year.*
Total	**60.9**	**65.6**	**66.9**	**67.0**	**69.0**	*2017 shipments were revised up from 65.0 to 65.6 mmt, so the increase last year now stands at a whopping 7.7% or 4.7 mmt. Shipments this year are projected to add 1.3 mmt to this record tally, a gain of another 2.1%. Our initial forecasts by region for 2019 sum to 67-69 mmt.*

Likely Supply and Demand Changes 2018-20

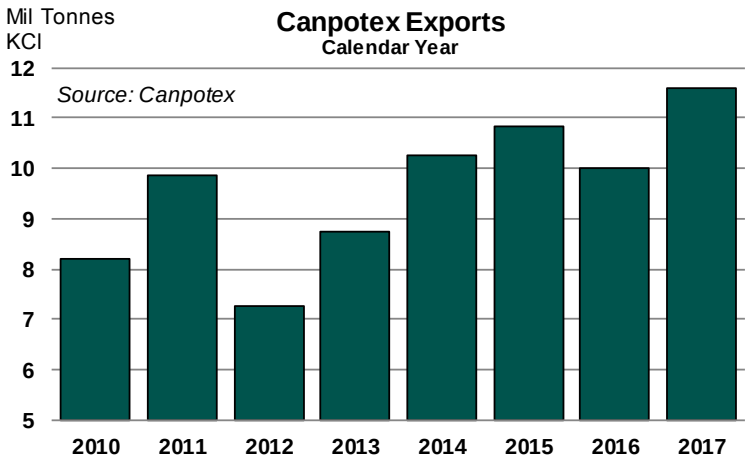
Potential Potash Supply and Demand Changes Excluding Canada

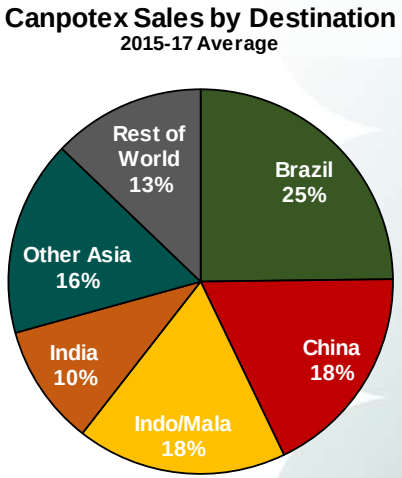
Mil Tonnes KCl	2018	2019	2020	
Projected Shipment Changes	**1.36**	**0.95**	**1.29**	← *A strong and broad-based gain is estimated for 2018 followed by a more modest increase in 2019 due mainly to flat or lower shipments in the United States and a bit slower growth in other regions.*
Percent Change	*2.1%*	*1.4%*	*1.9%*	
Potential Supply Changes	**0.52**	**0.81**	**1.64**	← *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 will close its Sigmundshall mine at the end of 2018. SQM is developing deposits to maximize lithium production at the expense of KCl output. These changes offset at least part of the expected output from the ramp up of the three greenfield projects. However, it now looks like output from the K+S, EuroChem, and Turkmenistan projects will fall well short of advertised production this year. In addition, recent reports indicate that increased rates of fresh water inflows at the Uralkali S2 mine may now exceed pumping and disposal capacities and could threaten production at this mine (not included).*
ICL Boulby Closure	*-0.20*	*0.00*	*0.00*	
SQM Maximizing Lithium Production	*-0.25*	*-0.10*	*0.00*	
K+S Sigmundshall Closure	*0.00*	*-0.45*	*0.00*	
Garlyk Ramp-Up	*0.00*	*0.03*	*0.06*	
K+S Bethune Ramp-Up	*0.55*	*0.70*	*0.30*	
Eurochem Usolskiy+Volgakaliy Ramp-Up	*0.40*	*0.60*	*1.25*	
Miscellaneous Changes (e.g. Bolivia)	*0.02*	*0.03*	*0.03*	
S/D Surplus (+)/Deficit (-)	*-0.84*	*-0.15*	*0.35*	← *Based on these assumption, the global market looks tight to balanced through 2020. Output especially from the two EuroChem mines begins to outpace demand growth in 2020, barring further capacity rationalization.*

Source: Mosaic

Mosaic

Record Canpotex Exports Required to Meet Record Demand

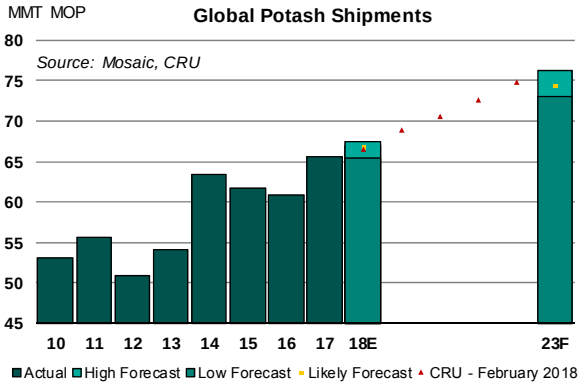


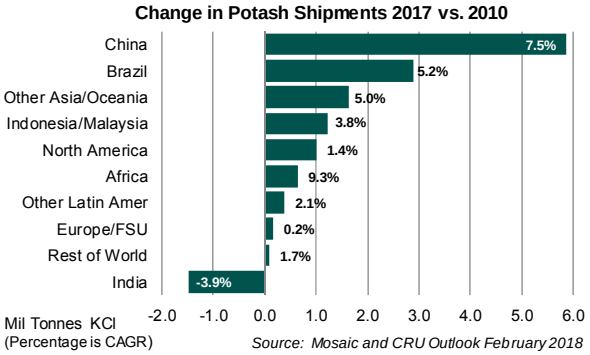


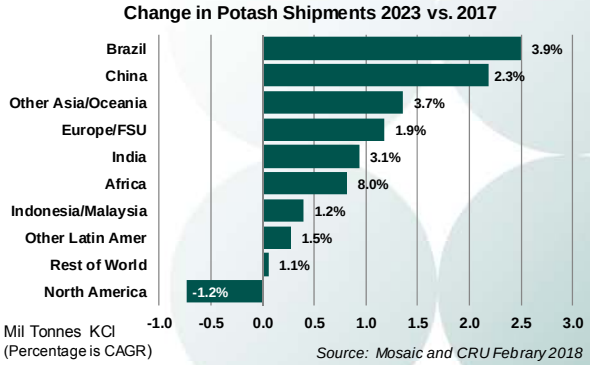
- Canpotex exported a record 11.6 million tons in 2017 in order to meet the big jump in global demand last year.
- Exports are projected to increase to another record this year. Shipments likely will climb to 12.0-12.5 million tonnes in 2018.

Mosaic

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







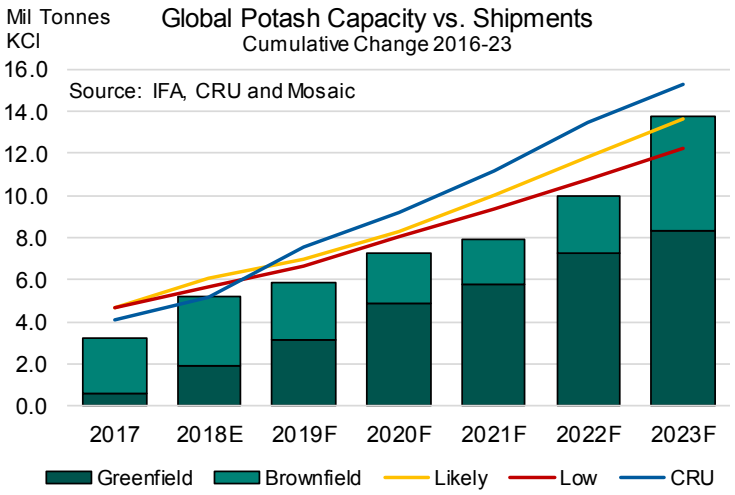
Global Potash Shipments

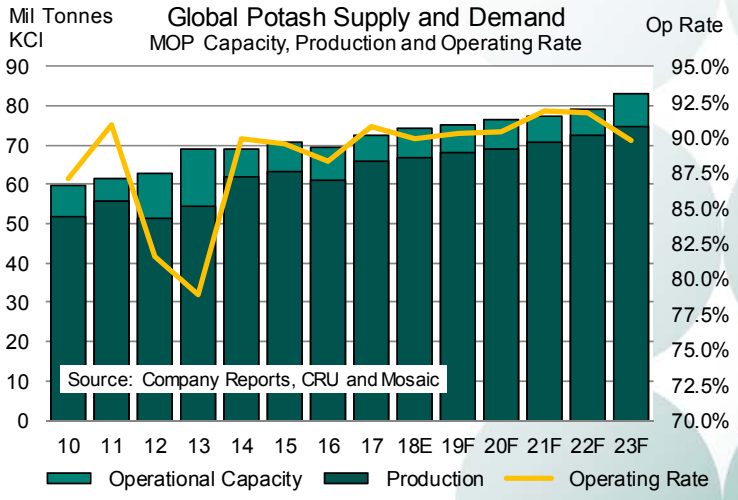
Mil Tonnes KCl	Mosaic Scenario Low	Likely	High	CRU Feb 18
2010 Shipments	na	53.1	na	53.6
2017 Shipments	na	65.6	na	65.5
Change 2010-17	na	12.4	na	11.9
CAGR 2010-17	na	3.1%	na	2.9%
2023 Forecast	73.1	74.6	76.2	74.9
Change 2017-23	7.5	9.0	10.6	9.4
CAGR 2017-23	1.8%	2.2%	2.5%	2.7%

Source: Mosaic, CRU Potash Outlook February 2018. CRU forecast is for 2022.

- By our most recent count, global shipments increased 3.1% per year or 12.4 million tonnes from 2010 to 2017. 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 9.0 million tonnes from 2017 to 2023. 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 continued strong agricultural commodity prices. An expected rebound in Indian shipments and continued growth in Brazil and China are key features of our forecast.
- The traditional growth geographies - Brazil, China, India, Indonesia, and Malaysia account for about two-thirds of the projected gain from 2017 to 2023, but other regions such as other Asian countries, the former Soviet Union (FSU), and Africa are expected to post notable increases during the next five years.

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. Global operational capacity is projected to increase 10.6 million tonnes KCl or from 72.5 million in 2017 to 83.1 million in 2023.
- The global operating rate is forecast to dip from 91% in 2017 to 90% in 2018-20 before increasing to nearly 92% in 2021-22. The continued ramp up of new greenfield and brownfield capacity is projected to reduce the global rate to about 90% by the end of the forecast period.
- This analysis assumes that global demand will grow 2.2% per year from 2017 to 2023 and that the four greenfield projects in Turkmenistan, Saskatchewan and Russia (2) will ramp up based on our assessment of reasonable start up rates.

Mosaic

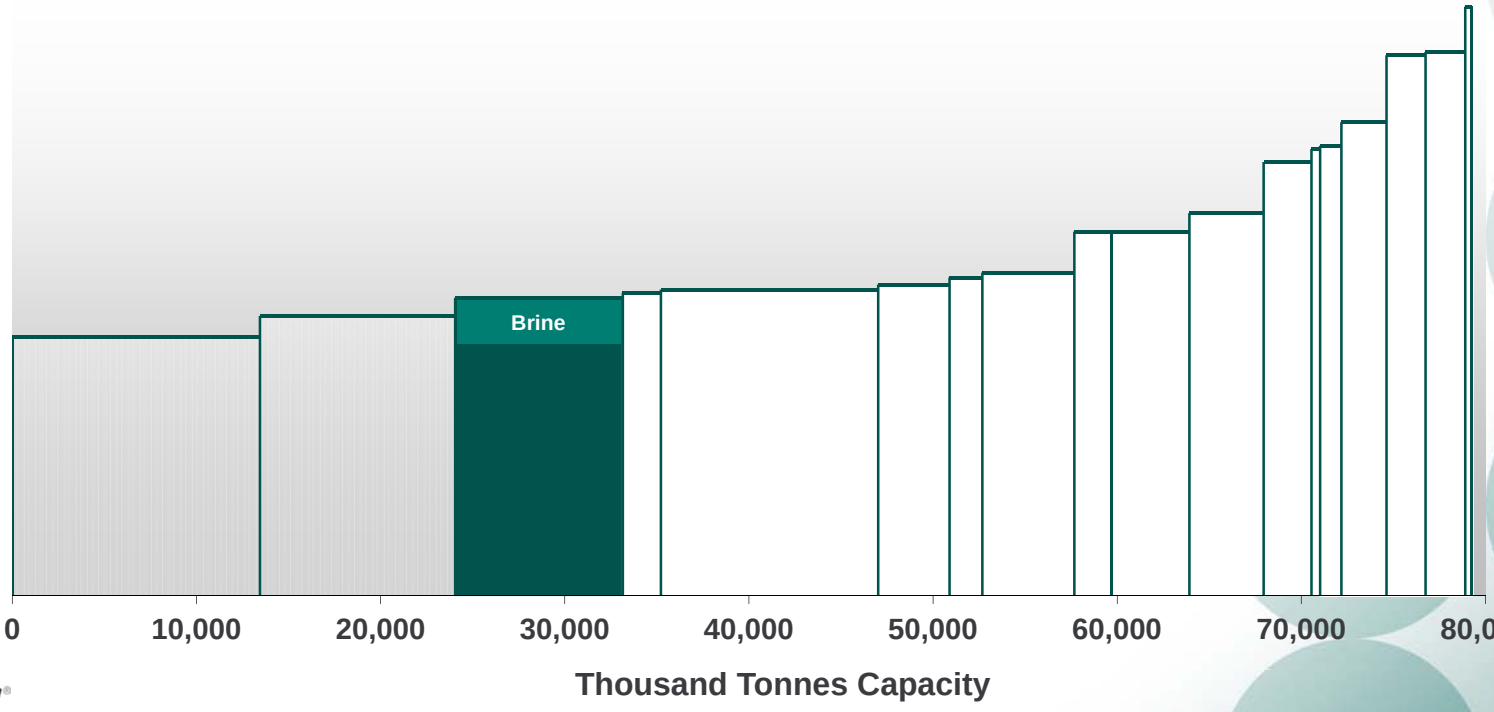
Factors to Watch

- Agricultural commodity prices
  - Farm or food crisis and impact on potash demand?
- FSU production
  - Can they maintain 2017 rates in 2018 and beyond? Is Uralkali S2 at risk?
- Ramp-up of new capacity
  - Slower-than-expected or faster-than-expected?
- Competitor strategies and behaviors
- Currency risks/opportunities and macroeconomic/political shocks
  - Devaluation or appreciation of the key 6R potash currencies? (Ruble, RMB, Real, Rupee, Rupiah, Ringgit)
  - Global trade dynamics

Mosaic

2021 Cost Curve Forecast

2021 MOP Cost Curve fob Mine at Effective Capacity

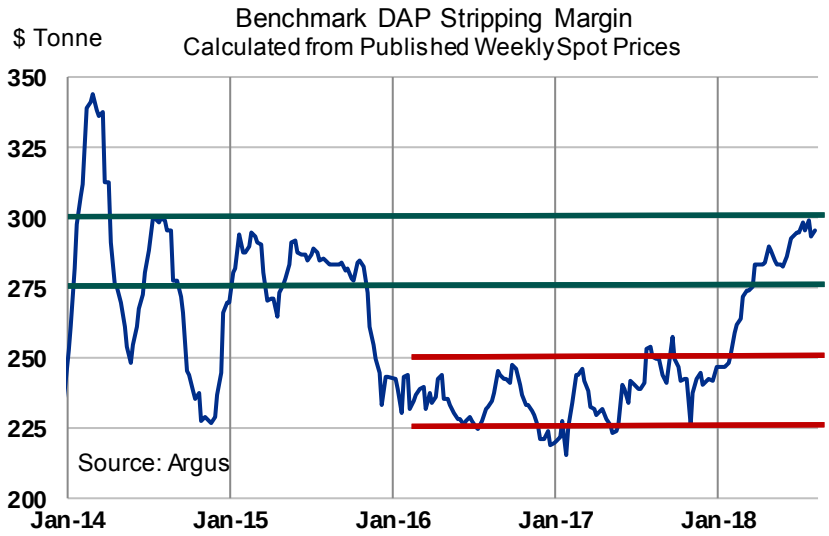


Source: CRU, Mosaic

Markets

Phosphate Outlook

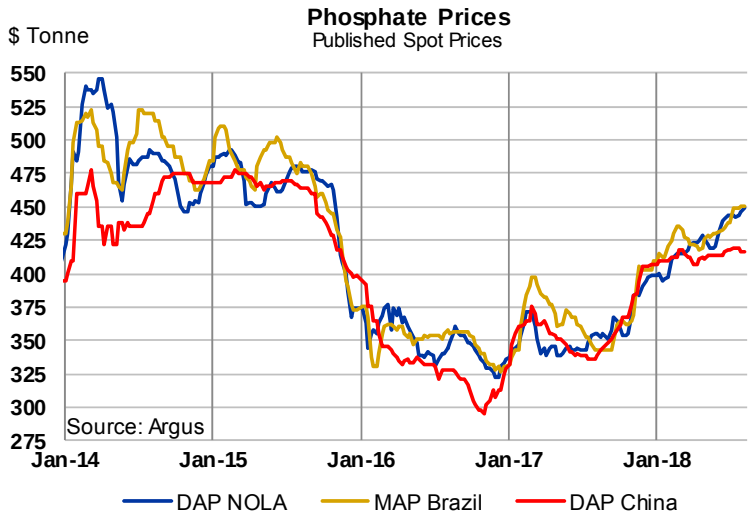
Phosphate Margins Move Up in Response to Constructive Fundamental Developments

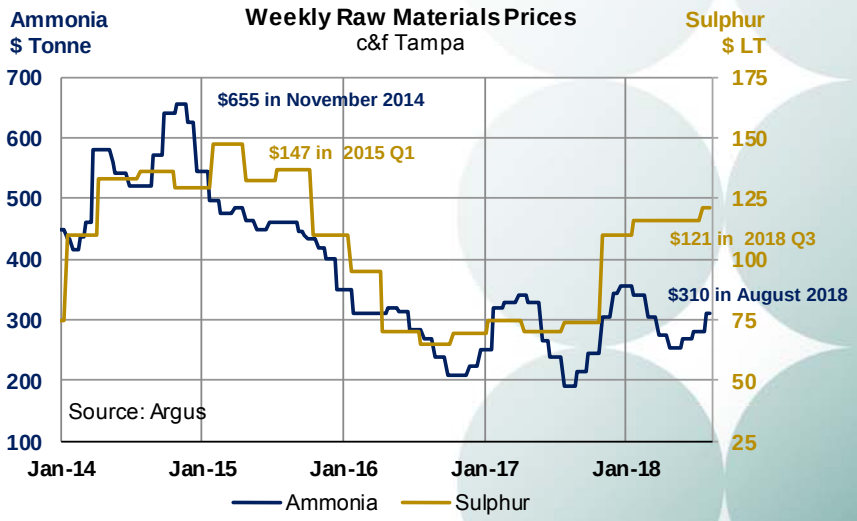


- Strong, broad-based and less volatile demand growth
- Supply adjustments take hold including the temporary idling of Mosaic's Plant City facility as well as a small decline in Chinese exports
- Slower-than-expected ramp-up of new capacity
- A shift in sentiment

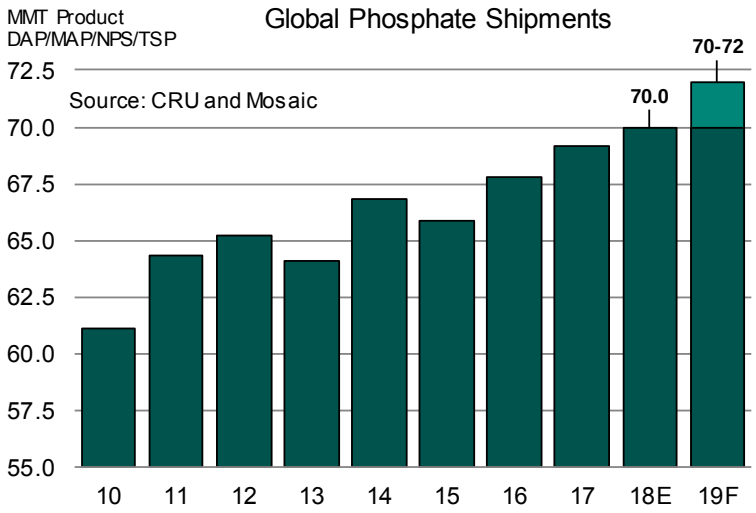
Mosaic

Nearly All of the Margin Gain is the Result of Higher Phosphate Prices





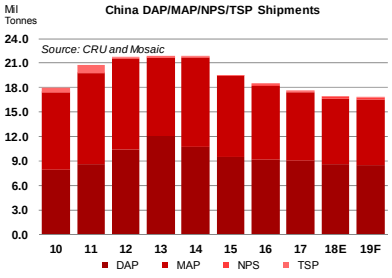
Strong, Broad-Based and Less Volatile Demand Growth



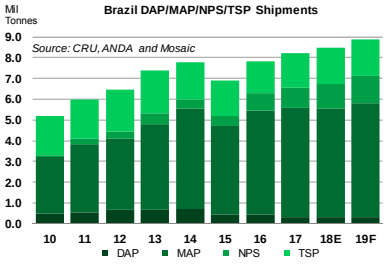
- Shipments of the leading finished phosphate products increased 2.1% or 1.4 million tonnes to 69.2 million in 2017 and are projected to increase another 1.2% or 0.8 million to 70.0 million tonnes this year.
- A first look at 2019 indicates that shipments likely will increase to 70-72 million tonnes with a point estimate of 70.8 million, a 1.2% or 0.8 million tonne gain.
- China has been a drag on global shipments for the past few years. Excluding China, demand increased 6.4% or 3.0 million tonnes in 2016 and 4.5% or 2.2 million tonnes in 2017. We project shipments outside China will increase 3.1% or 1.6 million tonnes this year and 1.8% or almost 1.0 million tonnes in 2019.
- Our initial estimates for 2019 are a bit cautious due to: 1) lower crop prices, 2) higher phosphate prices, 3) drought and lower crop production in some regions, and 4) policy/political uncertainties (e.g. the U.S.-China trade war and the new Malaysian government's support for agriculture).
- Excluding China, global shipments have increased at a CAGR of 2.9% or 9.2 million tonnes since 2010. Going forward we expect that Chinese shipments will stabilize at close to 17 million tonnes.
- Growth outside China is led by a recovery in India, and strong and steady gains in other geographies including Brazil, the rest of Latin America, Southeast Asia, the former Soviet Union and Africa.

Mosaic

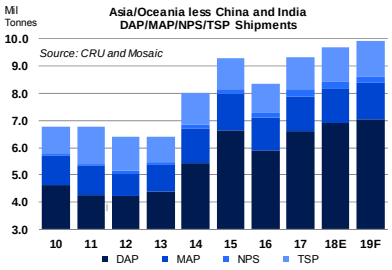
Broad-Based Demand Growth



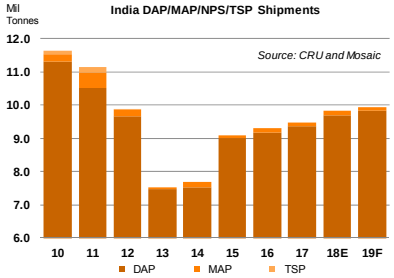
Chinese shipments peaked at more than 21 million tonnes in 2013. Growth was driven by high support prices for leading crops such as corn and a build-up of strategic reserves. Shipments are expected to stabilize in the 17 million tonne neighborhood in the new economic/policy environment.



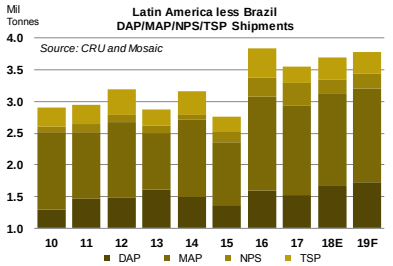
Phosphate demand in Brazil continues its strong upward trend driven mainly by steady increases in soybean production. The growth in NPS shipments – mostly Mosaic's MicroEssentials® – is noteworthy.



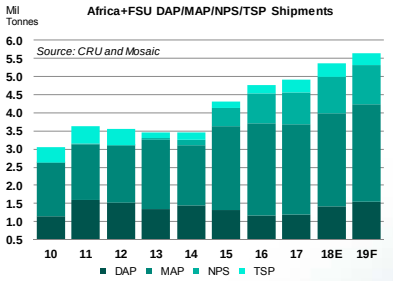
Shipments in the rest of Asia have increased significantly since 2013. The biggest gains were in Pakistan and Vietnam, but most countries registered increases during this period. Profitable farm economics due to steady crop prices and moderate phosphate costs underpin demand growth.



Indian shipments plummeted following changes in the subsidy and a doubling of retail DAP prices in 2010/11. Poor monsoons also contributed to weak demand. Shipments are beginning to recover given high local crop prices, more moderate phosphate prices, a larger subsidy, and prospects for another average monsoon 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. Shipments are expected to post a solid gain this year due to generally profitable farm economics 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 is picking up in response to moderate crop prices, weak currencies and a run of generally good harvests.

Global Phosphate Shipment Forecasts by Region (August 2018)

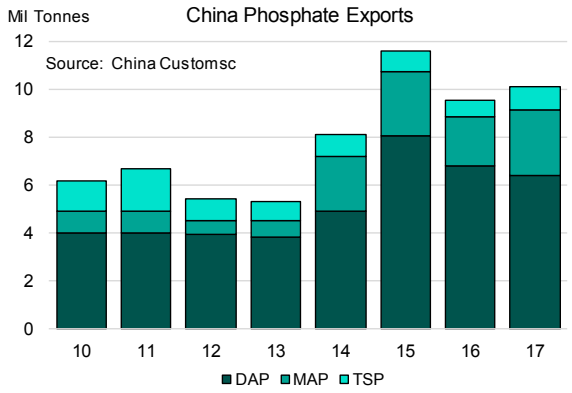
DAP / MAP / NPS* / TSP (Million Tonnes)	2016	2017R	2018F	Low 2019F	High 2019F	Comments
China	18.5	17.7	16.9	16.7	17.0	*We have downgraded our forecast for 2018 by nearly 1.0 mmt, given our most recent data on use during the spring season. It is from this lower base that we look for stabilization of domestic phosphate demand after several years of decline (from a peak of 21.8 mmt in 2014, a decline of 22% over the past 4 years).*
India	9.3	9.5	9.8	9.8	10.1	*As expected, low inventories as the start of the year prompted a big import program (Jan-Jun imports of 2.5 mmt are nearly double the pace seen last year). With domestic production for H1 down by ~750,000 tonnes y-o-y, we expect imports to remain strong through 2018, coming in at around 5.5 mmt (versus 4.1mmt in 2017), though inventories are expected to end the year at low levels.*
Other Asia/Oceania	8.3	9.3	9.7	9.9	10.2	*Demand across this region remains robust driven by favorable policy changes, generally profitable farm economics, and mostly normal weather. We expect recent trends to continue in 2019, although early indications of a developing El Niño is a yellow flag.*
Europe and FSU	5.8	6.2	6.0	6.1	6.3	*Our 2018 estimate is at the top end of our expectations on strong shipments in H1, though the drought conditions across much of the region coupled with potential destocking of the distribution pipeline could threaten H2 volumes.*
Brazil	7.8	8.2	8.5	8.7	9.0	*Farm economics continue to look very attractive on the strength of Brazilian soybean export prices and a weakened currency, though FX volatility and uncertainty surrounding truck freight tariffs have kept 2018 shipment growth in check. We expect that inventories will end the year well below average on the slow pace of imports (down 10% y-o-y through June) and strong on-farm demand, leading to an acceleration of shipment growth in 2019.*
Other Latin America	3.8	3.6	3.7	3.7	3.9	*We have revised higher our 2017 shipment estimate on updated trade statistics, but have left our 2018 estimate little-changed with continued profitable farm economics.*
North America	9.4	9.9	10.1	9.8	10.1	*On-farm demand held firm in spring 2018 despite spring arriving late in some parts, and we expect that shipments will also be robust in the fall, as the early maturation of this year's crops should lead to a long, open season. This has the potential to pull forward some volumes from spring 2019.*
Other	4.7	4.9	5.2	5.3	5.4	*Our forecasts for Africa have been revised upwards for 2017, which carries through to a higher estimate for 2018, as growth in African demand continues to surprise to the upside.*
Total	**67.7**	**69.2**	**70.0**	**70.0**	**72.0**	*At 70.0 mmt, our point estimate for 2018 remains right in the middle of our previous guidence of 69-71 mmt. Excluding China, this represents an increase of 1.6 mmt or 3.1% from an upwardly-revised estimate for 2017. Our first call on 2019 shipments is 70-72 mmt, with a current point estimate in the middle of the range. Excluding China, this adds another nearly 2% or 1.0 mmt to the lofty 2018 tally.*

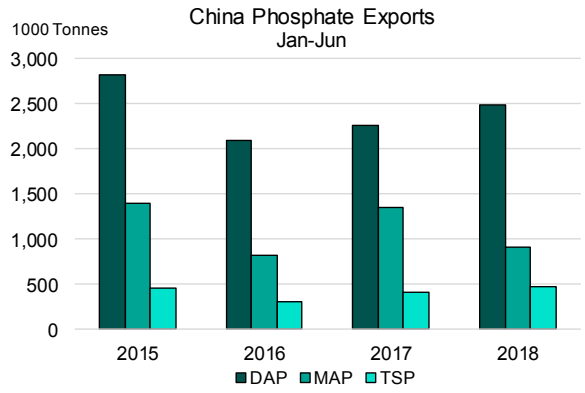
Source: CRU and Mosaic.
Numbers may not sum to total due to rounding.

** 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 impacted both fundamentals and sentiment.
- Later start-up and slower ramp-up of new capacity in Moroccan and Saudi Arabia.
- We estimate that Chinese phosphate exports during the first half of this year were off 175,000 tonnes and the 12-month rolling total was down almost 400,000 tonnes at the end of June. MAP exports from non-integrated producers along the Yangtze river were impacted the most by more stringent environmental regulations.







China Phosphate Exports						
	January-June				2018 vs. 2017	
1000 Tonnes	2015	2016	2017	2018	Change	Pct Chg
DAP	2,823	2,088	2,266	2,485	219	9.7%
MAP	1,392	825	1,357	908	-449	-33.1%
TSP	461	300	413	467	55	13.3%
Total	4,677	3,213	4,035	3,861	-175	-4.3%

Source: China Customs and Mosaic

Fundamentals Math - 2018

Phosphate S/D Incremental Changes, H1 2018
Mil Tonnes DAP/MAP/NPS/TSP - equivalent

Shipment Increase		0.50
Plant City Idling	*-0.64*	
OCP JPH 3 Ramp-Up	*0.15*	
OCP JPH 4 Start-Up	*0.00*	
OCP Debottlenecking	*0.00*	
MWSPC Ramp-Up	*0.79*	
GCT Sfax Closure	*-0.07*	
Phosagro Debottlenecking	*0.17*	
Misc Downtime (Tun.,S.Af.,Aus.)	*-0.15*	
Sterlite Shutdown (India)	*-0.02*	
Turkey/Egypt Greenfields	*0.00*	
Chinese Exports	*-0.17*	
Supply Changes	**0.06**	
Incremental Supply Surplus (+) or Deficit (-)	**-0.45**	

Phosphate S/D Incremental Changes, H2 2018
Mil Tonnes DAP/MAP/NPS/TSP - equivalent

Shipment Increase		0.34	
Plant City Idling	*-0.63*		
OCP JPH 3 Ramp-Up	*0.35*		
OCP JPH 4 Start-Up	*0.20*		
OCP Debottlenecking	*0.20*		
MWSPC Ramp-Up	*0.51*		
GCT Sfax Closure	*-0.07*		
Phosagro Debottlenecking	*0.11*		
Misc Downtime (Tun.,S.Af.,Aus.)	*0.00*		
Sterlite Shutdown (India)	*-0.25*		
Turkey/Egypt Greenfields	*0.00*		
Chinese Exports	*0.17*	*-0.30*	*-0.78*
Supply Changes	**0.60**	**0.13**	**-0.35**
Incremental Supply Surplus (+) or Deficit (-)	**0.27**	**-0.21**	**-0.69**

Phosphate S/D Incremental Changes, 2018
Mil Tonnes DAP/MAP/NPS/TSP - equivalent

Shipment Increase		0.84	
Plant City Idling	*-1.26*		
OCP JPH 3 Ramp-Up	*0.50*		
OCP JPH 4 Start-Up	*0.20*		
OCP Debottlenecking	*0.20*		
MWSPC Ramp-Up	*1.30*		
GCT Sfax Closure	*-0.13*		
Phosagro Debottlenecking	*0.28*		
Misc Downtime (Tun.,S.Af.,Aus.)	*-0.15*		
Sterlite Shutdown (India)	*-0.28*		
Turkey/Egypt Greenfields	*0.00*		
Chinese Exports	*0.00*	*-0.48*	*-0.95*
Supply Changes	**0.66**	**0.18**	**-0.29**
Incremental Supply Surplus (+) or Deficit (-)	**-0.18**	**-0.66**	**-1.13**

Supply and demand changes this year likely will result in a deficit that is expected to support prices and margins at levels that will curb a bit of demand growth and boost production and exports from current producers.

Mosaic

Fundamentals Math - 2019

Phosphate S/D Incremental Changes, H1 2019
Mil Tonnes DAP/MAP/NPS/TSP - equivalent

Shipment Increase		0.41	
Redwater Closure	*-0.15*		
OCP JPH 4 Ramp-Up	*0.20*		
OCP Debottlenecking	*0.15*		
MWSPC Ramp-Up	*0.11*		
GCT M'dilla Start-Up	*0.07*		
Misc Recovery (Tun.,S.Af.,Aus.)	*0.15*		
Yara-Galvani Start-Up	*0.03*		
Sterlite Shutdown (India)	*-0.20*		
NTR Geismar Closure	*-0.08*		
Turkey/Egypt Greenfields	*0.12*		
Chinese Exports	*-0.17*	*-0.33*	*-0.50*
Supply Changes	**0.23**	**0.07**	**-0.10**
Incremental Supply Surplus (+) or Deficit (-)	**-0.18**	**-0.34**	**-0.51**

Phosphate S/D Incremental Changes, H2 2019
Mil Tonnes DAP/MAP/NPS/TSP - equivalent

Shipment Increase		0.41	
Redwater Closure	*-0.30*		
OCP JPH 4 Ramp-Up	*0.30*		
OCP Debottlenecking	*0.15*		
MWSPC Ramp-Up	*0.39*		
GCT M'dilla Start-Up	*0.15*		
Misc Recovery (Tun.,S.Af.,Aus.)	*0.00*		
Yara-Galvani Start-Up	*0.08*		
Sterlite Shutdown (India)	*0.00*		
NTR Geismar Closure	*-0.08*		
Turkey/Egypt Greenfields	*0.18*		
Chinese Exports	*-0.17*	*-0.33*	*-0.50*
Supply Changes	**0.71**	**0.54**	**0.37**
Incremental Supply Surplus (+) or Deficit (-)	**0.29**	**0.13**	**-0.04**

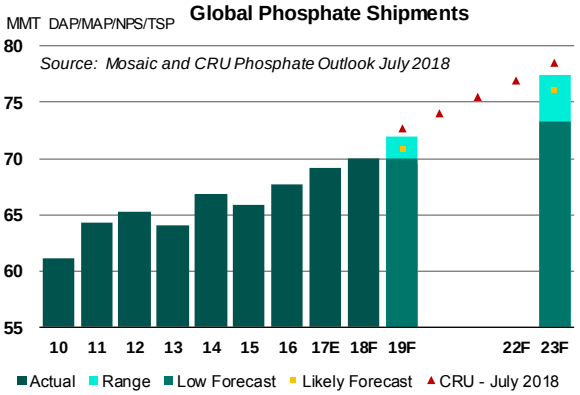
Phosphate S/D Incremental Changes, 2019
Mil Tonnes DAP/MAP/NPS/TSP - equivalent

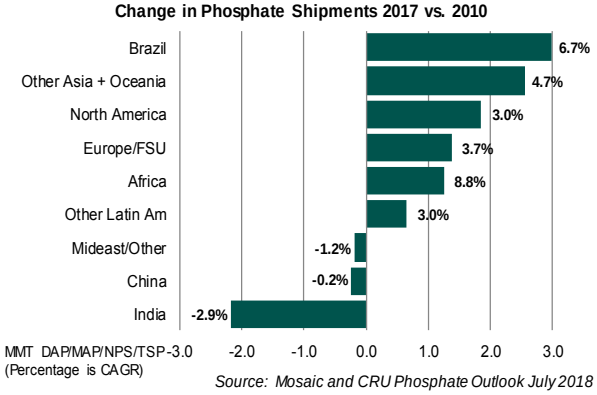
Shipment Increase		0.83	
Redwater Closure	*-0.45*		
OCP JPH 4 Ramp-Up	*0.50*		
OCP Debottlenecking	*0.30*		
MWSPC Ramp-Up	*0.50*		
GCT M'dilla Start-Up	*0.22*		
Misc Recovery (Tun.,S.Af.,Aus.)	*0.15*		
Yara-Galvani Start-Up	*0.10*		
Sterlite Shutdown (India)	*-0.20*		
NTR Geismar Closure	*-0.15*		
Turkey/Egypt Greenfields	*0.30*		
Chinese Exports	*-0.33*	*-0.66*	*-1.00*
Supply Changes	**0.94**	**0.61**	**0.27**
Incremental Supply Surplus (+) or Deficit (-)	**0.11**	**-0.22**	**-0.56**

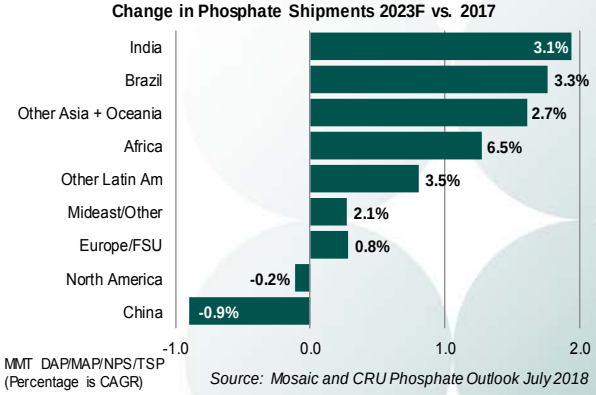
Expected changes in supply and demand likely will result in another deficit in 2019, particularly if environmental regulations significantly reduce Chinese production and exports. We do not expect the world to run out of phosphate any time soon, but this situation is expected to support prices and margins at levels that trim some demand and boost production and exports in order for the global market to reach an equilibrium.

Mosaic

Five-Year Outlook: Positive Demand Outlook







Global Phosphate Shipments

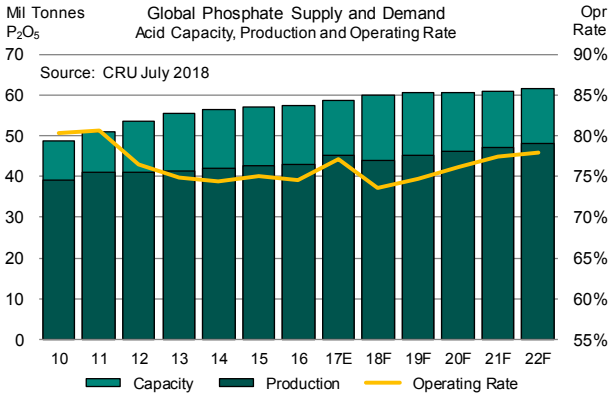
Mil Tonnes DAP/MAP/NPS/TSP	Mosaic Scenario Low	Likely	High	CRU Jul 2018
2010 Shipments		61.1		61.0
2017 Shipments		69.2		72.3
Change 2010-17		8.1		11.3
CAGR 2010-17		1.8%		2.5%
2023 Forecast	73.2	76.1	77.5	78.5
Change 2017-23	4.1	6.9	8.3	6.2
CAGR 2017-23	1.0%	1.6%	1.9%	1.4%

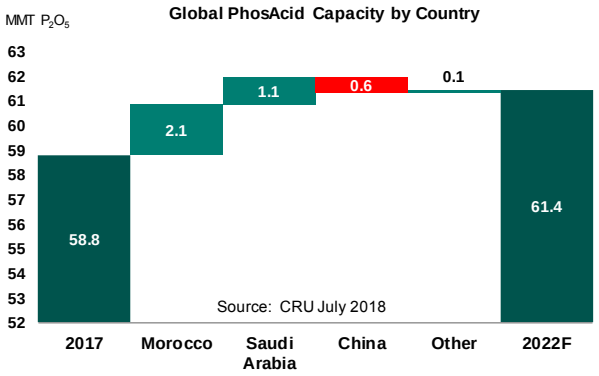
Source: Mosaic and CRU Phosphate Outlook July 2018

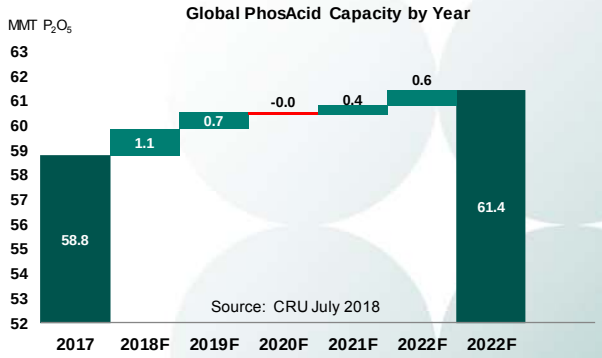
- By our most recent count, global shipments of the leading phosphate products increased 1.8% per year or 8.1 million tonnes from 2010 to 2017. India was a drag on demand with shipments dropping 2.2 million tonnes during this period due to subsidy cuts that resulted in a doubling of retail phosphate prices. Demand declined slightly 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 1.6% per year or 6.9 million tonnes from 2017 to 2023. Indian demand is expected to recover due to generally favorable farm economics/demand and a workable subsidy. Chinese shipments are projected to stabilize following another 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 1.4% from 2017 to 2022, but that mostly is the result of their much higher baseline demand estimate for 2017.

Mosaic

Five-Year Outlook: CRU Forecasts (July 2018)







- CRU projects that global phosphoric acid capacity will increase 2.6 million tonnes P_2O_5 from 58.8 million in 2017 to 61.4 million in 2022. Morocco and Saudi Arabia account for all of the net increase, and the bulk of new capacity is expected online by the end of 2019.
- OCP is expected to add 2.1 million tonnes P_2O_5 from the ramp-up of JPHs 3&4 (0.6 mmt), the addition of Line F (0.5 mmt), the debottlenecking other Jorf lines (0.5 mmt), the start-up of the Laayoune project in Western Sahara in mid-2020 (0.3 mmt) and the start-up of JPH 5 in 2022 ((0.2 mmt). The increase in Saudi Arabia is from the ramp up of the Ma'aden Wa'ad al Shamal Phosphate Company (MWSPC) JV. The next big wave of expansions in both Morocco and Saudi Arabia are not expected on line until after the forecast period.
- CRU assumes Chinese phosphoric acid capacity will shrink 600,000 tonnes P_2O_5 as a result of industry restructuring and the enforcement of more stringent environmental regulations during this period. Several capacity changes are expected in the rest of the world, but the combined 1.6 million projected increase in Russia, Egypt, Turkey, Tunisia, Indonesia and Brazil is mostly offset by expected closures in North America (1.5 mmt).
- CRU estimates that the global operating rate dips this year due to a rapid ramp up of new capacity in Morocco and Saudi Arabia this year. The rate then trends upward during the rest of the forecast period.

Mosaic

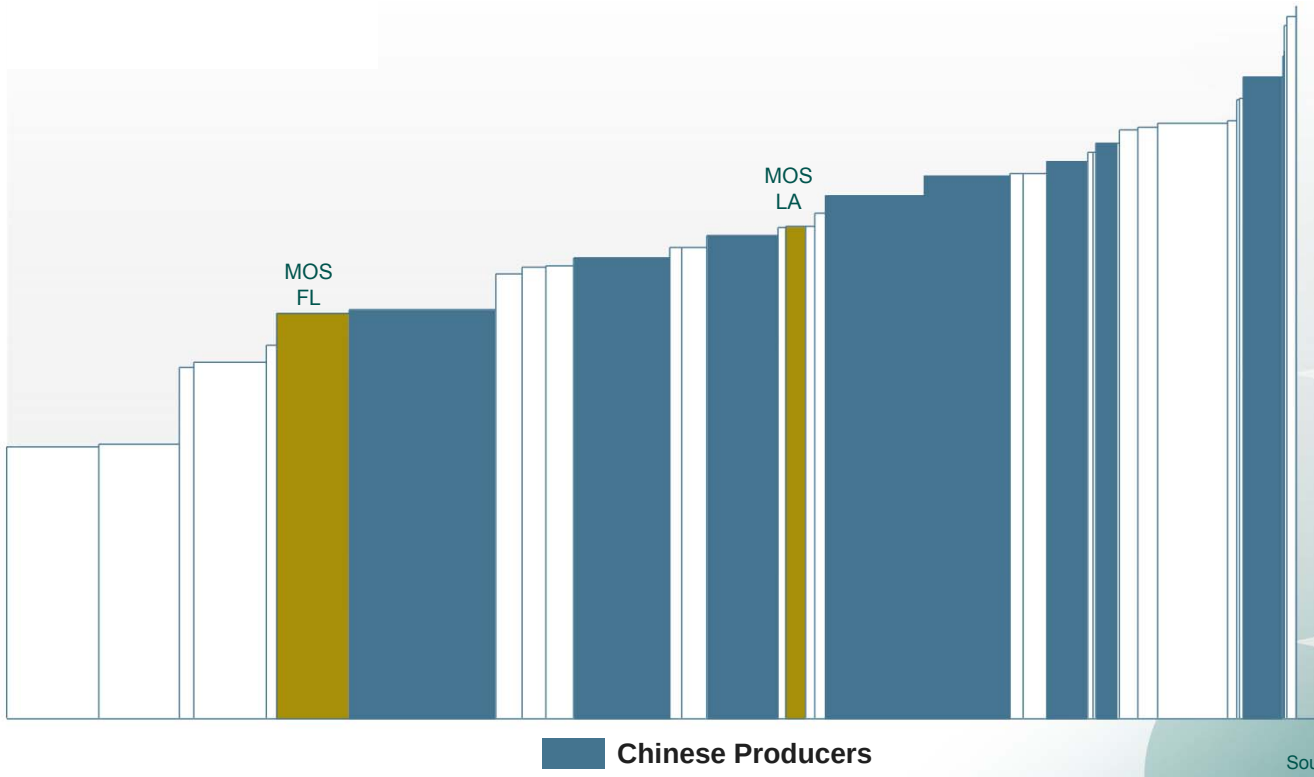
Factors to Watch

- Agricultural commodity prices
  - Food or farm crisis and impact on phosphate demand?
- Ramp-up of new capacity
  - Slower-than-expected or faster-than-expected?
- China: demand growth and restructuring of the phosphate industry
  - Significant closures due to environmental regulations or continued government lifelines?
- Competitor strategies and behaviors
  - Price over volume or volume over price?
- Raw materials costs
  - Demand booster or inhibitor 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?

Mosaic

2021 Cost Curve Forecast

2021 DAP Cost Curve fob Plant at Effective Capacity



Source: CRU, Mosaic

Appendix: Deleveraging Progress

Dollars in Millions	Dec 2017	Mar 2018	Jun 2018	
Short-term debt	$ 6	$ 72	$ 20	
Long-term debt (including current portion)	5,222	5,074	4,798	*
Net cash & cash equivalents	2,154	659	835	*
Net debt	3,074	4,487	3,983	
Net debt to adjusted EBITDA[(1)]	2.5	2.6	2.2	
Calculation to align with stated targets:				
Short-term debt	$ 6	$ 72	$ 20	
Long-term debt (including current portion)	5,222	5,074	4,798	*
Operating Leases	342	627	627	**
Ma'aden JV Guarantee	140	140	140	
Net stated targeted cash & cash equivalents	500	500	500	***
Net debt	**$ 5,210**	**$ 5,413**	**$ 5,085**	
Actual Adjusted EBITDA[(1)]	$ 1,207			
Midpoint of Adjusted EBITDA Guidance[(1)]		$ 1,700	$ 1,800	
Net debt to adjusted EBITDA aligned to stated targets[(1)]	**4.3**	**3.2**	**2.8**	

* *Adjusted for July and August 2018 prepayment of $111 million against our outstanding term loan and payment of $89 million in maturing bonds.*

** *Operating leases are treated as debt. This is calculated as annual rent expense multiplied by 3x.*

*** *Net debt only considers our targeted cash liquidity buffer of $500 million*

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