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Global Nitrogen Quarterly
Supply & Demand,
Production Costs and Pricing

Product Demonstration

Global Nitrogen Quarterly
Supply & Demand, Production Costs and Pricing

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You can find more on: [FertilizerPricing.com](https://www.fertilizerpricing.com)

Access to the Global Nitrogen Quarterly

Gives you one full year of intelligence (four reports),
including the following elements:

1. Supply/Capacities & Inventory
2. Demand
3. Trade
4. Production Costs
5. Pricing/Price Forecasts
6. Short, Medium, Long Term Outlook (PDF)

1. Supply/Capacities & Inventory

a. World Capacity Overview

Global capacity forecasts for ammonia, urea, ammonium nitrate, and UAN

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World Capacity Overview

We summarize our global capacity assumptions for Ammonia, Urea, Ammonium Nitrate and UAN.

World Capacity Estimates

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Ammonia												
Ammonia (Mln mt Product Tonnes)	188.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
Urea	175.0	187.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
UAN	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
Ammonium Nitrate	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Source: Green Markets © Bloomberg L.P. Company reports												
USA												
Ammonia (Mln mt Product Tonnes)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Urea	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UAN	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Ammonium Nitrate	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Canada												
Ammonia (Mln mt Product Tonnes)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ammonium Nitrate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North America												
Ammonia (Mln mt Product Tonnes)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Urea	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UAN	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Ammonium Nitrate	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

- Americas & Europe
- Africa
- Asia, Australia
- China

b. Global Producer Output

Details on production levels at the individual factory/site and country level. View the list of over 450 nitrogen producers covered in this analysis on a quarterly basis.

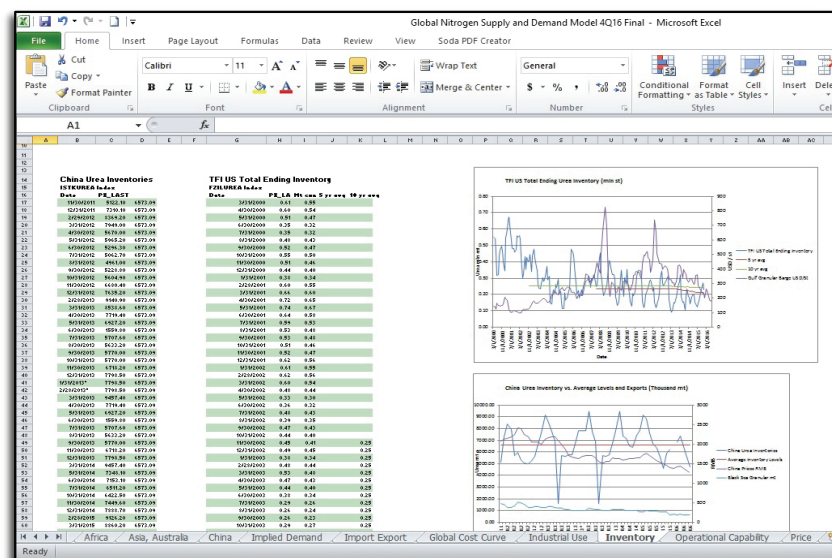
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- Americas & Europe
- Africa
- Asia, Australia
- China

1. Supply/Capacities & Inventory

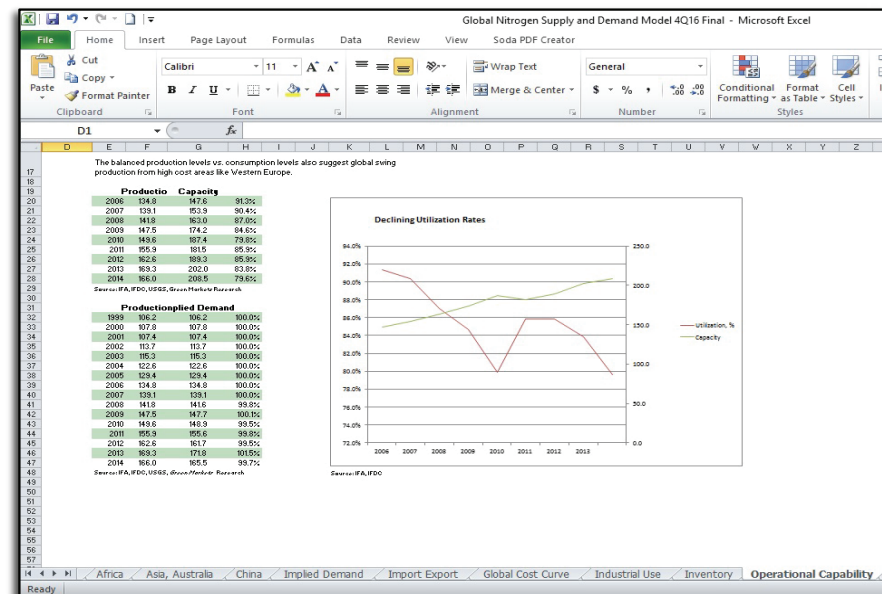
c. Nitrogen Fertilizer Inventories

Analysis of U.S. and Chinese inventory levels.



d. Operational Capability

A look at global production levels in recent history vs. nameplate capacities and implied consumption.



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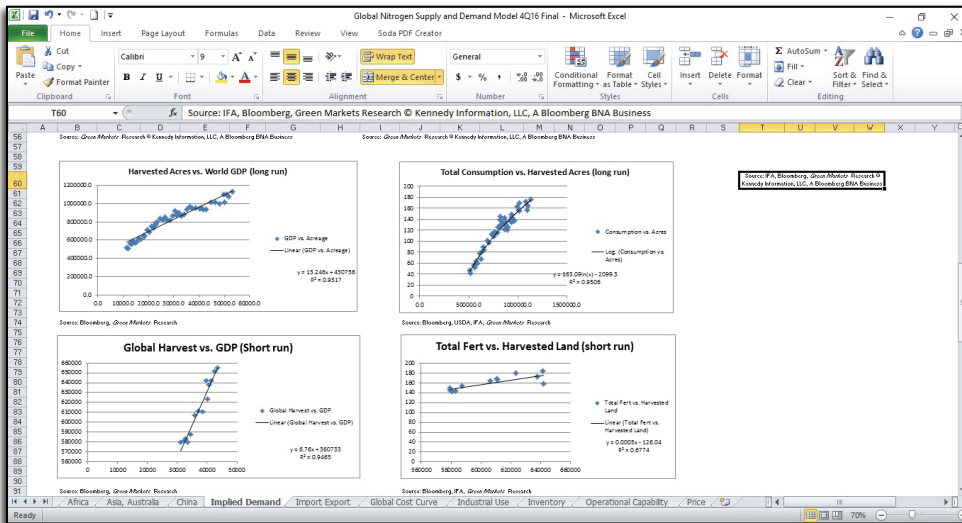
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2. Demand

a. Global Nitrogen Fertilizer Supply & Demand

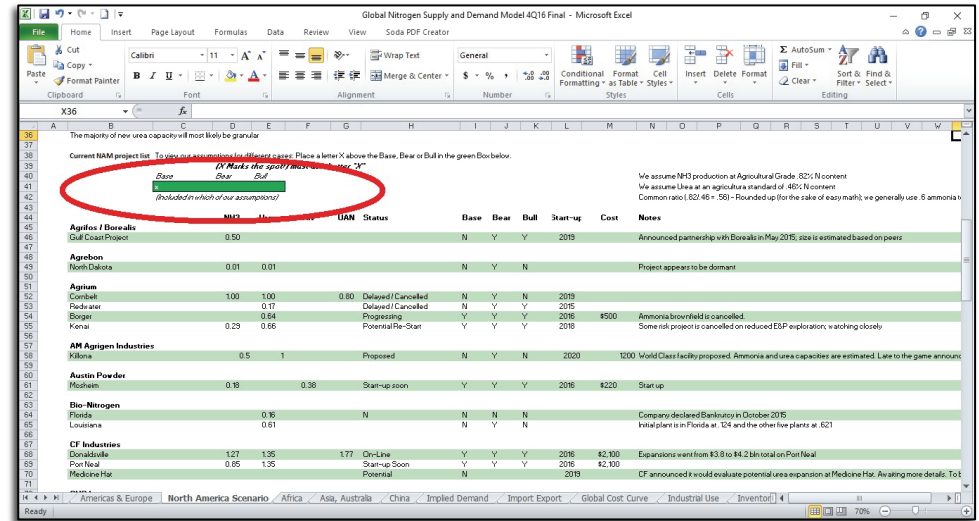
A global overview of projected nitrogen capacity vs. Green Markets' estimated demand curve to 2020, developed from liner regression models tied to Bloomberg Global GDP forecasts and World Harvested Land



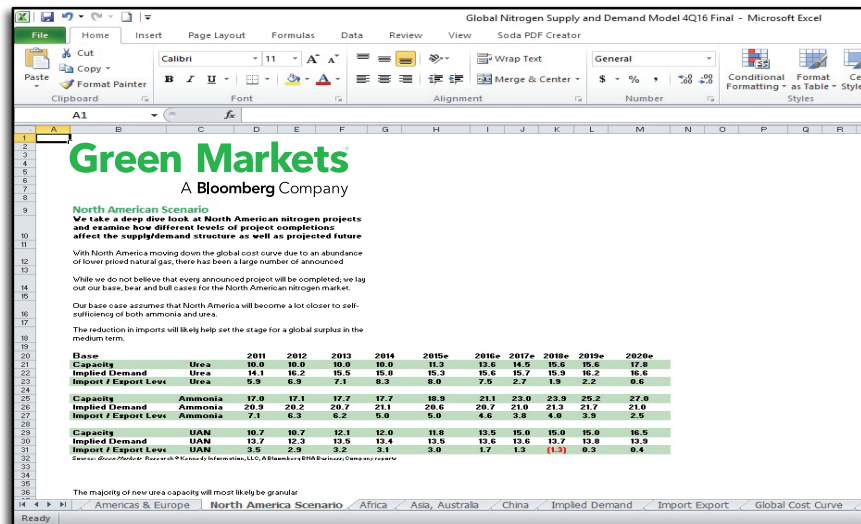
2. Demand

b. North America Scenario

An in-depth look at all significant North American nitrogen projects, with an examination of how different levels of greenfield project completions affect the supply/demand balance



Name	N12	UAN	Status	Base	Bear	Bull	Start-up	Cost	Notes
Agribios / Biovalis	0.50			N	Y	Y	2015		Announced partnership with Biovalis in May 2015, size is estimated based on peer
Agribios	0.01	0.01		N	Y	N			Project appears to be dormant
Agrium	1.00	1.00	0.80	Delayed / Cancelled	N	Y	N	2015	
Cardinal	0.17			Delayed / Cancelled	N	Y	Y	2015	
Redraron	0.84			Progressing	Y	Y	Y	2016	\$500 Ammonia brownfield is cancelled.
Bogen	0.23	0.66		Potential Re-Start	Y	Y	Y	2018	Some risk project is cancelled on reduced EDP exploration; watching closely
AM Agribion Industries	0.5	1	Proposed	N	Y	N	2020		1000 World Class facility proposed. Ammonia and urea capacity are estimated. Late to the game announcement
Kilbuck	0.18	0.38	Start-up soon	Y	Y	Y	2016	\$220	Start-up
Austin Powder									
McMullen									
Bio-Nitrogen									
Florida	0.15		N	N	N	N			Company declared bankruptcy in October 2015
Louisiana	0.51			N	Y	N			Initial plant is in Florida at US- and the other five plants at 621
CF Industries	1.27	1.35	1.77	On-Line	Y	Y	Y	2016	\$2,100
Donalville	0.05	1.35		Start-up Soon	Y	Y	Y	2016	\$2,100
Port Neal				Potential	N			2018	
Medicine Hat									CF announced would evaluate potential urea expansion at Medicine Hat. Awaiting more details. To



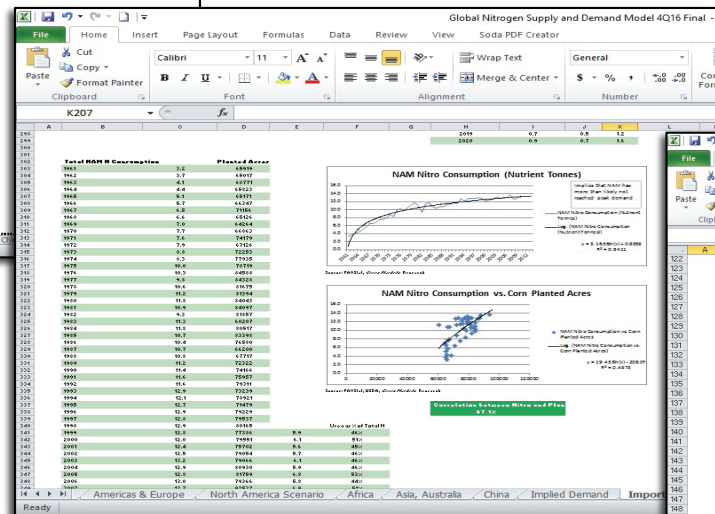
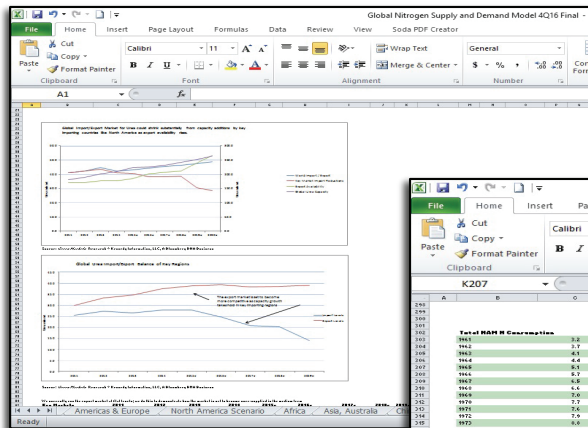
Base	Urea	2011	2012	2013	2014	2015*	2016*	2017*	2018*	2019*	2020*
Capacity	Urea	10.9	10.9	10.9	10.9	11.3	11.6	11.9	12.2	12.5	12.8
Implied Demand	Urea	14.1	16.2	15.5	15.8	15.3	15.6	15.7	15.9	16.2	16.6
Import / Export Level	Urea	5.9	6.3	7.1	8.3	6.0	7.6	2.7	1.9	2.2	6.6
Capacity	Ammonia	17.8	17.1	17.7	18.9	21.1	23.8	23.9	25.2	27.8	
Implied Demand	Ammonia	20.9	20.2	20.7	21.1	20.6	20.7	21.0	21.3	21.7	21.0
Import / Export Level	Ammonia	7.1	6.3	6.2	5.8	5.0	4.6	3.8	4.0	3.9	2.5
Capacity	UAN	10.7	10.7	12.1	12.0	11.6	11.6	11.6	11.6	11.6	11.6
Implied Demand	UAN	12.7	12.3	12.5	12.4	12.5	12.6	12.6	12.7	12.8	12.9
Import / Export Level	UAN	3.5	2.9	3.2	3.1	3.0	1.7	1.3	(1.3)	0.3	0.4

*This **interactive model** includes easy-to-use forecasting algorithms that allow you to customize production scenarios which in turn change the supply/demand balance projections across the forecast period.

3. Trade

a. Nitrogen Fertilizer Import/Export Status

Analysis of country level demand and import/export scenarios for major fertilizer producing and consuming nations for both **urea** and **ammonia**

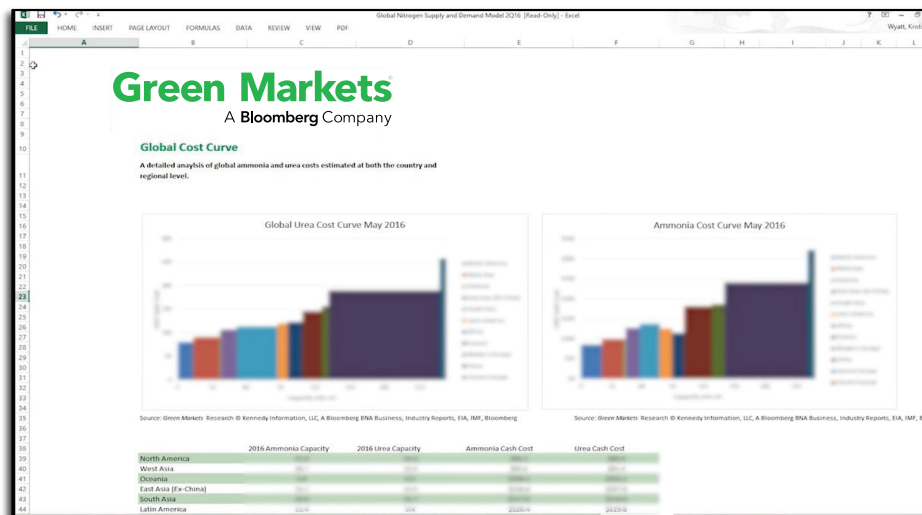


Global Nitrogen Supply and Demand Model 4Q16 Final - Microsoft Excel										
While the top ten importers/exporters changes Y/Y, we provide projections for countries who have shown up in the top ten several times in recent years (estimates are generally based off consumption trends in the country vs. both world consumption and the country's urea capacity growth expectations)										
	2011	2012	2013	2014	2015e	2016e	2017e	2018e	2019e	2020e
Import										
India	7.6	7.9	6.9	6.6	8.0	7.0	8.0	8.0	2.3	2.7
USA (North America)	5.9	6.9	7.1	8.3	8.0	7.5	2.7	1.9	2.2	0.6
Pakistan	1.5	1.2	1.1	1.0	0.9	0.5	0.0	0.0	0.0	0.0
Thailand	2.3	2.3	2.4	2.3	2.4	2.4	2.5	2.6	2.6	2.7
Australia	1.6	1.5	1.6	1.4	1.4	1.4	1.5	1.5	1.6	1.6
New Zealand	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6
Mexico	1.5	1.6	1.6	1.6	1.6	1.6	0.7	0.8	0.8	0.9
Brazil	3.0	3.1	3.3	4.4	3.0	3.5	4.2	4.2	3.0	3.0
Bangladesh	1.2	2.0	1.5	1.4	1.1	1.2	1.3	0.7	0.6	0.9
Vietnam	0.3	0.2	0.2	0.1	(0.2)	(0.1)	(0.1)	0.0	0.0	0.1
Total	25.4	27.3	26.6	27.7	27.7	24.6	20.6	20.2	13.9	13.0
Source: Green Markets Research © Kennedy Information, LLC, a Bloomberg BNA Business										
Export										
China	(3.6)	(6.9)	(6.9)	(10.6)	(10.6)	(10.6)	(10.6)	(10.6)	(10.6)	(10.6)
Egypt	(4.1)	(2.3)	(2.3)	(1.1)	(2.9)	(2.9)	(2.9)	(3.3)	(3.3)	(3.3)
Saudi Arabia	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(4.2)	(4.2)	(4.2)	(4.2)	(4.1)
Qatar	(2.7)	(3.9)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)
Oman	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Kuwait	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	0.0	0.0	0.0	0.0
Malaysia	0.1	0.2	0.5	0.4	0.4	0.5	(0.9)	(0.9)	(0.4)	(0.4)
Russia	(4.9)	(4.9)	(4.6)	(5.1)	(5.1)	(5.6)	(5.6)	(5.6)	(6.0)	(6.0)
Ukraine	(3.9)	(3.9)	(2.9)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
Iran	(3.9)	(3.9)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)
Indonesia	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(2.4)	(2.4)	(2.4)	(2.4)	(2.4)
Total	(30.7)	(30.7)	(30.7)	(30.7)	(30.7)	(30.7)	(30.7)	(30.7)	(30.7)	(30.7)
Source: Green Markets Research © Kennedy Information, LLC, a Bloomberg BNA Business										
*These areas have traditionally been import sources, but with capacity growth they could see upcoming exports										
Americas & Europe North America Scenario Africa Asa, Australia China Implied Demand Import Export Global Cost Curve Industrial Use Inventor										

4. Production Costs

a. Production Cost Analysis

Comparison of the marginal cost basis at the country and urea manufacturer level



	2016 Ammonia Capacity	2016 Urea Capacity	Ammonia Cash Cost	Urea Cash Cost	Benchmark Price	PX_Last	PX_Last	Unit of S/MMBtu
North America								
US (Henry Hub) USD								
Canada (AECO Alberta) USD								
Latin America								
Argentina								
Bolivia								
Brazil USD/MTWh								
Colombia								
Chile								
Costa Rica								
Cuba								
Trinidad and Tobago								
Peru								
Venezuela								
Mexico (Henry Hub) USD								
Western Europe								
Austria (CEGH) EUR/mwh								
Belgium (Fosberg) BGP								
France (FCO Nord) EUR/mwh								
Germany (Russian Border)								
Greece								
Ireland								
Italy (PSV) EUR/mwh								
Netherlands (Dutch TTF) EUR/mwh								
Norway (Nord Pool) EUR/mwh								
Portugal								
Spain (LNG from Egypt) USD								
Switzerland (Zeebrugge)								
UK (NBP)								

5. Pricing/Price Forecasts

a. Nitrogen Outlook

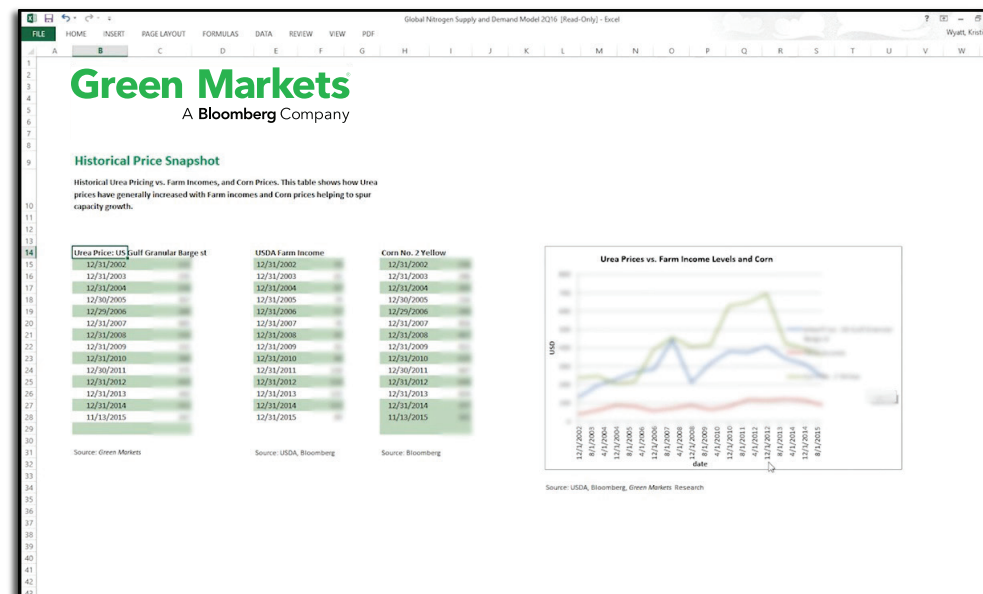
Forecasts for the global Nitrogen market, with a focus on urea and ammonia

b. Natural Gas

Analysis of the North America natural gas market and the area as a low-cost producing region against the global backdrop

c. Historical Price Snapshot

Historical urea pricing vs. farm incomes, and corn prices



6. PDF Executive Summary

(~25 pages, including Short, Medium & Long Term Pricing and Market Outlook)

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Global Nitrogen Quarterly
Supply & Demand, Production Costs and Pricing

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Global Nitrogen Quarterly
Supply & Demand, Production Costs and Pricing

Nitrogen 1Q 2019 - Urea Price Outlook Firm on India Tender and U.S. Demand

Key Themes: Green Markets' urea price outlook is firm through Q2 2019 as U.S. consumption supports the market and India's low purchase volume in their recent tender indicates strong global urea demand and relatively low producer inventories.

The Q1 2019 period saw urea prices when India tendered and equated to US\$235/mt FOB in the relatively high price expected and the market presence in the export market 2019 prices.

Urea prices typically slide into the second quarter as on poor spring weather, but strong global demand, and supply growth pressure remain.

The U.S. spring season began late, due to many competing developments. Vessel cargo speed restrictions caused a nearly two month delay in 2018. Widespread saturation of farmer's ability to begin sowing.

Figure 1: NOLA Urea Prices, by Month 2014-2019

Figure 2: Granular Urea Prices 2016-2019 (USD/mt)

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Global Potash and Global Phosphate Quarterly reports also
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