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## Russian Nitrogen Fertilizer Market

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MINING METALS POWER CABLES FERTILIZERS CHEMICALS

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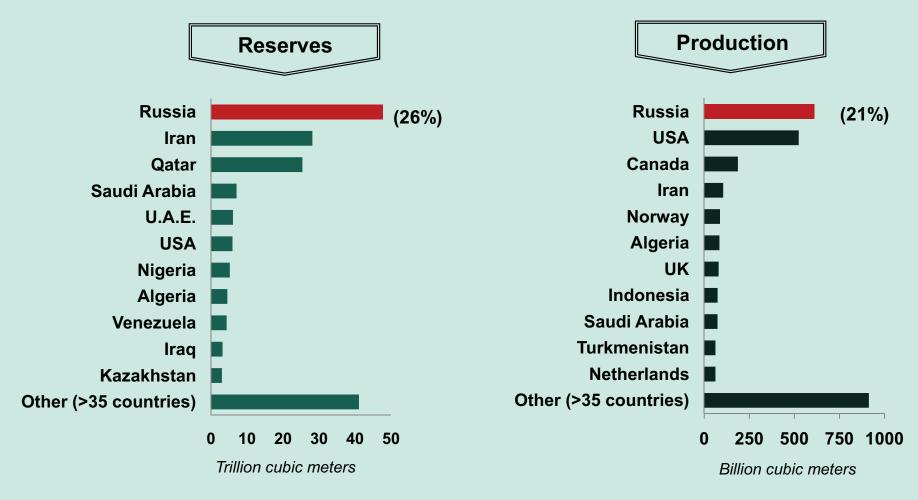
#### **Presentation Overview**

- Country Profile: Natural Gas Reserves
- Nitrogen Industry: Overview and Recent Developments
- Agriculture
- Fertilizer Consumption
  - Breakdown by Regions and Products
  - History and Forecast
  - Agricultural Equipment for Fertilizer Application
- Domestic Fertilizer Trading
- Key Domestic Players in Nitrogen Fertilizer Segment
- Overview of Russian Biofuel: Market of Future
- Domestic Market Overview
  - Drivers for Growth
  - Threats for Stagnation
- Conclusion



#### Country Profile: Natural Gas Reserves (I)

Russia's Position in Global Ranking by Gas Reserves and Production, 2006

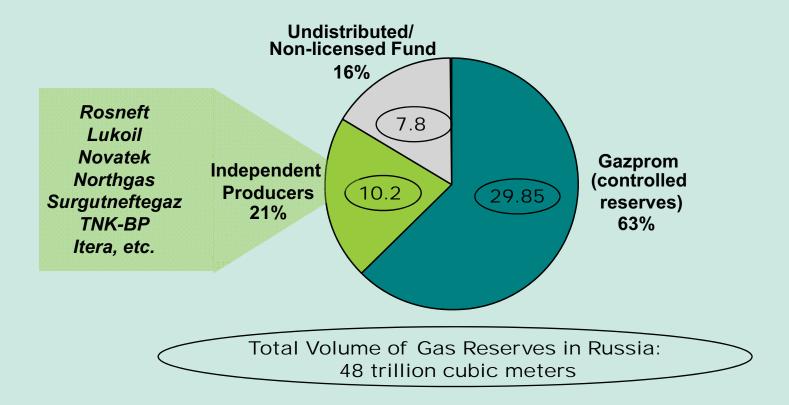


Source: BP (Reserves: Proved Reserves at end of 2006)



### Country Profile: Natural Gas Reserves (II)

Structure of Gas Reserves in Russia by Ownership in 2006, % and trillion cubic meters

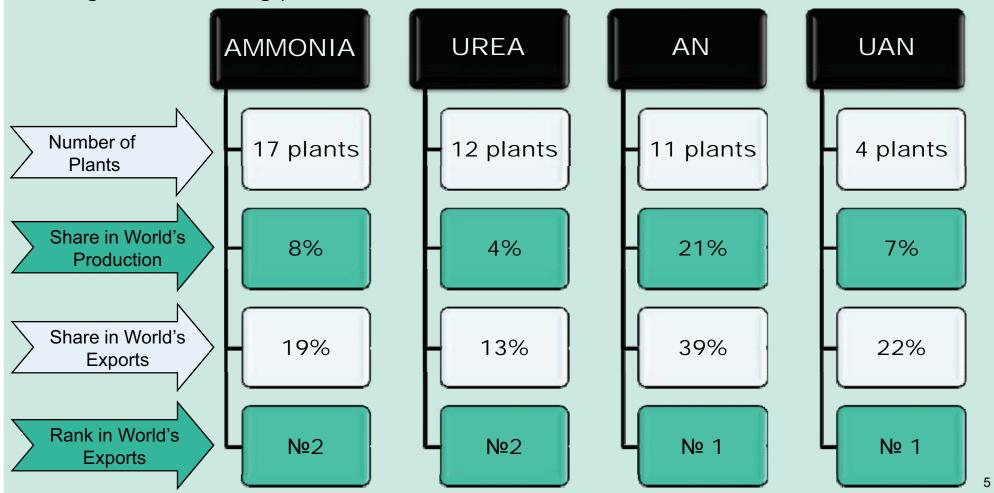


Source: Gazprom (Reserves as per 31.12.2006)



#### Russian Nitrogen Industry: Overview (I)

Nitrogen industry of Russia is an export oriented industry: it is the 1<sup>st</sup> or 2<sup>nd</sup> leading exporter in the world for all straight nitrogen products. Domestic market is rather a strategic or balancing profit issue.



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### Russian Nitrogen Industry: Overview (II)

Original location of plants was determined by the idea to meet the needs of domestic market; yet for the past decade international market situation proved to be more attractive for the Russian producers to deliver up to 80% of their fertilizers to foreign customers.



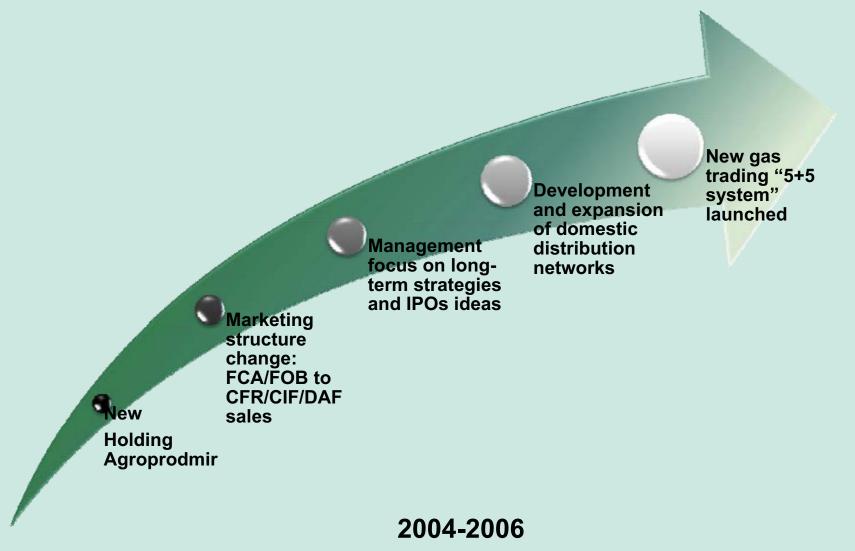
#### Russian Nitrogen Industry: Recent Developments (I)



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#### Russian Nitrogen Industry: Recent Developments (II)

Major Events Inside the Industry and General Impact of Other Related Domestic Factors



### Russian Nitrogen Industry: Recent Developments (III)

New projects announcements driven by increasing margins from international sales.



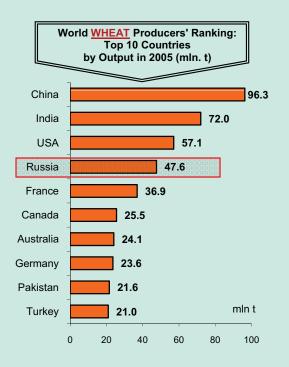
Note: VSGC = Vostochno-Sibirskaya Gasochemical Company

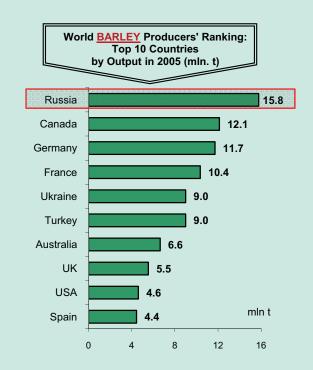
2007-2008

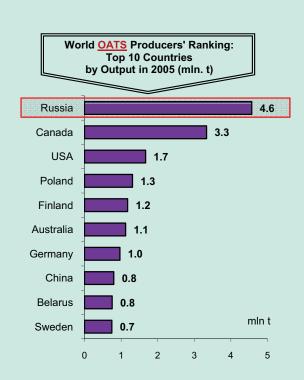


#### Russian Agriculture: Global Indicators

- ♦ № 1 in the global ranking of barley, sunflower seed, rye, and oats producers in the world.
- ❖ № 2 among the world top potato producers after China.
- ❖ № 4 among the world's largest wheat producers after China, India, and the USA.
- One of the world leaders in sugar beets, buckwheat, carrots and cabbages production.
- Among the top 10 leading exporters of wheat in the world.







Source: FAO (2005, latest year available)

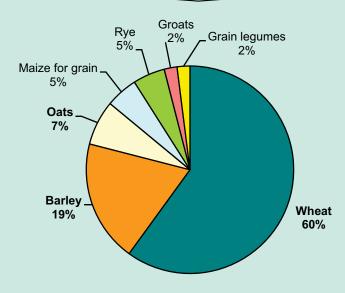


#### Russian Agriculture: Domestic Indicators

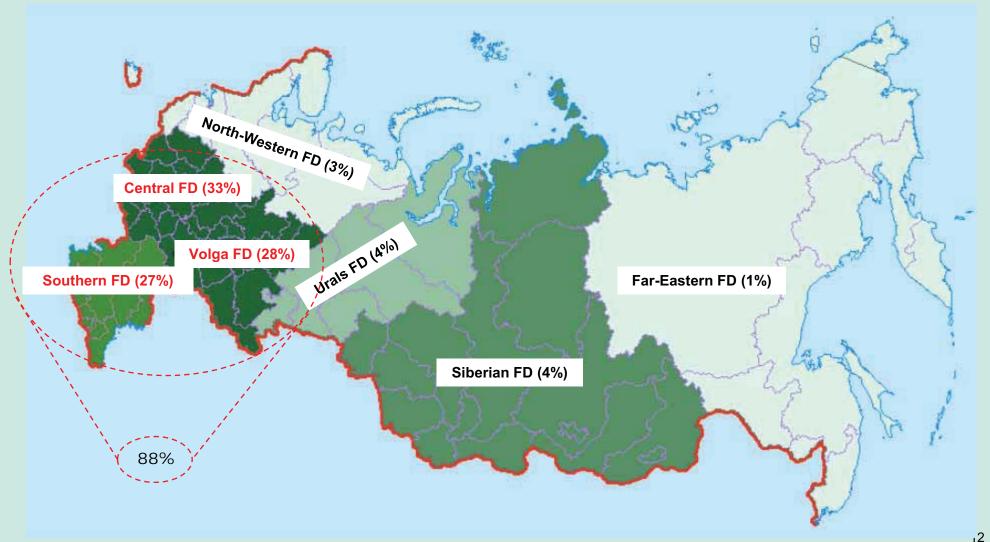
- The share of rural population is 27% of total country's population of 143 million people.
- The largest part slightly less than 60% of total area under agricultural crops in Russia in 2007 was used for the production of grains (wheat, barley, oats, rye, and others). Oil crops accounted for about 10%.

Structure of Grains Output by Crop Types in Russia in 2007

(in farms of all types; percentage of the total gross harvest)



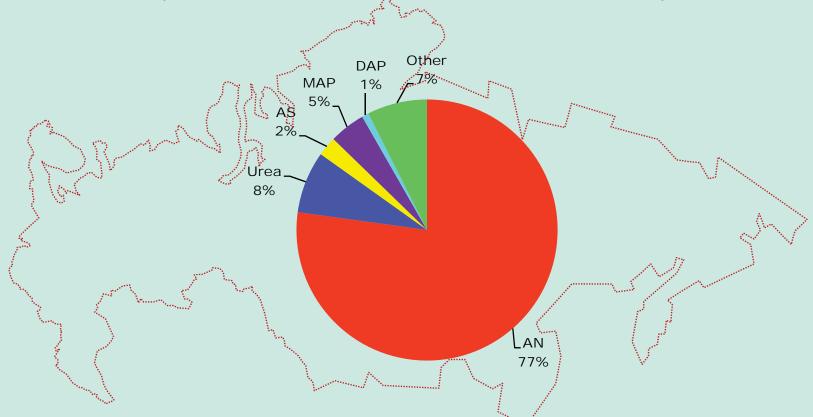
# Russian Fertilizer (N+P+K) Consumption in Agriculture: Breakdown by Regions (FD = Federal Districts)



Source: Rosstat (2006), Azotecon, BSC



Russian Fertilizer Deliveries to Agriculture: Breakdown by Products (share estimates in nutrient N value), 2007



The bulk of N consumed in Russian agriculture is Ammonium Nitrate.

AN is the most popular nitrogen fertilizer among Russian farmers and the product is forecast to retain its dominant position in the Russian agriculture in the future.

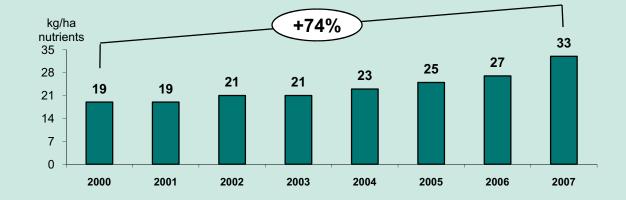
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Source: BSC estimates, Azotecon // Note: data excludes the amount of fertilizer consumed in industrial sector

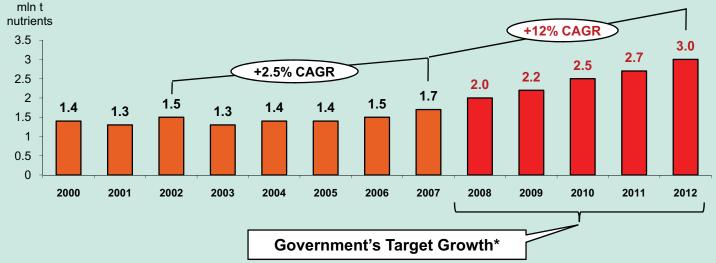


#### Russian Fertilizer Consumption: History and Forecast

Use of Mineral Fertilizers in Agriculture, kg/ha



Use of Mineral Fertilizers in Agriculture, mln t nutrients

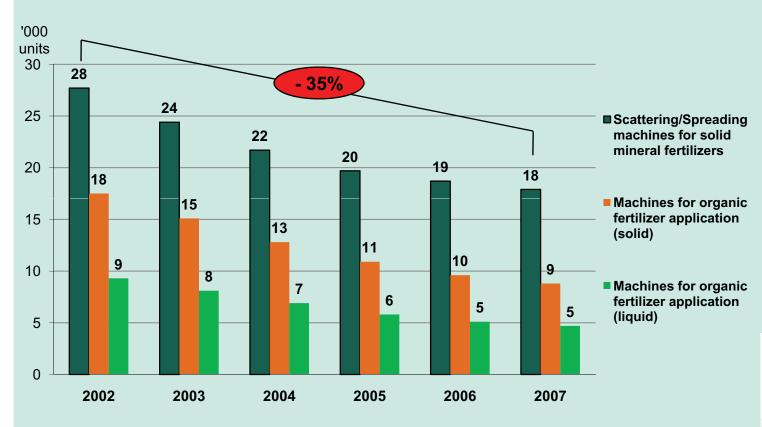


\*Acc. to the State Program for the Development of Agribusiness and Regulation of Agricultural Goods', Raw Materials' and Food's Markets for 2008-2012

Source: Federal State Statistics Service of Russia, Russian Ministry of Agriculture



## Russian Fertilizer Consumption: Agricultural Equipment for Fertilizer Application









While old agricultural equipment wears down and fails to function, it is being replaced by the new modern machines for fertilizer application, which are more efficient and long-lasting.

Source: Federal State Statistics Service of Russia

#### Domestic Fertilizer Trading: 2006 - 2008

Fertilizer Exchange trading in Russia was recently introduced for the following reasons:

- √ to make fertilizer market more transparent;
- √ to develop competitiveness of domestic fertilizer sales;
- √ to diversify sourcing opportunities for export deliveries;
- √ to provide alternative options for supply of raw materials.



Two platforms for fertilizer exchange trading in Russia

Fertilizer producers involved in fertilizer trading as suppliers of products:

- > Balakovskiye Mineral Fertilizers, Balakovo
- Ammophos, Cherepovets
- > Azot, Cherepovets
- > Silvinit
- Uralkali
- Kuybyshevazot
- Rossosh
- Meleuz

Range of fertilizers includes AN, NPK, DAP, MAP, NP, MCP, apatite concentrate, MOP, urea, phosphoric acid, etc. The products are offered as bulk, in bags or big bags.



## Key Domestic Players in Nitrogen Fertilizer Segment

	Domestic distribution	Product Portfolio (N)	Fertilizer sales to domestic market in 2007		% of fertilizer sales to Russia in Company's total fertilizer sales		Company		
,	"EuroChem-Agronetwork" includes 23 distributing centres in Russia	AN, CAN, Urea, UAN, MAP, DAP, NPK, NP, NK		> One million tonnes		15% in total fertilizer sales		EuroChem	
	Established in 2005 "Agronova" network includes 20 distributing centres in Russia	AN, Urea, UAN, NPK		0.8 million tonnes		22% in total fertilizer sales		Acron AKPOH	
	One of the new holdings in Russia: two N plants Kirovo-Chepetsk and Azot Berezniki	AN, SAN, CAN, Urea, NPK		0.9 million tonnes		28% in total fertilizer sales		Uralchem <b>※ YPA∧XИМ</b>	
	Sales via the trading house "Rosagrotrade"	AN, NPK		0.52 million tonnes		30% in total fertilizer sales	$\left. \right\rangle$	ROSSOSh  © DAO MUHYДОБРЕНИЯ г. Россошь	
	Sales via own agrochemical centres representatives or dealers	AN, Urea, AS, UAN		0.5 million tonnes		44% in N fertilizer sales of KUAZ		КИАZ  КуйбышевАзот  АКЦИОНЕРНОЕ ОБЩЕСТВО	17



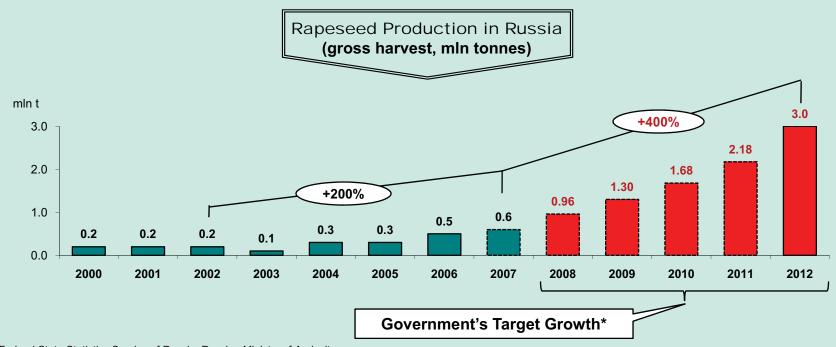


#### Overview of Russian Biofuel: Market of Future

Russian Biofuels Association suggests the development of Russian biofuels' market in two stages:

- (1) The development of bioethanol for export
- (2) The development of domestic consumption of bioethanol

The targeted production growth of rapeseed (one of the bio-crops) in Russia by 2012 is a five-fold increase from the current level.



Source: Federal State Statistics Service of Russia, Russian Ministry of Agriculture



#### Russian Domestic Market: Drivers for Growth

Strategies focused on domestic market development Expansion of distribution networks

Decline of international prices Anti-dumping measures' tightening Pressure of low-cost nitrogen producers

Involuntary diversion of some of the traditionally exporting products to domestic consumers.

INTER-NATIONAL MARKET

GOVERNMENT

**FOREIGN** 

**INVESTMENTS** 

FERTILIZER PRODUCERS

National priority projects Federal target programs Financial, banking system Export tariffs and quotas

Biofuel crops segment development
Increasing demand for technical purposes

**INDUSTRIAL** 

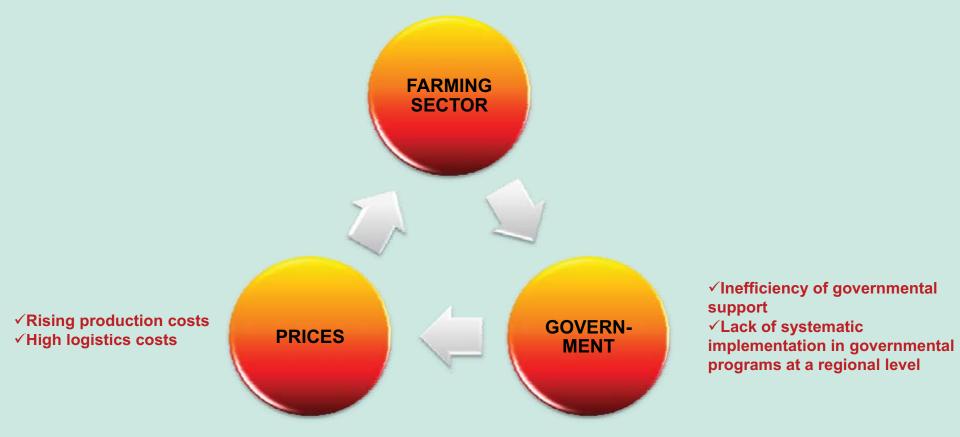
SEGMENT

Foreign investments in Russian agribusinesses developing food processing industry



#### Russian Domestic Market: Threats for Stagnation

- ✓ Leftover principle in fertilizer application approach in Russian agricultural sector
- ✓ Decline of working age population in rural areas
- ✓ Underdeveloped storage infrastructure for fertilizers



#### Conclusion

- ✓ Domestic market development is of high strategic value for most fertilizer manufacturers
- ✓In the short-to-medium term the export share will retain its dominance in Russian nitrogen industry: the country has been and will remain the major player and exporter in the global international nitrogen trade
- ✓ However, domestic market leaves vast opportunities with a large potential development for local producers to utilize their nitrogen products
- ✓ As hedging from more pressure in the global trade at the bottom of the cycle the development of the domestic market might be a solution for surplus of products for Russian manufacturers





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