



Market Monitor

No.34 – December 2015

ROUNDUP

The overall market outlook for AMIS crops has changed little in recent months with generally favourable production prospects and high inventory levels leading to a relatively calm situation across the board. While international prices have weakened considerably and remain well below the corresponding period last year, markets appear particularly exposed to weather anomalies, fluctuations in the US dollar, slowing income growth and geopolitical conflicts.

MARKETS AT A GLANCE

	From previous f'cast	From previous season
Wheat	■	▲
Maize	▲	▲
Rice	▲	▼
Soybeans	▼	▲

▼ *Easing*
 ■ *Neutral*
 ▲ *Tightening*

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World Supply-Demand Outlook

in million tonnes

WHEAT	USDA		IGC		FAO-AMIS		
	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	
	est.	f'cast	est.	f'cast	est.	f'cast	
		10-Nov		19-Nov		5-Nov	3-Dec
Production	725	733	723	726	733	736	735
Supply	919	945	911	927	921	939	938
Utilization	707	717	710	720	715	728	728
Trade	164	160	153	151	156	150	150
Ending Stocks	212	227	201	208	203	207	207

- **Wheat** production forecast for 2015 lowered slightly, mostly on reduced crops in Argentina and Brazil.
- Utilization in 2015/16 to increase by 1.8 percent from 2014/15, supported by a 0.9 percent and 3.5 percent rise in food and feed uses, respectively.
- Trade in 2015/16 (July/June) to contract sharply, reflecting generally good production outcomes this year in several leading importing countries.
- Stocks (ending in 2016) to increase by 1.9 percent to their highest level since 2001/02. The expansion largely reflects an anticipated build-up of inventories in the EU and the US.

in million tonnes

MAIZE	USDA		IGC		FAO-AMIS		
	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	
	est.	f'cast	est.	f'cast	est.	f'cast	
		10-Nov		19-Nov		5-Nov	3-Dec
Production	1009	975	1013	967	1032	1004	1001
Supply	1184	1183	1194	1175	1221	1230	1227
Utilization	975	971	987	974	994	1005	1002
Trade	136	119	125	125	129	126	128
Ending Stocks	208	212	207	200	226	220	225

- **Maize** production forecast for 2015 revised down, mainly reflecting a cut in China's forecast.
- Utilization in 2015/16 also cut, mainly because of lower anticipated feed and industrial uses of maize in China.
- Trade in 2015/16 (July/June) to decline by less than previously projected, driven by stronger import demand in Asia.
- Stocks (ending in 2016) raised, mostly on account of the US, and now standing only marginally below the previous season's record.

in million tonnes

RICE (milled)	USDA		IGC		FAO-AMIS		
	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	
	est.	f'cast	est.	f'cast	est.	f'cast	
		10-Nov		19-Nov		5-Nov	3-Dec
Production	478	474	478	474	494	491	491
Supply	586	577	590	580	666	662	663
Utilization	482	485	483	486	493	499	499
Trade	42.8	41.3	42.1	41.5	43.9	45.2	45.0
Ending Stocks	104	91	107	94	172	165	166

- **Rice** production forecast for 2015 continues to suggest a contraction y/y of about 1 percent, largely the result of sizeable declines in India, the Philippines, Thailand and the US.
- Utilization in 2015/16 still expected to exceed production by about 8 million tonnes.
- Trade in calendar 2016 lowered somewhat, on smaller anticipated imports by Nigeria and Bangladesh.
- Stocks (ending in 2016) raised slightly, mainly due to expectations of larger closing inventories in Bangladesh, Indonesia, the Republic of Korea and Myanmar.

in million tonnes

SOYBEANS	USDA		IGC		FAO-AMIS		
	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	
	est.	f'cast	est.	f'cast	est.	f'cast	
		10-Nov		19-Nov		5-Nov	3-Dec
Production	319	321	321	321	320	319	322
Supply	381	399	353	366	353	367	368
Utilization	299	310	308	319	304	317	318
Trade	127	127	127	129	126	126	129
Ending Stocks	78	85	45	47	46	51	49

- **Soybeans** 2015/16 production forecast revised further upward. Global output is now anticipated to marginally exceed last season's all-time high.
- Utilization raised somewhat compared to last month. Global consumption now set to expand by almost 5 percent y/y.
- Trade forecast for 2015/16 lifted by about 2 percent on higher than expected import demand (notably China), while export forecasts for a number of countries have been revised upward.
- Stocks estimate (2015/16 carry-out) adjusted downward by about 3 percent but, y/y, global inventories still post a marked increase.

FAO-AMIS monthly forecast

For latest revisions to FAO-AMIS monthly forecasts for 2015/16 see **next page**.
To review and compare data, by country and commodity, across the three main sources, go to
<http://statistics.amis-outlook.org/data/index.html#COMPARE>

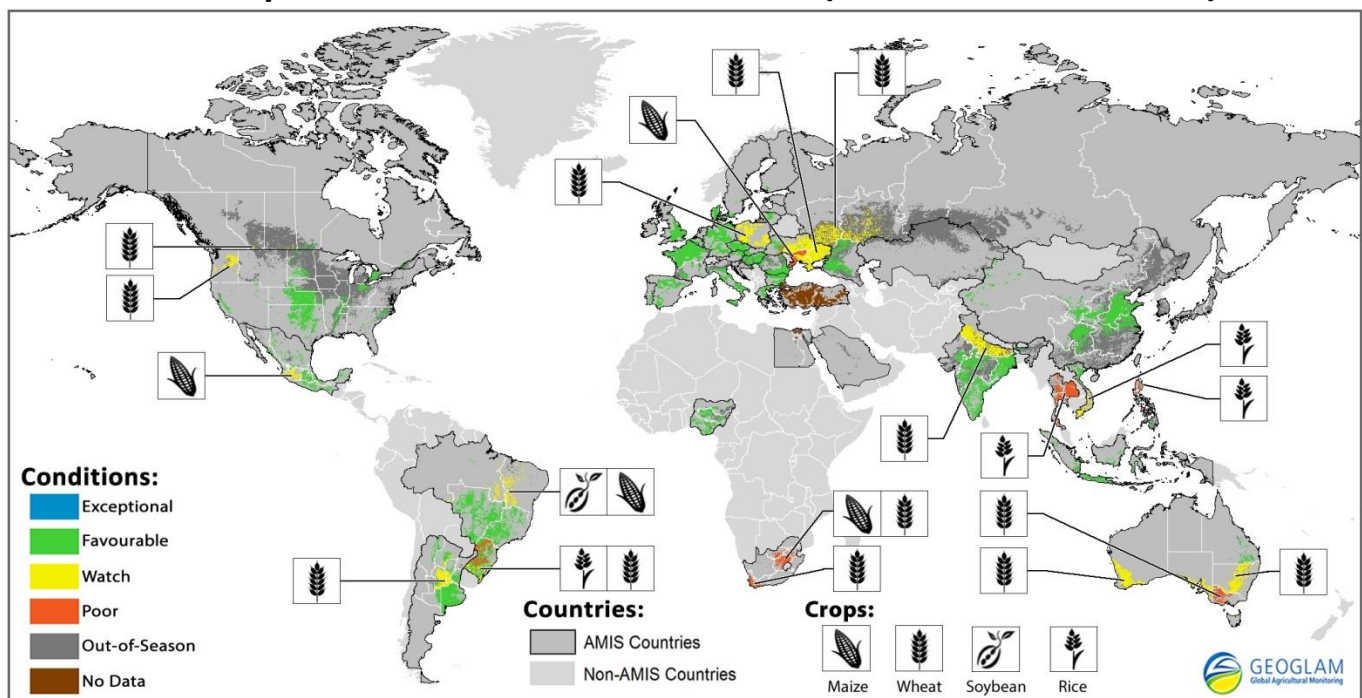
Summary of revisions to FAO-AMIS monthly forecasts for 2015/16

In thousand tonnes

	WHEAT					MAIZE				
	Production	Imports	Utilization	Exports	Ending Stocks	Production	Imports	Utilization	Exports	Ending Stocks
WORLD	-1667	-480	450	-494	-458	-2663	1334	-3229	1330	4638
Total AMIS	-112	100	1522	-644	561	-1611	1600	-2760	1770	3973
Argentina	-300	-	-	-	-300	-	-	-	-	-
Australia	284	-	284	-	-	-	-	-	-	-
Brazil	-524	-	76	-100	-300	814	-	314	1800	-1000
Canada	-	-	-	-	-	-	-	-	-	-
China Mainland	-	150	-	-	100	-5000	1000	-2500	-	-134
Egypt	-	-	100	-	-	-	-	-	-	-
EU	500	100	600	-	-	-390	-	-390	-	-
India	-	-50	-100	100	-	-	-	-	-400	399
Indonesia	-	-	-	20	-	-450	-	70	130	-700
Japan	-	-	-	-	-	-	-	-	-	-
Kazakhstan	-	-	-	-	-	-	-	-	-	-
Mexico	-172	-	-172	-	-	1201	-500	701	50	-
Nigeria	-	-	-	-	-	-	-	-	-	-
Philippines	-	-	520	-	-200	-66	100	-76	-	90
Republic of Korea	-	-	-	-	-	-5	-	-	-	74
Russian Federation	-	-	-	200	-200	-	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-	-	-
Thailand	-	200	285	-135	-50	-220	-	-220	-	-
Turkey	100	100	-	-	100	100	-	100	-	-
Ukraine	-	-	-100	200	-100	-	-	-	-	-
US	-	-400	-	-1000	1361	2504	-	-1270	-	5044
Viet Nam	-	-	29	71	150	-100	1000	510	190	200
	RICE					SOYBEANS				
WORLD	-47	-202	-150	-203	927	3027	2459	682	2511	-1449
Total AMIS	-373	-90	-584	-85	564	2889	2359	394	2346	-1529
Argentina	-	-	20	-20	-	1000	-	-200	750	-
Australia	-	-	4	-30	50	-	-	-	-	-
Brazil	-9	-	-71	-	1	930	-	-103	750	-3067
Canada	-	-20	-8	-	-10	-	-	-	-	-
China Mainland	-	-	195	-100	-	-	2000	1000	-	1000
Egypt	-	-	-20	40	50	-	150	150	-	20
EU	-38	-	-38	-	-	-	-59	17	-	-
India	-	-	-	-	-	-1500	-	-900	-	-600
Indonesia	-	200	1	-	200	-	80	-	-	40
Japan	-	-	-15	10	-	-	-	-	-	-
Kazakhstan	-	20	6	15	28	-	-	-	-	-
Mexico	-	-	-	-	-	-	-	-	-	-30
Nigeria	-	-400	-250	-	-50	-	-	113	-	100
Philippines	-292	100	-292	-	50	-	-	-	-	-
Republic of Korea	69	30	42	-	180	-	-	-	-	-
Russian Federation	80	-20	27	-	35	100	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	17	88	69	-	33
Thailand	-276	-	-226	-	-	-	-	-	-	50
Turkey	-	-	-	-	-	-	100	15	35	50
Ukraine	-	-	-	-	-	-189	-	-	-189	-110
US	94	-	62	-	-	2531	-	355	1000	1088
Viet Nam	-	-	-20	-	30	-	-	-122	-	-103

Crop Monitor

Crop Conditions in AMIS countries (as of November 28th)



Crop condition map synthesizing information for all four AMIS crops as of November 28th. Crop conditions over the main growing areas for wheat, maize, rice, and soybean are based on a combination of national and regional crop analyst inputs along with earth observation data. **Crops that are in other than favourable conditions are displayed on the map with their crop symbol.**

Highlights

Wheat - Conditions in the northern hemisphere are generally favourable at this early stage of the season. In the EU, conditions improved owing to beneficial weather. In China, conditions are favourable. In the US they are mostly favourable while in Russia and Ukraine, conditions have improved although some concern over establishment remains. In Canada, autumn rainfall has alleviated dry conditions. In India there is concern over dryness. In the southern hemisphere, conditions remain mixed. In Australia, conditions continued to deteriorate leading into harvest. In Argentina, conditions are favourable in most regions and in Brazil, harvesting is mostly complete but under poor conditions. In South Africa, production is expected to be below normal.

Maize - Conditions in the northern hemisphere are generally favourable as the season draws to a close. In the US, the crop is above average. In Ukraine, harvest is almost complete and yields are expected to be down. In India, Mexico, Canada and Nigeria, conditions are mostly favourable. In the southern hemisphere conditions remain mostly favourable at this early stage of the season. In Brazil and Argentina, conditions are generally favourable and in South Africa, there is concern over continued dryness.

Rice - Conditions remain mixed in part due to the current El Niño event. In India and Indonesia conditions are generally favourable. In Thailand, conditions remain poor and in Viet Nam, conditions for the summer-autumn wet season crop are favourable, however they have deteriorated for the autumn-winter planted wet season crop. In the Philippines, conditions are poor in the northern and central regions but the rest of the country is generally favourable. In Brazil, conditions remain mixed.

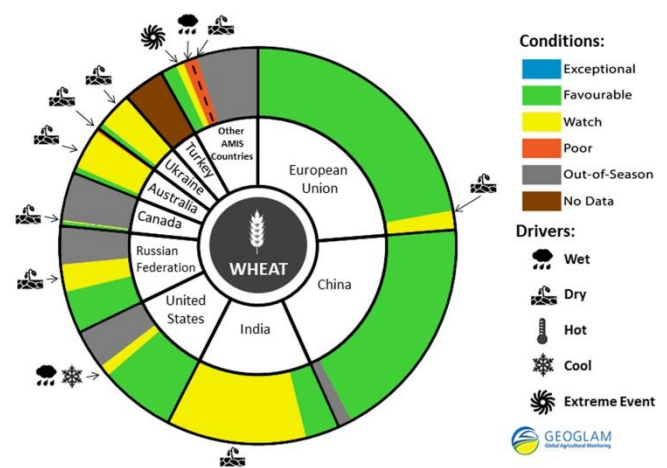
Soybeans - Conditions in the northern hemisphere remain mostly favourable as harvest ends. In the US, harvest is complete and the crop hit a new record. In Canada, harvest is complete and end of season conditions are favourable. In the southern hemisphere, conditions are generally favourable in Brazil and Argentina at this early stage of the season.

El Niño update

The current El Niño continues to strengthen, with a key weekly measure of Pacific sea surface temperature (SST) hitting a new record in late November. Peak strength of the El Niño is expected around the end of December. The growing season in South Africa is off to a dry start, with a second year of drought likely in 2015-2016. Conditions are drier than average as well in Thailand, Viet Nam, the Philippines, and Indonesia, and are forecast to continue. September-October rainfall was below average for most of Australia, but the outlook is now for average to above-average precipitation through February, thanks to Indian Ocean SST changes. Southern Brazil and northeastern Argentina have seen a generally wet beginning to the season, and the forecast is for above average rainfall throughout the growing season. In the U.S., rainfall has been above average for the last 30 days in the Southeast, but California is still firmly in the grip of drought.

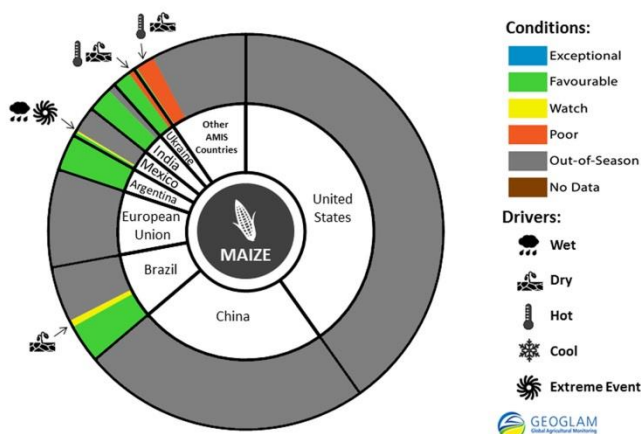
Wheat overall conditions in the northern hemisphere are favourable at this early stage of the winter wheat season. In the **EU**, conditions improved owing to favourable temperatures and rainfall which benefited development of the emerged crop. In the **US**, the crop has emerged and conditions are favourable throughout most of the country. However, there is some uncertainty in the Pacific Northwest due to highly variable weather conditions. In **China**, winter wheat is at the seedling to tillering stage. Overall, the crop is close to the recent 5-year average in most growing areas. However, in eastern Henan there are below average conditions due to continuously low radiation since the beginning of November. In contrast, conditions are slightly above average in eastern Sichuan. In the **Russian Federation**, winter wheat planting is almost complete. Agro-meteorological conditions for the start of wintering are generally satisfactory and in the southern regions moisture conditions have somewhat improved relative to last month. In **Canada**, autumn rainfall has alleviated dry conditions in many areas except parts of Alberta and British Columbia. However, there is concern that a strong El Niño combined with the anomalously warm waters off the coast of British Columbia will result in low snow cover on the prairies, raising the risk of winterkill for fall seeded crops. In **India**, planting has begun and the early-planted crop is emerging under mixed conditions in the main producing region due to dryness. In **Ukraine**, concern remains over winter wheat in the southern and eastern regions due to dryness, which has led to a decrease in planted area and some concerns over establishment conditions. However, conditions are favourable throughout the rest of the country. In the southern hemisphere, conditions remain mixed. In **Australia**, conditions have weakened leading into harvest owing to below average rainfall and above average temperatures during spring in many cropping regions. In **Argentina**, conditions improved owing to showers in the main growing regions, and are favourable in most regions except in Santa Fe and Cordoba where damaging hail storms occurred. The crop is in flowering to ripening stages, and harvesting is ongoing in the north. In **Brazil**, harvesting is mostly complete and conditions are poor. Excessive rain in November and other adverse climatic conditions throughout the crop cycle caused loss of quality and productivity. In **South Africa**, production is expected to be below normal in the main production region due to dry conditions during late winter, while above normal over the secondary production regions.

Wheat conditions for AMIS countries as of November 28th.



For detailed description of the pie chart please see box on page 4.

Maize conditions for AMIS countries as of November 28th.



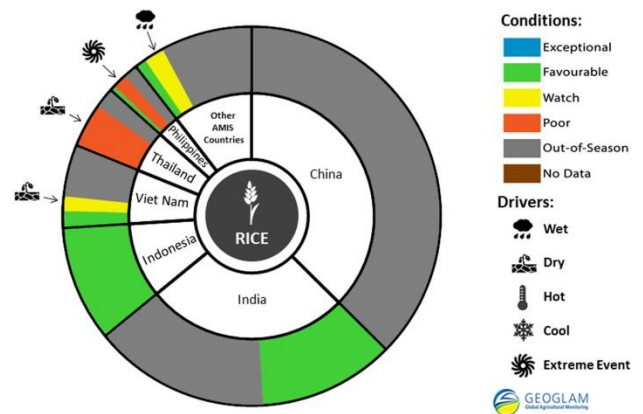
For detailed description of the pie chart please see box on page 4.

at this early stage of the season. In **Brazil** conditions have improved and are mostly favourable owing to rains. Planting of the spring-planted crop (the smaller producing season) is ongoing in most regions. There is some concern in the northeastern region due to dry conditions, and planting will intensify once regular rainfall commences. In **Argentina**, planting is almost halfway complete and conditions are generally favourable, however, there is some concern due to losses from a hail storm that affected early planted fields in Cordoba and Santa Fe. In **South Africa**, hot and dry conditions during spring and early summer had a large negative impact on early planting, which usually occurs over the eastern production regions. The planting window extends into December over the western parts, where conditions may improve in case of widespread rain.

Maize conditions in the northern hemisphere are generally favourable as the season draws to a close. In the **US**, harvest is nearly complete with a good crop. In **Ukraine**, harvesting is almost complete and yields are expected to be down due to the persistent dryness and high temperatures in central and western regions in previous months. In **India**, conditions are mostly favourable. In **Mexico**, conditions for the spring-planted cycle are generally favourable except for some regions in the southwest due to a lack of moisture, followed by excess rainfall caused by Hurricane Patricia. The hurricane caused only minor damage. In **Canada**, harvesting is ongoing and conditions are favourable. In **Nigeria**, the harvest has begun and conditions remain favourable. In the southern hemisphere conditions remain mostly favourable

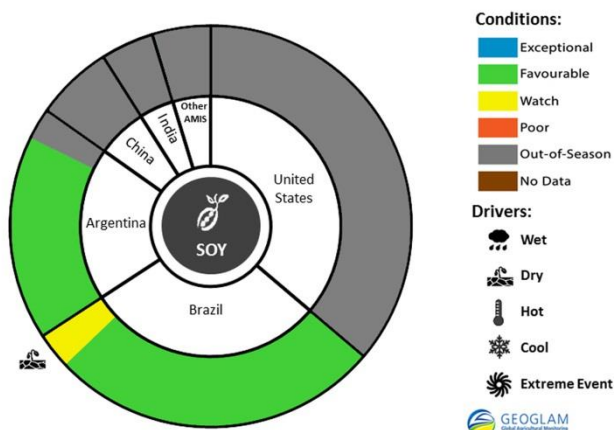
Rice conditions remain mixed in part due to the El Niño event affecting large parts of Asia. In **India**, harvest has begun and conditions are favourable for the kharif crop. In **Thailand**, conditions remain poor as a result of a lack of precipitation and shortage of irrigation water attributed to El Niño. In addition, weeds and pests are causing concerns in the northern and central regions. In **Viet Nam**, harvest of the summer-autumn wet season crop is ongoing and conditions are good. However, conditions have deteriorated for the autumn-winter planted wet season crop, due to ongoing dry conditions and lack of irrigation water. In **Indonesia**, the dry season crop condition has improved and is generally favourable through there are still some water shortages. In **Brazil**, conditions remain mixed due to excessive rainfall in the southern (main producing) region, which is delaying planting. In the **Philippines**, conditions are poor in large parts of the northern and central regions due to widespread damage caused by typhoon Koppou. In the rest of the country conditions are generally favourable, however there is some concern in the south over dryness. In **Argentina**, conditions are favourable.

Rice conditions for AMIS countries as of November 28th.



For detailed description of the pie chart please see box below.

Soy Conditions for AMIS countries as of November 28th.



For detailed description of the pie chart please see box below.

Pie chart description: Each slice represents a country's share of total AMIS production (5-year average). Main producing countries (representing 90 percent of production) are shown individually, with the remaining 10 percent grouped into the "Other AMIS Countries" category. The proportion within each national slice is coloured according to the crop conditions within a specific growing area; grey indicates that the respective area is out of season. Sections within each slice are weighted by the sub-national production statistics (5-year average) of the respective country. The section within each national slice also accounts for multiple cropping seasons (i.e. spring and winter wheat). When conditions are other than 'favourable', icons are added that provide information on the key climatic drivers affecting conditions.

Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with coordination from the University of Maryland. Inputs are from the following partners (in alphabetical order): Argentina (Buenos Aires Grains Exchange, INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RICE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), Indonesia (LAPAN & MOA), International (CIMMYT, FAO, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & GeoTerraImage & SANSA), Thailand (GISTDA & OAE), Ukraine (NASU-NSAU & UHMC), USA (NASA, UMD, USGS – FEWS NET, USDA (FAS, NASS)), Viet Nam (VAST & VIMHE-MARD). The findings and conclusions in this joint multi-agency report are consensual statements from the GEOGLAM experts, and do not necessarily reflect those of the individual agencies represented by these experts. Map data sources: Major crop type areas based on the IFPRI/IIASA SPAM 2005 beta release (2013), USDA/NASS 2013 CDL, 2013 AAFC Annual Crop Inventory Map, GLAM/UMD, GLAD/UMD, Australian Land Use and Management Classification (Version 7), SIAP, ARC, and JRC. Crop calendars based on GEOGLAM partner crop calendars and USDA/FAO crop calendars.

More detailed information on the GEOGLAM crop assessments is available at www.geoglam-crop-monitor.org.

For information on country coverage and criteria: <http://geoglam-crop-monitor.org/pages/about.php?target=approach>

For more information regarding the new crop monitor and pie charts: <http://geoglam-crop-monitor.org/pages/about.php?target=maps-charts>

Policy Developments

WHEAT

- In **Egypt**, a new support scheme for wheat will be introduced in April 2016. The wheat procurement price will be lowered from current levels to the world average price and a direct payment based on area of EGP 1,300 per feddan (approx. USD 393 per hectare) will be introduced. Payments would be capped to 25 feddan per farmer.
- **India** increased the minimum support price for wheat for 2016/17 by 5.2 percent to INR 1,525 per quintal (USD 230 per tonne) from its previous level.

RICE

- **Indonesia** authorized rice imports in the current quarter and entered talks for imports from multiple origins, including Viet Nam, Thailand and Pakistan. Current reports indicate that imports would amount to 1 million tonnes from Viet Nam, 500,000 tonnes from Thailand and 500,000 tonnes of basmati rice from Pakistan.
- The **Republic of Korea** will procure an additional 150,000 tonnes of rice. This comes in addition to the increase by 200,000 tonnes reported last month compared to the original volume of 360,000 tonnes announced in early September.

SOYBEANS

- **Indonesia** is considering a 10 percent import tariff on soybeans and a rise in the floor price from IDR 7,700 (USD0.55) per kg to IDR 8,500 (USD 0.61) per kg.

ACROSS THE BOARD

- The text of the Agreement on the Trans-Pacific Partnership was released by TPP Parties on 5 November 2015. The agreement will enter into force when it is ratified. Six AMIS participating countries; **Australia, Canada, Japan, Mexico, US** and **Viet Nam**, together with **Chile, Brunei, Malaysia, New Zealand, Peru** and **Singapore** are parties to the Agreement.
- In **India**, assistance is being deployed in States that have faced droughts during planting season.
- Institutional changes were implemented in **Saudi Arabia** where the Grain Silos and Flour Mills Organization was restructured and renamed as the General Grains Organization. The GGO will handle the storage and operation of grain silos and flour mills and issue operational licenses.
- **South Africa** is setting up support to those farmers adversely affected by droughts.
- On 5 November 2015, the Biosafety Board of **Turkey** approved 6 maize and 2 soybean GM varieties for feed use. This follows the approval in July 2015 of 3 maize and 2 soybean varieties for feed use.

AMIS Policy Database

Visit the AMIS policy Database at:

<http://statistics.amis-outlook.org/policy/>

The **AMIS Policy Database** gathers information on trade measures and domestic measures related to the four AMIS crops (wheat, maize, rice, and soybeans) as well as biofuels. The design of this database allows comparisons across countries, across commodities and across policies for selected periods of time.

International Prices

International Grains Council (IGC) Grains and Oilseeds Index (GOI) and GOI sub-Indices

	Nov 2015 Average*	% Change	
		M/M	Y/Y
GOI	185	- 2.2%	- 18.6%
Wheat	173	-2.0%	- 23.1%
Maize	177	- 0.1%	- 8.4%
Rice	152	+ 0.4%	- 13.0%
Soybeans	177	- 3.4%	- 21.6%

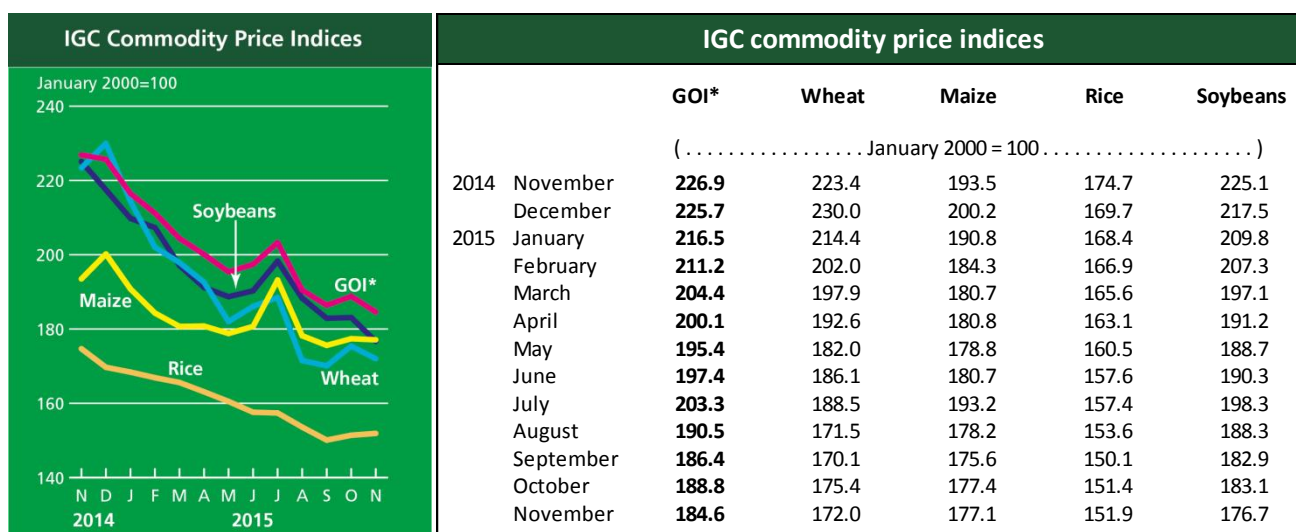
*Jan 2000=100, derived from daily export quotations

Wheat: Uncertainty about crop conditions continued to provide some underpinning, but export prices were mostly weaker during November, pressured by generally large nearby availabilities and slow buying interest. The dry start to the 2016/17 growing season remained of most concern in the Black Sea region, particularly in Ukraine, but with worries also emerging about dryness for planting in India. However, following recent beneficial rains, US traders focused on uncompetitive prices and resulting slow exports. Heavy supplies and lacklustre export demand also pressured values in the EU, especially in France, where some port silos halted further intake until backlogs could be cleared. Having recently made unusually large import purchases, Ethiopia was expected to be in the market for more owing to poor domestic production.

Maize: Average world export quotations were broadly unchanged in November, but with mixed trends across the main origins. After slight gains last month, US prices eased on comfortable supplies and slack global demand, with 2015/16 export commitments to date down by 30 percent y/y. Quotations in Argentina moved higher on slow producer selling and on speculation about possible changes to agricultural policies following the presidential election. Markets in Brazil had a slightly firmer tone as spot availabilities tightened amid a strong pace of exports. Black Sea values were lightly underpinned by this season's smaller availabilities in Ukraine and steady demand from EU feed users.

Rice: White and parboiled rice export prices were little changed in November, with purchases by Asian buyers and diminishing crop prospects providing support. Confirmation that Bulog, Indonesia's state logistics agency, had secured a large volume of rice buoyed market sentiment in Thailand, but currency movements weighed on FOB quotations. In Pakistan, enquiries from importers in Southeast Asia underpinned values, while talk of fresh demand from African buyers, including Nigeria, more than offset pressure from new crop supplies in India.

Soybeans: The IGC GOI soybeans sub-Index eased by nearly 4 percent during November as pressure from an ample world supply outlook outweighed mild support from stronger international demand. In the US, developments in outside markets and currency movements were also influential at times, while talk that Chinese processors had secured new crop supplies from Brazil added to the negative tone. While weather patterns remained an underlying concern, export prices in Brazil were weighed by prospects for record plantings, with values in Argentina also weakening in limited activity.



*GOI: Grains and Oilseeds Index

Futures Markets

Futures Prices - nearby

	Nov 2015 Average	% Change	
		M/M	Y/Y
Wheat	182	-2.3%	-8.7%
Maize	144	-4.4%	-1.8%
Rice	264	-3.5%	-0.9%
Soybeans	319	-2.6%	-15.9%

Source: CME – USD per tonne

Historical Volatility – 30 Days, nearby

	Monthly Averages		
	Nov 2015	Oct 2015	Nov 2014
Wheat	27.0%	25.4%	21.5%
Maize	17.0%	20.9%	28.6%
Rice	25.7%	20.5%	16.3%
Soybeans	14.6%	17.7%	29.9%

Futures Prices

Prices for wheat, maize, soybeans and rice posted single digit percentage declines m/m. Soybeans briefly traded at a six year low with some analysts citing the prospect for greater producer selling in South America following the Argentinean election and potential liberalization of the export tax and quota regime. Prices for soft red wheat (SRW – CBOT) and hard red wheat (HRW – KCBOT) exhibited a rare divergence as SRW rose to a USD 11 per tonne premium to HRW due to the shortage of good quality milling wheat in the 2014/15 crop and the continuing competitive disadvantage of US HRW in global markets. Prices for all four commodities were slightly lower y/y.

Volumes and Volatility

Volumes reversed last month's trends, rising for wheat and maize m/m by 4 and 21 percent and falling sharply for soybeans by 60 percent. Volumes for maize and soybeans were lower y/y and marginally higher for wheat. Implied volatility declined modestly m/m for wheat, maize and soybeans to 22, 19 and 16 respectively. Historical volatility fell for maize and soybeans but rose for wheat.

Basis levels

Basis levels for maize and soybeans continued to divide across the Mississippi River owing to the lower productivity levels in the east. Directly east in Illinois, basis levels for both maize and soybeans were reported at about 1 USD per tonne discount on average to respective nearby futures contracts, while many quotes were at premiums to futures. To the west in Iowa, basis levels were quoted at 10 USD and 18 USD per tonne discounts to futures for maize and soybeans respectively (Iowa and Illinois comprise about 30 percent of US maize and soybean production). Barge loadings were down y/y and barge freight was quoted on Illinois River at 50 percent lower than last year and 50 percent lower than the 3 year average, falling to about USD 14 per tonne. Transport by truck and rail increased due to continuing declines in diesel fuel surcharges and increases in locomotive capacity – a result of a slowdown in shale oil transport. The wheat basis remained firm at upper Midwest flour mills at about 8 USD per tonne premium to the December SRW futures contract.

Forward curves

Forward curves for wheat, maize and soybeans reacted to high basis levels and tight producer holding by exhibiting narrow spreads between the nearby month and deferred. Wheat and maize which became deliverable December 1, showed a narrowing between nearby December and next deferred contract – March 2016. The January 2016 soybean contract also narrowed on the March 2016 soybean contract, in anticipation of continued producer holding into the new calendar year. Otherwise forward curves displayed upward sloping configurations for all three commodities.

Investment flows

Managed money reversed its net long position in maize to net short and increased its net short positions in wheat and soybeans m/m. Managed money net short positions for the 3 commodities totaled 171 thousand contracts or approximately 22.5 million tonnes. An overall slump in commodities, a strong USD and USDA projections of rising global inventory levels were cited as rationale for this short bet. Commercials, which are paying cash premiums to futures in some regions, took the other side of managed money's sales.

Monthly US Ethanol Update

- The **EPA** released final RFS volumes for years 2014-2016 as well as biomass-based diesel volumes for 2017. The rule caps the amount of conventional biofuels such as maize starch ethanol which can be applied against blending obligations at 14.5 billion gallons in 2016.
- With falling gasoline and oil prices, **ethanol prices** are running at a premium to RBOB gasoline which has occurred infrequently since 2007. Ethanol prices were down in November but have been relatively flat compared to the volatility in gasoline prices.
- **Ethanol margins** remain near breakeven levels even as the production pace is up in November over October and above year ago levels.
- Falling **maize prices** have offset falling ethanol prices this month keeping margins steady near breakeven and well below the strongly positive margins of a year ago.
- **DDGs prices** have strengthened relative to maize and are near price parity thus far in November. Export demand plays a role in the relative pricing of the two products and strong DDGS prices contribute to improved margins for ethanol producers.

Spot prices

IA, NE and IL/eastern
corn belt average

	Nov 2015*	Oct 2015	Nov 2014
Maize price (USD per tonne)	139.41	144.27	140.12
DDGs (USD per tonne)	123.05	117.97	114.84
Ethanol price (USD per gallon)	1.44	1.55	2.15

Nearby futures prices

CME, NYSE

Ethanol (USD per gallon)	1.49	1.56	1.98
RBOB Gasoline (USD per gallon)	1.31	1.35	2.05
Ethanol/RBOB price ratio	114.2%	115.8%	96.7%

Ethanol margins

IA, NE and IL/eastern corn belt
average, USD per gallon)

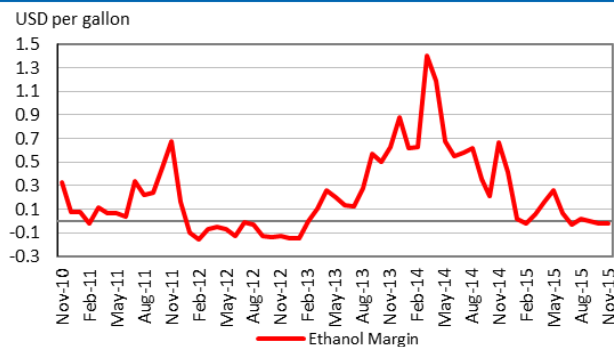
Ethanol receipts	1.44	1.50	2.15
DDGs receipts	0.38	0.36	0.35
Maize costs	1.29	1.33	1.29
Other costs	0.55	0.55	0.55
Production margin	-0.02	-0.02	0.66

Ethanol production (million gallons)

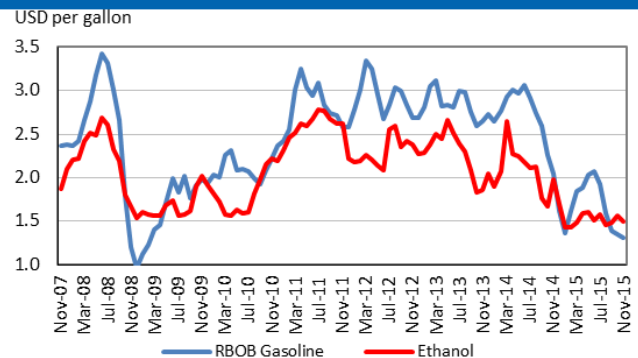
Monthly production total	1,244	1,254	1,200
Annualized production pace	15,141	14,766	14,601

Based on USDA data and private sources. * Estimated using available weekly data to date.

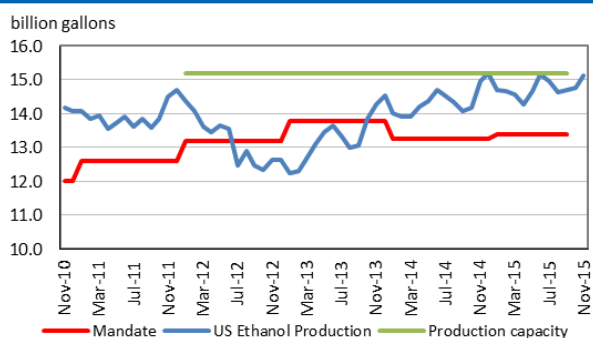
Ethanol Production Margin
(IA, NE, IL/eastern corn belt average)



Ethanol and RBOB gasoline
(nearby futures prices, CME, NYSE)



Ethanol production pace, capacity and annual mandate



Ethanol price vs. maize price
(Spot prices)

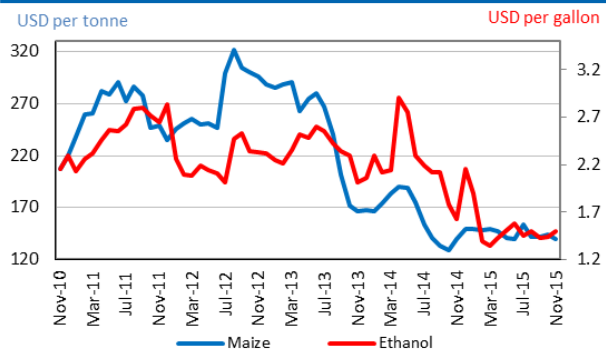


Chart and tables description:

Ethanol Production Margins: The ethanol margin gives an indication of the profitability of maize-based ethanol production in the United States. It uses current market prices for maize, Dried Distillers Grains (DDGs) and ethanol, with an additional USD 0.55 per gallon of production costs

Ethanol Production Pace, Capacity and Mandate: Overview of the volume of maize-based ethanol production in the United States; it also highlights overall production capacity and the production volume that is mandated by public legislation. Name-plate (i.e. nominal) ethanol production capacity in the US is roughly 14.9 billion gallons per annum, but plants can exceed this level, so the actual capacity is assumed to be 15.2 billion gallons.

DDGs: By-product of maize-based biofuel production, commonly used as feedstuff.

RBOB: Reformulated Blendstock for Oxygenate Blending, gasoline nearby futures (NYSE).

Fertilizer Outlook **NEW!**

The Fertilizer Industry

A number of diverse materials can serve as sources of fertilizers. They can be natural, synthetic, recycled waste or be derived from a range of biological products. Fertilizers typically provide three main nutrients: nitrogen (N), phosphorus (P) and potassium (K) and are commonly categorized as straight or complex/compound fertilizers. Straight fertilizers contain one of the three major nutrients N, P and K. The major nitrogen-based straight fertilizer is ammonia or its solutions, like ammonium nitrate (AN). Urea is another popular source of nitrogen-based fertilizer. The main phosphate-based straight fertilizer is phosphoric acid. Several straight fertilizers also contain other essential plant nutrients, such as sulfur (S) as in ammonium sulphate. Complex/compound fertilizers, in contrast, are obtained through a chemical reaction and include two-nutrient (NP) and three-nutrient (NPK) fertilizers; such as monoammonium phosphate (MAP) and diammonium phosphate (DAP).

In terms of industry structure, the fertilizer sector is highly concentrated with high and increasing levels of fertilizer materials being shipped. A small number of countries control most of the production capacity for the main nitrogen (ammonia, urea, ammonium nitrate), phosphate (DAP/MAP and phosphoric acid) and potash-based fertilizers. Except for ammonium nitrate, there are just five countries that control more than half of the world's production capacity for major fertilizers. The table below lists, for example, the major producers of urea, DAP/MAP and potash. Additionally, in most cases the top four firms within these major producer countries control more than 50 percent of the country's production capacity. The production of potash in particular is extremely concentrated at the country level: in four of the five main potash-producing countries, the top four firms account for entire national production capacity. In the case of urea, three out of five producing countries account for 50 percent of production capacity, while four out of five countries show this pattern in the case of DAP/MAP. While the endowment of raw materials explains the geographical structure of global production, economies of scale in production generally explains the industry structure at the country level. The importance of trade in the industry is evident from the increasing dependence of several regions on imported fertilizers, including Africa, Europe and Latin America. Fertilizer prices in major international markets are also showing an upward trend in recent years.

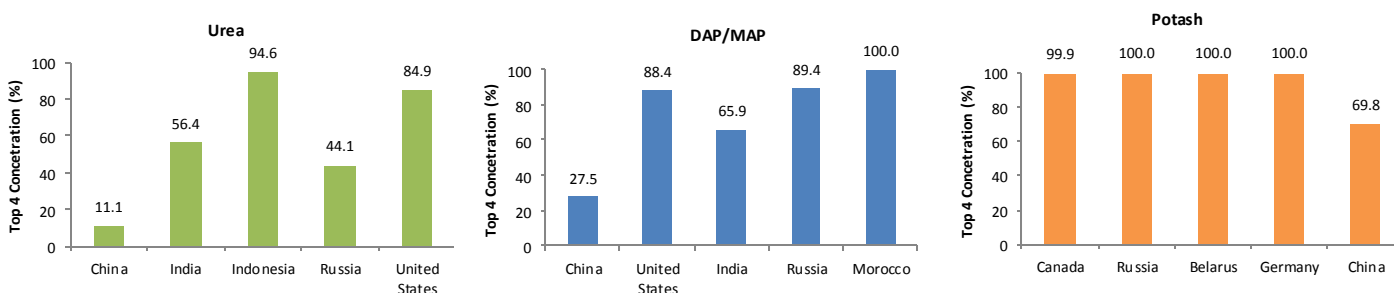
Why have we introduced fertilizers to the report? Besides having an important bearing on the cost of production and ultimately output prices, the importance of the fertilizer industry for AMIS stems from the fact that fertilizer production, consumption, and trade volumes of several AMIS countries represent a large share of global fertilizer output. Hence AMIS countries are likely to play a key role in shaping fertilizer markets and price outcomes. With this in mind, this section aims to enhance market transparency in the fertilizer industry and to inform policymakers and market participants on market uncertainties. The following outlook report covers recent production, consumption and trade patterns by regions and by AMIS participating countries. This will be updated in a semiannual/annual basis. In addition, the outlook covers price trends for the main fertilizers products and regions, and will be updated on a monthly basis.

Concentration of world fertilizer production capacity 2008/2009

Fertilizer	Top-5 countries (% of World in parenthesis)	Top-5 Capacity (000 tonnes)	Top-5 Share (% of World)
Urea	China (33.1), India (13.1), Indonesia (5.4), Russia (4.2), and United States (4.1)	95,802	59.9
DAP/MAP	China (23.3), United States (21.2), India (11.4), Russia (6), and Morocco (4)	22,896	65.9
Potash	Canada (37.6), Russia (13.2), Belarus (9.9), Germany (8.2), and China (7.7)	39,687	76.7

Source: International Fertilizer Development Center – IFDC.

Top-4 concentration ratio (Major producer countries, 2008/2009)



Source: International Fertilizer Development Center – IFDC.

Chart and tables description:

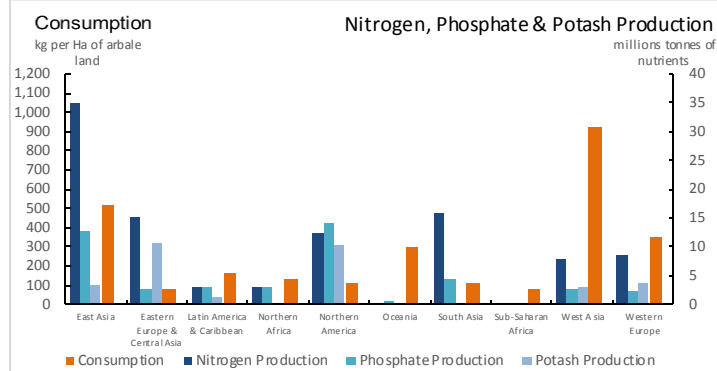
Top-5 share shows the share of production of the top five countries for selected products. Computations are based on capacity of operative plants

Top-4 concentration ratio shows the share of production of the top four firms within each major producer country. Computations are based on capacity of operative plants.

DAP: Diammonium Phosphate; MAP: Monoammonium Phosphate.

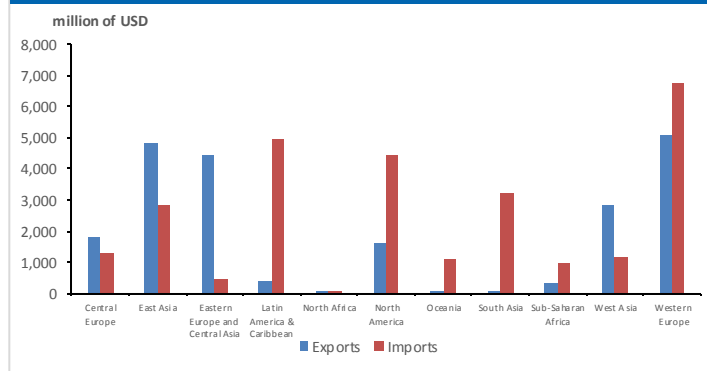
Fertilizer Supply and Demand

Fertilizer Consumption and Production by Region (2013)



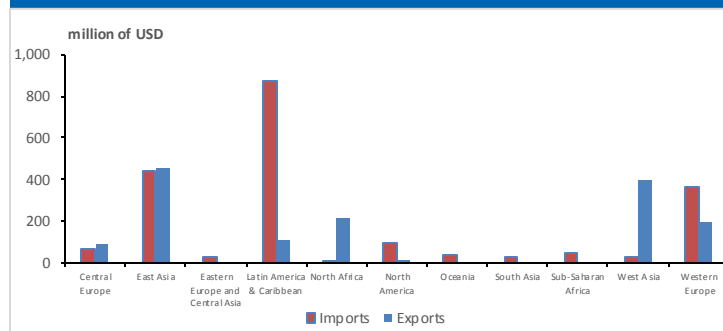
Note: calculations based on consumption data from the World Development Indicators (WDI) and production data from the FAOSTAT Online.

Nitrogen Trade (Exports and Imports, 2013)



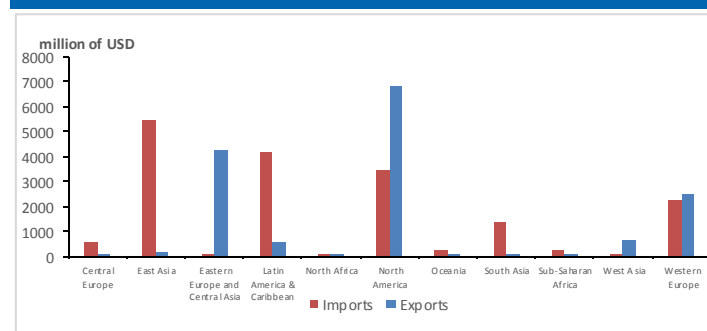
Note: calculations based on COMTRADE, <http://comtrade.un.org/data/>

Phosphate Trade (Exports and Imports, 2013)



Note: calculations based on COMTRADE, <http://comtrade.un.org/data/>

Potash Trade (Exports and Imports, 2013)



Note: calculations based on COMTRADE, <http://comtrade.un.org/data/>

AMIS Countries (2013)

Country	Nitrogen Production (million tonnes)	Nitrogen Exports (million USD)	Nitrogen Imports (million USD)	Consumption (kg per Ha arable land)
Russian Federation	8.0	3,357.8	19.2	15.2
Egypt	2.4	1,077.2	61.2	636.4
Germany	1.5	910.2	1,031.9	203.6
United States	8.9	787.8	3,822.6	131.9
Canada	3.4	819.5	641.3	88.2
Indonesia	3.6	552.4	318.6	204.6
Ukraine	2.2	1,133.5	211.8	45.8
South Africa	0.1	284.5	331.5	57.7
France	0.7	285.2	1,682.8	140.6
Spain	0.8	255.8	549.3	139.1
AMIS	80.3	12,394.8	19,594.1	4,561.158
World	101.6528	21,423	27,327.8	38,340.47509

Note: calculations based on trade data from COMTRADE, <http://comtrade.un.org/data/>, consumption data from the World Development Indicators (WDI) and production data from the FAOSTAT Online.

- **Nitrogen-based fertilizer** is heavily produced in East Asia, followed by Eastern Europe and South Asia; production is highly correlated with the geographic availability of natural gas, the main raw material used in the production of nitrogen.
- **Potash-based fertilizer** is densely produced in North America and Eastern Europe; the major deposits of potash are located in these regions.
- The **production of phosphate** is also concentrated in East and Southeast Asia together with North America, where there are important reserves of phosphate rock.
- **Fertilizer consumption** is concentrated in West and East Asia and Western Europe.
- In 2013, exports of **potash-based fertilizers** were concentrated in North America and Eastern Europe, exporting around USD 7,000 million and USD 4,000 million, respectively. East Asia and Eastern and Western Europe were the main exporters of **nitrogen-based fertilizers** (USD 4,500-5,000 million), while East and West Asia stood as the main exporters of **phosphate-based fertilizers** (around USD 400 million).
- Latin America exhibits a greater dependence on imported **phosphate-based fertilizers** than other regions, while Western Europe is greatly dependent of **nitrogen-based fertilizer** imports, followed by Latin America and North America. East Asia imports **potash-based fertilizers** in a larger amount compared to the other regions.
- Among AMIS countries, the United States and Russia are the main producers of nitrogen-based fertilizers. Yet, while Russia is the main exporter, the United States is the main importer. In terms of consumption, Egypt has the higher fertilizer use intensity (kg of nutrients per Ha of arable land).

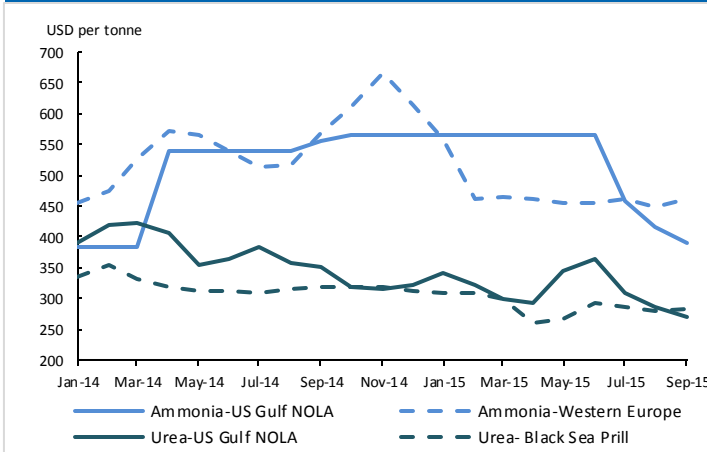
Chart and tables description:

Fertilizer Consumption and Production: Overview of fertilizer consumed and produced in 2013. The consumption is expressed per unit of arable land; it covers nitrogenous, potash, and phosphate-based fertilizers. Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. The fertilizer production is the total amount of production in tonnes of plant nutrient disaggregated by nitrogen, potash, and phosphate.

Nitrogen, Phosphate and Potash trade: Overview of imports and exports in 2013 by region.

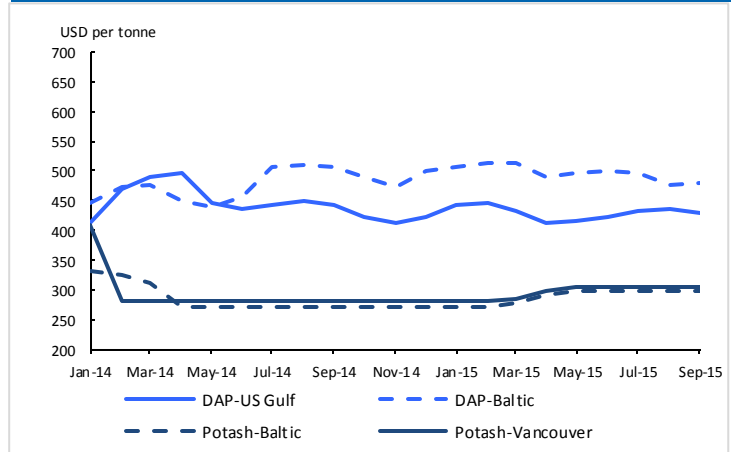
Fertilizer Prices

Ammonia and Urea (Spot prices)



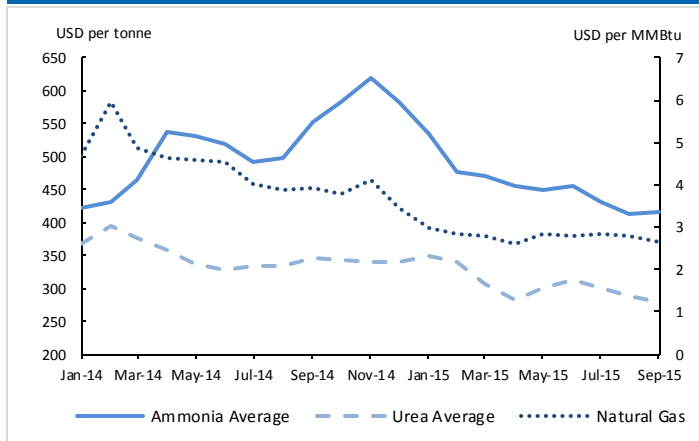
Source: calculations based on Bloomberg.

Potash and Phosphate (Spot prices)



Source: calculations based on Bloomberg.

Ammonia Average, Urea Average and Natural Gas (Spot prices)



Source: Natural gas is used as major input to produce nitrogen-based fertilizers. Own elaboration based on Bloomberg.

- **Ammonia and urea month-to-month prices** declined in the US Gulf, while Western Europe and the Black Sea prices rose. Prices remain below last year's levels.
- **DAP price gap** between the Baltic region and the US Gulf remains relatively constant, although Baltic prices have started to slowly increase during the past couple of months as opposed to US prices.
- **Potash prices** remain relatively stable in Vancouver and the Baltic, yet prices are expected to decrease as Mosaic Co., the largest U.S. producer of potash fertilizer, reported plans to reduce output as low crop prices continue to erode farmer demand for agricultural products.
- Average **ammonia prices** remained almost stable relative to the previous month. The high variability in the previous months was mainly driven by US gulf price volatility.
- Average **urea prices** went down in September compared to both August and year-on-year.
- In the US, gas production volumes will continue to grow because of increased drilling efficiencies. In contrast, Europe is likely to see declining local production and increasing imports from areas such as West Africa the US, Canada and North Africa. Use of natural gas in the fertilizer sector is expected to expand in the medium-term in the US.

Region	September average	September std. dev	% change previous month	% change previous year	12-month high	12-month low
Ammonia-US Gulf NOLA	388.8	48.4	-6.3%	-30%	565	388.8
Ammonia-Western Europe	460	0	2.7%	-19.3%	667.5	448
Urea-US Gulf	270.8	7.2	-5.1%	-22.9%	363.6	270.8
Urea-Black Sea	283.8	2.5	1.9%	-11.3%	320	260
DAP-US Gulf	429.8	3.1	-1.4%	-2.9%	447	411.3
DAP-Baltic	480	0	1.1%	-5%	515	472.5
Potash-Baltic	298	0	0%	9.6%	300	272
Potash-Vancouver	305	0	0%	8.2%	305	282
Ammonia Average	415	12.1	0.2%	-24.8%	617.8	413.8
Urea Average	278	6.3	-3.7%	-19.6%	347.6	277.8
Natural Gas	3	0.1	-4.1%	-32.2%	4.1	2.6

Note: Own calculations based on Bloomberg.

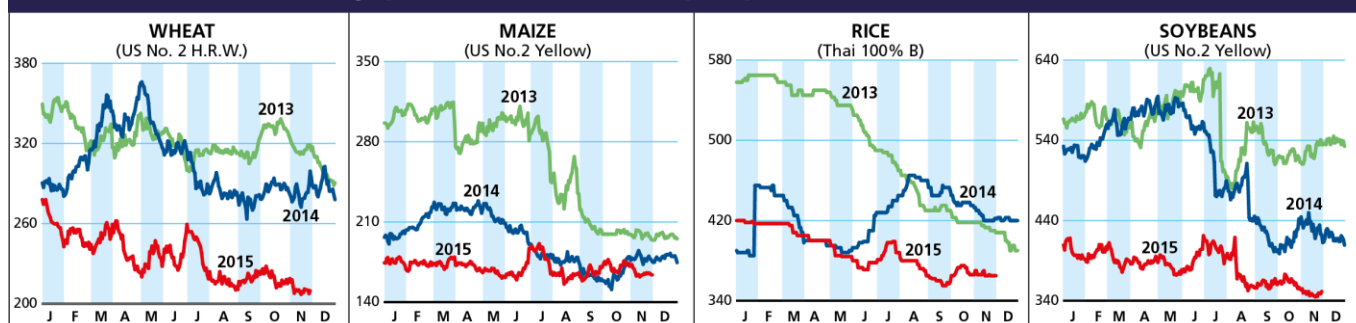
Chart and tables description:

Ammonia and Urea: Overview of nitrogen-based fertilizer prices in the US Gulf, Western Europe and Black Sea. Prices are weekly prices averaged by month.
Potash and Phosphate: Overview of phosphate and potassium-based fertilizer prices in the US Gulf, Baltic and Vancouver. Prices are weekly prices averaged by month.
Ammonia Average and Urea Average: Monthly average prices from Ammonia's US Gulf NOLA, Middle East, Black Sea and Western Europe were averaged to obtain Ammonia Average prices; monthly average prices from Urea's US Gulf NOLA, US Gulf Prill, Middle East Prill, Black Sea Prill and Mediterranean were averaged to obtain Urea Average prices.
Natural Gas: Henry Hub Natural Gas Spot Price from ICE. Prices are intraday prices averaged by month.
DAP: Diammonium Phosphate.

Supplementary tables and charts

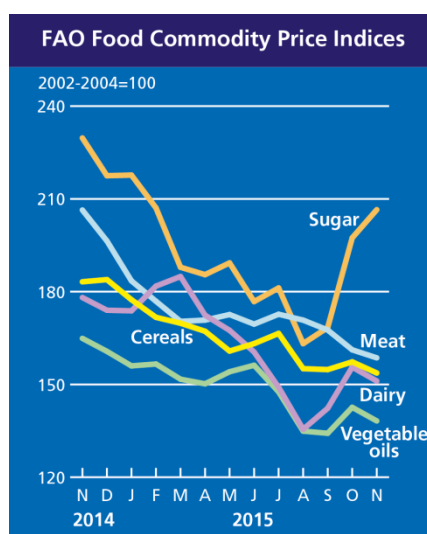
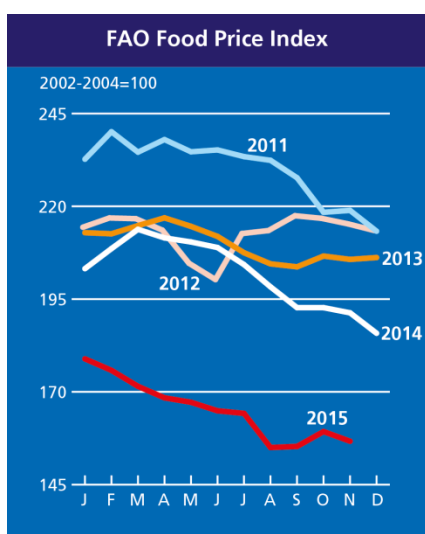
Selected Export Prices and Price Indices

Daily quotations of selected export prices (USD/tonne, 2013-2015)



Daily quotations of selected export prices

	Effective Date	Quotation (1)	Week ago (2)	Month ago (3)	Year ago (4)	% change (1) over (2)	% change (1) over (4)
(..... USD/tonne)							
Wheat (US No. 2, HRW)	30-Nov	210	211	218	299	-0.6%	-29.9%
Maize (US No. 2, Yellow)	01-Dec	164	165	174	176	-0.5%	-6.6%
Rice (Thai 100% B)	01-Dec	365	365	366	422	0.0%	-13.5%
Soybeans (US No.2, Yellow)	30-Nov	352	347	357	422	1.5%	-16.7%

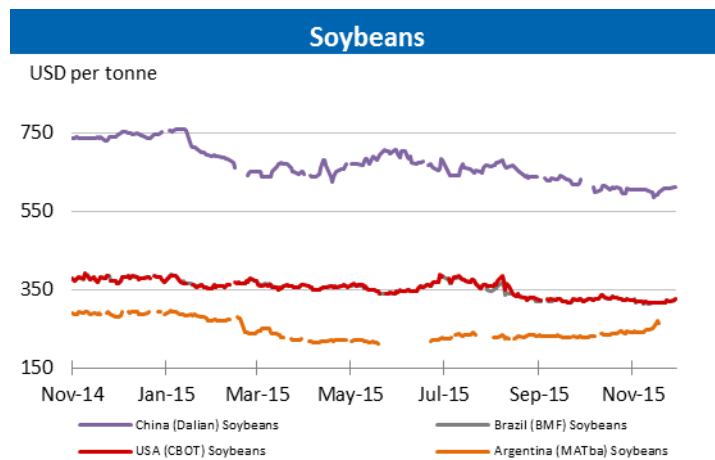
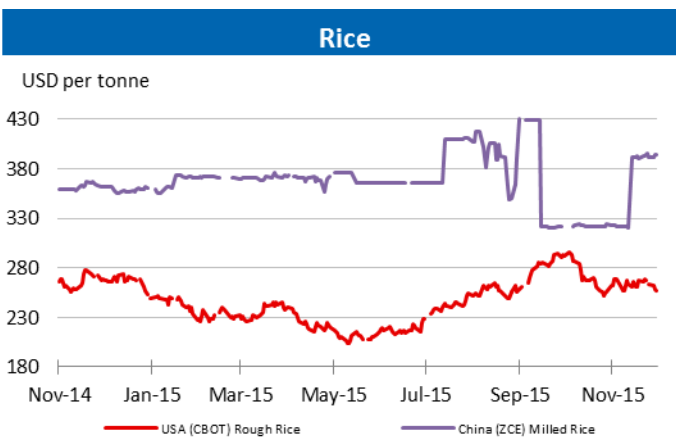
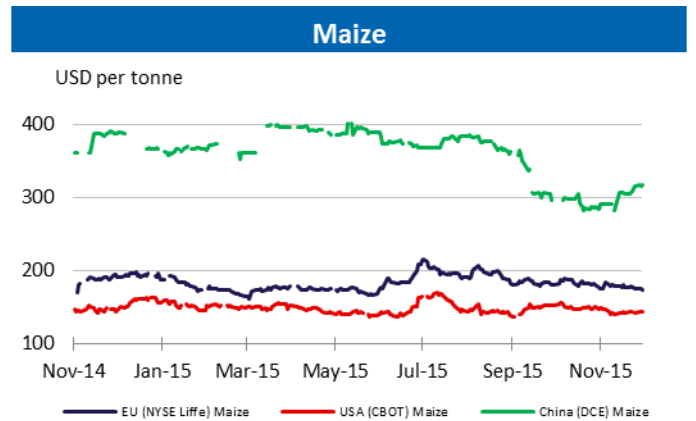
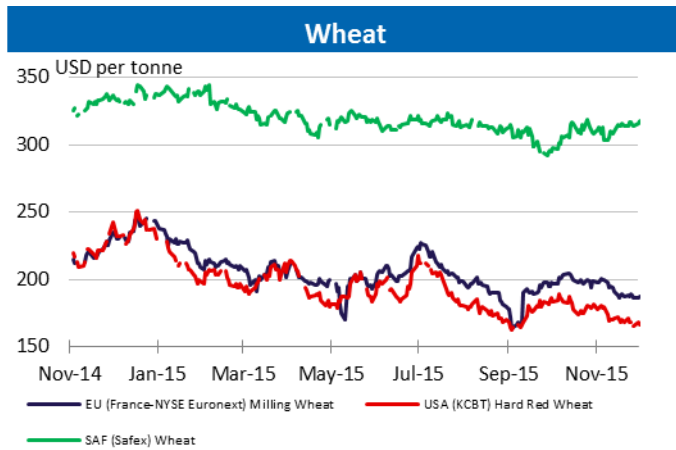


FAO food price indices

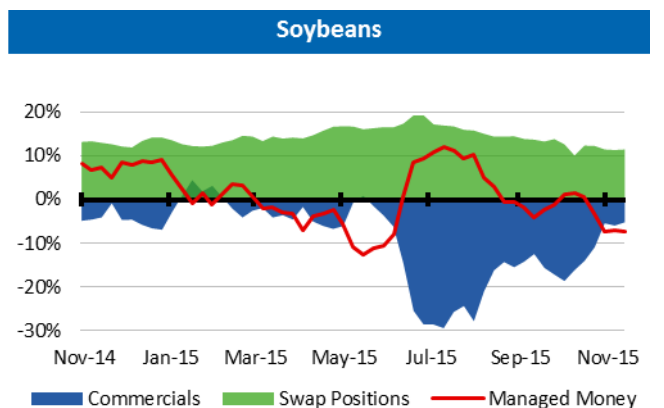
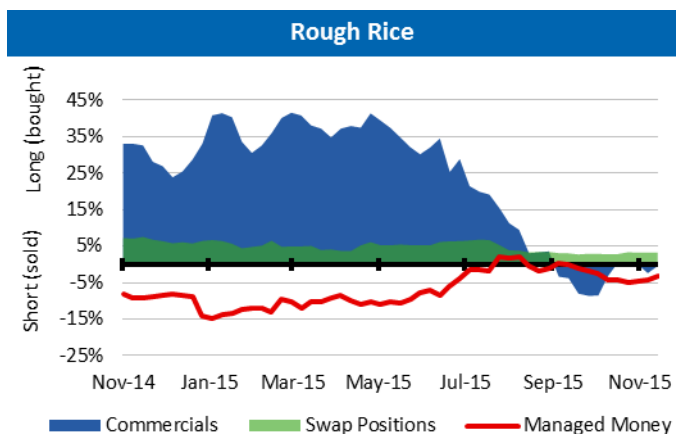
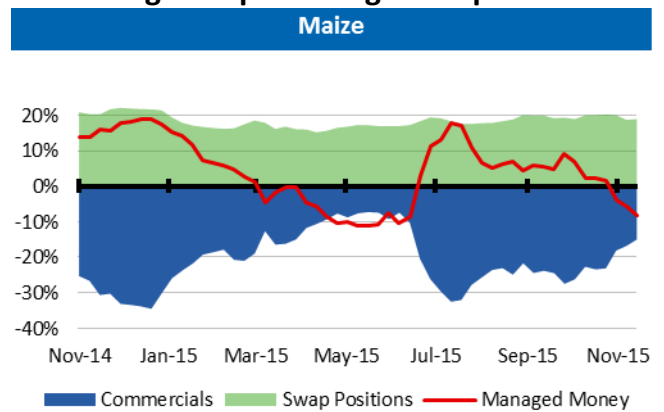
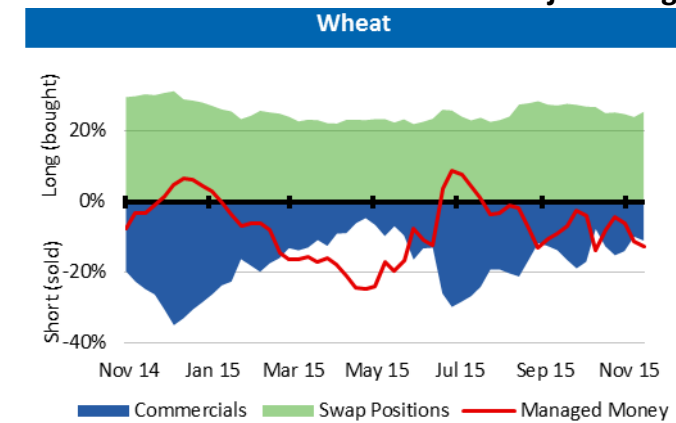
	Food Price Index	Meat	Dairy	Cereals	Oils and Fats	Sugar	
(..... 2002-2004 = 100)							
2014	November	191.3	206.4	178.1	183.2	164.9	229.7
	December	185.8	196.4	174.0	183.9	160.7	217.5
2015	January	178.9	183.5	173.8	177.4	156.0	217.7
	February	175.8	176.9	181.8	171.7	156.6	207.1
	March	171.5	170.4	184.9	169.8	151.7	187.9
	April	168.4	170.8	172.4	167.2	150.2	185.5
	May	167.2	172.6	167.5	160.8	154.1	189.3
	June	164.9	169.5	160.5	163.2	156.2	176.8
	July	164.2	172.7	149.1	166.5	147.6	181.2
	August	155.0	170.8	135.5	155.1	134.9	163.2
	September	155.3	167.6	142.3	154.8	134.2	168.4
	October	159.3	161.2	155.6	157.3	142.6	197.4
	November	156.7	158.6	151.1	153.7	138.2	206.5

Market Indicators

Daily Quotations from Leading Exchanges - nearby futures

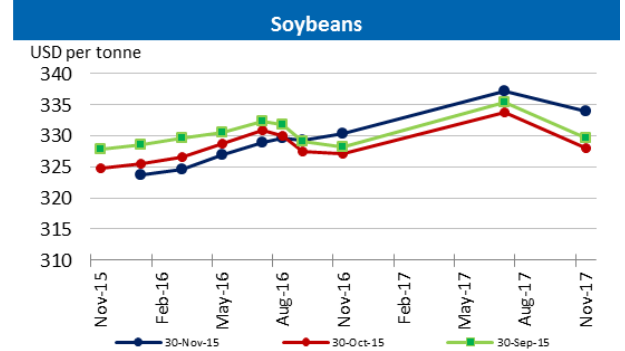
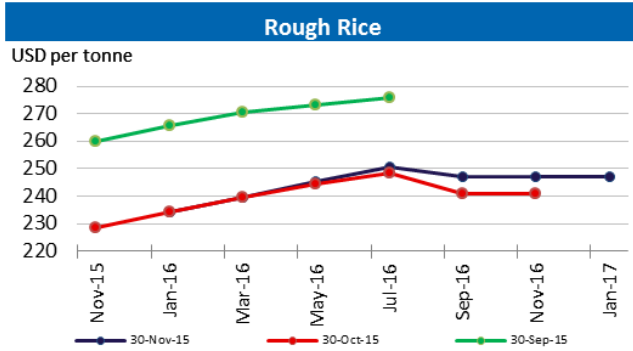
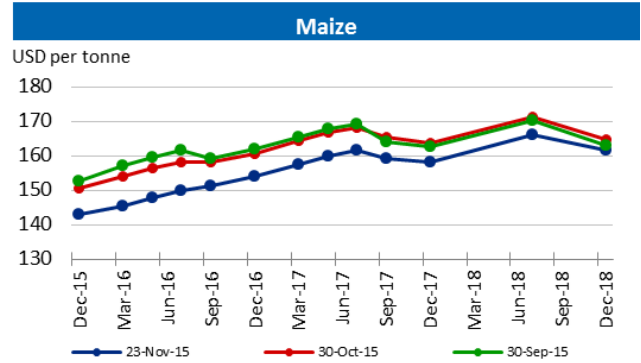
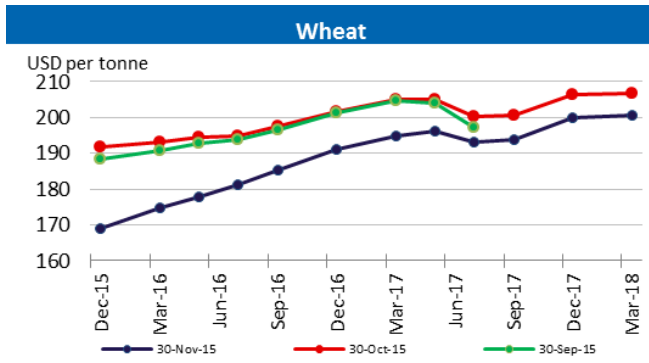


CFTC Commitments of Traders - Major Categories Net Length as percentage of Open Interest*

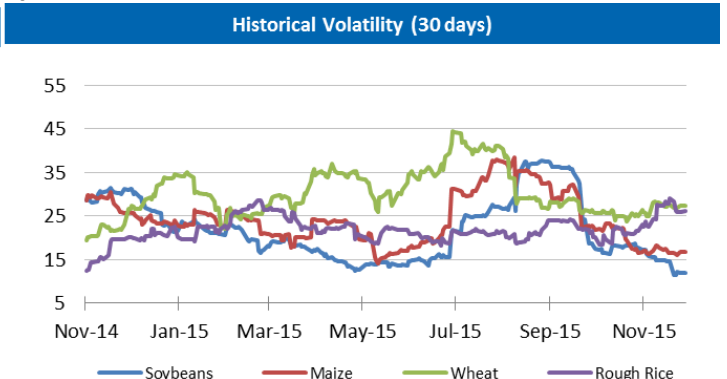
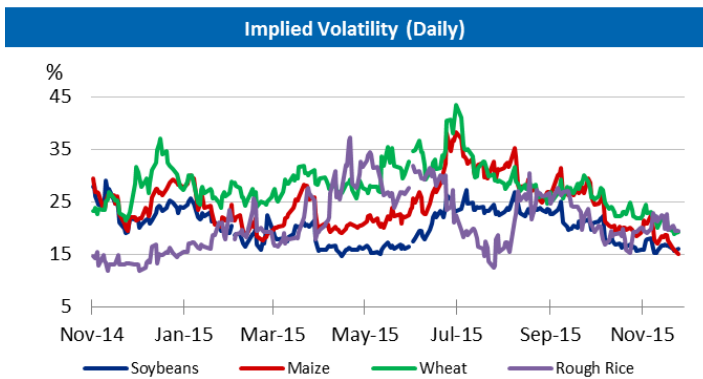


* Disaggregated Futures Only. Though not all positions are reflected in the charts, total long positions always equal total short positions.

Forward Curves



Historical and Implied Volatilities



Maize use for Ethanol in the US

Maize Use for Ethanol (excluding non-fuel) in the United States

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15 est	2015/16 f'cast*
	<i>thousand tonnes</i>									
Maize Production	267,503	331,177	307,142	332,550	316,166	313,956	273,188	351,270	361,101	346,825
Ethanol Use	53,837	77,453	93,396	116,616	127,538	127,005	117,886	130,155	132,314	133,450
Yearly ethanol use change (%)	32%	44%	21%	25%	9.4%	-0.4%	-7.2%	10.4%	1.7%	-0.7%
As Production (%)	20%	23%	30%	35%	40.3%	40.5%	43.1%	37.1%	36.6%	37.9%

Source: WASDE-USDA. *10 November 2015

AMIS Market Indicators

Some of the indicators covered in this report are updated regularly on the AMIS website. These, as well as other market indicators, can be found at:

<http://www.amis-outlook.org/amis-monitoring/indicators/>

Explanatory Notes and Calendar

The notions of **tightening** and **easing** used in the summary table of “**World Supply and Demand**” reflect judgmental views which take into account market fundamentals, inter-alia price developments and short-term trends in demand and supply, especially changes in stocks.

All totals (aggregates) are computed from unrounded data. World supply and demand estimates/forecasts in this report are based on the latest data published by FAO, IGC and USDA; for the former, they also take into account information received from AMIS countries (hence the notion “**FAO-AMIS**”). World estimates and forecasts may vary due to several reasons. Apart from different release dates, the three main sources may apply different methodologies to construct the elements of the balances. Specifically:

Production: For wheat, production data refer to the first year of the marketing season shown (e.g. the 2014 production is allocated to the 2014/15 marketing season). For maize and rice, FAO-AMIS production data refer to the season corresponding to the first year shown, as for wheat. However, in the case of rice, 2014 production also includes secondary crops gathered in 2015. By contrast, for rice and maize, USDA and IGC aggregate production of the northern hemisphere of the first year (e.g. 2014) with production of the southern hemisphere of the second year (2015 production) in the corresponding 2014/15 global marketing season. For soybeans, this latter method is used by all three sources.

Supply: Defined as production plus opening stocks. No major differences across sources.

Utilization: For wheat, maize and rice, utilization includes food, feed and other uses (“other uses” comprise seeds, industrial utilization and post-harvest losses). For soybeans, it comprises crush, food and other uses. No major differences across sources.

Trade: Data refer to exports. For wheat and maize, trade is reported on a July/June marketing year basis, except for the USDA maize trade estimates, which are reported on an October/September basis. For rice, trade covers flows from January to December of the second year shown, and for soybeans from October to September. Trade between European Union member states is excluded.

Ending Stocks: In general, ending stocks refer to the sum of carry-overs at the close of each country’s national marketing year. In the case of maize and rice, in southern hemisphere countries the definition of the national marketing year is not the same across the three sources as it depends on the methodology chosen to allocate production. For Soybeans, the USDA world stock level is based on an aggregate of stock levels as of 31 August for all countries, coinciding with the end of the US marketing season. By contrast, the IGC and FAO-AMIS measure of world stocks is the sum of carry-overs at the close of each country’s national marketing year.

Main sources

Bloomberg, CFTC, CME Group, FAO, GEOGLAM, Inter-Continental Exchange, IGC, Reuters, USDA, US Federal Reserve, World Bank

2016 Release Dates

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The **Market Monitor** is a product of the [Agricultural Market Information System \(AMIS\)](#). It covers the international markets for wheat, maize, rice and soybeans, giving a synopsis of major market developments and the policy and other market drivers behind them. The analysis is a collective assessment of the market situation and outlook by the ten international organizations that form the AMIS Secretariat. Ultimately, the report aims at improving market transparency and detecting emerging problems that might warrant the attention of policy makers.

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AMIS Crop Calendar

Largest producers*		J	F	M	A	M	J	J	A	S	O	N	D
WHEAT	EU (21%) (spring)												
	(winter)												
	China (17%) (spring)												
	(winter)												
	India (12%) (winter)												
	USA (9%) (spring)												
MAIZE	Russia (8%) (winter)												
	USA (36%)												
	China (21%) (north)												
	(south)												
	Brazil (7%) (1st crop)												
	(2nd crop)												
RICE	EU (7%)												
	Mexico (3%) (spring-summer)												
	(autumn-winter)												
	China (29%) (intermediary crop)												
	(late crop)												
	India (21%) (kharif)												
(rabi)													
SOYBEANS	Indonesia (9%) (main Java)												
	(second Java)												
	Viet Nam (6%) (winter-spring)												
	(autumn)												
	(winter)												
USA (35%)													
Brazil (28%)													
Argentina (18%)													
China (6%)													
India (4%)													

* The percentages refer to the global share of production (average 2008-12).

■ Planting ■ Harvesting