

# **GEOGLAM Crop Monitor\***

## **October 2013**

No. 2



\* Assessment based on Information as of September 27th

**Prepared by members of the GEOGLAM Community of Practice**

# Crop Monitor

(As of September 27)

*Crop Monitor is developed for AMIS\* by GEOGLAM. It summarizes latest crop conditions for AMIS crops based on regional expertise and analysis of satellite data, ground observations, and meteorological data, and was conducted by experts from global, national and regional monitoring systems. For each of the four crops, a paragraph summarizing current conditions is provided, accompanied by a satellite-based indicator map. Each map depicts crop vegetative growth anomalies from September 27th (relative to a 12 year average), over the main crop growing regions within AMIS countries.*

**Wheat:** Prospects are favourable in the Northern Hemisphere. Winter wheat harvest is complete, spring wheat harvest is in progress and winter wheat planting has initiated. In the **US, Canada, and Kazakhstan** spring wheat prospects are mostly good. In **Russia** spring wheat prospects are favourable and are up sharply relative to last year's drought reduced levels, and winter wheat planting is in progress in European Russia though soil moisture levels are low for the emerging crop. In the Southern Hemisphere conditions are mostly favourable. In **Australia** overall prospects for winter wheat production remain positive despite variable growing conditions over winter including sustained above average temperatures and little rainfall across parts of eastern Australia since late August. In **Argentina** precipitation is needed in coming weeks. In **Brazil** excessive wetness and August frosts caused some significant crop damage. In **South Africa** winter wheat conditions are good owing to widespread winter rain.

**Maize:** General conditions are good. In the **US**, over half of the maize is in good to excellent condition despite late season dryness and heat. A record production is expected largely due to increased planted area which has compensated for the somewhat lower than trend yields. In **Canada**, conditions are favourable and yields are expected to be average to above average. In the **EU**, overall conditions are good except in northern Italy and parts of the Balkans where conditions were affected due to late sowing and dry and hot conditions. In **Russia** yield prospects are favourable despite low soil moisture in the south. In **India** and **Ukraine** prospects are generally good. In **China** conditions are good and a bumper crop is expected, however the delayed sowing and cold spring may threaten yield prospects in the northeast due to the shortened growing season. In **Mexico** overall conditions are good though there is concern over excess moisture and localized flooding. In **Brazil** the second crop harvest is almost completed and yield prospects are favourable.

**Rice:** Growing conditions are favourable. The monsoon season in **South** and **Southeast Asia** maintained good moisture across most of the region. In **India, Bangladesh** and **Pakistan** conditions are mostly good. Mostly favourable conditions were maintained in **Indonesia, Thailand, Vietnam** and **Japan**. In the **Philippines** prospects are good though there is some concern over excess moisture. In **China** tropical cyclone rainfall has improved prospects for rice in the south, and the favorable moisture conditions are benefitting late season rice development and filling of single season rice.

**Soybeans:** Growing conditions are favourable. In the **US**, approximately half of the crop is in good to excellent condition although late season dryness has reduced yield prospects. In **China**, crop conditions are generally favorable with warmer weather facilitating crop development. In **India** prospects are favourable but there is some concern over developing dry conditions in parts of the country.

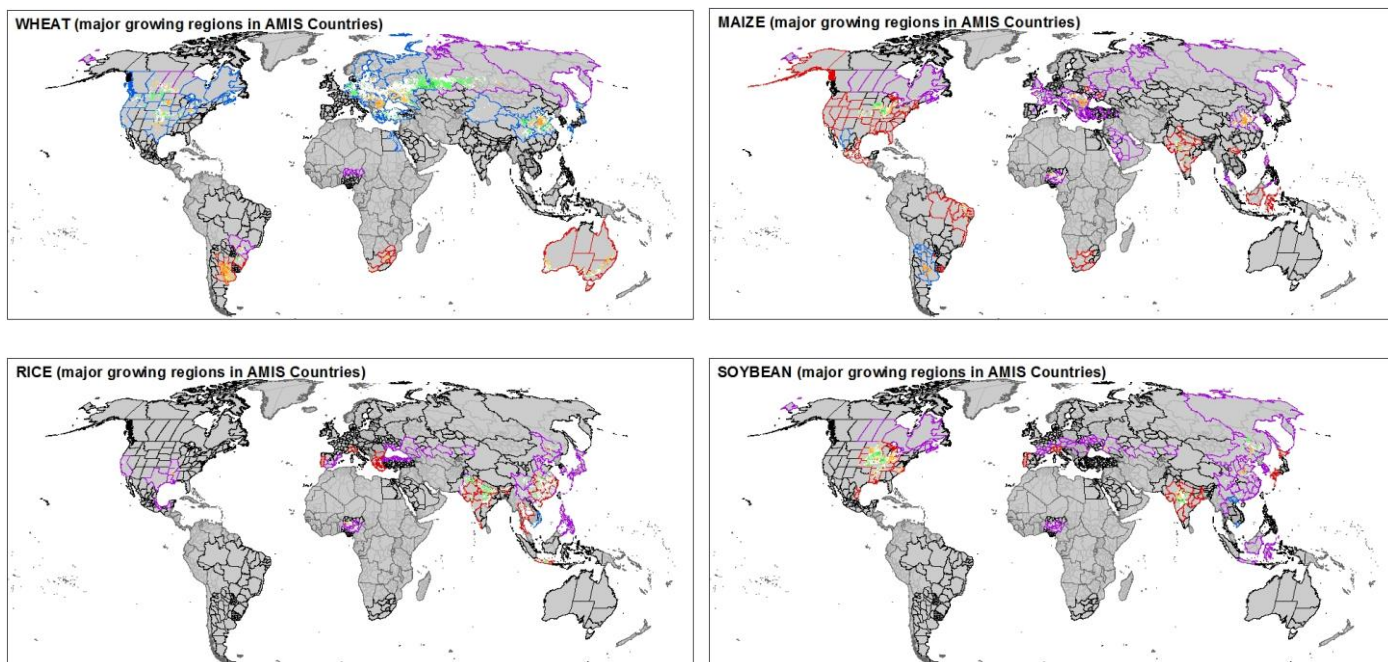
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GEOGLAM aims at strengthening global agricultural monitoring by improving the use of satellite information for crop production forecasting. It is implemented within the framework of the inter-ministerial Group on Earth Observations (GEO). Both GEOGLAM and AMIS were endorsed by the G20 Heads of States Declaration (Cannes, November 2011) when GEOGLAM was tasked to "coordinate satellite monitoring observation systems in different regions of the world in order to enhance crop production projections and weather forecasting data." Within this framework, GEOGLAM is providing global crop outlook assessments in support of AMIS market monitoring activities.

More detailed information on the GEOGLAM crop assessments is available on: [www.geoglam-crop-monitor.org](http://www.geoglam-crop-monitor.org)

## Satellite-Based Vegetative Growth Anomalies based on the Normalized Difference Vegetation Index (NDVI)

NDVI is a satellite-based indicator of photosynthesis often used for monitoring croplands. These anomaly images compare the NDVI for September 27th 2013 to the average NDVI for the same date from 2000-2012, over the main growing regions of the four AMIS crops. Orange to red indicates less green vegetation than average, green indicates higher than average vegetation. Administrative unit outline colours indicate crop growth stage: **Blue- planting to early vegetative**, **Red- Vegetative to Reproductive** (generally the most sensitive crop growth period), **Purple- Reproductive to Maturity**, **Black- areas out of season**. Note: only AMIS countries are highlighted.



### Legend



### Sources and Disclaimer

The Crop Monitor assessment has been conducted by GEOGLAM with inputs from the following partners (in alphabetical order): AAFC (Canada), CAS CropWatch (China), ARC (South Africa), ABARES/DA/CSIRO (Australia), CONAB (Brazil), GISTDA (Thailand), EC JRC-MARS, FAO, ISRO (India), JAXA (Japan), ASIA RiCE, IKI (Russia), INTA (Argentina), IIRRI, LAPAN/MOA (Indonesia), Mexico (SiAP), NASA, UMD, and USDA FAS/ USDA NASS (US), Ukraine Hydromet Center/NASU-NSAU (Ukraine), VAST/VIMHE (Vietnam).

The findings and conclusions found in this joint multiple-agency reporting are only consensual statements from the GEOGLAM expert group, and do not necessarily reflect those of the individual Agencies represented by these experts.

Map data sources: Main crop type areas based on the IFPRI/IIASA SPAM 2005 beta release (2013). Crop calendars based on FAO and USDA crop calendars. NDVI anomaly data produced by NASA/USDA/UMD based on NASA MODIS data.