

# **GEOGLAM Crop Monitor\***

## **November 2013**

No. 3



\* Assessment based on Information as of October 28th

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

# Crop Monitor

(As of October 28th)

*Crop Monitor is developed for AMIS\* by GEOGLAM. It summarizes latest conditions for AMIS crops based on regional expertise and analysis of satellite data, ground observations, and meteorological data, and is 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 October 23 (relative to a 12 year average), over the main crop growing regions within AMIS countries.*

**Wheat:** In the Northern Hemisphere spring wheat harvest is mostly complete and winter wheat planting is well underway. In **Canada** and **Kazakhstan** spring wheat prospects are average to above average but in **Russia**, spring wheat production is below average due mainly to low yields and harvest problems in the Volga Valley. In the Southern Hemisphere wheat prospects are variable. In **Australia**, harvest has commenced in major producing states earlier than average. Yield prospects vary across the country because of highly variable rainfall conditions during the season. Persistent dryness in the northeastern wheat growing areas have resulted in below average yields. Overall yield prospects are average to above average in the western, southern and southeastern wheat growing regions. In **Argentina**, overall conditions are average and wheat is mostly in tillering and flowering stages. Despite some recent scattered showers, water stress continues in parts of the main growing regions and additional rain is needed. In **South Africa**, wheat prospects are good owing to above-average rain over winter growing areas.

**Maize:** General conditions are good. In the **US** harvest is over 75% complete. Despite less than ideal conditions in mid summer, ratings have improved relative to last month and a record production is likely largely due to increased planted area. In **Canada** conditions are favourable and yields are expected to be average to above average. In the **EU** harvest is in full swing or already complete. Mean EU yield forecasts are close to the 5 year average, with above normal prospects in Spain, Portugal, Bulgaria and Romania, and below average yields in northern Italy and Hungary. In **Russia**, **Ukraine** and **India** prospects are good. In **China** prospects are good and a bumper crop is expected owing to increases in both area and yield. Despite an earlier than normal freeze across the northeastern growing regions the crop was not significantly affected. In **Mexico** overall conditions are good largely owing to atypical precipitation from multiple hurricanes, particularly in normally dry regions, however there is some concern over flooding in the south. In **Argentina** planting of the first crop has initiated and additional rain is needed to replenish soil moisture. In **Brazil**, the first crop planting has started. It is expected that planting area will be slightly reduced in favour of soybeans.

**Rice:** Overall conditions are favourable. The monsoon season in **South** and **Southeast Asia** maintained good to somewhat excessive moisture across most of the region. In **Pakistan**, **India** and **Bangladesh** prospects are good, although a tropical cyclone may have caused localized damage in eastern India and in Bangladesh. Mostly favourable conditions were maintained in **Indonesia** and **Japan**. In the **Philippines** and **Thailand** prospects are good though there is some concern over excess moisture and damage due to tropical storms mainly affecting northern and central growing regions in Thailand and northern Philippines. In **Vietnam** harvest is near complete for the summer season and yields are expected to be slightly lower than last year due to unfavourable weather. Autumn planted rice conditions are average. In **China**, rainfall improved prospects in the southern major rice producing regions, which contributed to increased yields of single season rice. Favourable moisture conditions are benefiting late season rice development and grain filling, but the late season rice conditions are still below last year.

**Soybeans:** General conditions are favourable. In the **US**, the majority of the crop has been harvested and conditions improved since September. Prospects are good though a record is not expected. In **China**, harvest is complete and prospects are generally favorable. In **India**, harvest is in progress and there is some concern due to excessive precipitation. In **Brazil**, soy planting is in progress and beneficial rains provided moisture for the emerging crops. Planted area is expected to increase this season largely at the expense of corn area. In **Argentina**, scattered showers brought some relief but additional rain is needed particularly in southern growing regions where planting is delayed due to dryness.

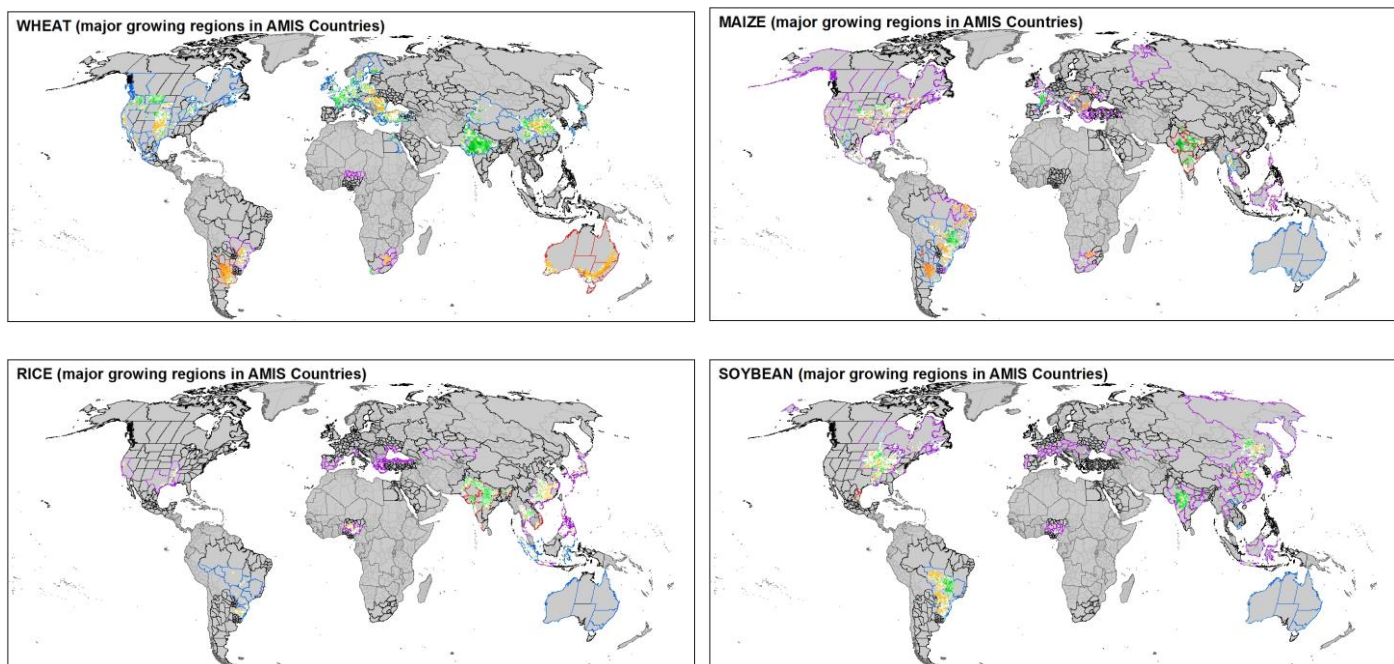
---

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 October 23rd 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 & 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.