

GEOGLAM Crop Monitor

December 2014

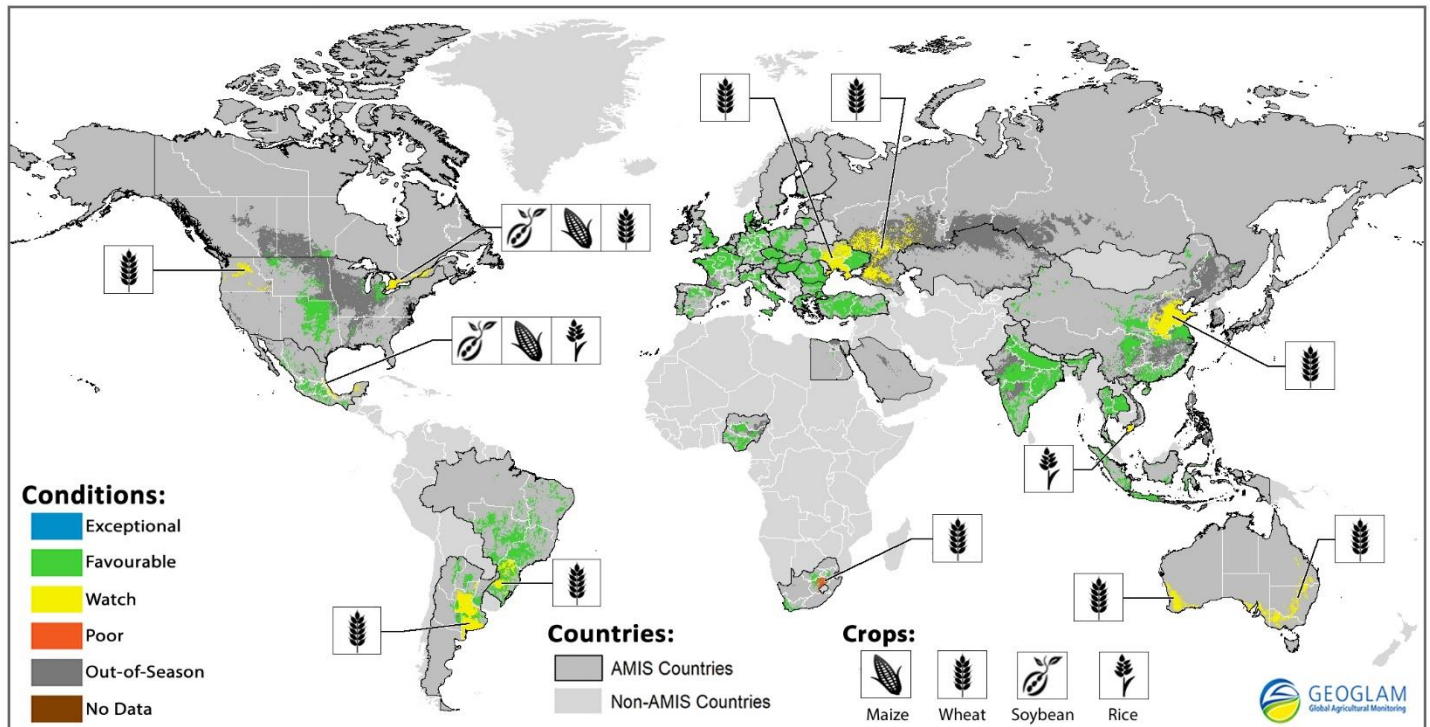
No. 14



GEOGLAM
Global Agricultural Monitoring

Prepared by members of the GEOGLAM Community of Practice

Crop Conditions for 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 less than favourable conditions are displayed on the map with their crop symbol.**

Highlights

Wheat conditions in the northern hemisphere are mixed at this early stage of the season. In the EU, US, China and India, planting progresses and conditions are generally favourable. In Russia, Ukraine and Canada conditions are mixed for the autumn planted crop. In the southern hemisphere conditions are mixed. In Australia, winter wheat prospects have deteriorated following very warm and dry spring conditions in eastern States. However, recent shower and storm activity across much of the southern grain belt have slowed harvest activities. In Argentina and Brazil, conditions are mixed. In South Africa conditions remain favourable over the winter rainfall region (main area) but mixed over the summer rainfall region.

Maize conditions in the northern hemisphere remain overall favourable. In the US and the EU, harvest is coming to a close and conditions are very good. In Ukraine, India, Nigeria and Mexico, conditions are favourable. In Canada, conditions remain mixed. Harvest is complete in western Canada but is delayed up to several weeks in central Canada. In the southern hemisphere conditions are generally favourable. In Brazil, Argentina, and South Africa conditions are favourable for the newly planted crop.

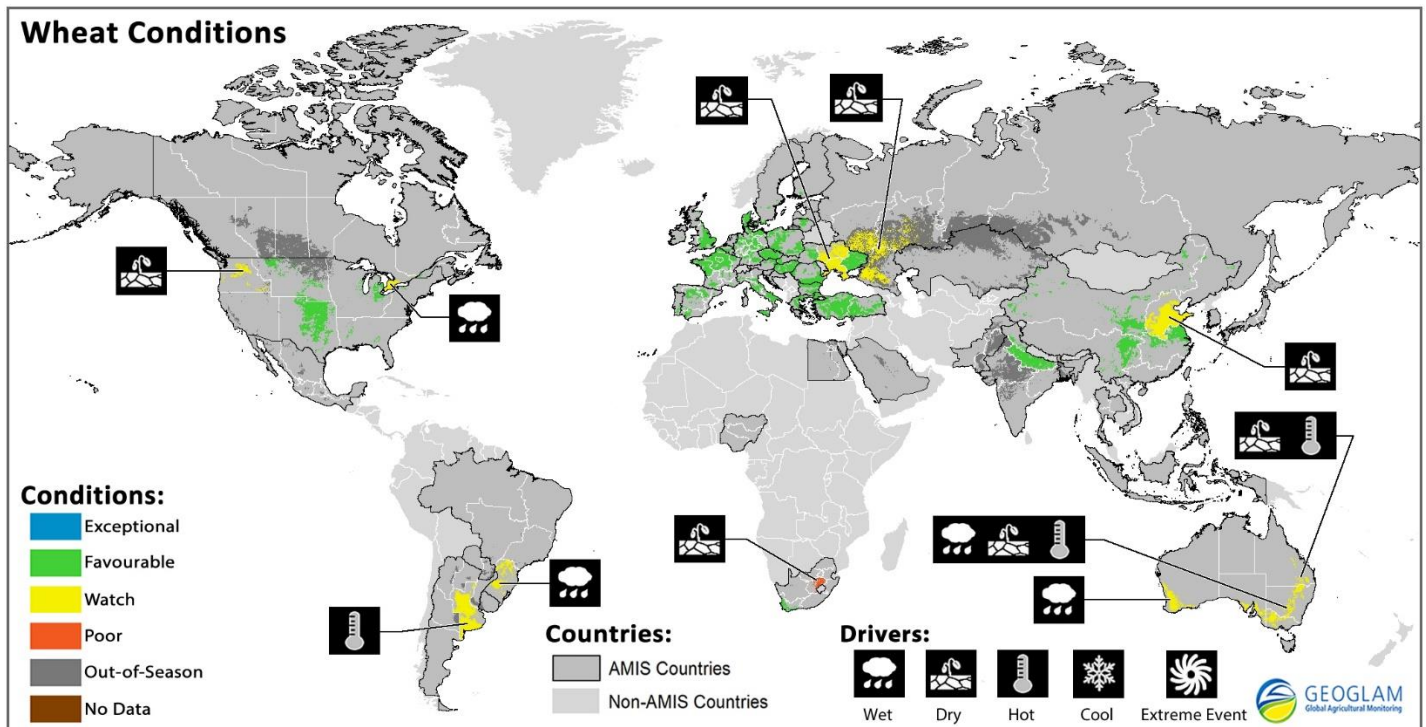
Rice conditions are generally favourable. In India, conditions are good for both the kharif and rabi crops. In Indonesia, Viet Nam, China and Thailand conditions are favourable. In Nigeria, harvest is almost complete and the crop is in good condition. In Brazil, conditions are generally favourable. Planting is slightly delayed in the southern region due to excessive rain.

Soybeans prospects in the northern hemisphere remain overall very good. In the US harvest is almost complete and conditions are very good. In Canada, conditions remained mixed due to excess moisture in eastern Canada, which turned to early snow and delayed harvest. In India, conditions are favourable. In Nigeria, harvest has begun and conditions are favourable. In the southern hemisphere conditions are favourable for both Brazil and Argentina.

El Niño situation update

The probability of an El Niño event in the November-January time frame has increased to about 70%, according to the Australian Bureau of Meteorology (BOM) and the International Research Institute for Climate and Society (IRI). The BOM and IRI cite recent observations of atmospheric pressure patterns, upper level winds, and increased Pacific sea surface temperatures, as well as international climate models that project these conditions to continue over the next two to three months. The formal definition of an El Niño, however, has not been met because these conditions have not been in place long enough, and certain atmospheric features have not yet appeared. A strong event is not expected, in any case. Nonetheless, potential impacts of El Niño should be considered: below-normal rainfall in parts of Asia, Southern Africa, and Australia, affecting rice, maize, and wheat; and above-average rainfall in major regions of South America, benefiting maize, soy and wheat. The BOM sees increased chances of below-average rainfall and above-average temperatures for many parts of Australia in the months ahead. The IRI forecast map shows an increased chance of below-average precipitation in Southeast Asia.

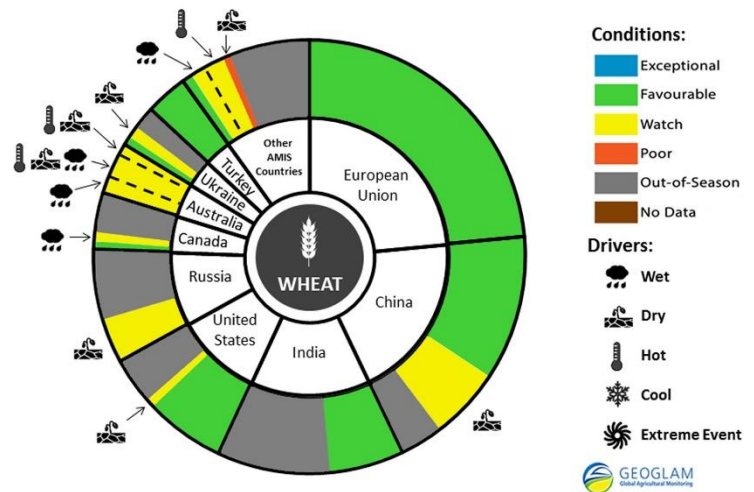
Wheat Conditions for AMIS Countries



Wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

* Assessment based on information as of November 28th

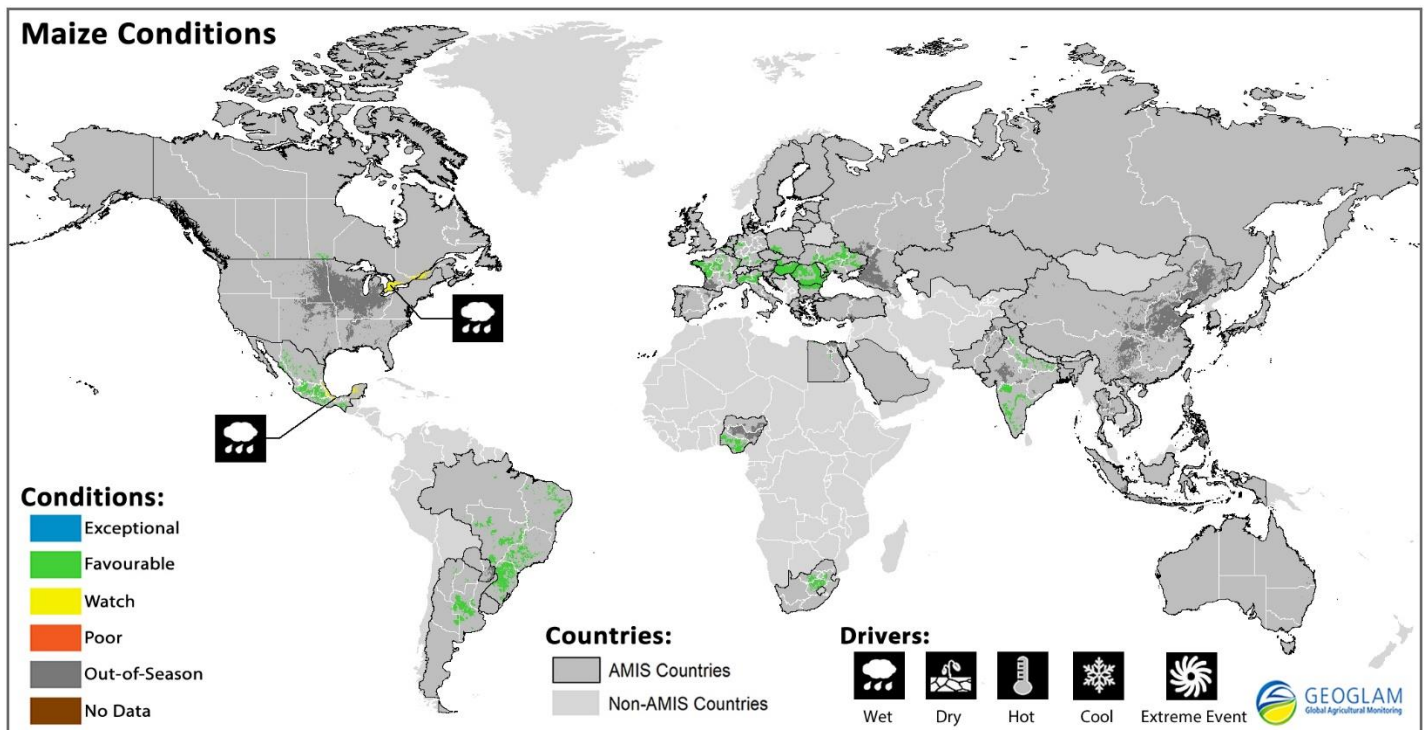
Wheat: Conditions in the northern hemisphere are mixed at this early stage of the season. In **Russia**, conditions are mixed. Severe early frosts without snow followed by warmer than usual temperatures and lack of precipitation, may have damaged the winter crop but cannot be detected until after the snowmelt. In **Ukraine**, winter wheat conditions are mixed. Dry weather earlier in the season hampered crop emergence and establishment. In the **EU**, weather conditions have been predominantly favourable for the sowing of winter wheat. In the northern half of France, the largest wheat producer of the EU, rainfall caused some delay, but was followed by a drier period. In Germany and the United Kingdom, sowing conditions were good to excellent. In other parts of the EU, sowing generally proceeded well. Even where sowing activities were delayed, no serious problems were encountered thanks to above-average temperatures across the EU. In the **US**, winter wheat planting is nearly complete and has emerged as normal with good condition throughout most of the country. Some continued dryness has been present in the Pacific Northwest and Southern Great Plains but it is too premature to warrant real concern at this time. In **Canada**, conditions are mixed. In western Canada, winter wheat acreages decreased due to the late harvest, but germination of seeded crop was very good due to plentiful soil moisture. In central Canada, particularly in Ontario, seeding was delayed by late harvest and excess moisture followed by snow. In the Atlantic region, the germination of winter wheat was slow due to low soil moisture. In **China**, planting almost concludes and conditions are mixed. There are some concerns over poor soil moisture in the central region which may hamper wheat development before dormancy. Conditions are favourable in the Loess Region for wheat emergence. In **India**, planting progresses normally. In the southern hemisphere conditions are mixed. In **Argentina**, conditions are mixed. There is some concern over high temperatures in several regions, which may impact harvest. In **Brazil**, harvest has begun and conditions are mixed. There are issues over quality in the southern growing region due to excessive rainfall early in the season. In **Australia**, winter wheat prospects have deteriorated following very warm and dry spring conditions in eastern States. New South Wales and Victoria have been particularly affected by below average spring rainfall and soil moisture deficiencies. However, recent shower and storm activity across much of the southern grain belt have slowed harvest activities. In **South Africa** conditions remain favourable over the winter rainfall region (main area) owing to normal to above-normal rainfall in winter, and yields are expected to be above normal. Over the summer rainfall region, yields are still expected to be below normal, despite recent widespread rain.



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 area within each slice is divided between crops in-season (colour) and out-of-season (gray). The in-season portion is coloured according to the various crop conditions within that country. When conditions are labelled as 'poor' or 'watch', icons are added that provide information on the key climatic drivers affecting conditions. The coloured areas reflect conditions by area rather than overall national production.

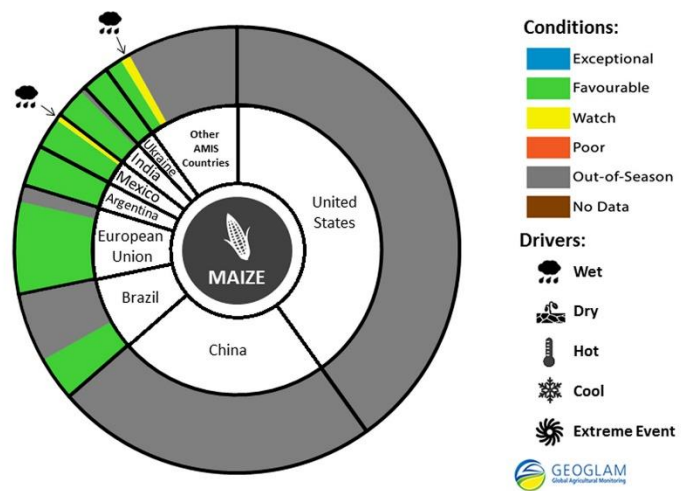
* Assessment based on information as of November 28th

Maize Conditions for AMIS Countries



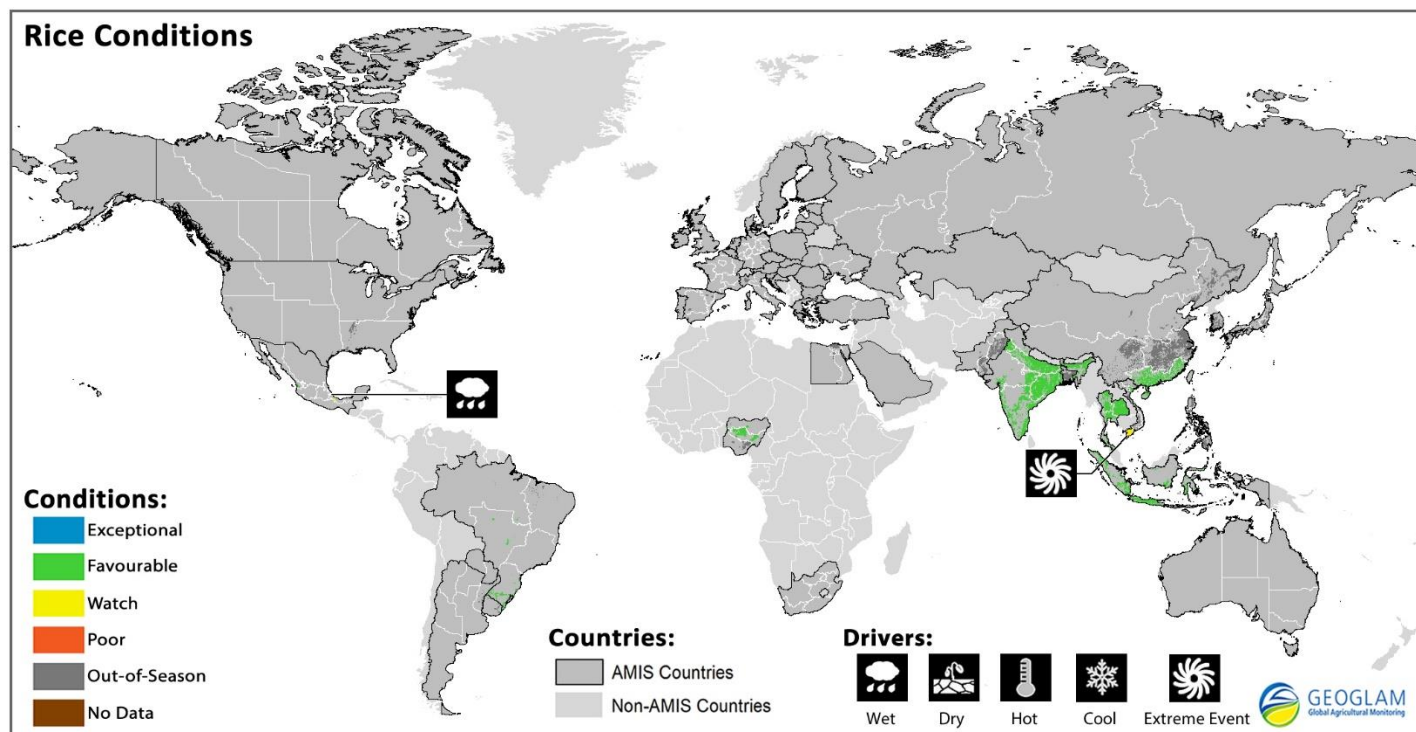
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Maize: Conditions in the northern hemisphere remain overall favourable. In the **US**, harvest is essentially complete. The production estimate is reduced slightly relative to last month but still on track to be a US record. In the **EU**, harvest is complete and conditions were good to very good. In **Ukraine**, harvest is nearly complete and conditions are favourable. In **Mexico**, conditions are favourable. There was some delay in the sowing of the crop due to excess moisture, which could extend the season in the spring. In **Canada**, conditions remained mixed. Harvest is complete in western Canada but is delayed up to several weeks in central Canada, particularly in Ontario, due to excess moisture then early snow. In **India**, harvest has begun and conditions are mostly favourable. In **Nigeria**, harvest has begun and conditions are favourable. In the southern hemisphere conditions are generally favourable. In **Brazil**, conditions are favourable. Some regions initially delayed planting due to lack of rain but these regions have resumed planting normally. In **Argentina**, planting continues and conditions remain favourable. In **South Africa**, conditions during the planting season for maize are favourable due to above-normal rainfall over especially the western maize production region.



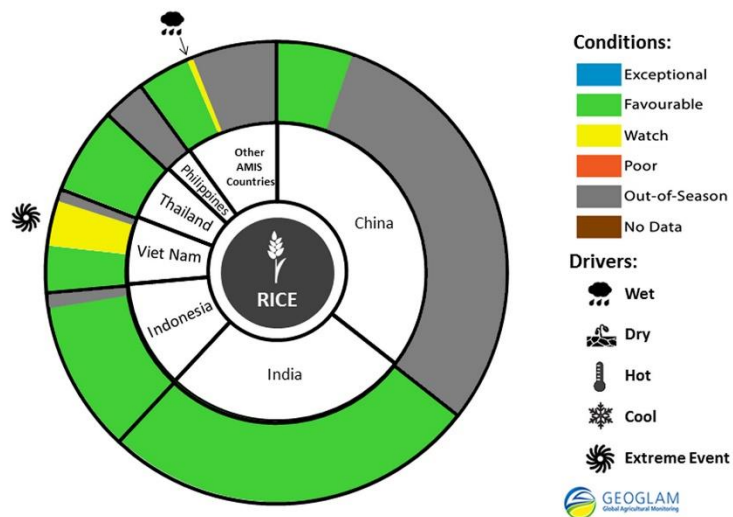
Top producers of maize within AMIS participating countries and their current crop conditions (as of November 28th). (The description is as for wheat)

Rice Conditions for AMIS Countries



Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed.

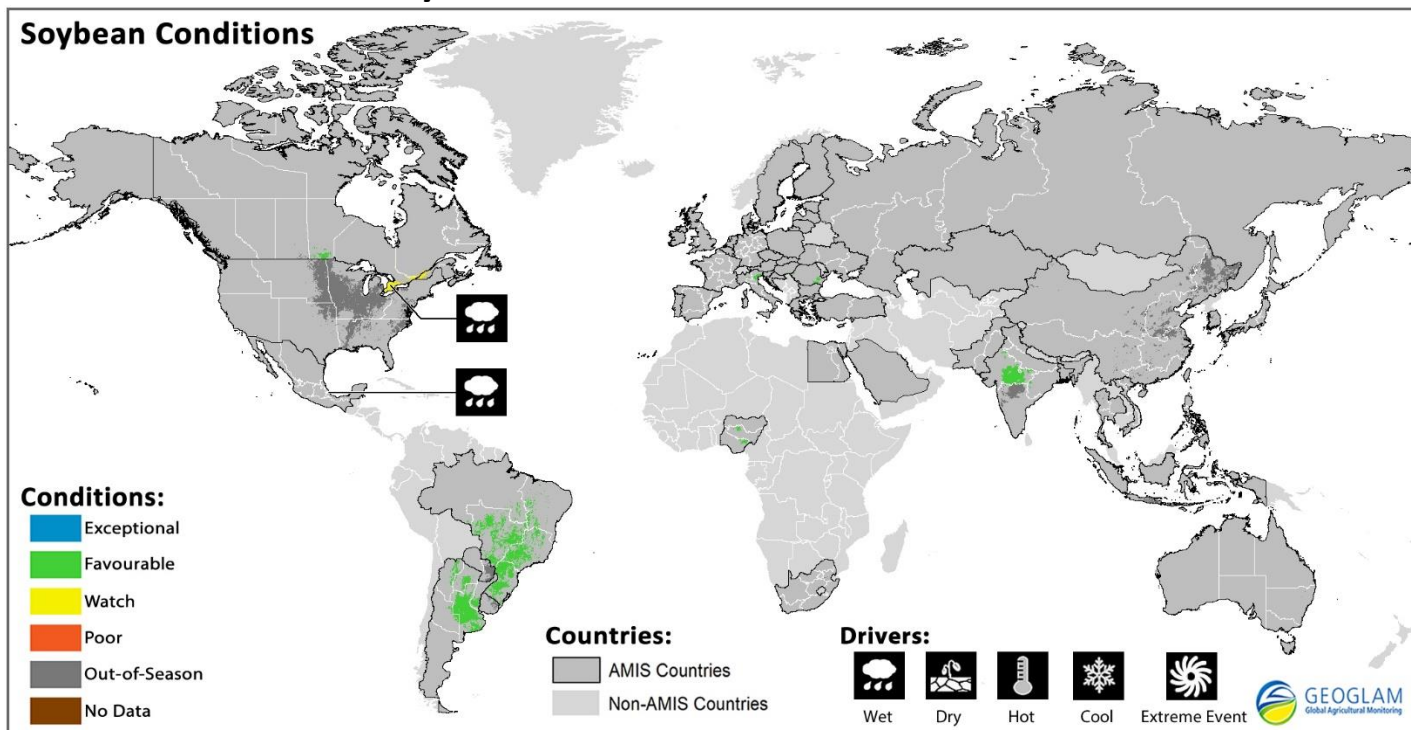
Rice: Conditions are generally favourable. In **India**, conditions are good and harvest has begun for the first season of rice. Planting has begun for the second season crop and the crop is in favourable condition. In **Indonesia**, the dry season crop remains in good condition owing to favourable weather. In **Viet Nam**, overall conditions are favourable. The rice growth stages range from transplanting to harvest. There are concerns for the summer season rice in southern growing areas due to unfavourable weather. In **Thailand**, conditions are favourable and crop stages range from planting to harvest. In **China**, conditions remain generally favourable. Late rice is mostly harvested except for the southern region where it is in maturity to harvest stages. In **Nigeria**, harvest is almost complete and the crop is in good condition. In **Brazil**, conditions are generally favourable. Planting is slightly delayed in the southern region due to excessive rain.



Top producers of rice within AMIS participating countries and their current crop conditions (as of November 28th). (The description is as for wheat)

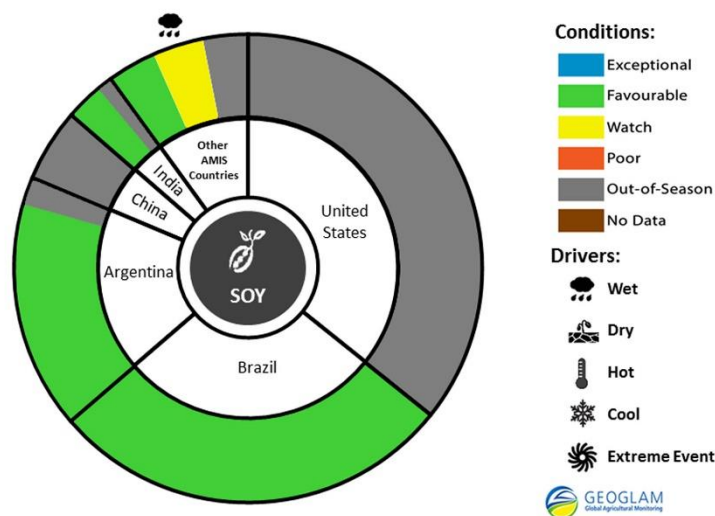
* Assessment based on information as of November 28th

Soybean Conditions for AMIS Countries



Soybean crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Soybeans: Prospects in the northern hemisphere remain overall very good. In the **US**, harvest is essentially complete and the forecasted bumper crop, based on both record yields and planted area, has indeed occurred. In short, soybean production is significantly higher than ever before in the US. In **Canada**, conditions remain mixed. Harvest is complete in western Canada but is delayed up to several weeks in eastern Canada, due to excess moisture which turned to early snow. About half of Prince Edward Island’s crop has yet to be harvested. In **India**, harvest is almost complete and conditions are favourable. In **Nigeria**, harvest has begun and conditions are favourable. In the southern hemisphere conditions are favourable. In **Brazil**, conditions are favourable. The delay in planting from last month due to below average rainfall in the centre-west and southeast regions was resolved this month due to sufficient rainfall so planting resumes as normal. In **Argentina**, planting continues and conditions remain favourable.



Top producers of soy within AMIS participating countries and their current crop conditions (as of November 28th). (The description is as for wheat)

* Assessment based on information as of November 28th

Appendix 1: Definitions

Crop Conditions:

Exceptional: Conditions are much better than average* at time of reporting. This label is only used during the grain-filling through harvest stages.

Favourable: Conditions range from slightly lower to slightly better than average* at reporting time.

Watch: Conditions are not far from average* but there is a potential risk to production.

Poor: Crop conditions are well below average*. Crop yields are likely to be more than 5% below average. This is only used when conditions are not likely to be able to recover, and impact on production is likely.

Out Of Season: Crops are not currently planted or in development during this time.

No Data: No reliable source of data is available at this time.

Conditions:

	Exceptional
	Favorable
	Watch
	Poor
	Out of Season
	No Data

*"Average" refers to the average conditions over the past 5 years.

Drivers:

These represent the key climatic drivers that are having an impact on crop condition status. They may or may not result in production impacts and they can act as either positive or negative drivers of crop conditions.

Wet: Higher than average wetness.

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)

Drivers:

	Wet
	Dry
	Hot
	Cool
	Extreme Event

Sources & Disclaimer

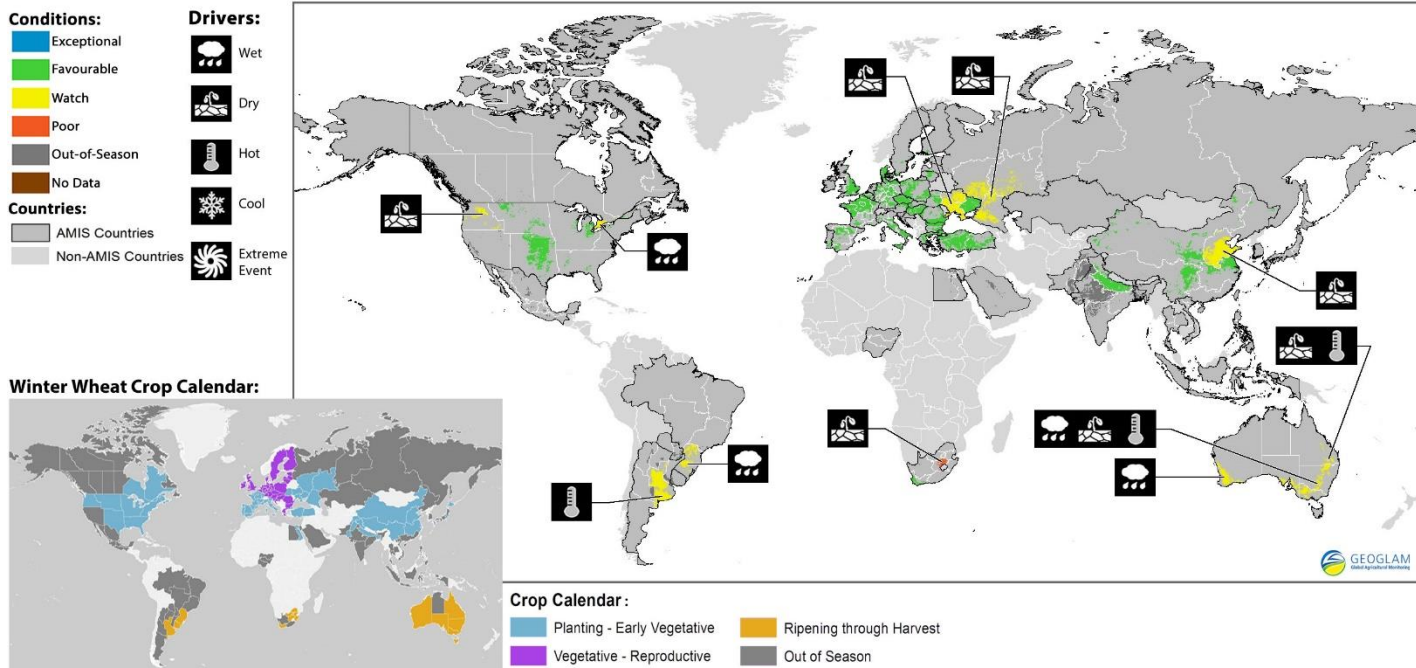
Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), Indonesia (LAPAN & MOA), International (CIMMYT, FAO, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russia (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 crop calendars.

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

For more information regarding on the new crop monitor and pie charts: <http://www.geoglam-crop-monitor.org/content/about-geoglam-crop-monitor>.

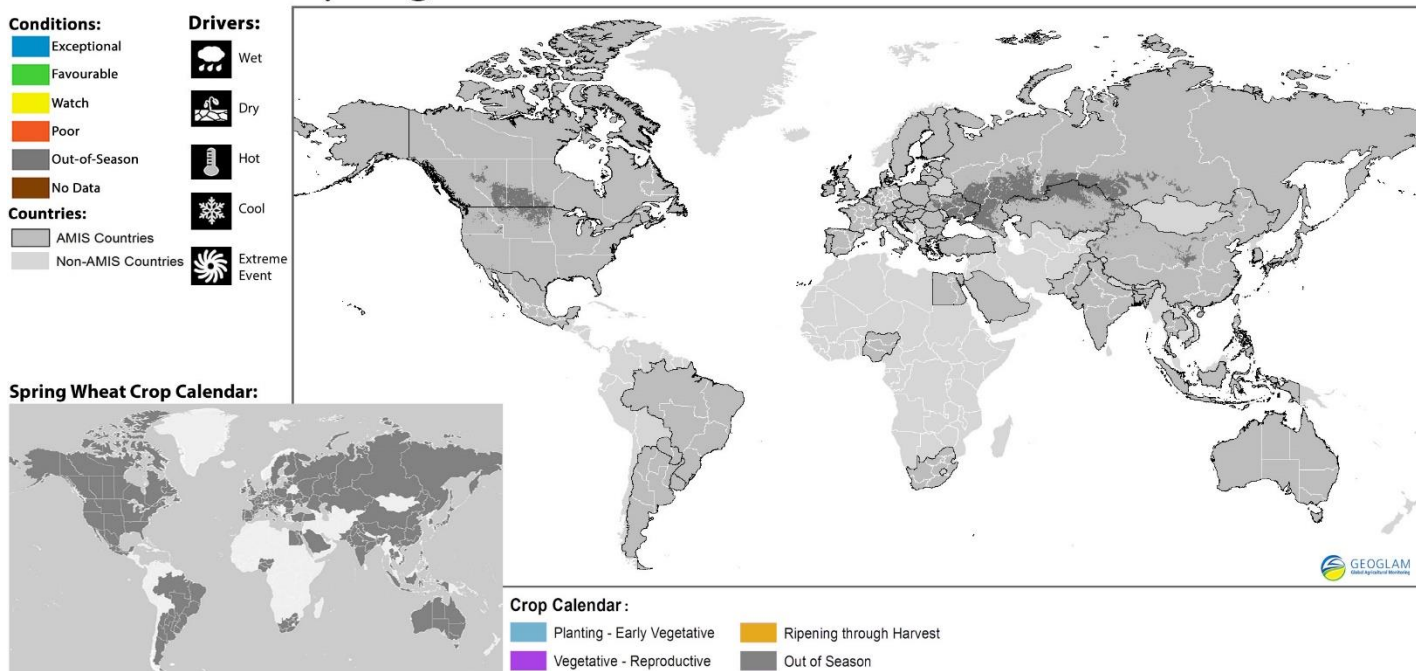
Appendix 2: Crop Season Specific Maps

Winter Planted Wheat Conditions for AMIS Countries



Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

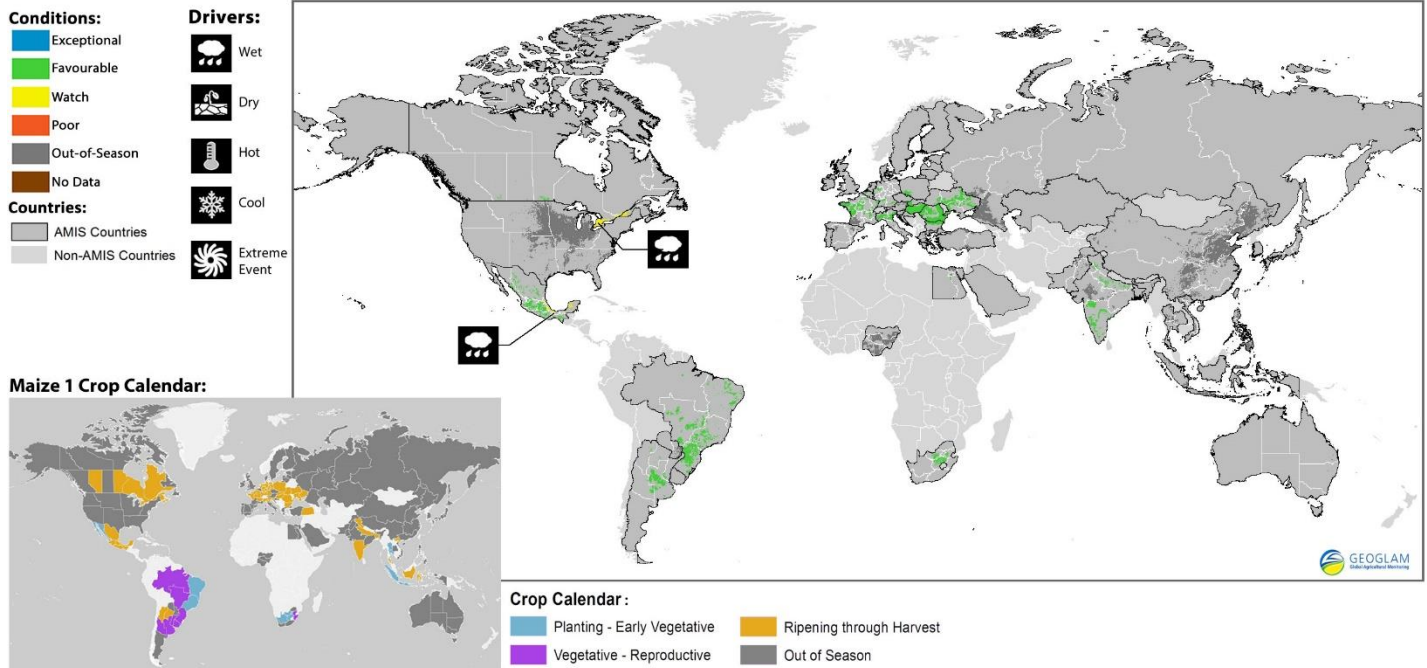
Spring Planted Wheat Conditions for AMIS Countries



Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

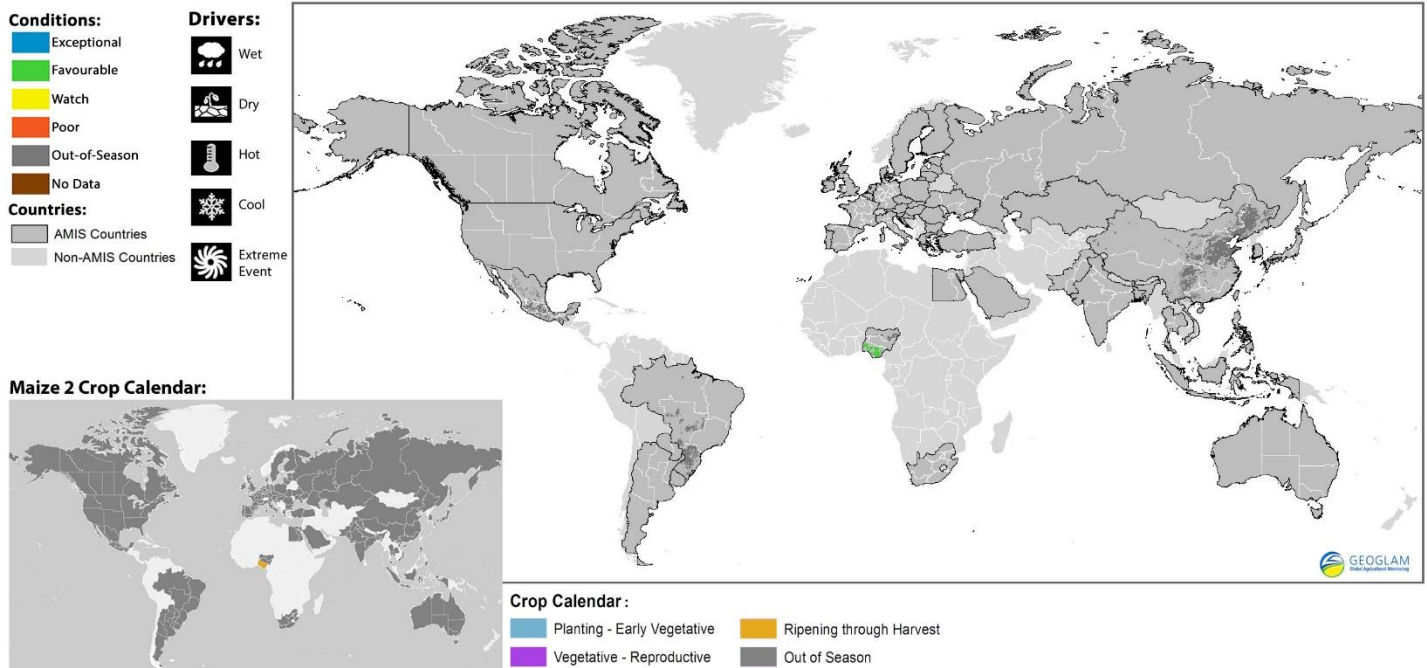
* Assessment based on information as of November 28th

Maize 1 Conditions for AMIS Countries



Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

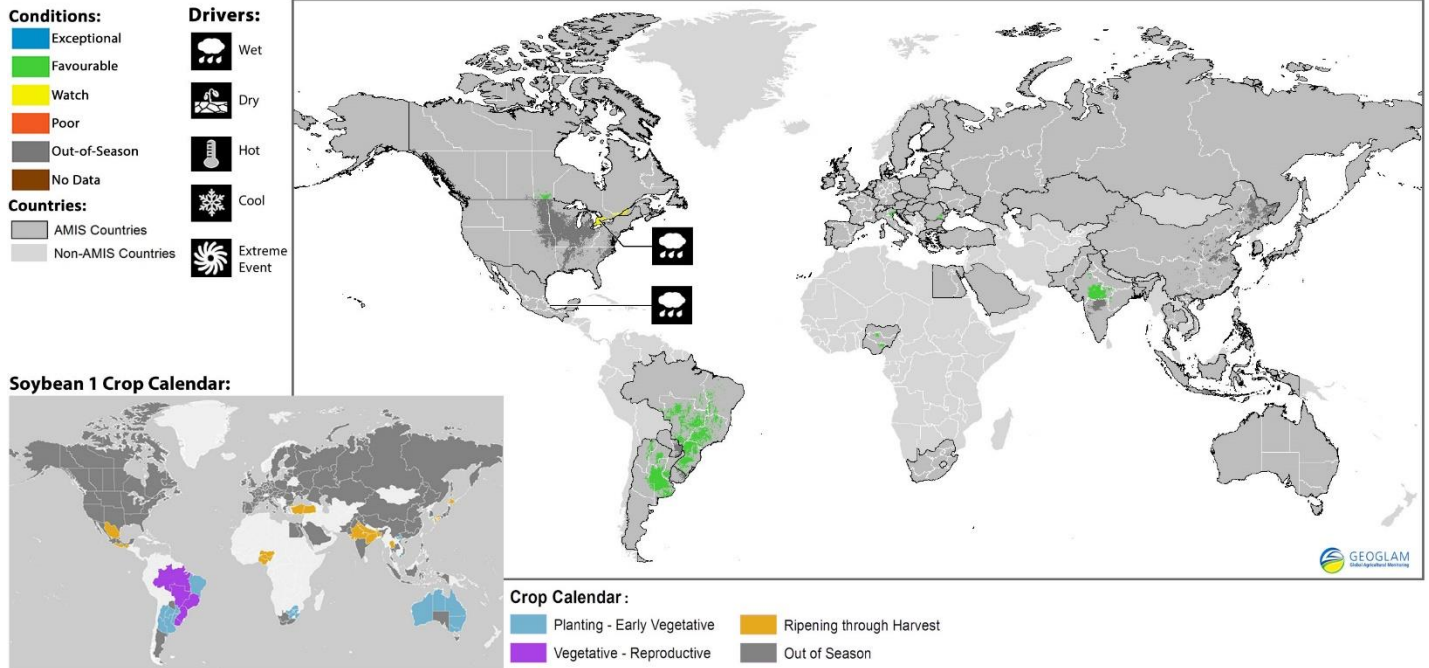
Maize 2 Conditions for AMIS Countries



Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

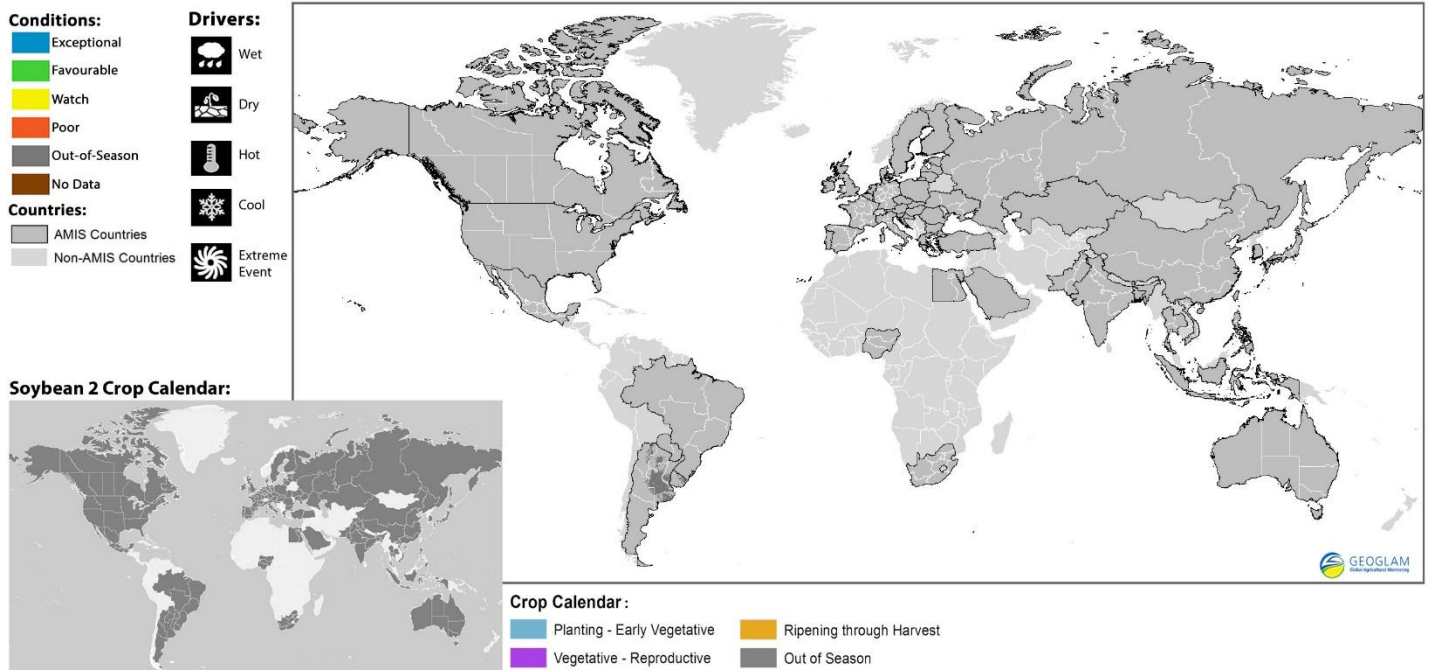
* Assessment based on information as of November 28th

Soybean 1 Conditions for AMIS Countries



Soybean 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Soybean 2 Conditions for AMIS Countries



Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

* Assessment based on information as of November 28th