GEOGLAM Crop Monitor

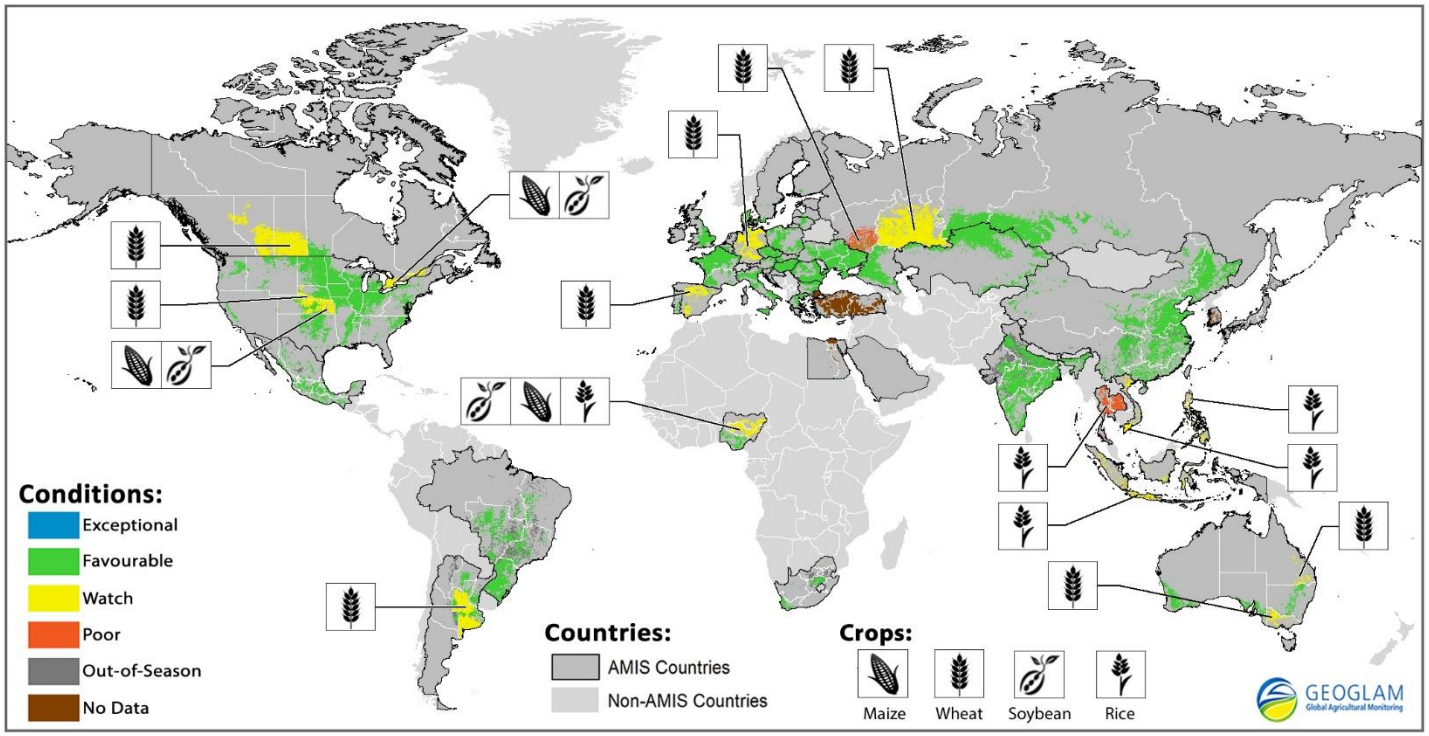
July 2015

No. 20

GEOGLAM
Global Agricultural Monitoring

Prepared by members of the GEOGLAM Community of Practice

Crop Conditions for AMIS Countries (As of June 28th)*



Crop condition map synthesizing information for all four AMIS crops as of June 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- In the northern hemisphere, conditions remain mostly favourable. In the EU there is some concern due to dry conditions in Spain and in western and central regions. In China, Ukraine and Kazakhstan conditions are favourable. In the US conditions are generally favourable despite recent high rainfall which may affect quality. In the Russian Federation, winter wheat conditions are mixed especially in the Central and Volga region due to the excessive dry conditions during establishment. There is some concern over spring wheat conditions due to recent hot and dry weather. In Canada, conditions are mixed for both winter and spring wheat. In the southern hemisphere conditions are generally favourable for the developing crop. In Argentina, planting is progressing slowly in some regions due to dryness. In Australia and South Africa conditions are favourable.

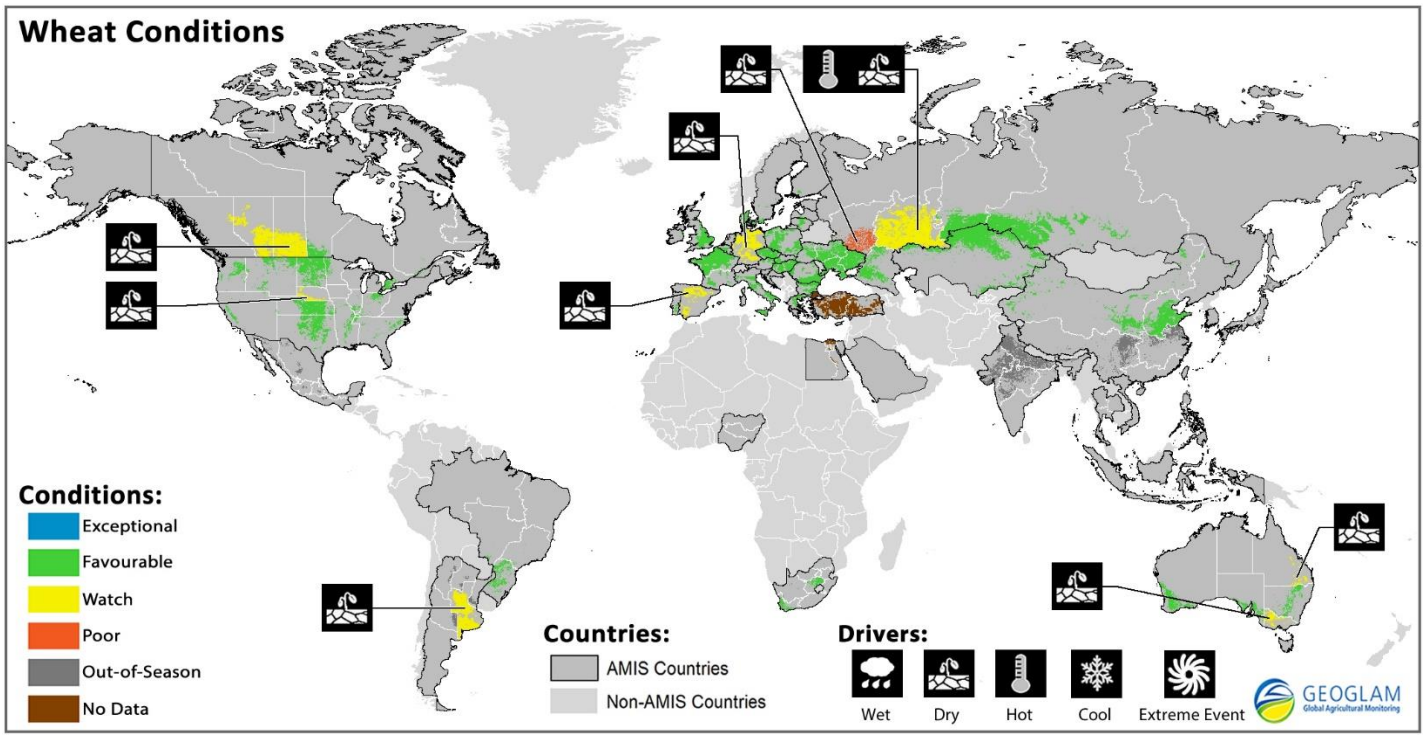
Maize- In the northern hemisphere, conditions remain generally favourable. In the US there is some concern developing over excessive rains in June. In Ukraine, EU, India, China, the Russian Federation, Mexico, conditions are favourable and in Canada conditions are mixed due to excessive rainfall. In the southern hemisphere, conditions continue to be favourable in Brazil and Argentina as the season draws to a close.

Rice- Conditions remain mixed. In India and China, conditions are generally favourable. In Thailand, harvest is almost complete for the dry season crop and conditions remain poor due to extensive dryness. Planting continues for the wet season. In Viet Nam, there is some concern due to dry weather. In Indonesia, conditions for the wet season rice remain good. Planting of the dry season crop is ongoing and conditions are mixed. In the Philippines, planting of the wet season crop continues and there is some concern over dry conditions.

Soybeans- In the northern hemisphere, conditions remain generally favourable. In the US conditions are favourable however there is some concern developing over excessive rains. In India, and China, conditions are mostly favorable and in Canada and Nigeria, conditions are mixed. In the southern hemisphere, conditions remain favourable for Argentina as the season draws to a close.

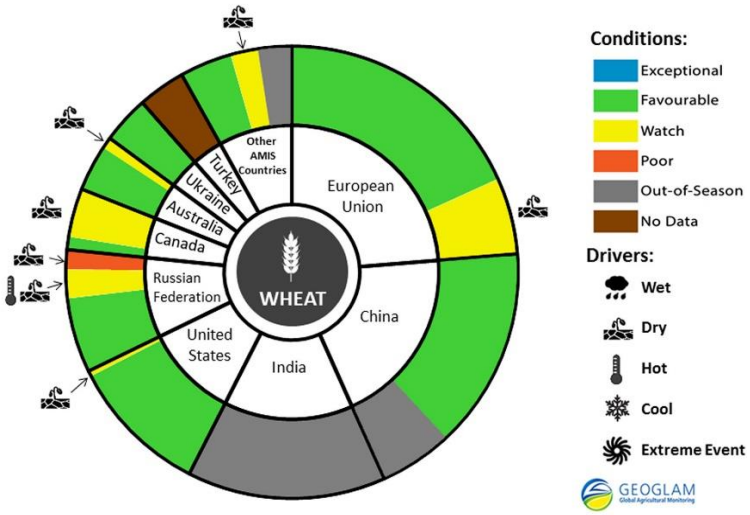
El Niño *conditions are well established in the equatorial Pacific and are expected to strengthen through the northern hemisphere growing season, and persist into the first quarter of 2016. Conditions in Thailand, Viet Nam, and the Philippines are drier than average, consistent with expectations for El Niño years, and these conditions are forecast to continue and spread to Indonesia through the end of 2015. The monsoon is now established across India, though had a delayed onset associated with El Niño. However, rainfall totals through September are expected to be below average in the southern part of the subcontinent. North central China has historically experienced below average rainfall with El Niño, and IRI forecasts an elevated probability of this in July-September, though conditions to date are normal. In North America, southern Mexico is forecast to be drier than average in the period July-October due to El Niño, while the multi-year drought in the southern Great Plains of the U.S. has ended, thanks to above average precipitation in recent months. GEOGLAM will continue to monitor the AMIS regions that have shown sensitivity to El Niño in the past.*

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 June 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.

Wheat: In the northern hemisphere, overall conditions remain favourable. In the **EU**, winter wheat conditions are mixed. In Spain, hot and dry conditions are negatively affecting central and southern regions. In western and central Europe a large belt of cropland is currently experiencing low soil moisture conditions, which are limiting crop growth and if prolonged, will further negatively affect winter crop grain filling. Eastern Europe presents no major concerns apart from high temperatures, coupled with low precipitation in eastern Hungary. In the **US**, winter wheat conditions are mostly good with some slightly below average conditions in the central Great Plains due to the earlier dry conditions. Heavy recent rains may affect quality. Harvest has begun in southern regions. Spring wheat conditions are good throughout. In **China**, winter wheat harvest is almost complete, though continuous rain in the central region, hampered harvest and drydown. Nevertheless, the total production of winter wheat is above the 2014 record due to increased yield and planted area. In the **Russian Federation**, winter wheat conditions are mixed due to the excessive dry conditions during establishment in the Central and Volga regions. However, overall prospects for the rest of the country remain favourable. There is some concern over spring wheat due to recent hot and dry weather. In **Canada**, conditions are mixed for both winter and spring wheat. The growing season has been extremely dry in the Canadian Prairies (the country's grain belt) and drought has emerged in parts of British Columbia, Alberta and Saskatchewan. Spring wheat has suffered from below-average germination rates and stunted growth due to the dry conditions. In **Ukraine**, harvest has begun and conditions are good. In **Kazakhstan**, planting is complete and conditions are favourable owing to adequate moisture conditions. There were some considerable planting delays so crop

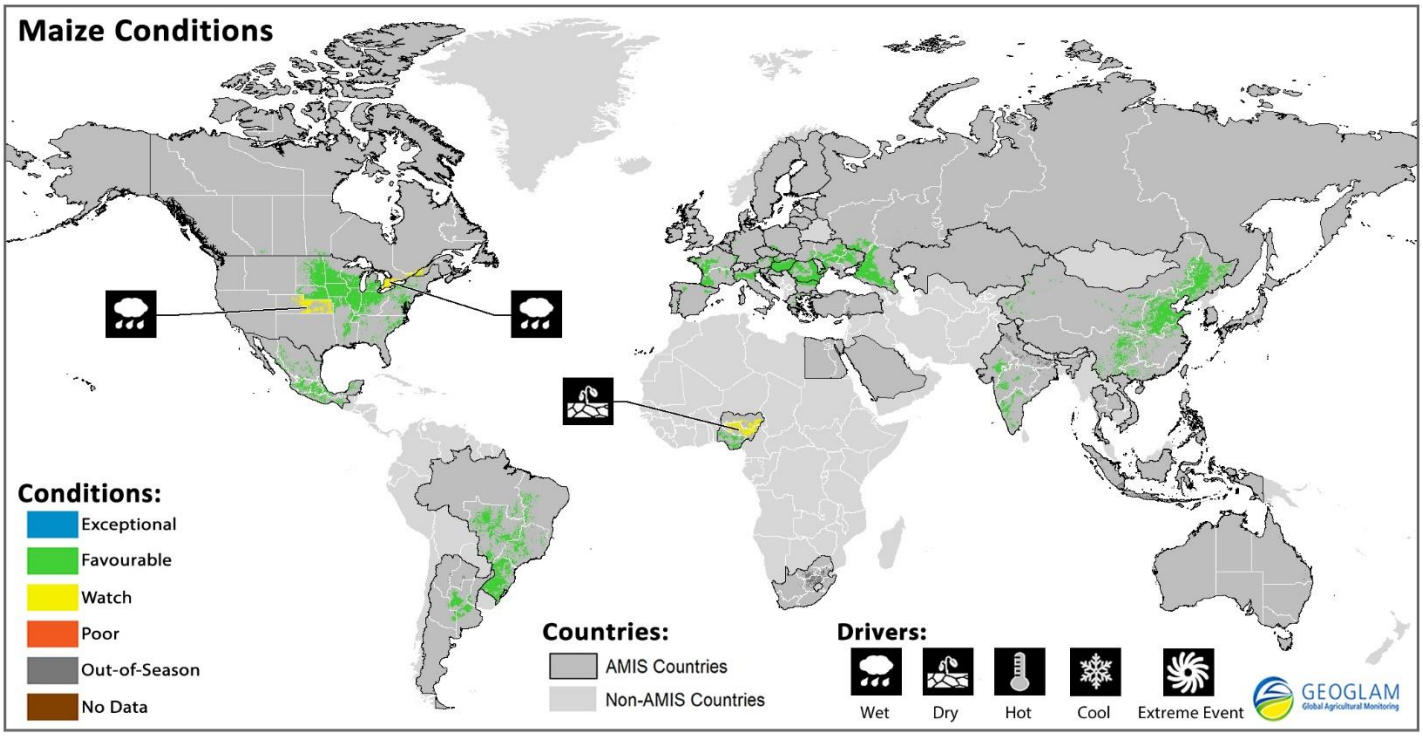


For detailed description of the pie chart please see box below.

* Assessment based on information as of June 28th

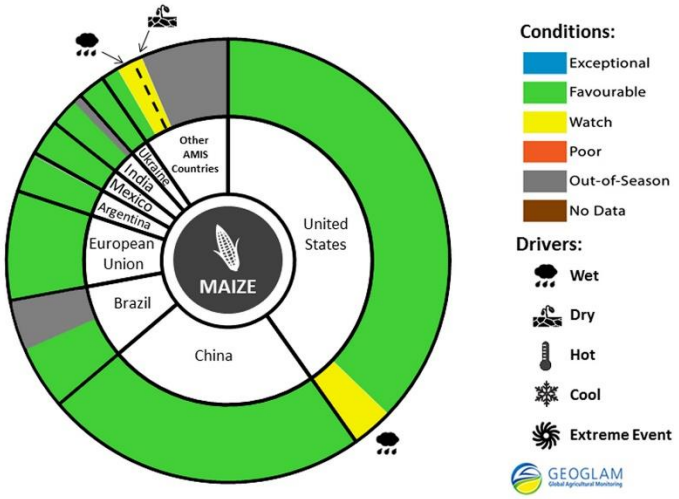
development may be delayed. In the southern hemisphere, overall conditions are favourable. In **Australia**, conditions have improved and are generally favourable. Timely rainfall during mid-June improved opportunities for crop germination and growth in most wheat growing regions. In Western Australia, conditions stabilized following dryness during May and early June. In **Argentina**, planting is progressing slowly in some regions due to dryness. In **Brazil**, conditions are good and the crop is in the vegetative stage. Planted area is down compared to last season but this is not expected to impact production due to increased productivity. In **South Africa**, conditions are favourable. Widespread rain since late May has improved conditions across the main production areas.

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 June 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.

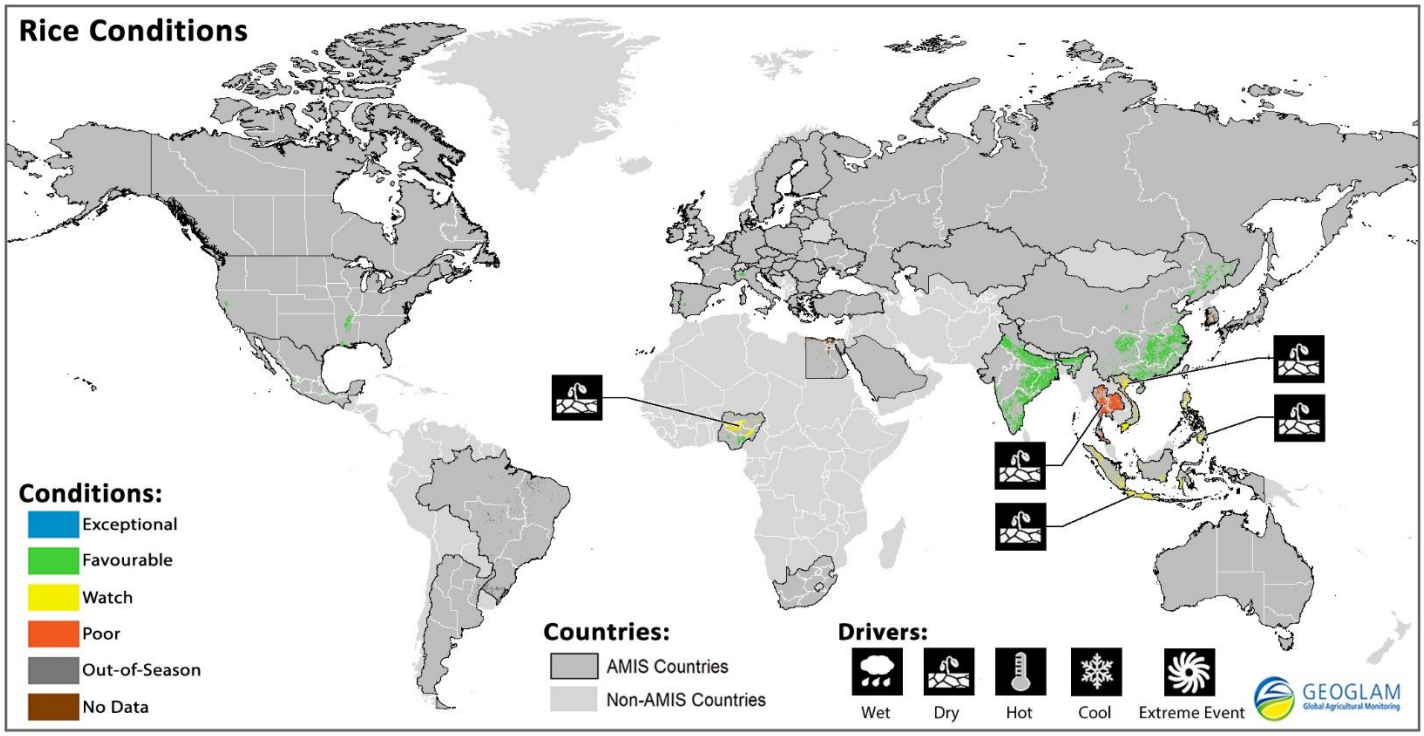
Maize: In the northern hemisphere, conditions remain favourable. In the **US**, planting is complete and conditions are favourable throughout the country though there is developing concern over excessive rains. In **China** conditions are favourable. The spring-planted crop is in the jointing stage and planting of the summer-planted crop is almost complete. In **Ukraine**, planting is complete and conditions are good. In the **EU**, conditions are favourable in the main producing countries. In **India**, field preparation and planting has begun and conditions are favourable. In **Mexico**, conditions are good. Harvest has begun for the autumn-planted crop and conditions are especially good in the northwest region. Planting of the spring-planted crop is ongoing and benefited from the establishment of the rainy season. In the **Russian Federation**, planting is almost complete and conditions are generally favourable. In **Canada**, conditions are mixed. Over the past month, extreme rainfall events in Eastern Canada



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

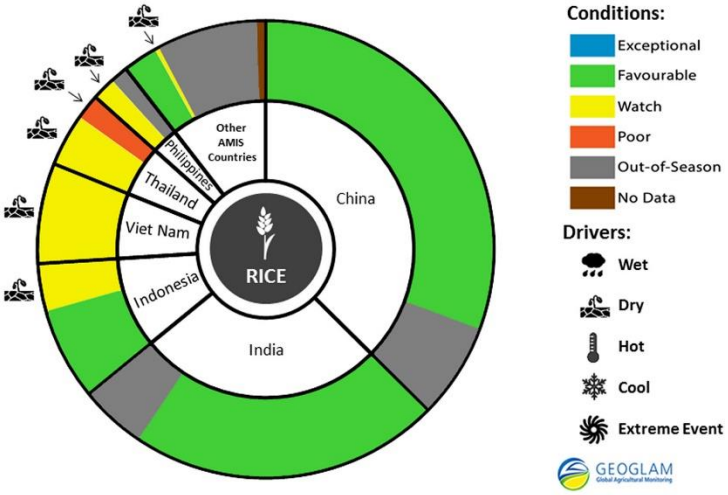
have delayed planting and caused localized flooding and increased the risk of seed rot, particularly in Nova Scotia, New Brunswick and Prince Edward Island. In **Nigeria**, conditions are mixed owing to poorly timed and distributed rainfall conditions in the central and northern regions. In the southern hemisphere, conditions continue to be generally favourable. In **Brazil**, conditions are good for the summer-planted crop, which is in ripening through harvest stage. Increased planted area and good yield prospects are expected to result in increased production this season. In **Argentina**, harvest is progressing slowly while farmers wait for the optimal dryness of the grains.

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 June 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed.

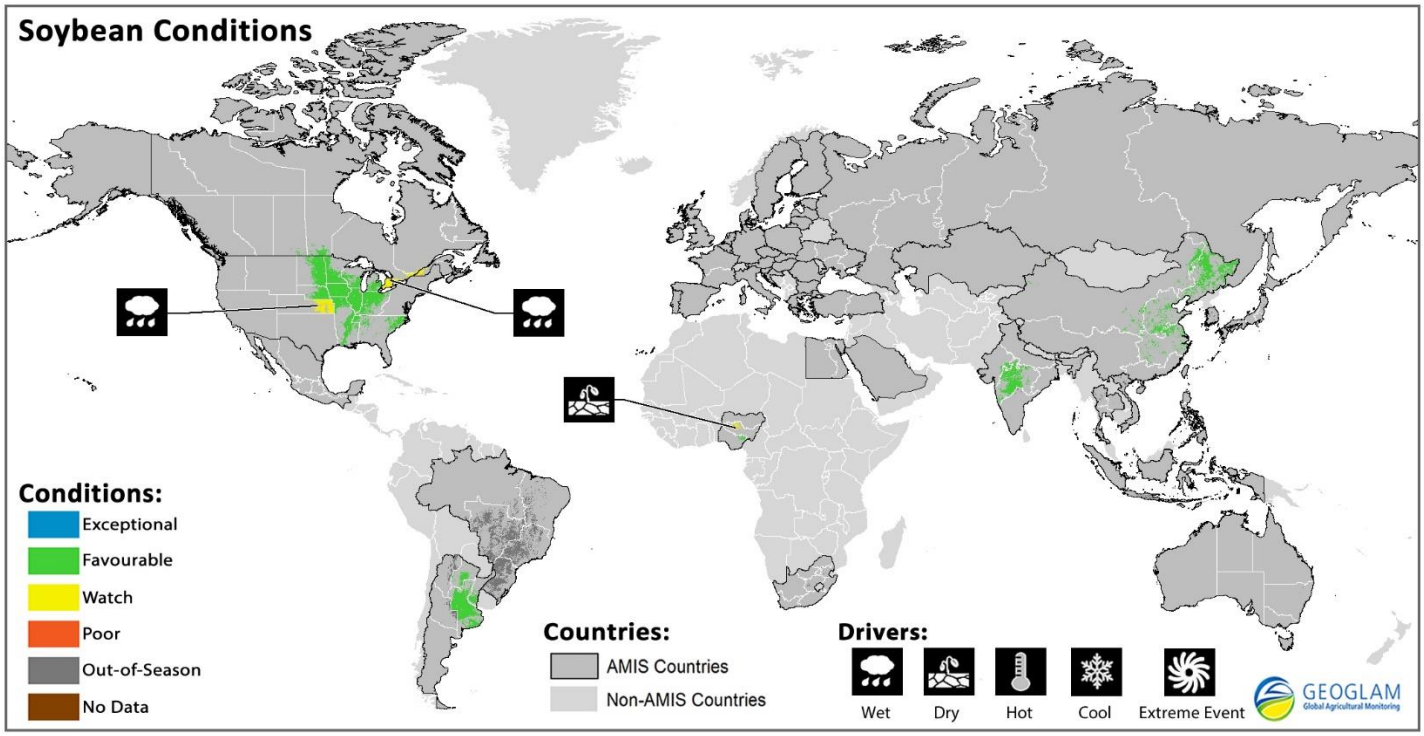
Rice: Conditions remain mixed. In **India**, field preparation and planting has begun for the first season crop and conditions are good. Transplanting of the crop has begun in the coastal regions. In **China**, conditions are generally favourable though early season rice development was hampered in southern Hubei and south western China due to abnormally heavy rainfall. In **Thailand**, harvest is almost complete for the dry season crop and conditions remain poor due to extensive drought. Planting continues for the wet season crop although some areas have delayed planting due to a lack of precipitation. Overall planting of dry season rice is expected to decrease in favor of other crops. In **Viet Nam**, in the north, harvest has begun for the winter-spring (dry season) crop. In the south, harvest is complete for the winter-spring crop. Yields are slightly lower than last year due to dry conditions over the growing season. Planting has begun in the south for the summer- autumn (wet season) crop and conditions are mixed due to unfavorably dry weather for planting. In the **US**, crop conditions remain



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

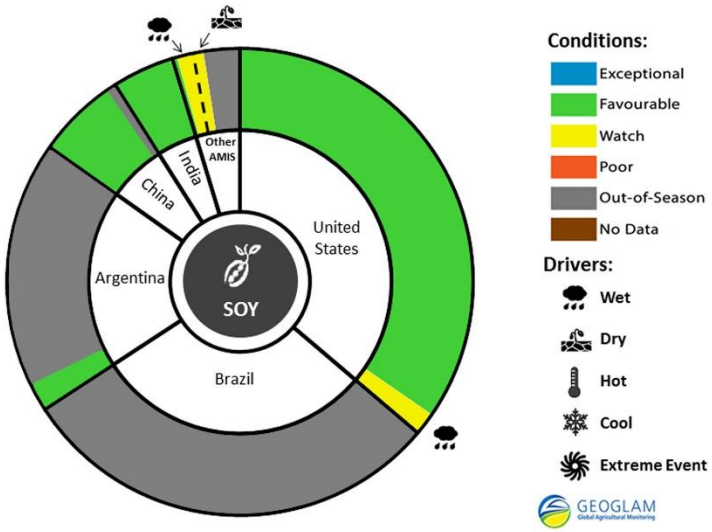
favourable. In **Indonesia**, conditions for the wet season rice remain good due to favourable sunlight and sufficient water availability. The crop is in vegetative to maturity stages. Planting of the dry season crop is ongoing and conditions are mixed due to dry conditions. Planted area has decreased relative to last year due to the planting of other commodity crops instead. In the **Philippines**, planting of the wet season crop continues. There is some concern over the lack of precipitation, which may lower output. In **Nigeria**, conditions are mixed. There is some concern over the first crop due to poorly distributed and untimely rainfall in the central and northern regions.

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 June 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: In the *northern hemisphere*, conditions remain mostly favourable. In the **US**, planting is nearly complete and the crop is in good condition though concern is developing over high rainfall. In **China**, conditions are mostly favorable. In **Canada**, conditions are mixed. Eastern Canada has experienced extreme rainfall events, which caused further planting delays (the wet winter in Atlantic Canada has already delayed planting by up to four weeks). In **India**, planting has begun and conditions are favourable. In **Nigeria**, conditions are mixed owing to poorly timed and distributed rainfall conditions in the central region. In the *southern hemisphere*, conditions remain favourable. In **Argentina**, harvest for the second crop is almost complete and conditions are favourable.



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 slide 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.

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.

*"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 June or June not result in production impacts and they can act as either positive or negative drivers of crop conditions.

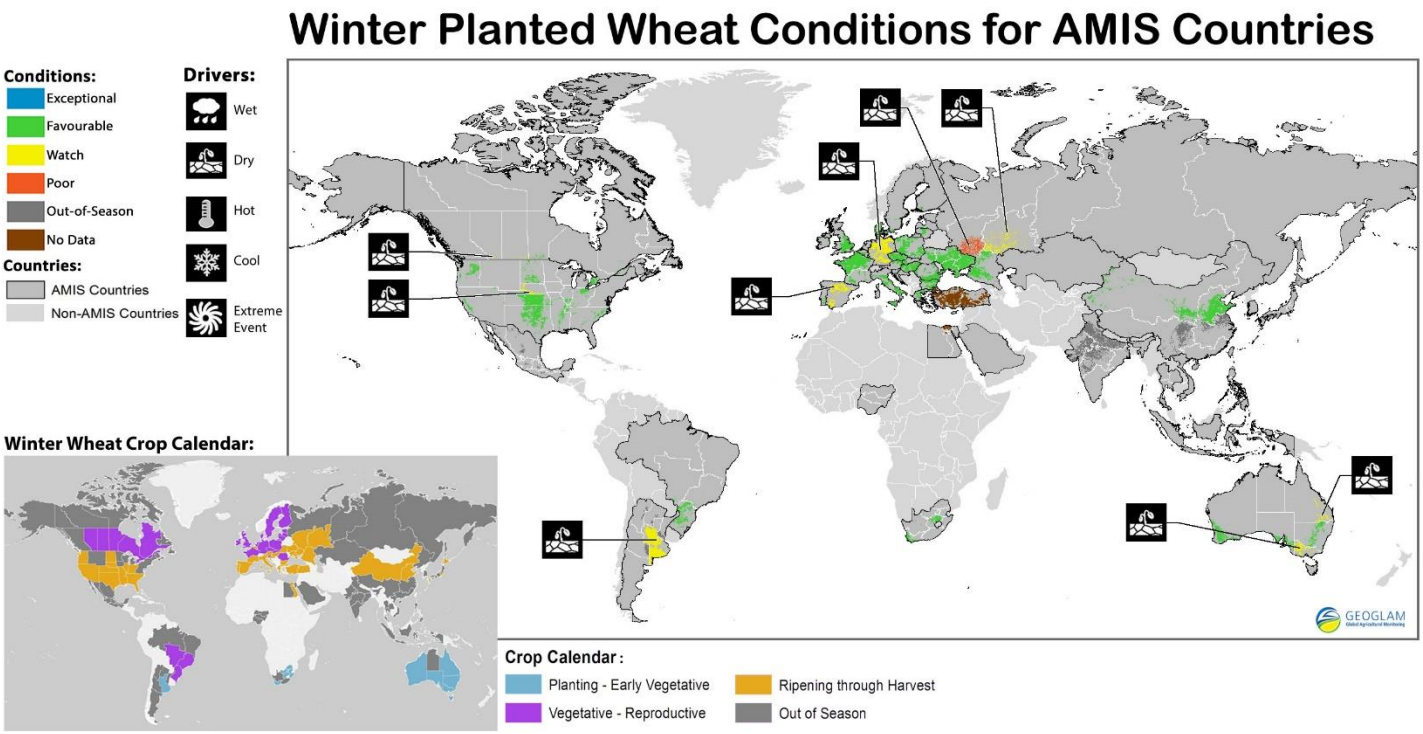
Wet: Higher than average wetness.
Dry: Drier than average.
Hot: Hotter than average.
Cool: Cooler than average or risk of frost damage.
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)

Sources & Disclaimer

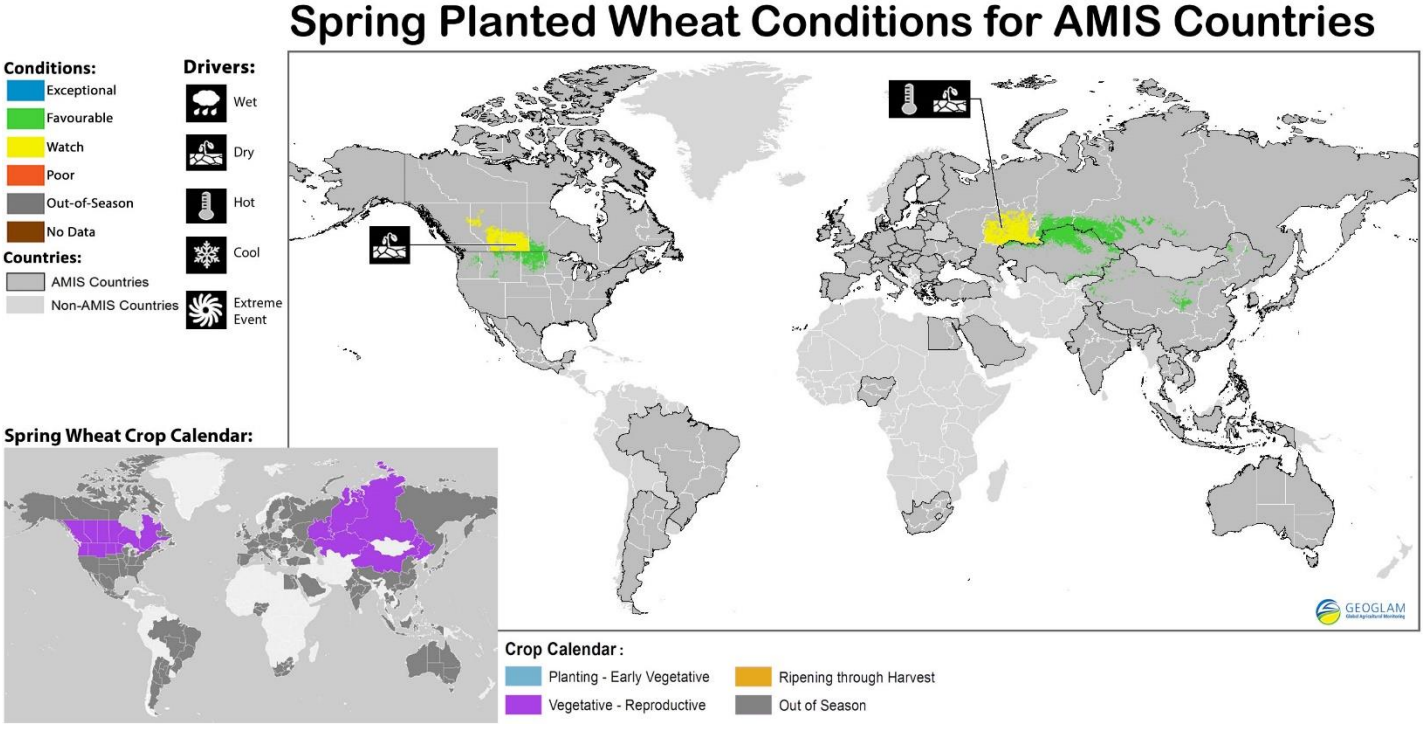
Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), 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 information on country coverage and criteria: http://geoglam-crop-monitor.org/pages/about.php?target=approach

Appendix 2: Crop Season Specific Maps



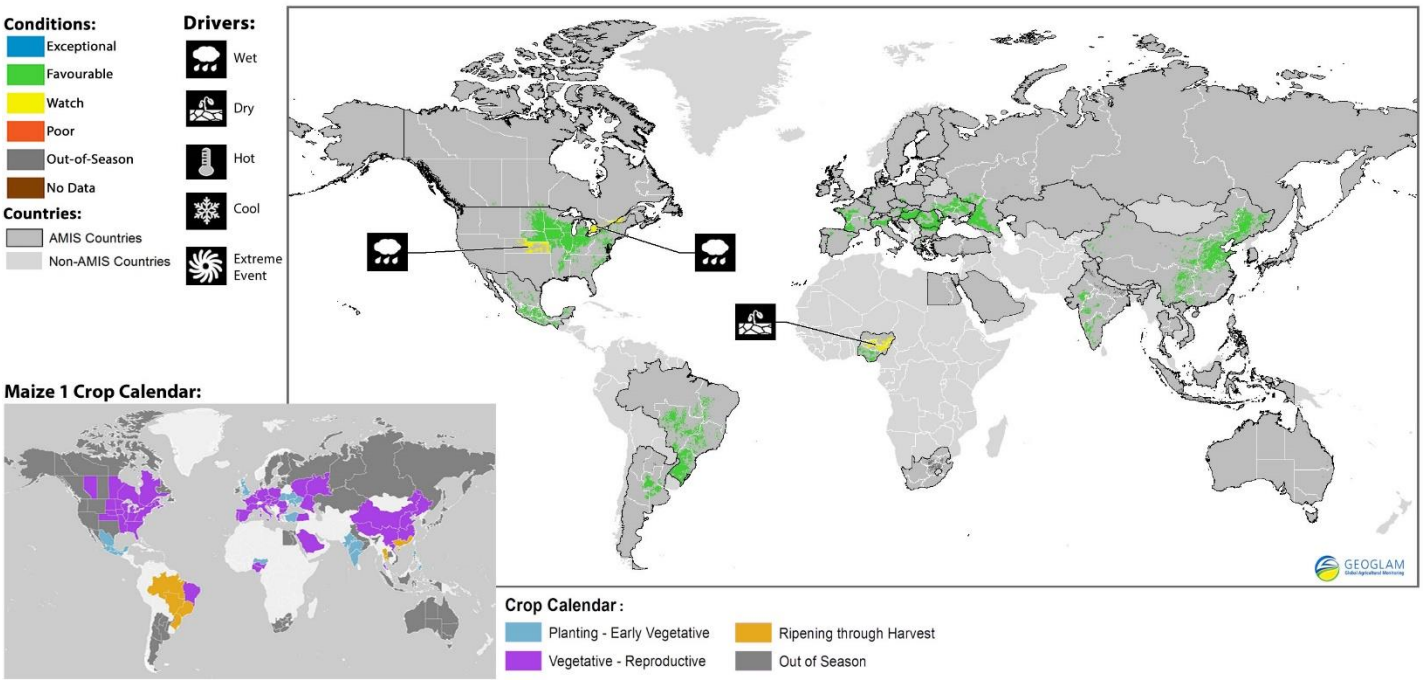
Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of June 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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 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 June 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.

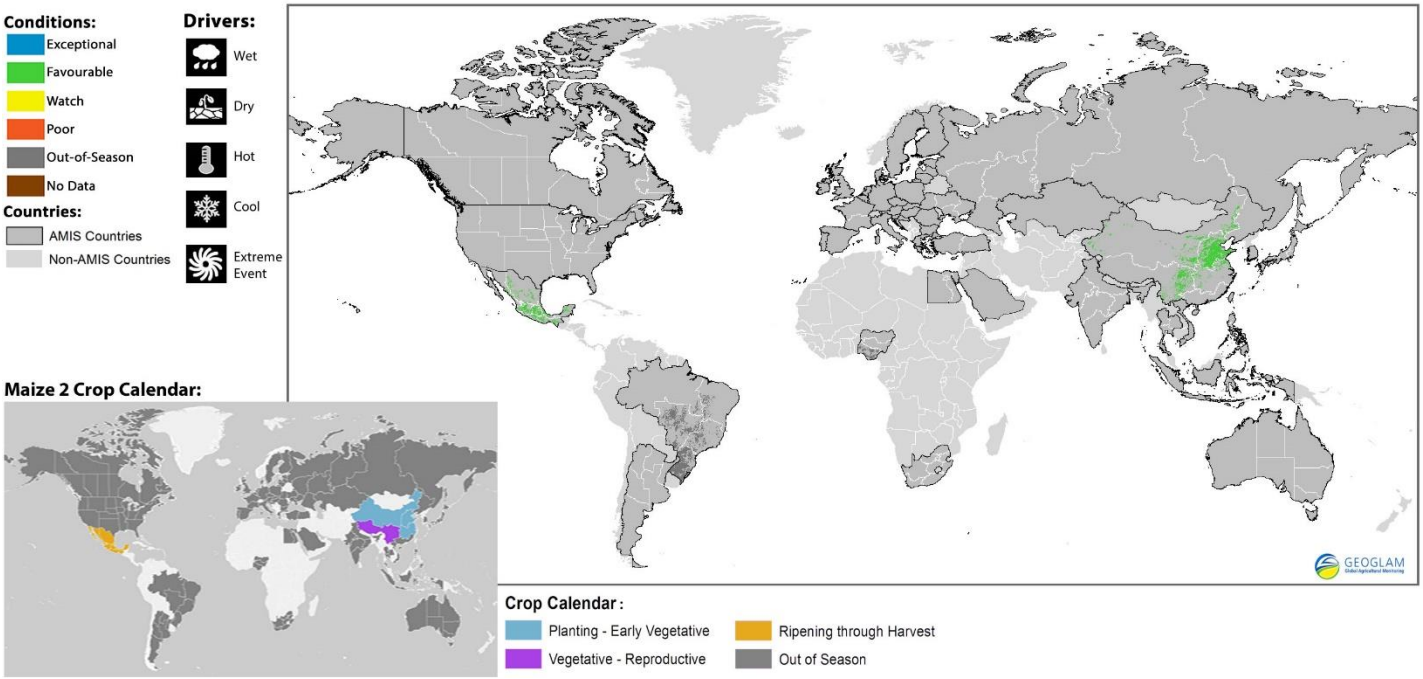
* Assessment based on information as of June 28th

Maize 1 Conditions for AMIS Countries



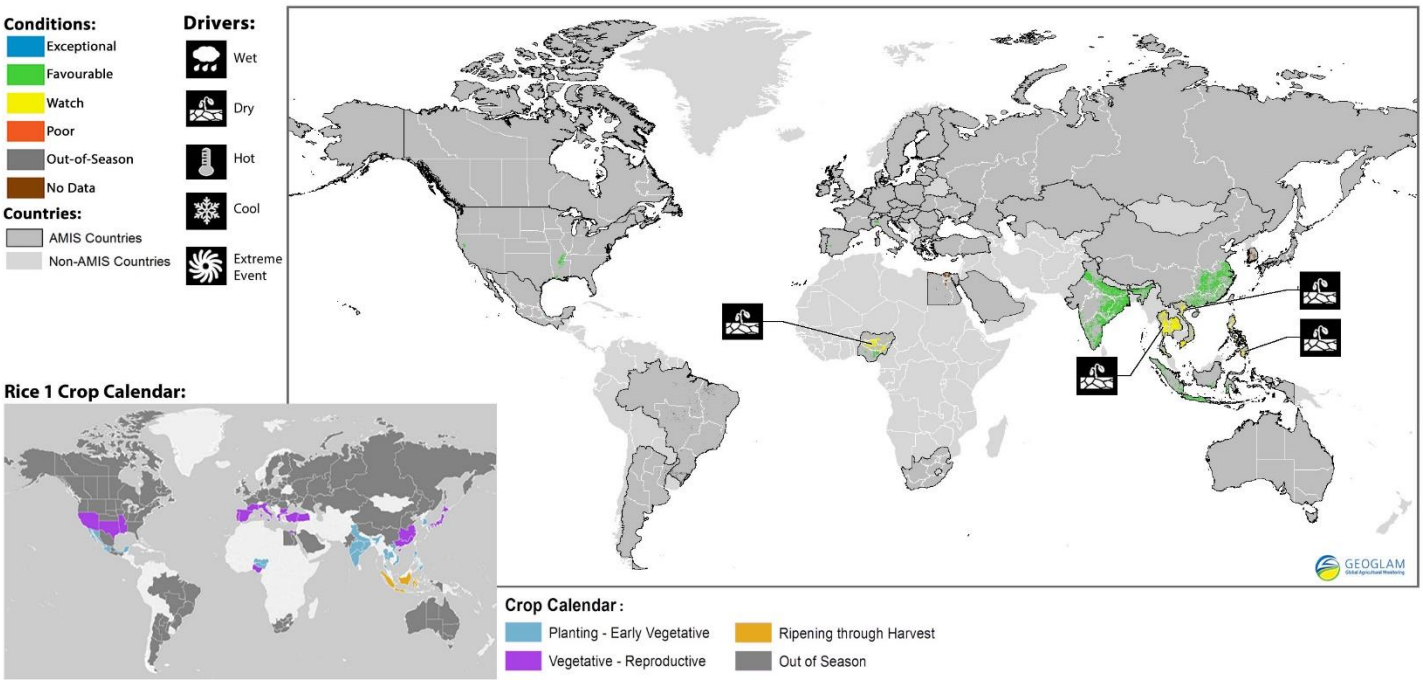
Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of June 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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



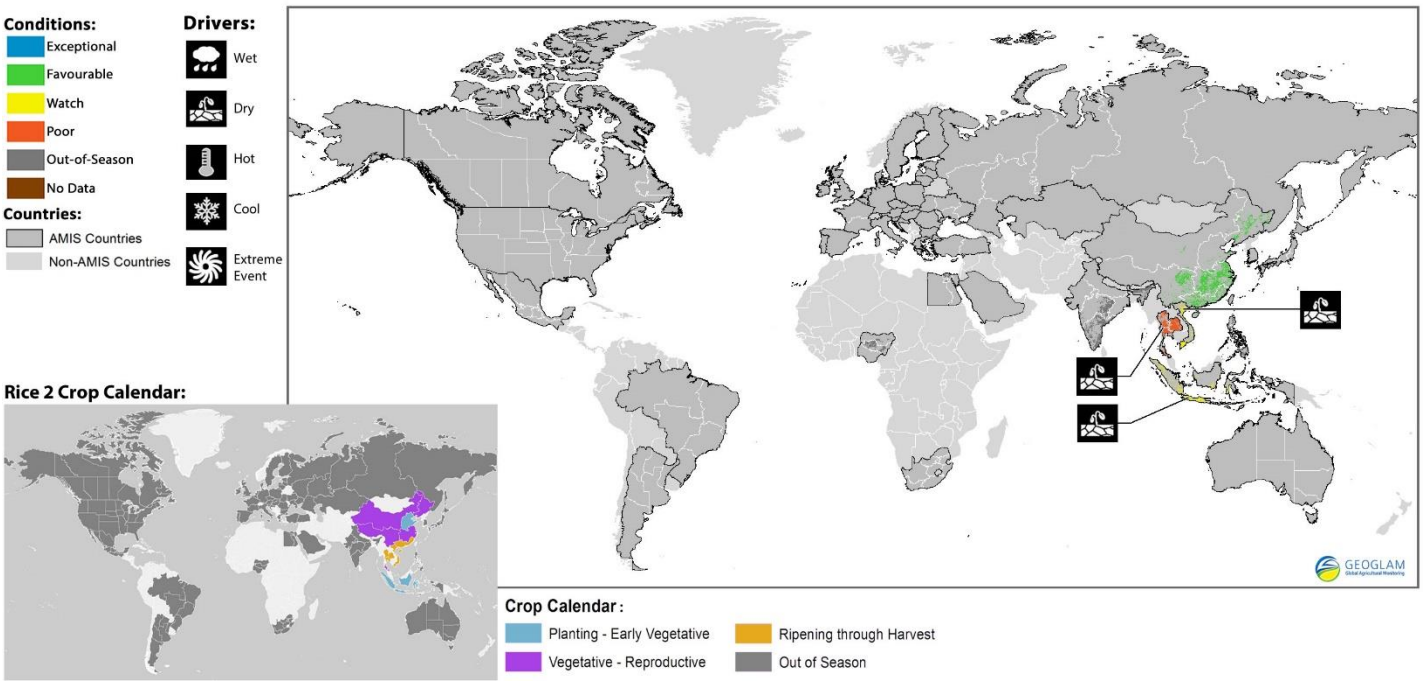
Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of June 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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.

Rice 1 Conditions for AMIS Countries

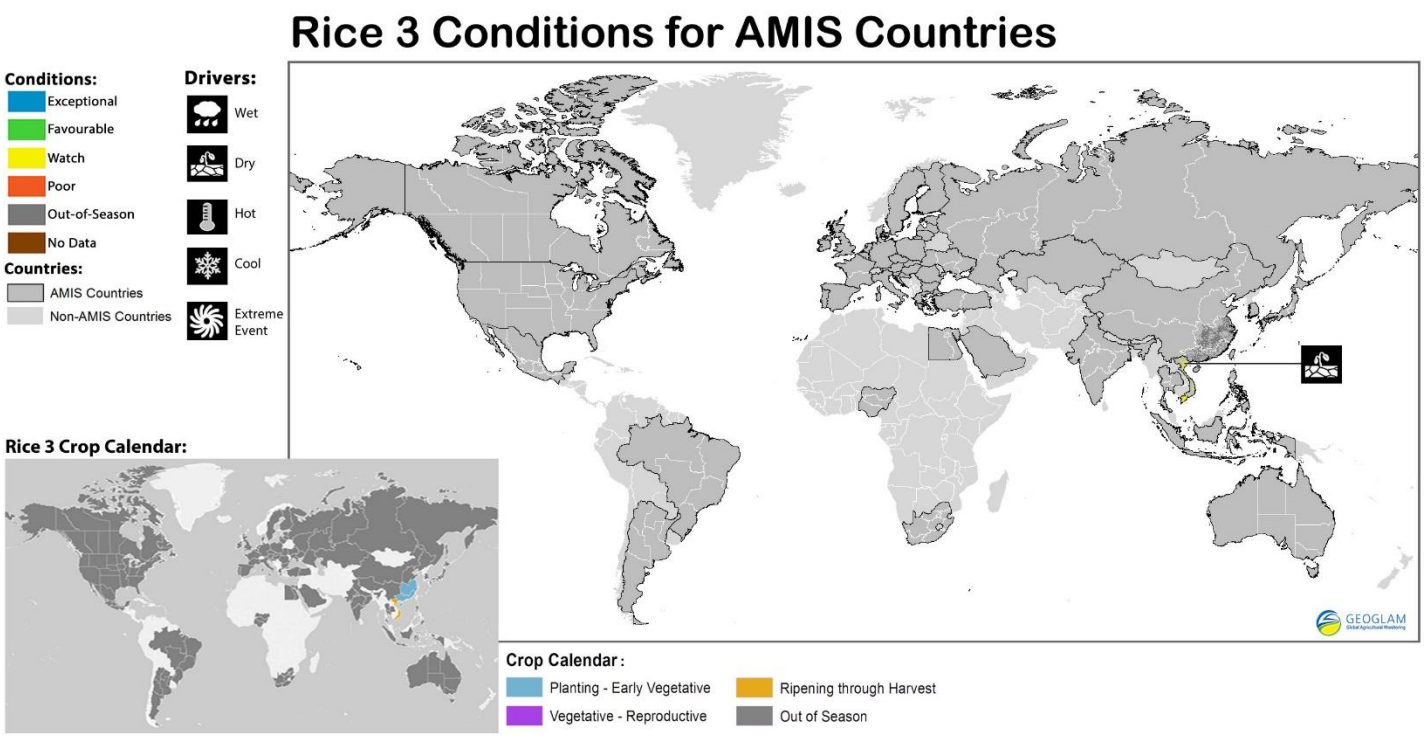


Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of June 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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.

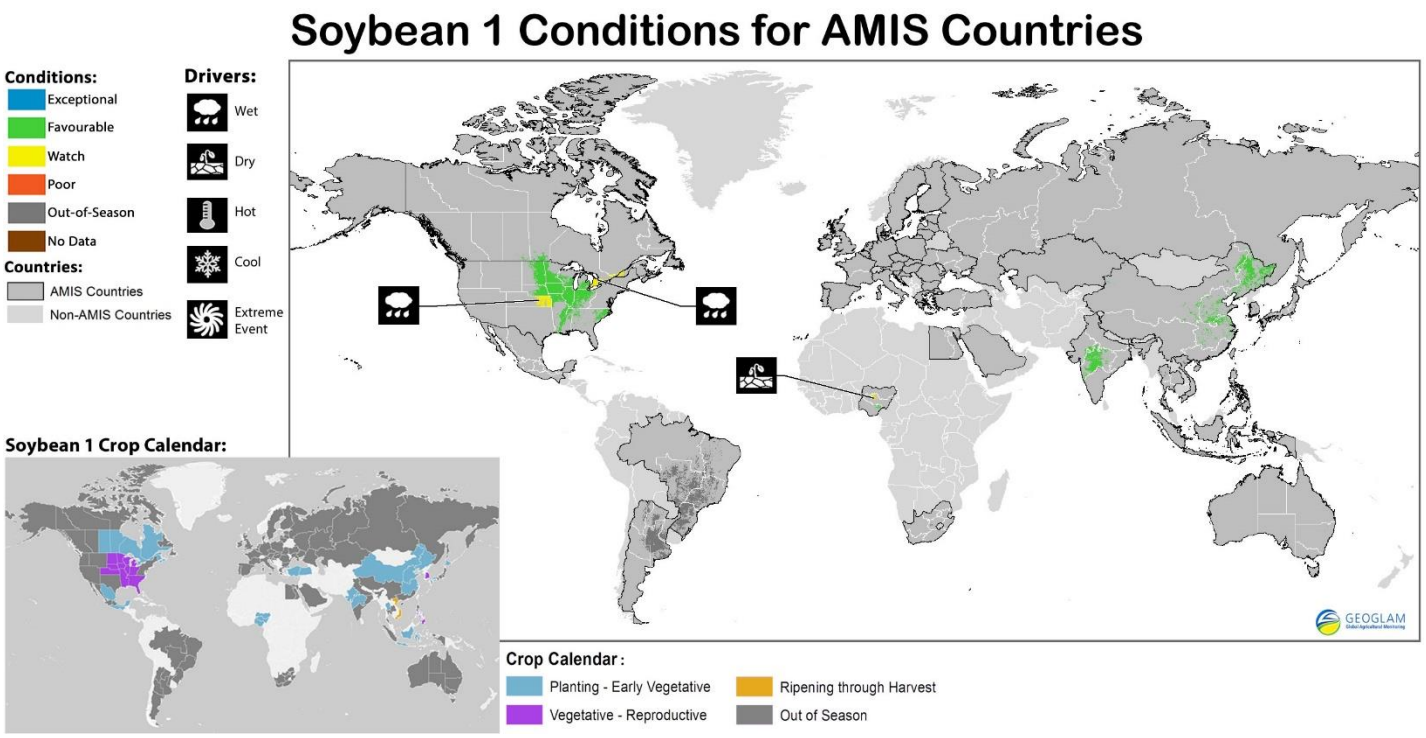
Rice 2 Conditions for AMIS Countries



Rice 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 June 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.

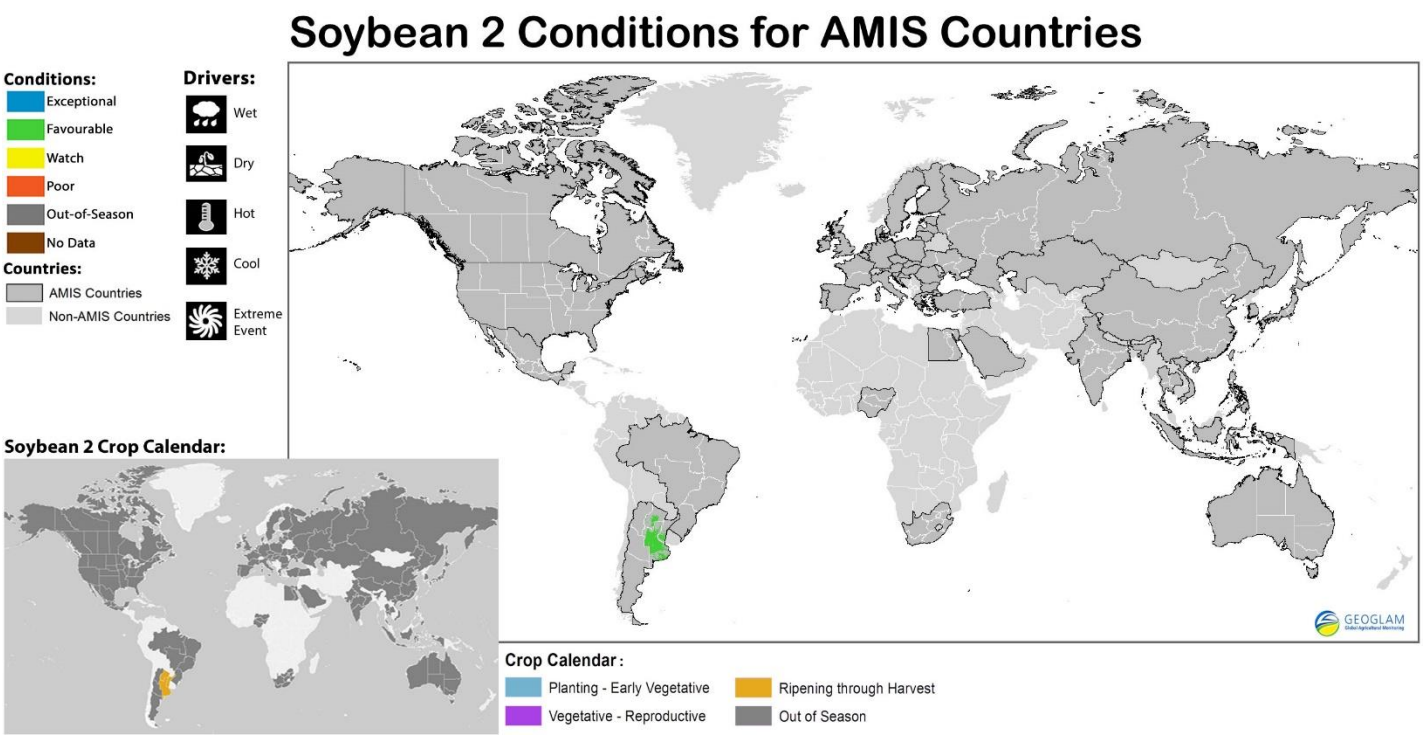


Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of June 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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 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 June 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 June 28th



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 June 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.