GEOGLAM Crop Monitor

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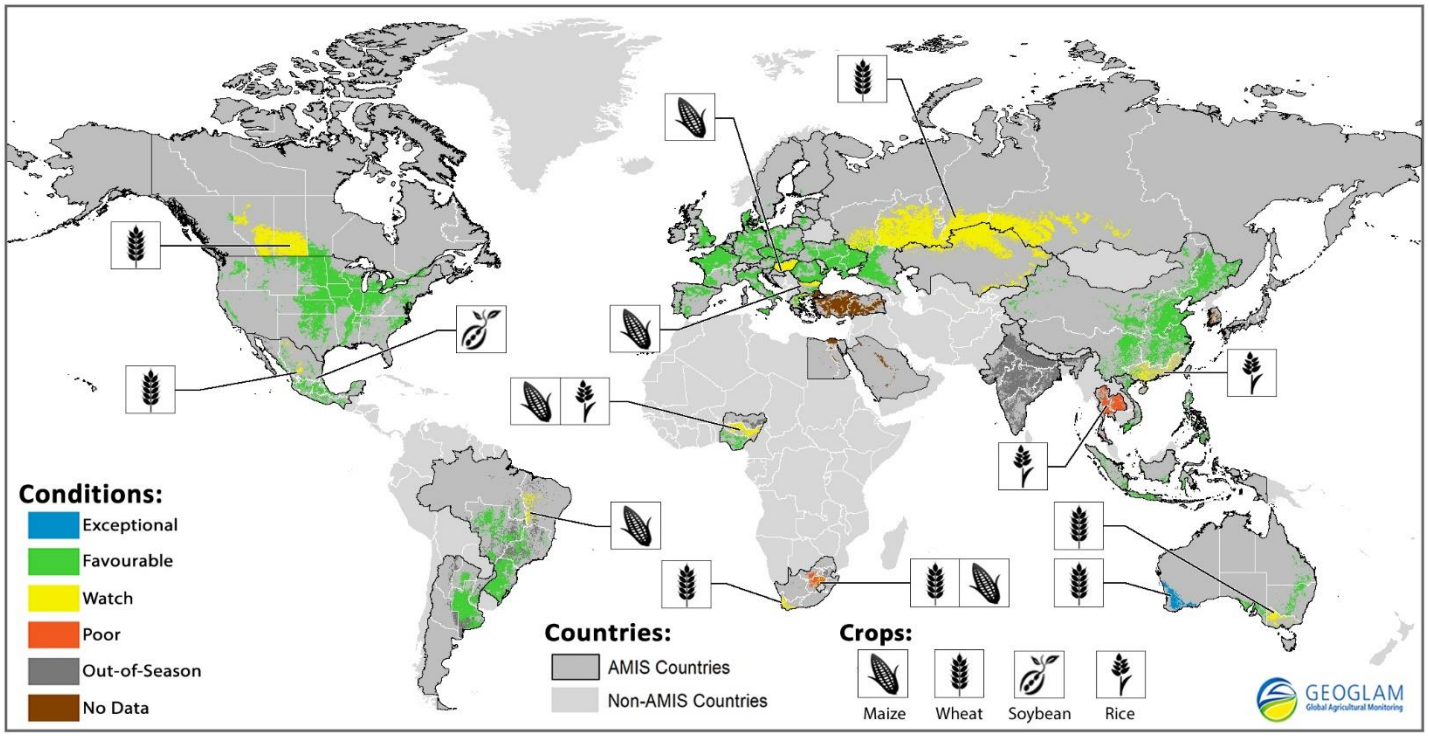
GEOGLAM
Global Agricultural Monitoring

Prepared by members of the GEOGLAM Community of Practice

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



Crop condition map synthesizing information for all four AMIS crops as of May 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, overall conditions remain favourable. In the EU, winter wheat conditions are generally good. In the US conditions have improved for winter wheat, and are favourable for both spring and winter wheat. In China, conditions are mostly favourable for winter and spring wheat though there is some concern over dry weather. In the Russian Federation, winter wheat conditions have improved and are mostly favourable. There is some concern over spring wheat as planting is delayed due to wet weather. In Canada, conditions are generally favourable for winter and spring wheat, though there is developing concern due to lack of rain over main spring wheat growing regions. In India, end of season conditions were favourable. In Ukraine, conditions are generally favourable. In Kazakhstan and Mexico, conditions are mixed. In the southern hemisphere, planting is progressing. In Australia conditions are generally favourable however there is some concern over dryness in parts of the southeast growing regions. In Brazil, conditions are favourable and in South Africa, conditions are mixed.

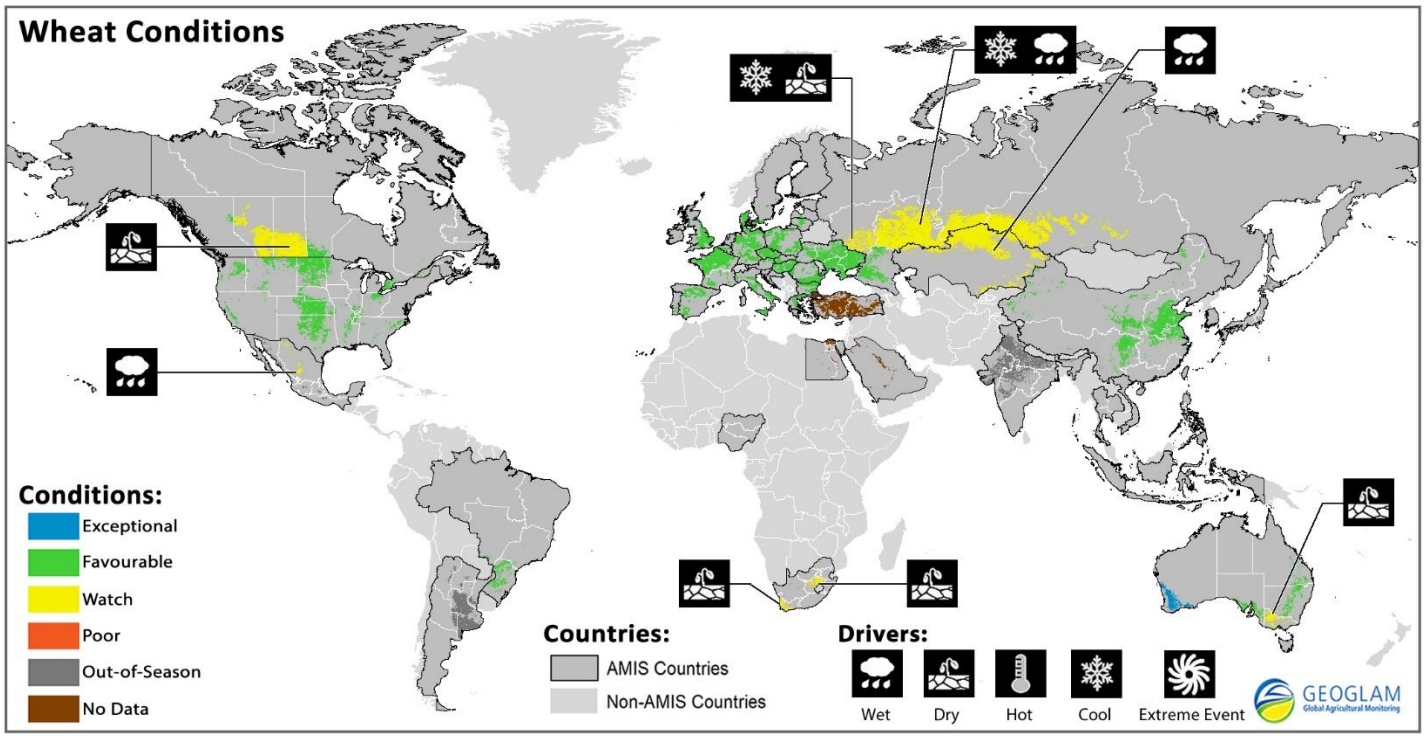
Maize- In the southern hemisphere, conditions continue to be generally favourable as the season draws to a close. In Brazil conditions are favourable and in Argentina, conditions are generally good. In South Africa, harvest is progressing and below-normal yields are expected for both white and yellow maize. In the northern hemisphere, conditions are favourable at this early stage of the season. In the US and EU planting is generally complete and conditions are favourable. In China, conditions are favourable for the spring and summer crops. In Ukraine, the Russian Federation, Canada, and Mexico, conditions are favourable. In Nigeria, conditions are mixed.

Rice- Conditions remain mixed. In India and Brazil, harvest is complete and end of season conditions are favourable. In China, conditions are mostly favourable however there is concern due to excessive wetness in the south. In Thailand, conditions remain poor for the dry season rice and field preparation for the wet season crop is underway. In Viet Nam, in the north, the winter-spring (dry season) crop is in good condition and in the south, conditions are fair. In the US and Argentina, conditions are favourable. In Indonesia, conditions for the wet season rice remain good. In the Philippines, planting of the wet season crop has begun. Harvest has concluded for the dry season rice and conditions are slightly poor. In Nigeria, conditions are mixed. There is some concern over the first crop due to poorly distributed rainfall in the central region.

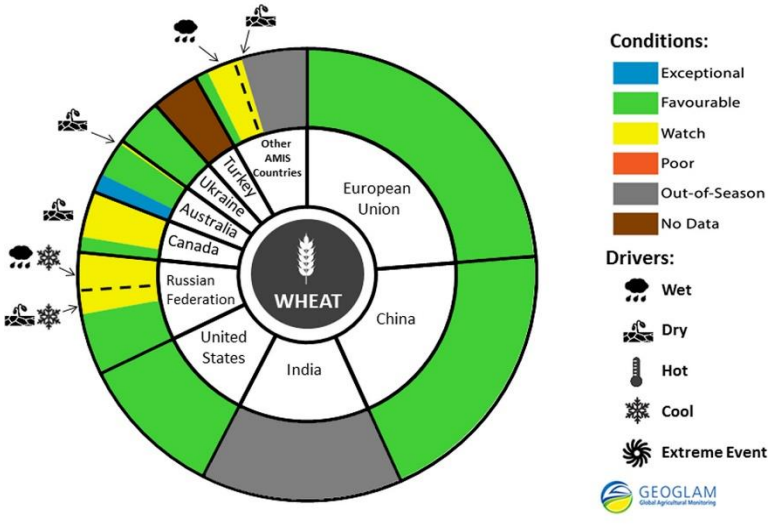
Soybeans- In the southern hemisphere, conditions remain good as the season closes. In Argentina conditions are favourable and in Brazil a record crop has been harvested owing to both increased yields and an expansion in area. In the northern hemisphere, conditions are favourable at the start of the season. In the US, conditions are favourable. In Mexico, planting has begun for the spring-summer cycle in the north region. However, excess humidity has slightly delayed planting. In Canada conditions are favourable though there were some planting delays.

El Niño *conditions continue to strengthen in the equatorial Pacific and there is a higher than 80 percent chance they will persist through the end of 2015, according to statements from the Australian Bureau of Meteorology, the International Research Institute for Climate and Society (IRI), and the U.S. National Oceanic and Atmospheric Administration. Forecast maps published by the IRI and the European Centre for Medium Range Weather Forecasting depict a high probability of below average precipitation for Indonesia through September, and above average chances of dry weather in India and above average rainfall in the central United States. GEOGLAM will closely watch AMIS regions that have shown sensitivity to El Niño in the past for possible impacts.*

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 May 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.

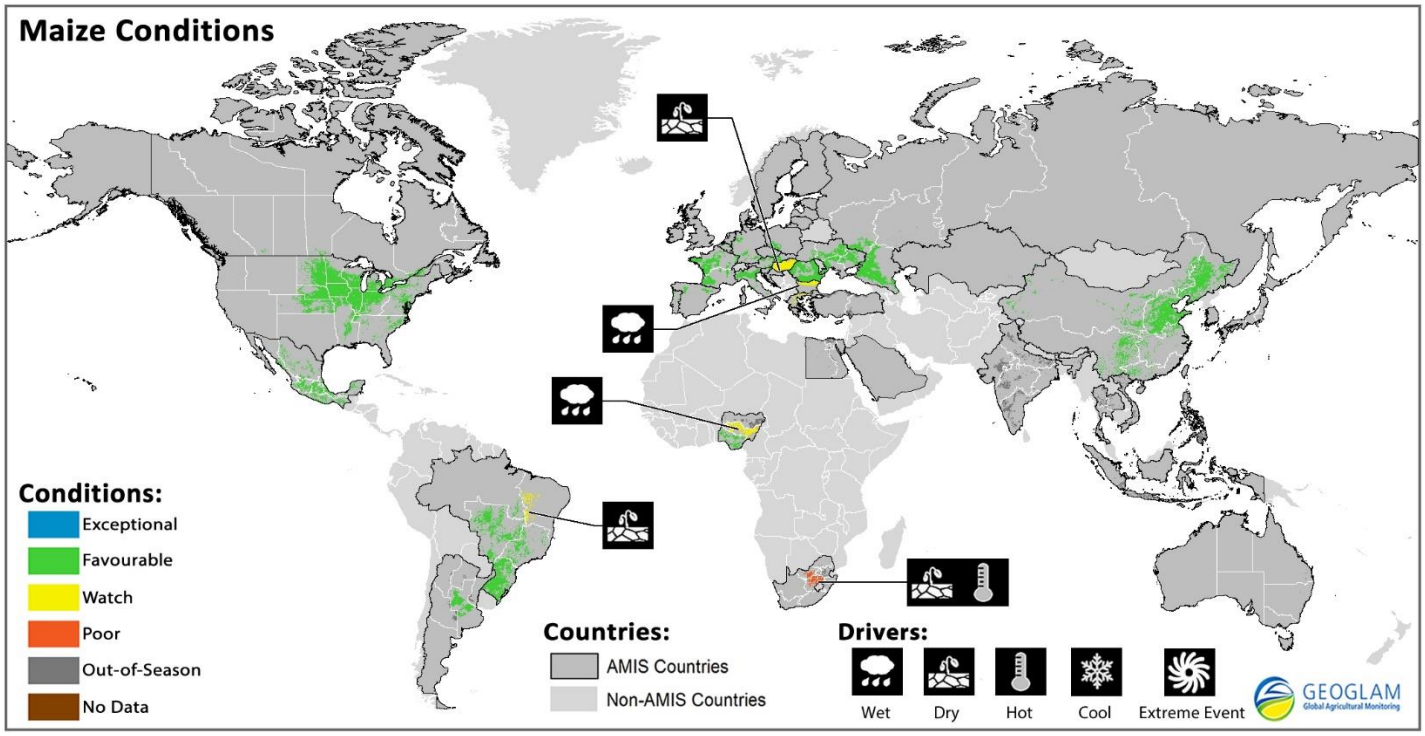


For detailed description of the pie chart please see box below.

Wheat: In the *northern hemisphere,* overall conditions remain favourable. In the **EU**, winter wheat conditions are generally good, however, there are two areas of concern, mainly due to water scarcity, in southern Spain and in southern Italy. In the **US**, winter wheat conditions in the US Great Plains have improved somewhat owing to recent rains that have helped ease the long-term drought. Spring wheat is nearly all planted across the Northern Tier and is in favourable condition. In **China**, wheat conditions are generally favourable. Spring wheat, in main producing area, is in early vegetative stages and winter wheat is in grain-filling (North China) to maturity stages (southwest of China). Due to insufficient precipitation there is some concern that yields maybe slightly reduced. In the **Russian Federation**, winter wheat conditions are mostly favourable with improved moisture supplies, though some areas were reseeded due to the dry conditions during the fall establishment. In some of the spring wheat regions, heavy rainfall and low temperatures in the beginning of the month are causing crop development delays. In **Canada**, conditions are favourable for winter wheat, which has fully emerged after dormancy. The spring crop conditions are generally favourable, however, there is increasing concern due to a lack of spring precipitation in Alberta and Saskatchewan—the major spring wheat producing regions in Canada— which has led to drier-than-normal conditions. In **India**, harvest is complete and end of season conditions were favourable. In **Ukraine**, conditions are generally favourable and harvest is expected to be above average despite some dry conditions in southern and south-eastern regions. In **Kazakhstan,** conditions are mixed. Spring wheat planting is going extremely slowly due to persistent wet conditions in the north-central region (the main spring-wheat zone). In **Mexico** harvest is almost complete in the northwest region and yields are lower than expected due to lack of cool weather and atypical rainfall. In the Northern region, excess humidity has partially limited quality. In the *southern*

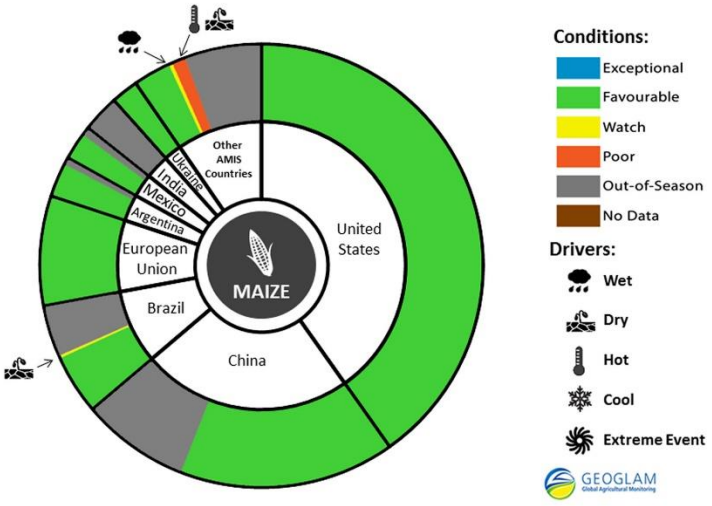
hemisphere, planting is progressing. **In Australia,** conditions are generally favourable for planting and crop germination. In Western Australia, conditions are exceptional owing to ample March and April rainfall, however there is some concern over dryness in Victoria and parts of northern New South Wales, which is limiting planting opportunities. In **Brazil**, conditions are favourable at this early stage of the season and the crop is between planting to early vegetative stages. It is expected that area will be down compared to last season. In **South Africa**, planting has begun in the winter rainfall region (main production area) and conditions are mixed due to a slow start to the rainy season, which has prevented emergence. However, widespread rain is possible in the next few days and may have a large positive impact.

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 May 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.

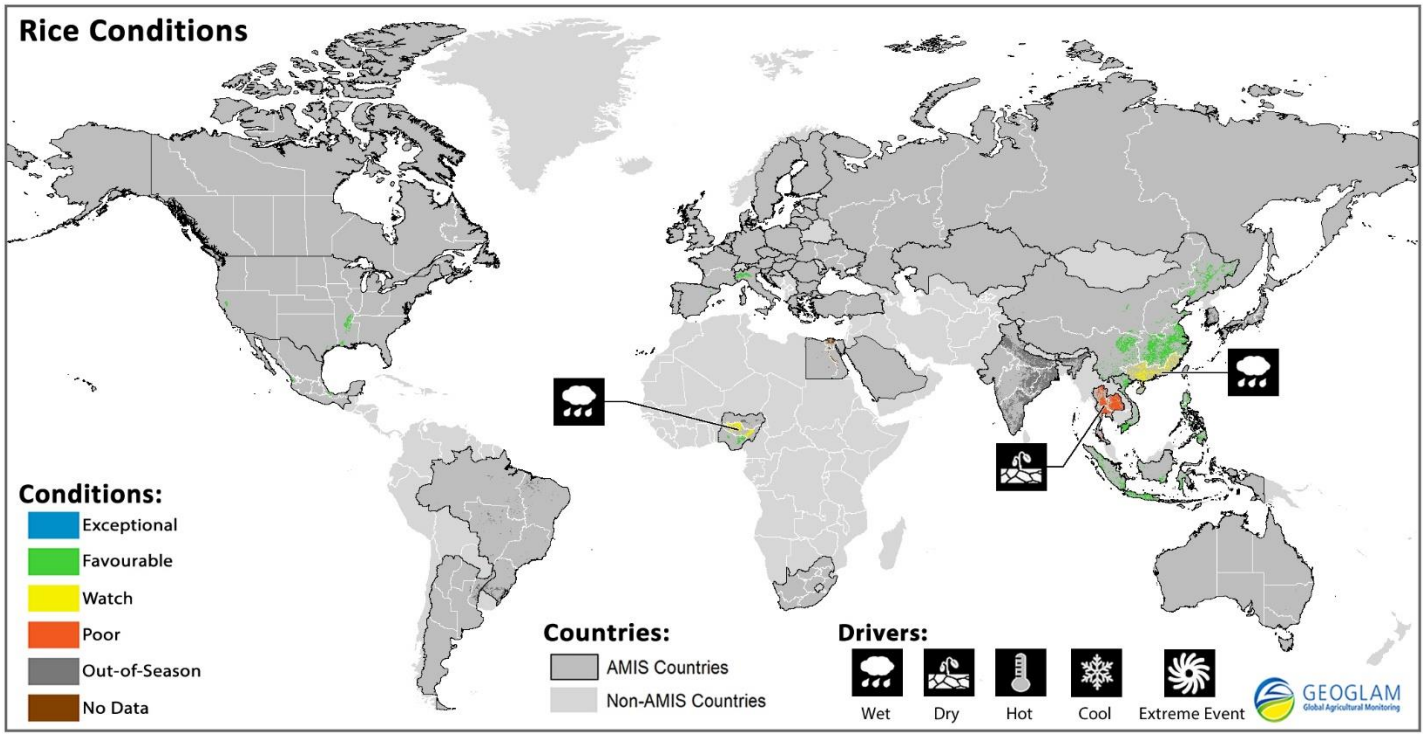
Maize: In the *southern hemisphere*, conditions continue to be generally favourable. In **Brazil**, conditions are favourable. Overall planted area is down relative to last year due to competition with soybeans, which are more profitable. Harvest is complete for the spring-planted crop (lesser producing season) and the summer-planted crop (higher producing season) is in reproductive stages, and conditions remain favourable. In **Argentina**, conditions are generally good. Harvest is progressing normally owing to good weather conditions. In **South Africa**, harvest is progressing and below-normal yields are expected for both white and yellow maize as a result of hot and dry conditions during the first half of February. In the *northern hemisphere*, conditions are favourable. In the **US**, planting is nearly complete and conditions are favourable with no notable issues throughout the Corn Belt. In **China**, conditions are generally favourable for the



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

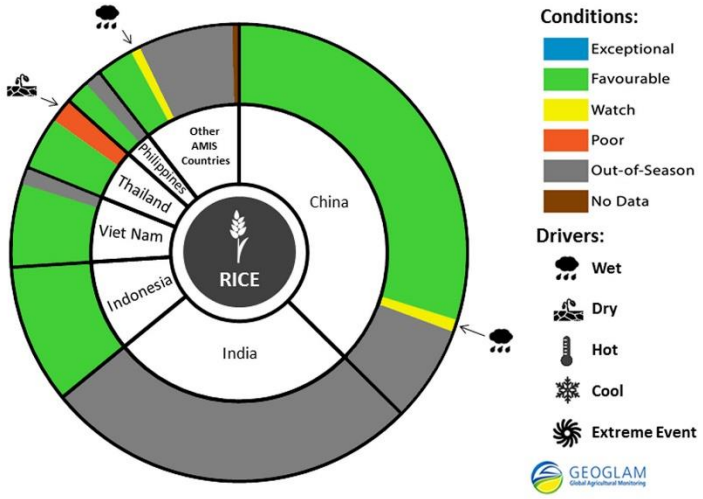
spring-planted crop and planting conditions are good for the summer crop, which will be planted in early June. In **Ukraine**, planting is almost complete and conditions are favourable. In the **EU**, planting is complete and conditions are favourable in most countries. However there are some concerns about the emergence of the crop in Greece and Hungary due to the dry conditions, and there were considerable delays in Bulgaria due to high levels of precipitation. In **Mexico**, conditions are favourable for the autumn-planted crop is in progress. Planting of the spring-planted crop has started and will accelerate as soon as the rainy season is formally established. In the **Russian Federation**, planting is almost complete and conditions are favourable. In **Canada**, conditions are favourable. Planting is almost complete though there are some delays in the eastern region. In **Nigeria**, conditions are mixed owing to poorly distributed rainfall conditions in the central region.

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

Rice: Conditions remain mixed. In **India**, harvest is complete and end of season conditions are favourable for the second season crop. In **China**, single rice in Northeast China is at seedling stage, while early rice in southeast China is mostly at transplanting stage. There is some concern in the south due to the continuous rainfall, which is hampering early rice development. In **Thailand**, conditions remain poor for the dry season rice. Harvest is almost complete and production is expected to be considerably less than last year, mainly due to insufficient water for cultivation that resulted in reduced planted area and poor yield as well as due to pest damage and cold weather. Field preparation for the wet season crop is underway. In **Viet Nam**, in the north, the winter-spring (dry season) crop is in panicle forming to heading stages and is in good condition owing to favourable weather and adequate sunshine.

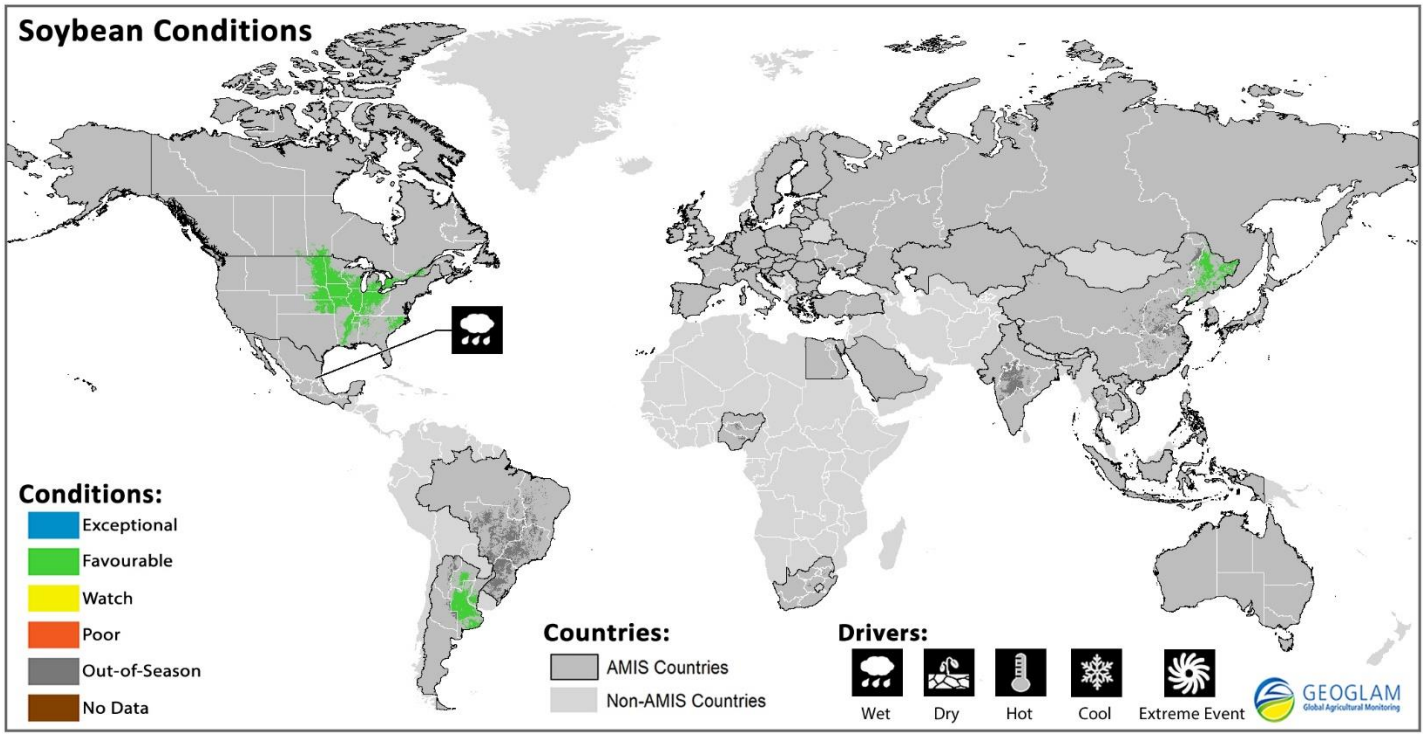


For detailed description of the pie chart please see box below.

* Assessment based on information as of May 28th

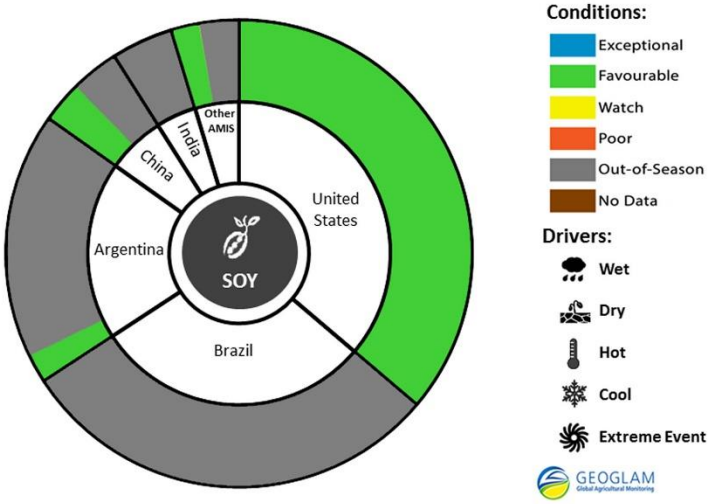
In the south, harvest is almost complete for the winter-spring crop. Conditions are fair despite some lack of precipitation and yields are slightly down relative to the previous year. In the **US**, the crop is proceeding favourably. In **Indonesia**, conditions for the wet season rice remain good due to favourable sunlight and sufficient water availability. The crop is in vegetative to maturity stages. In **Brazil**, harvest is complete. Even though planted area was slightly reduced, production increased relative to last year owing to increased yields. In the **Philippines**, planting of the wet season crop has begun in irrigated areas. Harvest has concluded for the dry season rice and conditions are slightly poor due to intense heat and insufficient water. In **Argentina**, harvest is almost complete and conditions are favourable. In **Nigeria**, conditions are mixed. There is some concern over the first crop due to poorly distributed rainfall in the central region and the second crop is in favourable condition.

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 May 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 *southern hemisphere*, conditions remain good. In **Brazil**, harvest is complete and conditions are favourable. Owing to the expansion in planted area and increased yields, production increased relative to last year and there was a record crop. In **Argentina**, conditions for the second crop are overall favourable and harvest has begun. In limited areas there are no harvestable fields due to water excesses, but this is compensated for with high yields in other regions. In the *northern hemisphere*, conditions are favourable. In the **US**, planting is well underway with no widespread concerns. Some areas, particularly those farther north, are somewhat ahead of schedule. In **Mexico**, planting has begun for the spring-summer cycle in the northern region. Excess



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

humidity has slightly delayed the sowing; however, conditions are expected to be regularized in the next few months, mainly in north-eastern regions. In **Canada**, conditions are favourable and planting is nearly complete, though has been delayed in the eastern growing region.

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 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.)

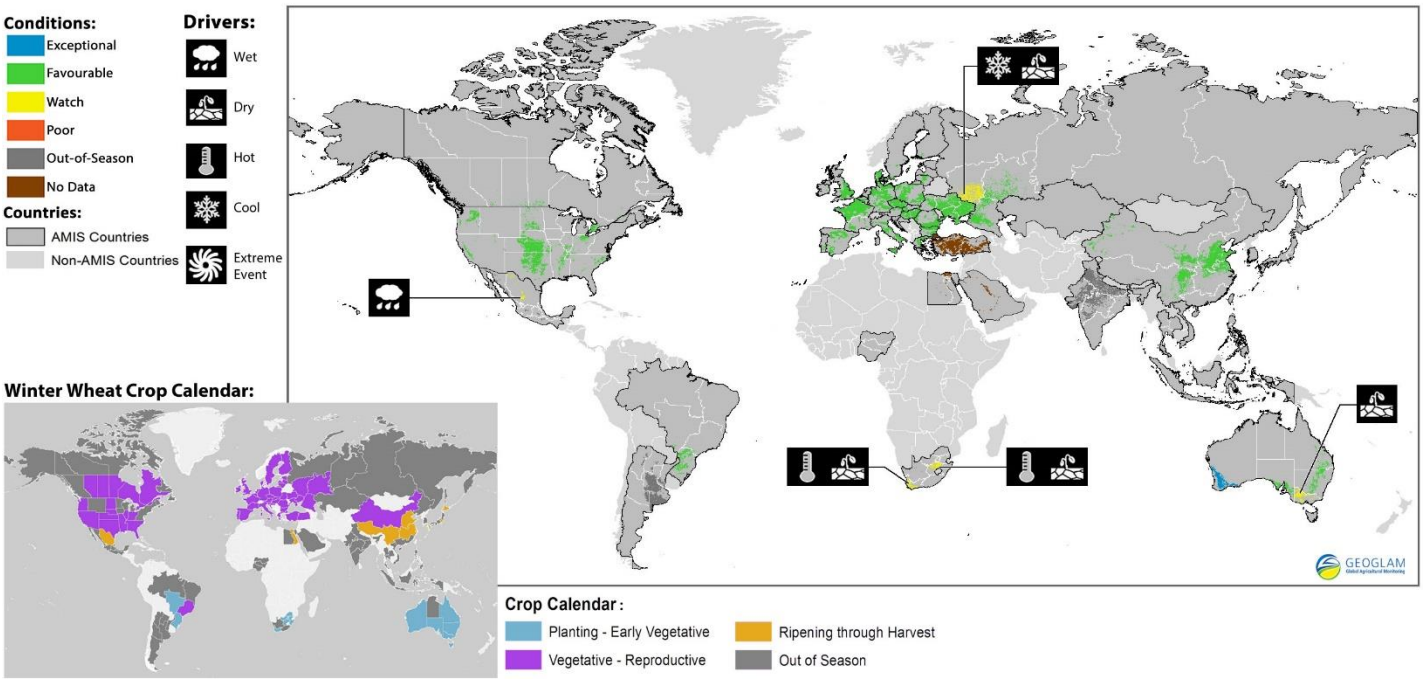
Sources & Disclaimer

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/pages/about.php?target=maps-charts.

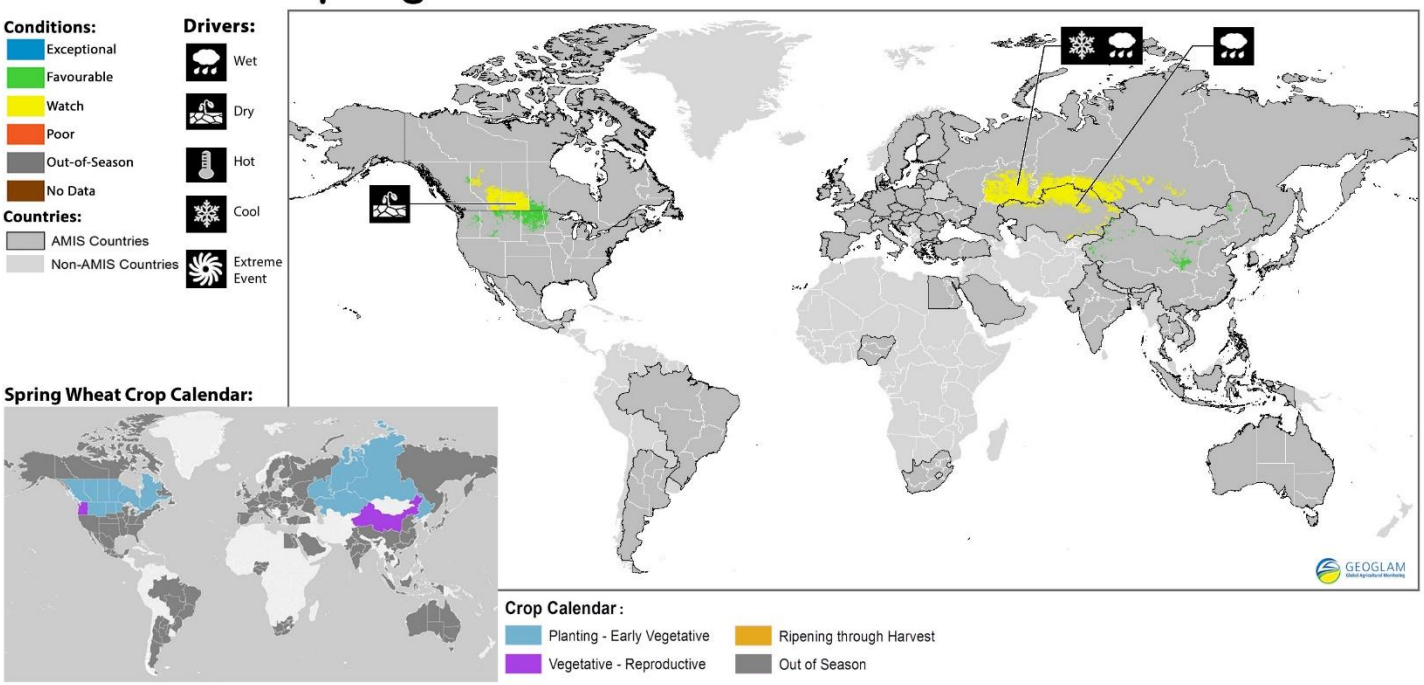
Appendix 2: Crop Season Specific Maps

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 May 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



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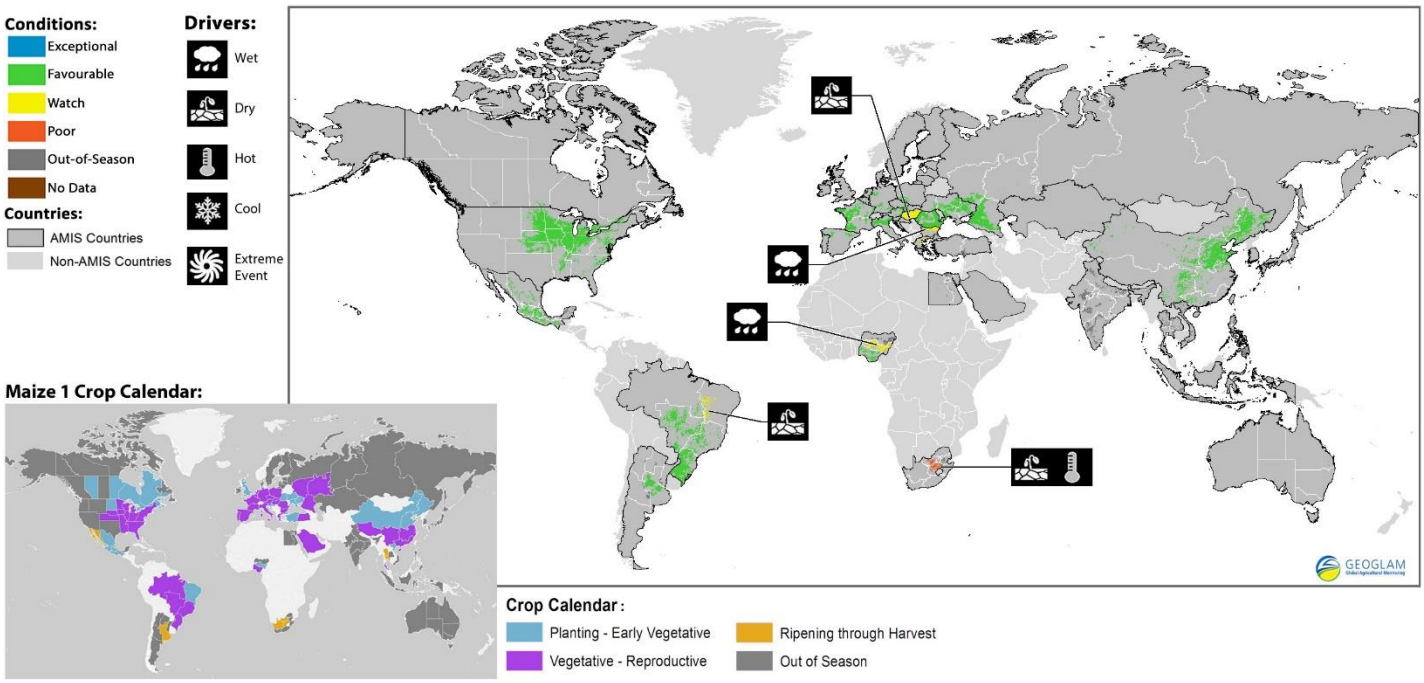
Maize 1 Conditions for AMIS Countries



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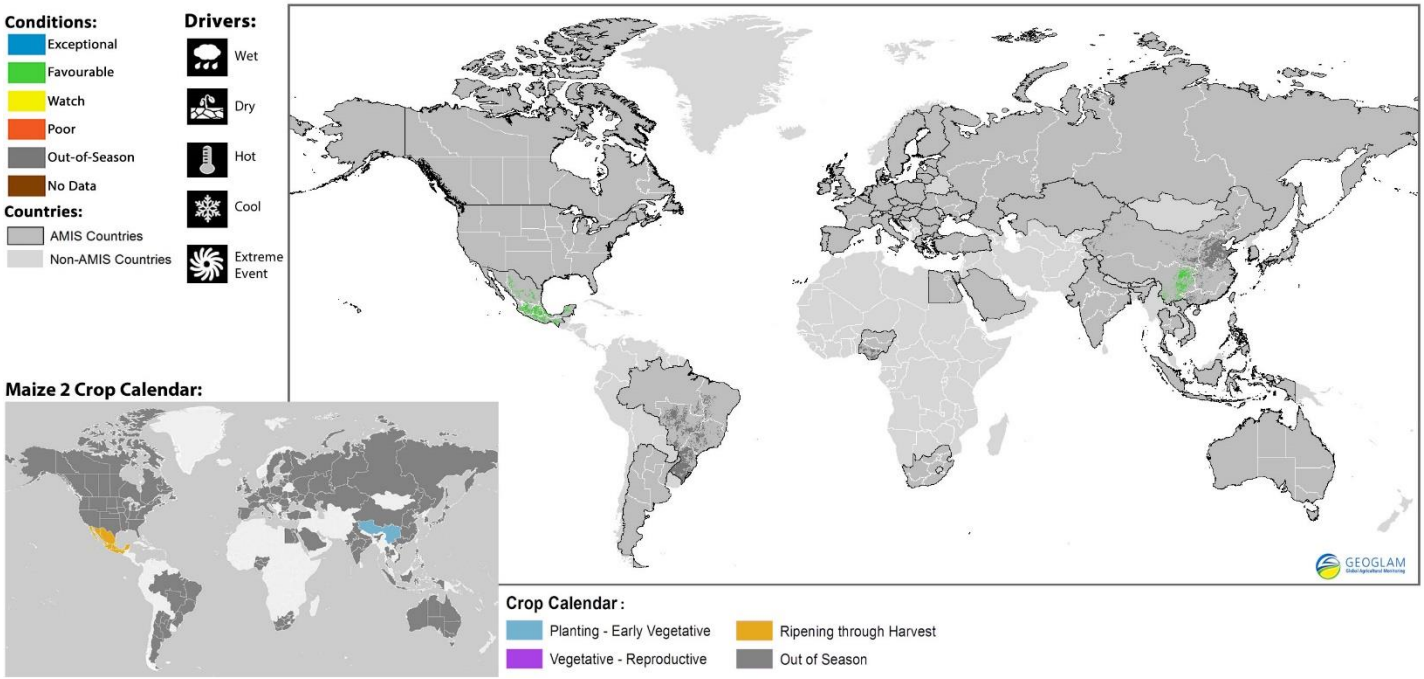
Maize 2 Conditions for AMIS Countries



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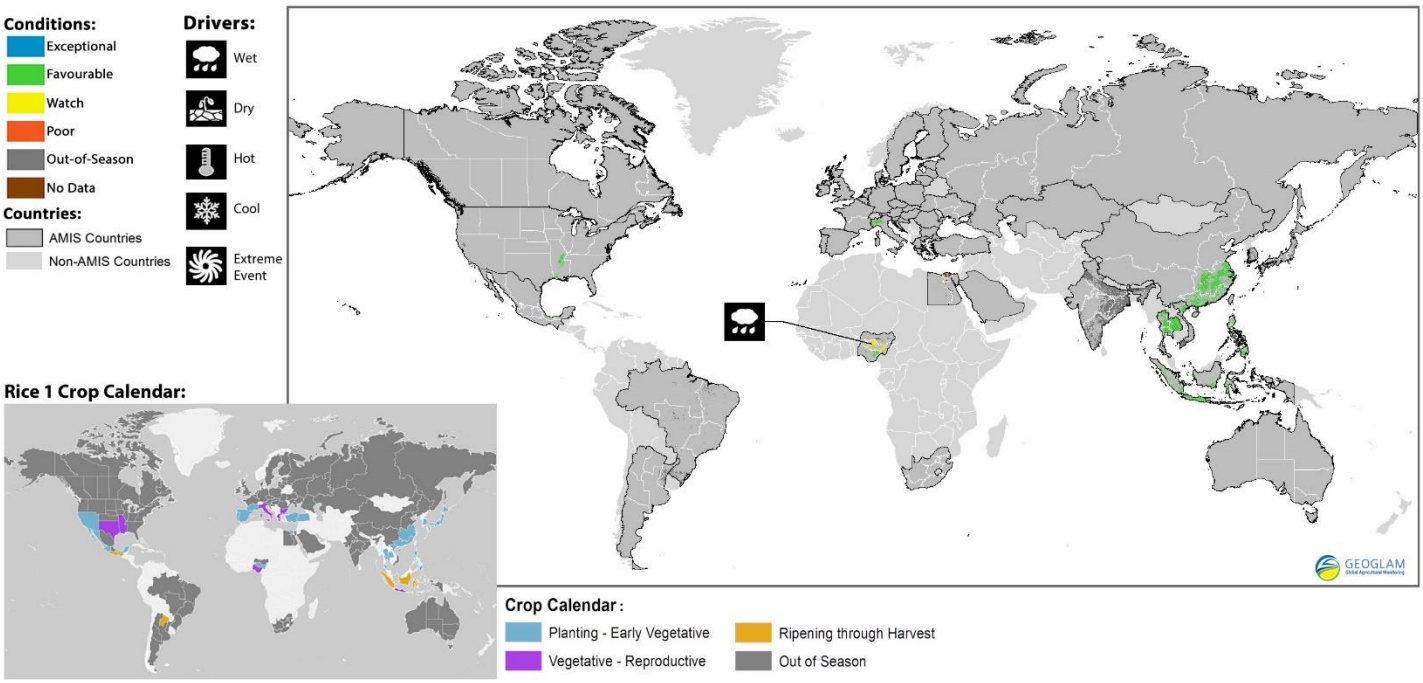
Rice 1 Conditions for AMIS Countries



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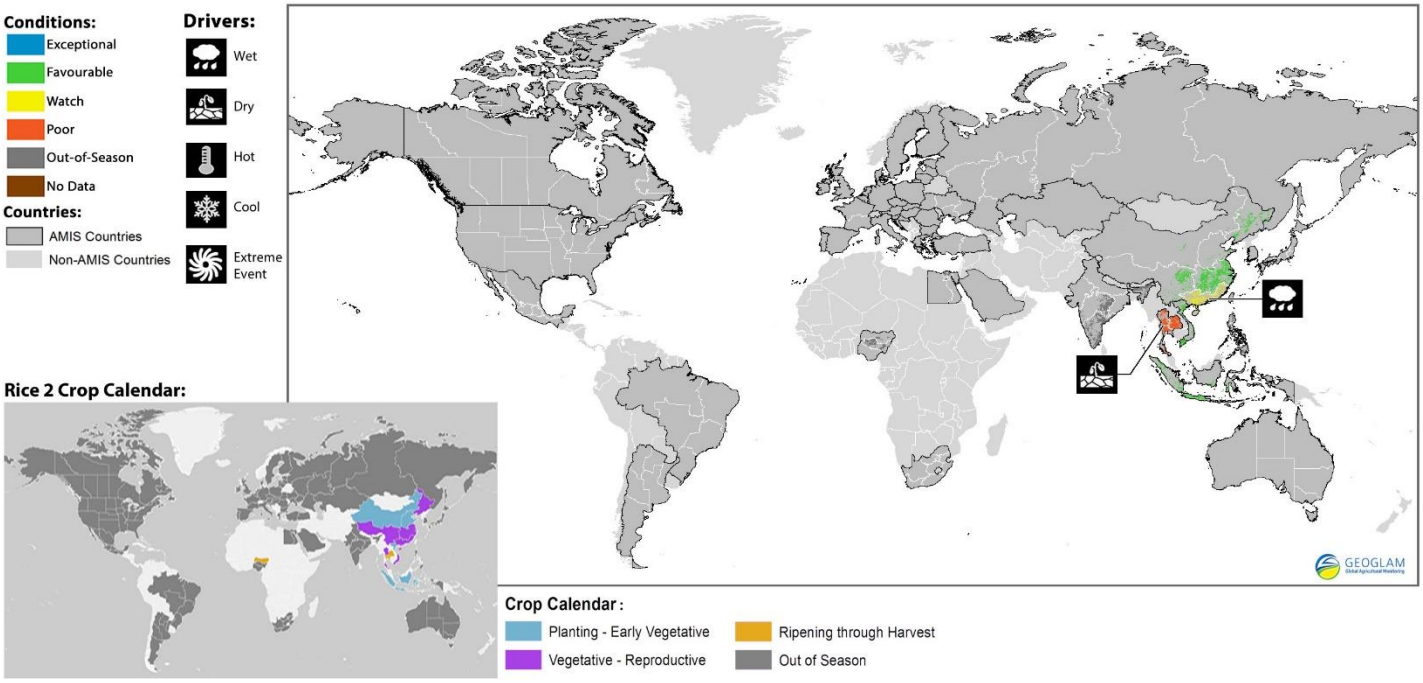

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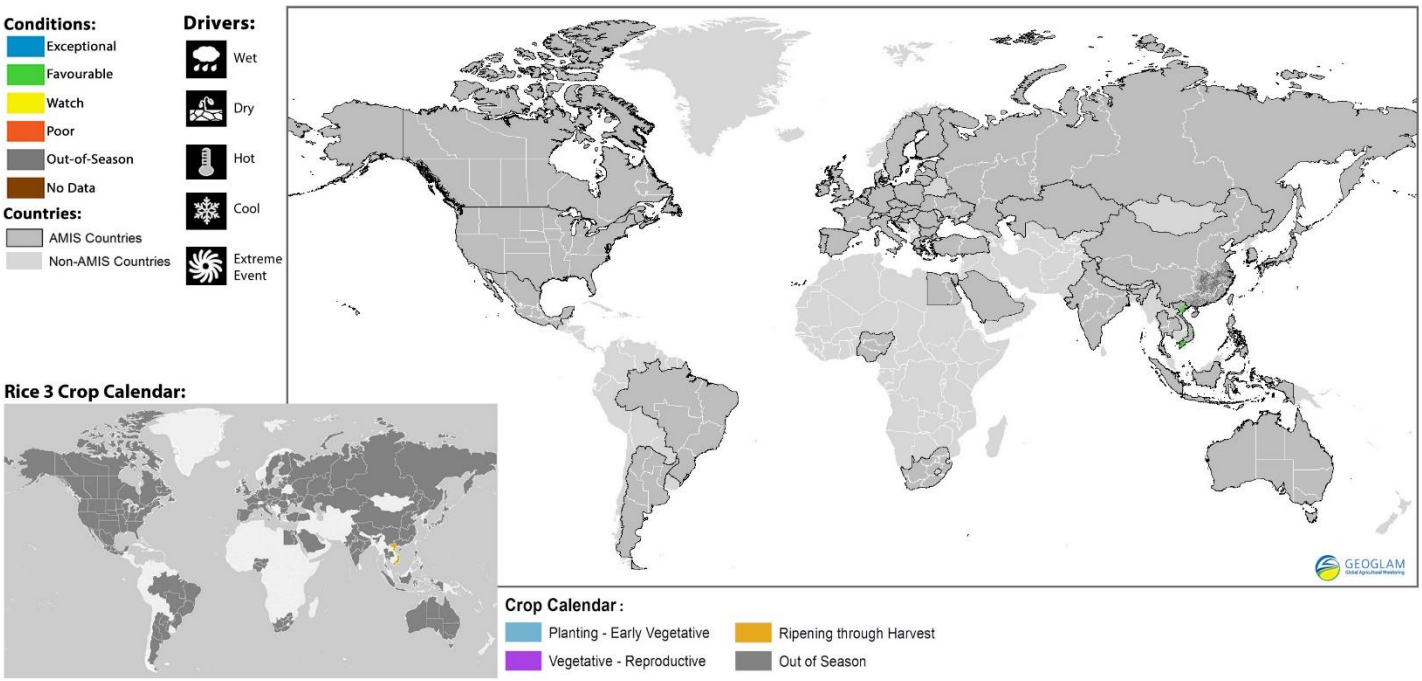
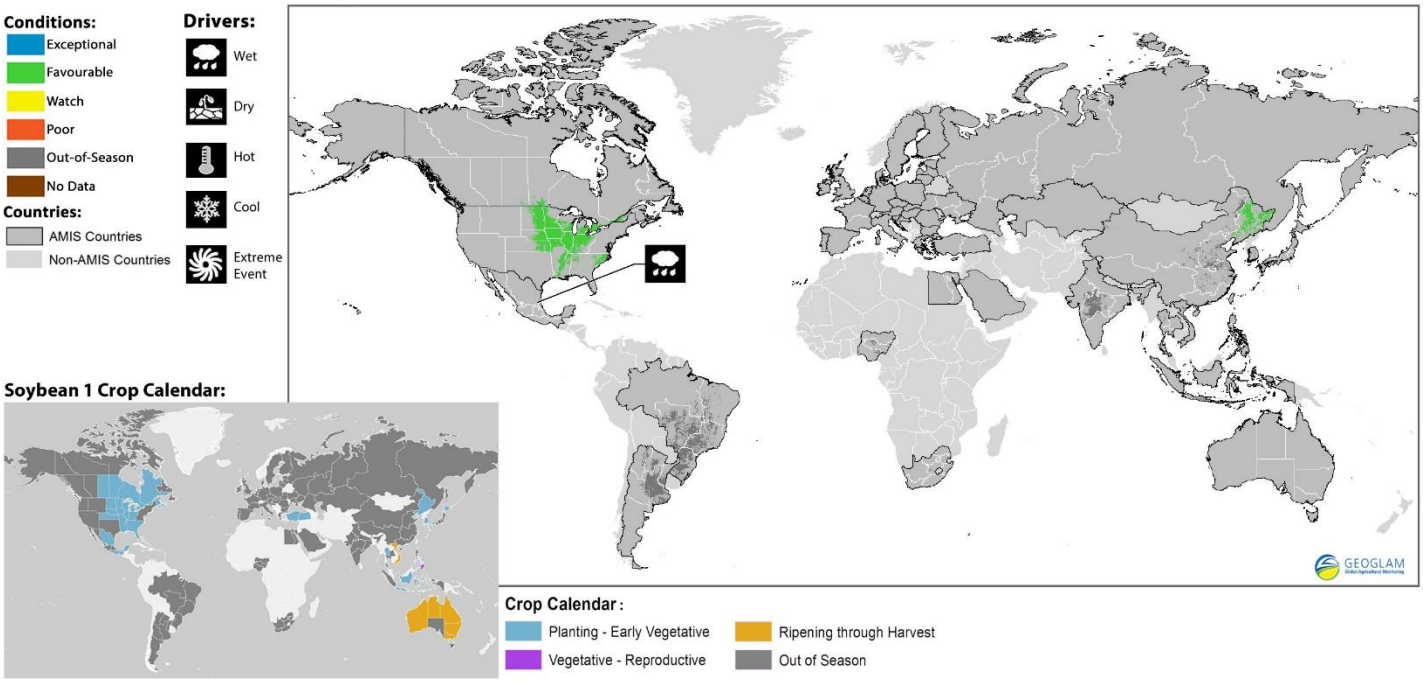
Rice 3 Conditions for AMIS Countries



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 May 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 Conditions for AMIS Countries



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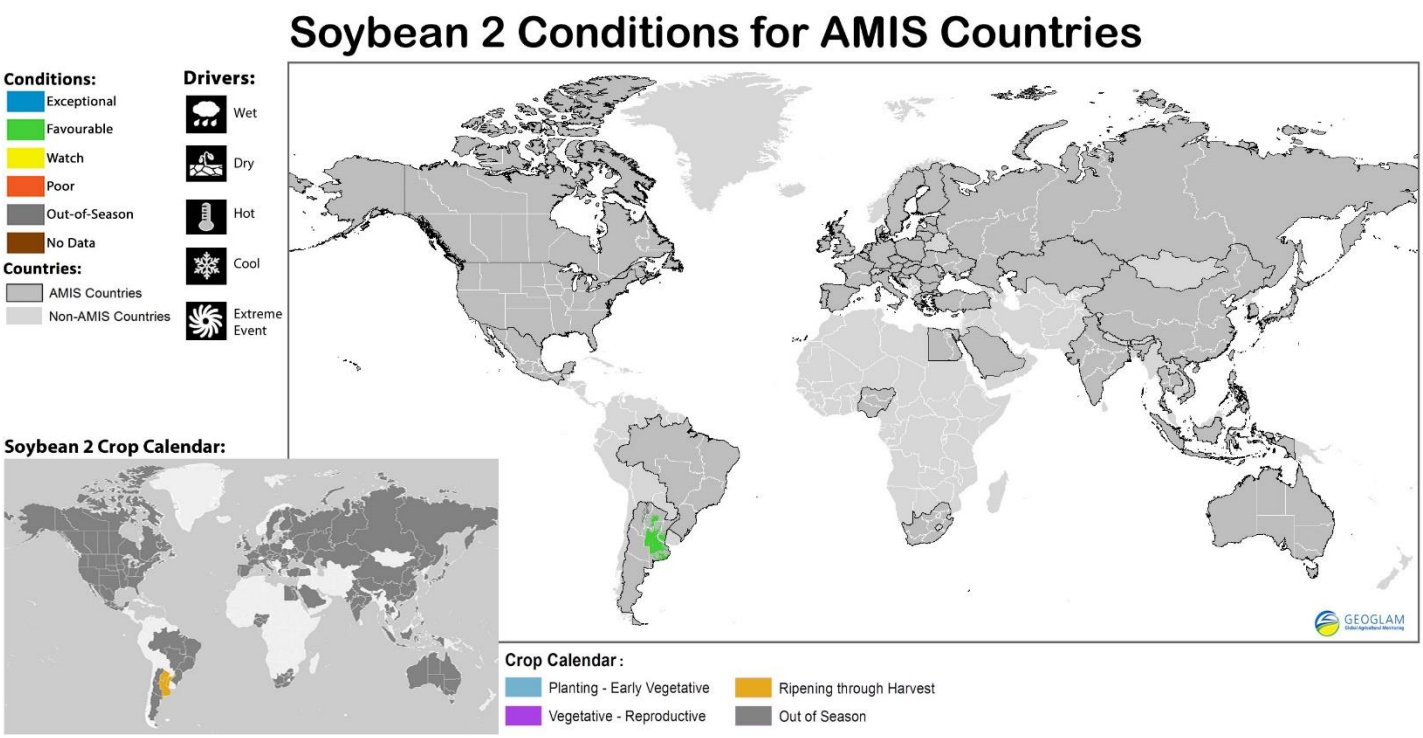

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