GEOGLAM Crop Monitor

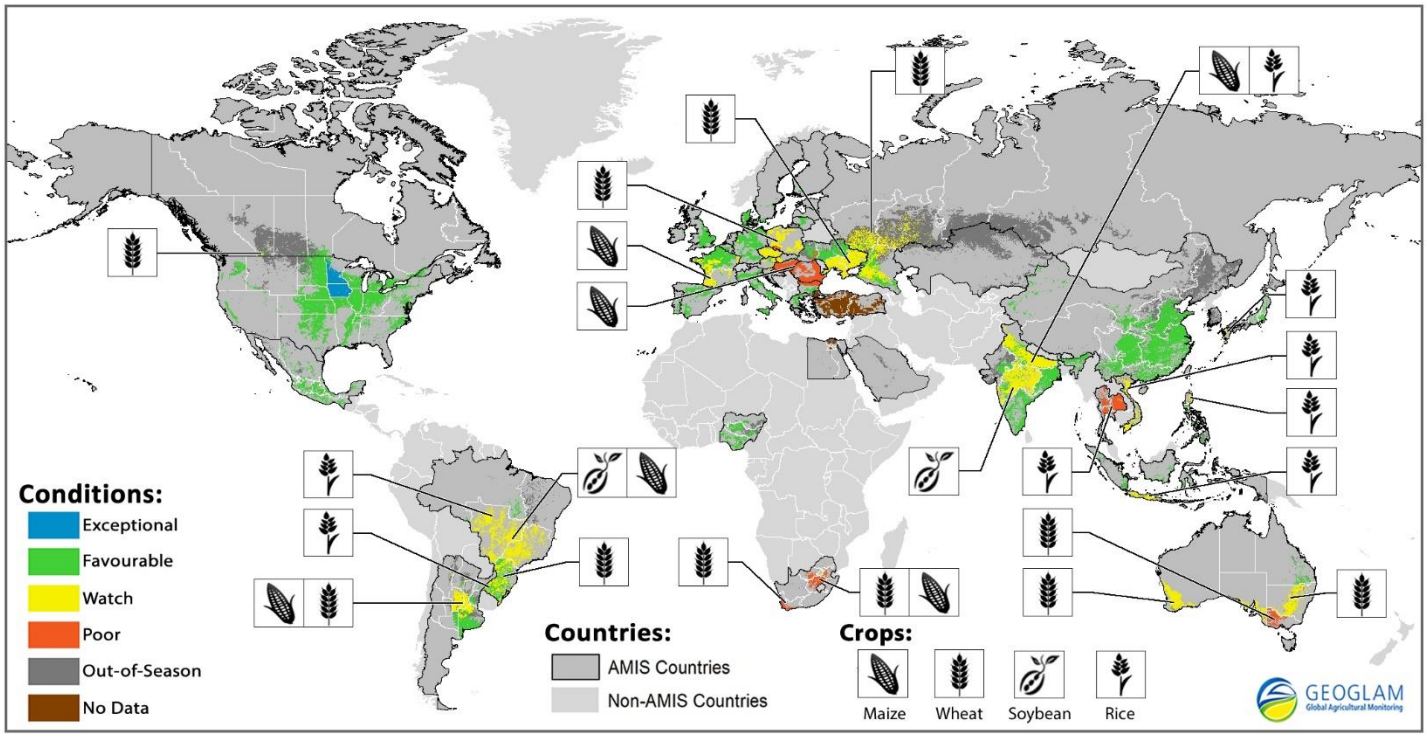
November 2015

No. 23

GEOGLAM
Global Agricultural Monitoring

Prepared by members of the GEOGLAM Community of Practice

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



Crop condition map synthesizing information for all four AMIS crops as of October 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 the spring wheat season is complete and planting of winter wheat is ongoing under mostly favourable conditions with the exception of the Russian Federation and Ukraine where there is concern over dry conditions. In the southern hemisphere, conditions remain mixed. In Australia, conditions deteriorated due to lack of rains. In Argentina, conditions are generally favourable and in Brazil, mixed weather during all the season is expected to negatively impact yields. In South Africa, conditions are poor.

Maize - Conditions in the northern hemisphere remain mixed as the season nears its end. In the US, harvest is almost complete and yields are very good. In the EU, conditions are largely unfavourable due to the earlier summer heatwave and lack of rain. In Ukraine, yields are expected to be down due to earlier dry and hot weather. In India there is some concern due to dryness. In Mexico, Canada, the Russian Federation and Nigeria, conditions are mostly favourable. In the southern hemisphere planting is ongoing and conditions are mostly favourable though there are some areas of concern. In Brazil, there is concern over irregular rains. In Argentina, planting is progressing slowly due to low soil moisture and there is some concern over low temperatures. In South Africa, there are concerns over hot and dry conditions.

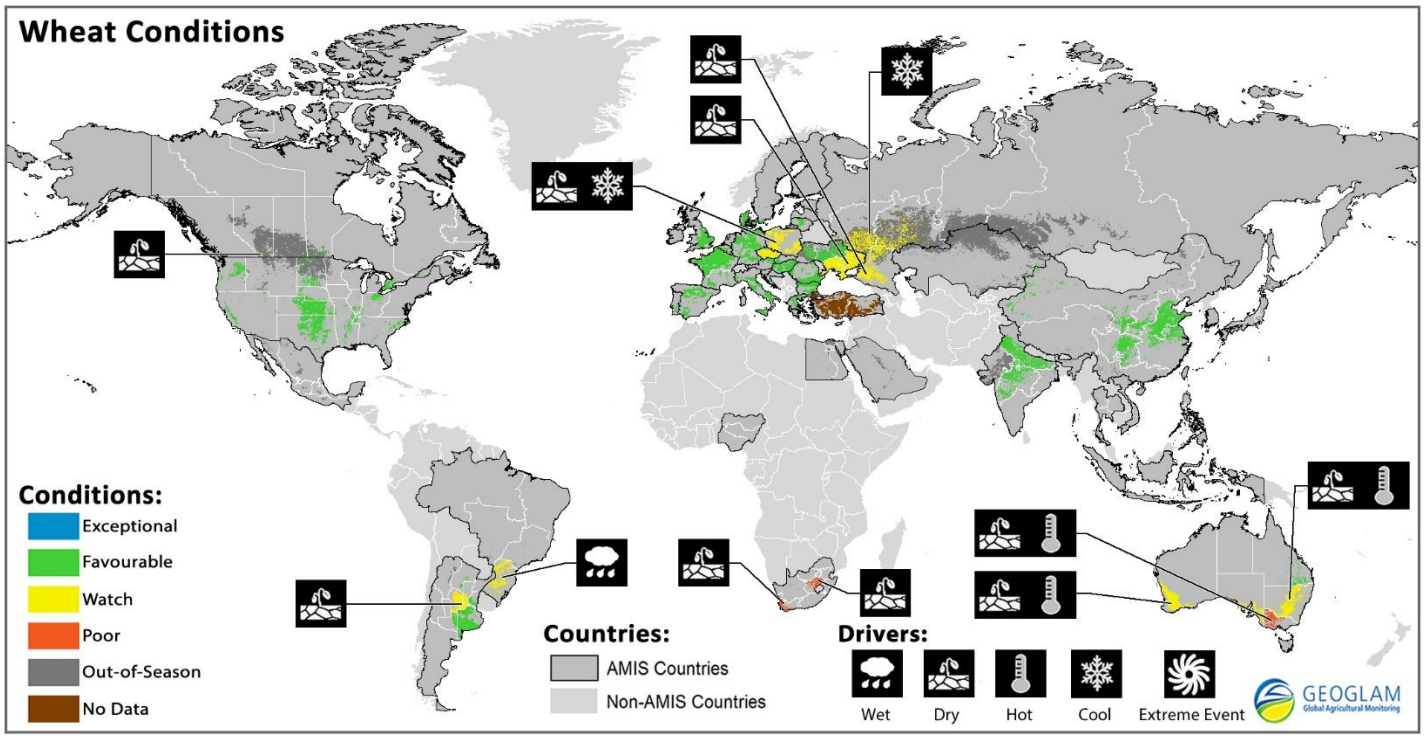
Rice - Conditions remain mixed in part due to El Niño. In India, conditions are mixed due to dryness and in Thailand, conditions are poor due to a lack of precipitation, shortage of irrigation water and pests. In the Philippines there is some concern due to recent typhoons. In China, Viet Nam, Indonesia, the US and Argentina conditions are generally favourable. In Brazil, conditions are mixed.

Soybeans - Conditions in the northern hemisphere remain mostly favourable as harvest begins. In the US, near record yields are expected. In India, there is some concern due to moisture stress. In China and Canada, conditions are generally favourable. In the southern hemisphere, conditions are mostly favourable. In Brazil, conditions are generally favourable as planting progresses, though there is limited concern due to irregular rainfall. In Nigeria, average to above average production is expected.

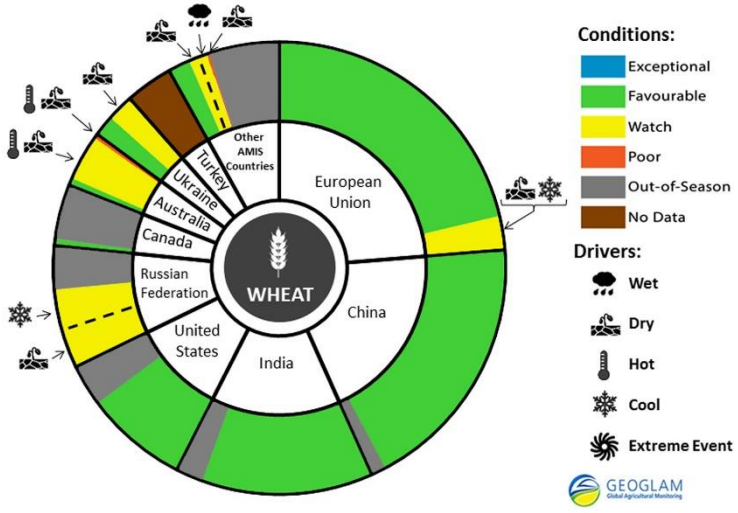
El Niño update

The current strong El Niño is forecast to peak around the beginning of 2016, to remain strong throughout the southern hemisphere summer season, and to dissipate finally by mid-year. This portends a second year of drought in South Africa. Dry conditions are likewise expected to continue in Thailand, Viet Nam, the Philippines, and Indonesia. September rainfall was below average for most of Australia, and El Niño brings suppressed spring (October-December) rainfall in the eastern half of the country. In contrast, abundant rainfall is forecast for the summer growing season of southern Brazil and northeastern Argentina. Wetter than average conditions are also forecast for the winter precipitation season in the high mountain areas of India, Pakistan, Afghanistan, and Tajikistan, building up snow pack for the 2016 summer irrigation season. In North America, expectations are for warmer than average temperatures across Canada and the northern US, and wetter than average conditions across the southern half of the US – nurturing hope for drought relief in California. Meanwhile, humanitarian agencies are mobilizing to deal with major El Niño food security impacts due to drought in Guatemala, Haiti, Malawi, and Ethiopia.

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 October 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.

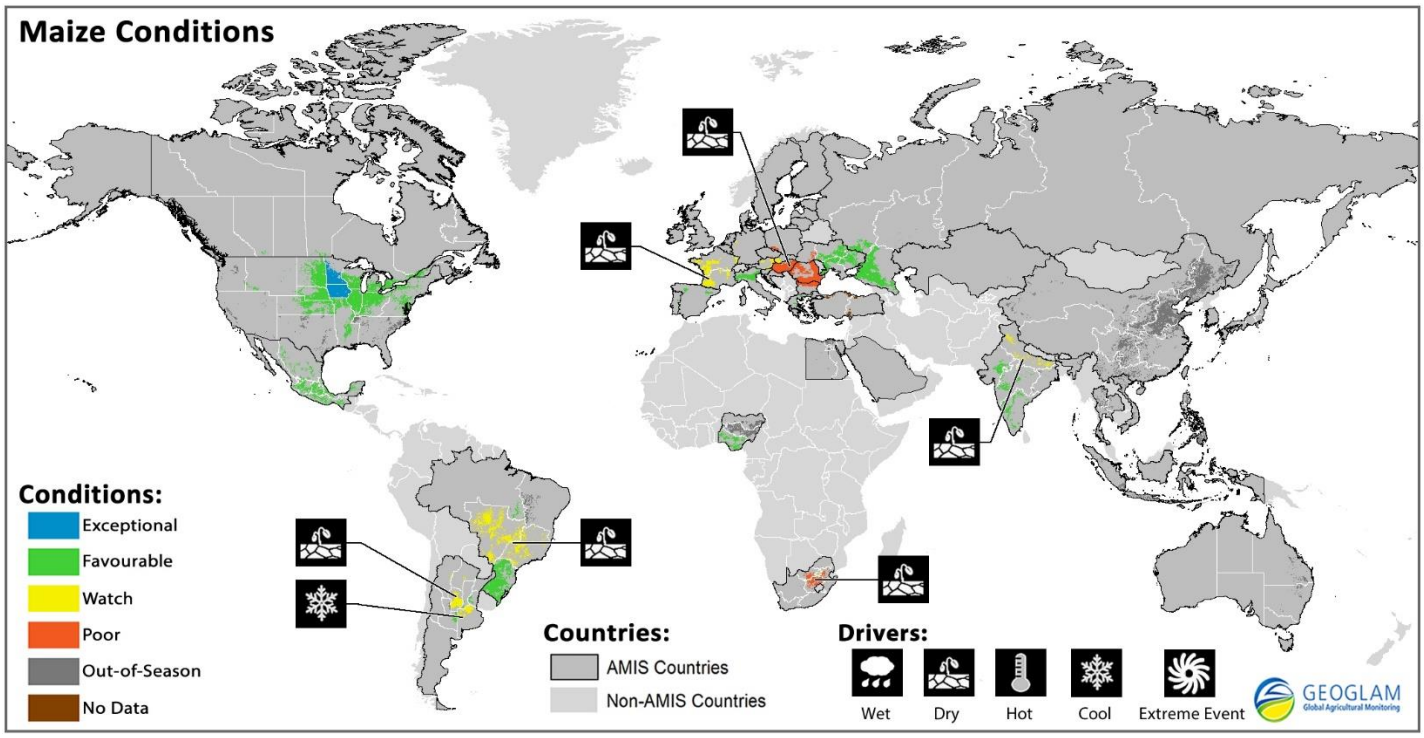


For detailed description of the pie chart please see box below.

Wheat: Overall conditions in the northern hemisphere are favourable at this early stage of the winter wheat season. In the **US**, winter wheat planting is nearly complete and the majority of the crop emerged under favourable conditions. In the **EU**, planting continues for all regions under favourable conditions except for Poland where dry and cold weather have hampered germination. In **China**, winter wheat planting continues and conditions are mostly favourable except some localized dry areas. In the **Russian Federation**, spring wheat harvest is complete and winter wheat planting continues under mixed conditions due to a colder-than-usual month and dry conditions that are affecting southern regions. In **Canada**, a warm and dry autumn has kept spring wheat harvest on schedule and harvest is complete. However, the dry conditions are creating a mild concern over germination of winter wheat but there is no evidence of poor germination yet. In **India**, field preparations have begun. In **Ukraine**, there is concern over winter wheat in the southern and eastern regions due to dryness, which has led to a decrease in planted area. However, conditions have improved in north and central regions. In the southern hemisphere, conditions remain mixed. In **Australia,** conditions deteriorated due to unfavourable spring conditions and a lack of timely rainfall last month attributed to El Nino. In **Argentina**, harvest has begun in the north and conditions are generally favourable in the primary production regions. However, there is concern over dryness in Cordoba, Santa Fe and northern growing regions. In **Brazil**, harvest is underway and the mixed weather during all season (wet followed by dryness), localized frosts in September and excessive rainfall in October will impact production. In **South Africa**, harvest

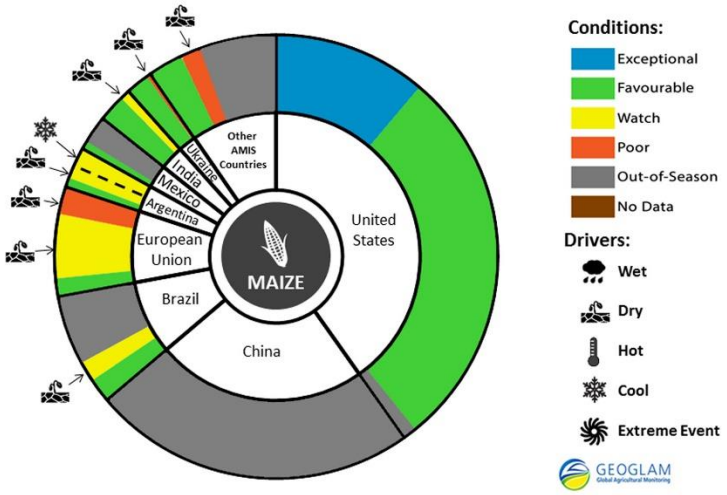
has begun and conditions are poor due to below normal rainfall in the main production region and therefore overall yields are expected to be down.

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 October 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.

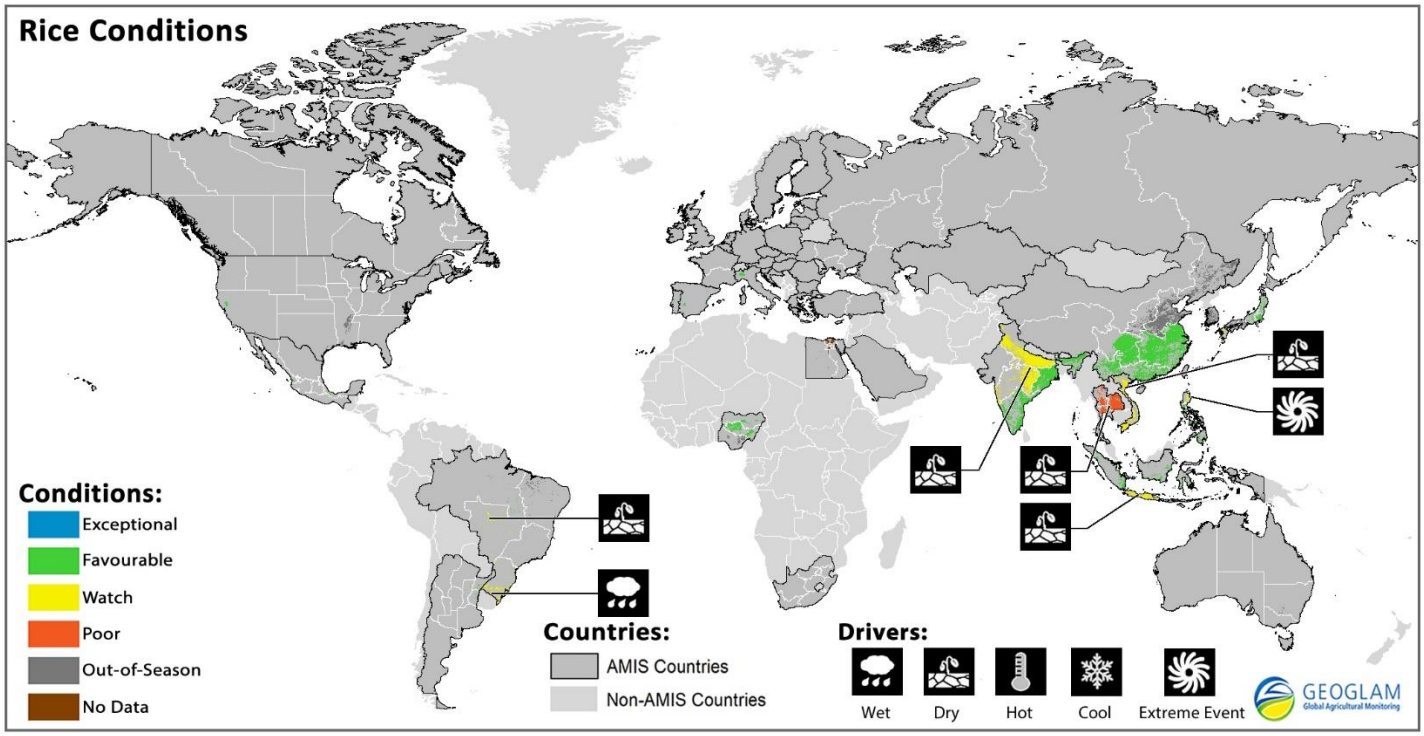
Maize: Conditions in the *northern hemisphere* are mixed as harvest begins. In the **US**, harvest is almost complete. In general, yields are very good, though not at record levels. In **Ukraine**, harvest is ongoing and yields are expected to be down due to the persistent dryness and high temperatures in central and western regions in previous months. In the **EU**, harvest has begun, though areas in south-east faced abundant rain, which is slowing harvest. Conditions are largely unfavourable and production is expected to be below the 5 year average due to the heat wave and lack of rainfall in central and Eastern Europe. In **India**, conditions are mostly favourable though there is still some concern over dry conditions in northern regions. In **Mexico**, conditions for the spring-planted cycle are generally favourable as a result of sufficient water availability. In **Canada**, conditions are mostly favourable and harvest is proceeding on schedule. In the **Russian Federation**, harvest is ongoing and conditions are favourable. In **Nigeria**, conditions are favourable. In the southern hemisphere conditions are mostly favourable at this early stage of the season. In **Brazil**, planting of the spring-planted crop (the smaller producing season) is ongoing in most regions and conditions are mostly favourable through in central regions there are some delays in planting due to irregular rainfall, which is expected to increase in coming weeks and in Rio Grande do Sul there is excess rainfall. In **Argentina**, planting is progressing slowly due to low soil moisture though the optimal planting window has not yet passed. In cases where the crop has been planted, crop development is delayed due to low temperatures. In **South Africa**, planting



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

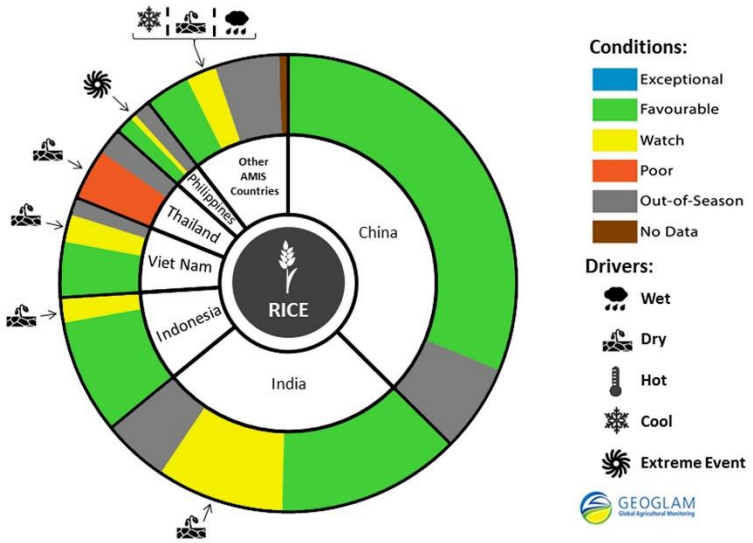
continues and there are concerns over hot and dry conditions in the central eastern provinces, which have delayed planting.

Rice Conditions for AMIS Countries



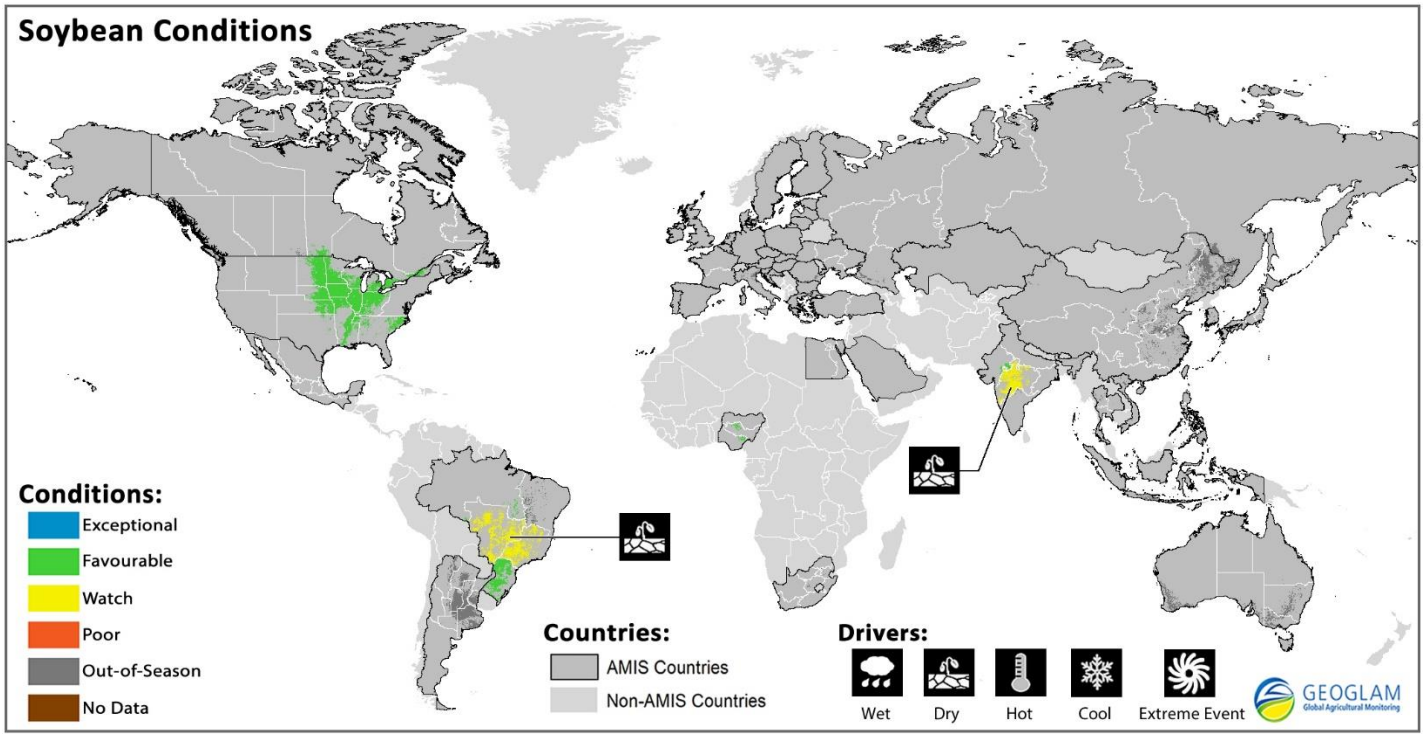
Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of October 28th. Where crops are in other than favourable conditions the climatic drivers responsible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

Rice: conditions remain mixed in part due to the current El Niño affecting large parts of Asia. In **China**, conditions are generally favourable except for localized areas of concern in Hubei due to sheath blight. In **India**, conditions are mixed due to dryness in the northern and central regions. In **Indonesia**, the dry season crop is in generally favourable condition except for in southern areas where dry conditions are expected to continue into December due to El Niño. In **Thailand**, conditions are poor as a result of a lack of precipitation and shortage of irrigation water attributed to El Niño. Also, pests in the northern and central regions are causing concern and overall yields are expected to be down. In **Viet Nam**, harvest has begun in the south for the summer-autumn wet season and conditions are generally favourable. The autumn-winter planted wet season crop is also in generally favourable condition in the Mekong Delta though transplanting is delayed to due dry conditions. In the **Philippines**, harvest of the wet season crop is almost complete. Crop damage caused by several typhoons has been recorded in the northern regions, which may result in lower yields. Overall, water availability is sufficient and growing conditions are favourable. In the **US**, production is close to average. In **Brazil**, conditions are mixed due to excessive rainfall in the southern (main producing) region, which is delaying planting, and dry conditions in the central-west and southeast regions, where planting has just begun. In **Argentina**, planting is progressing normally and conditions are generally favourable.



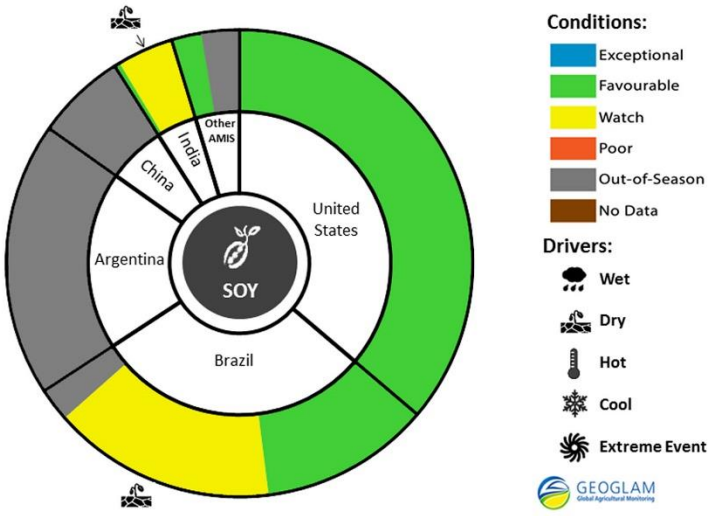
For detailed description of the pie chart please see box below.

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 October 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: Conditions in the northern hemisphere remain mostly favourable as harvest begins. In the **US**, harvest is nearly complete and near record yields are expected. In **Canada**, conditions are generally favourable and harvest is proceeding without delay. In **India**, conditions are mixed, as there is concern over the central region due to moisture stress. In the southern hemisphere, conditions are generally favourable. In **Brazil**, planting has begun in most regions and conditions are mostly favourable though there are some planting delays in central regions due to irregular rainfall, which is expected to increase in coming weeks and there is some concern in Rio Grande do Sul due to excess rainfall. In **Nigeria**, harvest is in progress and average to above average production is expected.



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

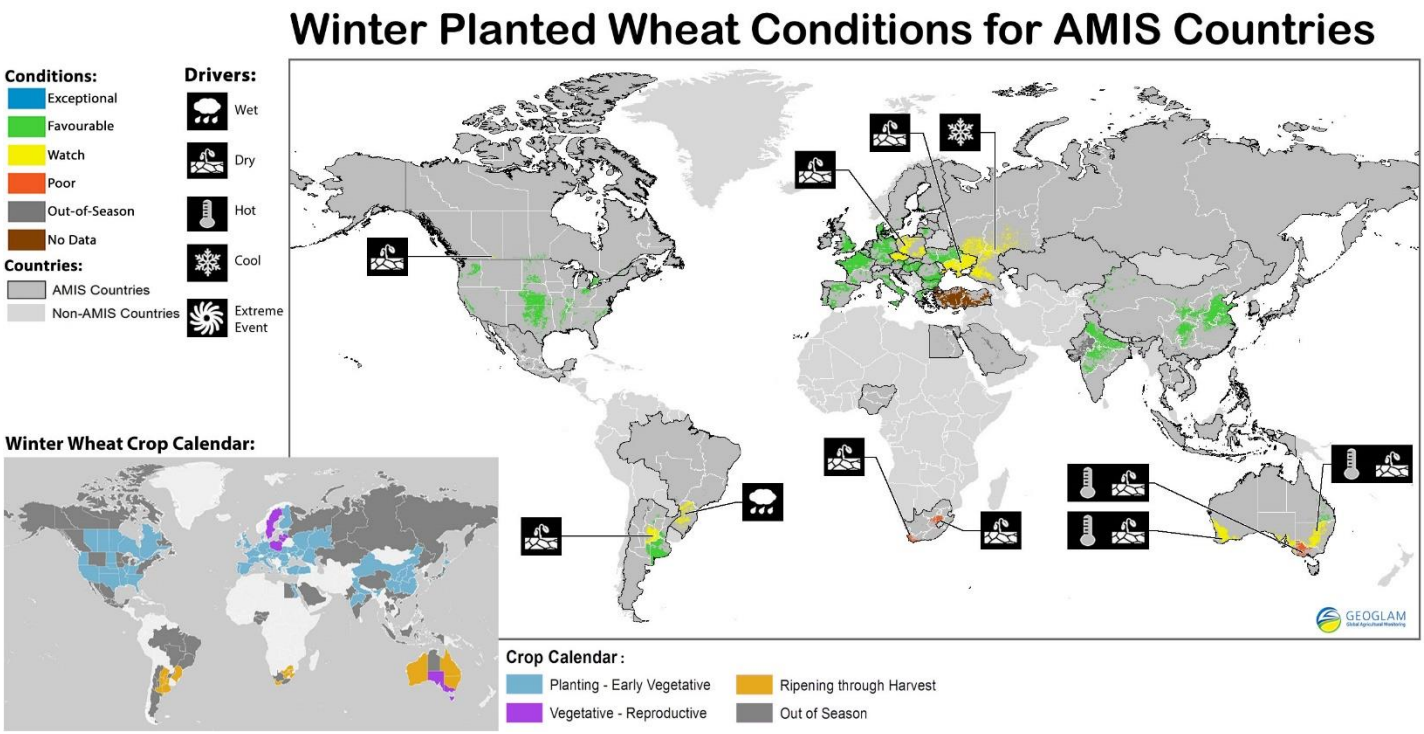
Wet: Higher than average wetness.
Dry: Drier than average.
Hot: Hotter than average.
Cool: Cooler than average or risk of frost damage.
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)

Sources & Disclaimer

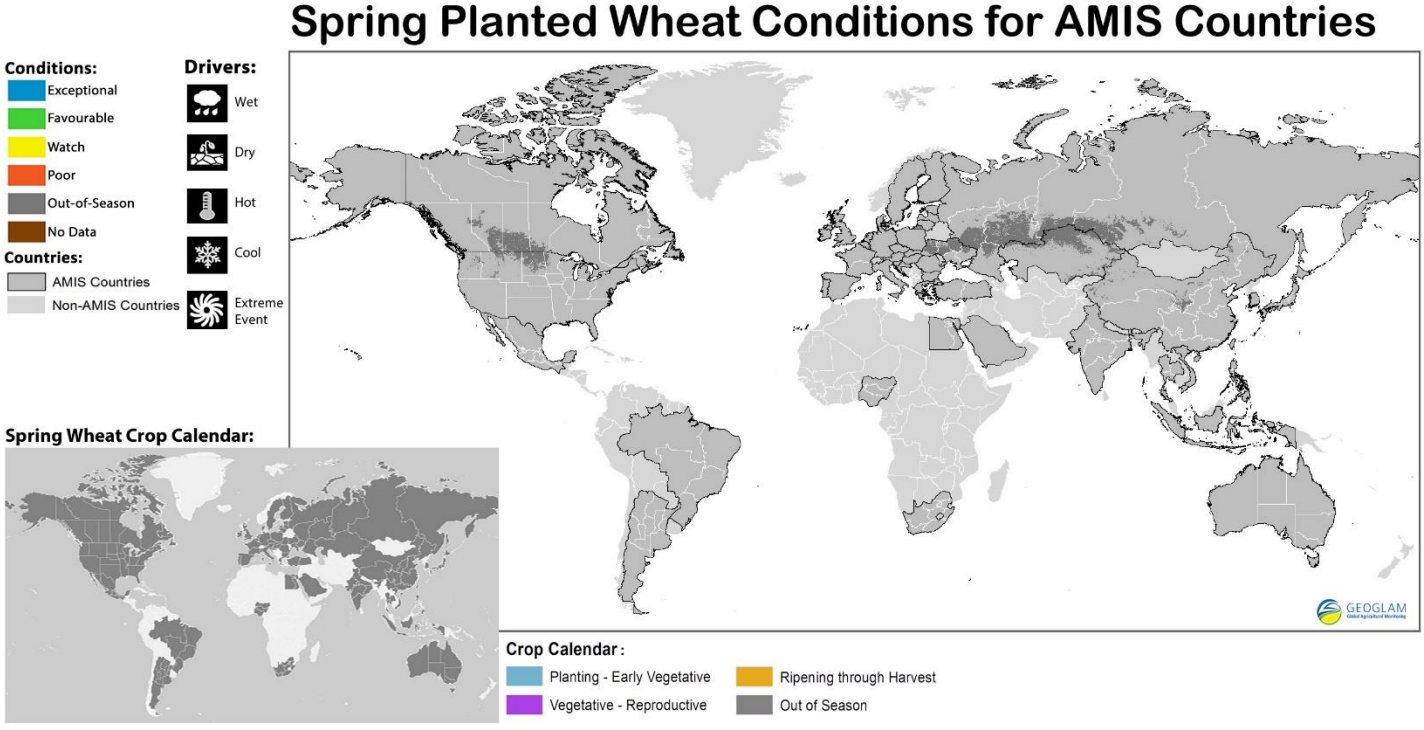
Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (Buenos Aires Grains Exchange, INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC),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

More detailed information on the GEOGLAM crop assessments is available at www.geoglam-crop-monitor.org.
For information on country coverage and criteria: http://geoglam-crop-monitor.org/pages/about.php?target=approach
For more information regarding the new crop monitor and pie charts: http://geoglam-crop-monitor.org/pages/about.php?target=maps-charts

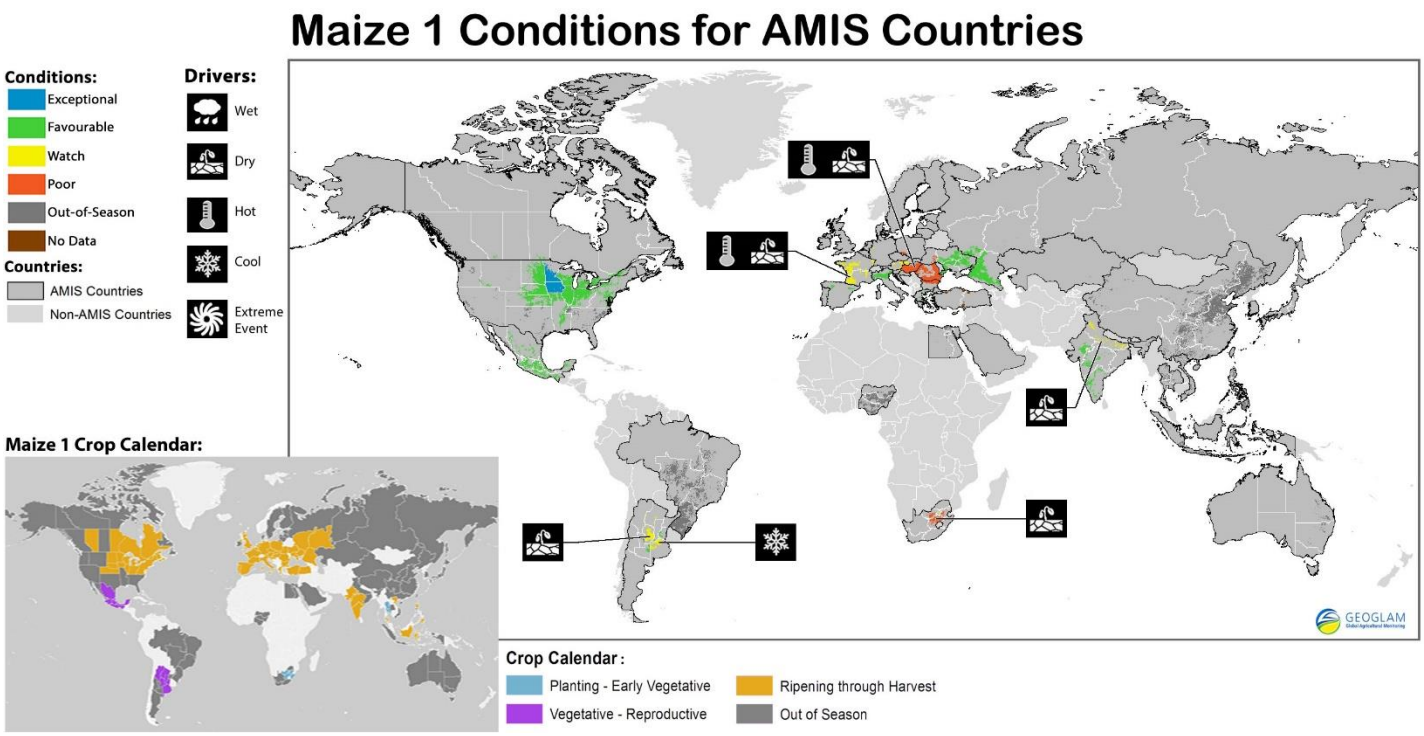
Appendix 2: Crop Season Specific Maps



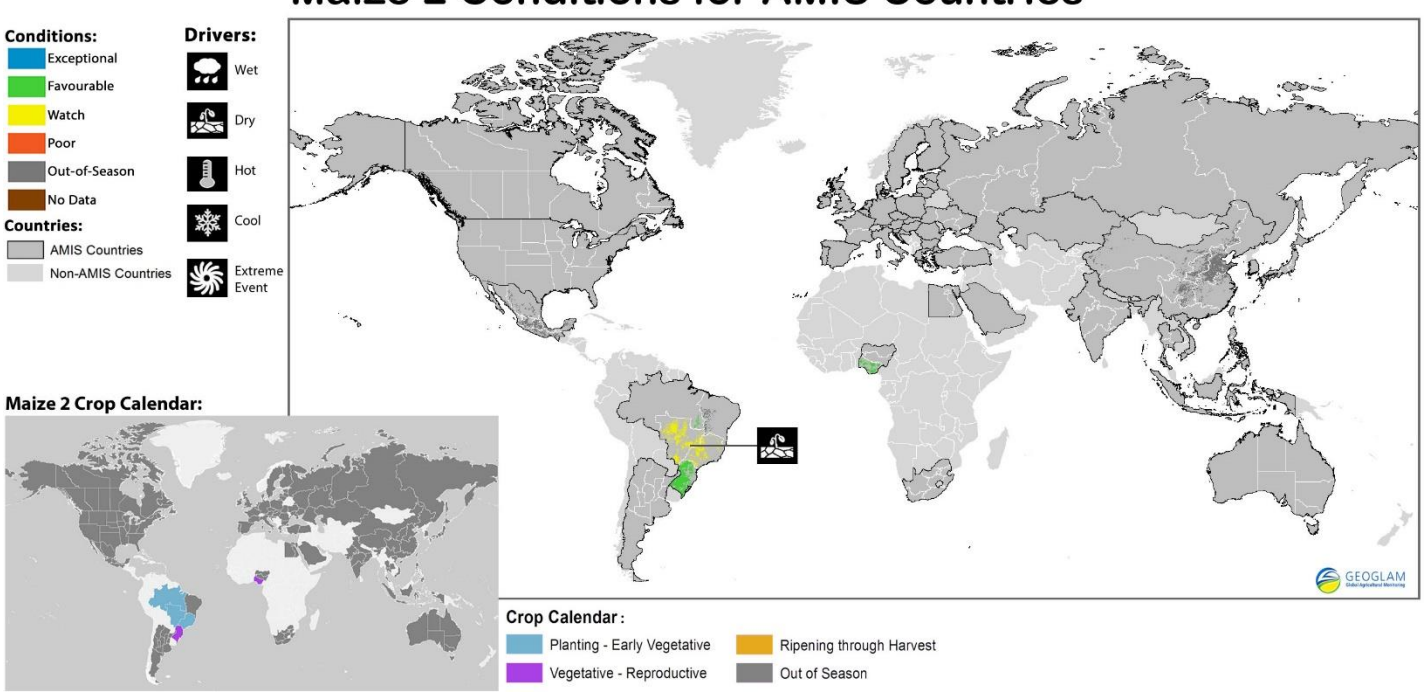
Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of October 28th. Where crops are in less than favourable conditions the climatic drivers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



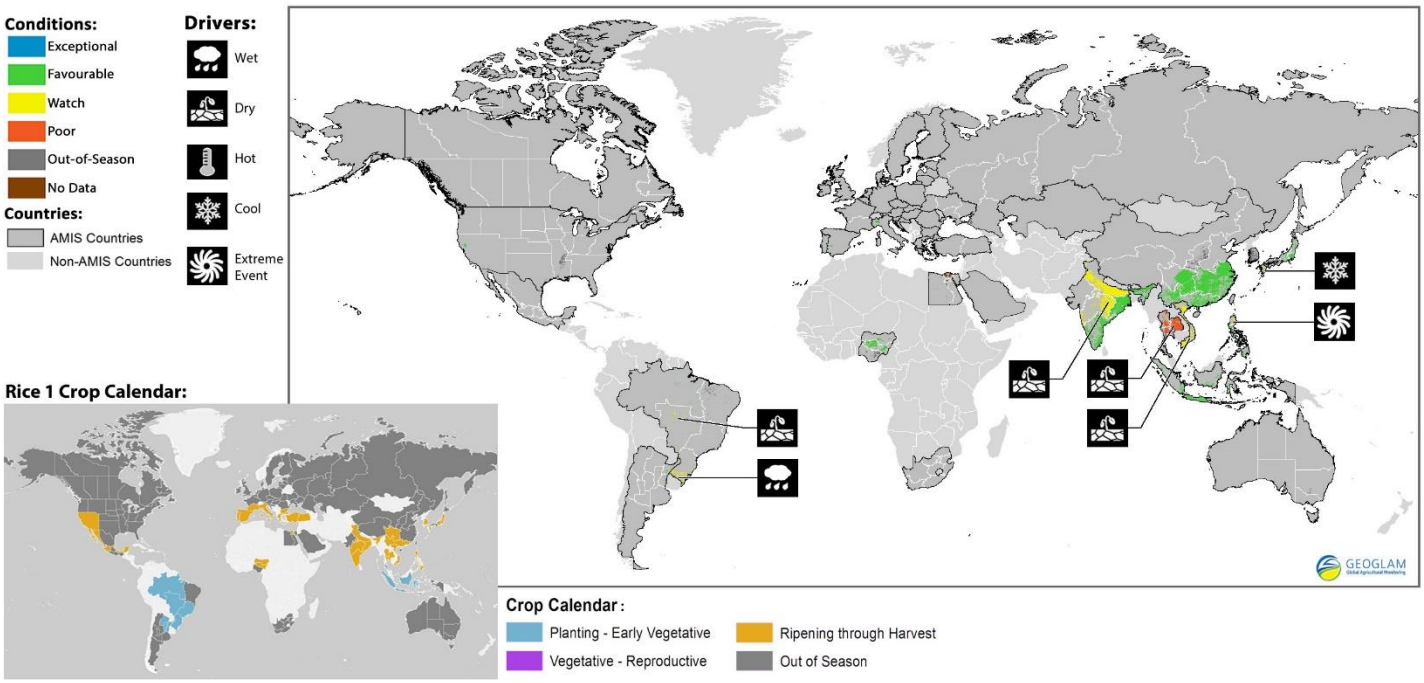
Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of October 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



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 October 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 October 28th

Rice 1 Conditions for AMIS Countries



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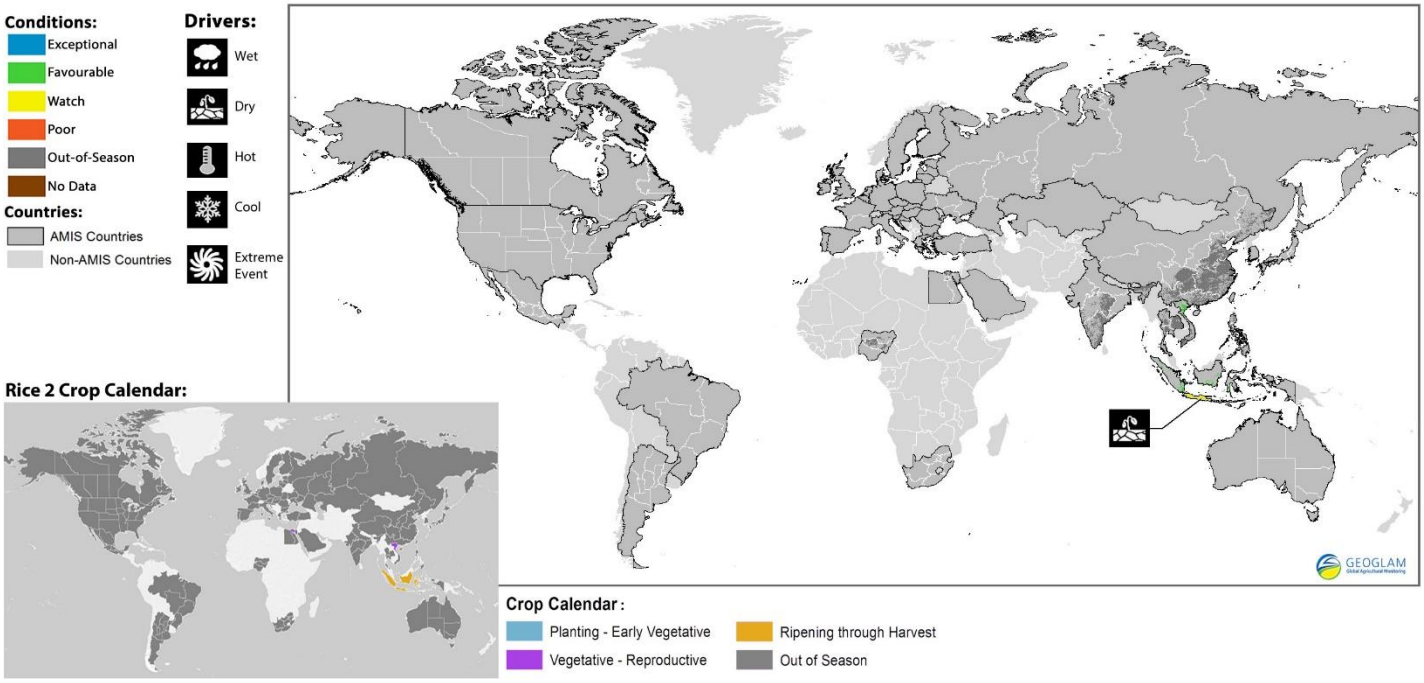

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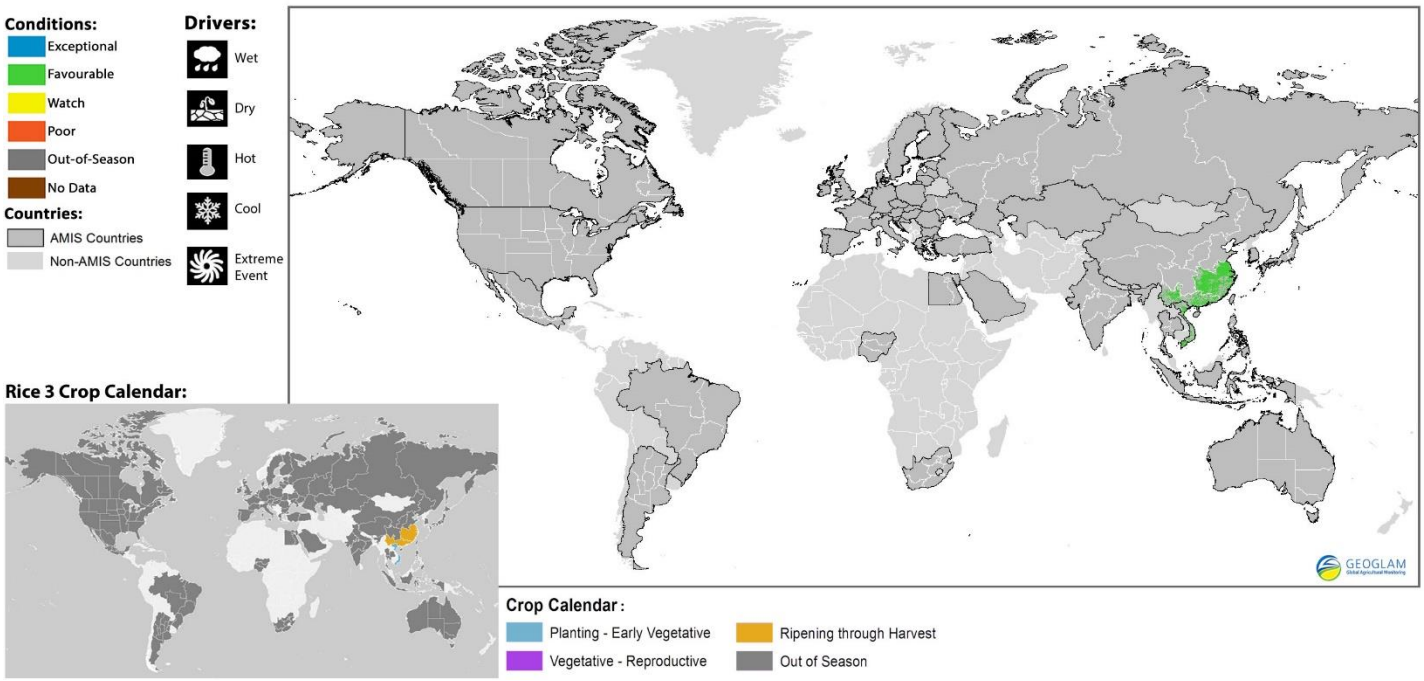
Rice 3 Conditions for AMIS Countries



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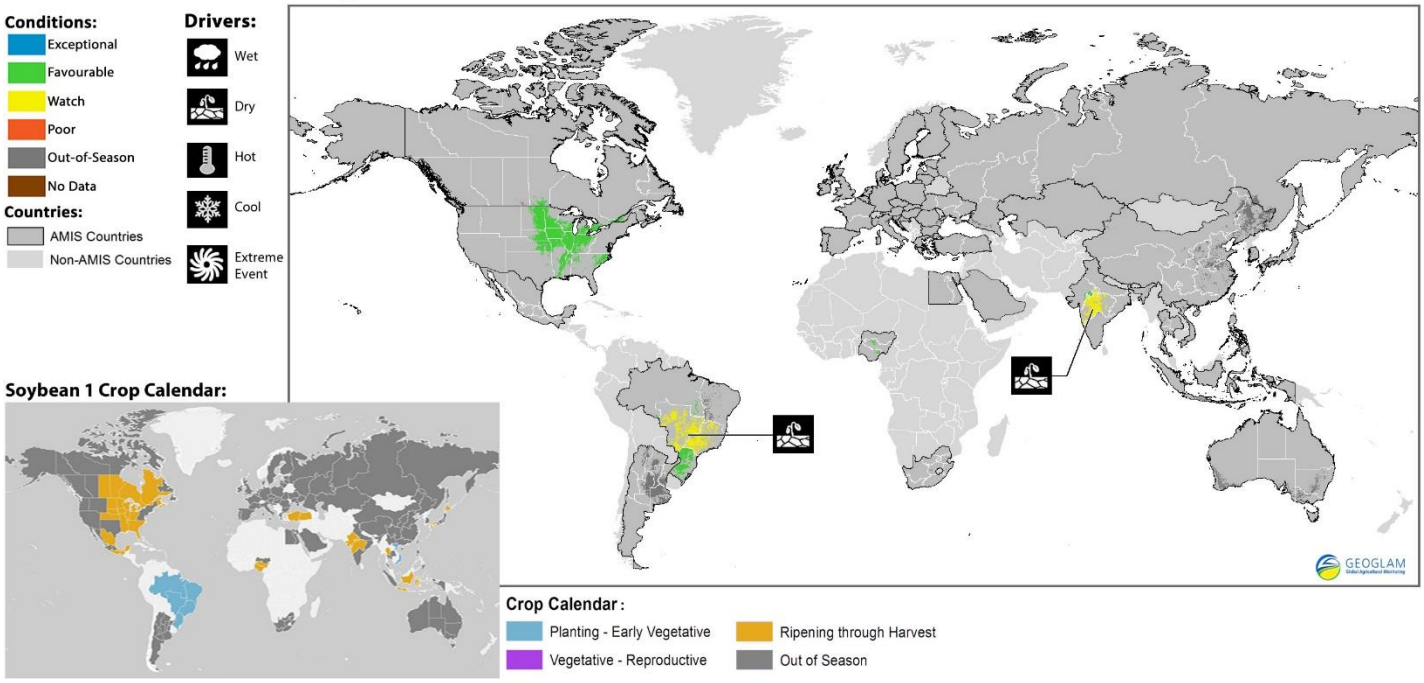
Soybean 1 Conditions for AMIS Countries



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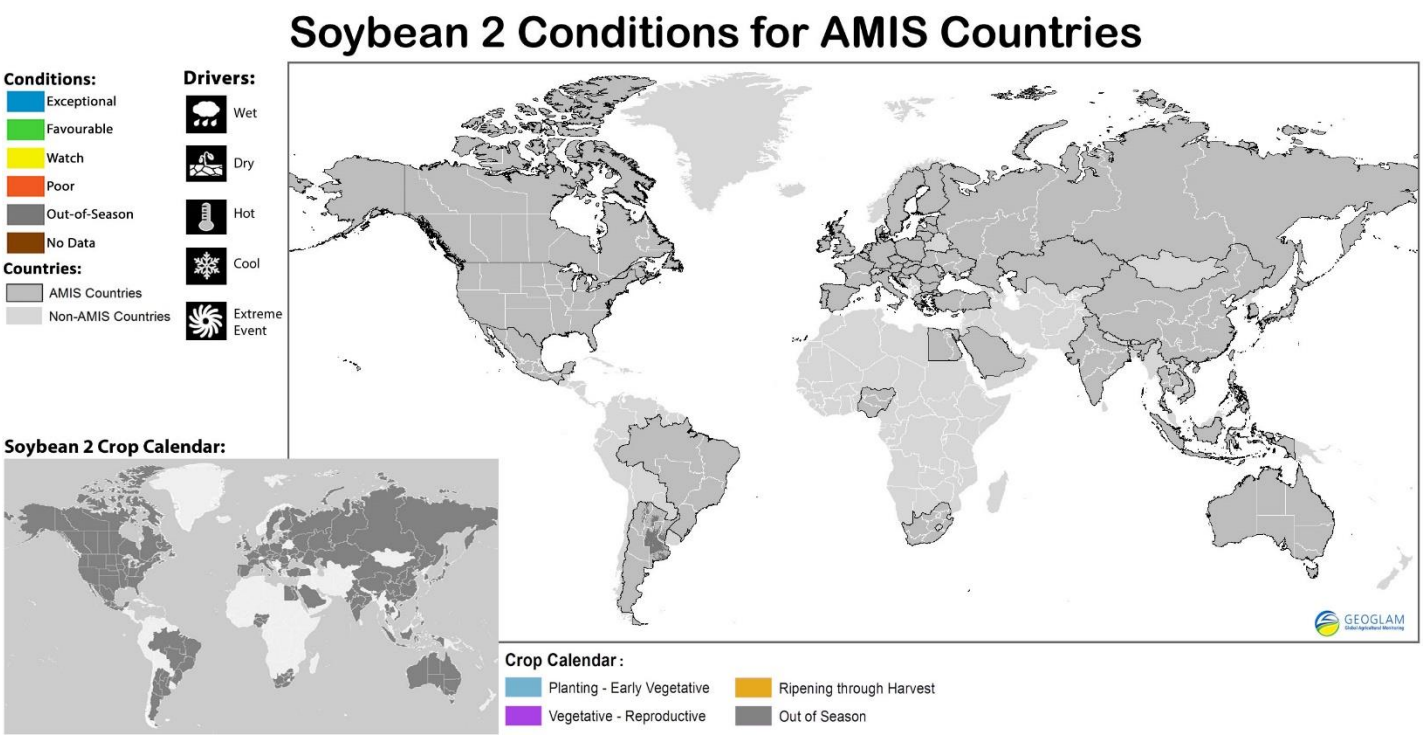

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