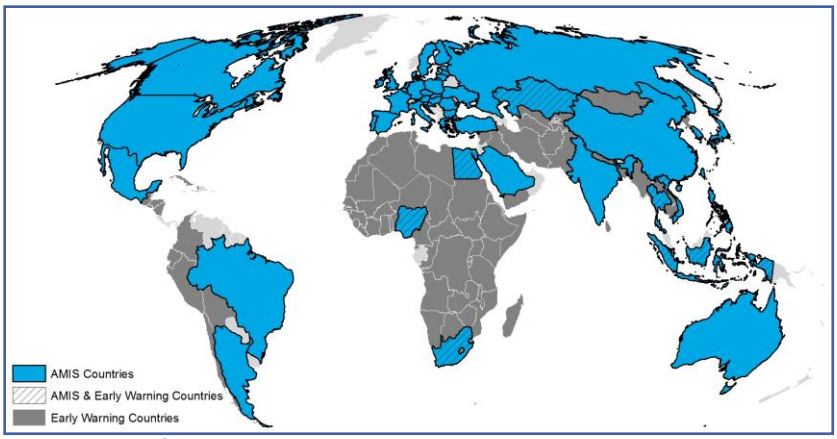
Crop Monitor for AMIS

Overview:

As of the end of July, conditions are mixed for maize and soybeans. **Winter wheat** is under generally favourable conditions as harvest progresses in the Northern Hemisphere. **Spring wheat** is mixed with dryness in Canada and wet-cool conditions in the Russian Federation. **Maize** harvest is all but complete in the Southern Hemisphere. In the Northern Hemisphere, the US is suffering from wet conditions while Europe and China are experiencing hot-dry conditions. **Rice** in Asia is under generally favourable conditions with the exception of dry conditions in Thailand and wet conditions in southern China. **Soybean** conditions are mixed as the US and Canada are suffering from a slow start.



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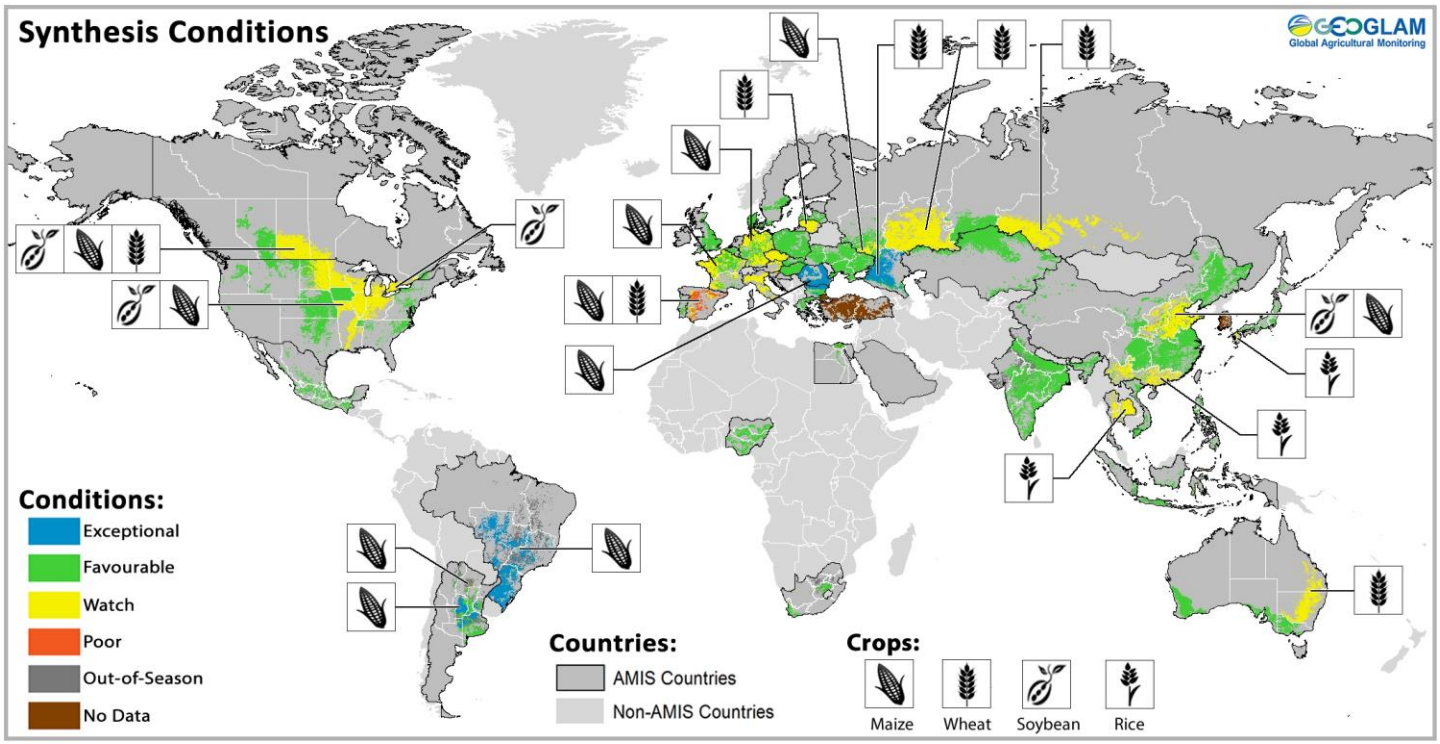
Assessment based on information as of July 28th

Conditions at a glance for AMIS countries (as of July 28th)



Crop condition map synthesizing information for all four AMIS crops as of July 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 other than favourable conditions are displayed on the map with their crop symbol.***

Conditions at a glance

Wheat - In the northern hemisphere, winter wheat is under generally favourable conditions with the exception of parts of Europe due to hot and dry conditions. Spring wheat in Canada has improved while cool conditions have slowed development in the Russia Federation. In the southern hemisphere, rainfall deficits continue to persist across eastern Australia.

Maize - In the southern hemisphere, harvest is continuing in Argentina and Brazil with a bumper production forecast. In the northern hemisphere, the US is suffering from wet conditions and delayed development, while hot and dry conditions are affecting areas in Europe and China.

Rice - In China, conditions are generally favourable for all three seasons with the exception of the south. In India, sowing of Kharif rice is ongoing albeit delayed. In southern Southeast Asia, dry conditions are affecting wet-season rice Thailand, while dry-season rice harvest begins in Indonesia.

Soybeans - In the northern hemisphere, conditions remain under watch in the US and Canada due to the wet spring and delayed development. Conditions are generally favourable across China, India, and Ukraine.

Transition to ENSO-neutral

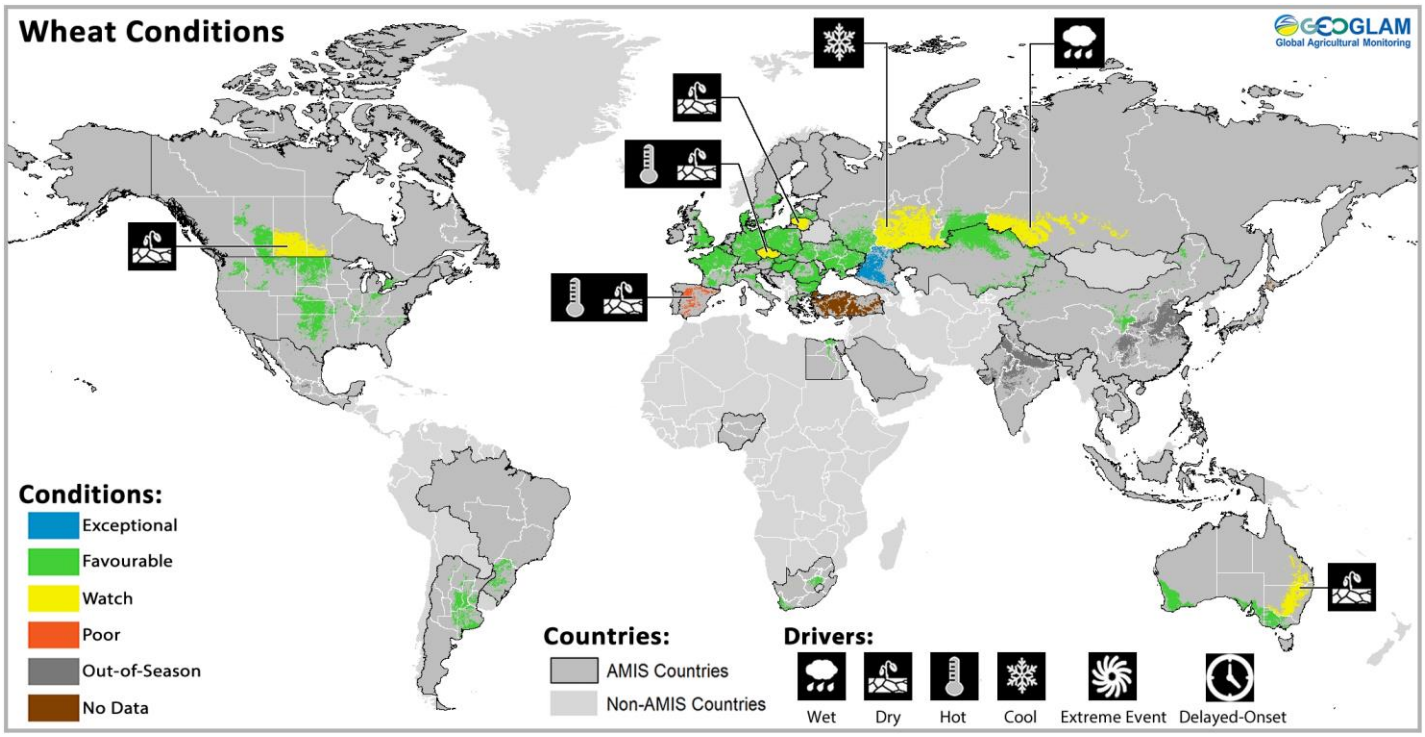
El Niño-Southern Oscillation (ENSO) conditions have transitioned from a weak El Niño to ENSO-neutral, which is forecast to continue through early 2020 (50-55% chance). The chances for the return of El Niño (30% chance) are double that of La Niña starting in November.

The Indian Ocean Dipole is forecast to be in a positive state during August and through most of the remainder of 2019. A positive IOD tends to enhance rainfall in parts of East Africa and suppress rainfall in southern and central Australia.

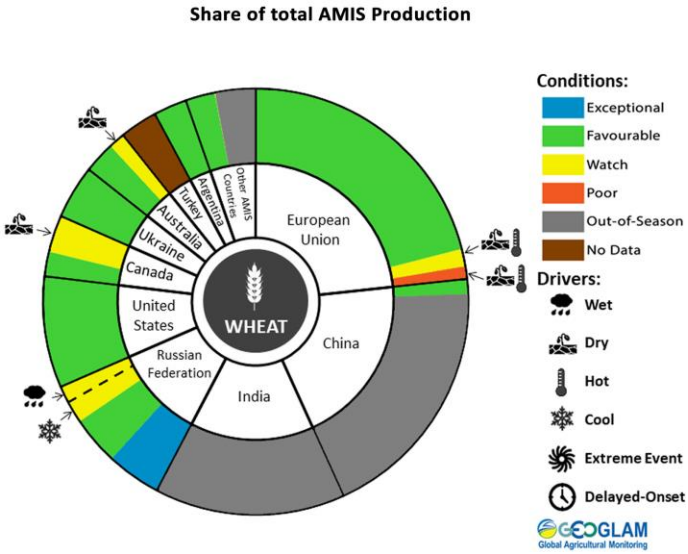
Source: UCSB Climate Hazards Center

* Assessment based on information as of July 28th

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 July 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.

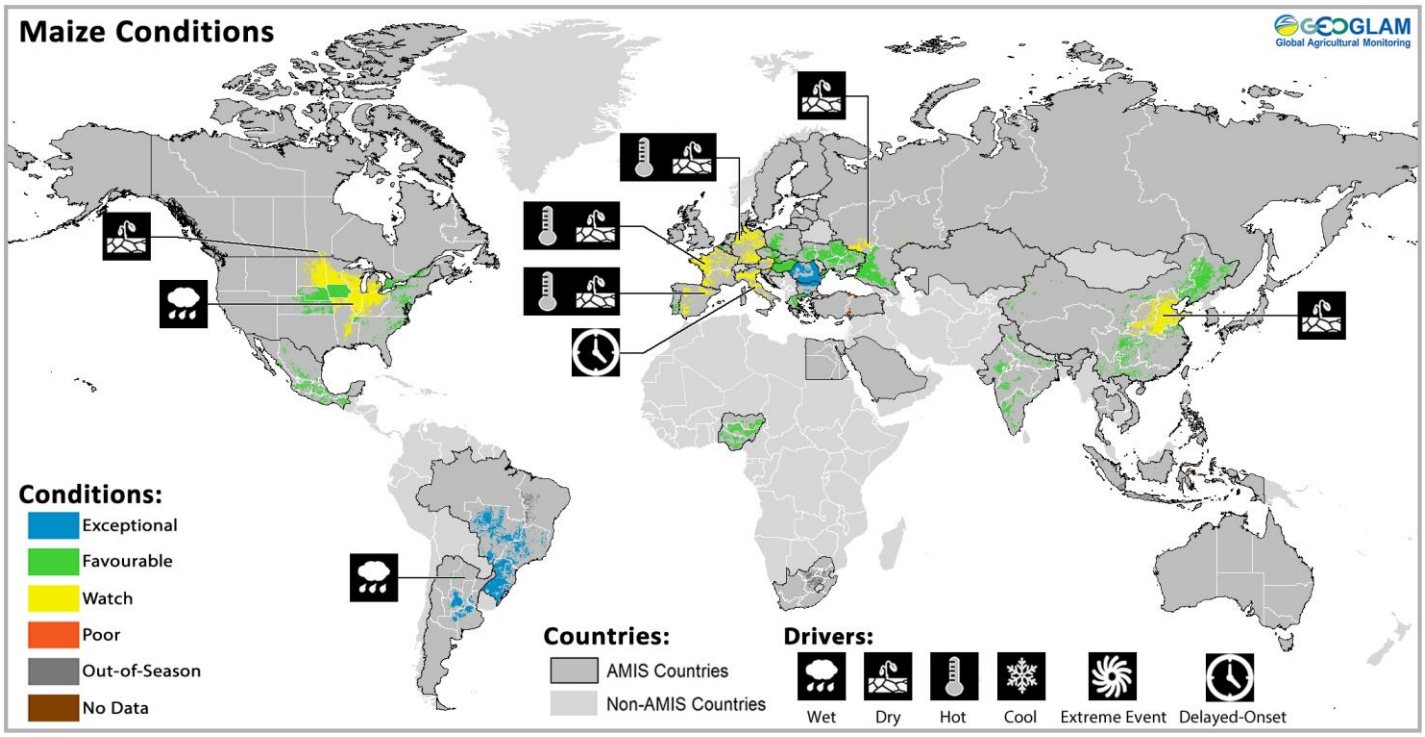


For detailed description of the pie chart please see box on page 6.

Wheat: In the **EU**, winter wheat conditions are generally favourable with the recent heatwaves having only a limited impact, only worsening pre-existing unfavourable areas in Spain, Austria, and Lithuania. In **Ukraine**, harvest is ongoing under favourable conditions, with yields reported to be above last season. In the **Russian Federation**, harvesting of winter wheat is ongoing under favourable conditions as recent heatwaves facilitated ripening. Spring wheat is under mixed conditions with recent fluctuating weather across the country. In **Kazakhstan**, conditions are favourable for spring wheat with only spot areas of dryness. In **China**, spring wheat is under favourable conditions. In the **US**, harvest is wrapping up for winter wheat under favourable conditions. Spring wheat is also under favourable conditions. In **Canada,** dry conditions continue to hamper spring and winter wheat in parts of the prairies, however recent rainfall is improving conditions. In the East, winter wheat is under favourable conditions. In **Australia**, severe rainfall deficiencies persist across much of New South Wales and Queensland. In **Argentina**, sowing of wheat is nearly complete under favourable conditions.

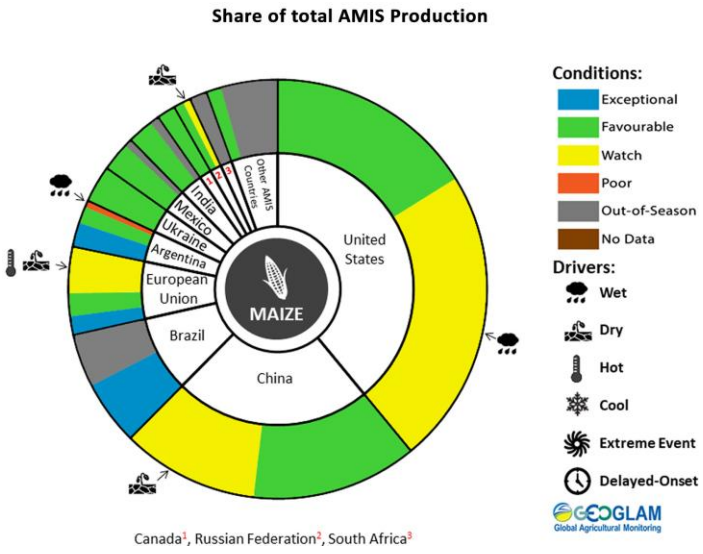
* Assessment based on information as of July 28th

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 July 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 **Brazil**, harvest is ongoing for the summer-planted crop (higher producing season) under exceptional conditions. A bumper crop is forecast owing to an increase in total sown area and a large increase in yields compared to last season due to favourable weather across the season. In **Argentina**, conditions are exceptional to favourable as harvest is wrapping up for the spring-planted crop and continuing for summer-planted crops. In the **US**, conditions remain under watch in the northern Corn Belt due to continuing wet conditions. The crop is progressing, albeit behind schedule. In **Canada**, conditions are favourable in the main producing provinces of Ontario and Quebec, while dry conditions continue in Manitoba. In **Mexico**, harvest of the autumn-winter cycle crop is wrapping up under favourable conditions while sowing of the spring-summer crop is progressing under favourable conditions. In **China**, conditions are mixed as both spring-planted and summer planted crops are experiencing dry conditions in central China. In **India**, conditions are favourable with sowing ongoing and expected to reach average total sown area. In the **EU**, conditions are mixed with favourable conditions in southeast Europe and hot-dry conditions in central and western Europe. In **Ukraine**, conditions are favourable despite a lack in recent rainfall owing to adequate soil moisture. In the **Russian Federation**, conditions are favourable in the south and mixed in the north due to recent heatwaves.



For detailed description of the pie chart please see box on page 6.

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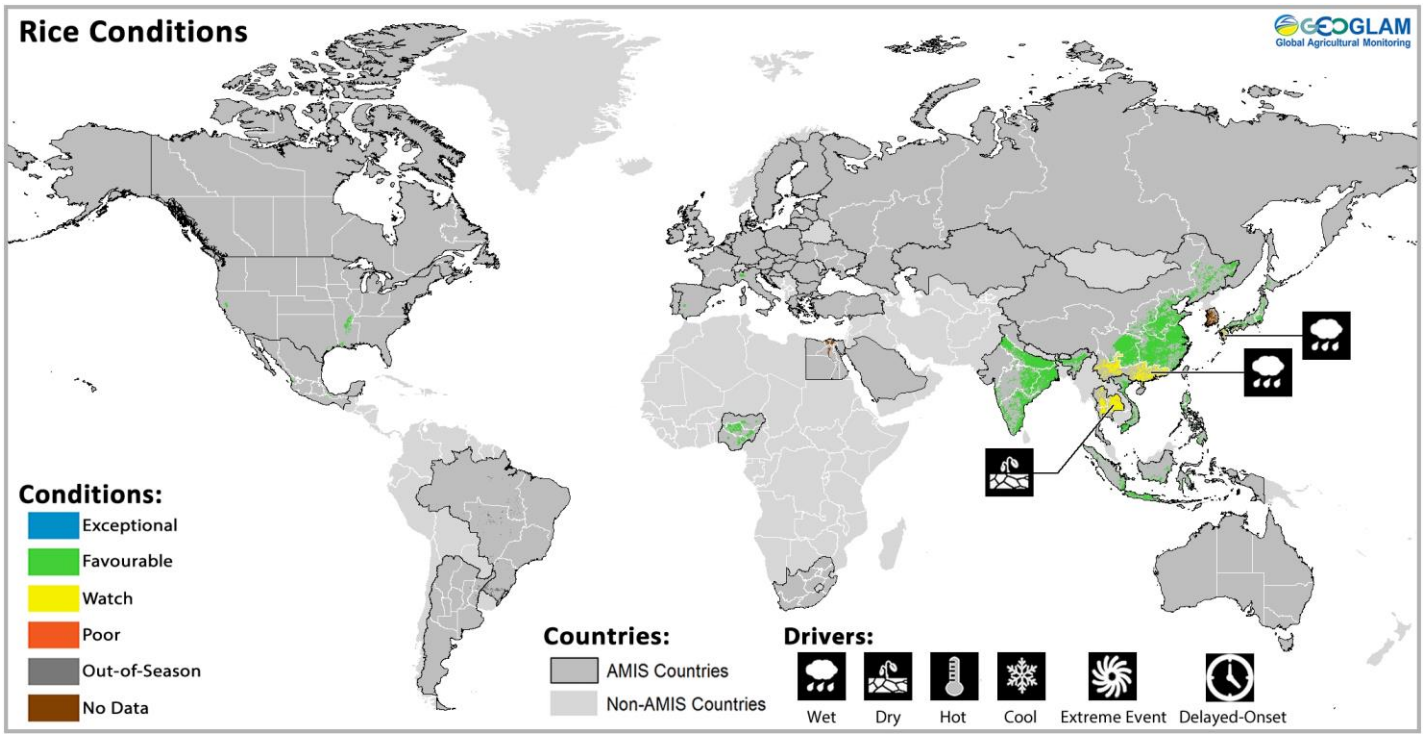
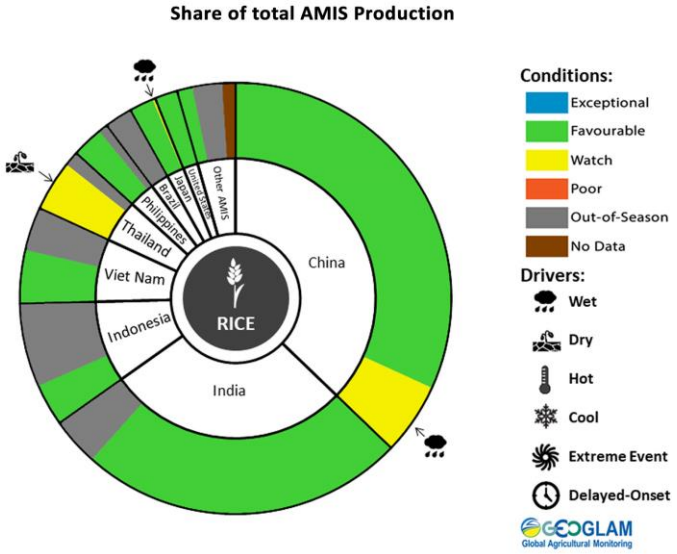
Rice Conditions for AMIS Countries



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

Rice: In **China**, conditions are generally favourable as early-rice is being harvested, single-season rice is in vegetative stage, and late-rice is being sown. However, continuous rainfall and cloudy weather in the south is affecting rice conditions. In **India**, transplanting of Kharif rice is ongoing in many states under generally favourable conditions despite being delayed by late onset of the Monsson. Sowing speed is picking up and total sown area is still expected to be reached by the end of the sowing period. In **Indonesia**, conditions are favourable as sowing of dry-season rice continues for the fourth month and the harvesting of earlier sown dry-season rice begins. In **Viet Nam**, conditions are generally favourable for summer-autumn rice (wet-season rice) as sowing is now complete in the south. In **Thailand**, wet-season rice is now in the tillering stage under watch conditions due to several months of less than average rainfall. In the **Philippines**, wet-season rice is in the maturing stage under favourable conditions, owing to enough rainfall at the start of the season. In **Japan**, conditions are generally favourable with some southwestern prefectures experiencing a lack of sunshine. In the **US**, conditions are favourable.



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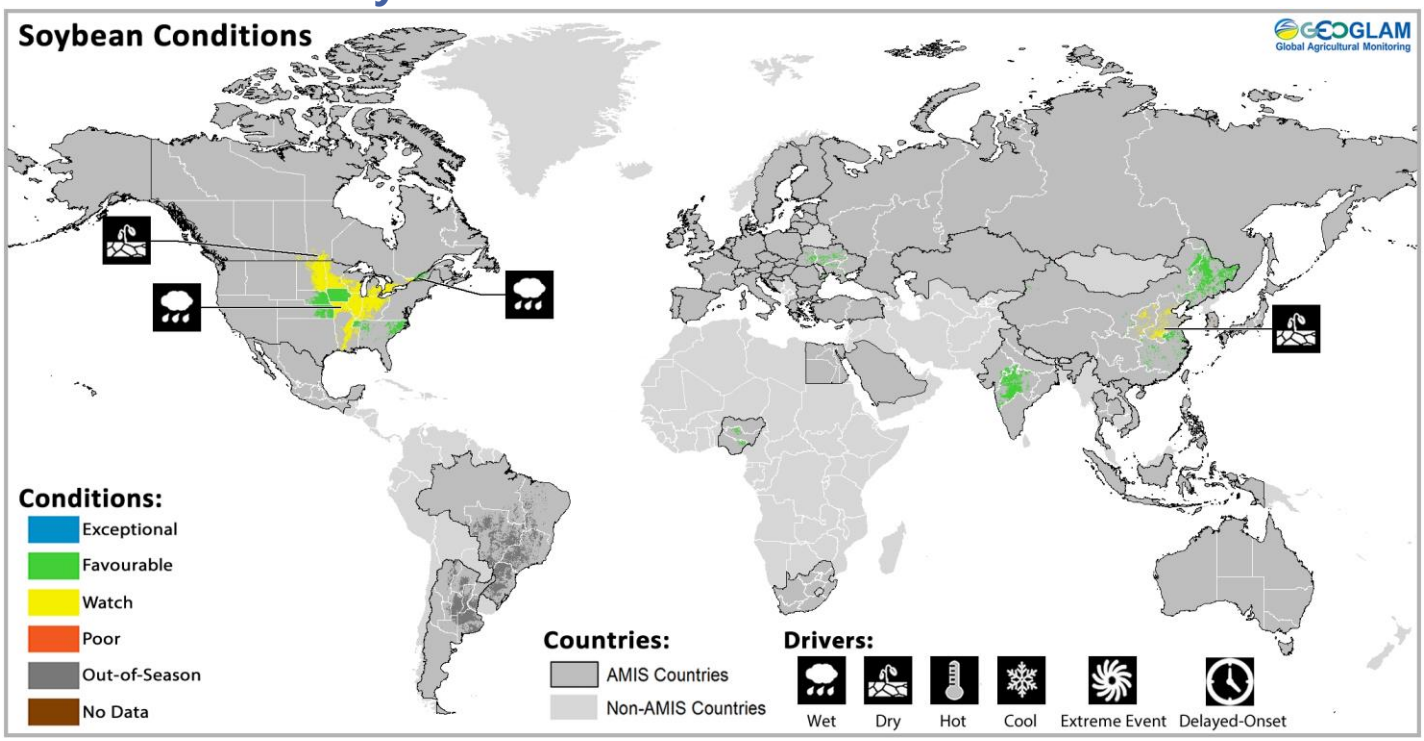
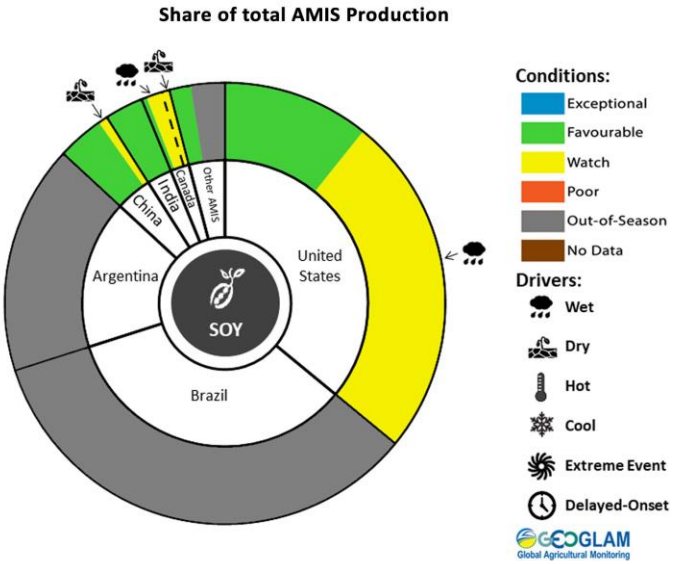
Soybean Conditions for AMIS Countries



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 July 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 **US**, conditions remain under watch due to the late sowing and excessive moisture throughout the main growing areas. Crops remain considerably behind schedule but progressing. In **Canada**, conditions are under watch across the country due to excess moisture in the East and dry conditions in the West, delaying crop development. In **China**, conditions are mixed due to dry conditions in the central provinces. In **India**, conditions are favourable and total sown area is close to average. In **Ukraine**, conditions are generally favourable with ripening beginning. Despite the lack of rainfall in June and July, adequate soil moisture is sustaining the crops.



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

Information on crop conditions in non-AMIS countries can be found in the GEOGLAM Crop Monitor for Early Warning, published August 8th

Pie chart description: Each slice represents a country's share of total AMIS production (5-year average). Main producing countries (representing 95 percent of production) are shown individually, with the remaining 5 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.

* Assessment based on information as of July 28th

Appendix 1: Terminology & 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 final production. The crop can still recover to average or near average conditions if the ground situation improves. This label is only used during the planting-early vegetative and the vegetative-reproductive stages.
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 result in production impacts and can act as either positive or negative drivers of crop conditions.

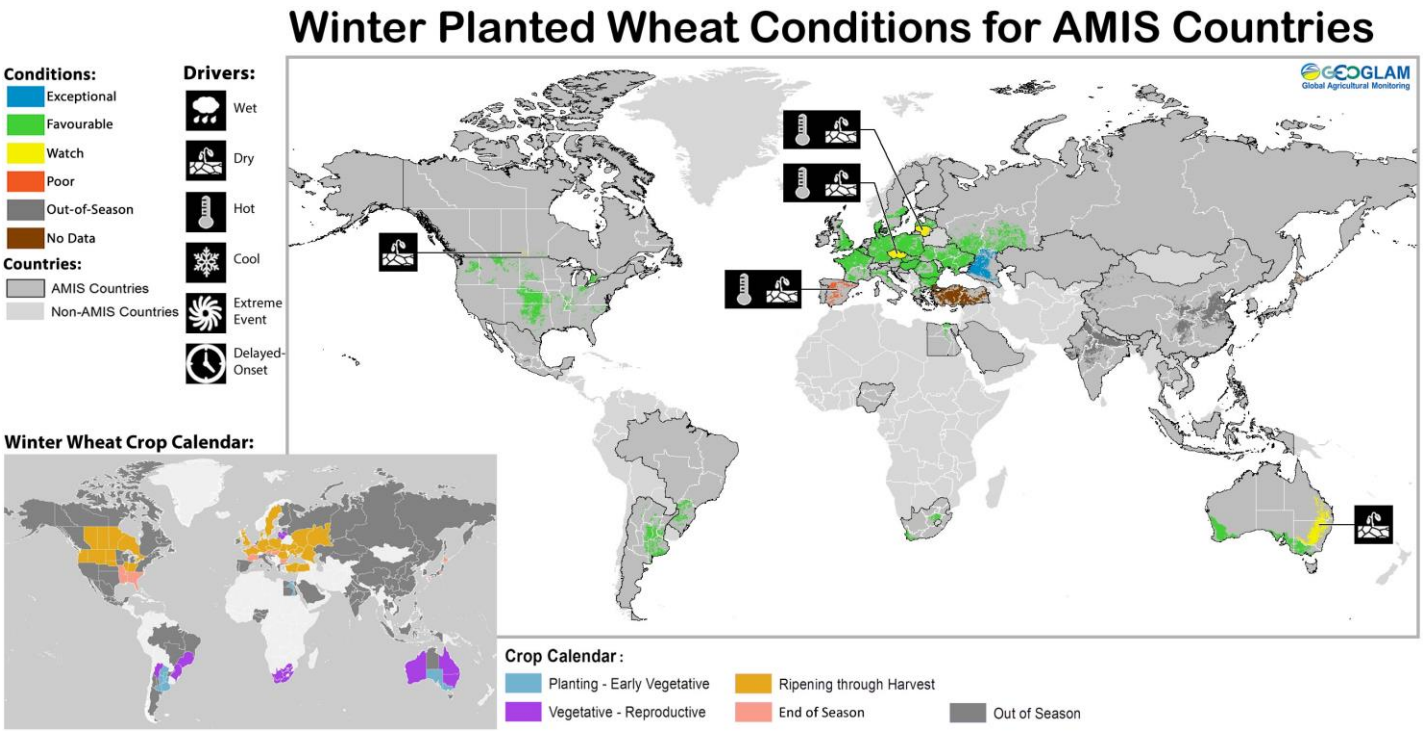
Wet: Higher than average wetness.
Dry: Drier than average.
Hot: Hotter than average.
Cool: Cooler than average or risk of frost damage.
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)
Delayed-Onset: Late start of the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

Crop Season Nomenclature:

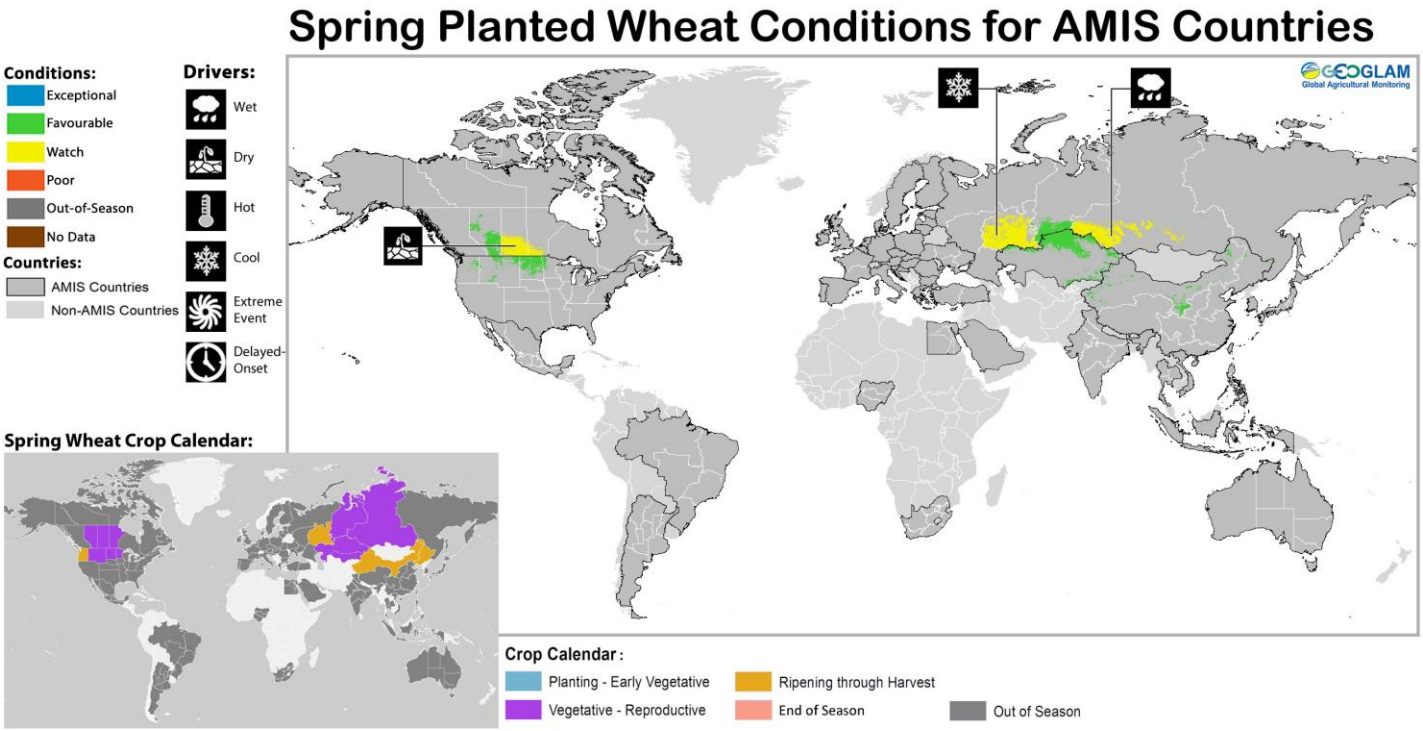
In countries that contain multiple cropping seasons for the same crop, the following chart identifies the national season name associated with each crop season within the Crop Monitor. Within the Crop Monitor for AMIS countries the larger producing season (most recent 5 years) has been assigned to the first season.

Crop Season Nomenclature				
Country	**Crop**	**Season 1 Name**	**Season 2 Name**	**Season 3 Name**
Argentina	Soybean	Spring-planted	Summer-planted	
Brazil	Maize	Summer-planted (larger producing season)	Spring-planted (smaller producing season)	
Canada	Wheat	Winter-planted	Spring-planted	
China	Maize	Spring-planted	Summer-planted	
China	Rice	Intermediate Crop	Early Crop	Late Crop
China	Wheat	Winter-planted	Spring-planted	
Egypt	Rice	Summer-planted	Nili season (Nile Flood)	
India	Maize	Kharif	Rabi	
India	Rice	Kharif	Rabi	
India	Soybean	Kharif	Rabi	
India	Wheat	Rabi	Kharif	
Indonesia	Rice	Main-season	Second-season	
Mexico	Maize	Spring-planted	Autumn-planted	
Nigeria	Maize	Main-season	Short-season	
Nigeria	Rice	Main-season	Off-season	
Philippines	Rice	Wet season	Dry season	
Russian Federation	Wheat	Winter-planted	Spring-planted	
Thailand	Rice	Wet season	Dry season	
United States	Wheat	Winter-planted	Spring-planted	
Viet Nam	Rice	Wet season	Dry season	

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 July 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 July 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.

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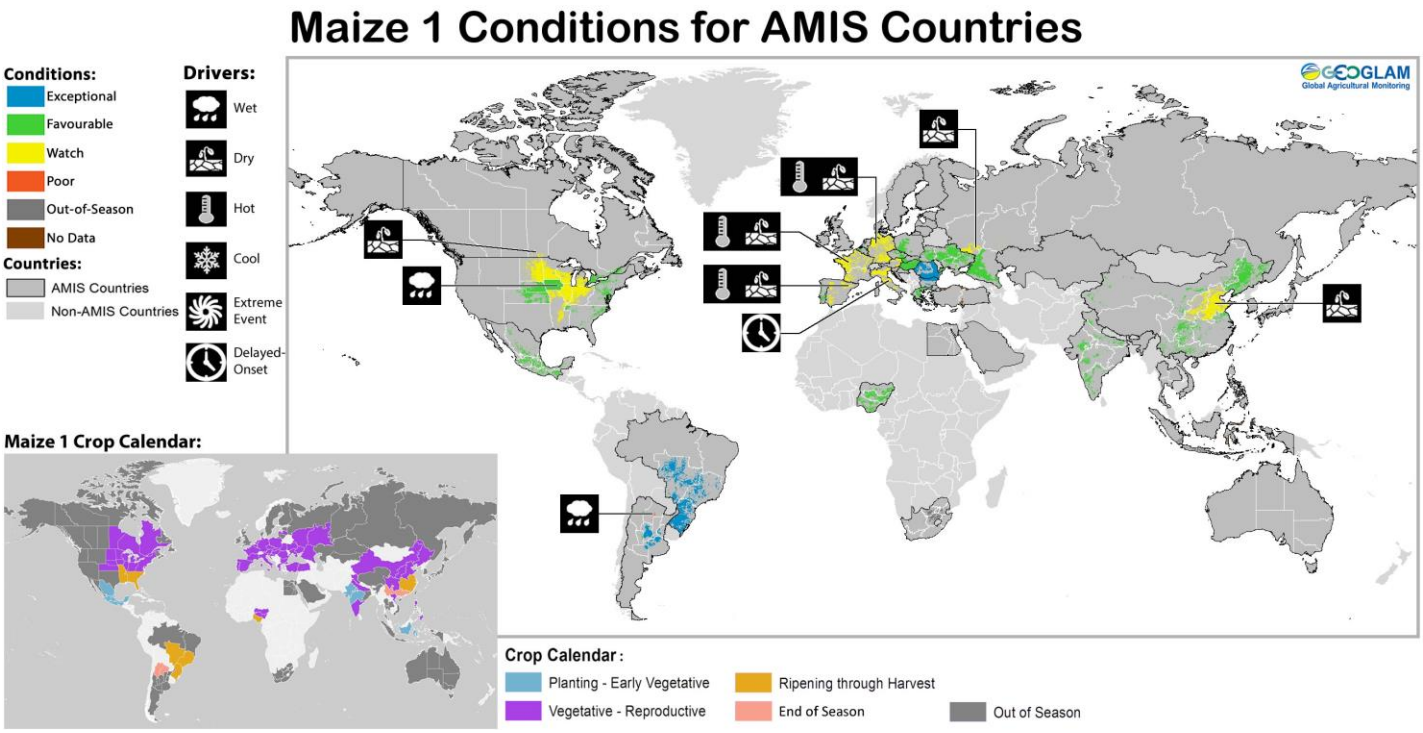

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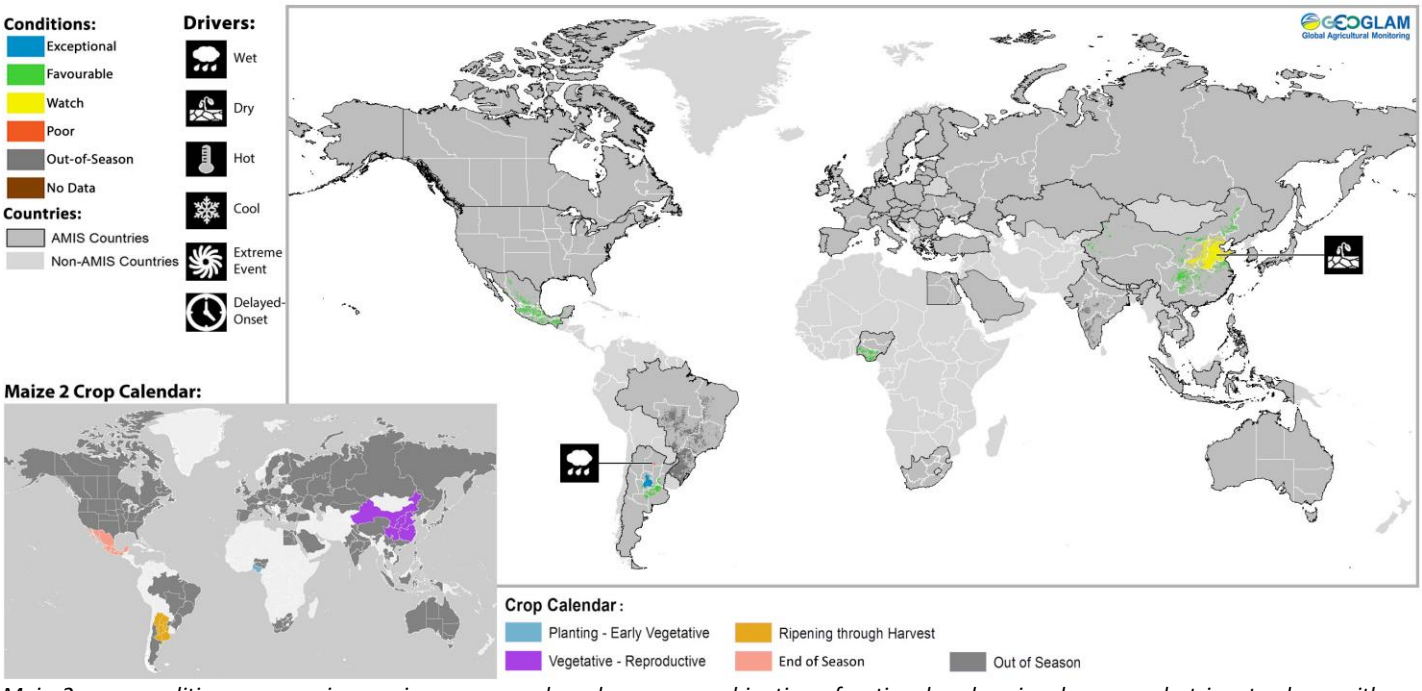

Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of July 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

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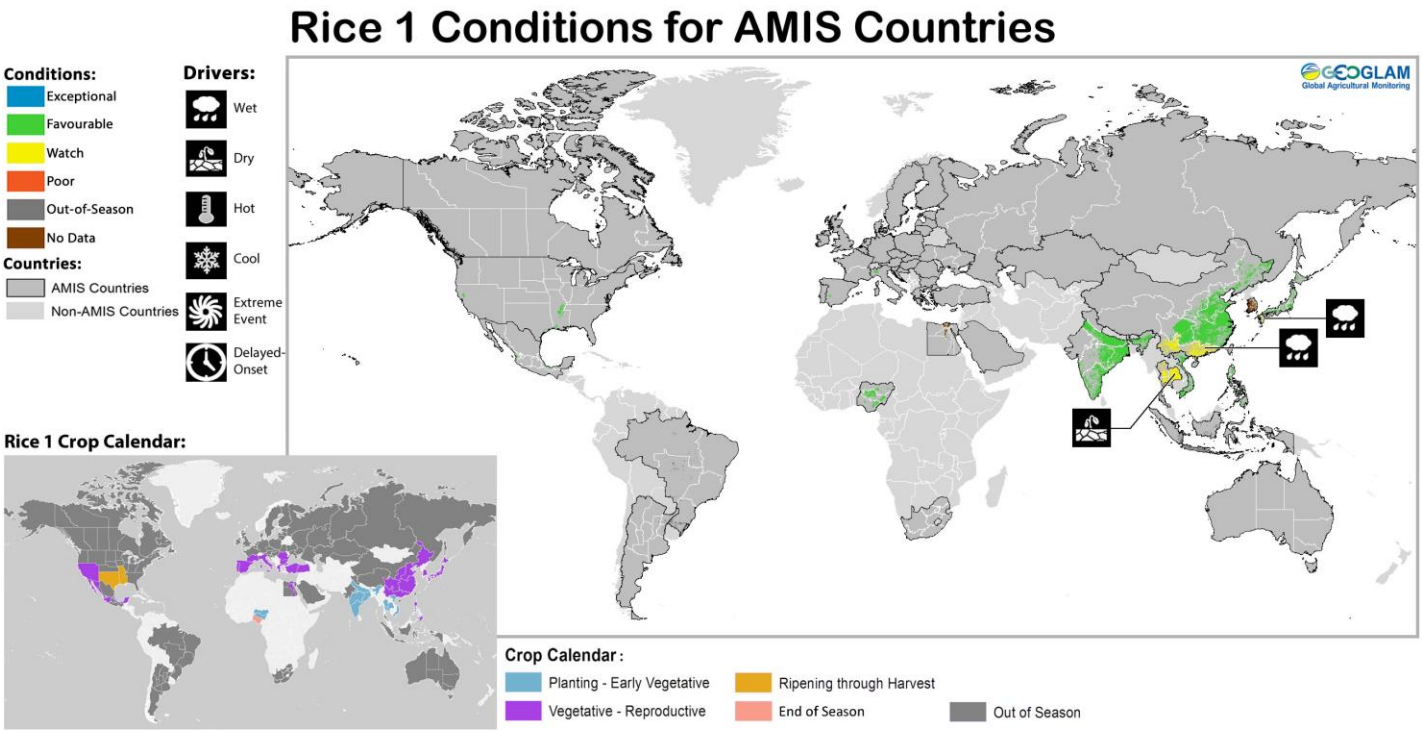

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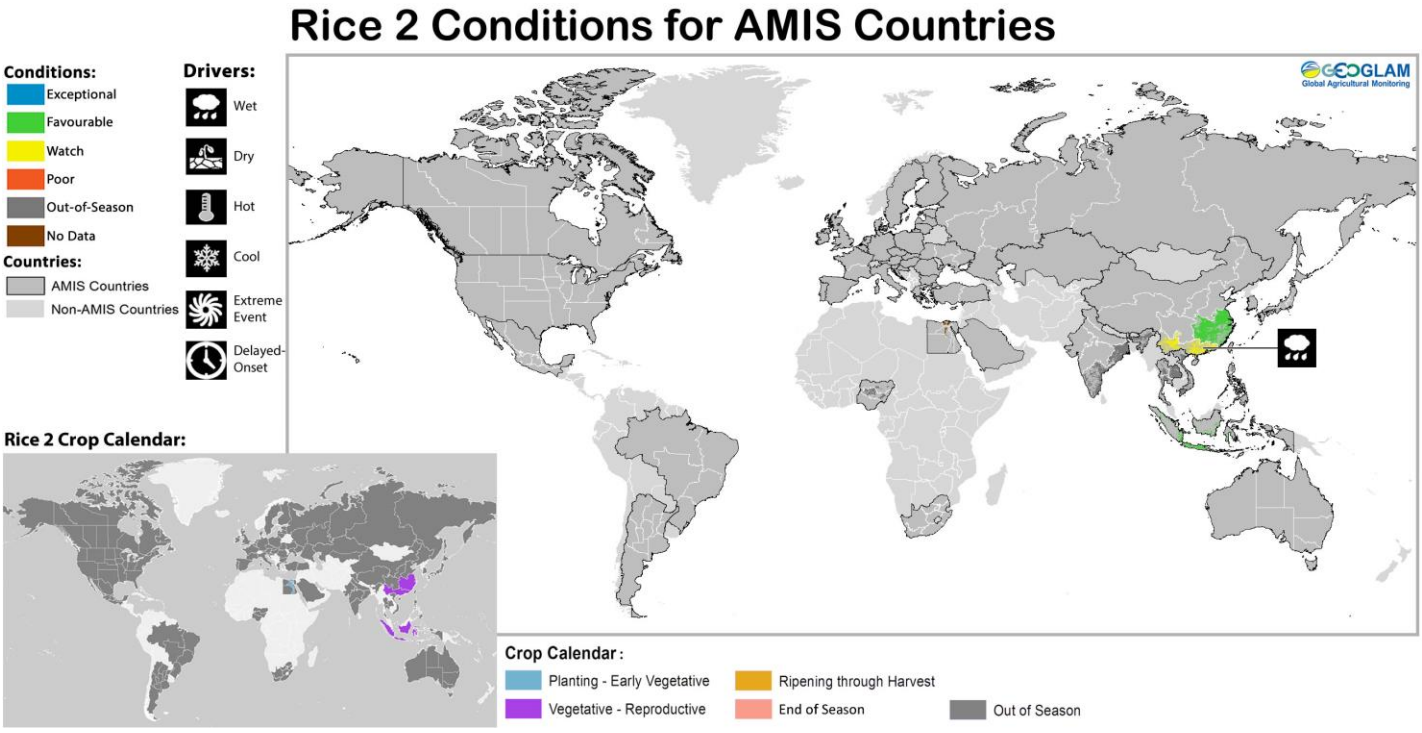

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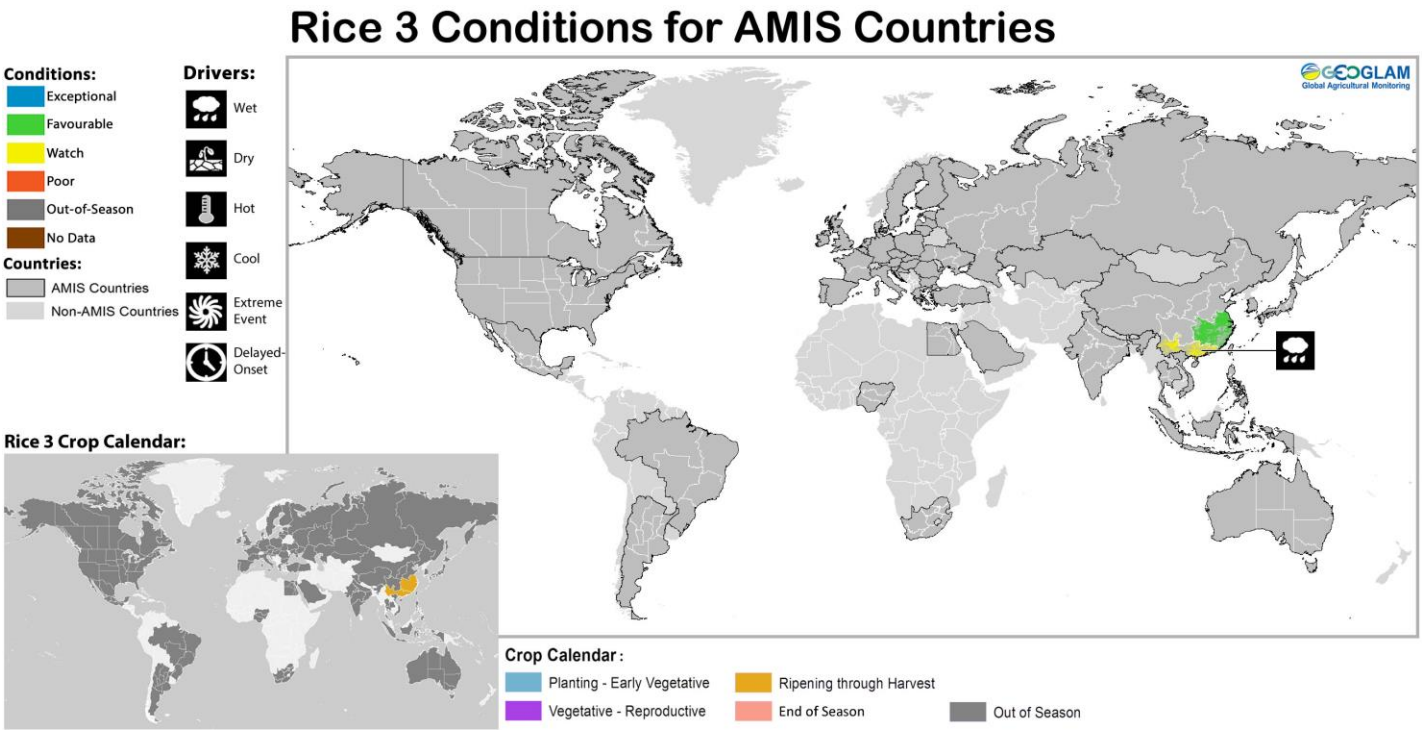

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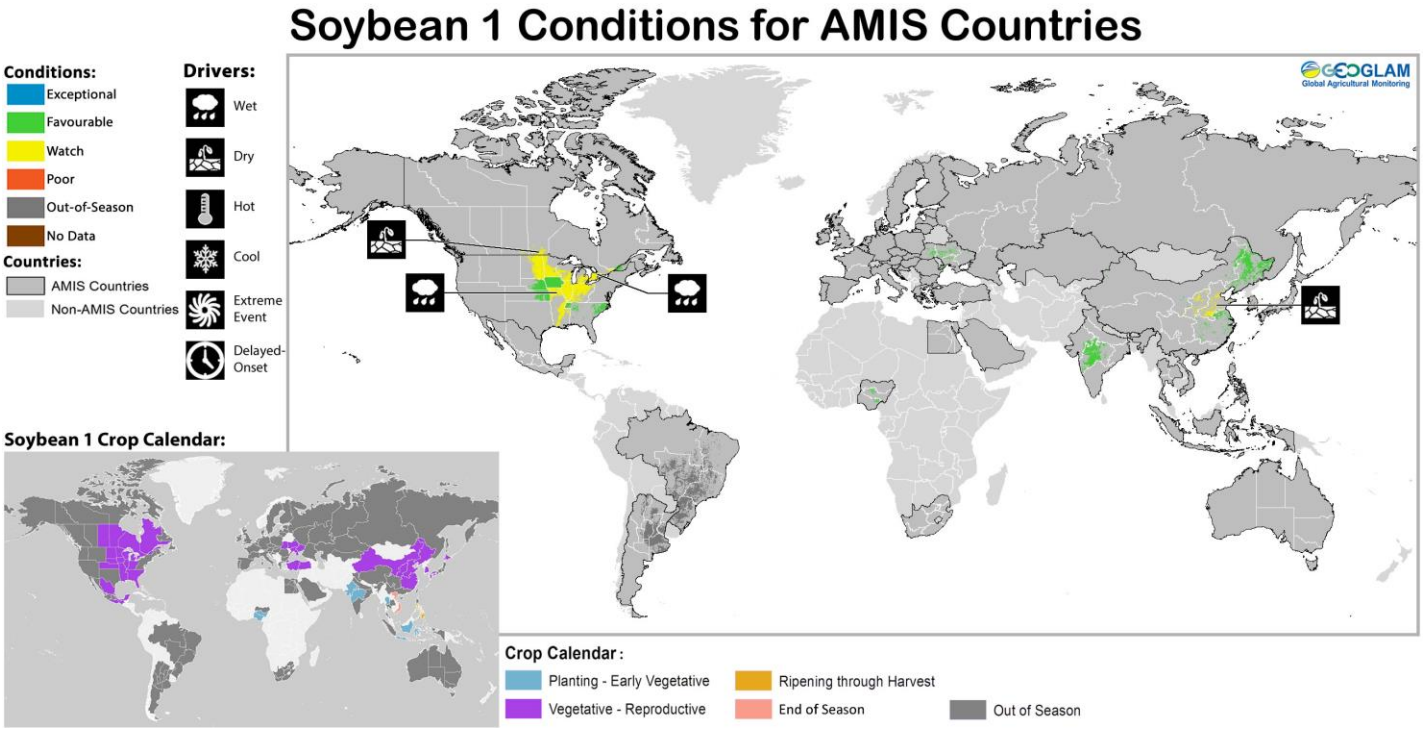

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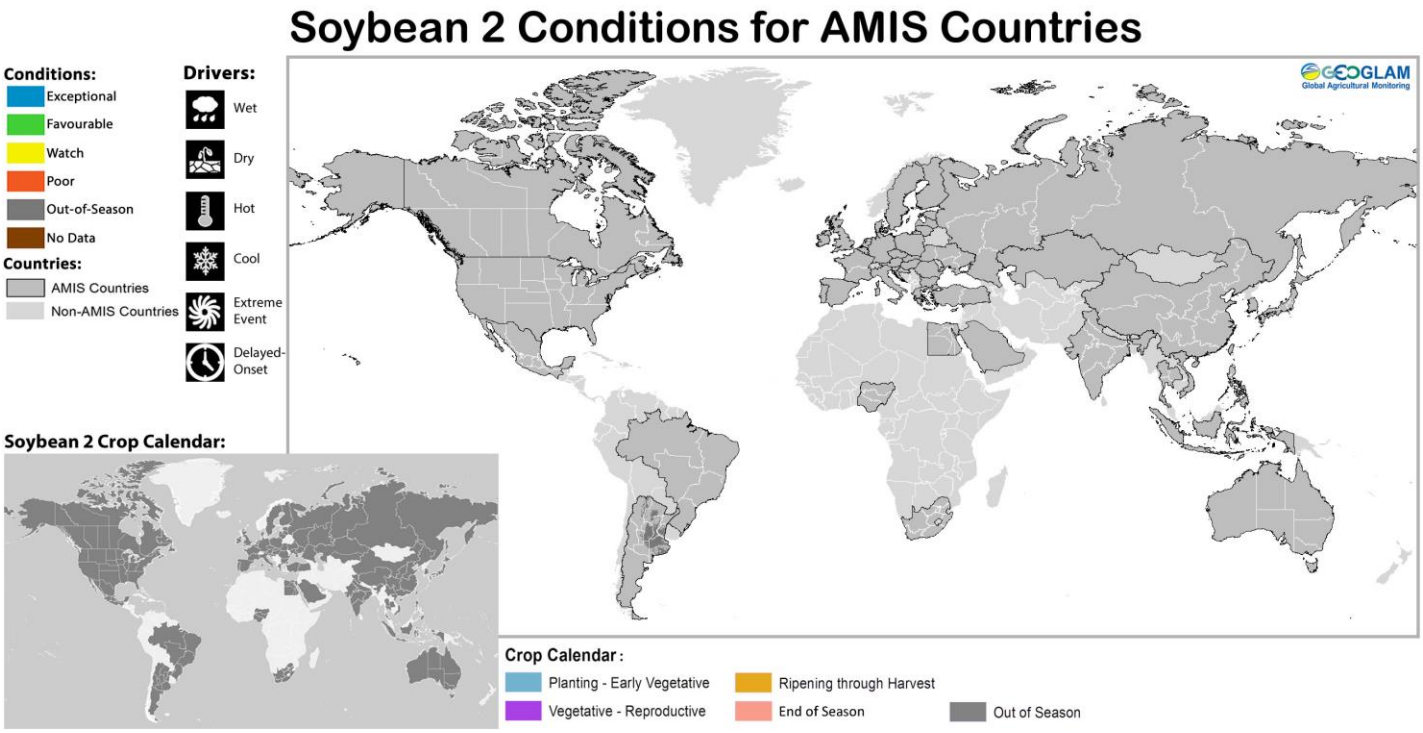

Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of July 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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.

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Prepared by members of the GEOGLAM Community of Practice
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Climatic update by Climate Hazards Center of UC Santa Barbara

The Crop Monitor is a part of GEOGLAM, a GEO global initiative.

Photo curtesy of: Brian Barker

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Sources & Disclaimer

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