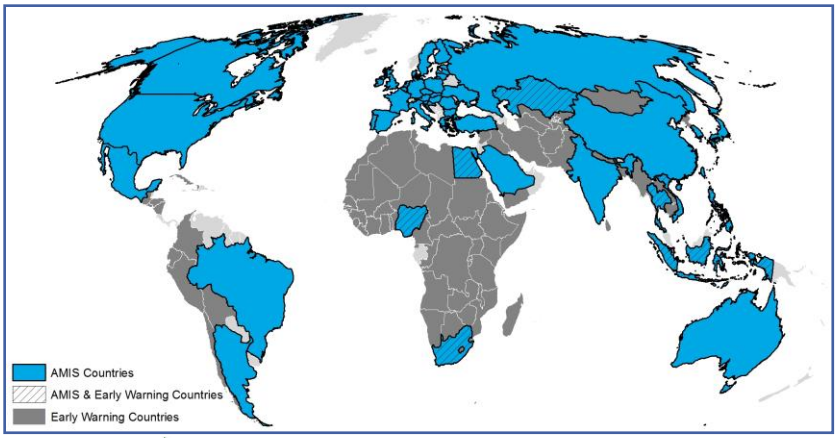
Crop Monitor for AMIS

Overview:

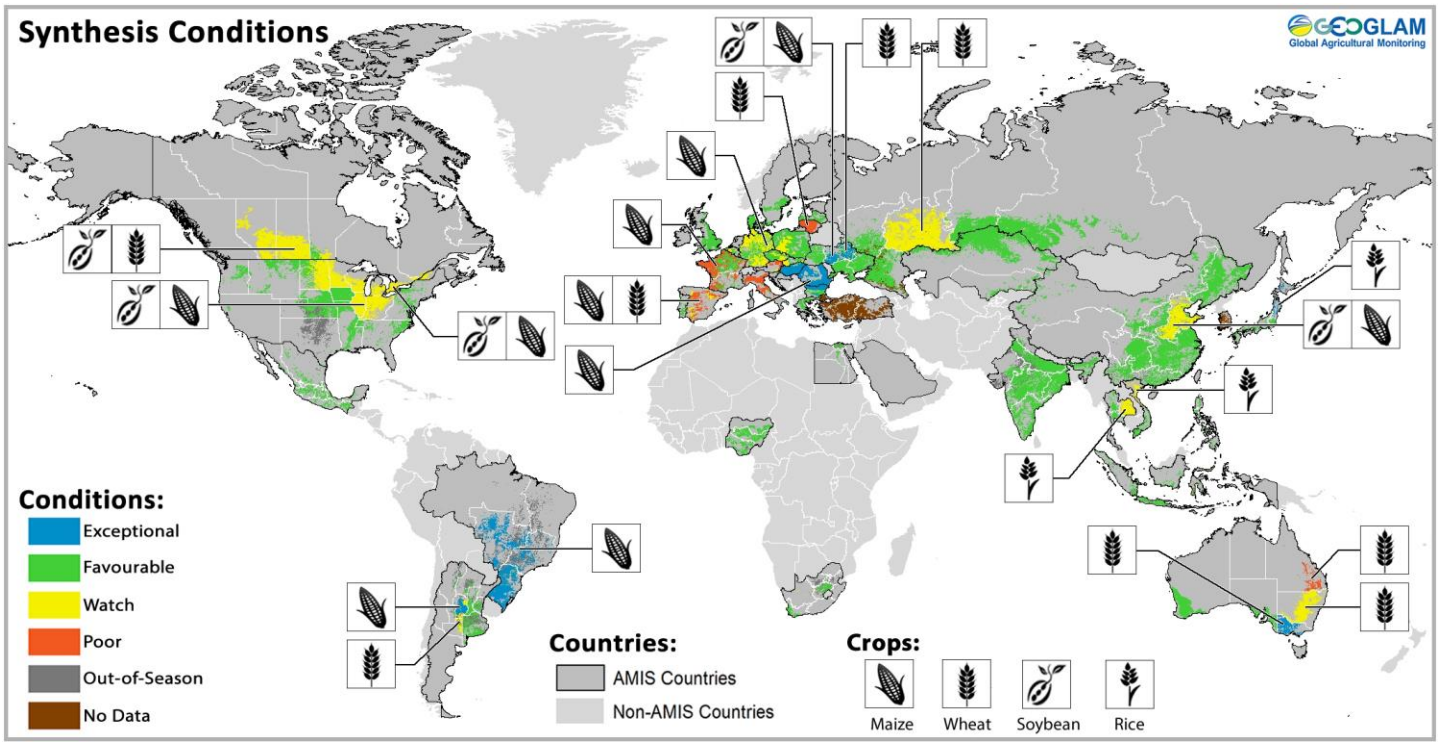
As of the end of August, conditions remain mixed for maize and soybeans, while favourable for rice and wheat. **Winter wheat** harvest is wrapping up in the Northern Hemisphere while **spring wheat** conditions remain mixed in Canada and the Russian Federation. In the Northern Hemisphere, **maize** remains behind schedule in the US at the same time as a heatwave negatively affecting crops in Europe. **Rice** in Asia is under generally favourable conditions with the exception of dry conditions in Thailand and northern Viet Nam. **Soybean** conditions remain mixed in the US and Canada primarily due to the delayed start to the season.



Contents:

Assessment based on information as of August 28th

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



Crop condition map synthesizing information for all four AMIS crops as of August 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 harvest is ending, and spring wheat harvest is beginning under mostly favourable conditions. In the southern hemisphere, conditions are generally favourable with some dry areas in western Argentina and eastern Australia.

Maize - In the southern hemisphere, harvest is wrapping up in both Argentina and Brazil. In the northern hemisphere, the US crop development is delayed, while the recent heatwave is negatively affecting Europe.

Rice - In China, harvest of single-season rice begins while in India, transplanting of Kharif rice is almost complete. In southern Southeast Asia, dry conditions are affecting wet-season rice in northeast Thailand and northern Viet Nam, while dry-season rice is favourable in Indonesia.

Soybeans - In the northern hemisphere, conditions remain under watch in large parts of the US and Canada due to the delayed start to the season. Conditions are generally favourable across India, while dry conditions are developing in central Ukraine.

Transition to ENSO-neutral

El Niño-Southern Oscillation (ENSO) transitioned from a weak El Niño to ENSO-neutral conditions in July and are most likely remain neutral through May 2020. The Indian Ocean Dipole is in a positive state and is forecast to remain so through the rest 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

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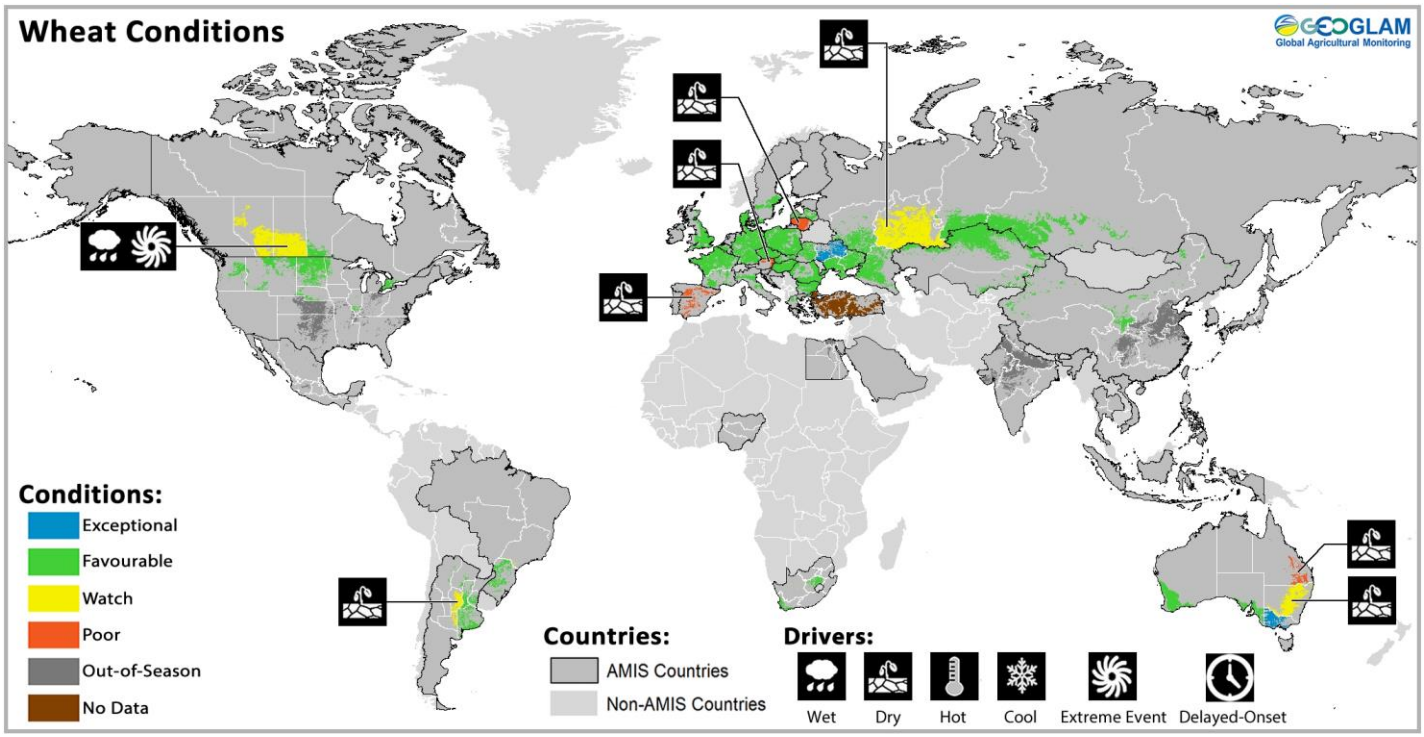
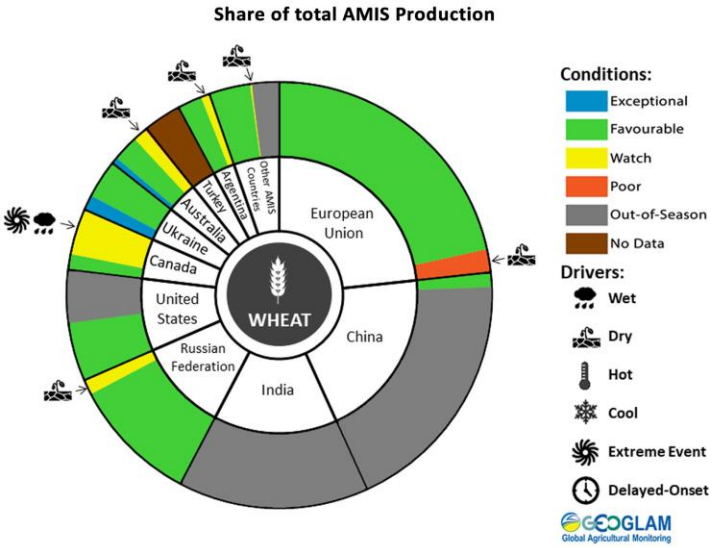
Wheat Conditions for AMIS Countries



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 August 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.

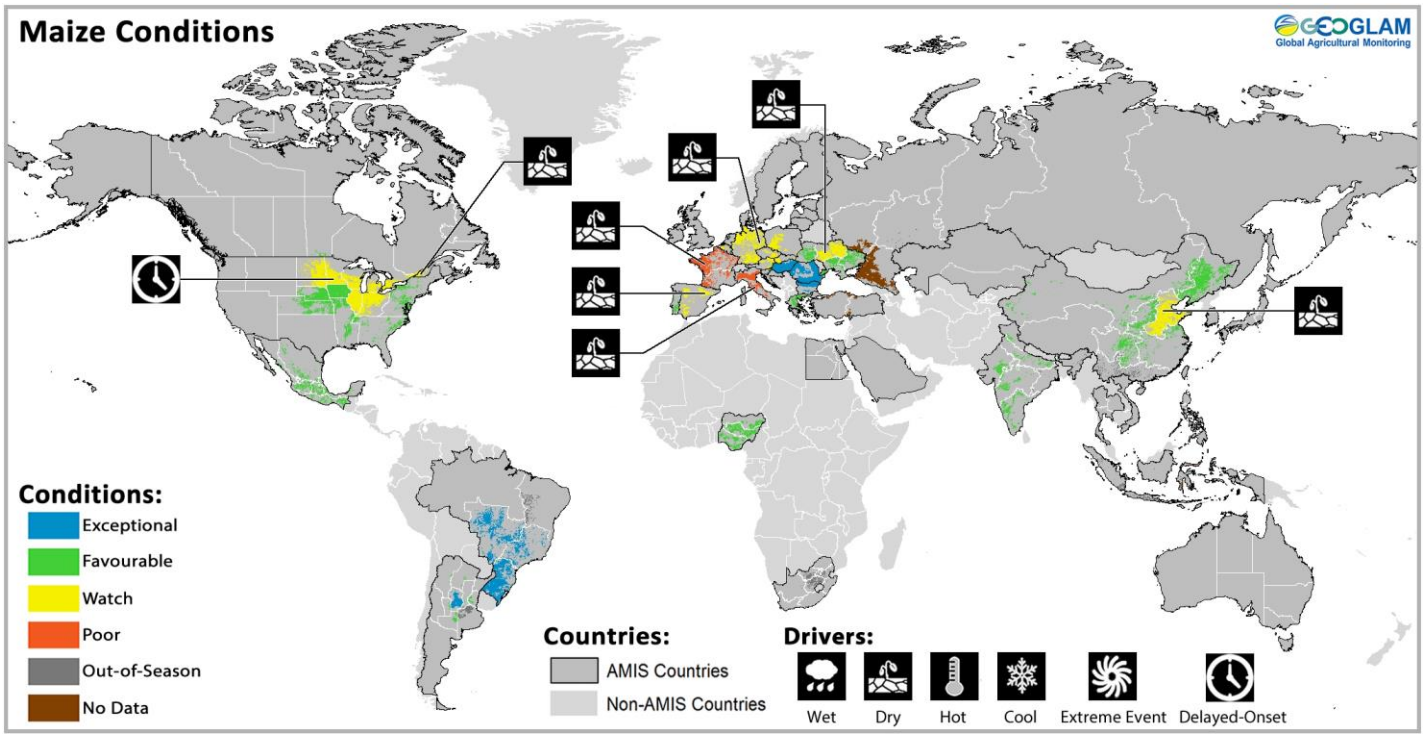
Wheat: In the **EU**, winter wheat harvest is wrapping up under generally favourable conditions having avoided most impacts from the recent heatwave. In **Ukraine**, harvest is ending under favourable to exceptional conditions, with yields reported to be above last season's. In the **Russian Federation**, harvest of winter wheat is wrapping up under generally favourable conditions. Spring wheat is under mostly favourable conditions, albeit with some concerns due to earlier dry weather in Volga. In **Kazakhstan**, conditions are generally favourable for spring wheat, however dry conditions in Kostanay are expected to affect final yields. In **China**, is wrapping up harvest of spring wheat under favourable conditions. In the **US**, harvesting of spring wheat is ongoing under favourable conditions. In **Canada,** spring wheat harvest has begun under mixed conditions across the prairies due to the variable weather throughout the season. Harvest of winter wheat continues under generally favourable conditions. In **Australia**, severe rainfall deficiencies persist across much of New South Wales and Queensland. Average August rainfall across much of Victoria, Western Australia and South Australia is likely to have been enough to support continued crop development in these states. In **Argentina**, conditions are generally favourable although there is some concern over developing dry conditions in the west.



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

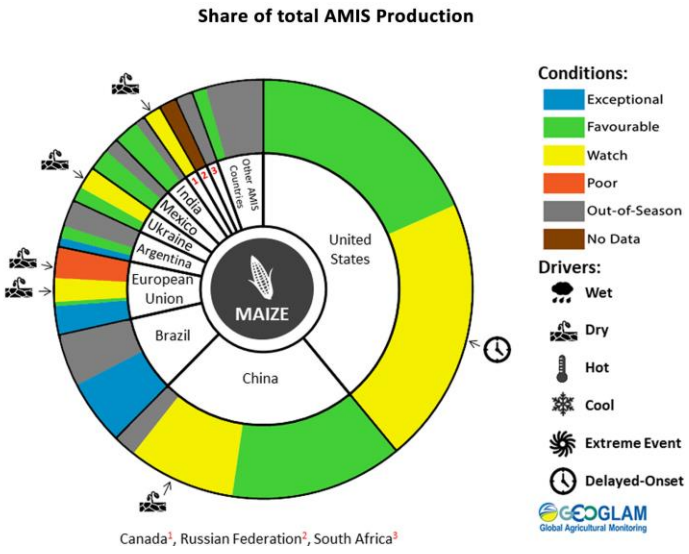
* Assessment based on information as of August 28th

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 August 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 nearing completion 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. In **Argentina**, harvest of the summer-planted crops is wrapping up under favourable conditions. In the **US**, the crop is progressing under mixed conditions across much of the corn belt due to the late sowing this season. Final yields will depend on how the weather performs over the next month. In **Canada**, conditions are mixed across the country, rainfall over the next month will be critical for final development. In **Mexico**, sowing of the spring-summer crop is progressing under favourable conditions with a forecast slight increase in total sown area compared to last year. In **China**, conditions are generally favourable except for dry conditions in central China affecting both spring-planted and summer planted crops. In **India**, conditions are favourable with a total sown area in line with last year's. In the **EU**, conditions are mixed as western and central countries were hit with the recent heatwave during the critical flowering stage, however in the eastern countries favourable to exceptional conditions remain. In **Ukraine**, conditions are generally favourable except for the central region which is experiencing dry conditions.



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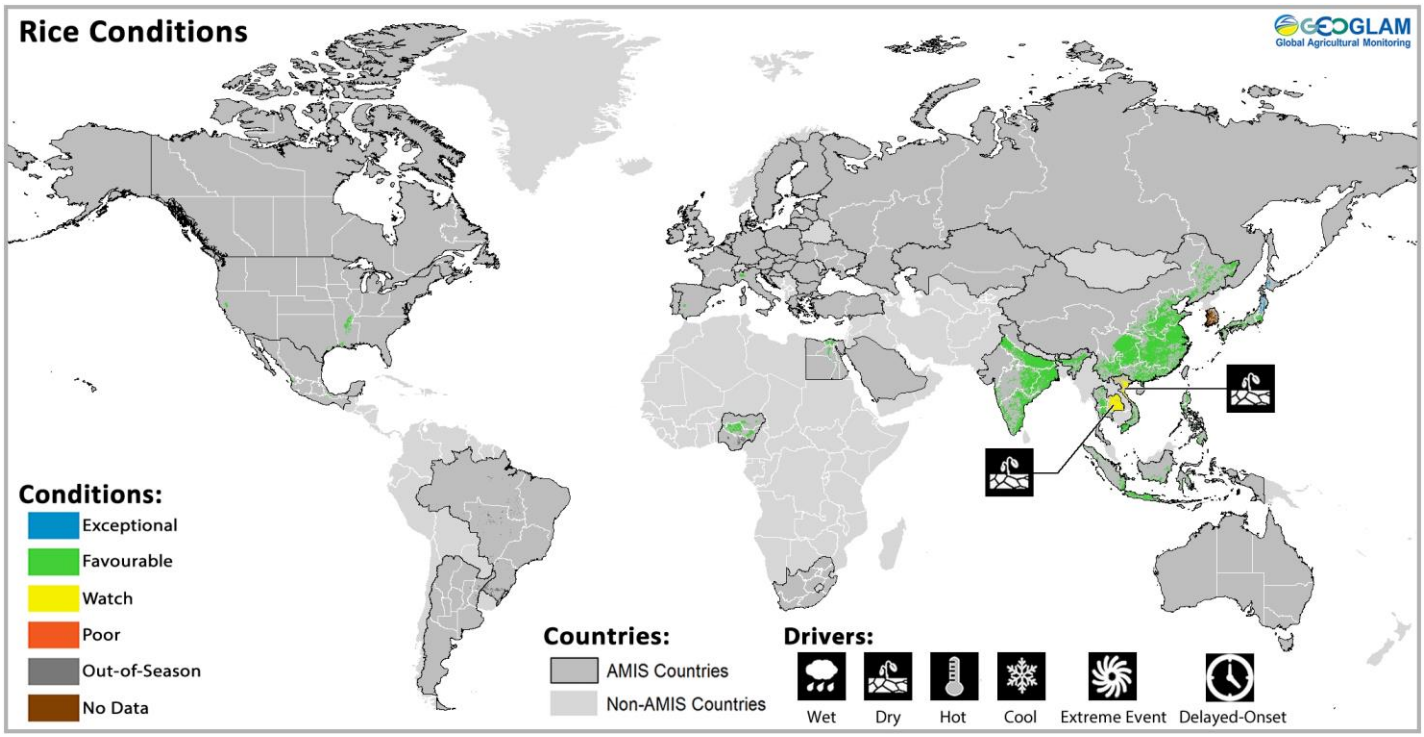
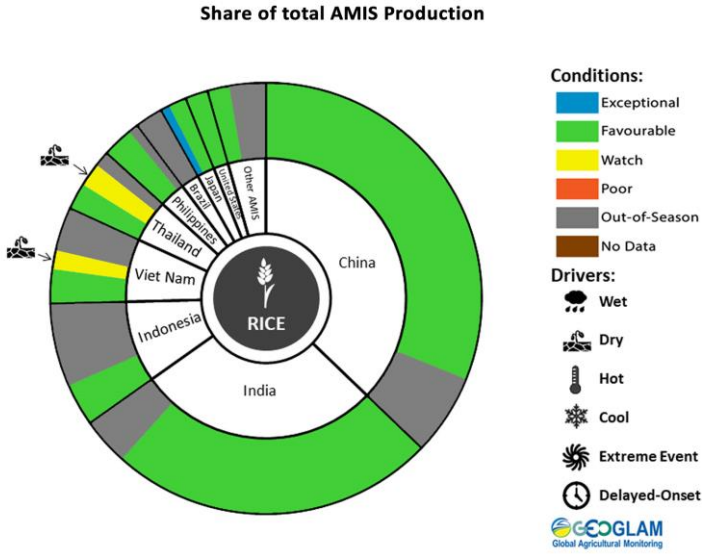
Rice Conditions for AMIS Countries



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

Rice: In **China**, conditions are favourable for the harvest of single-season rice, while late double crop rice is in the vegetative stage. In **India**, Kharif rice is under generally favourable conditions with slightly below normal total sown area particularly in the eastern states. As transplanting continues in a few states, total sown area is expected to increase. In **Indonesia**, conditions are favourable as sowing of dry-season rice continues for the fifth month and the harvesting of earlier sown dry-season rice continues. In **Viet Nam**, conditions are mixed for summer-autumn rice (wet-season rice) particularly in the north due to dry conditions. In **Thailand**, wet-season rice conditions are mixed in the northeast due to several months of less than normal rainfall. In the **Philippines**, wet-season rice is under favourable conditions with harvest to begin soon. In **Japan**, conditions are favourable to exceptional especially in the northern regions of Hokkaido, Tohoku, and Hokuriku due to favourable weather conditions since transplanting. In the **US**, conditions are favourable.



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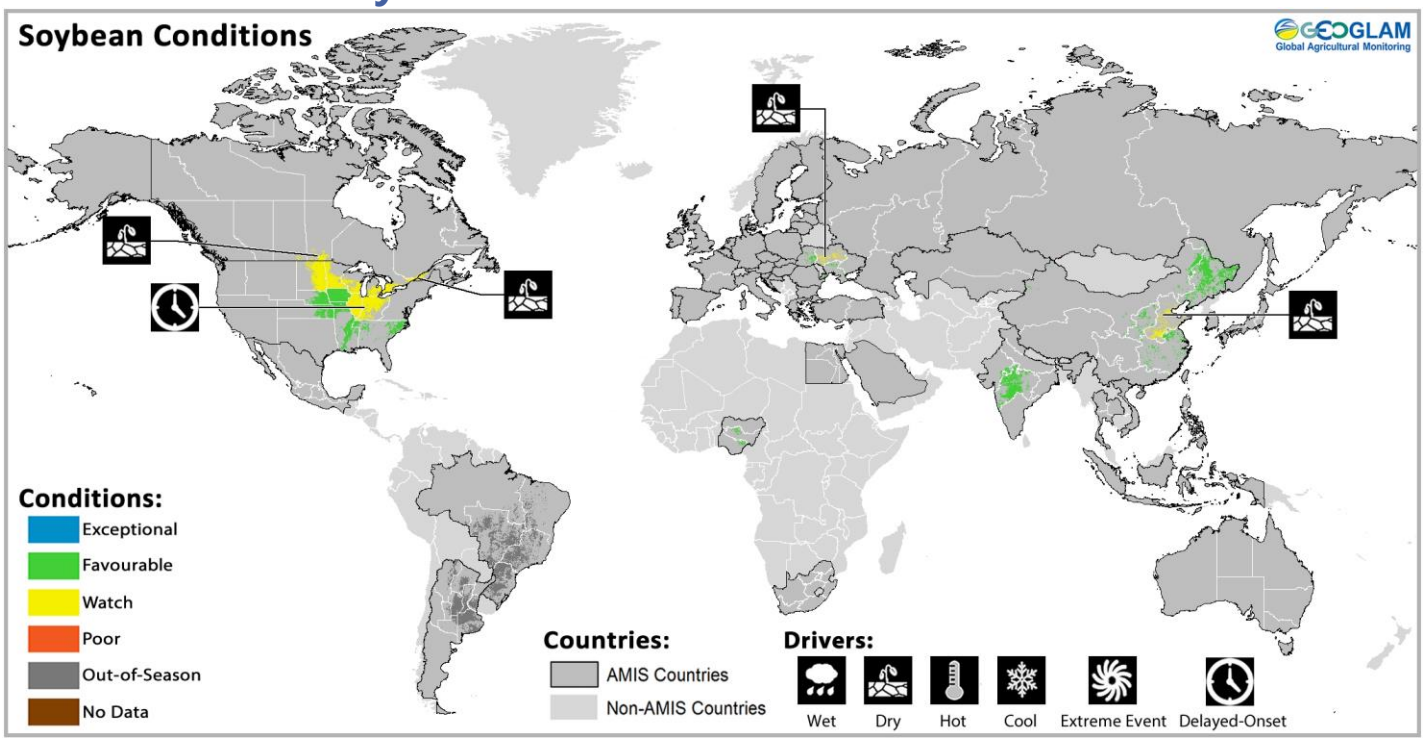
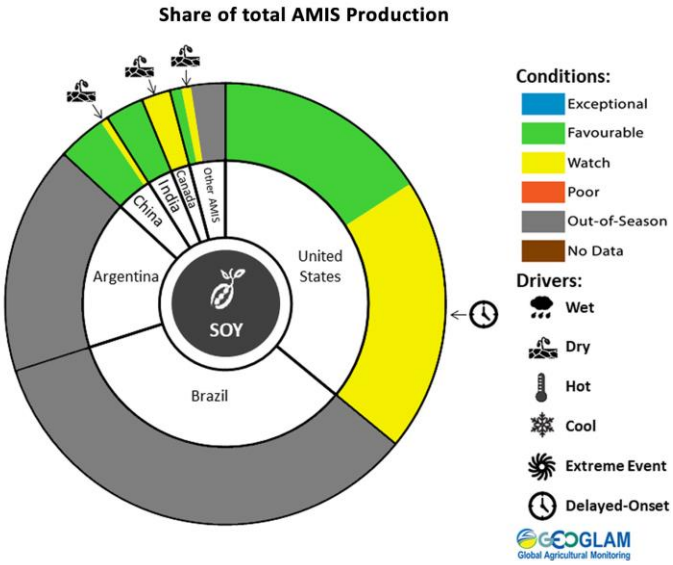
Soybean Conditions for AMIS Countries



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 August 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 largely remain under watch due to the extremely late sowing for the majority of the crop. Final yields remain highly dependent on weather throughout the remainder of the growing season. In **Canada**, conditions remain under watch across the country due to the delayed sowing, yet rainfall over the next month or two will be critical for final yields. In **China**, conditions are generally favourable with some dry conditions in central China. In **India**, conditions are favourable and total sown area is in line with the average. In **Ukraine**, conditions are generally favourable. In the central regions, dry conditions during the spring and summer will potentially have an impact on final yields.



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 September 5th

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 August 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.

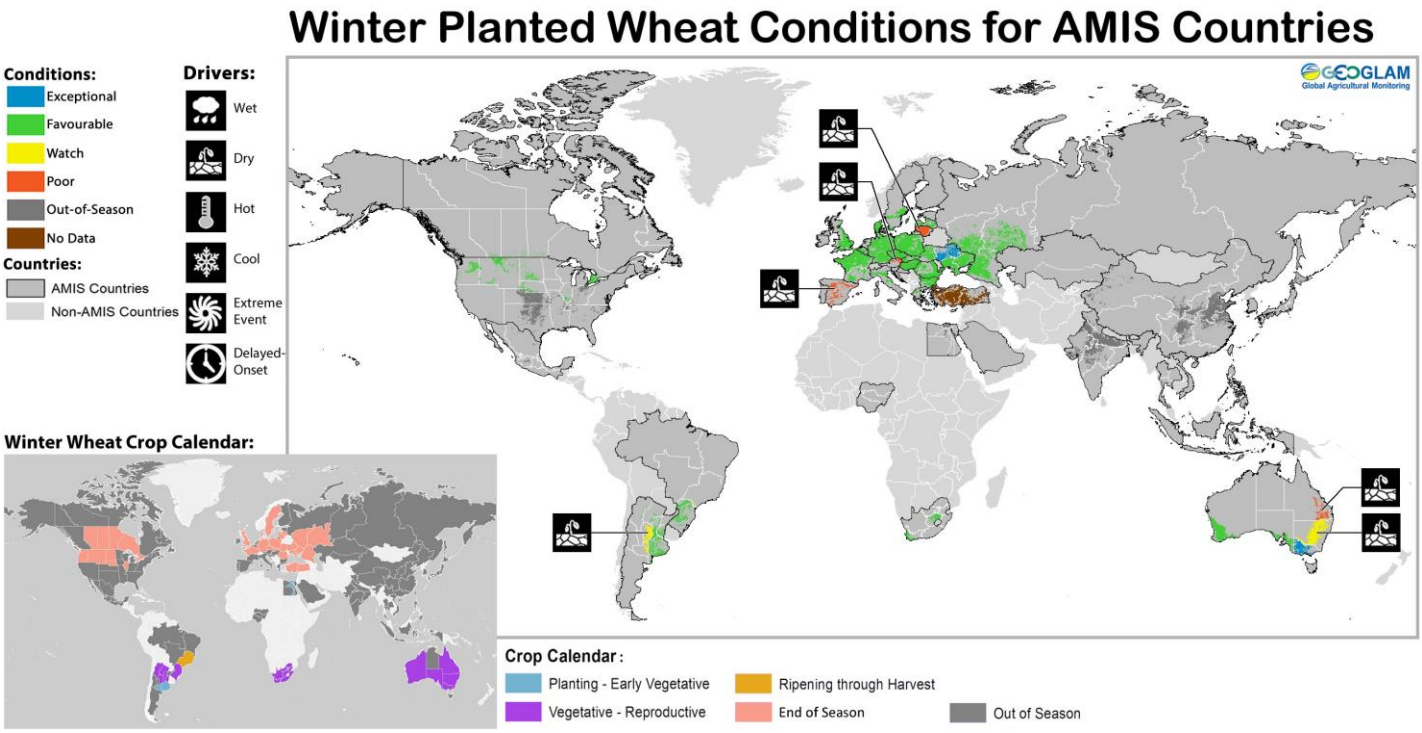
Wet: Higher than average wetness.
Dry: Drier than average.
Hot: Hotter than average.
Cool: Cooler than average or risk of frost damage.
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)
Delayed-Onset: Late start of the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

Crop Season Nomenclature:

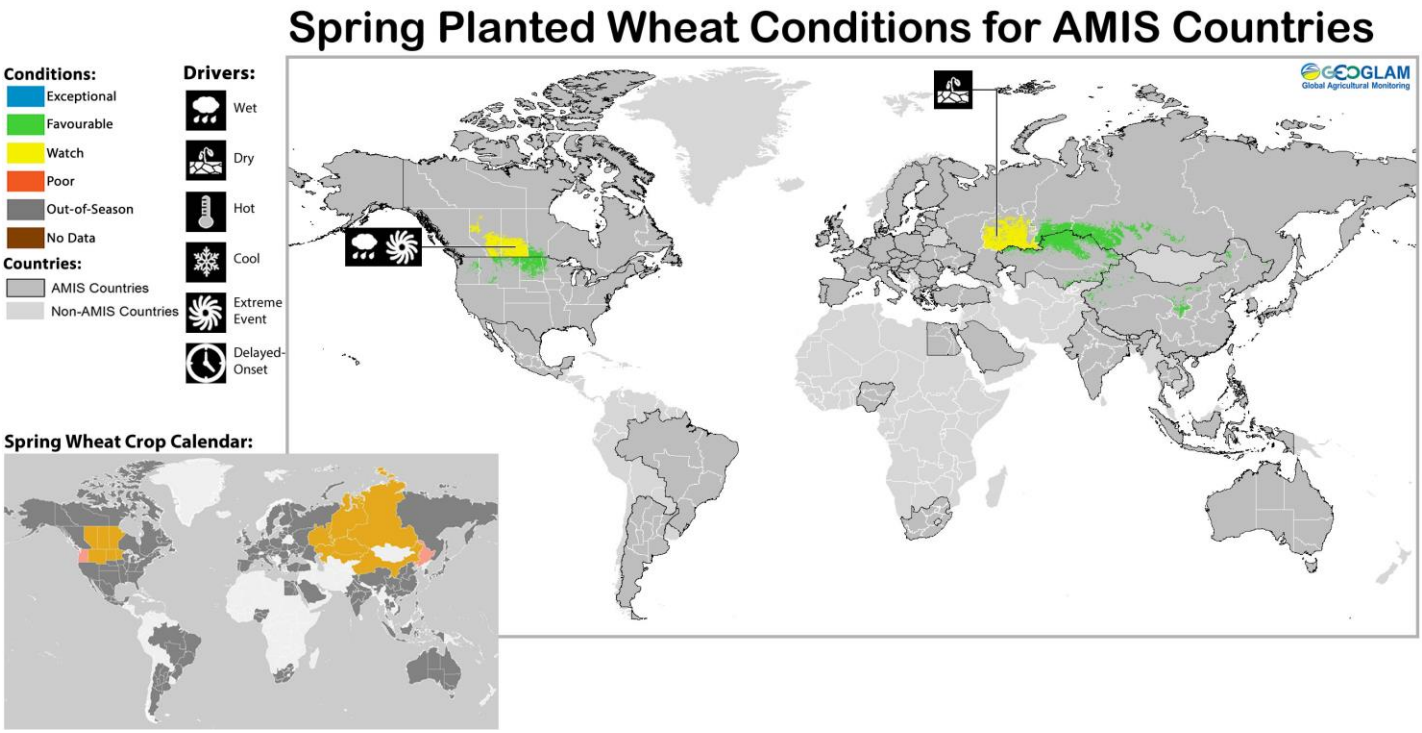
In countries that contain multiple cropping seasons for the same crop, the following chart identifies the national season name associated with each crop season within the Crop Monitor. Within the Crop Monitor for AMIS countries the larger producing season (most recent 5 years) has been assigned to the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

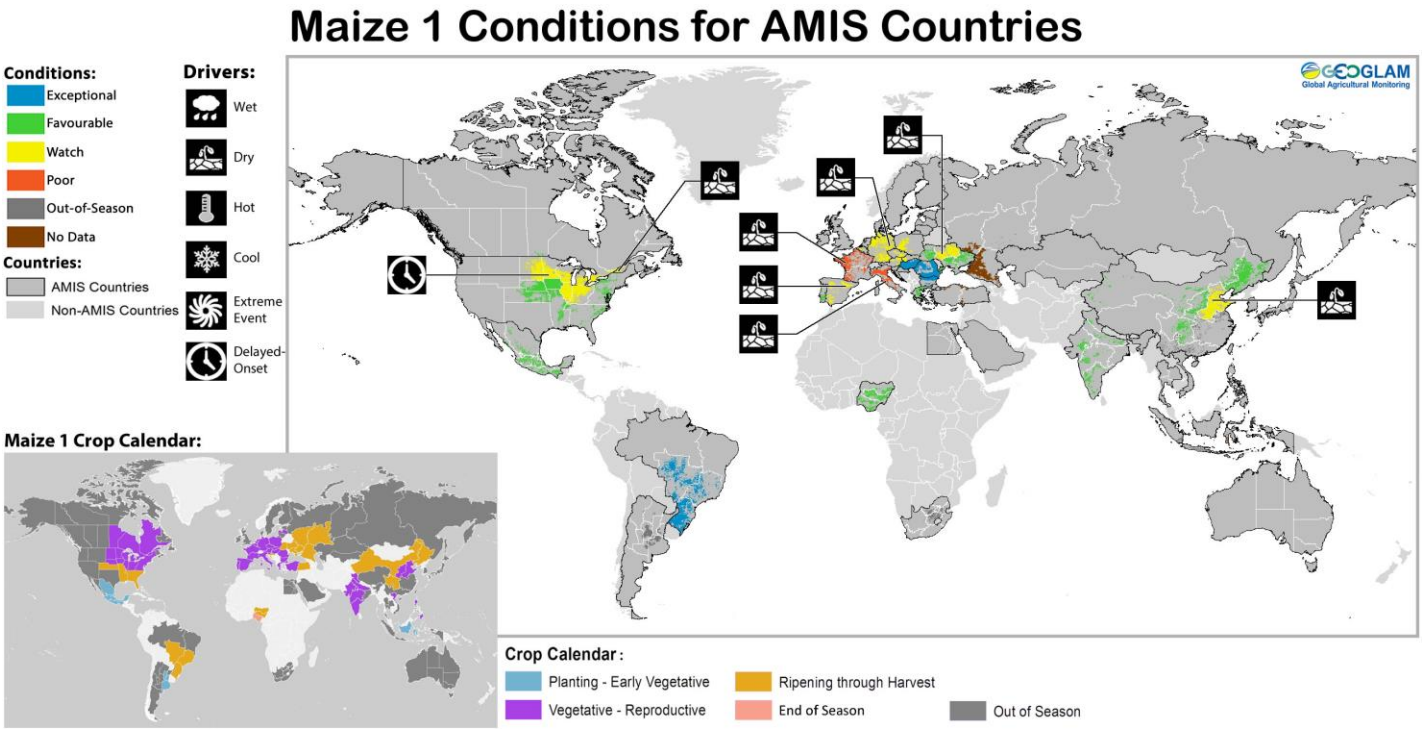
Appendix 2: Crop Season Specific Maps



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 August 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 August 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 August 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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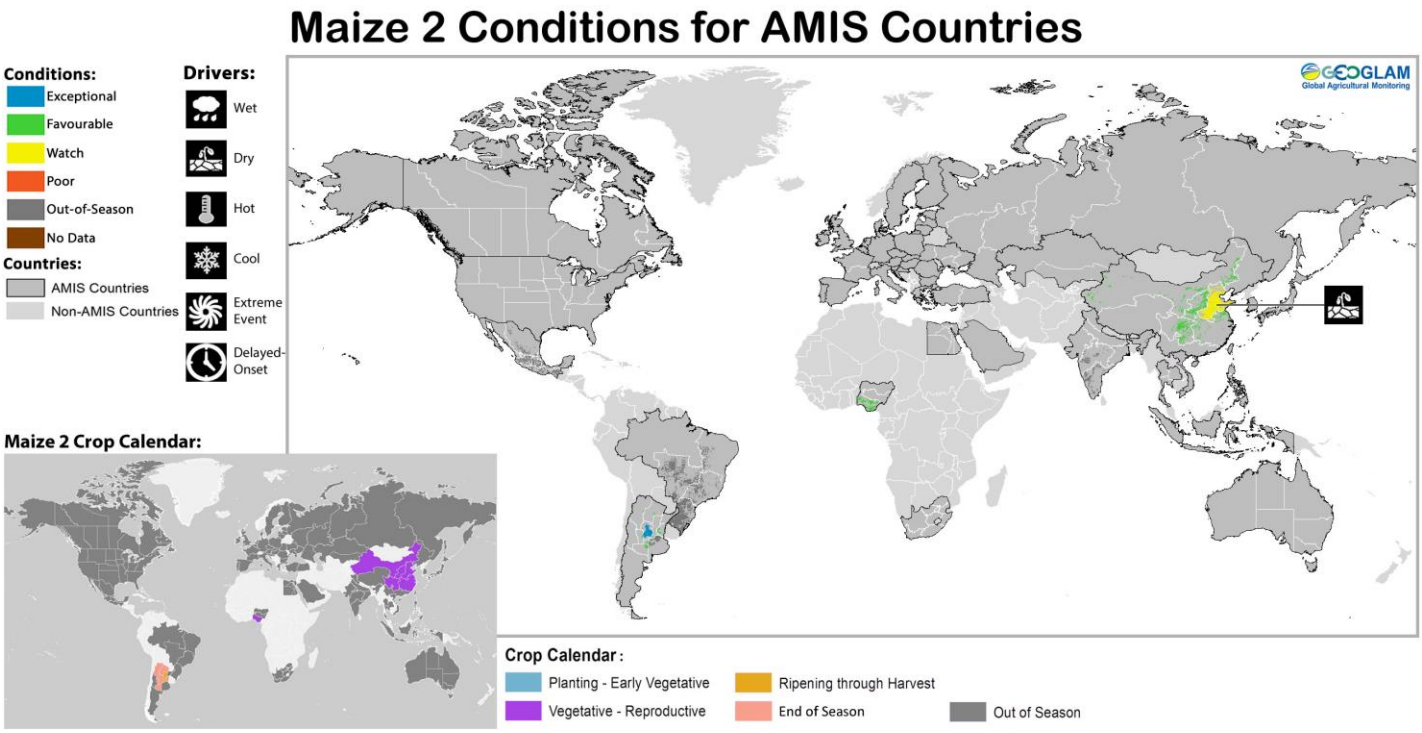
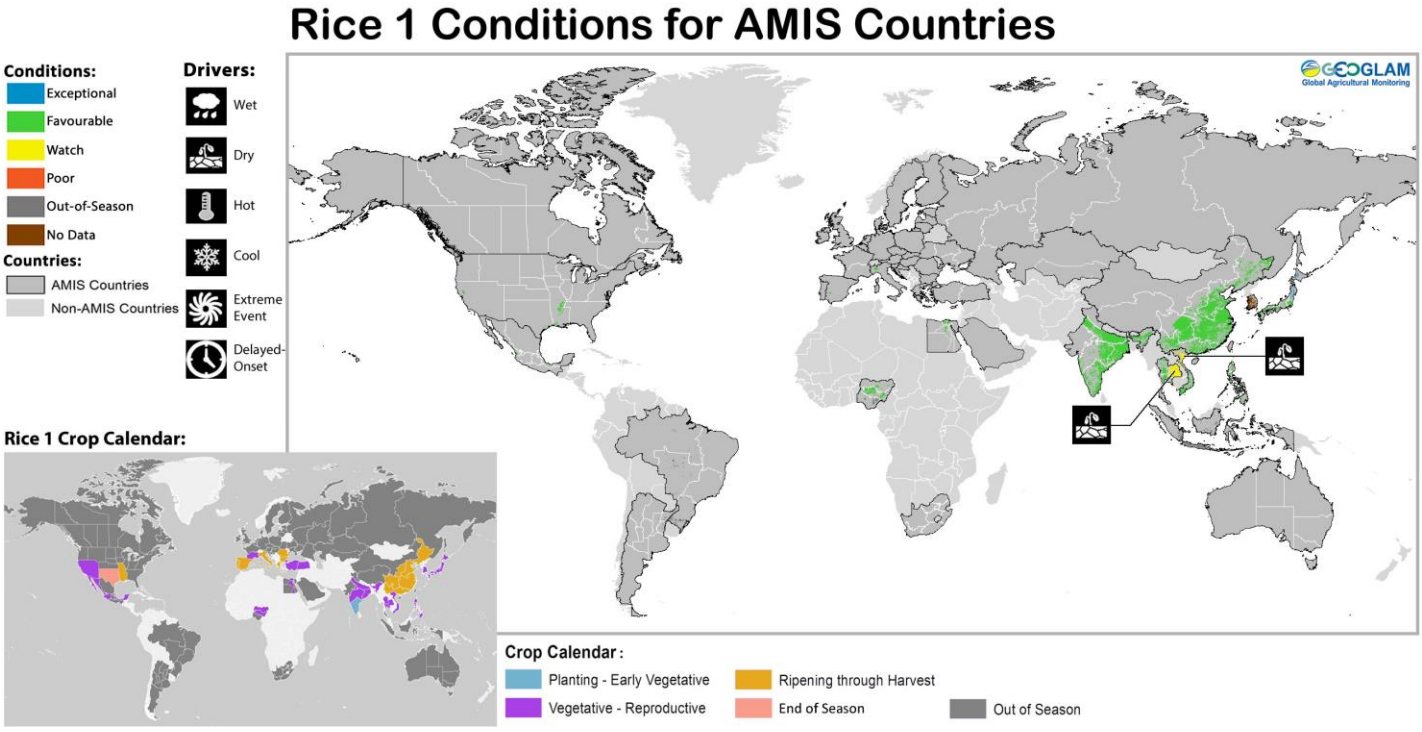


Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of August 28th. Where crops are in less than favourable conditions the climatic drivers responsible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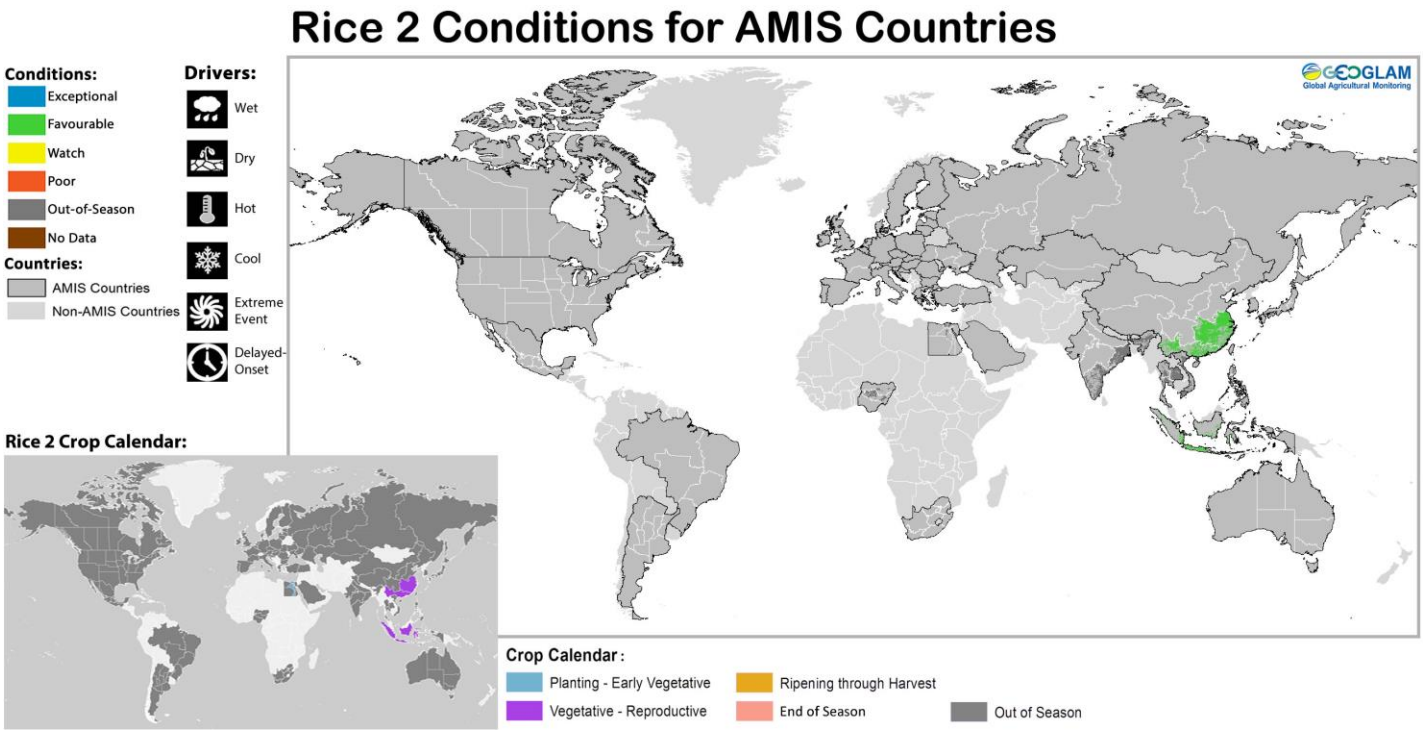

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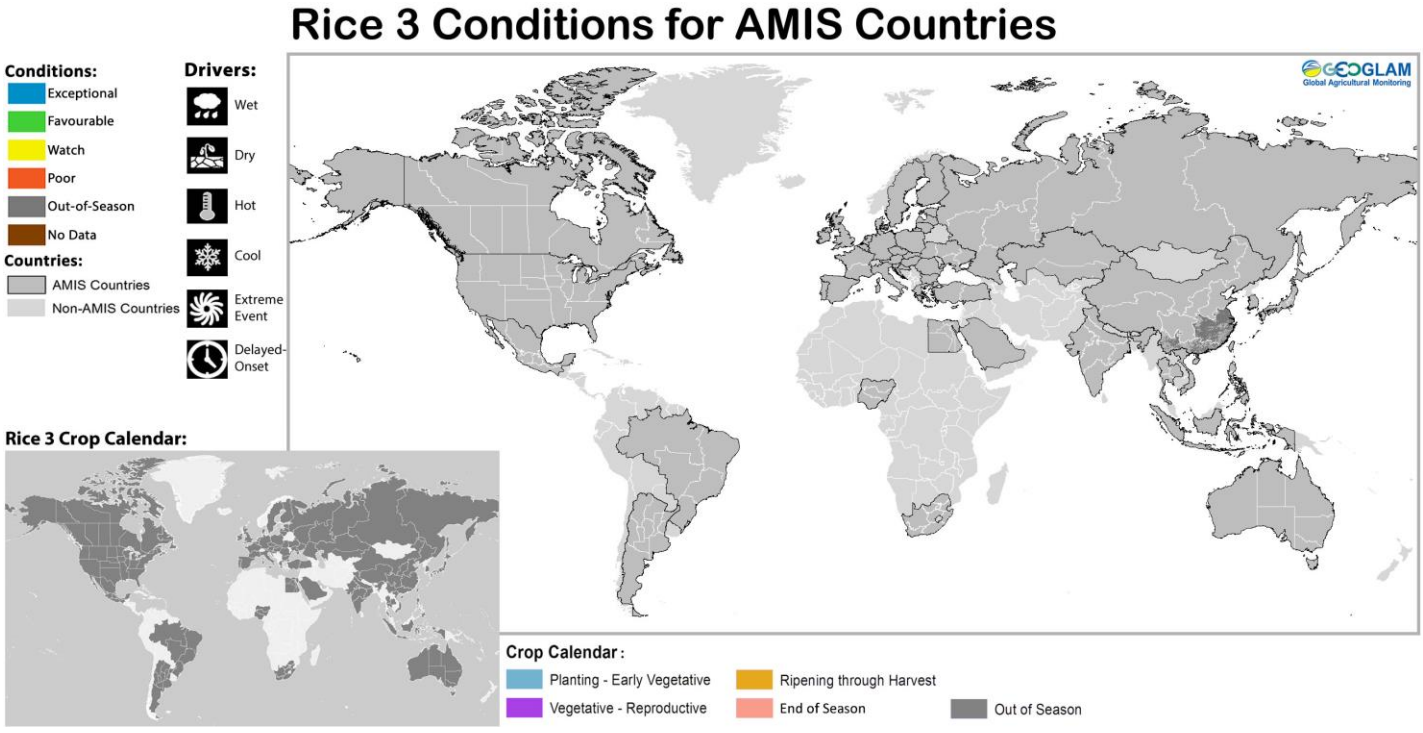

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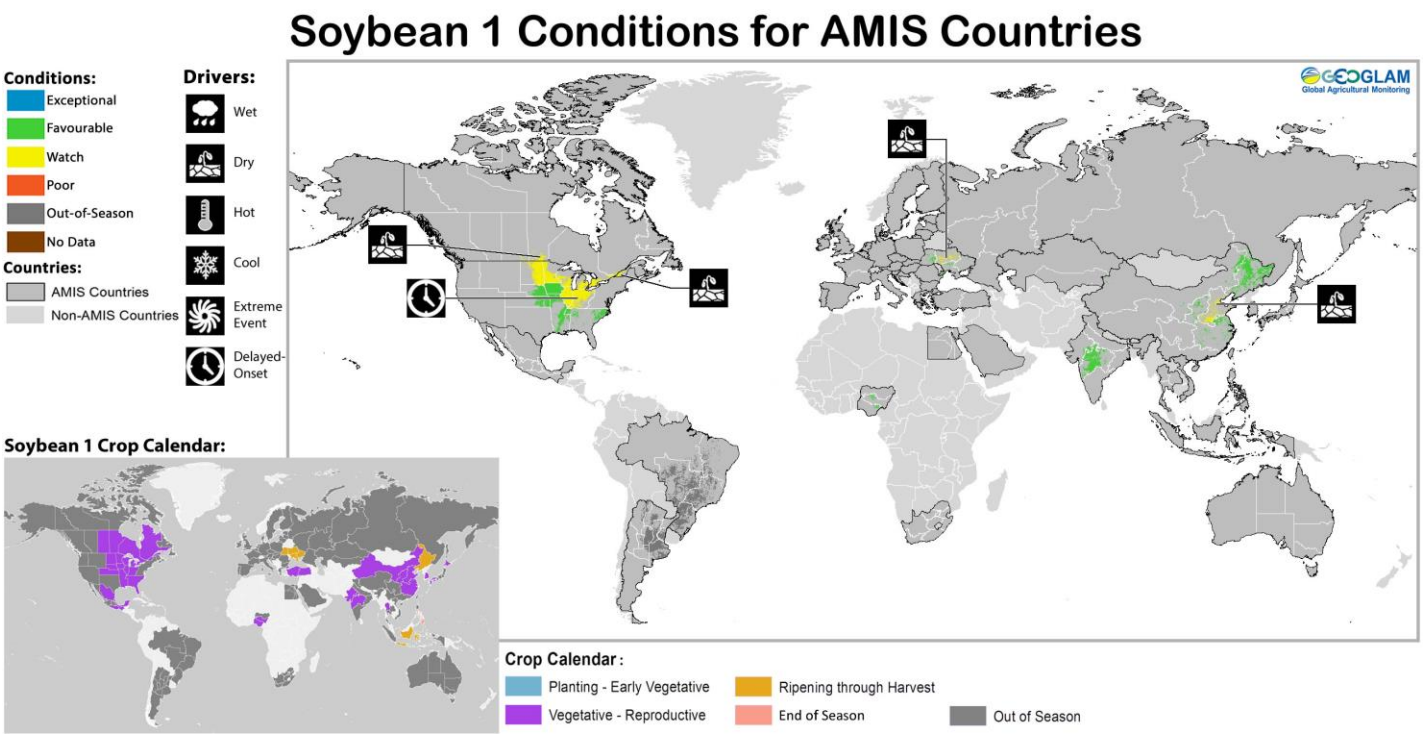
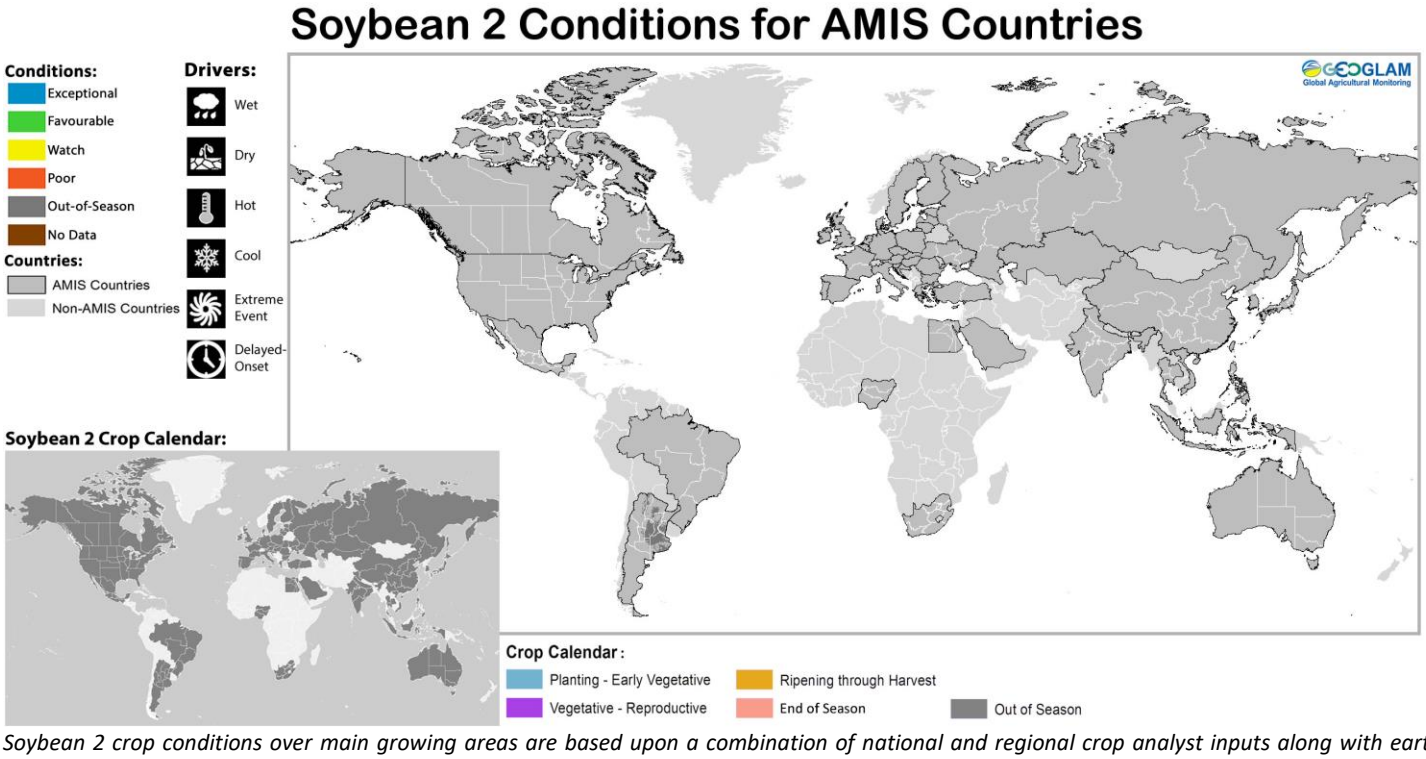


Soybean 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of August 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



Soybean 2 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 August 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: Michael Humber

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Sources & Disclaimer

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