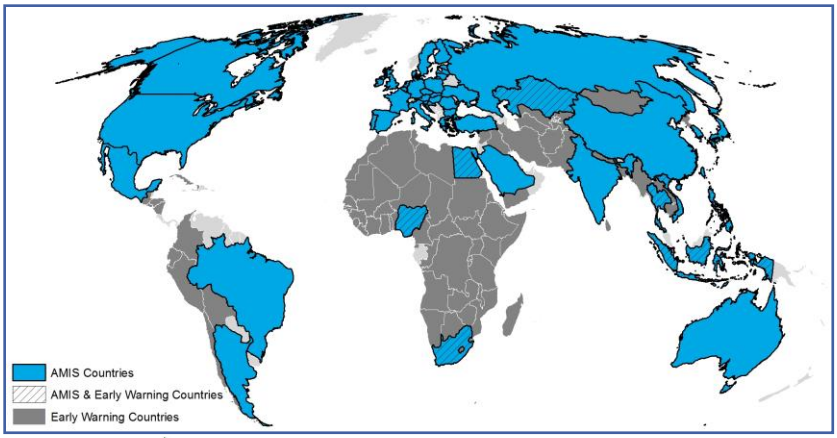
Crop Monitor for AMIS

Overview:

As of the end of September, conditions are mixed for wheat and maize, while generally favourable for rice and soybeans. In the Northern Hemisphere, spring wheat harvest is wrapping up while winter wheat sowing is beginning. In the Southern hemisphere, wheat conditions remain mixed especially in Australia. In the Northern Hemisphere, maize harvest is starting under poor conditions in western Europe and in parts of the US. In the Southern Hemisphere sowing of the spring-crop is beginning. Rice in Asia is under generally favourable conditions with some adverse conditions in Thailand, northern Viet Nam, and parts of the Philippines. Soybean conditions remain mixed in the US and Canada primarily due to the delayed start to the season while favourable in Asia.



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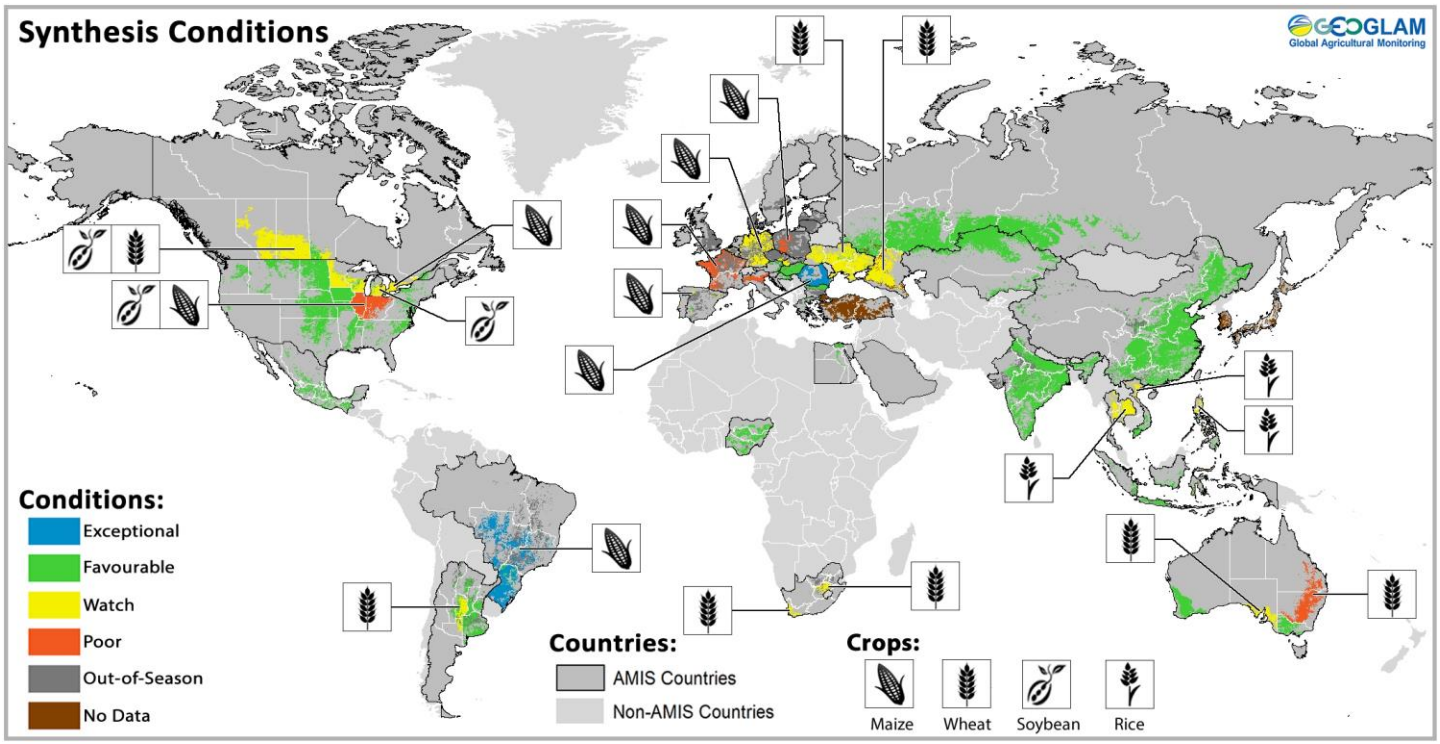
Assessment based on information as of September 28th

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



Crop condition map synthesizing information for all four AMIS crops as of September 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, spring wheat harvest is ongoing under mostly favourable conditions. Winter wheat sowing is underway under mixed conditions due to dry soil conditions in Ukraine and localized areas in the Russian Federation. In the southern hemisphere, conditions have deteriorated in eastern Australia, while generally favourable in South America.

Maize - In the northern hemisphere, harvest is underway with delayed maturity crops in the US and Canada along with heatwave affected crop in Europe. In the southern hemisphere, sowing of the spring crop is beginning in Argentina and Brazil.

Rice - In China, harvest of single-season rice is still ongoing. In Southeast Asia, conditions are mixed across the region as recent heavy rains affected wet-season rice in Thailand and the Philippines, while dry-season rice is favourable in Indonesia.

Soybeans - In the northern hemisphere, large parts of the US and Canada remain under watch conditions due to the delayed maturity of the crops, while conditions are favourable in China and India. In the southern hemisphere, sowing is just beginning in Brazil.

Neutral ENSO:

El Niño-Southern Oscillation (ENSO) conditions are neutral and most likely to remain neutral through May 2020. The Indian Ocean Dipole (IOD) is in a positive state and is forecast to remain so through the rest of 2019. A positive IOD tends to suppress rainfall in southern and central Australia and enhance rainfall in parts of East Africa.

Source: UCSB Climate Hazards Center

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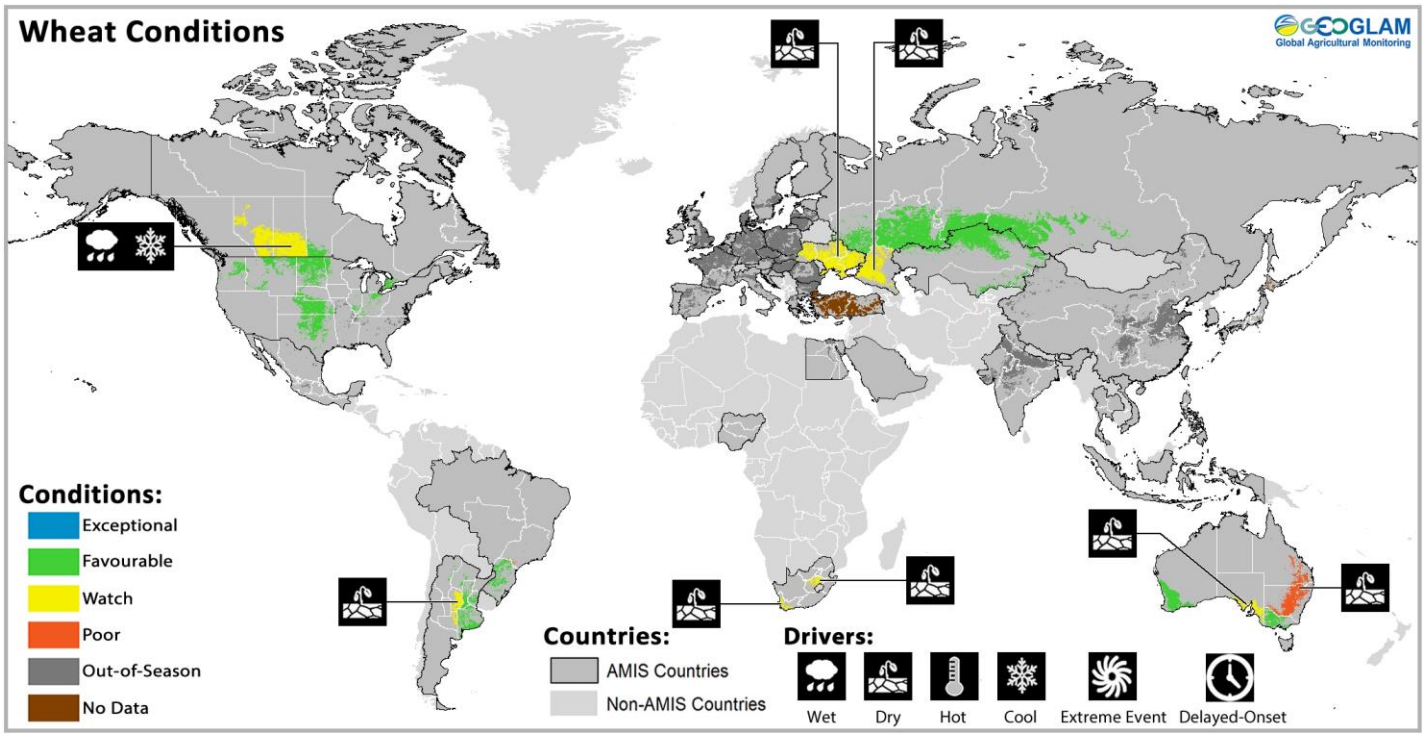
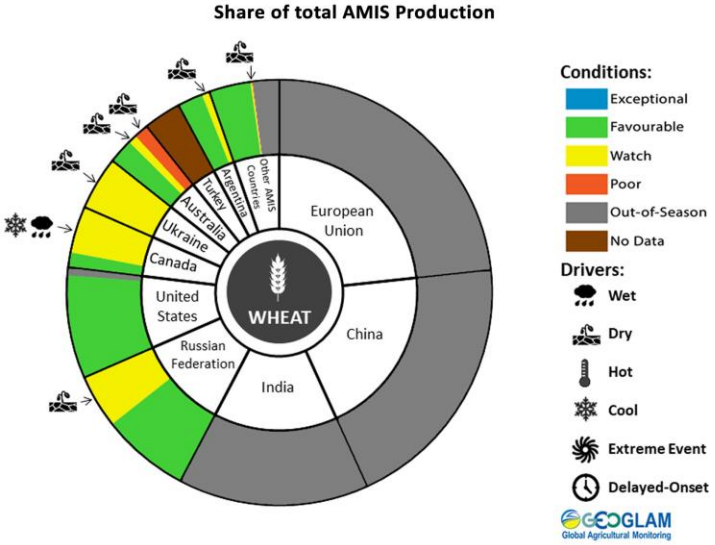
Wheat Conditions for AMIS Countries



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 September 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.

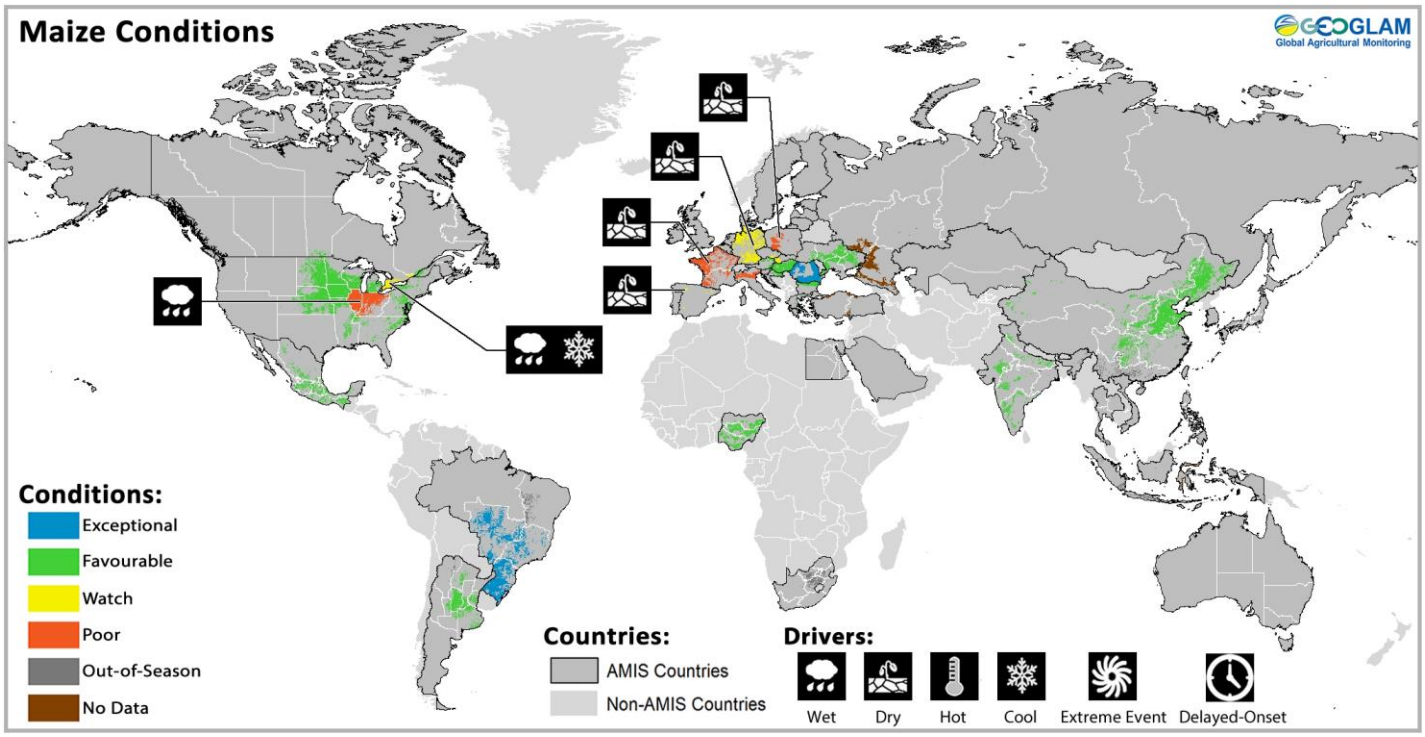
Wheat: In **Ukraine**, sowing is ongoing albeit delayed across most of the country due to severe soil drought, which is most prevalent in the central and north-eastern regions. In the **Russian Federation**, harvest of spring wheat is ongoing under generally favourable conditions while winter wheat sowing is over halfway complete despite some areas of dryness in the south. In **Kazakhstan**, spring wheat harvest is ongoing under generally favourable conditions, however earlier dry conditions in Kostanay may affect final yields. In the **US**, the spring wheat harvest is wrapping under favourable, albeit delayed, conditions. Sowing of winter wheat is starting under favourable conditions. In **Canada**, winter wheat harvest is almost complete under generally favourable conditions, but with a decline in production expected due to the decrease in total sown area this season. Spring wheat is under mixed conditions with harvest delays in the western prairies due to wet and cool conditions. In **Australia**, conditions are poor across much of New South Wales and Queensland as severe rainfall deficiencies continue. Yields across the remaining states are expected average to above average in Victoria, while slightly below average in Western Australia and South Australia. In **Argentina**, conditions are generally favourable though a lack of rainfall and low temperatures are hampering development in some regions.



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

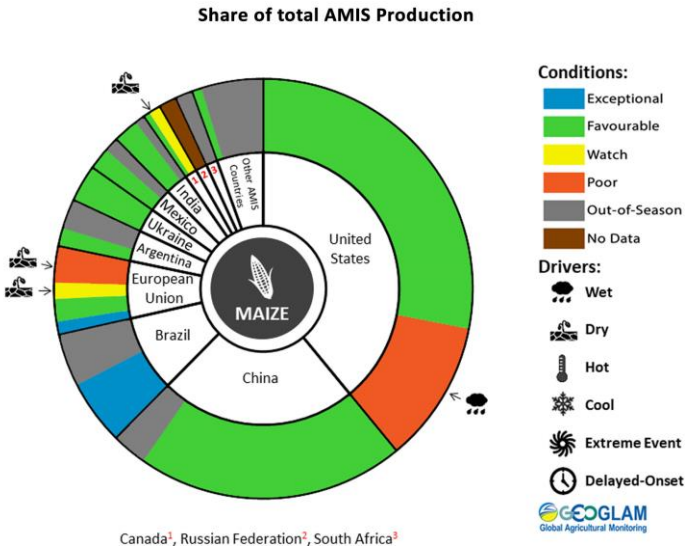
* Assessment based on information as of September 28th

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 September 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 **US**, harvest is just getting started in the southern areas as the crop is reaching maturity late this year due to the delayed sowing this season. Conditions are mostly favourable with the exception of the eastern Corn Belt. Total production in the Corn Belt is expected to be down considerably compared to last year due to large areas left unplanted, particularly in its extreme eastern and western extents. In **Canada**, crop conditions in the main producing province of Ontario are under a watch with extremely variable crop conditions due to dry soil conditions over the summer. In **Mexico**, harvest of the spring-summer crop is ongoing under favourable conditions with a slight increase in total sown area compared to last year. In **China**, conditions are generally favourable as harvest is wrapping up for the spring-planted crop while still ongoing for the summer-planted crop. In **India**, conditions are favourable for the Kharif crop as harvest begins. In the **EU**, conditions are mixed as below average yields are expected in many countries due to the summer heatwaves. In **Ukraine**, harvest is beginning under favourable conditions with initial yields slightly above last year's. In **Brazil**, harvest is wrapping for the summer-planted crop (higher producing season) under exceptional conditions. Sowing of the spring-planted crop has begun in the south under favourable conditions. In **Argentina**, sowing of the spring-planted crop is beginning in the central provinces under favourable conditions.



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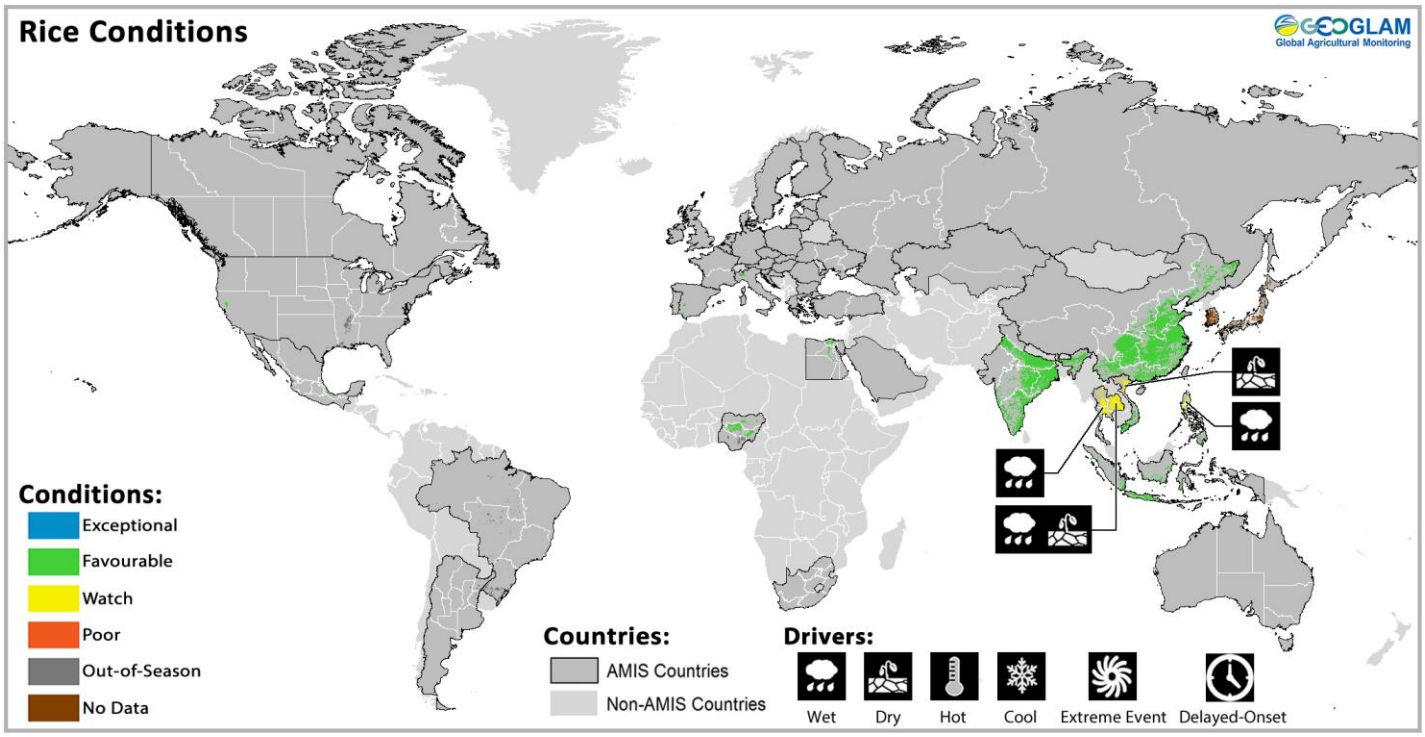
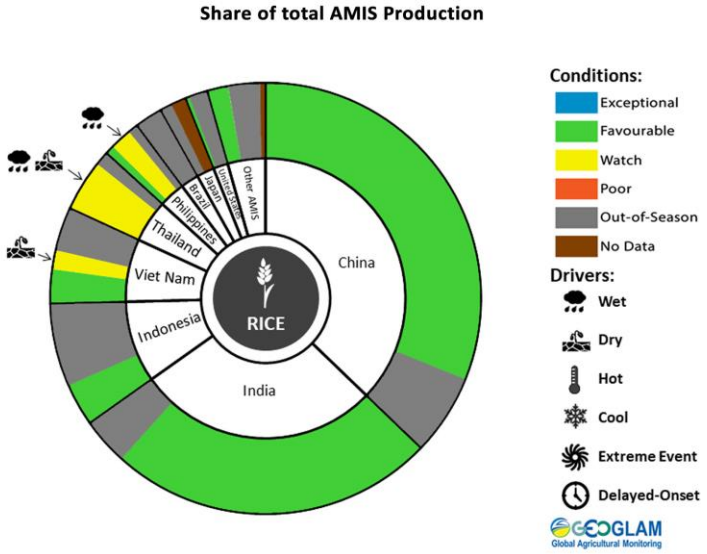
Rice Conditions for AMIS Countries



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

Rice: In **China**, conditions are favourable as single-season rice harvest is still ongoing in the lower Yangtze river basin and late-season rice is at the heading stage. In **India**, Kharif rice is under generally favourable conditions. In **Indonesia**, conditions are generally favourable as the sowing of dry-season rice continues along with the harvest of earlier sown dry-season rice. In **Viet Nam**, conditions are mixed for summer-autumn rice (wet-season rice) due to dry conditions in the north. In **Thailand**, wet-season rice conditions are mixed due to a dry start of the season followed by recent heavy rainfall and flooding of fields in early September. In the **Philippines**, conditions are mixed due to heavy rains from several tropical cyclones as the harvest begins for wet-season rice. In the **US**, conditions are favourable.



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

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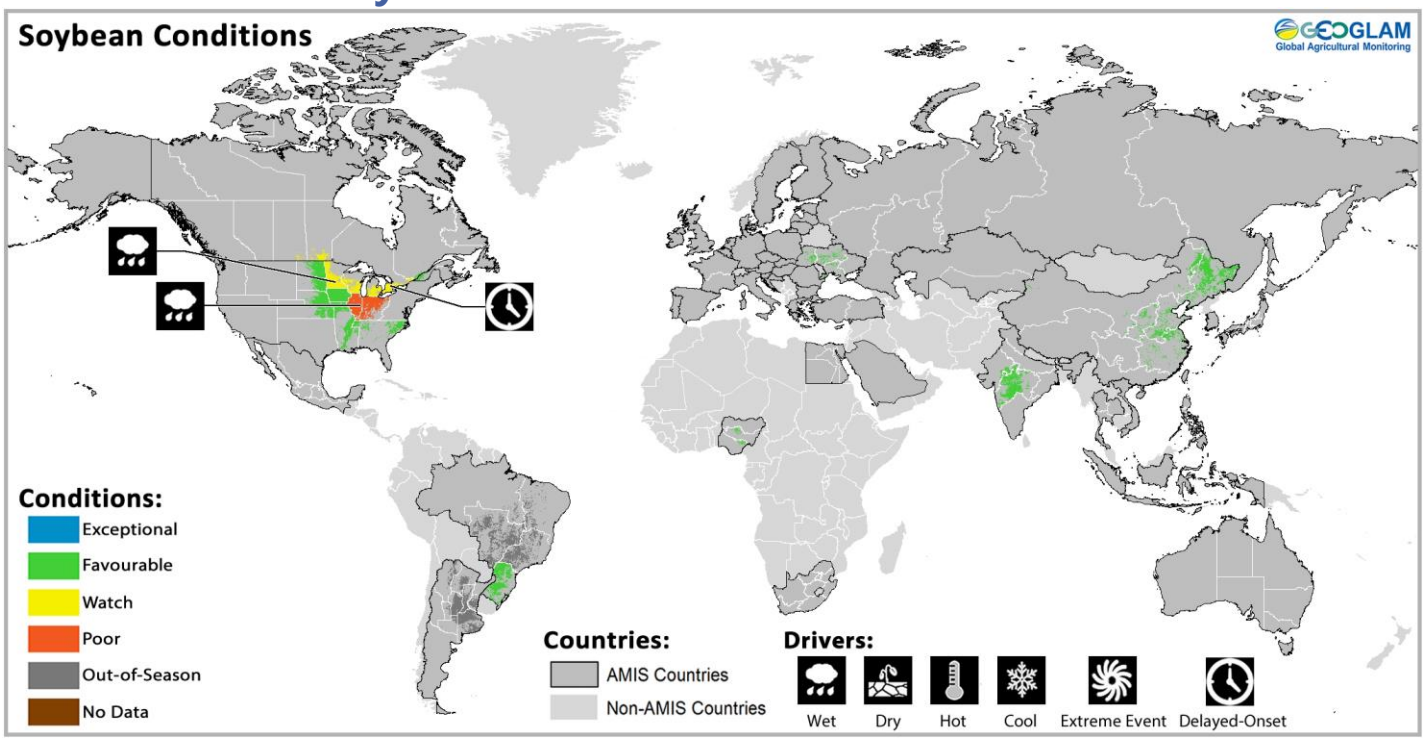
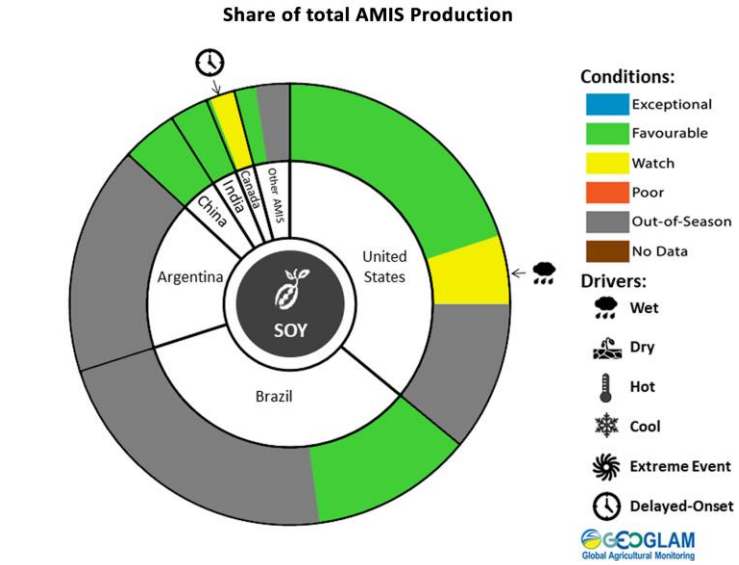
Soybean Conditions for AMIS Countries



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 September 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**, the crop is maturing quite late and harvest is yet to begin. There is still a degree of uncertainty in the expected yields, but overall production will likely be down considerably based on much fewer hectares sown. However, production in Iowa, Nebraska and other more southerly areas will likely be close to average. In **Canada**, crops across most of the country are under watch conditions. Delayed maturation and variable weather conditions have increased the risk of frost damage in the main producing provinces of Ontario and Saskatchewan. In **China**, harvest is beginning under generally favourable conditions across the county and with slightly above average conditions in the main producing northeast region. In **India**, conditions are favourable in the vegetative to reproductive stage. In **Ukraine**, harvest is about halfway complete under generally favourable conditions with yields slightly below last year's. In **Brazil**, the current rainfall in the state of Paraná has favoured the beginning of sowing.



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 October 3rd

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 September 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	Single-season	Late-season	Early-season
China	Wheat	Winter-planted	Spring-planted	
Egypt	Rice	Summer-planted	Nili season (Nile Flood)	
India	Maize	Kharif	Rabi	
India	Rice	Kharif	Rabi	
Indonesia	Rice	Wet-season	Dry-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	

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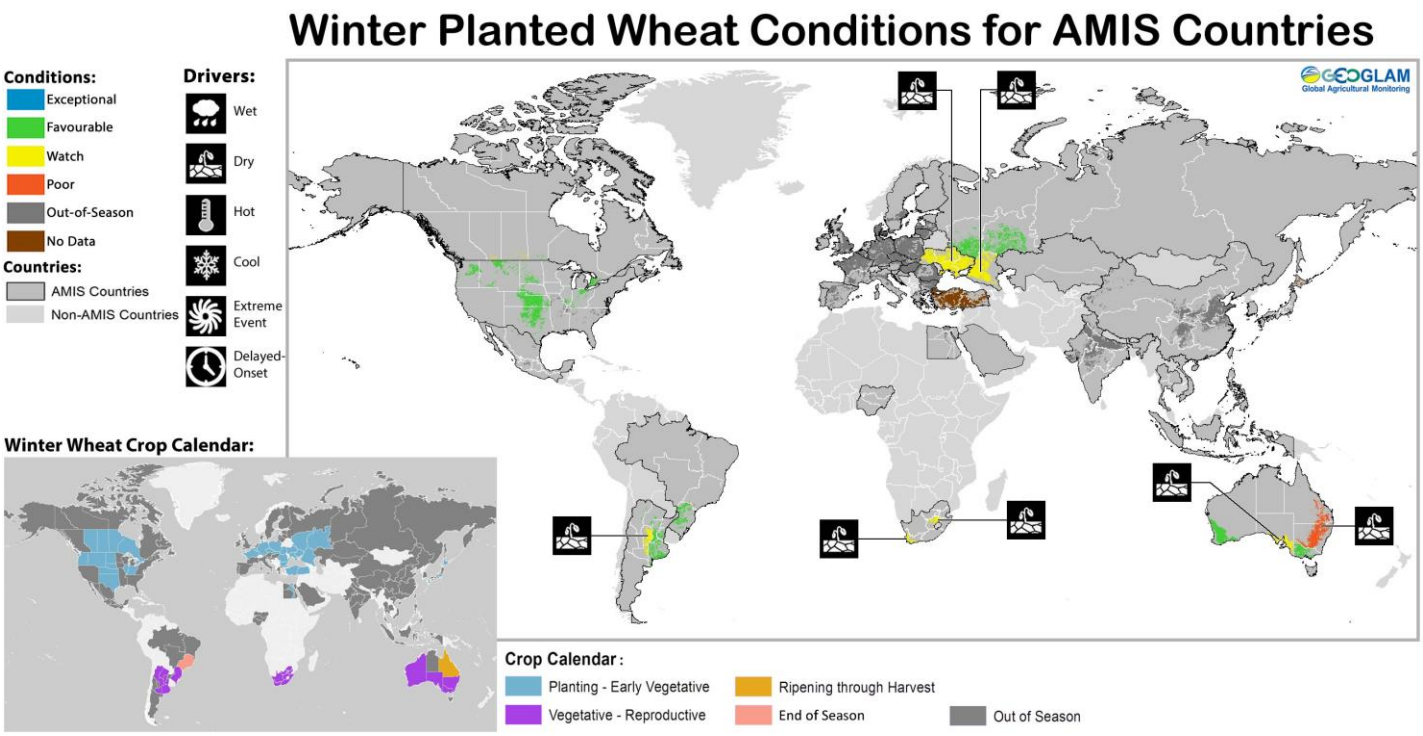
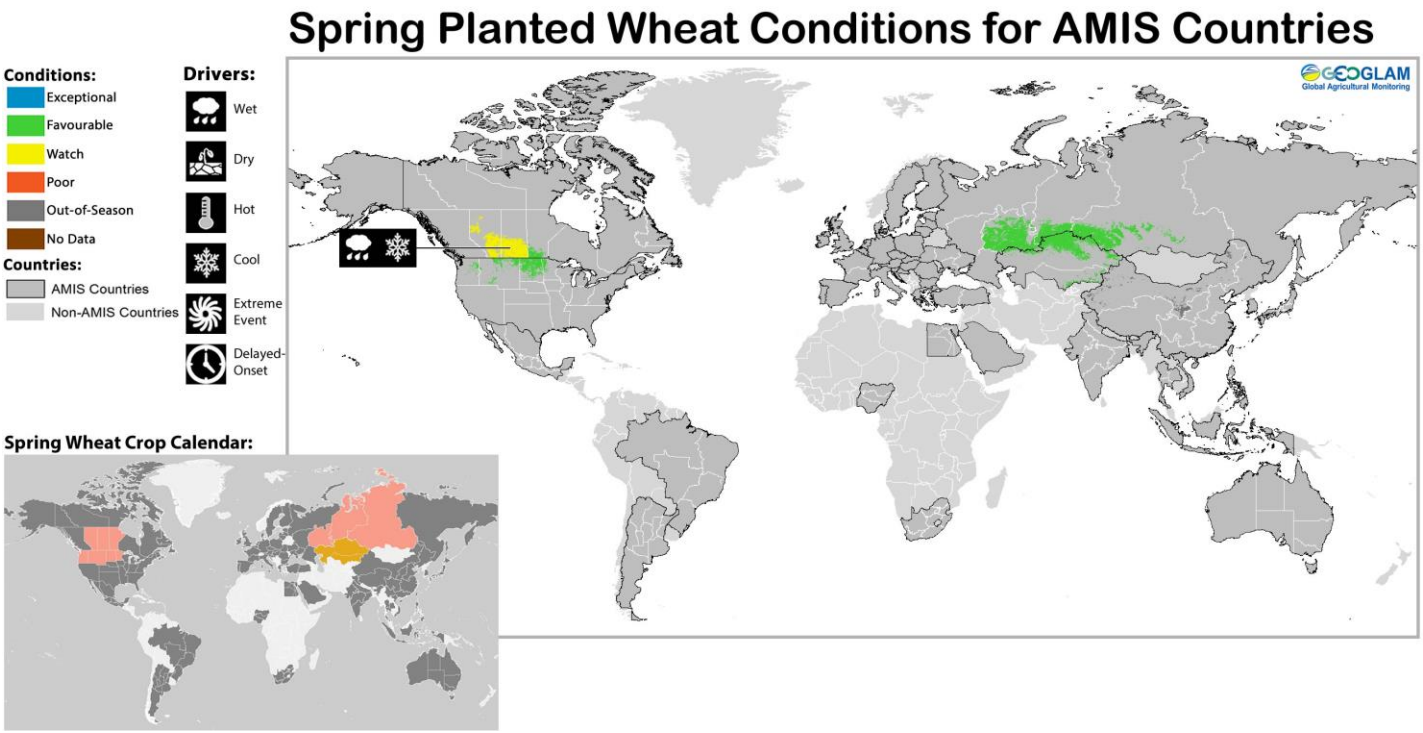
Appendix 2: Crop Season Specific Maps



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 September 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 September 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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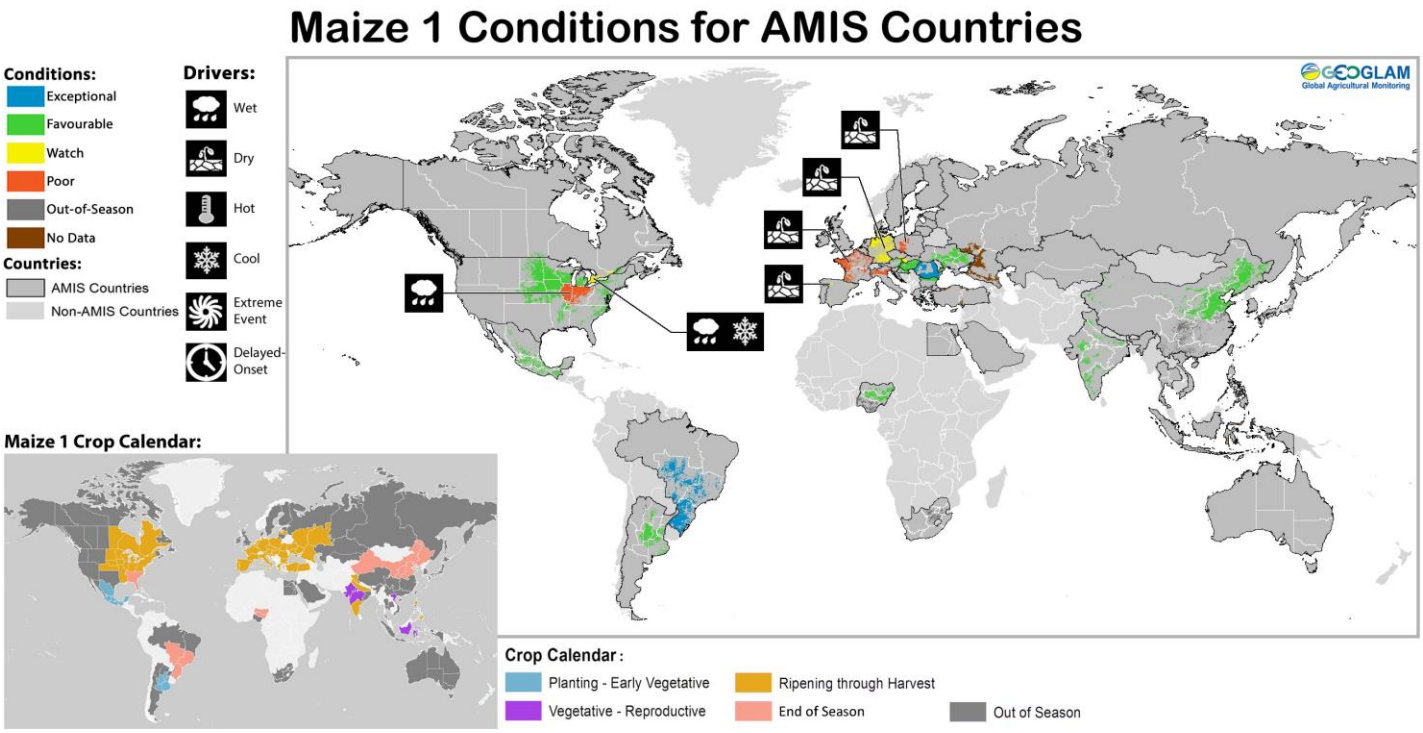
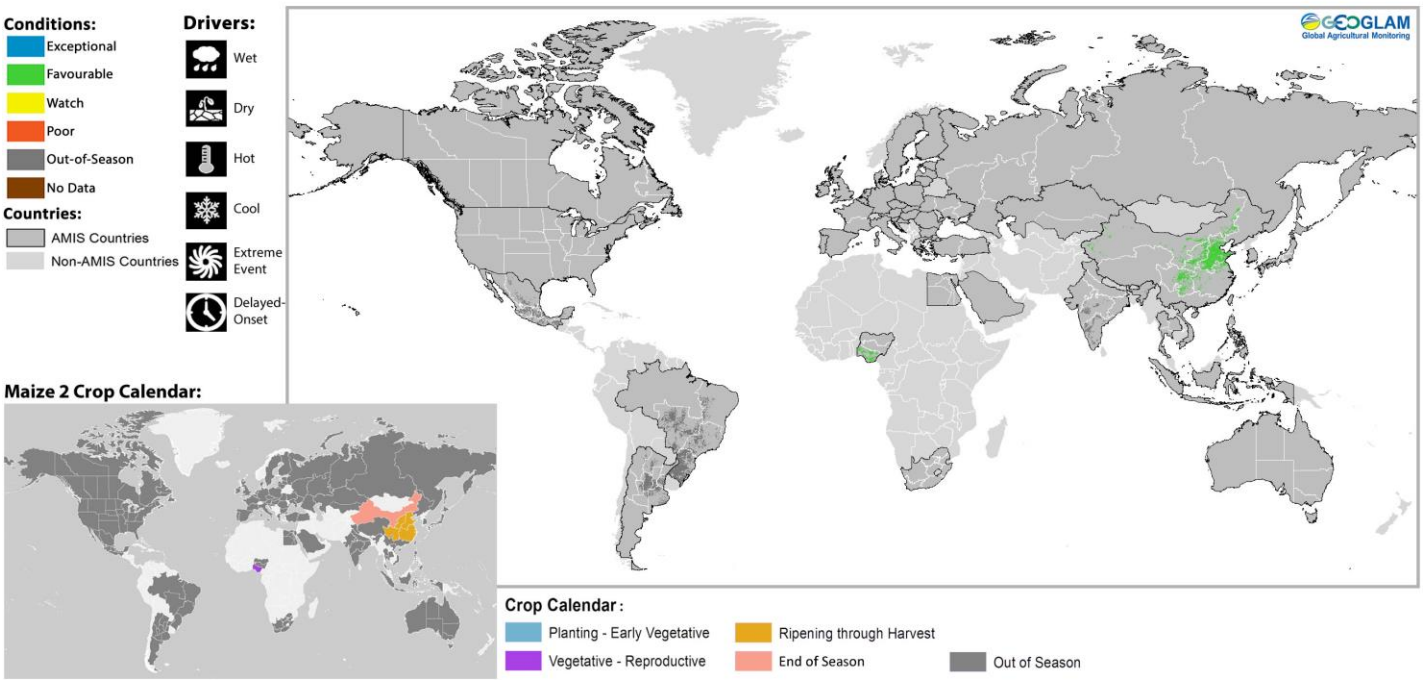


Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of September 28th. Where crops are in less than favourable conditions the climatic drivers responsible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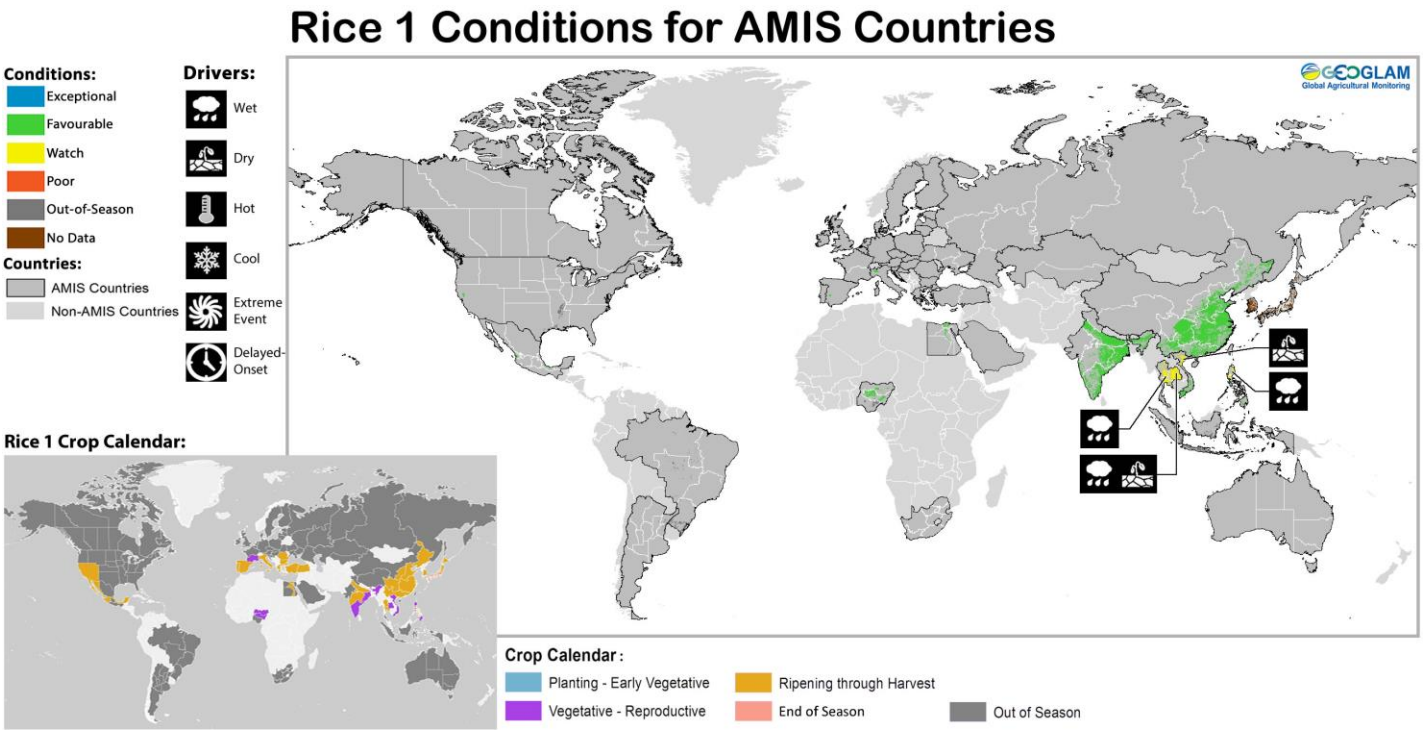
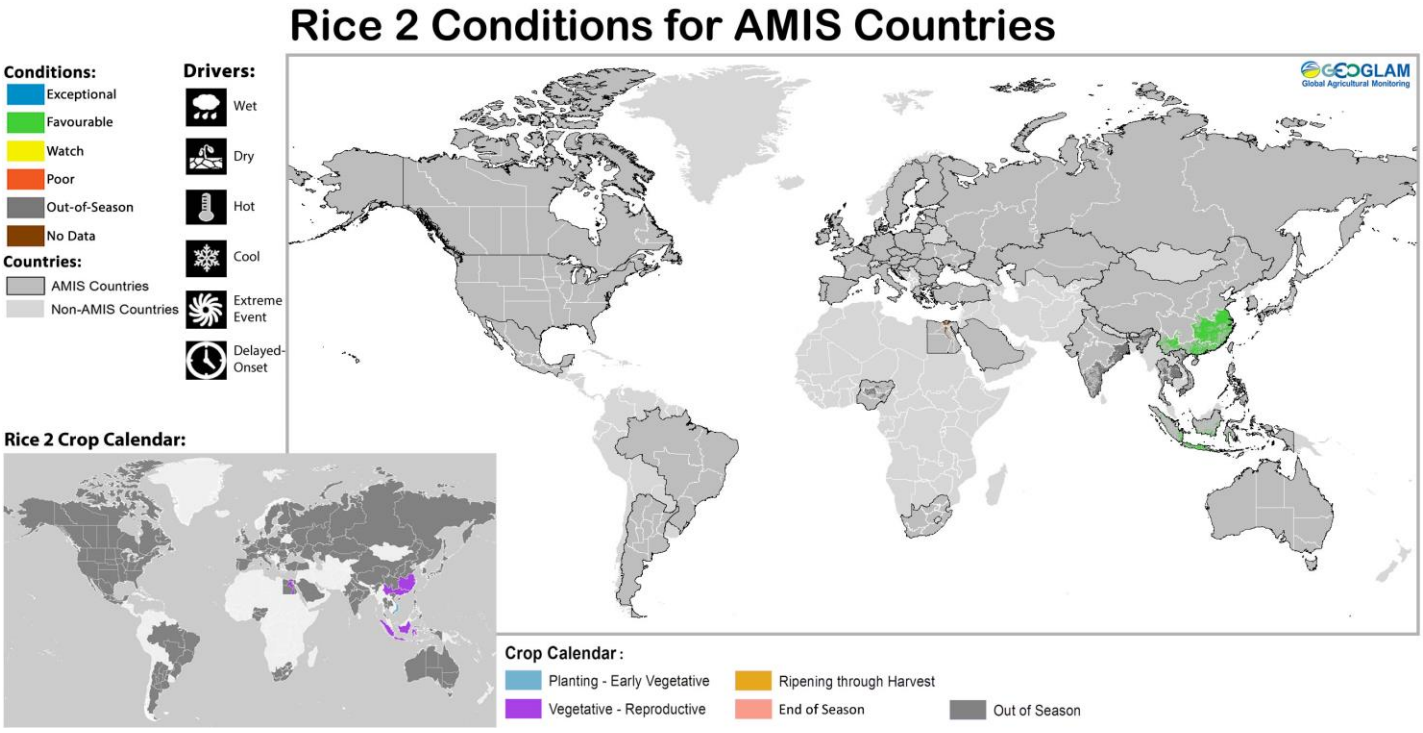


Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of September 28th. Where crops are in less than favourable conditions the climatic drivers responsible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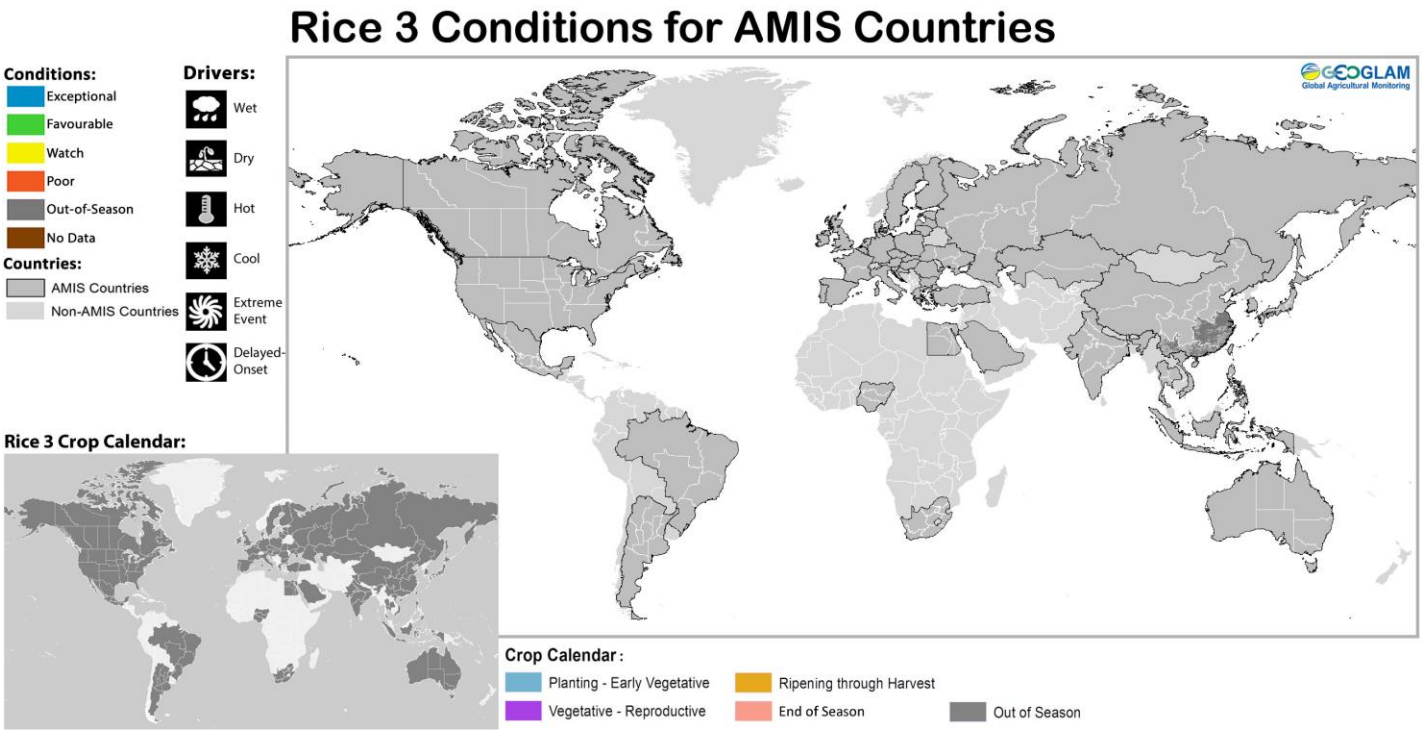

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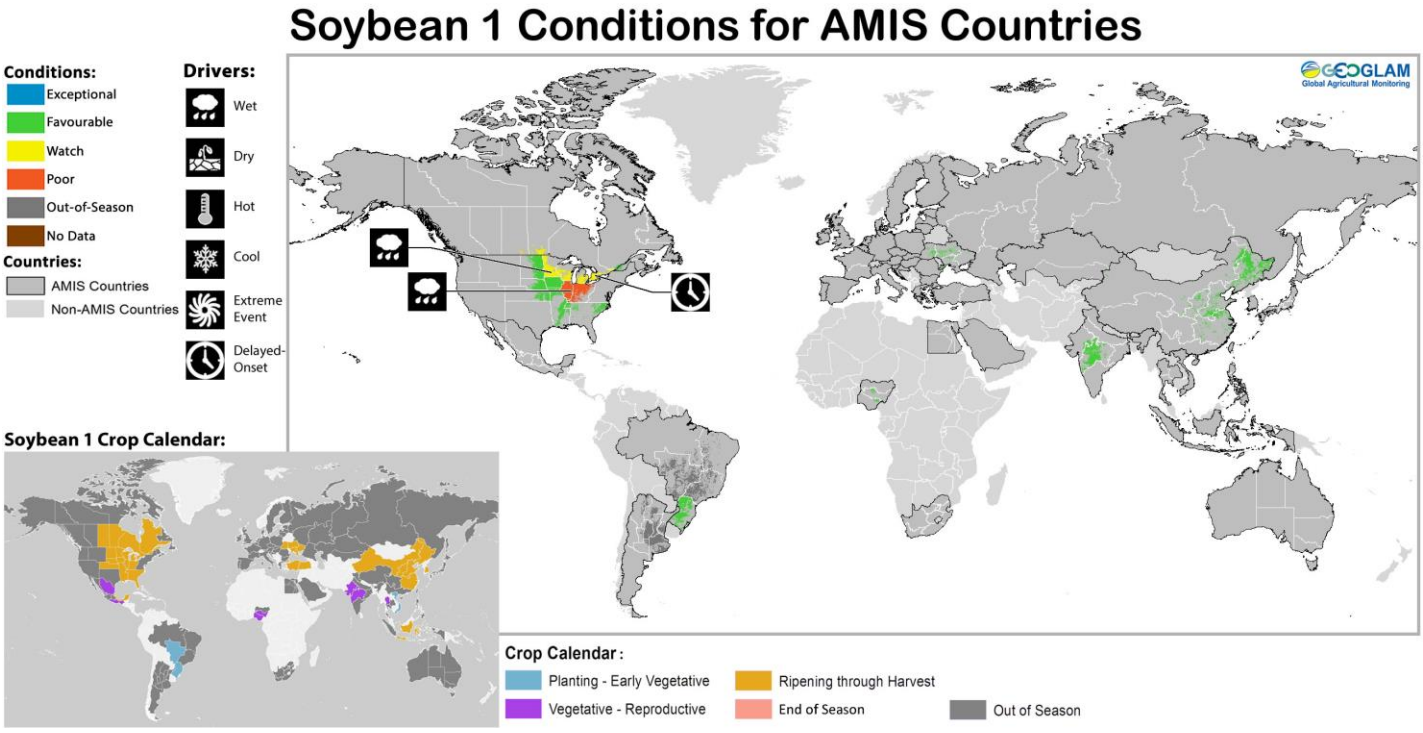

Soybean 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of September 28th. Where crops are in less than favourable conditions the climatic drivers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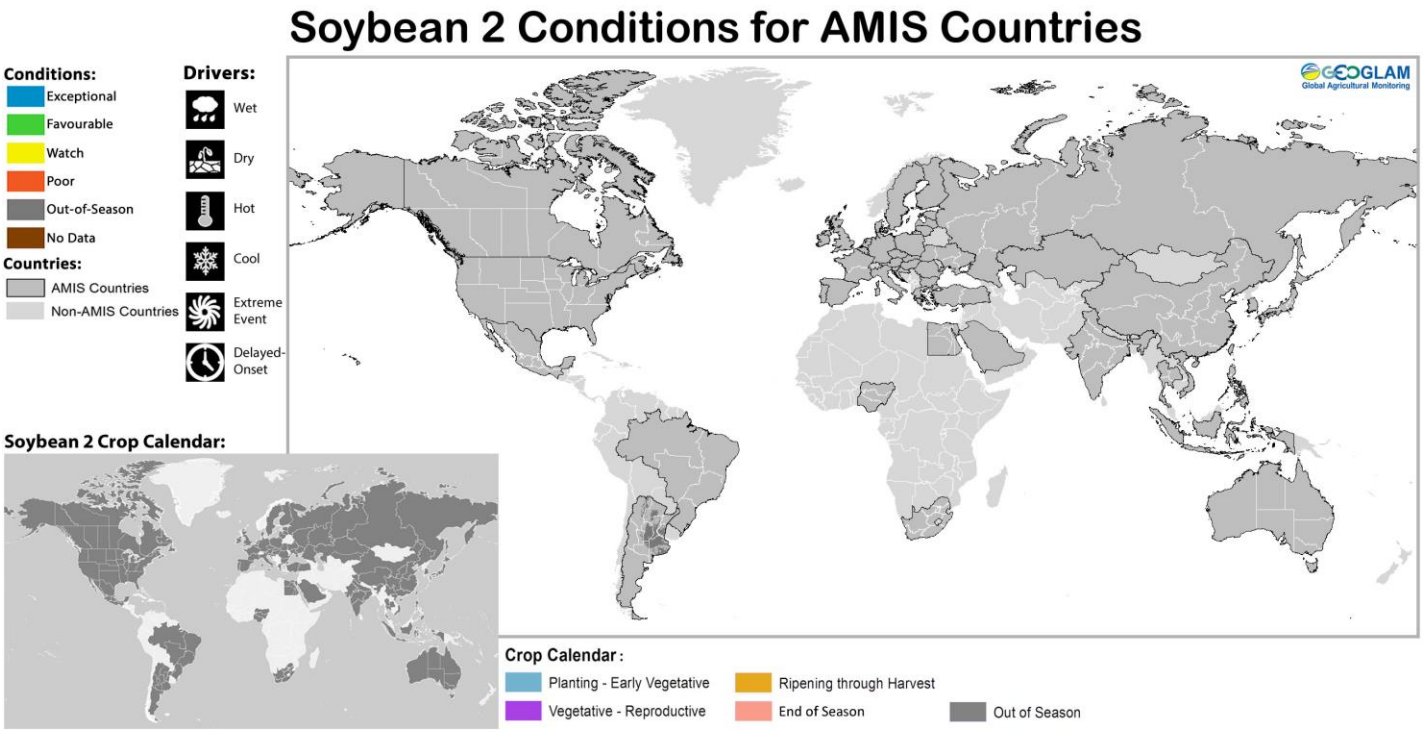

Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of September 28th. Where crops are in less than favourable conditions the climatic drivers 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
Coordinated by the University of Maryland with funding from NASA Harvest
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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