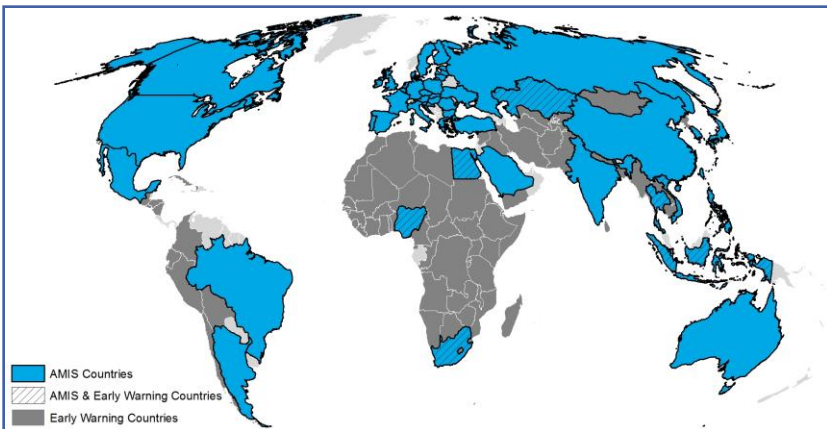




Crop Monitor for AMIS

Overview:

As of the end of February, conditions are mixed for rice, while generally favourable for wheat, maize, and soybeans. In the Northern Hemisphere, winter wheat is in dormancy under generally favourable conditions with some winter kill vulnerability in Europe, southern Ukraine, and southern Russian Federation. In the Southern Hemisphere, maize is under favourable conditions across Brazil and Argentina for both spring and summer planted crops. Rice in Southeast Asia is under watch conditions due to continued dry conditions. In the Southern Hemisphere, soybean conditions are favourable.

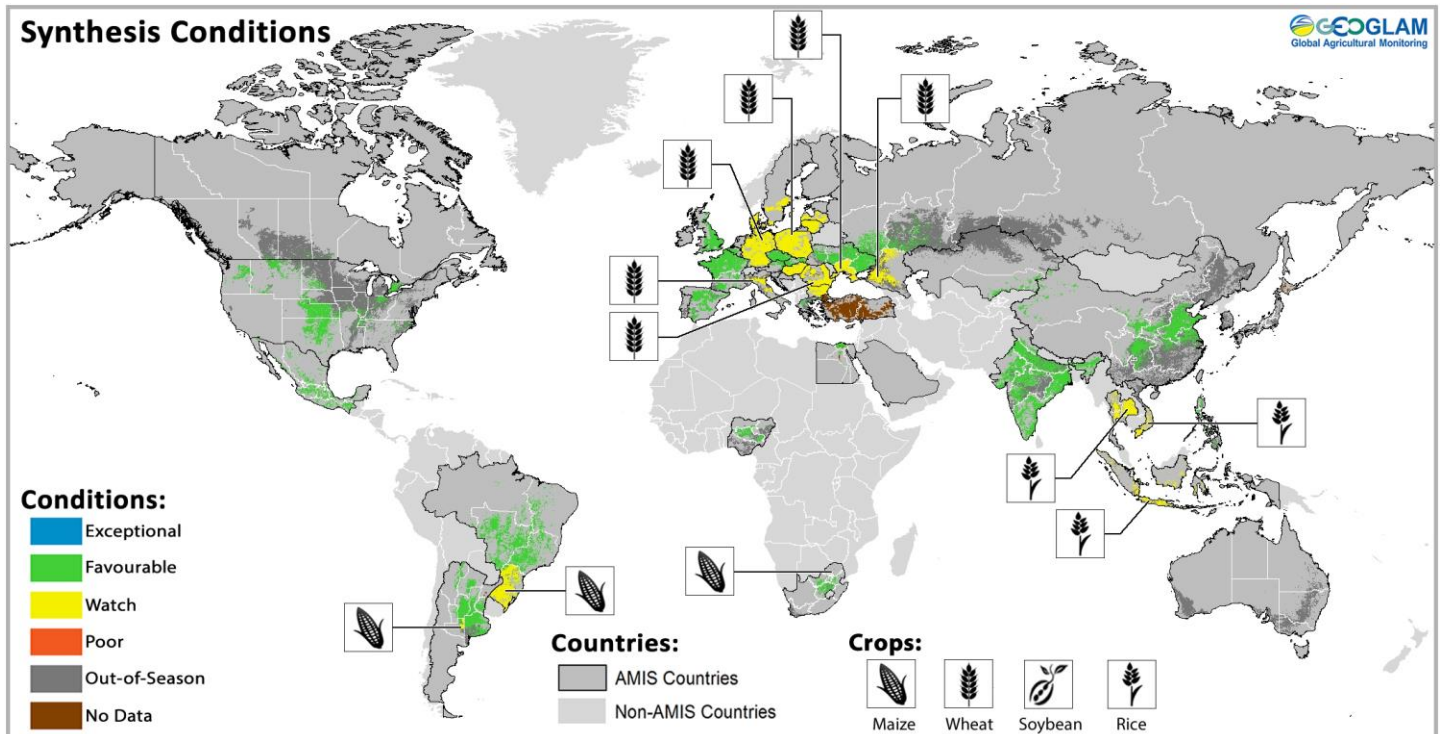


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Assessment based on information as of February 28th

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



Crop condition map synthesizing information for all four AMIS crops as of February 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, dry conditions over winter wheat areas in parts of Europe, the Russian Federation, and Ukraine remain a concern. In North America, conditions remain favourable while in India, conditions are very good.

Maize - In the southern hemisphere, conditions are favourable for Brazil and Argentina. In the northern hemisphere, conditions are favourable for the Rabi crop in India and the autumn-winter crop in Mexico.

Rice - In India, conditions are very good for Rabi rice. In Southeast Asia, dry conditions continue to be a problem for dry-season rice across Thailand and southern Viet Nam along with wet-season rice in Indonesia.

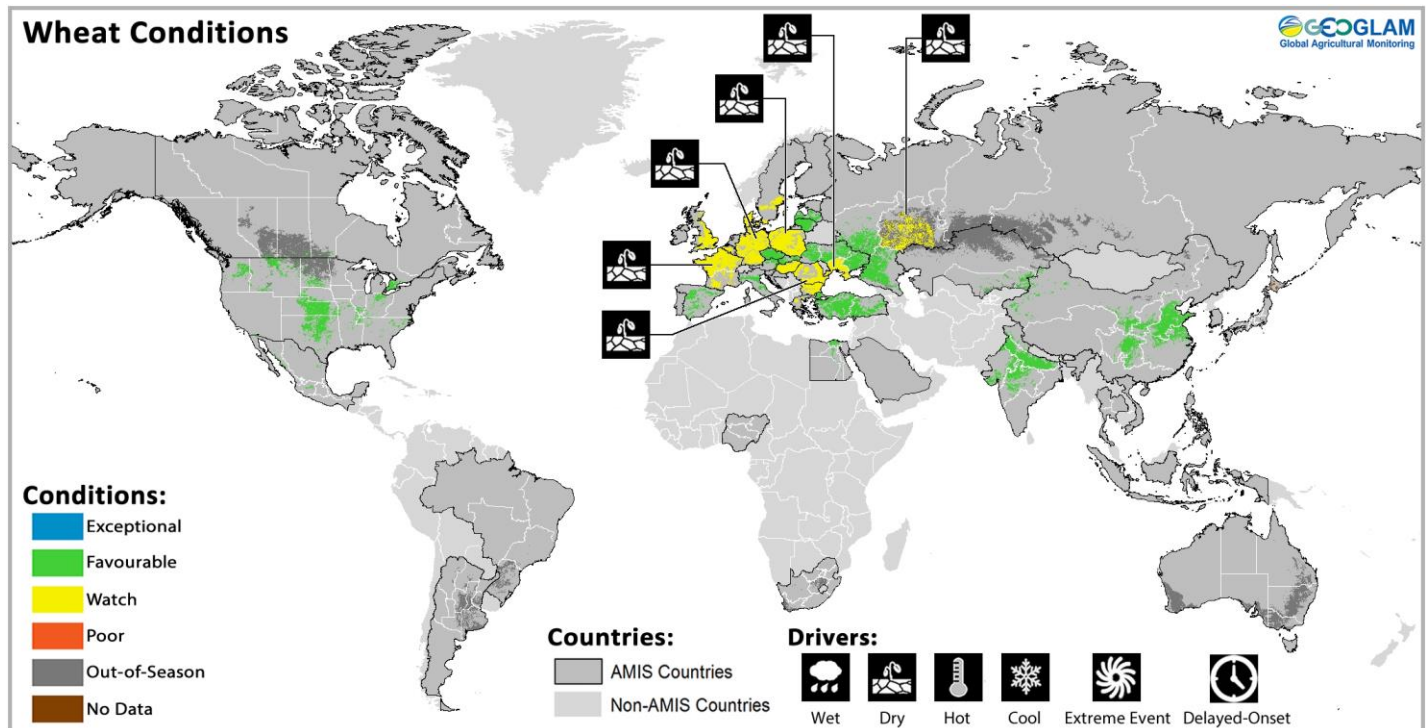
Soybeans - In the southern hemisphere, conditions are generally favourable for Argentina and favourable as harvest begins in Brazil.

Neutral ENSO:

El Niño-Southern Oscillation (ENSO) conditions are neutral and are most likely to remain neutral through June 2020.

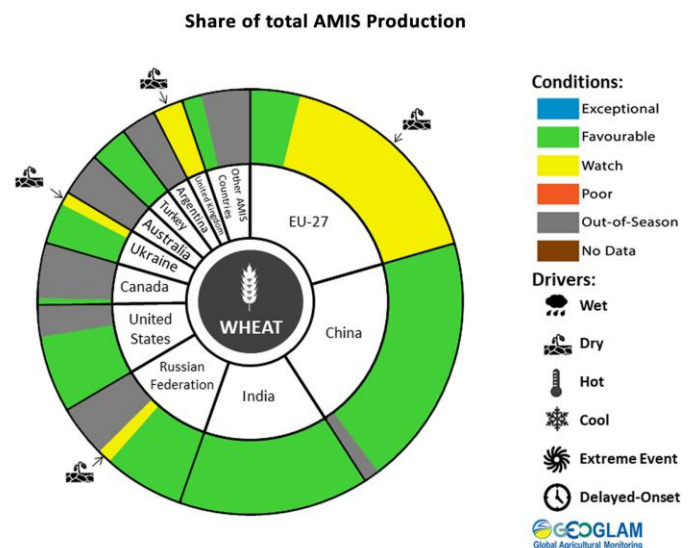
Source: UCSB Climate Hazards Center

Wheat Conditions for AMIS Countries



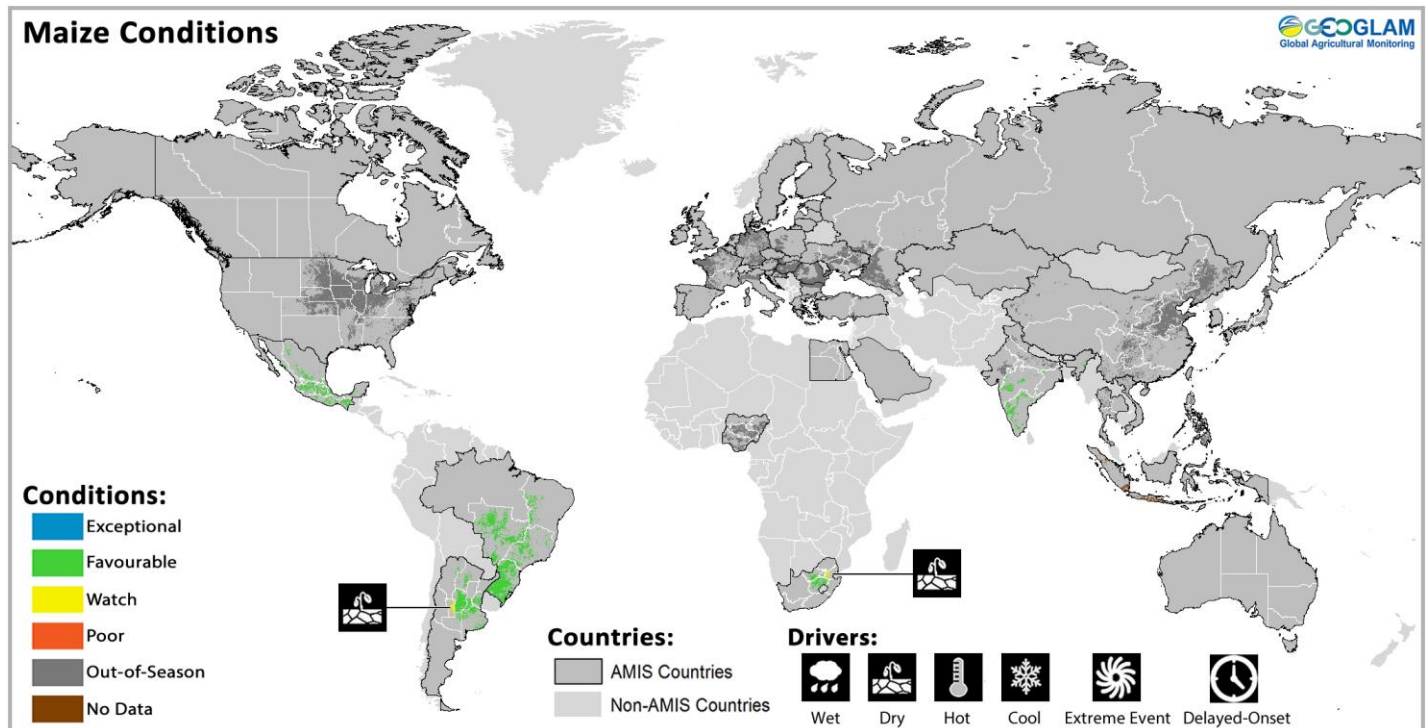
Wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Wheat: In the **EU**, winter wheat conditions are under watch as a large part of Europe is experiencing a lack of winter hardening, leaving the crops vulnerable to frost damage. Total sown area is notably reduced in France this year compared to average. In the **United Kingdom**, conditions are under watch due to a lack of winter hardening. In **Turkey**, conditions are favourable with most of the crop adequately hardened for the winter. In **Ukraine**, winter wheat conditions are generally favourable, with watch conditions continuing in the south due to low soil moisture levels. In the **Russian Federation**, conditions are generally favourable with the exception of some dry areas. In **Kazakhstan**, winter wheat conditions remain favourable with some minor areas renewing growth. In **China**, conditions are favourable for winter wheat thanks in part to above-average autumn temperatures advancing growth before entering winter dormancy. In **India**, conditions are very good for winter wheat with a noticeable increase in total sown area compared to last year and increased yields expected. In the **US**, winter wheat is under generally favourable conditions. In **Canada**, winter wheat is in dormancy under generally favourable conditions. Below average snowpack in the Prairies is increasing the risk of winterkill.



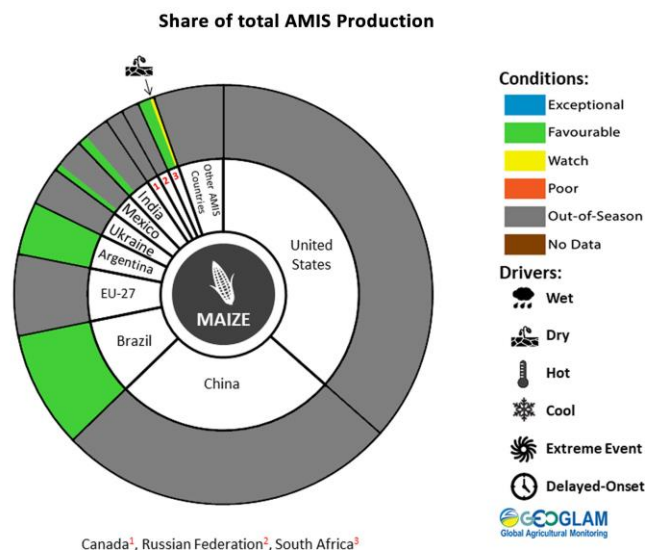
For detailed description of the pie chart please see box on page 6.

Maize Conditions for AMIS Countries



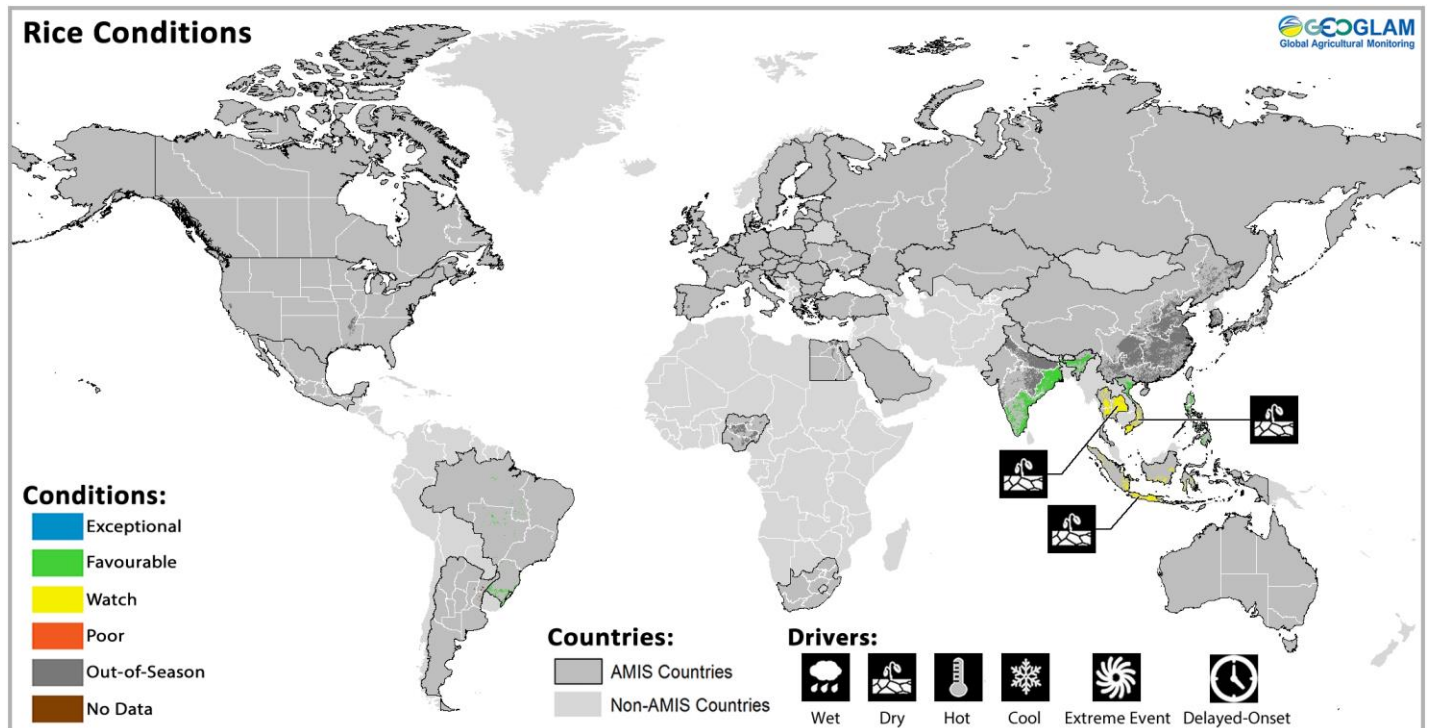
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Maize: In **Brazil**, the spring-planted (smaller season) crop is under generally favourable conditions across the country. Dry conditions earlier in the season reduced yields in Rio Grande do Sul, however those have been counterbalanced by favourable yields in Parana and Santa Catarina. Sowing of the summer-planted (larger season) crop is ongoing in the main producing regions under favourable conditions. In **Argentina**, conditions have improved for both the spring-planted and summer-planted crops due to good rainfall over the past few weeks. However, there is some concern for soil moisture deficits affecting the summer-planted crop in San Luis. In **Mexico**, conditions are favourable for the autumn-winter crop with an increase in total sown area compared with last year. In **India**, sowing of the Rabi crop is almost complete under favourable conditions with total sown area close to average. In **South Africa**, conditions are generally favourable, but dry conditions in the east may negatively impact yields.



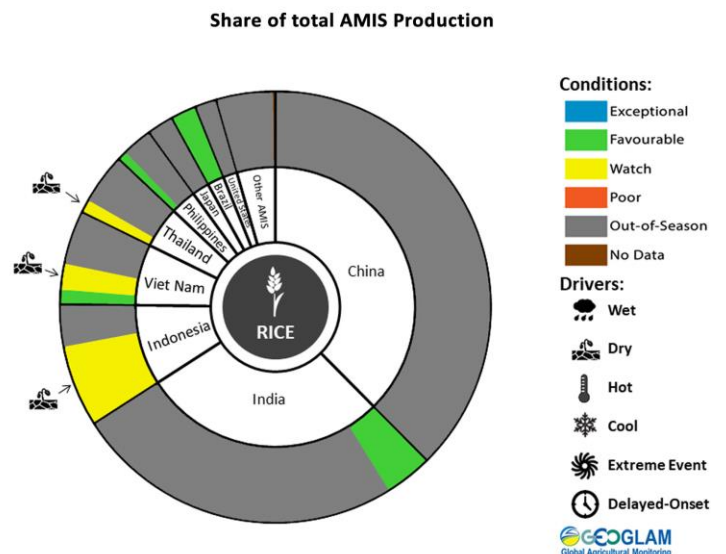
For detailed description of the pie chart please see box on page 6.

Rice Conditions for AMIS Countries



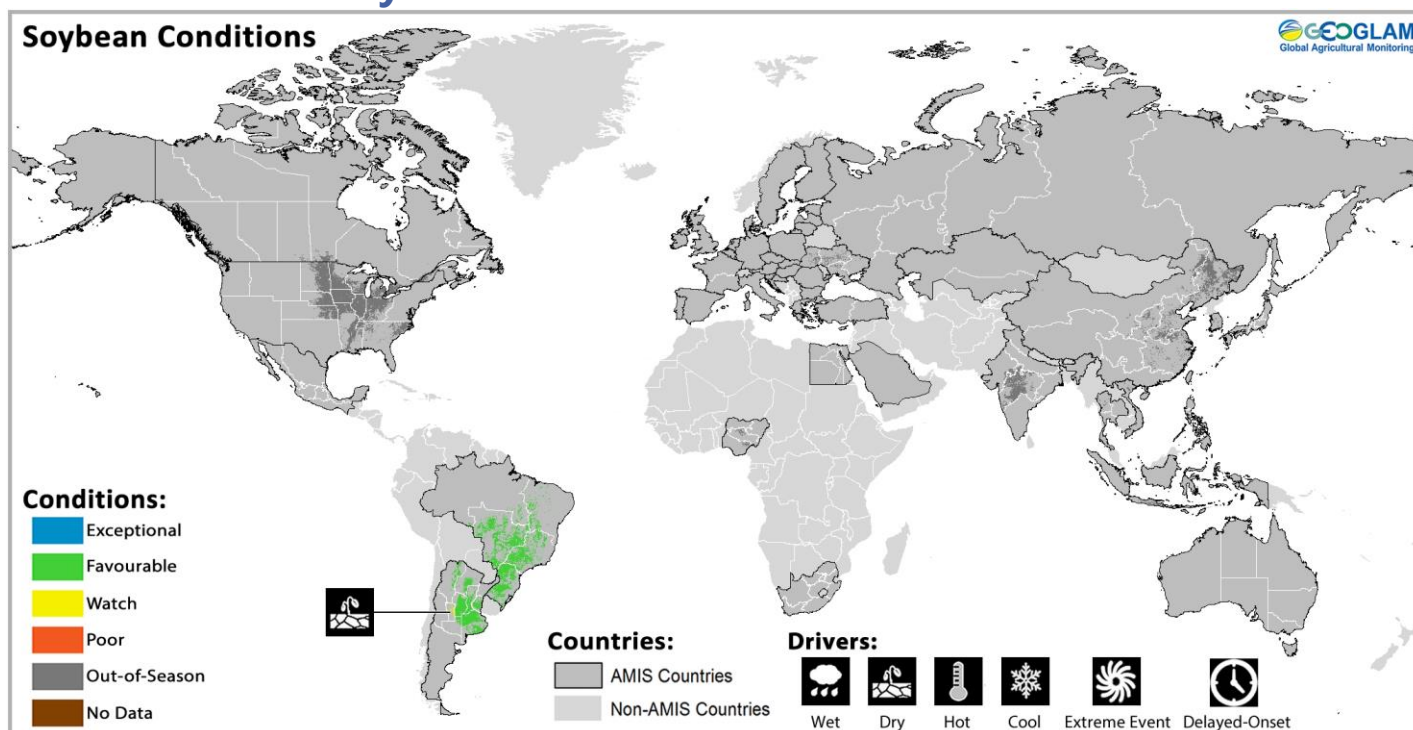
Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in other than favourable conditions the climatic drivers responsible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

Rice: In **India**, conditions are very good as transplanting of Rabi rice continues in the eastern parts of the country with an increase in total sown area compared to average. In **Indonesia**, an increase in rainfall is supporting the expansion of wet-season rice sowing. However, harvesting of earlier sown crops is continuing under watch conditions due to the prolonged drought reducing yields compared to last year. In **Viet Nam**, sowing of dry-season rice (winter-spring rice) is beginning in the north under favourable conditions with an expected increase in total sown compared to last year, owing to warm weather and better irrigation preparation. In the south, conditions remain under watch with damaging saltwater intrusion continuing as harvest begins in some provinces. In **Thailand**, dry-season rice conditions remain under watch due to the continued shortage of available water for irrigation, and some pest outbreaks in the northern region. Total sown area is decreased compared to last year due to dry conditions. In the **Philippines**, conditions are generally favourable for dry-season rice despite minimal rainfall received over the past month. In **Brazil**, conditions are favourable.



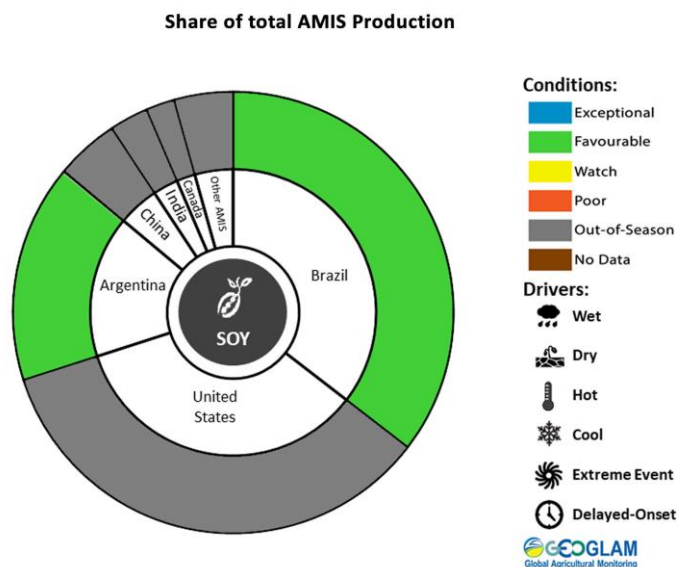
For detailed description of the pie chart please see box on page 6.

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 February 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 **Brazil**, harvest is ongoing under favourable conditions. Irregular rains earlier in the season impacted crops particularly in Rio Grande do Sul, however yields from Parana and Santa Catarina are helping to maintain average overall yields in the South region. Early yields from the Central-West region are above average. In **Argentina**, conditions continue to improve for both spring-planted and summer-planted crops due to rainfall over the past few weeks. However, there is some concern for summer-planted crops in San Luis due to soil moisture deficits.



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 March 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 slice 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: Terminology & Definitions

Crop Conditions:

Exceptional: Conditions are much better than average* at the 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.

Conditions:

	Exceptional
	Favourable
	Watch
	Poor
	Out-of-Season
	No Data

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: Wetter than average (includes water logging and floods).

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

Extreme Events: Catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winter kill, wind damage, etc.). When this category is used the analyst will also specify the type of extreme event in the text.

Delayed-Onset: Late start of the season

	Wet
	Dry
	Hot
	Cool
	Extreme Event
	Delayed-Onset

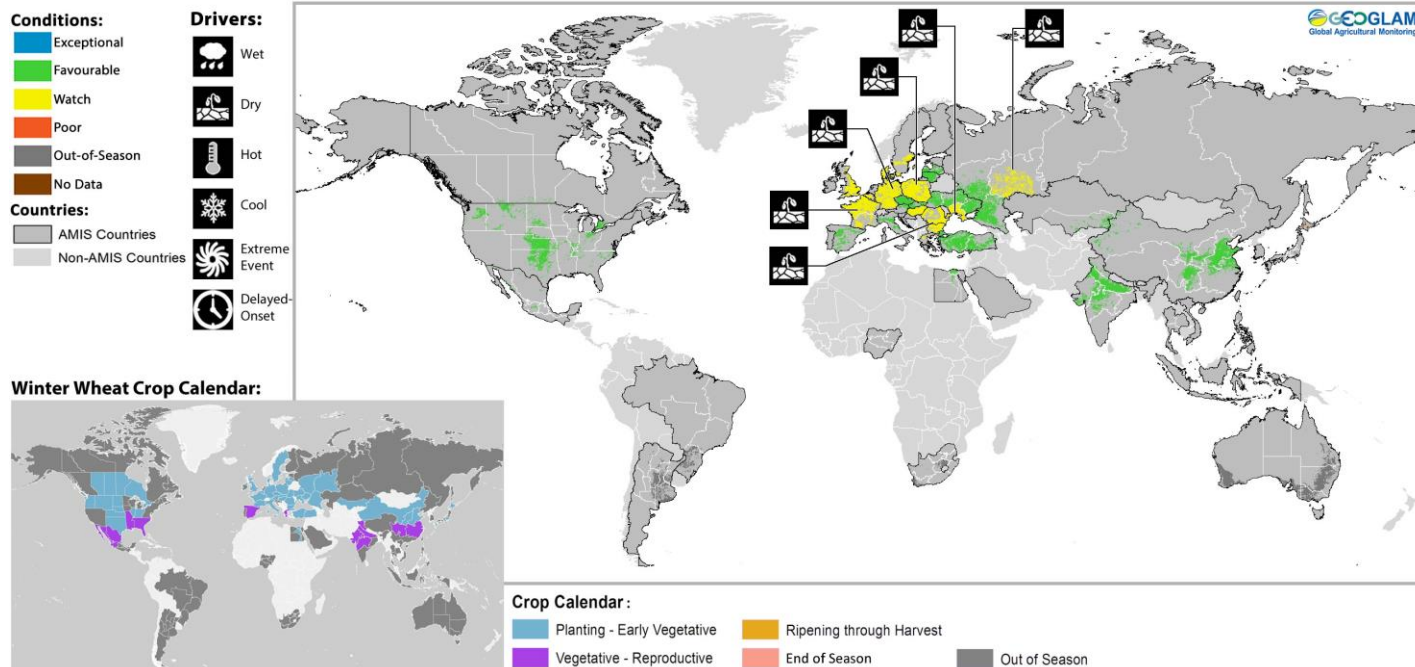
Crop Season Nomenclature:

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	

Appendix 2: Crop Season Specific Maps

Winter Planted Wheat Conditions for AMIS Countries



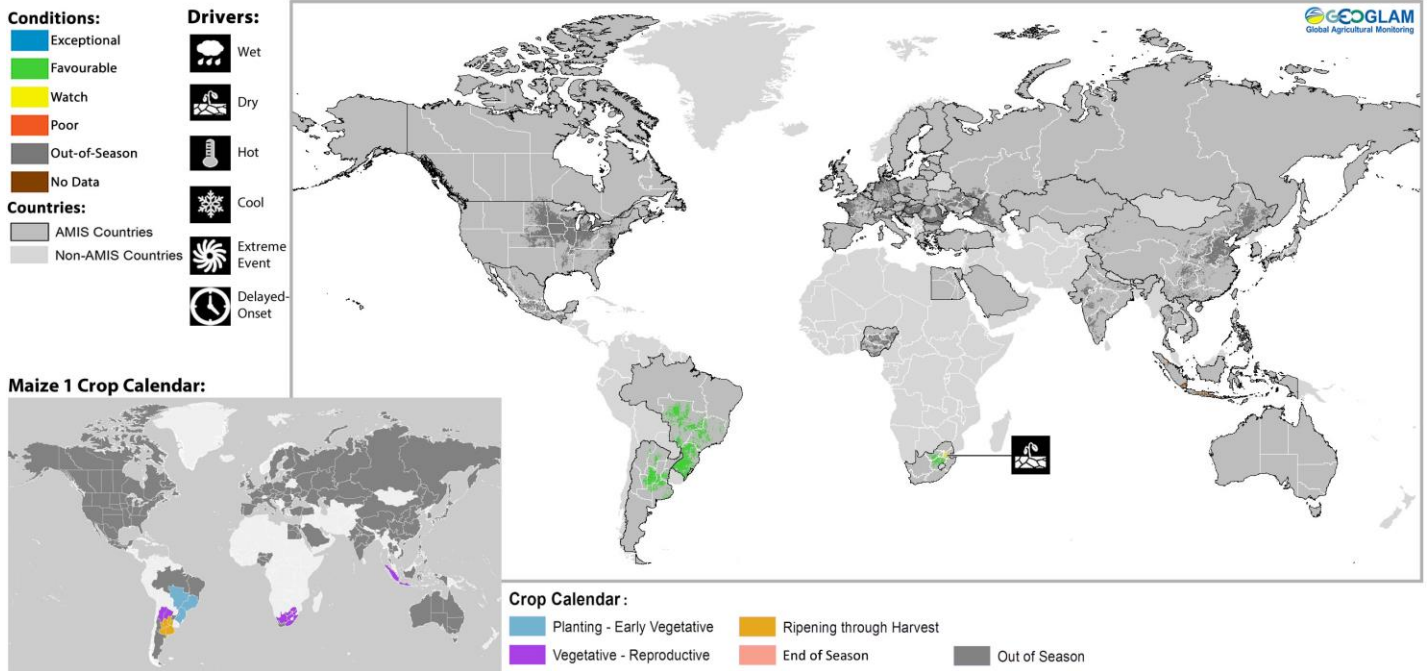
Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers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



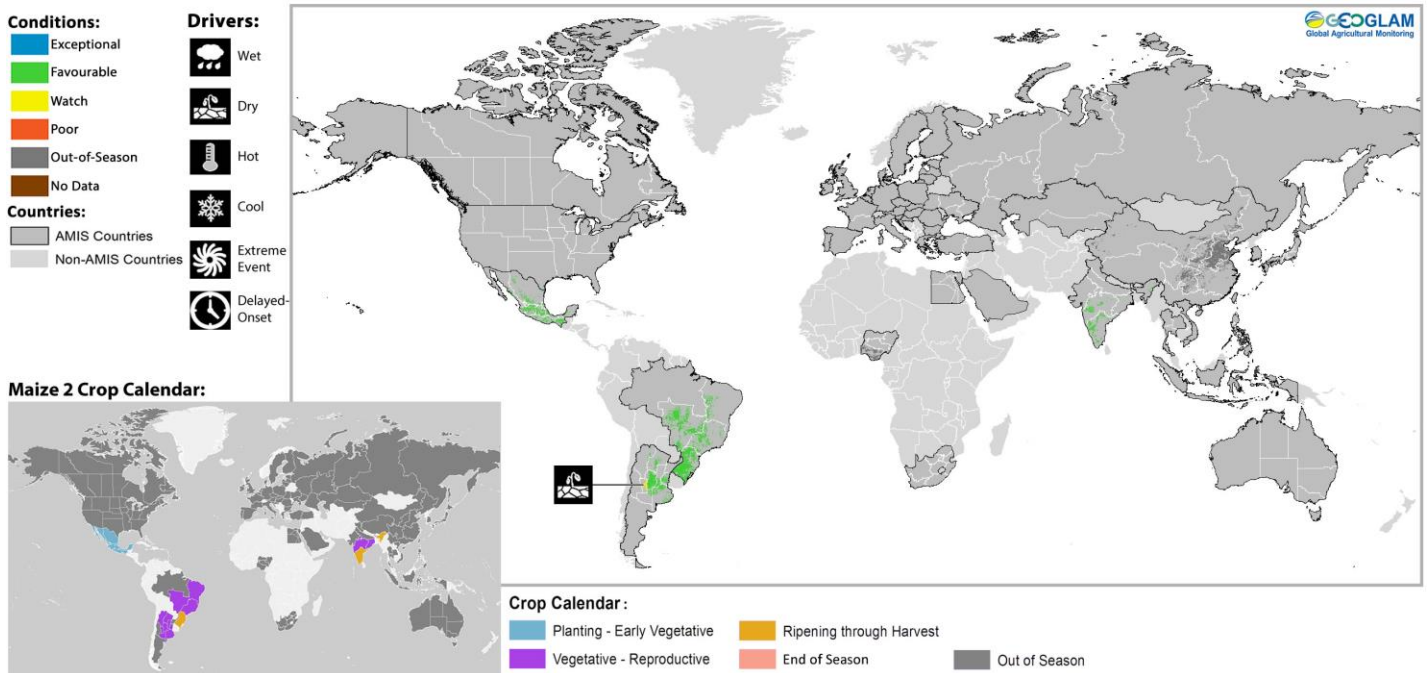
Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers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



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 February 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.

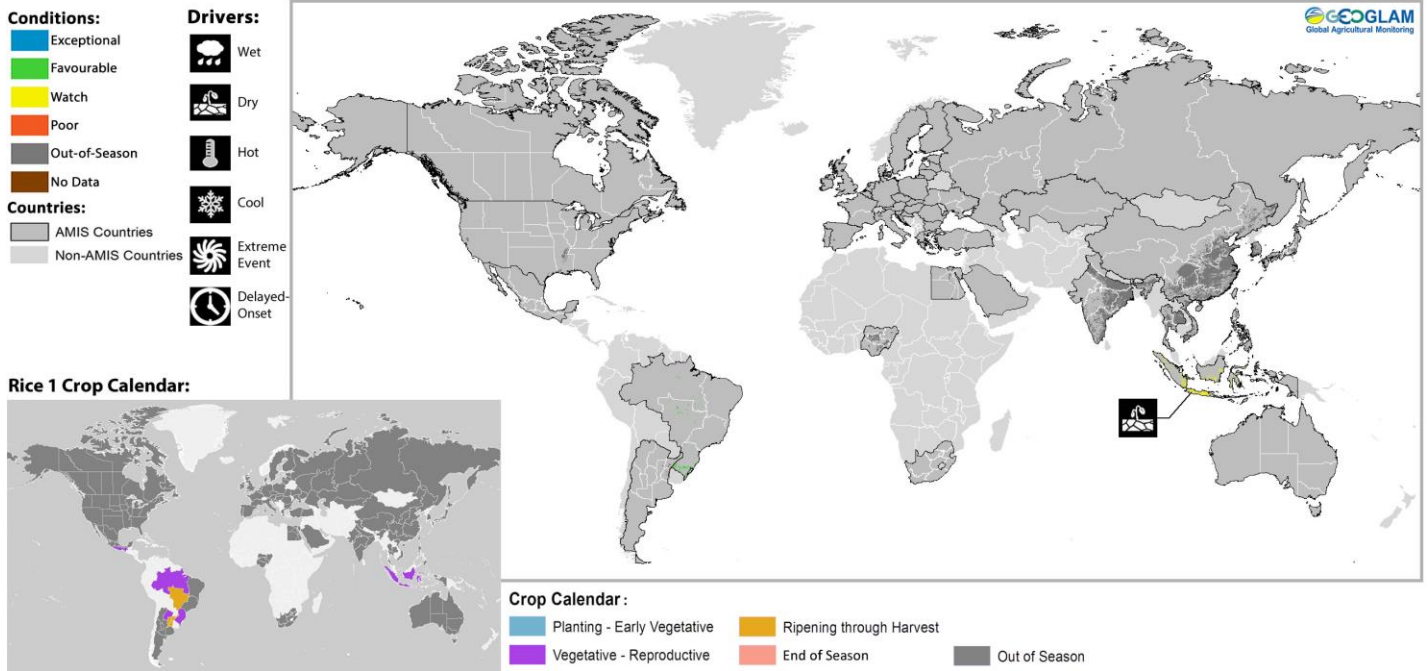
Maize 2 Conditions for AMIS Countries



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 February 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.

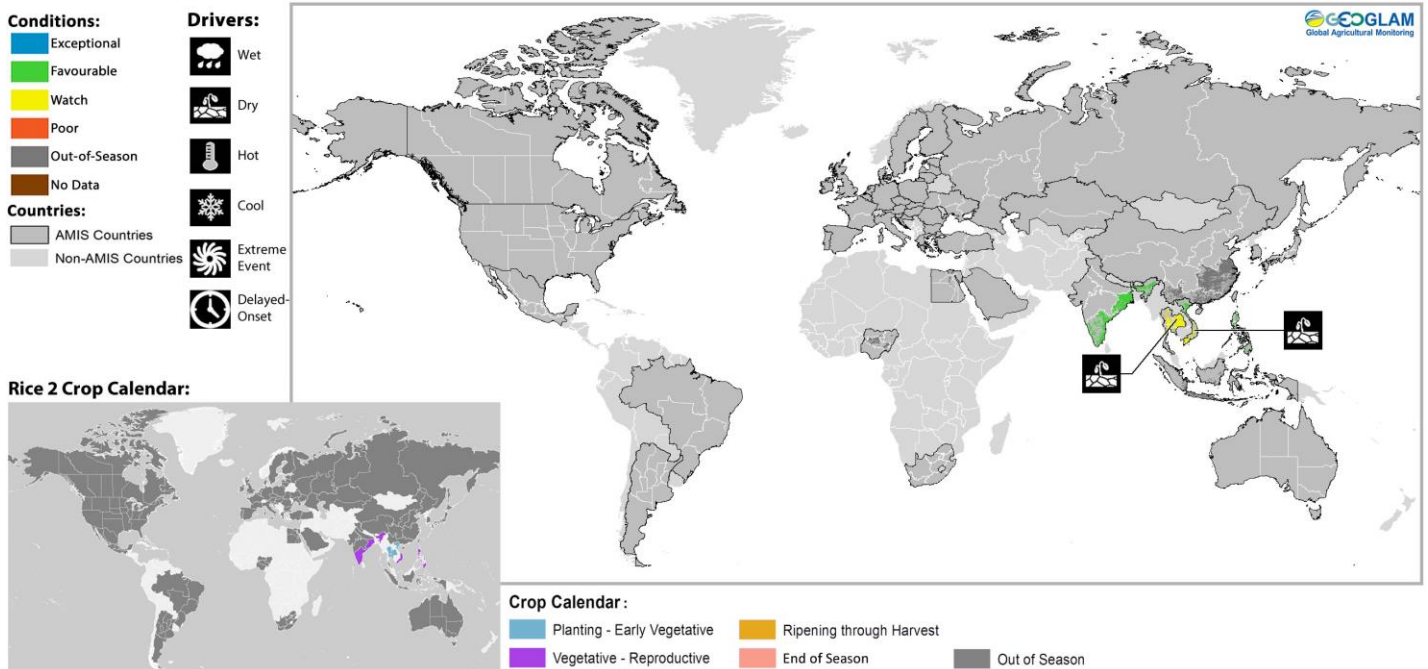
* Assessment based on information as of February 28th

Rice 1 Conditions for AMIS Countries



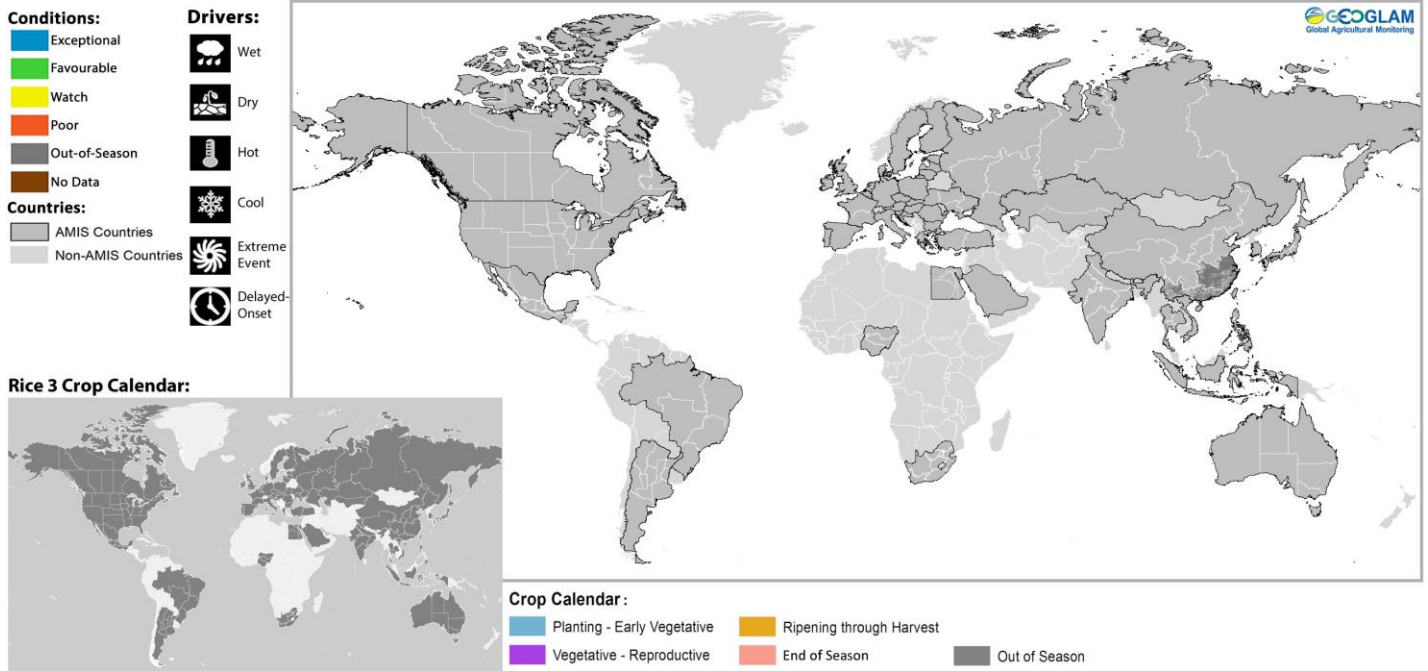
Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible 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 2 Conditions for AMIS Countries



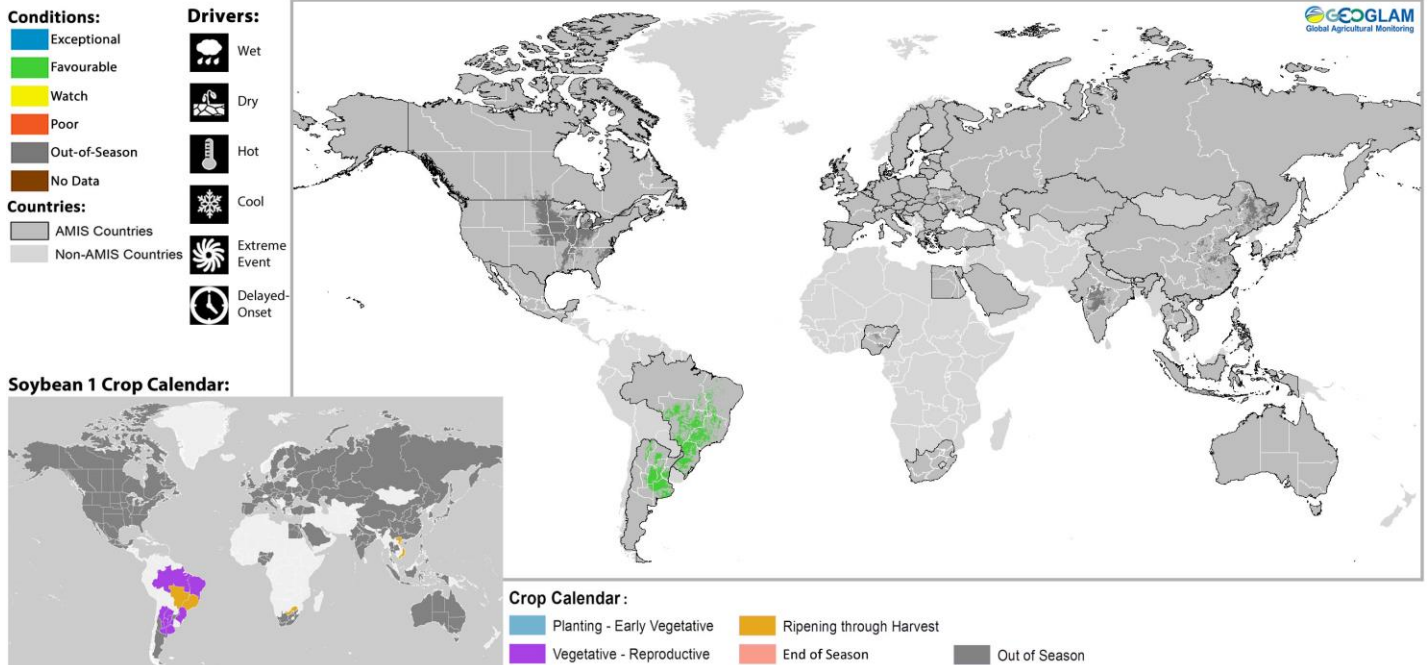
Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

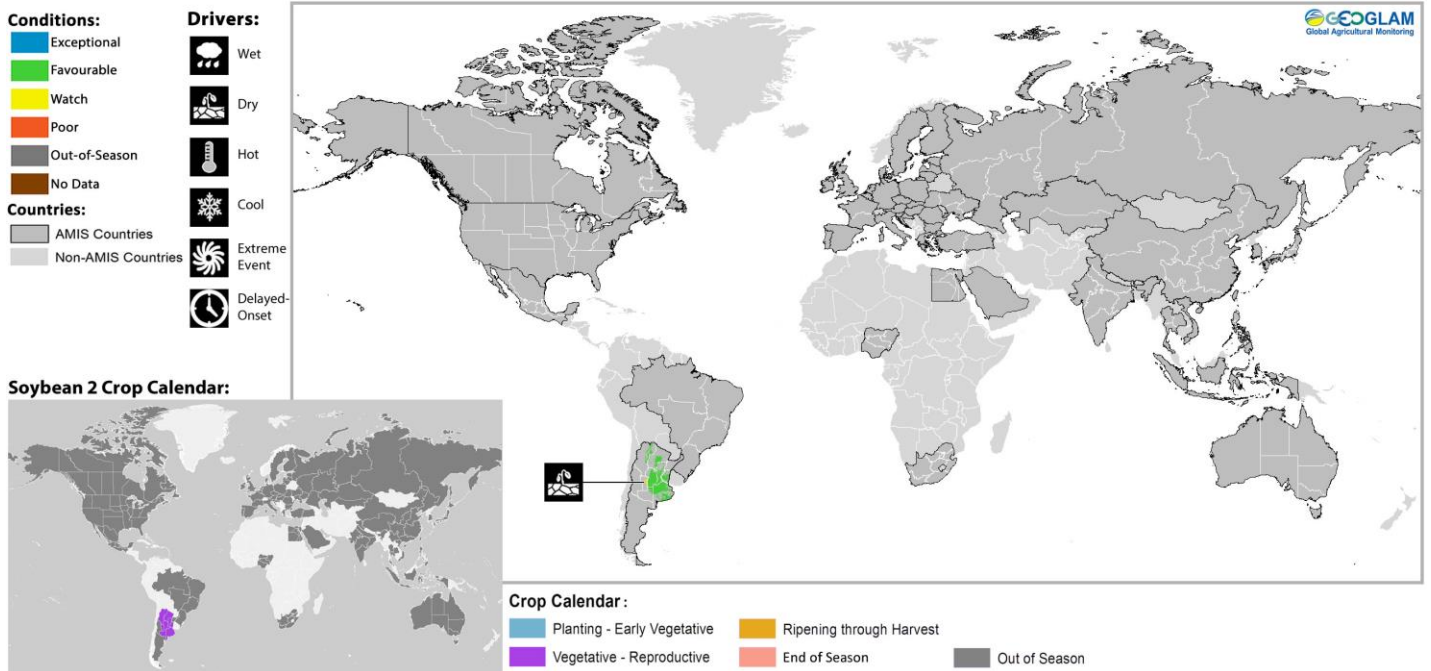
Soybean 1 Conditions for AMIS Countries



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 February 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 February 28th

Soybean 2 Conditions for AMIS Countries



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 February 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.



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 courtesy of Inbal Becker-Reshef

<https://cropmonitor.org/>

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