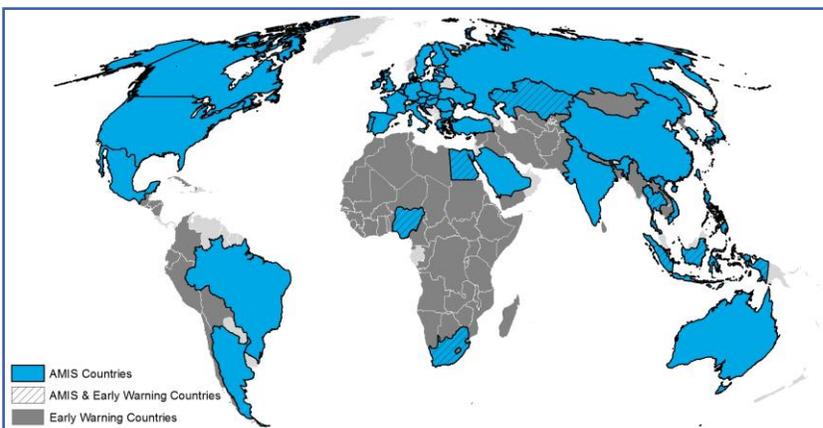


Crop Monitor for AMIS

Overview:

As of the end of November, conditions are generally favourable for all four crops with most seasons drawing to a close in the northern hemisphere. **Winter wheat** in the southern hemisphere is entering harvest under generally favourable conditions with the exception of Australia. In the northern hemisphere winter wheat is going into dormancy with some areas of concern in China and Europe. **Maize** sowing in the southern hemisphere is progressing under favourable conditions, albeit with some dryness in South Africa. **Rice** in Asia is generally favourable with some mixed conditions in Thailand and the Philippines. **Soybean** conditions are favourable as sowing progresses in Brazil and Argentina.

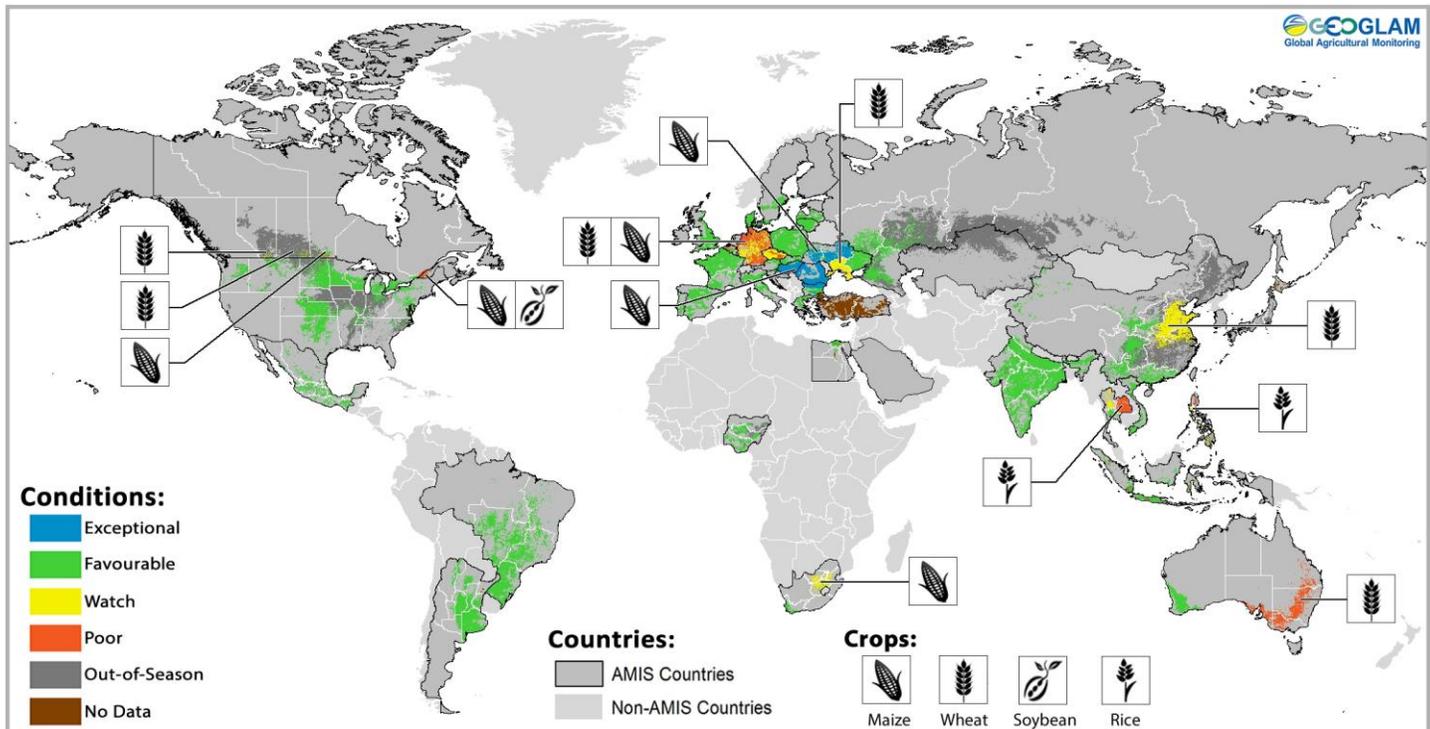


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Assessment based on information as of November 28th

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



Crop condition map synthesizing information for all four AMIS crops as of November 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 southern hemisphere, winter wheat conditions are favourable entering into harvest in Argentina and South Africa with the exception of Australia. In the northern hemisphere, winter wheat has emerged and entered dormancy in many places. Several areas of concern due to dry conditions remain in parts of northern Europe, southern Ukraine, and in the North China Plain.

Maize - In the northern hemisphere, harvest is primarily complete. In the southern hemisphere, sowing is progressing in Brazil and Argentina under favourable conditions, while there are dry conditions in South Africa.

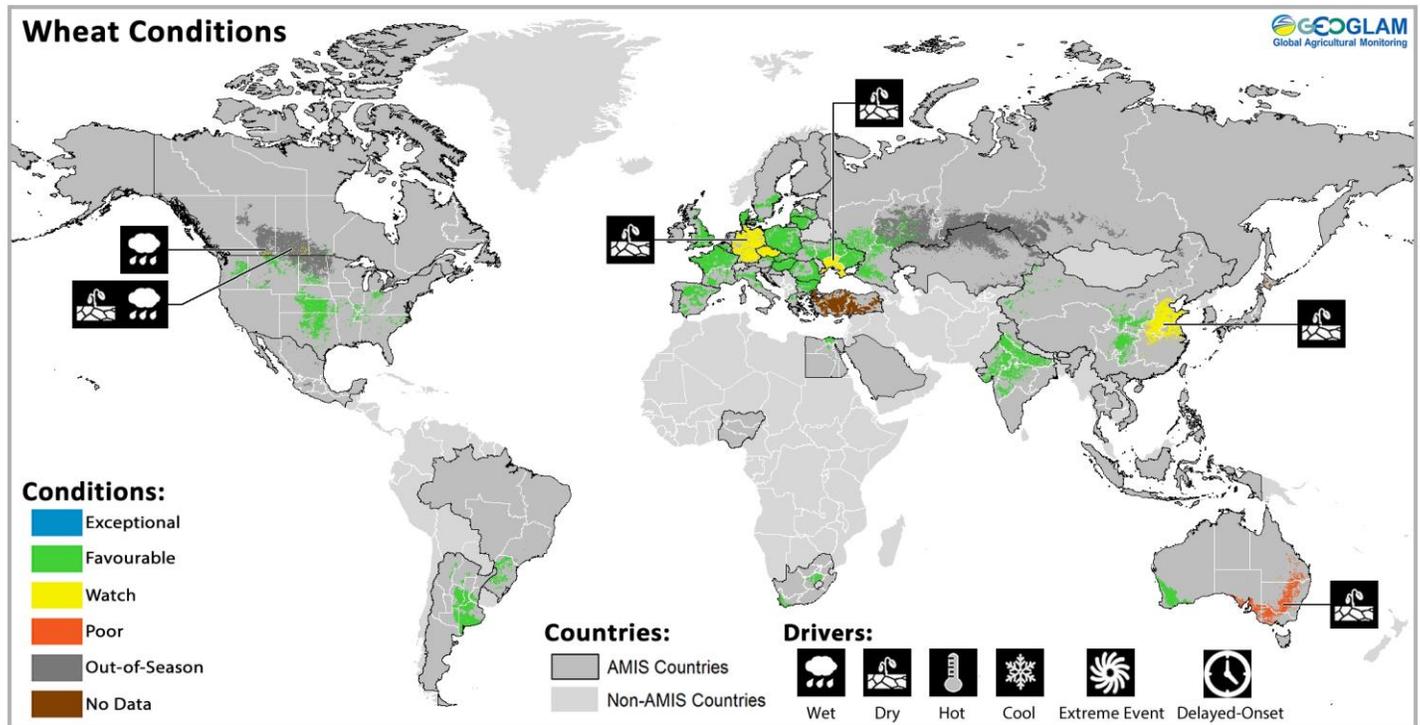
Rice - In India, Kharif rice harvest is progressing and Rabi rice sowing is beginning. In Southeast Asia, harvest of wet-season rice is nearing the end in the northern countries with poor areas in the Philippines and Thailand, while sowing of wet-season rice is advancing in Indonesia.

Soybeans - In the northern hemisphere, harvest is now complete with India and Canada wrapping up. In the southern hemisphere, sowing is ongoing in Brazil and Argentina under favourable conditions.

Weak to moderate El Niño expected in the first half of 2019

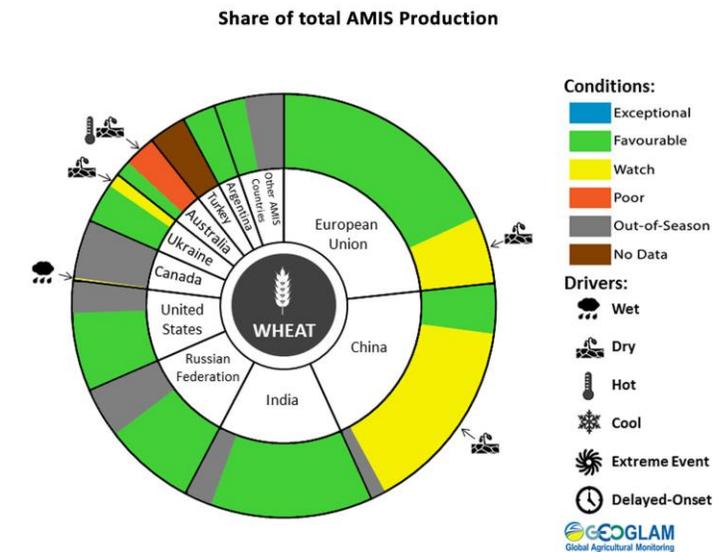
A weak to moderate El Niño is expected to form and continue through Northern Hemisphere 2018-19 winter until spring (~80% chance through February; 55% chance through March-May). Associated with the potential development of this El Niño event between December and February are increased chances of above normal rainfall in parts of Tanzania, Central Asia, the southern U.S, Mexico, and southeastern South America. Drier than normal conditions are anticipated for the Indo-Pacific region, including parts of southeast Asia, Indonesia, and Australia, and for parts of Central America, the Caribbean, northern Brazil and Southern Africa.

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 November 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.

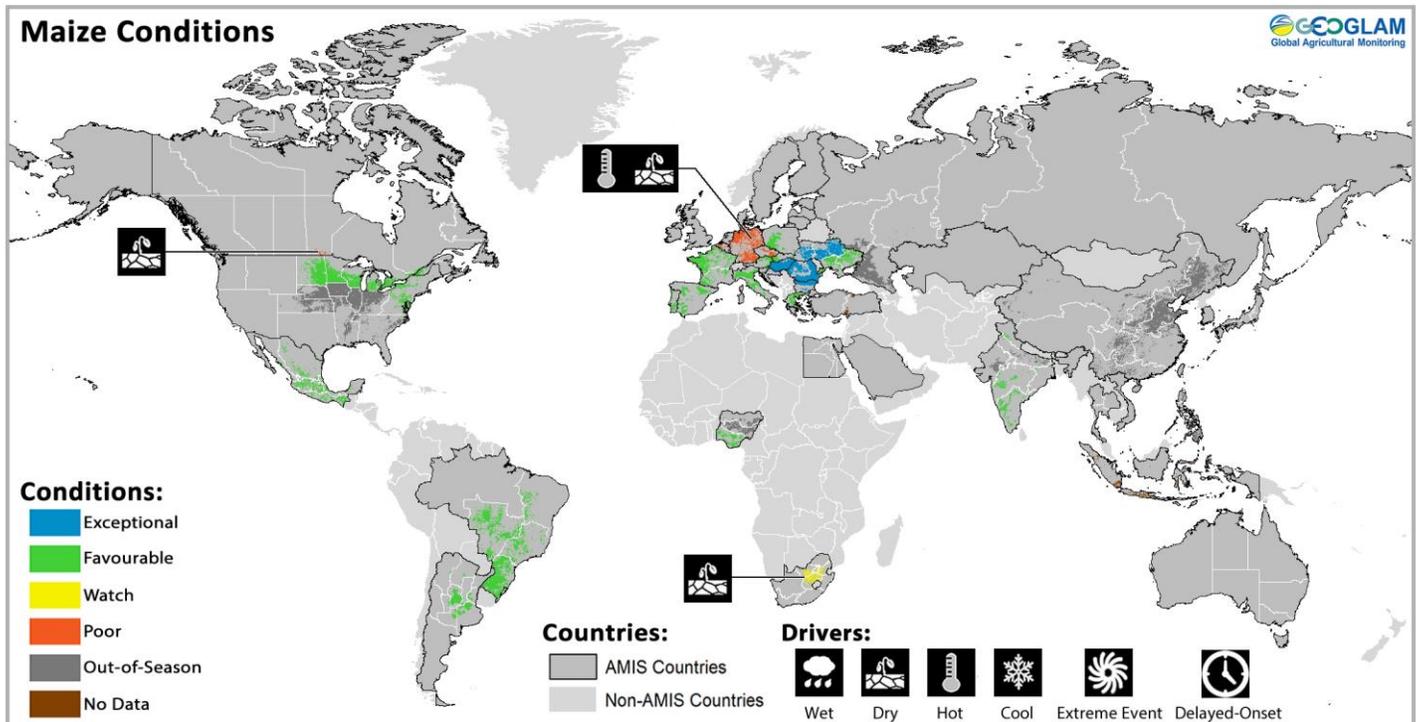
Wheat: In the **EU**, winter wheat conditions are mostly favourable through there is concern developing over areas of persistent dry soil conditions, most notably in Germany and the Czech Republic, limiting emergence and early crop development. In **Ukraine**, winter wheat is now in dormancy under generally favourable conditions with some areas of underdeveloped crops due to dry conditions in the southern and eastern regions. In the **Russian Federation**, winter wheat established under favourable conditions and the crop is now dormant. In **China**, winter wheat conditions are mixed with dry conditions developing after sowing and emergence in the North China Plain. In **India**, sowing of winter wheat is progressing under favourable conditions. In the **US**, winter wheat sowing and emergence is on time and under favourable conditions. In **Canada**, winter wheat sowing is mostly complete under mixed conditions in the western Prairies due to adverse sowing conditions in the late fall. A reduction in total sown area is expected. In **Australia**, harvest of winter wheat is well underway with production forecast to decrease significantly year-on-year. In the eastern states, above average temperatures and insufficient rainfalls during the spring have significantly reduced yields. In **Argentina**, harvest is ongoing in the north under favourable conditions with an overall increase in production expected owing to an increase in total sown area and a slight increase in yields.



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

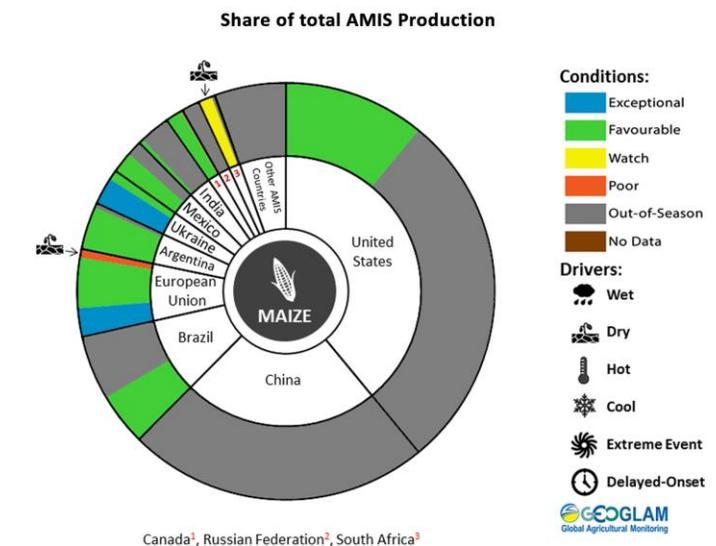
* Assessment based on information as of November 28th

Maize Conditions for AMIS Countries



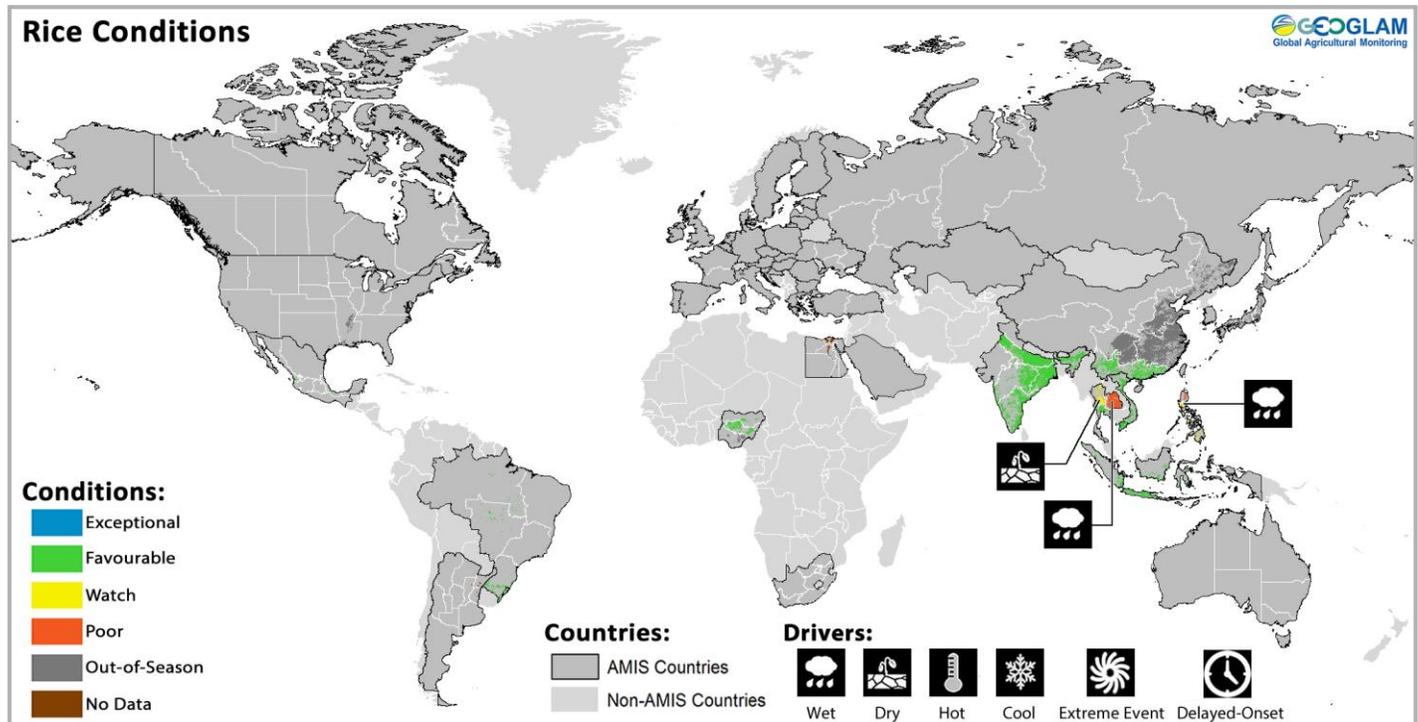
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in other than favourable conditions the climatic drivers responsible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

Maize: In the **US**, harvest is almost complete with a bumper crop in many parts of the country. In **Canada**, harvest is closing under generally favourable conditions, but with some areas of variable yields due to dry conditions during the season. In **Mexico**, harvest of the spring-summer crop is ongoing under favourable conditions. In the **EU**, harvest is almost complete with overall EU yields remaining above the five-year average owing to favourable to exceptional conditions in southern Europe. In **Ukraine**, harvest is wrapping up with record yields in the central and western regions. In **India**, sowing of the Rabi crop is progressing under favourable conditions. In **Brazil**, the spring-planted crop is developing under favourable conditions in the main producing regions, an increase in total sown area expected. In **Argentina**, sowing is complete for the spring-planted crop under favourable conditions with recent rainfall improving soil moisture conditions. Sowing of the summer-planted crop is just beginning. In **South Africa**, sowing conditions are mixed with only the far eastern areas receiving sufficient rainfall.



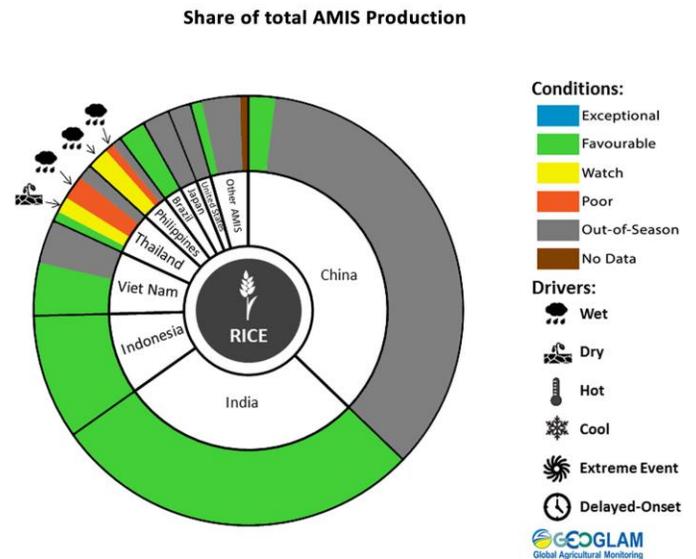
For detailed description of the pie chart please see box below.

Rice Conditions for AMIS Countries



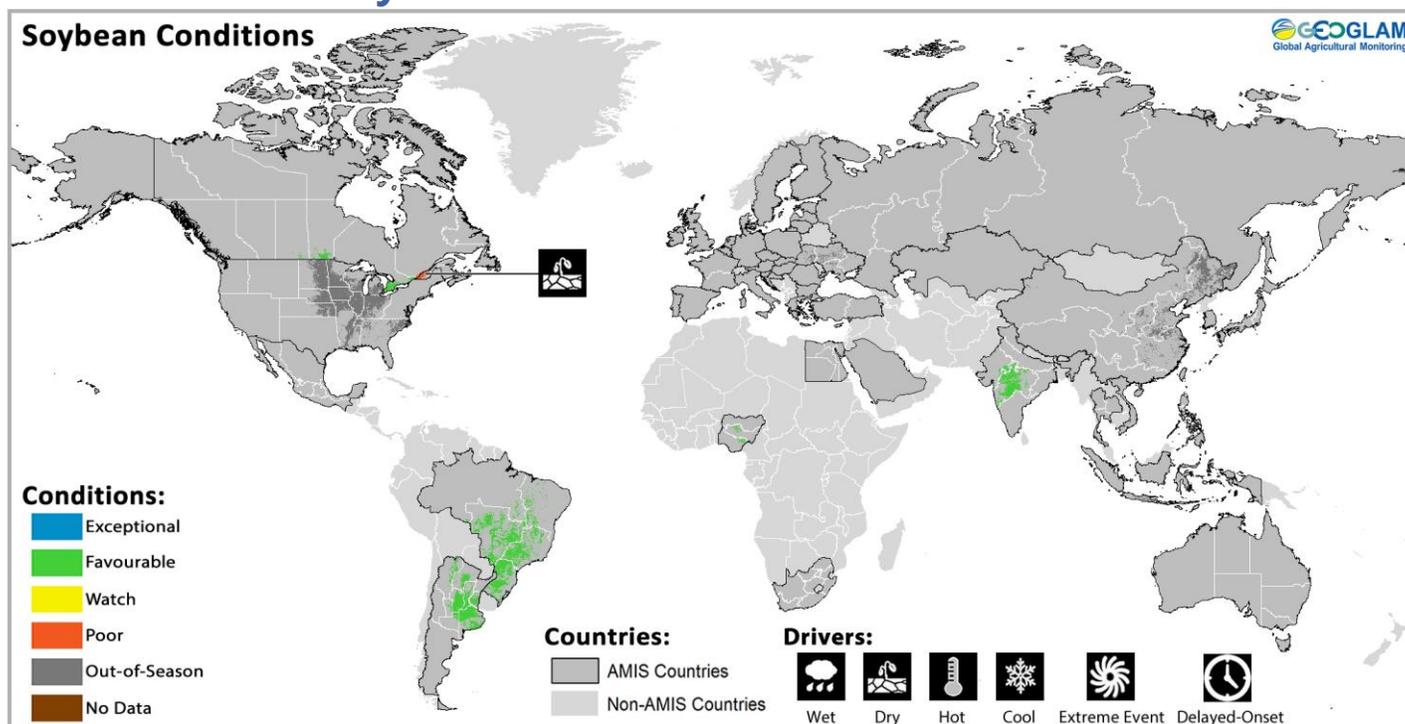
Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in other than favourable conditions the climatic drivers responsible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

Rice: In **China**, harvest of late rice is finished under favourable conditions. In **India**, conditions are favourable Kharif rice as harvest is complete in the northern states and beginning in the southern and eastern states. Sowing of Rabi rice has begun and progressing well under favourable conditions. In **Indonesia**, harvest of dry-season rice is almost complete with yields remaining above last year's. Sowing of wet-season rice is advancing under favourable conditions, with rainfall in late October and mid-November improving conditions. In **Viet Nam**, harvest of the summer-autumn rice (wet-season rice) is complete with yields slightly above last year's. In **Thailand**, conditions have deteriorated for the wet-season rice in the northeast due to continued flooding. In the north, dry conditions during the grain filling stage have caused damage. In the **Philippines**, harvest of wet-season rice is ongoing for rice sown in July through August. Continued damage from multiple typhoons throughout the season have further downgraded rice conditions. In **Brazil**, conditions are favourable as sowing advances.



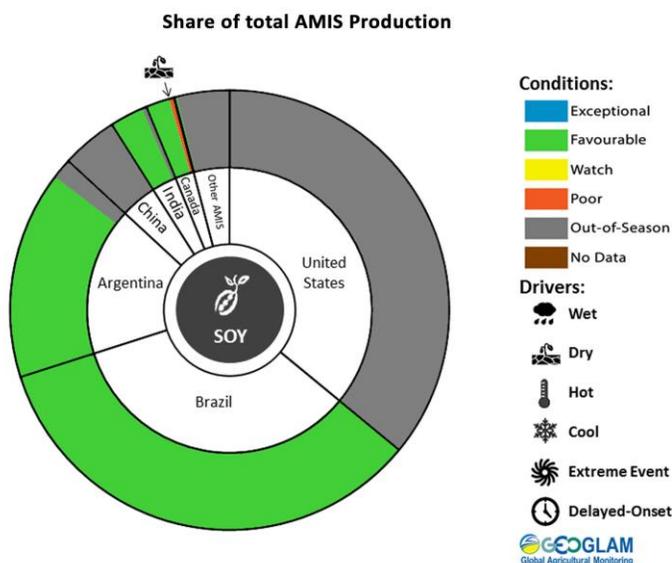
For detailed description of the pie chart please see box below.

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 November 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 **India**, harvest has completed in the main producing areas under favourable conditions. In **Canada**, harvest is wrapping up with generally favourable yields despite late season adverse weather, which delayed harvest. In **Brazil**, sowing is ongoing under favourable conditions in the main producing regions. An increase in total sown area expected this season. In **Argentina**, sowing of the spring-planted crop is progressing under favourable conditions with occasional delays due to heavy rainfall.



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 December 6th

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.

* Assessment based on information as of November 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.

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: 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

	Wet
	Dry
	Hot
	Cool
	Extreme Event
	Delayed-Onset

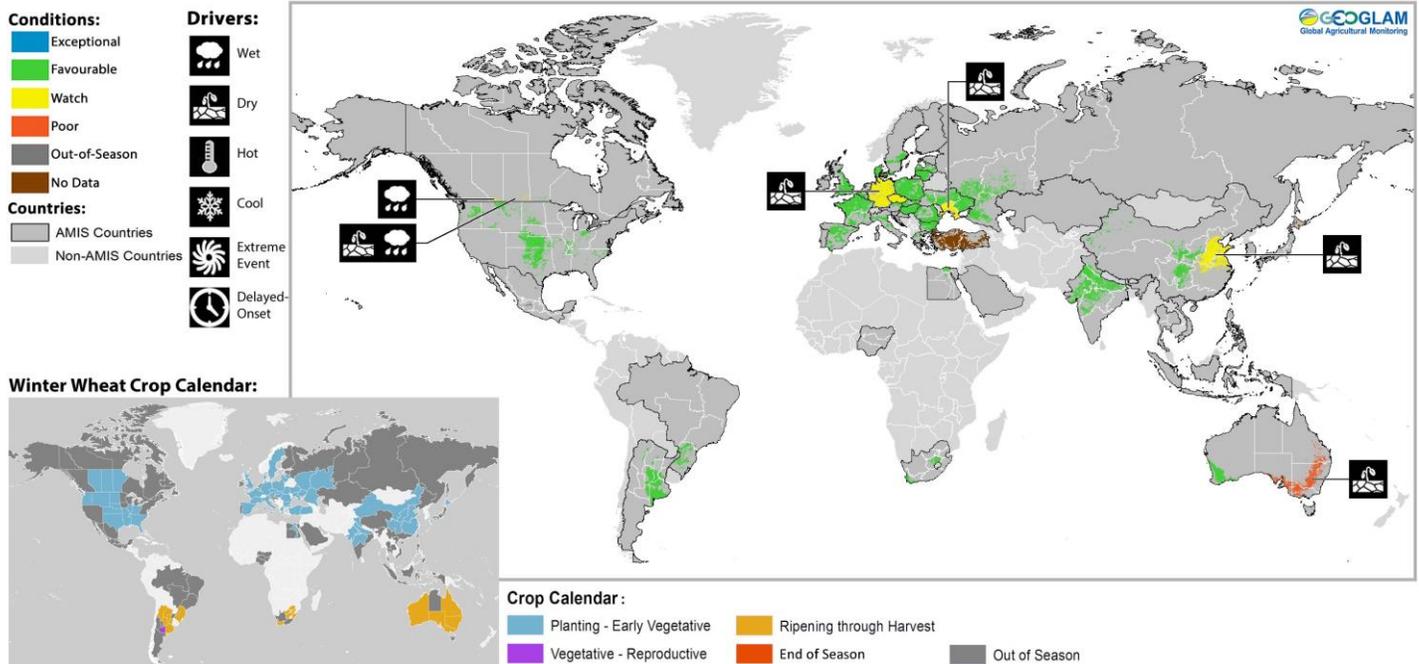
Crop Season Nomenclature:

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	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	

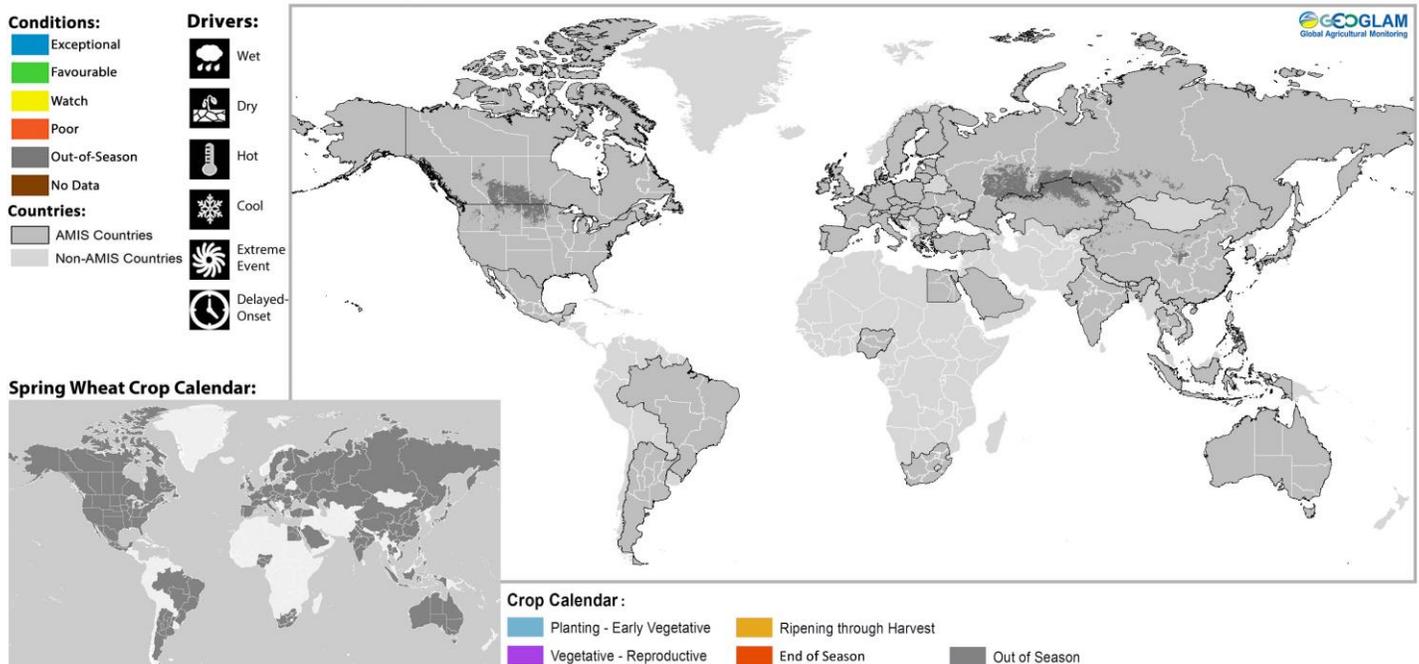
Appendix 2: Crop Season Specific Maps

Winter Planted Wheat Conditions for AMIS Countries



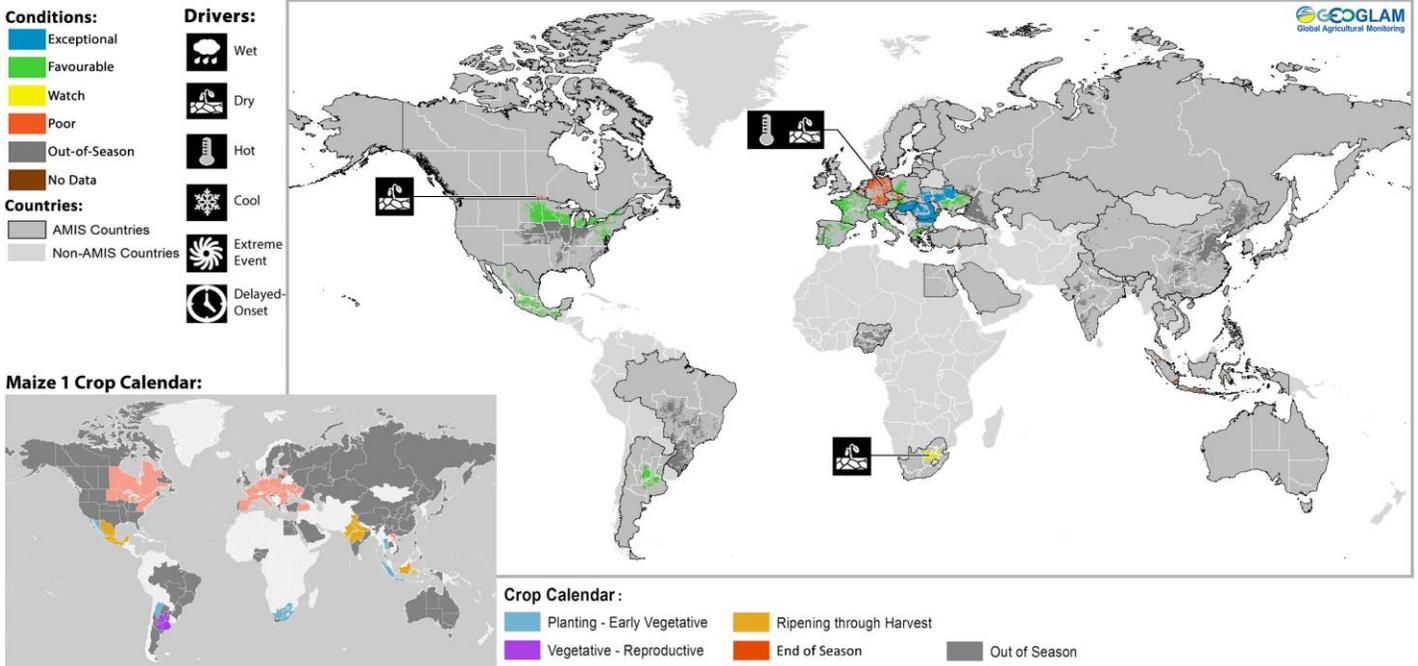
Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers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



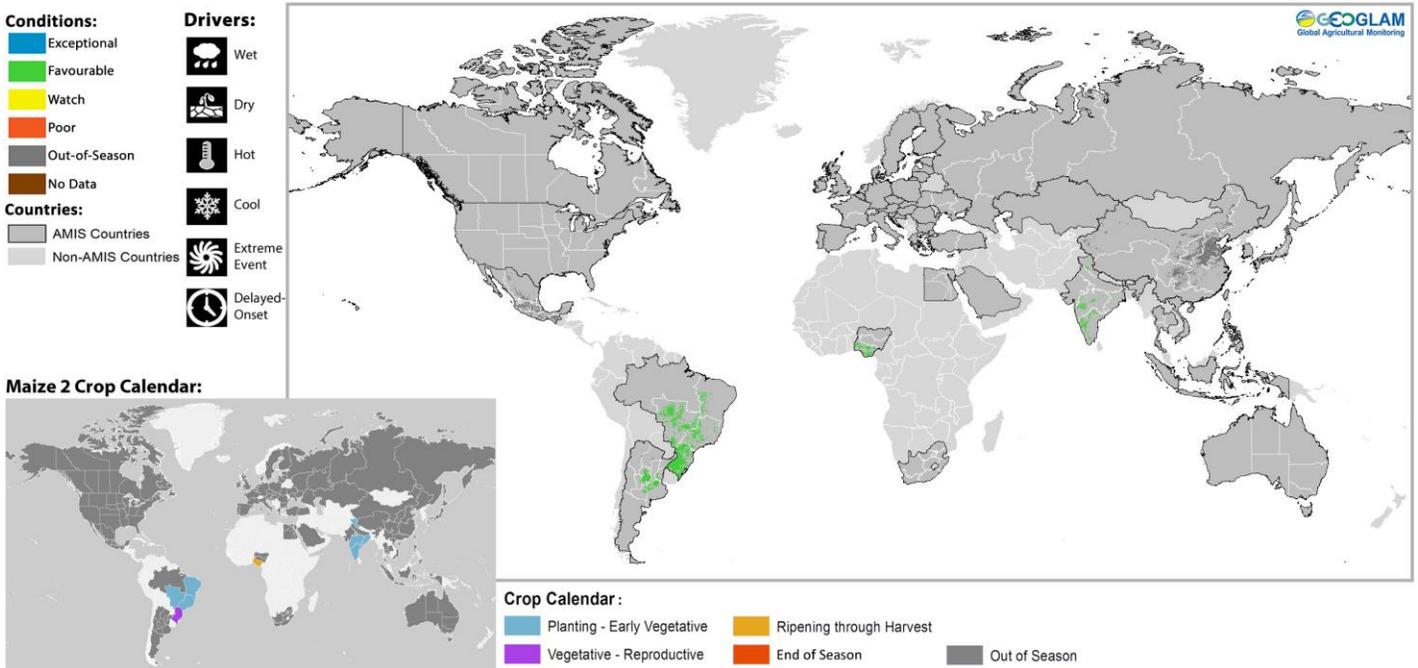
Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of November 28th. Where crops are in less than favourable conditions the climatic drivers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

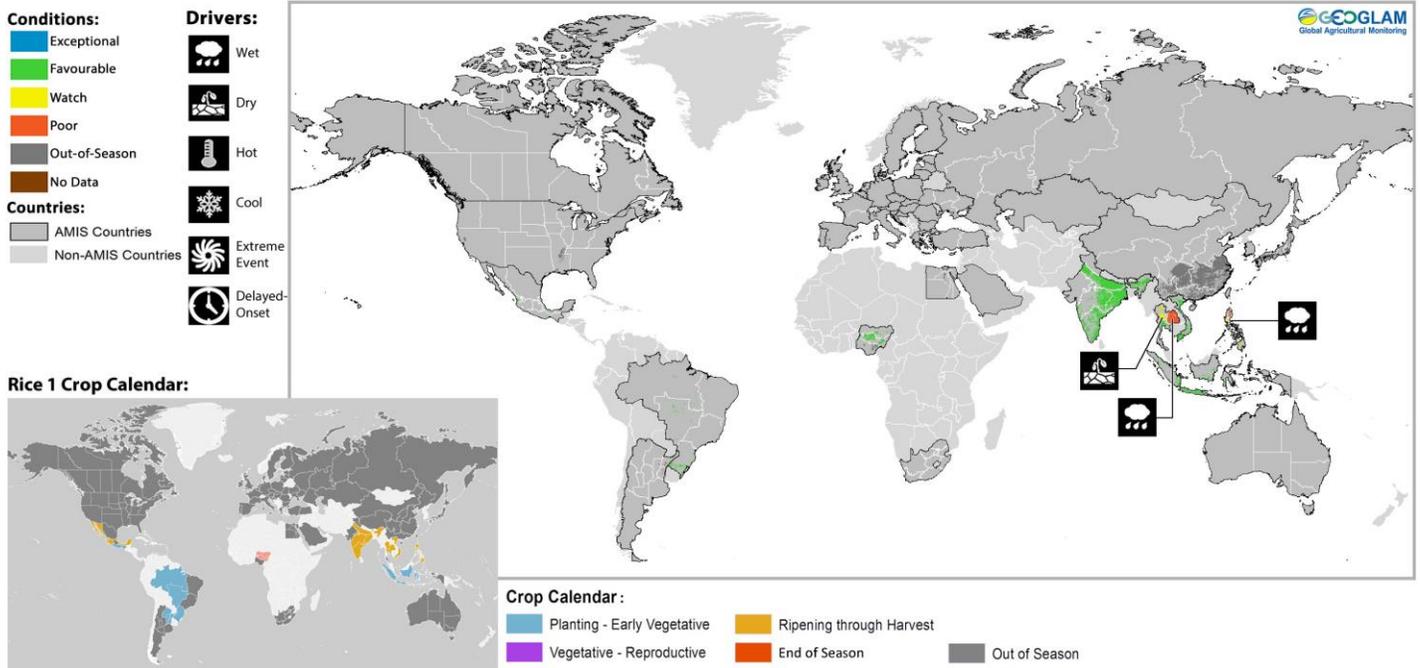
Maize 2 Conditions for AMIS Countries



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 November 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.

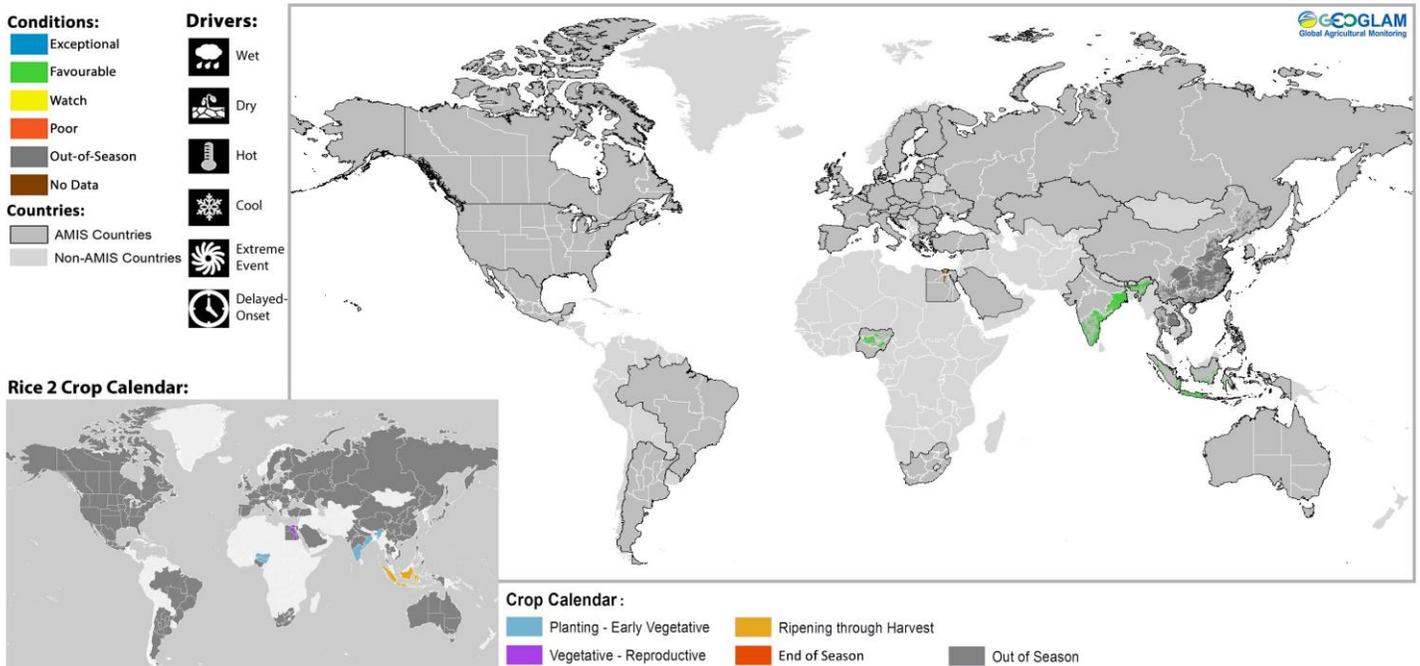
* Assessment based on information as of November 28th

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 November 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.

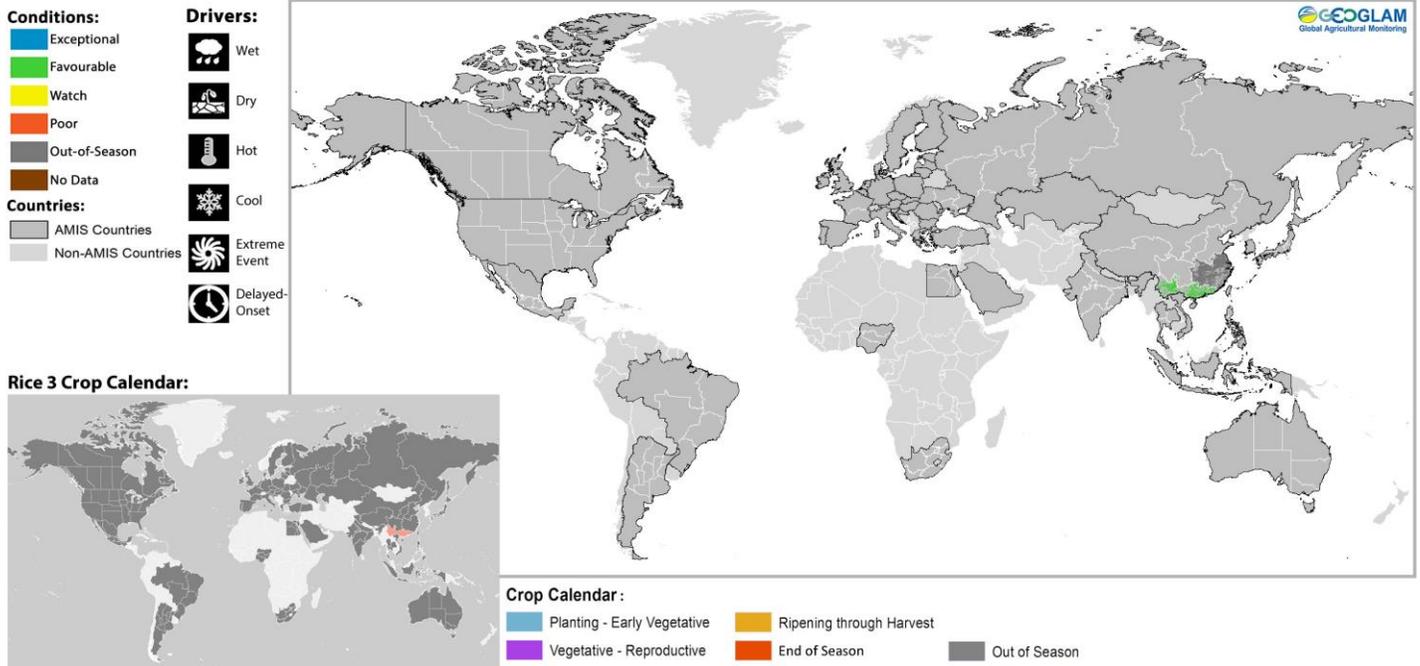
Rice 2 Conditions for AMIS Countries



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 November 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.

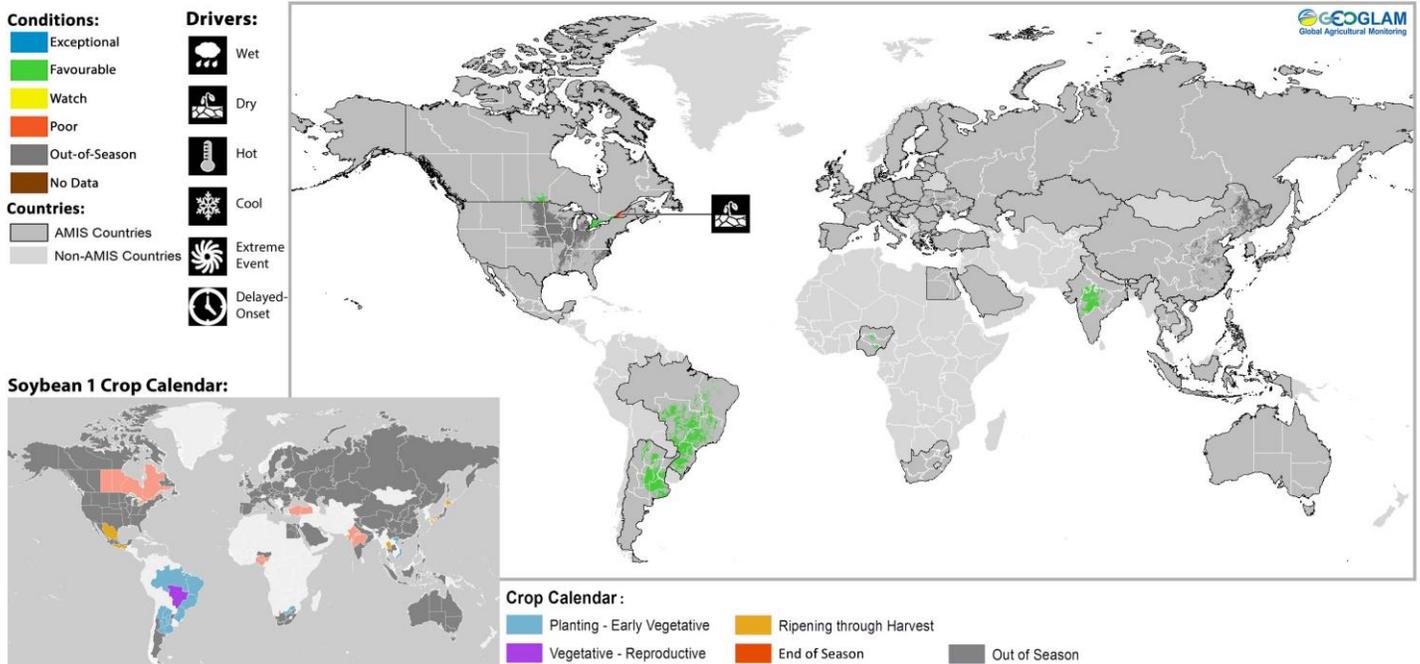
* Assessment based on information as of November 28th

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 November 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.

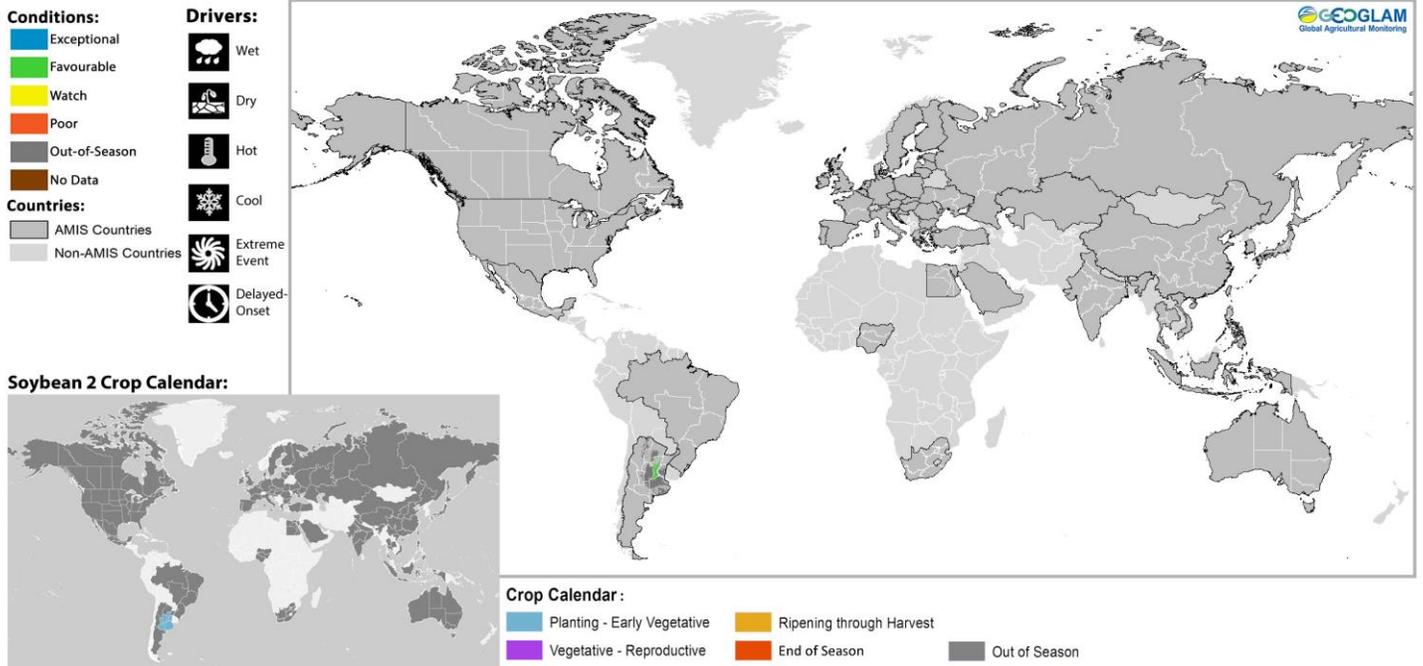
Soybean 1 Conditions for AMIS Countries



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 November 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 November 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 November 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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Climatic update by Climate Hazards Group 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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Sources & Disclaimer

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