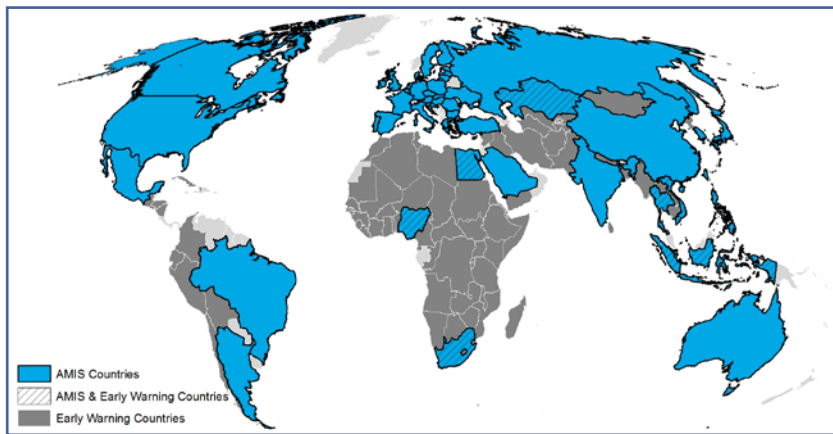




# Crop Monitor for AMIS

Overview:

For April, conditions of the four AMIS crops are generally favourable with the exception of several areas of concern. **Winter wheat** in the northern hemisphere begins to emerge from dormancy with some areas to watch in the US and China. For **maize** in the southern hemisphere, conditions are mixed due to dry conditions in Argentina, and South Africa. Sowing has begun in the northern hemisphere. **Rice** conditions continue to be favourable in Asia as early-rice sowing begins in China. For **soybeans** in the southern hemisphere, conditions are mixed due to continued dry weather in Argentina, while favourable conditions in Brazil.

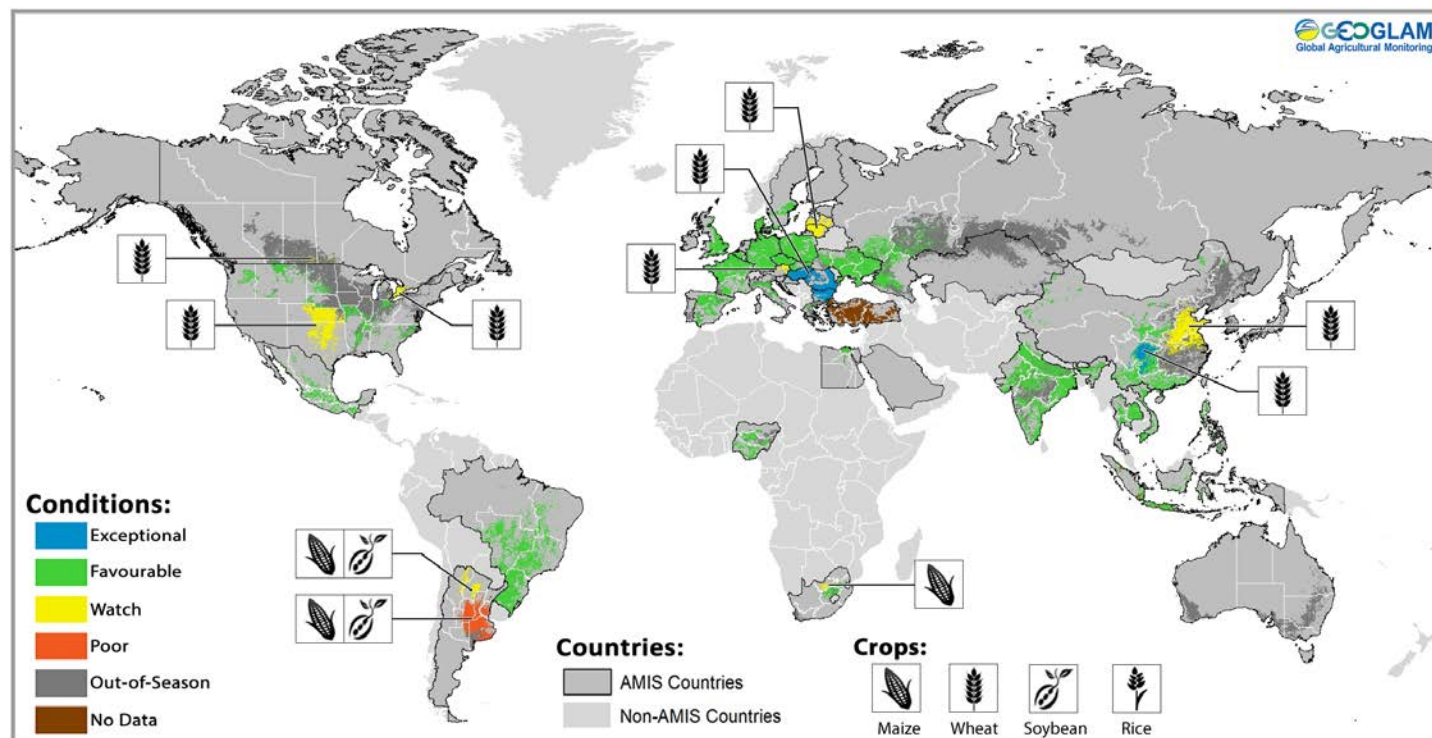


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Assessment based on information as of March 28<sup>th</sup>

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



Crop condition map synthesizing information for all four AMIS crops as of March 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, conditions are generally favourable as winter wheat continues to emerge from dormancy. Wheat in the EU escaped the recent cold spell without major damage. While low temperatures are affecting winter wheat in China, prolonged drought continues to affect the southern plains in the US.

**Maize** - In the southern hemisphere, crop conditions are mixed, with the situation deteriorating in Argentina due to poor soil moisture, but good conditions in Brazil. In the northern hemisphere, sowing has begun in the US and China.

**Rice** - In India, the Rabi crop is favourable. Also, in China, early-rice sowing is under favourable conditions. In Southeast Asia, crop conditions remain favourable as dry-season rice advances in the northern countries. Wet-season rice is well underway in Indonesia.

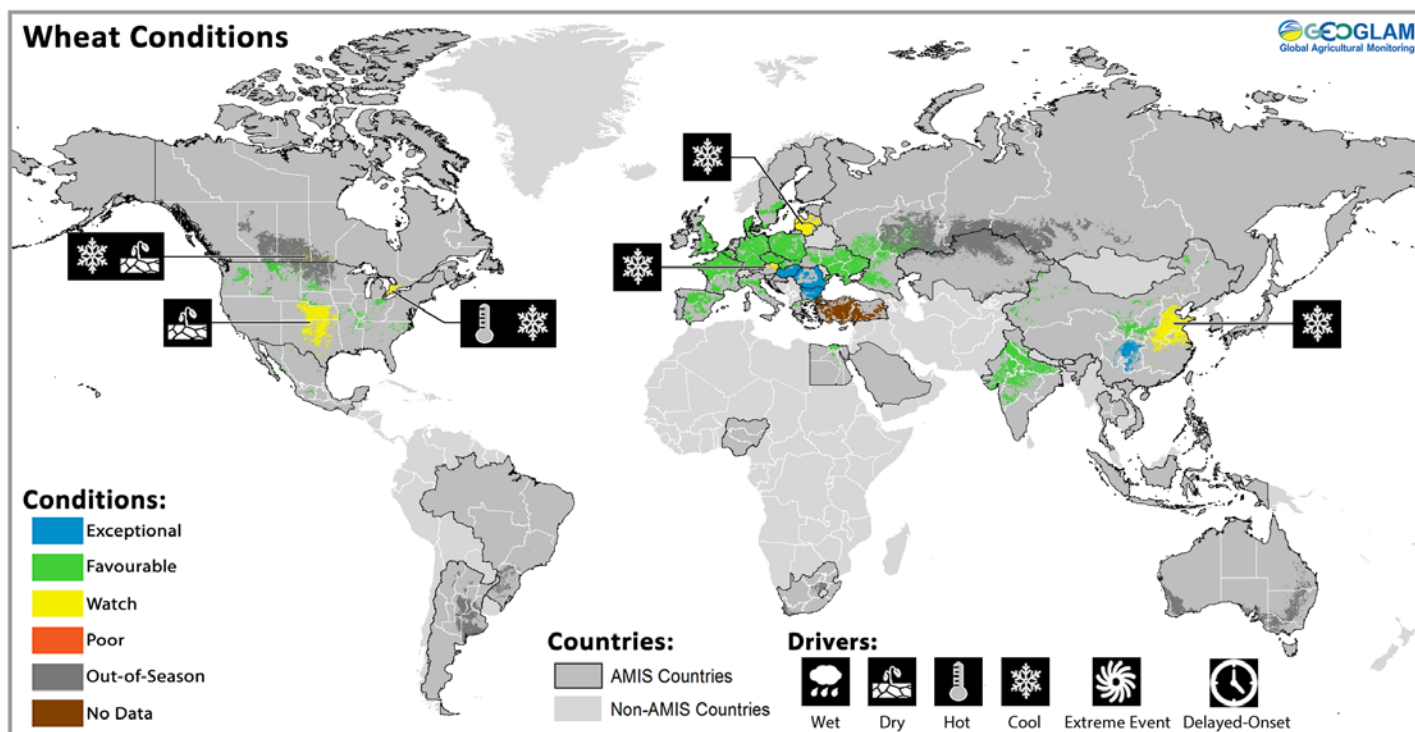
**Soybeans** - In the southern hemisphere, crop conditions are favourable in Brazil while conditions continue to deteriorate in Argentina due to dry weather.

### La Niña Update

A La Niña Advisory has been in effect since November 2017, though there is a 55% probability of transition to neutral conditions by the end of May. Associated with the event, drier than normal conditions have prevailed in southwest Asia, southeastern South America, eastern China, and the southern United States. Atypically for a La Niña event, areas of Southern Africa experienced an extended dry spell in the heart of the season (from late December until the beginning of February). Though there were widespread abundant rains in February, dry conditions returned in March, except in South Africa, where crops have largely recovered from the dry spell. Production will be down in the other affected countries of Southern Africa. Northern South America is frequently wetter than normal with La Niña, but conditions in late 2017- early 2018 have been drier than average. In Central America, the Caribbean, and Southeast Asia, rainfall has generally been abundant and crop conditions are good.



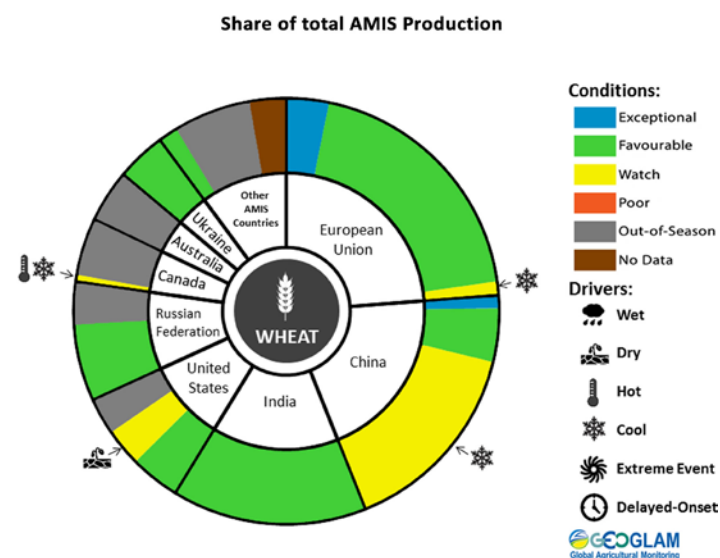
## Wheat Conditions for AMIS Countries



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 March 28<sup>th</sup>. 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.

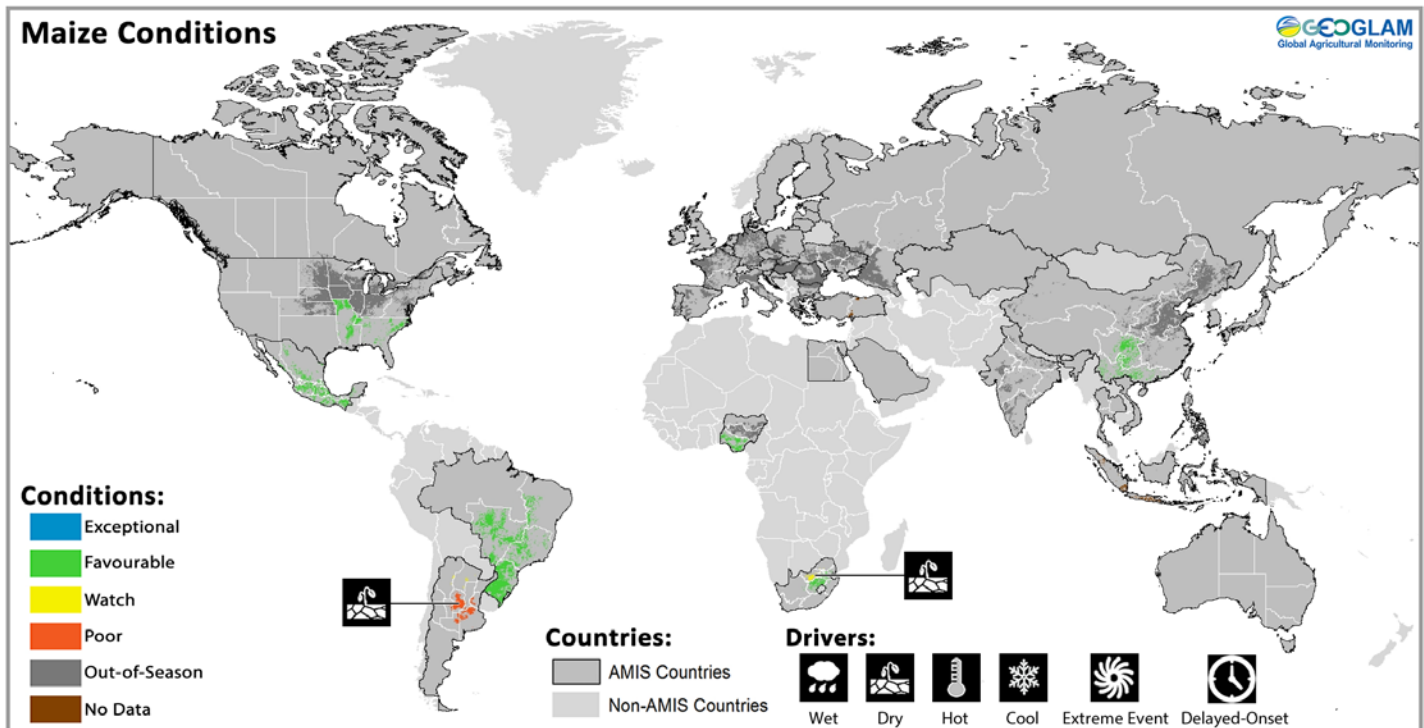
**Wheat:** In the **EU**, conditions are favourable as frost damage remains limited despite the recent cold spell. In **Ukraine**, winter wheat conditions are favourable with the recent cold weather and snow causing a delay in the break of dormancy for the majority of the crop, while the crop has emerged from dormancy in the south. In the **Russian Federation**, conditions are favourable for winter wheat with the majority of the crop still in dormancy. However, areas in the south are clear of snow and the crop is developing ahead of schedule. In **China**, winter wheat conditions are mixed due to below-average temperatures in the east but above-average growing conditions in the southwest. Spring wheat sowing has begun. In **India**, conditions are favourable with the crop in maturity to harvesting stage. There is a slight reduction in sown area this year.

In the **US**, prolonged drought in the in main winter wheat growing region is becoming a serious concern as the crop has entered the critical period of its growing season. However, conditions remain under watch at this time given that precipitation can still facilitate some recovery. Across the rest of the US, winter wheat is under generally favourable conditions. In **Canada**, conditions are mixed as limited snow cover during much of the winter in the prairies, and extreme temperature variability in the main winter wheat producing province of Ontario, has increased the risk of winterkill.



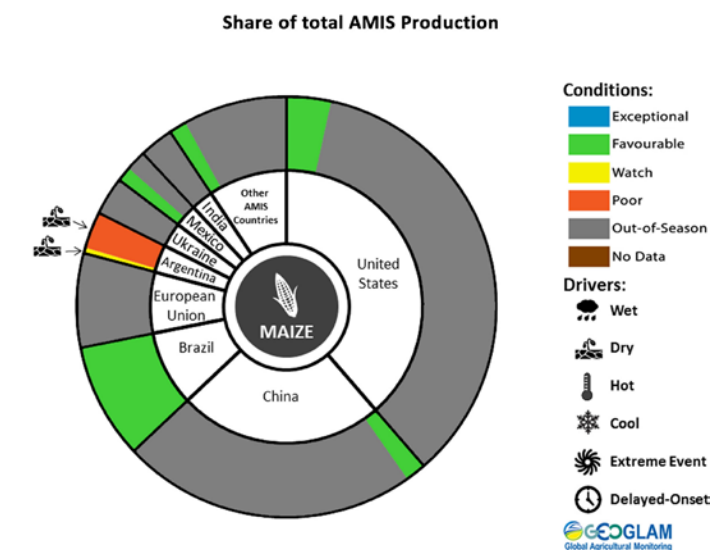
For detailed description of the pie chart please see box below.

## Maize Conditions for AMIS Countries



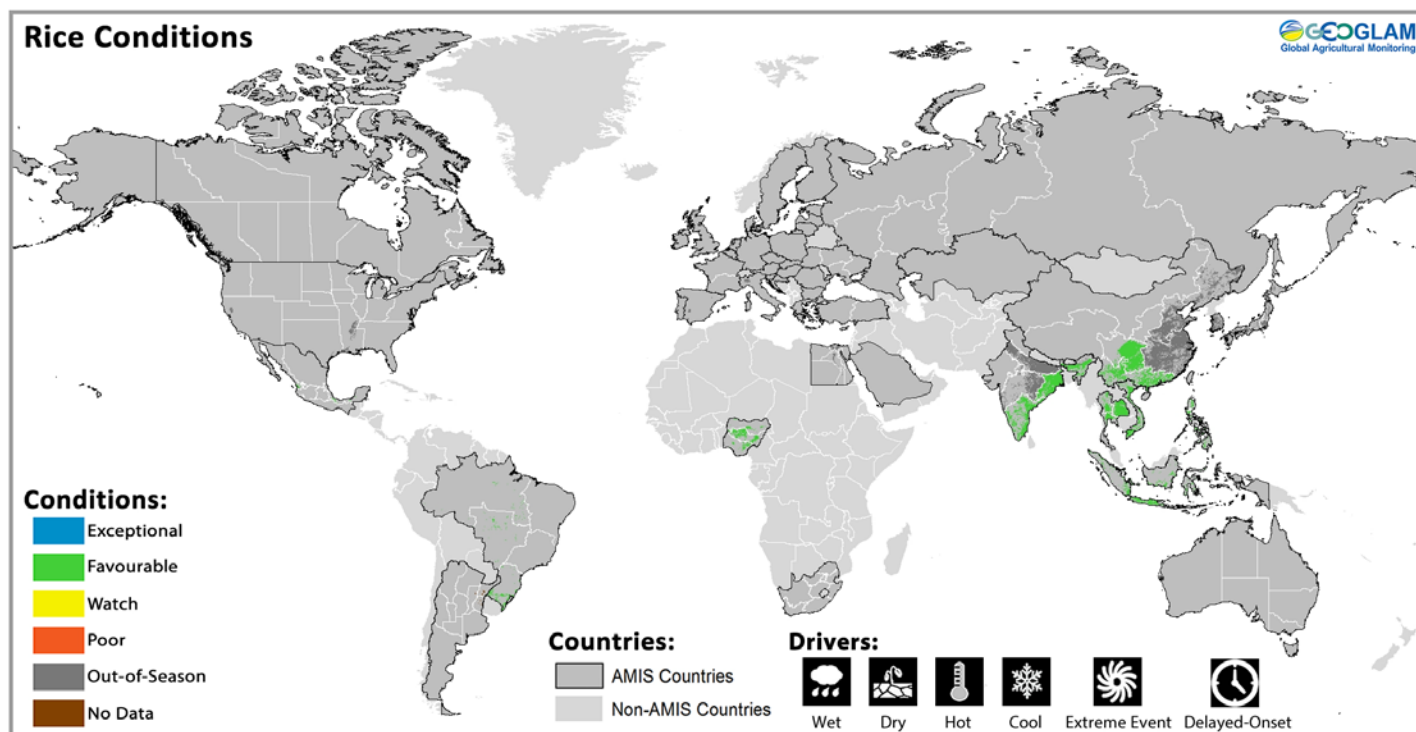
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March 28<sup>th</sup>. Where crops are in other than favourable conditions the climatic drivers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

**Maize:** In **Brazil**, conditions for the spring-planted crop are favourable as harvest begins, with yield estimates in line with the five year average but total sown area down from last year. The summer-planted crop (larger) is in the vegetative stage under favourable conditions. In **Argentina**, conditions have deteriorated to poor for both the early and late planted crops. Earlier sown plots show slightly better performance as harvest begins, however yields are variable in Buenos Aires. In **South Africa**, conditions remain mixed due to hot and dry weather in the western growing regions at the start of the season. Above-average rainfall improved conditions in the east, however concern still remains in the western growing regions. In the **US**, sowing has begun in the south under favourable conditions. In **China**, spring maize sowing has begun in the southwest under favourable conditions. In **Mexico**, sowing of the autumn-planted crop is almost complete under favourable conditions.



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

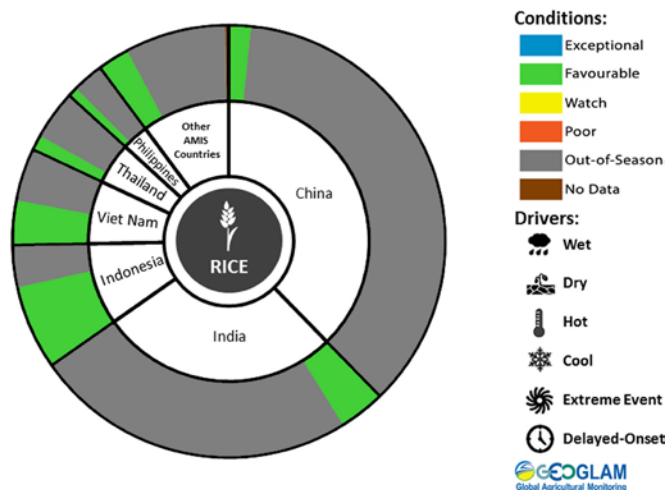
## Rice Conditions for AMIS Countries



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 March 28<sup>th</sup>. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed.

**Rice:** In **China**, early rice sowing has begun in the south under favourable conditions. In **India**, conditions are favourable for the Rabi crop in the vegetative stage. In **Indonesia**, conditions are generally favourable as sowing of the wet-season rice wraps-up with total sown area lower than normal due to variable rainfall. Harvest of earlier sown wet-season rice continues with favourable yields. In **Viet Nam**, sowing of the winter-spring rice (dry season rice) was completed in the south under favourable conditions, and there is an increase in total sown area relative to last year. Sowing continues in the north with a slightly lower total sown area due to earlier cold weather delays. In **Thailand**, dry-season rice is in the grain filling stage under favourable conditions owing to sufficient rainfall and irrigation water at the beginning of the season. In the **Philippines**, conditions are generally favourable for dry-season rice which is mostly in the maturing to harvesting stages. High yielding variety seeds have offset impacts from the multiple storm systems earlier in the season.

Share of total AMIS Production



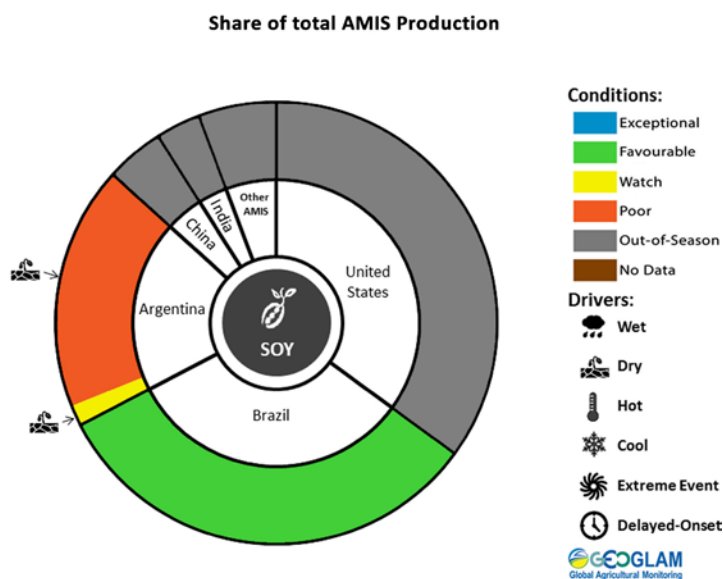
For detailed description of the pie chart please see box below.

## 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 March 28<sup>th</sup>. 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**, there was an increase in total sown area this season. Conditions are favourable with the crop in the ripening to harvesting stages. Advanced harvests from the Central-West region confirm good production expectations. In **Argentina**, conditions continue to deteriorate due to poor soil moisture for both the spring-planted crop (larger) and the summer-planted crops. Prospects for the summer-planted crop are even less optimistic since the majority of the crop development occurred under the ongoing dry spell. Variable conditions exist in Buenos Aires.



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 April 5<sup>th</sup> 2018**

**Pie chart description:** Each slice represents a country's share of total AMIS production (5-year average). Main producing countries (representing 90 percent of production) are shown individually, with the remaining 10 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 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

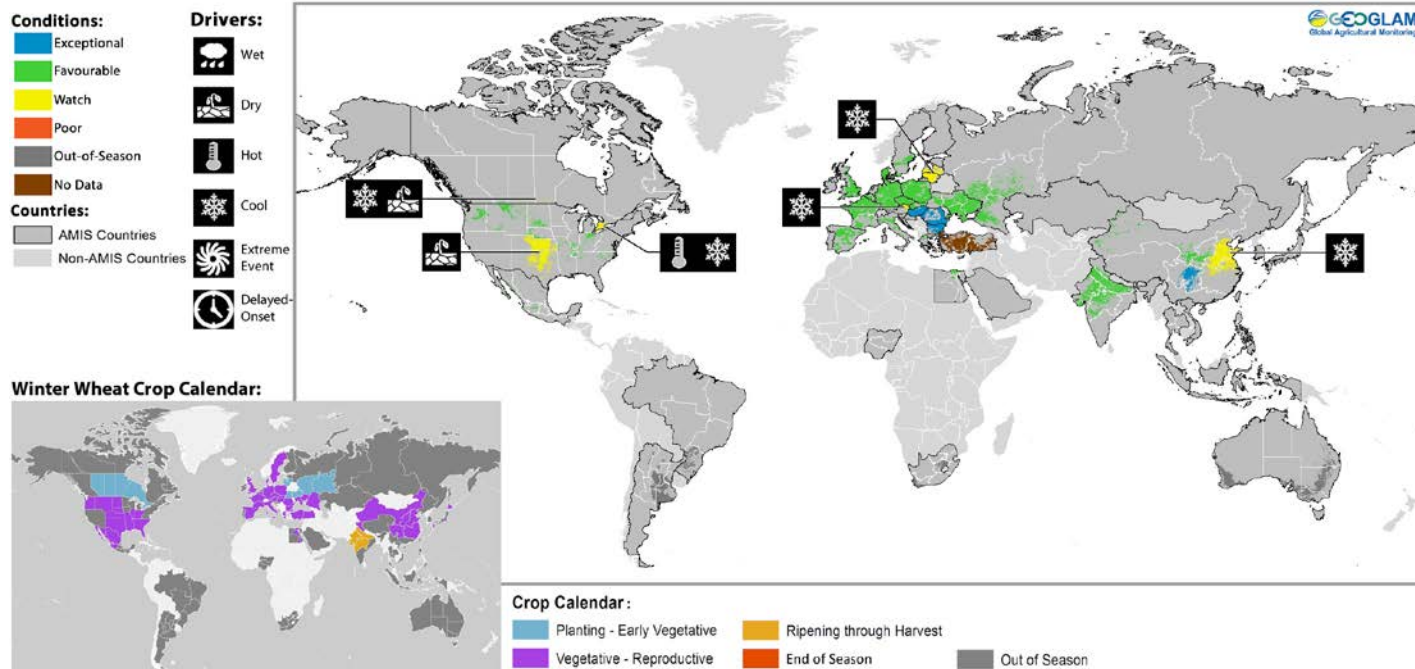
### Crop Season Nomenclature:

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	

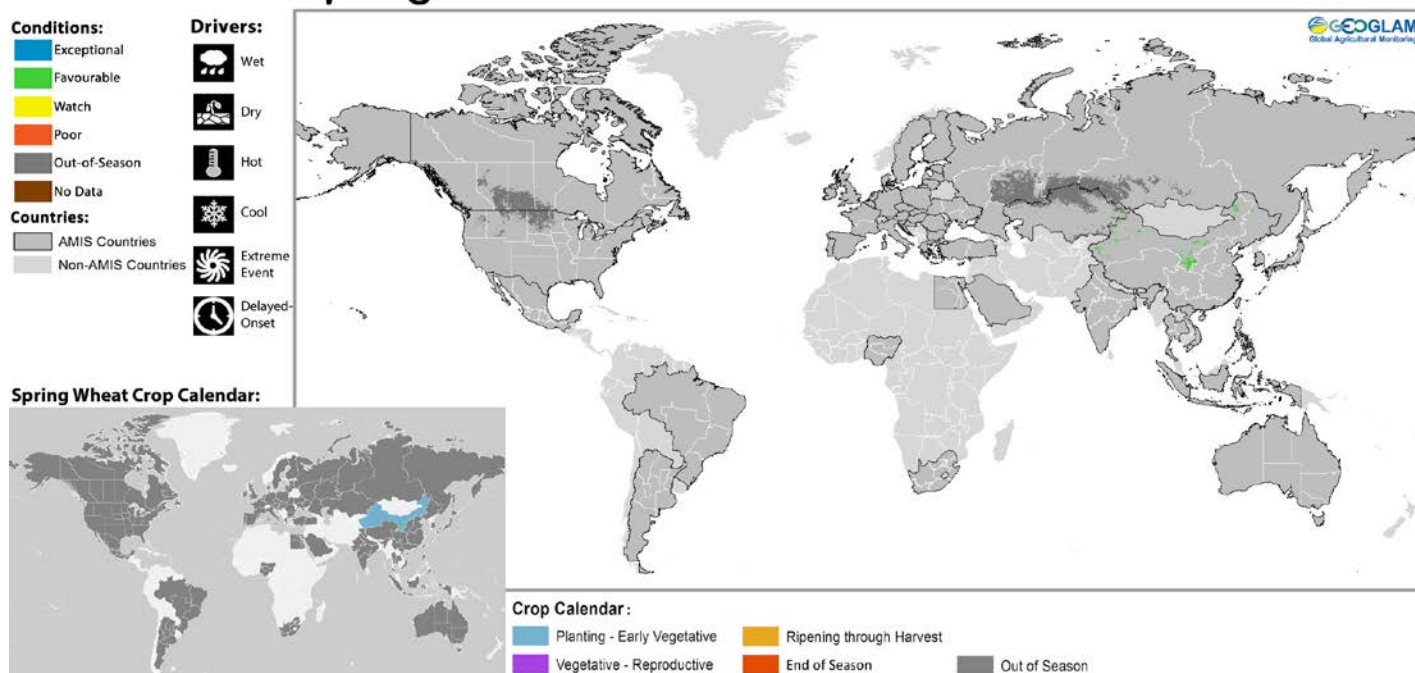
## Appendix 2: Crop Season Specific Maps

### 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 March 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.

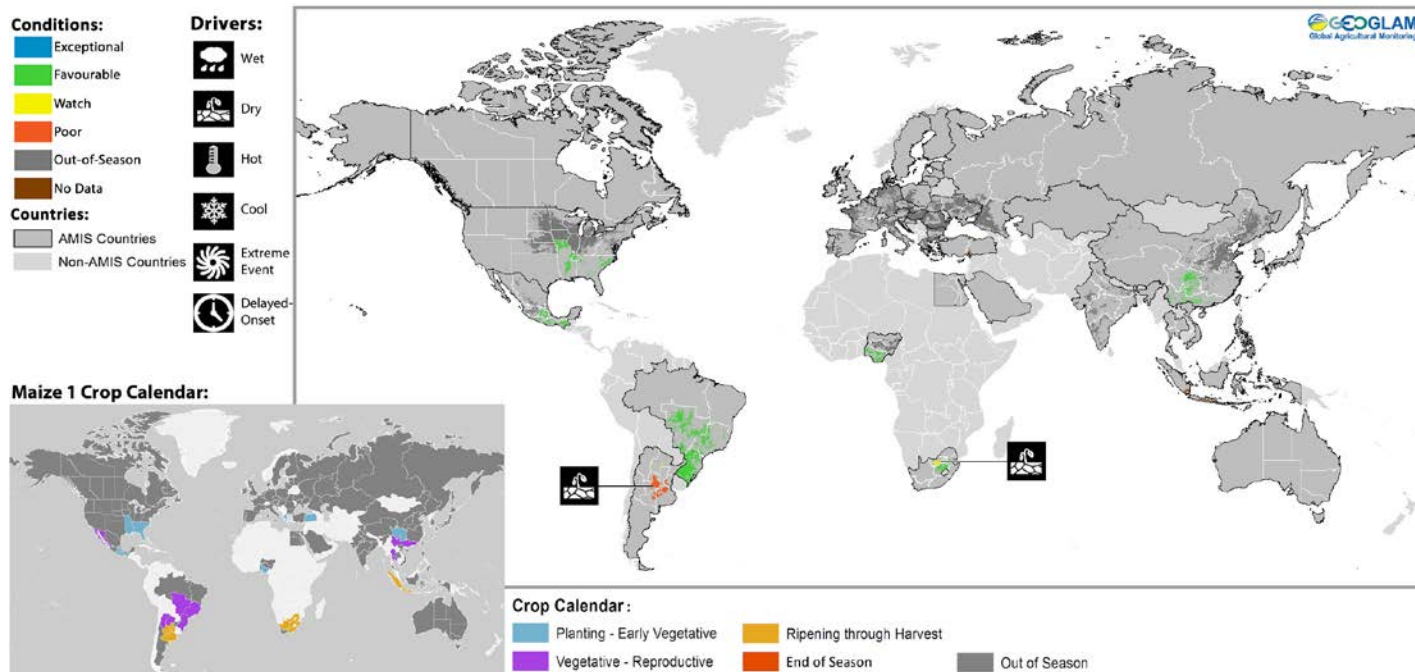
### Spring Planted Wheat Conditions for AMIS Countries



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 March 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.

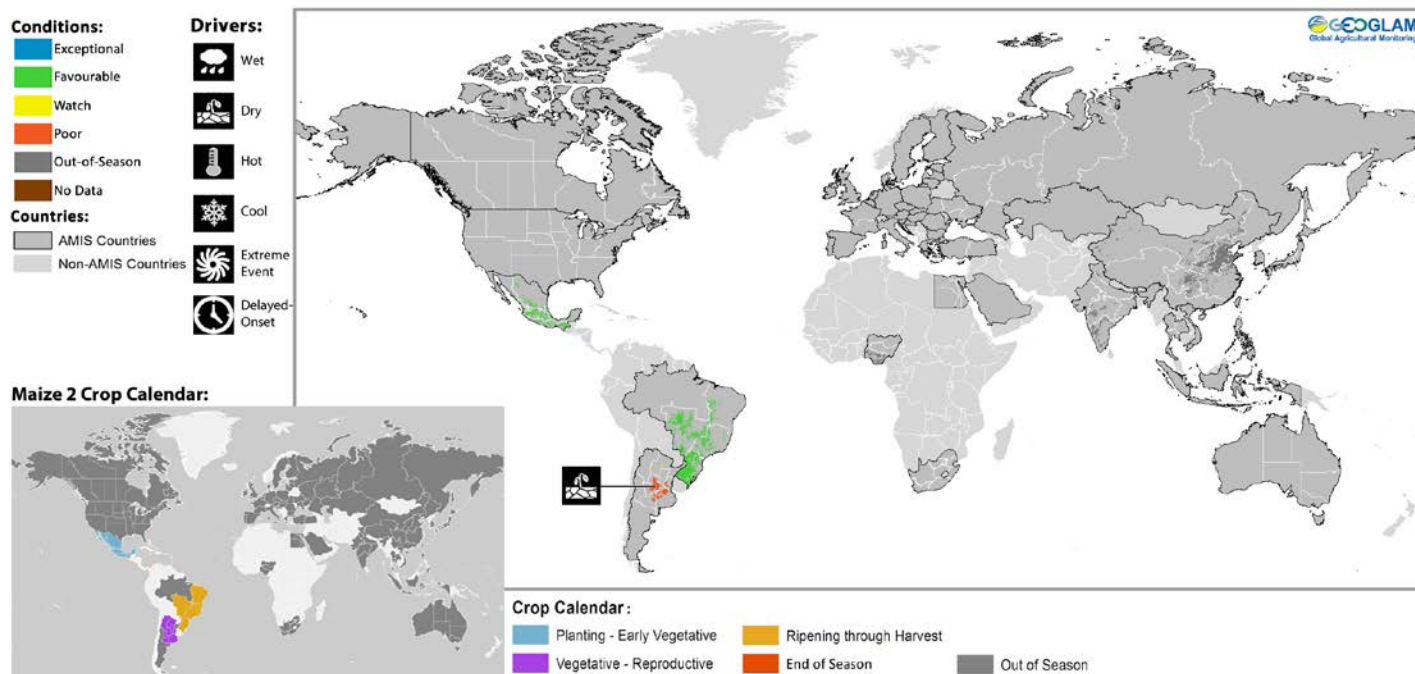


## Maize 1 Conditions for AMIS Countries



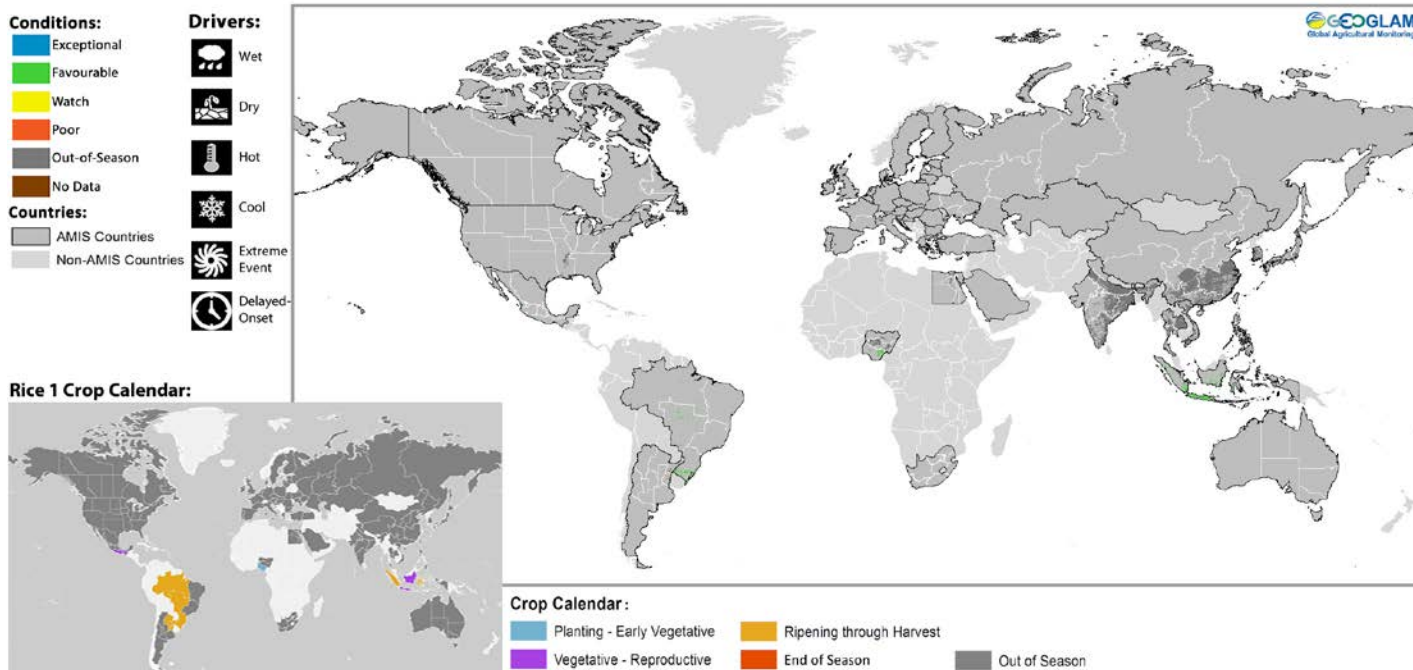
Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



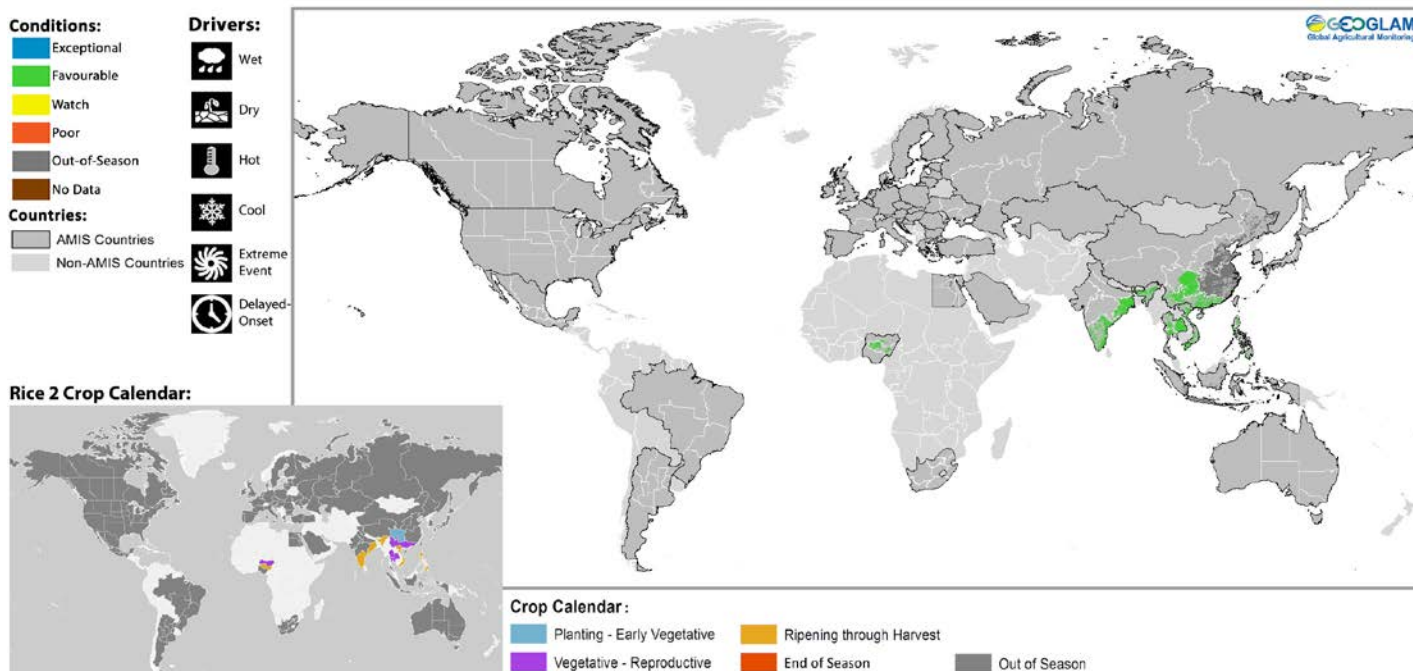
Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



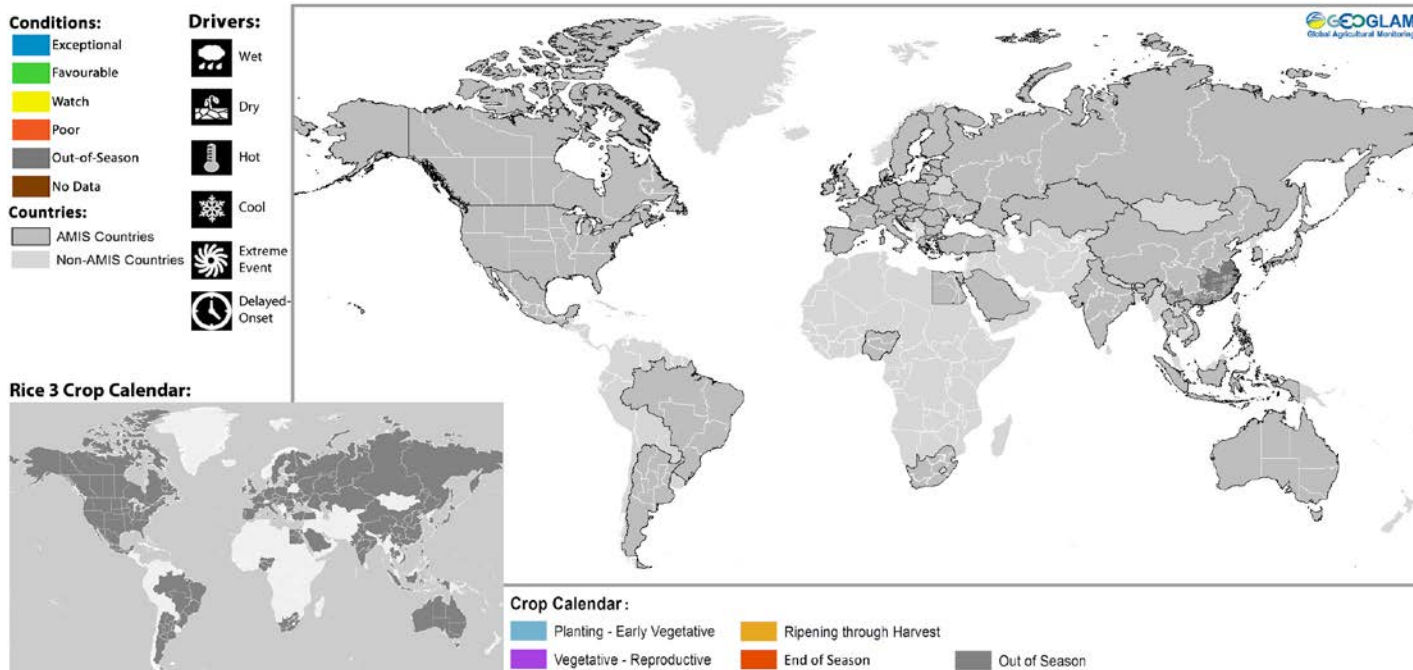
Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



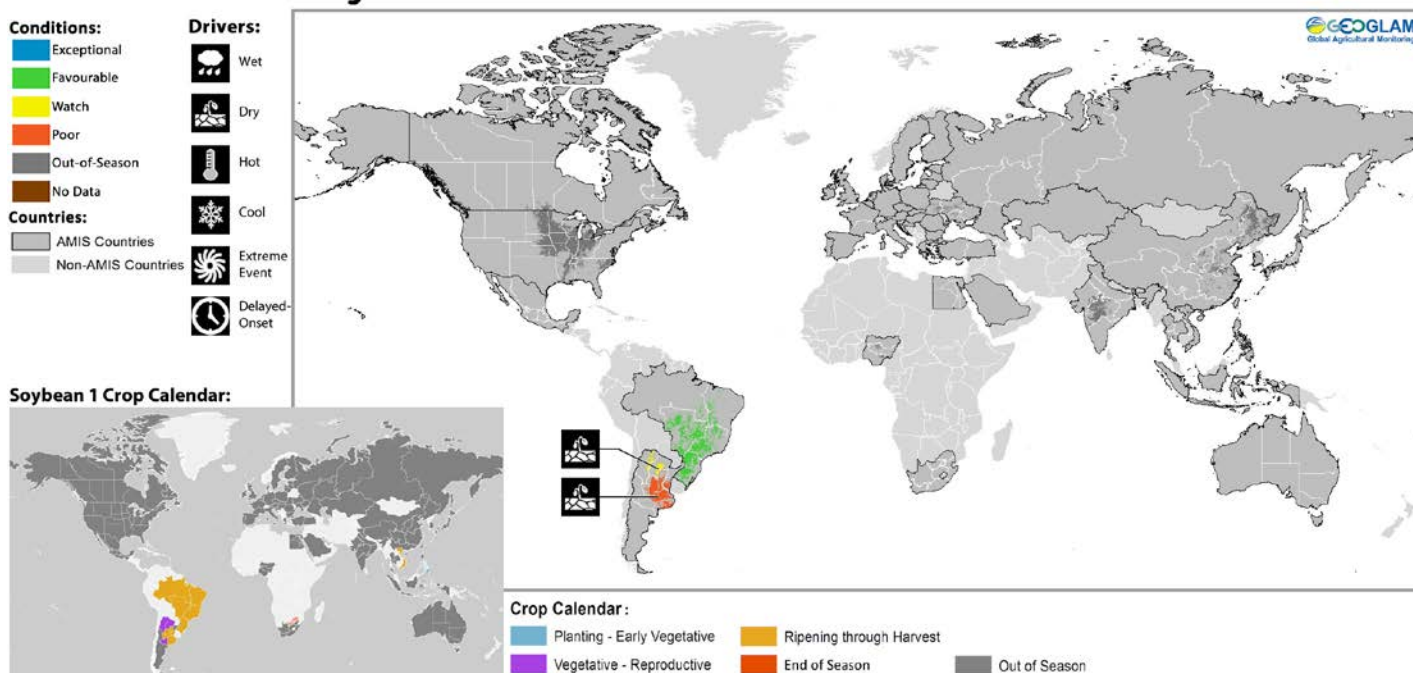
Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

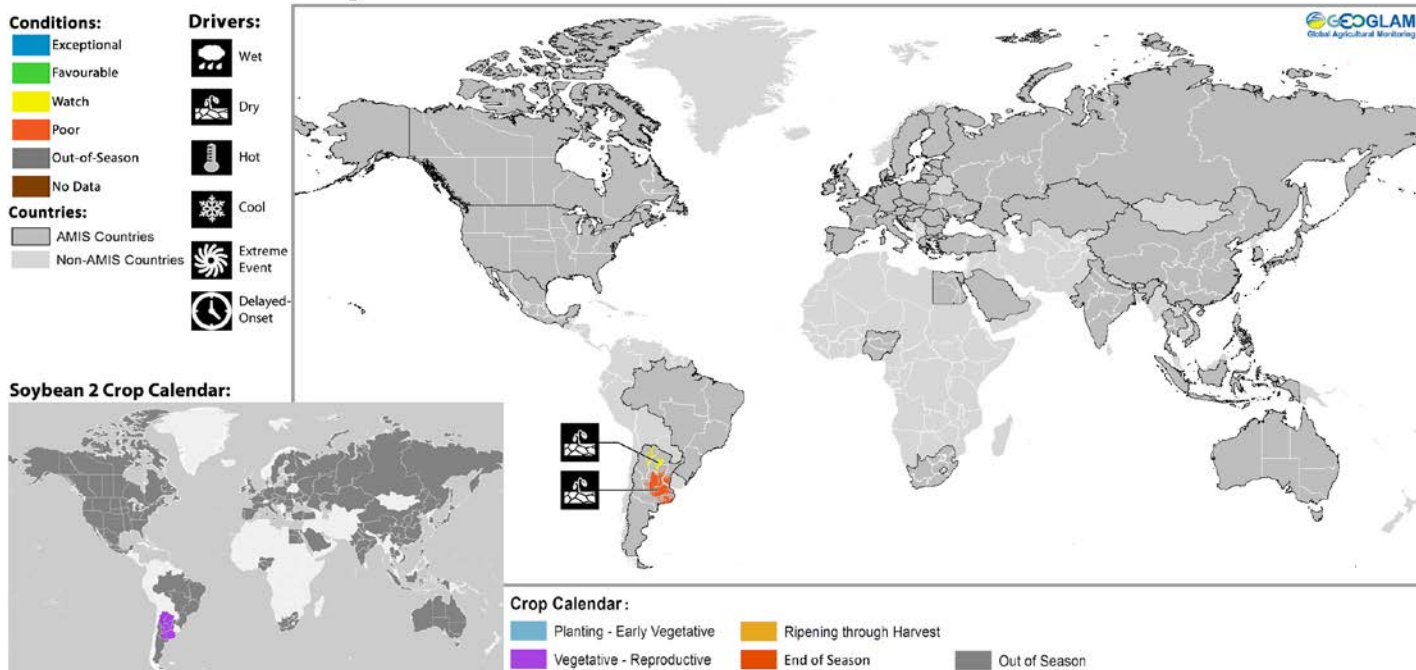
## Soybean 1 Conditions for AMIS Countries



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 March 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 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 March 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 EOFSAC

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

*Photo by: Inbal Becker-Reshef*

[www.geoglam-crop-monitor.org](http://www.geoglam-crop-monitor.org)

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#### Sources & Disclaimer

Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (Buenos Aires Grains Exchange, INTA, Agroindustry ministry), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), India (NCFC), Indonesia (LAPAN & MOA), International (CIMMYT, FAO GIEWS, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & CSIR & GeoTerraImage & SANSA), Thailand (GISTDA & OAE), Ukraine (NASU-NSAU & UHMC), USA (NASA, UMD, USGS—FEWSNET, USDA (FAS, NASS)), Viet Nam (VAST & VIMHE-MARD). The findings and conclusions in this joint multiagency report are consensual statements from the GEOGLAM experts, and do not necessarily reflect those of the individual agencies represented by these experts.

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