



### **Overview:**

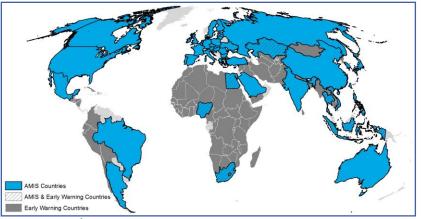
As of the end of May, conditions are mixed for wheat, maize, and soybeans. Winter wheat in is under generally favourable conditions, albeit with some dry conditions in Europe and Australia. Spring wheat is favourable in the US and China, while under cool-dry conditions in Canada. Maize in the southern hemisphere is wrapping up under exceptional to favourable conditions. The US is suffering from cool-wet conditions, delaying sowing and emergence. Rice in Asia is under generally favourable conditions with small areas of dryness in China and Thailand. Soybean conditions are mostly exceptional as harvest progresses in South America. In North America, the US and Canada are suffering from cool-wet conditions.













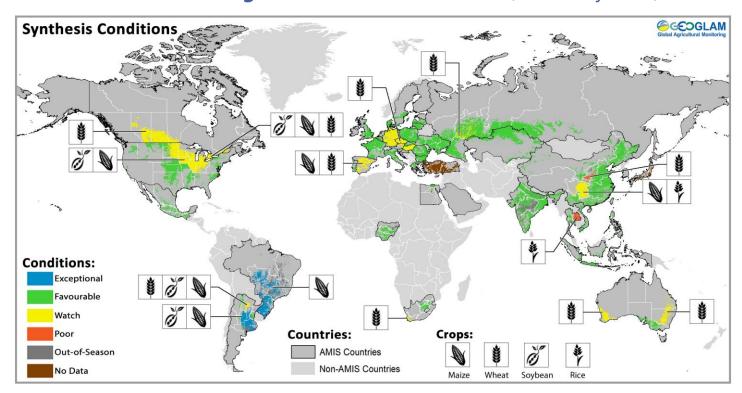
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# Conditions at a glance for AMIS countries (as of May 28th)



Crop condition map synthesizing information for all four AMIS crops as of May 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 is under generally favourable conditions with some spot areas of dryness. Spring wheat is favourable in the Russian Federation and China, while in Canada conditions are cold and dry. In the southern hemisphere, sowing of wheat is ongoing under mixed conditions in Australia and South Africa.

**Maize** - In the southern hemisphere, harvest is on hold as soybean harvest has been prioritized. In the northern hemisphere, North America is suffering from cool-wet conditions delaying sowing and emergence, while in Europe and China conditions are mostly favourable.

**Rice** - In China, conditions are generally favourable. In India, Rabi rice harvest is nearing completion. In the southern region of Southeast Asia, harvest is wrapping up for the dry-season rice with generally favourable production expected. In Indonesia, wet-season rice harvesting and dry-season rice sowing continues.

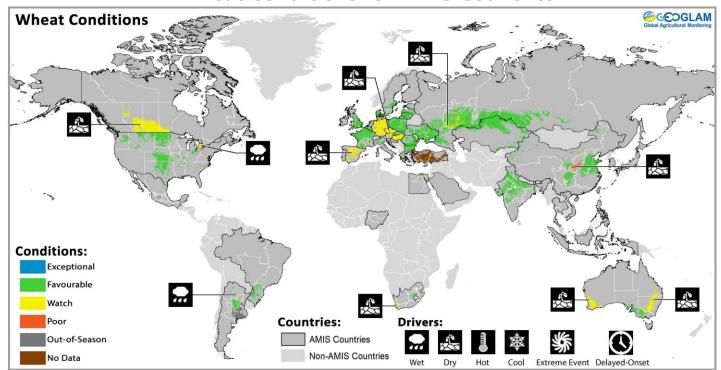
**Soybeans** - In the southern hemisphere, harvest is ongoing in Argentina under favourable to exceptional conditions across most of the country. In the northern hemisphere, the US and Canada are suffering delays in sowing from mostly cold-wet conditions.

#### **El Niño Advisory**

Weak El Niño conditions are present and are forecast to continue through the Northern Hemisphere summer and fall (~70% chance for June to August and after that, a 55-60% chance). Associated with this event are increased chances of below normal June to August rainfall in the Maritime Continent, eastern Australia, Central America, the Caribbean, and northern South America. The Indian Ocean Dipole is forecast to be positive during June to August. Such conditions tend to enhance (suppress) rainfall in parts of East Africa (southern and central Australia).

Source: UCSB Climate Hazards Center

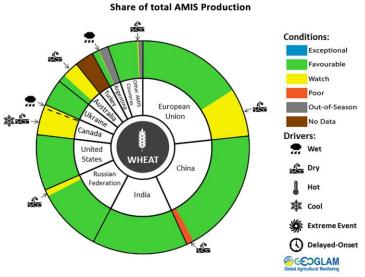
### **Wheat Conditions for AMIS Countries**



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 May 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**, winter wheat conditions have improved in the southeast region owing to recent rainfall, however dry conditions remain in the southwest and parts of central Europe. In Ukraine, conditions are favourable. In the Russian Federation, winter wheat conditions are generally favourable albeit with dry conditions in Volga. Sowing of spring wheat is ongoing under favourable conditions despite an initial delay due to dry conditions. In Kazakhstan, sowing of spring wheat is progressing under generally favourable conditions. In China, winter wheat is under generally favourable conditions with the exception of some dry conditions in Loess region. Spring wheat sowing is ongoing under favourable conditions. In India, harvesting is wrapping up under favourable conditions. In the US, winter wheat conditions are

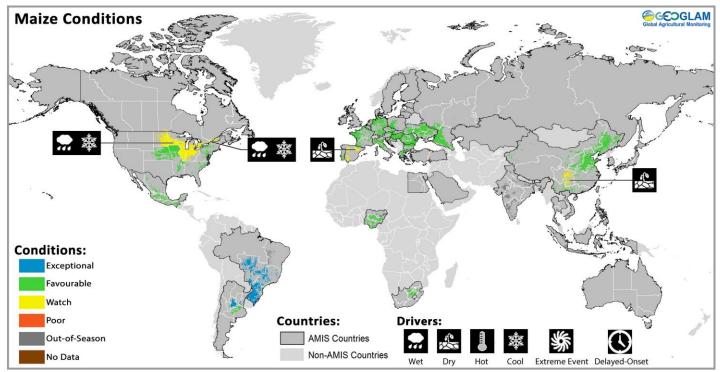
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For detailed description of the pie chart please see box below.

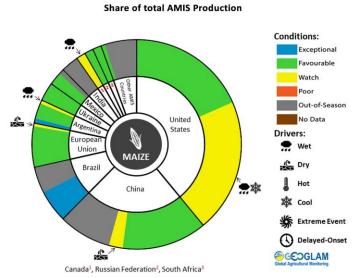
favourable. Spring wheat conditions are favourable while sowing is somewhat delayed in the Dakotas due to cool and wet conditions. In **Canada**, conditions are mixed for both winter and spring wheat due to cool and dry conditions in the prairies along with cool and wet conditions in the eastern provinces. In **Australia**, conditions are generally favourable for southern growing regions, while low soil moisture and a lack of May rainfall is affecting winter wheat prospects in northern NSW, southern Queensland and Western Australia. In **Argentina**, sowing of wheat has begun under generally favourable conditions with some wetness in the north.

### **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 May 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.

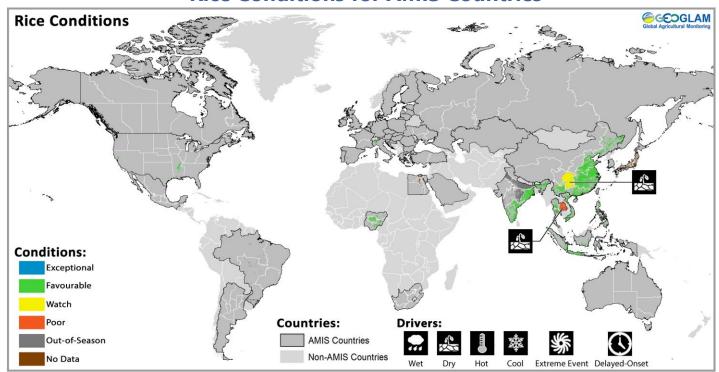
**Maize:** In **Brazil**, conditions are exceptional for the summer-planted crop (higher producing season) with harvest beginning early in the south region and some central states. In Argentina, harvest has been delayed with a shift in focus towards the harvest of soybeans. Conditions remain favourable to exceptional for both spring-planted crop and summer-planted crops with a record harvest expected. In Mexico, harvest of the autumn-winter cycle crop is continuing under favourable conditions while sowing of the springsummer crop is progressing under favourable conditions. In **South Africa**, wet conditions in April, coupled with warm conditions in May with no frosts, enabled favourable conditions as harvest wraps up. In China, conditions are generally favourable albeit with some dryness in the southwest. In the US, conditions are mixed as sowing and emergence has been



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

markedly delayed across much of the northern Corn Belt due to cool and wet conditions. Climatic conditions over the next month will determine the final sown area. In **Canada**, conditions are mixed as sowing and emergence have been delayed across the country due to excessive moisture in the main producing eastern provinces and cold-dry conditions in Manitoba. In the **EU**, conditions are generally favourable, with recent rainfall improving soil moisture conditions. In the **Russian Federation**, conditions are favourable with the crop in early crop development.

### **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 May 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 and single-cropping rice are under generally favourable conditions with the exception of some dry conditions in the southwest. In India, Rabi rice harvest is nearing completion under favourable conditions with production expected to be higher than last year. In Indonesia, harvest of wetseason rice continues with yields expected to be close to average. Sowing of dry-season rice enters the second month under favourable conditions. In Viet Nam, conditions are favourable for winter-spring rice (dryseason rice) across the country as harvest progresses in the south. Sowing of wet-season rice has begun under favourable conditions earlier than last year. In **Thailand**, dry-season rice harvest is almost complete under generally favourable conditions with a decrease in production expected due to a decrease in total sown area. Wet-Season rice sowing has begun with some

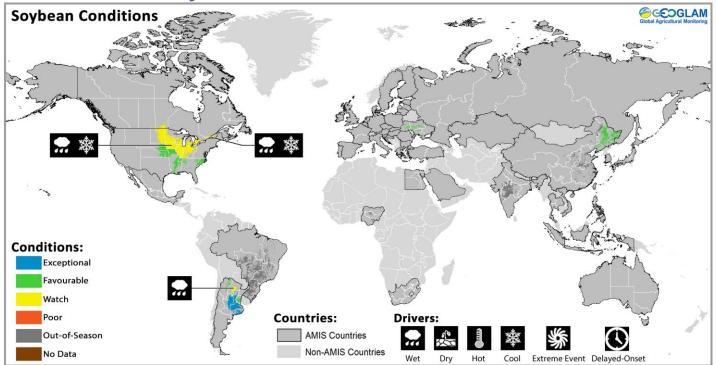
### Conditions: Exceptional Favourable Watch Poor Out-of-Season No Data China Drivers: Wet RICE Hot XX Cool Extreme Event Delayed-Onset **@G€**OGLAM

**Share of total AMIS Production** 

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

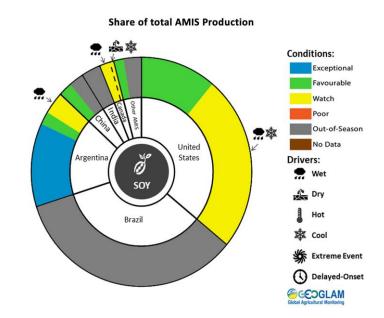
continued concerns about dryness in the northeastern region. In the **Philippines**, harvest of dry-season rice is wrapping up under generally favourable conditions with a slight reduction in harvested area and yields compared to last year. Preparations are underway for wet-season sowing. In the **US**, conditions are favourable.

# **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 May 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 **Argentina**, harvest of springplanted and summer-planted crops is advancing at a fast pace with favourable to exceptional yields in the main producing region. However, flooding and excess soil moisture in the northeast region is increasing crop losses and reducing yields. In China, sowing has begun in the northeast of the country under favourable conditions. In the US, conditions are mixed as sowing has been delayed across much of the northern half of the country due to wet conditions. Plenty of time still remains for sowing to be completed before yields begin to be affected. In Canada, conditions are mixed as sowing has been delayed across the country due to excessive moisture in the main producing eastern provinces and cold-dry conditions in the prairies. In Ukraine, conditions are favourable with good soil moisture in the northern and western regions.



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

Information on crop conditions in non-AMIS countries can be found in the <u>GEOGLAM Crop</u> <u>Monitor for Early Warning</u>, published June 6<sup>th</sup>

**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.

# **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.



#### **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

# £ Extreme Event

Dry Dry

Hot



## **Crop Season Nomenclature:**

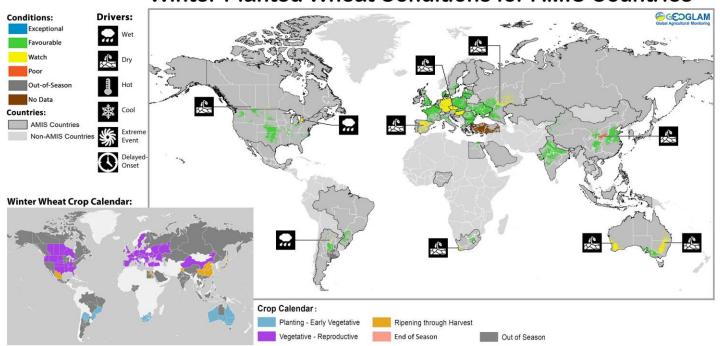
In countries that contain multiple cropping seasons for the same crop, the following chart identifies the national season name associated with each crop season within the Crop Monitor. Within the Crop Monitor for AMIS countries the larger producing season (most recent 5 years) has been assigned to the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

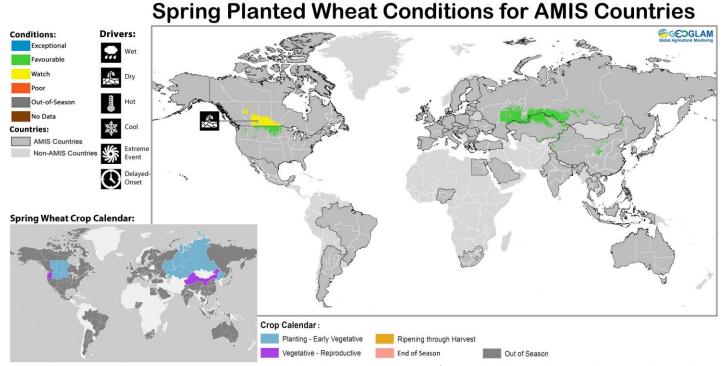
<sup>\*&</sup>quot;Average" refers to the average conditions over the past 5 years.

# **Appendix 2: Crop Season Specific Maps**

### Winter Planted Wheat Conditions for AMIS Countries

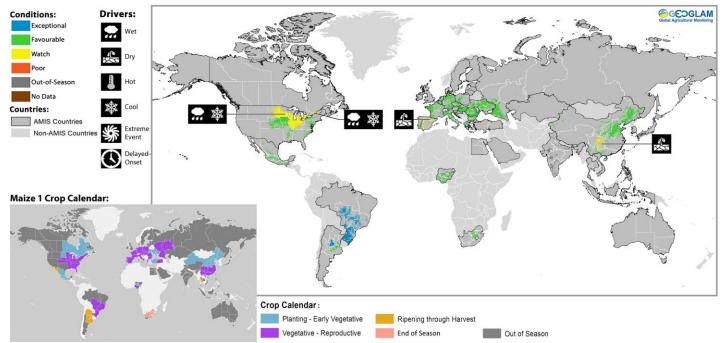


Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of May 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



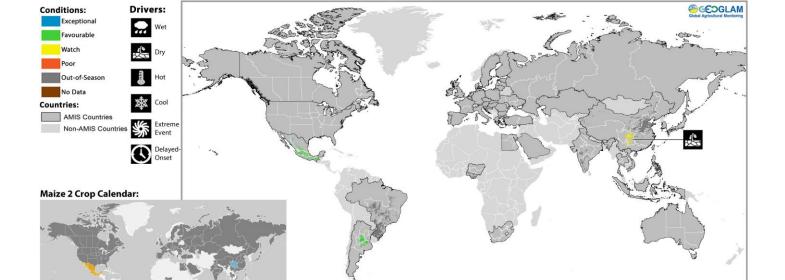
Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of May 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

Ripening through Harvest

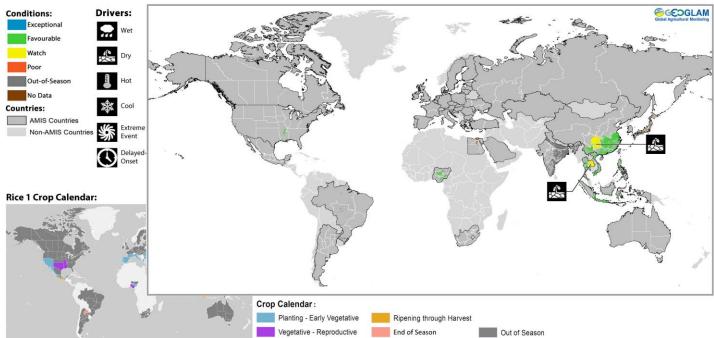
Out of Season

Crop Calendar:

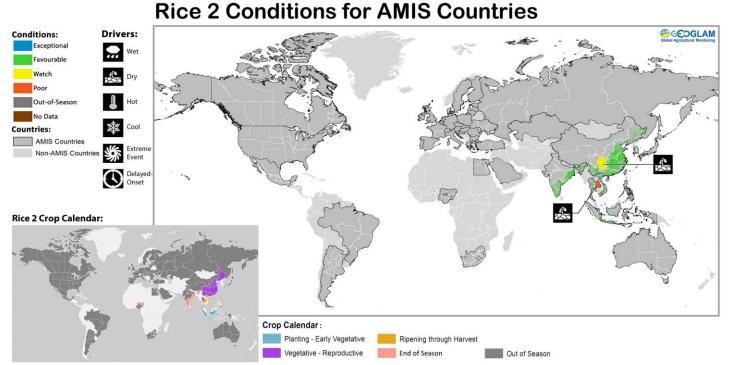
Planting - Early Vegetative

Vegetative - Reproductive

# Rice 1 Conditions for AMIS Countries



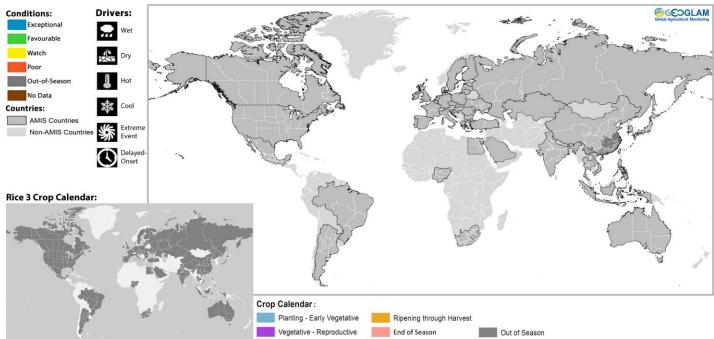
Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of May 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



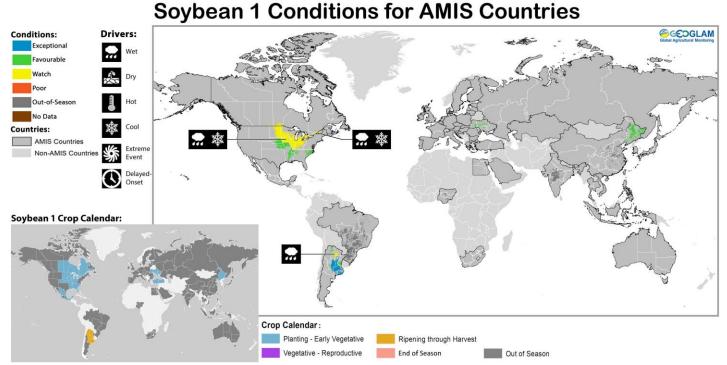
Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of May 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



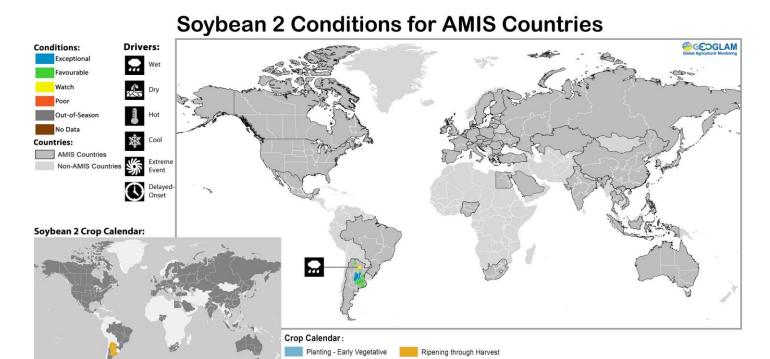
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Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of May 28th. Where crops are in less than 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 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 May 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 May 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.

End of Season

Vegetative - Reproductive





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

Photo curtesy of: Brian Barker

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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 & GeoTerralmage & SANSA), Thailand (GISTDA & OAE), Ukraine (NASU-NSAU & UHMC), USA (NASA, UMD, USGS – FEWS NET, 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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