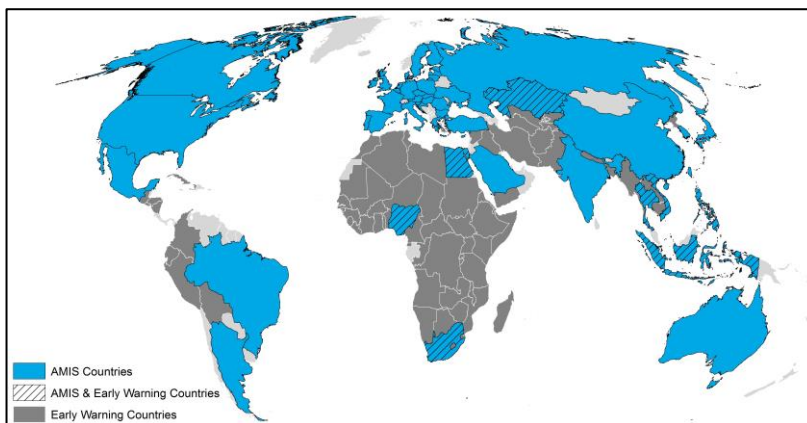


CROP MONITOR FOR AMIS

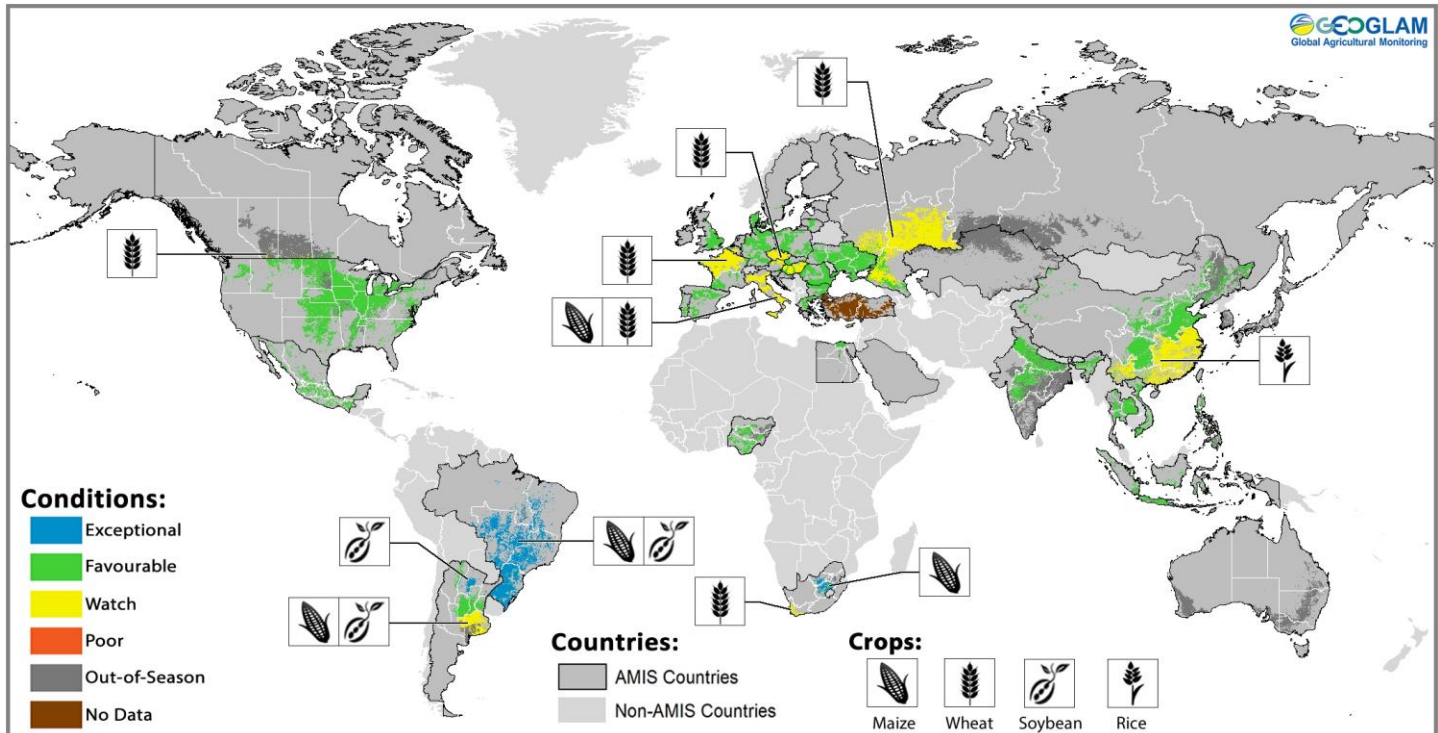
NO. 39

May 2017

The Group on Earth Observations' Global Agricultural Monitoring (GEOGLAM) initiative developed the Crop Monitor whose objective is to provide AMIS with an international and transparent multi-source, consensus assessment of crop growing conditions, status, and agro-climatic conditions, likely to impact global production. This activity covers the four primary crop types (wheat, maize, rice, and soy) within the main agricultural producing regions of the AMIS countries (G20+7). The Crop Monitor reports provide cartographic and textual summaries of crop conditions as of the 28th of each month, according to crop type. There is another Crop Monitoring initiative called the Early Warning Crop Monitor (geoglam-crop-monitor.org/), which has grown out of this initiative.



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



Crop condition map synthesizing information for all four AMIS crops as of April 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 conditions are mixed as dry or cold weather is observed in areas within Europe, Canada, and the Russian Federation. Spring wheat sowing has begun.

Maize - Overall conditions in the southern hemisphere are favourable to exceptional with very good production prospects. In Brazil, harvest of the spring-planted crops is wrapping up under exceptional conditions. While in Argentina, harvesting has been delayed. In the northern hemisphere, maize sowing is proceeding under generally favourable conditions.

Rice - The secondary rice season is currently ongoing in the majority of AMIS countries in Asia with the exception of Indonesia, where the wet-season crop is

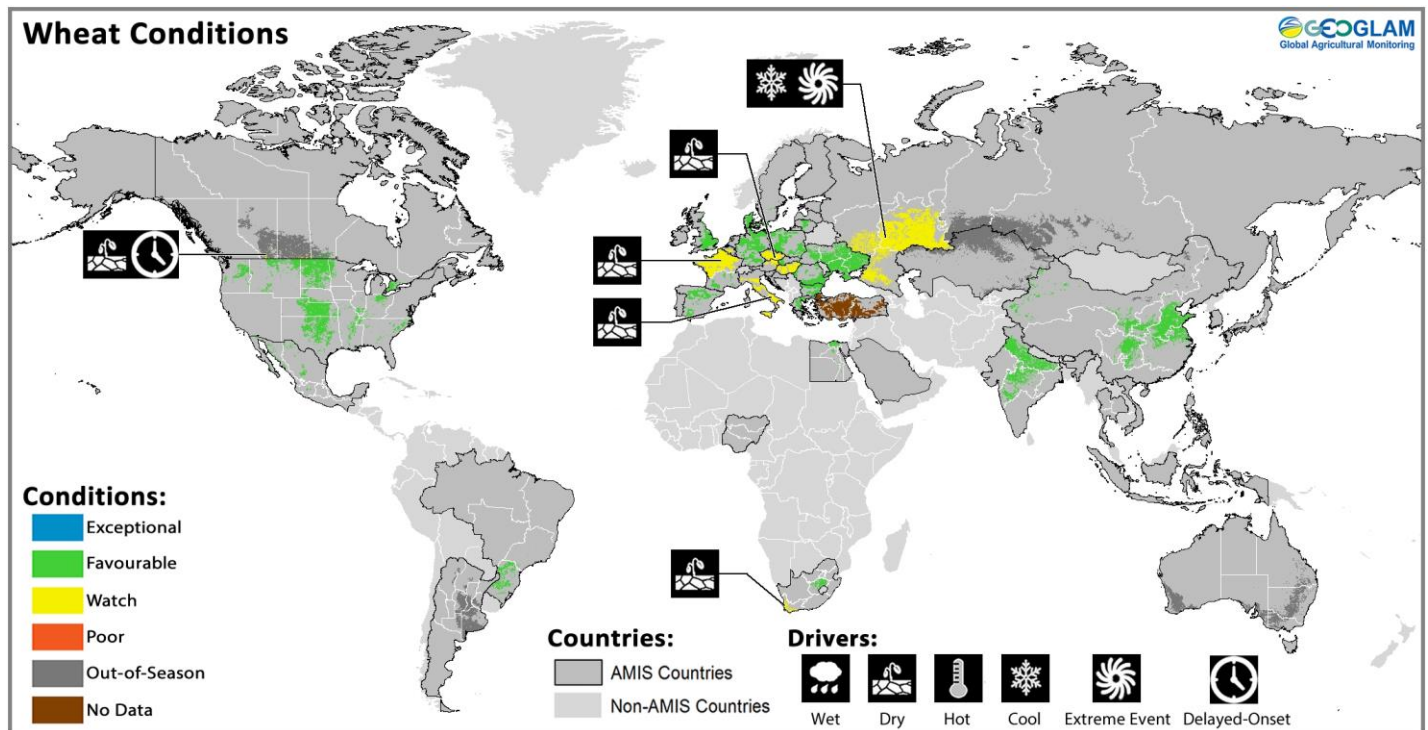
being harvested. Crop conditions in Asia are generally favourable, with the exception of China where rainy weather is affecting early rice in the south central regions.

Soybeans - In the southern hemisphere, harvesting is proceeding under exceptional conditions in Brazil. In Argentina, harvest conditions continue to be favourable with some minor areas in the south confronting floods. In the northern hemisphere, sowing is beginning with the US expecting planted area to be at a record high.

PRESS STOP (1 May 2017)

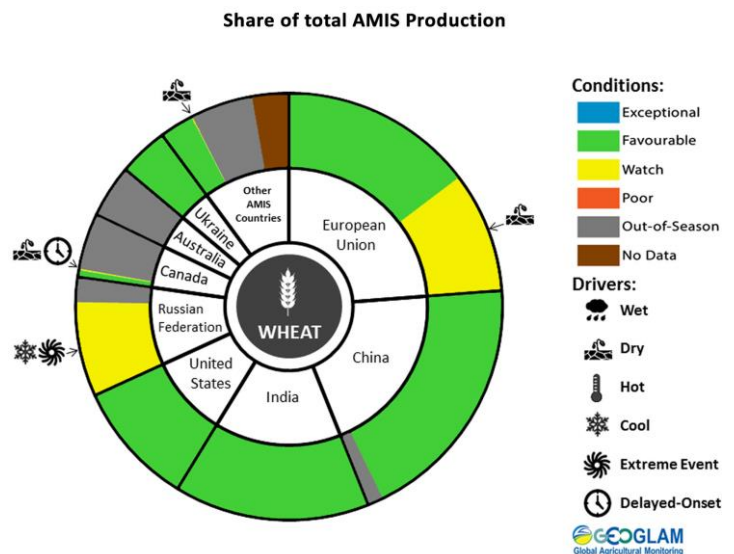
The impact of the recent snowstorm which hit parts of the US Plains winter wheat belt will be discussed in the June report as the cut-off date for production of this month's report was 28 April.

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 April 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.

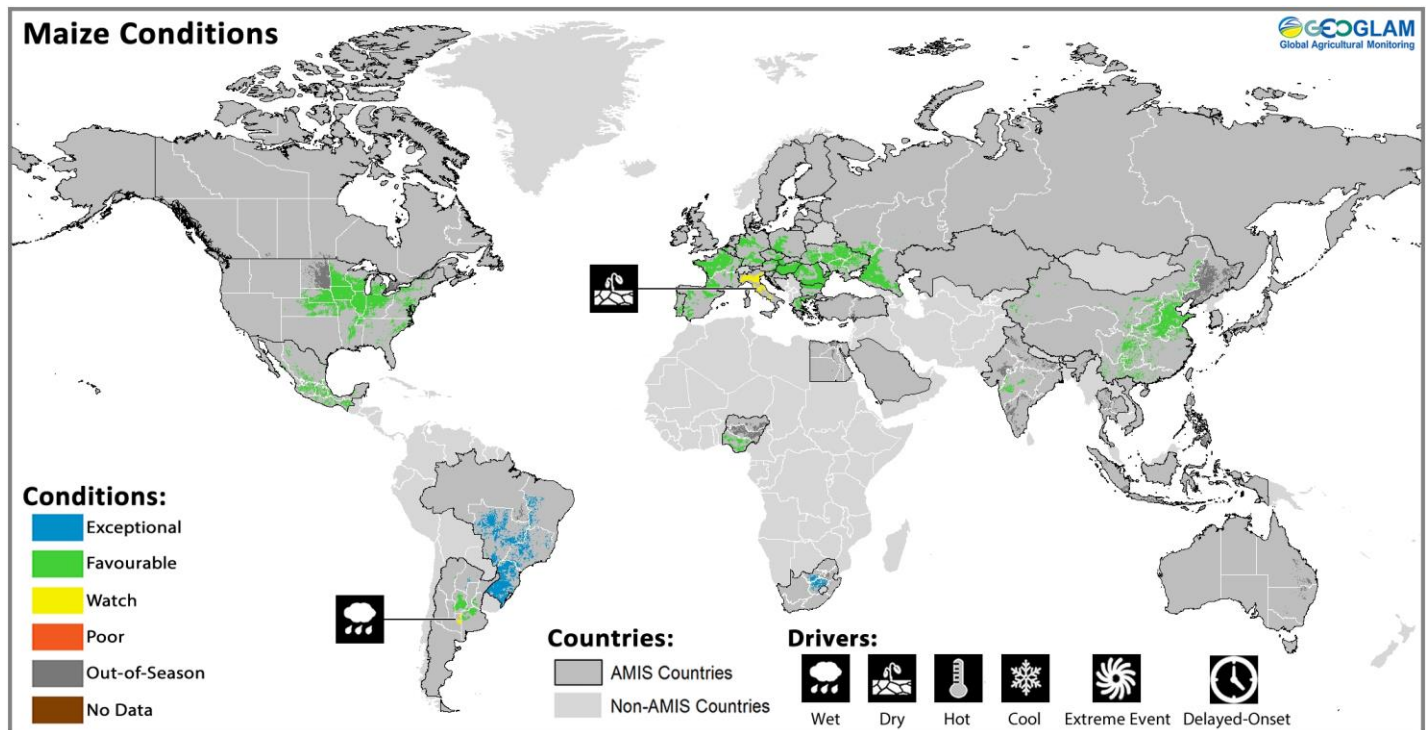
Wheat: Winter wheat conditions in the northern hemisphere are mixed as dry or cold conditions are observed in some areas. In the **EU**, winter wheat conditions are generally favourable; however, additional rain is needed in important crop-production areas and a cold spell has raised concerns and delayed crop growth. In the **US**, conditions are favourable as the South Great Plains has received rainfall, abating the earlier dryness. Both winter wheat and spring wheat areas are expected to be down to multi-decade lows. In **China**, conditions are favourable for winter wheat as the crop is vegetative stage. In **India**, winter wheat is under favourable conditions as harvesting is finishing. In the **Russian Federation**, conditions are under watch as an April snowfall and frost may have damaged the crop in places. In **Ukraine**, conditions remain favourable while recent cool weather has slowed crop growth and development. In **Canada**, conditions are mixed as prolonged dry weather and insufficient snow cover in the southern prairies has raised concerns about winterkill.



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

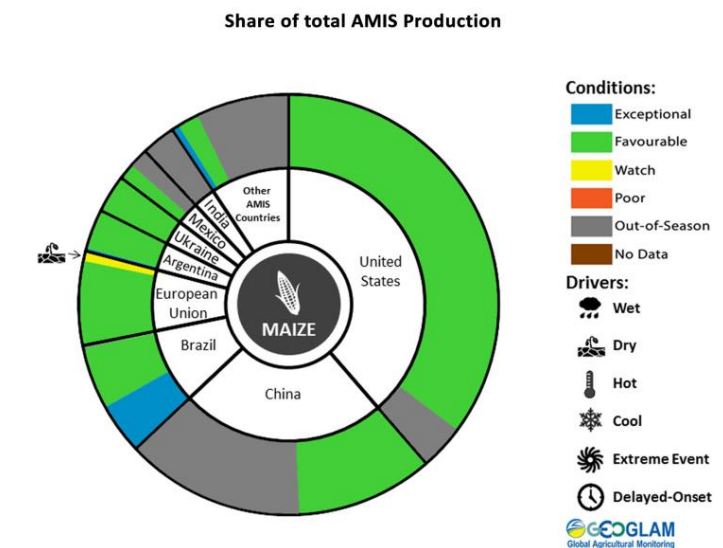
* Assessment based on information as of April 28th

Maize Conditions for AMIS Countries



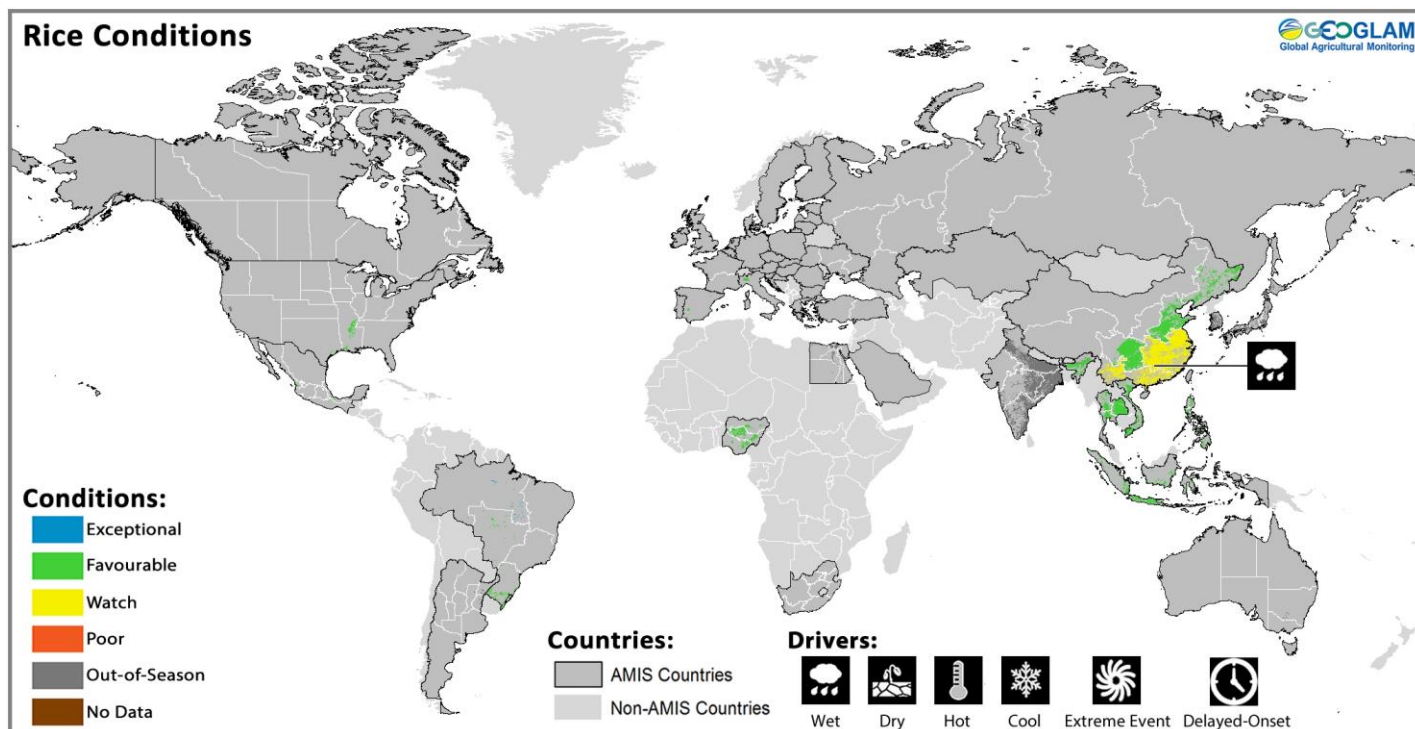
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of April 28th. Where crops are in other than favourable conditions the climatic drivers responsible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

Maize: Overall conditions in the southern hemisphere are favourable with very good production prospects while sowing begins in the northern hemisphere. In **Brazil**, the spring-planted crop harvest is coming to a close under exceptional conditions with increased production prospects. The summer-planted (larger) crop is under favourable conditions. In **Argentina**, harvesting of the early-planted crop has been delayed due to the beginning of the soybean harvest. Crop conditions remain favourable with no major losses expected from the recent flooding. In **South Africa**, conditions are exceptional as wet conditions during most of the summer season have boosted production prospects for this year. In **Mexico**, autumn-winter maize has entered the vegetative stage under favourable conditions and the sowing of spring-summer maize has begun. In the **US**, sowing is now progressing throughout the country under favourable conditions. In **China**, sowing of the spring-planted crop has begun under favourable conditions. In the **EU**, conditions are generally favourable with the exception of dry weather delaying sowing in northern Italy.



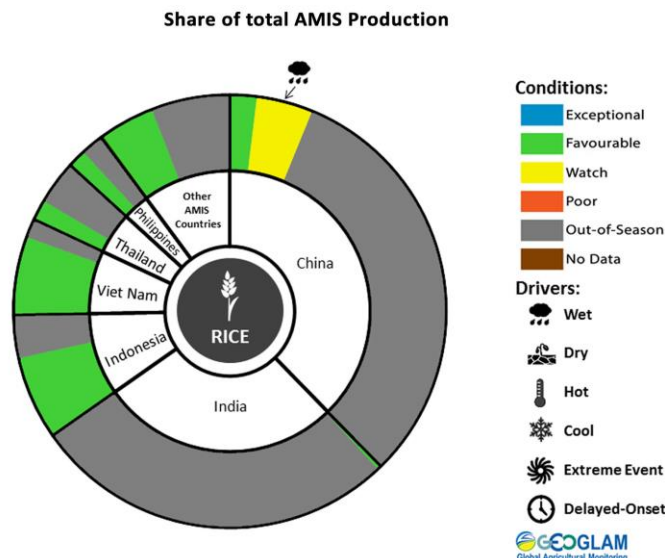
For detailed description of the pie chart please see box below.

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

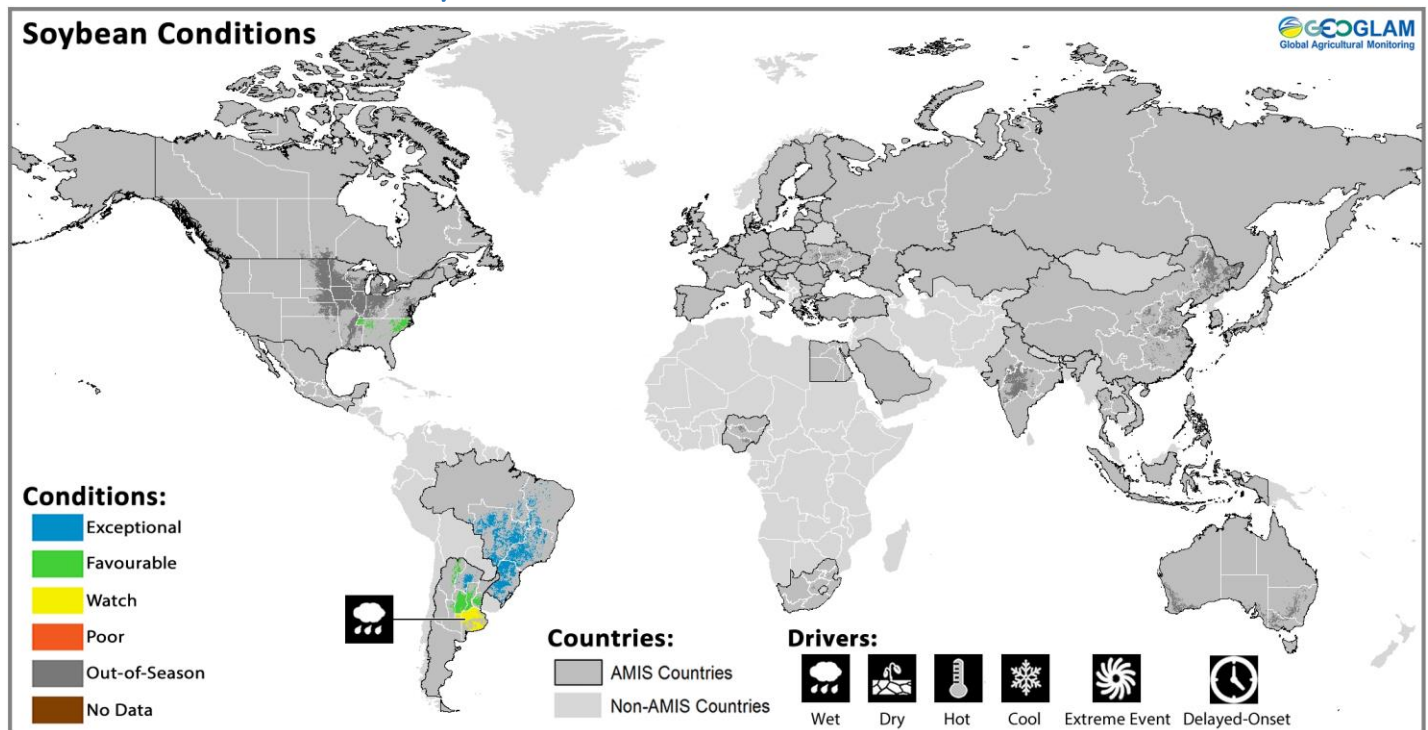
Rice: In **India**, Rabi rice is in favourable conditions as the harvest nears competition with good yields expected. In **China**, conditions are mixed for early rice as continuous rainy weather has been unfavourable in the south central regions. In **Indonesia**, harvesting continues for the wet-season crop with good yields owing to the later-planted rice receiving more irrigation water and sunlight than the earlier-planted crops. In **Viet Nam**, conditions are favourable for dry-season rice in both the north and south. Harvesting of dry season rice has begun while sowing of wet season rice is ongoing in the south. In **Thailand**, harvesting of dry-season rice has begun under favourable conditions with increased yields expected owing to sufficient rainfall and irrigation water over the course of the season. In the **Philippines**, the harvesting of dry-season rice is ongoing and the crop is under favourable conditions with good yields expected. In **Brazil**, conditions remain favourable as the harvest nears completion in the main producing region. In the **US**, nearly all sowing has been completed and is progressing under favourable conditions.



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

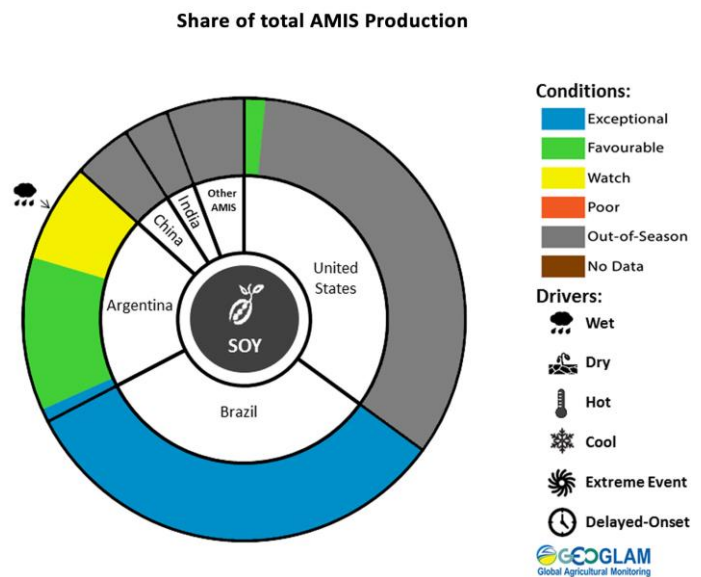
* Assessment based on information as of April 28th

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 April 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**, the harvest is coming to a close under exceptional conditions with increased production prospects now across the country, owing to adequate water and good weather over the course of the growing season. In **Argentina**, the harvest is progressing with some delays in the south due to heavy rains and flooding. Production prospects remain positive on good yields, which have offset the negative impacts of flooded areas. In the **US**, sowing has begun in the south. Sown area for 2017 is expected to be at a record high.



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 Early Warning Crop Monitor](#), published May 4th 2017

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 slide are weighted by the sub-national production statistics (5-year average) of the respective country. The section within each national slice also accounts for multiple cropping seasons (i.e. spring and winter wheat). When conditions are other than 'favourable', icons are added that provide information on the key climatic drivers affecting conditions.

* Assessment based on information as of April 28th

Appendix 1: 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.

Conditions:

| | |
|---|---------------|
|  | Exceptional |
|  | Favourable |
|  | Watch |
|  | Poor |
|  | Out-of-Season |
|  | No Data |

*"Average" refers to the average conditions over the past 5 years.

Drivers:

These represent the key climatic drivers that are having an impact on crop condition status. They result in production impacts and can act as either positive or negative drivers of crop conditions.

Wet: Higher than average wetness.

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)

Delayed-Onset: Late start of the season

| | |
|---|---------------|
|  | Wet |
|  | Dry |
|  | Hot |
|  | Cool |
|  | Extreme Event |
|  | Delayed-Onset |

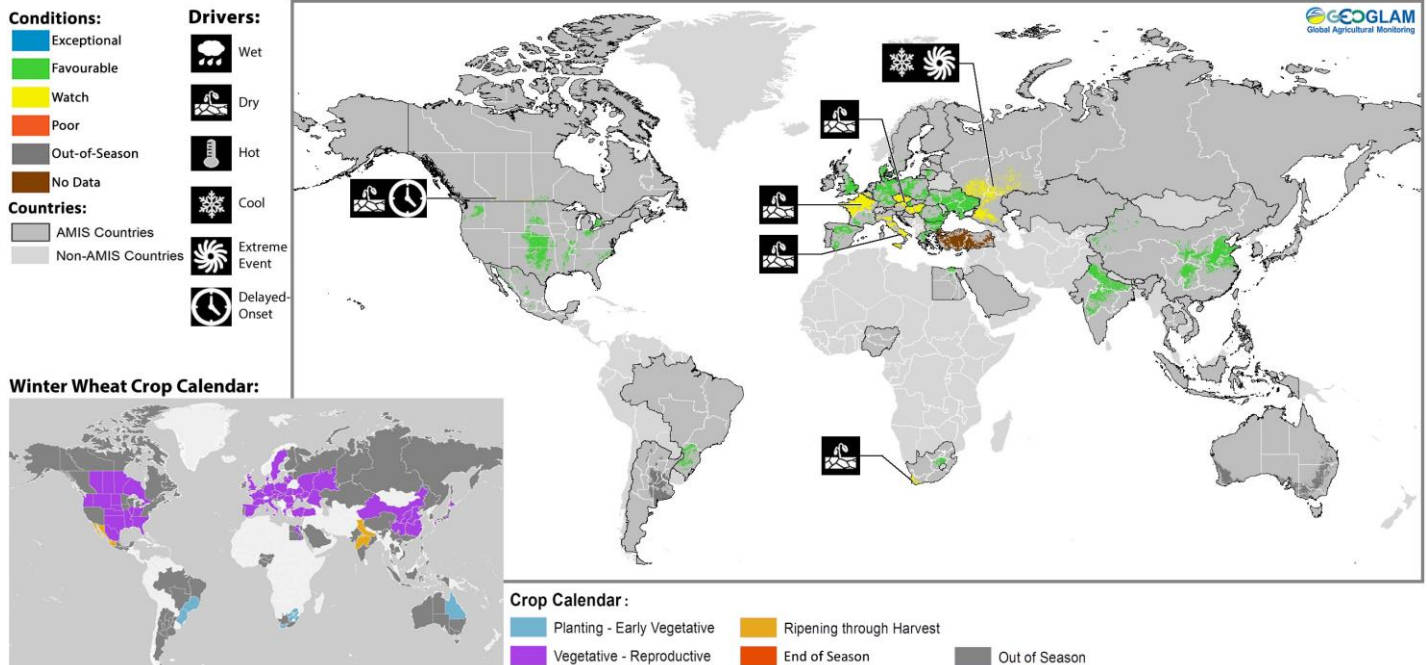
Sources & Disclaimer

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), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), Indonesia (LAPAN & MOA), International (CIMMYT, FAO GIEWS, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & GeoTerraImage & 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.

More detailed information on the GEOGLAM crop assessments is available at www.geoglam-crop-monitor.org

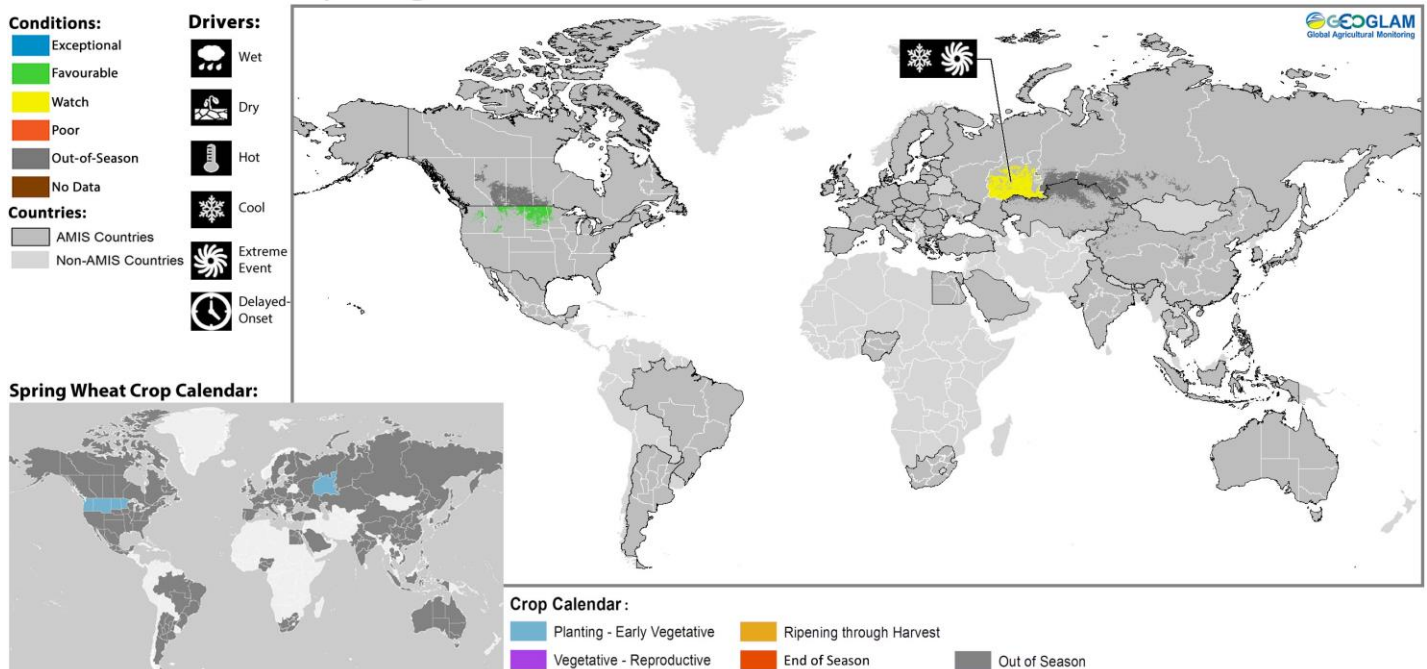
Appendix 2: Crop Season Specific Maps & Pie Charts

Winter Planted Wheat Conditions for AMIS Countries



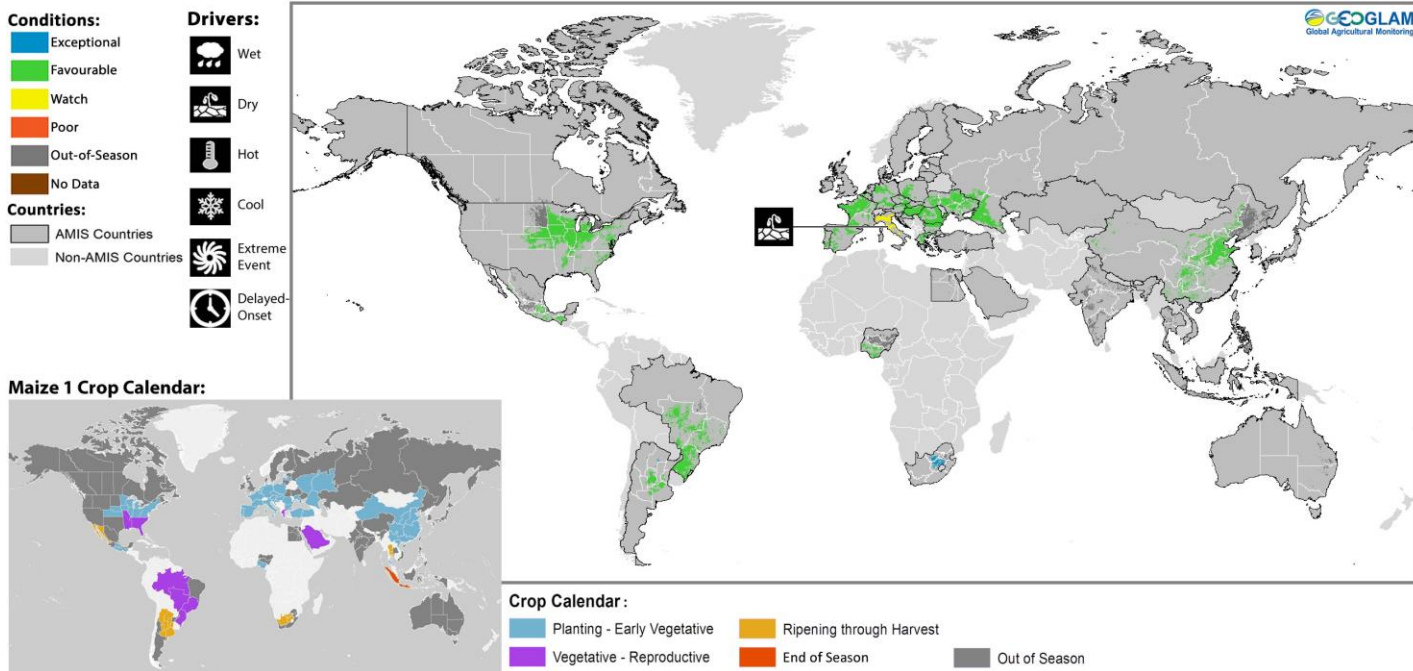
Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of April 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



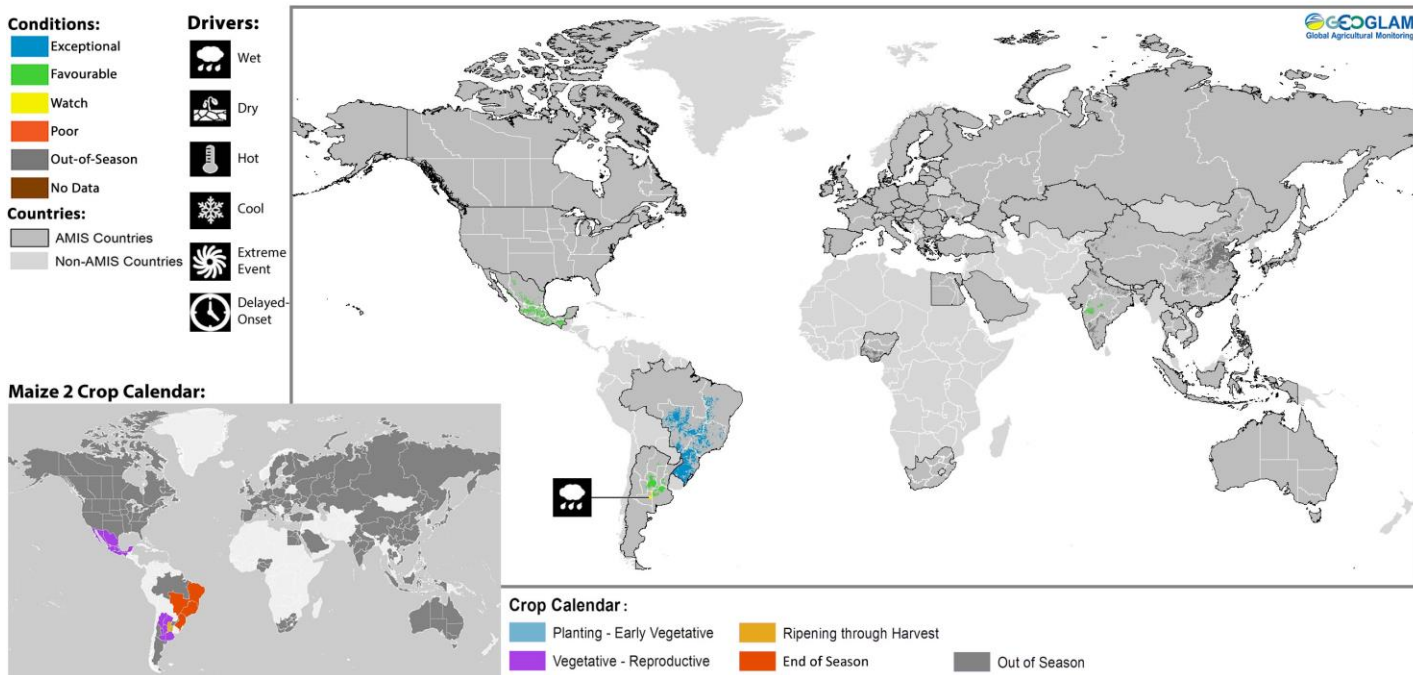
Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of April 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

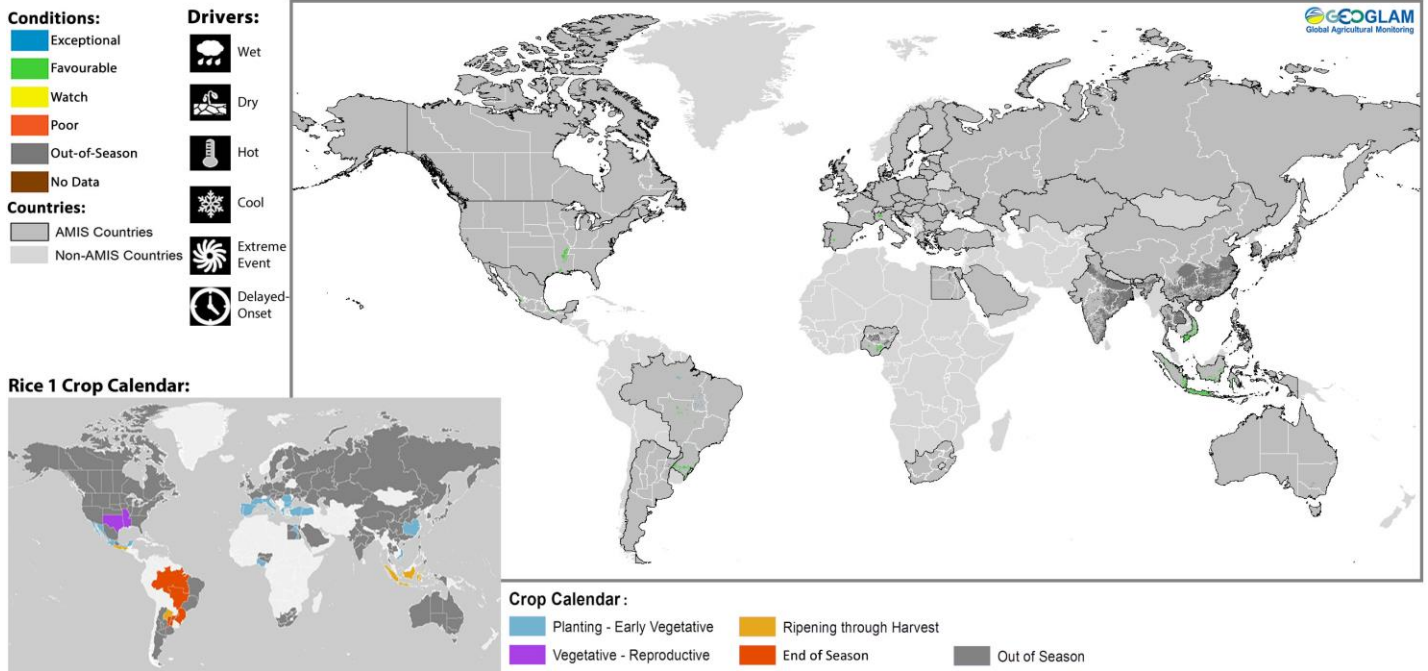
Maize 2 Conditions for AMIS Countries



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 April 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.

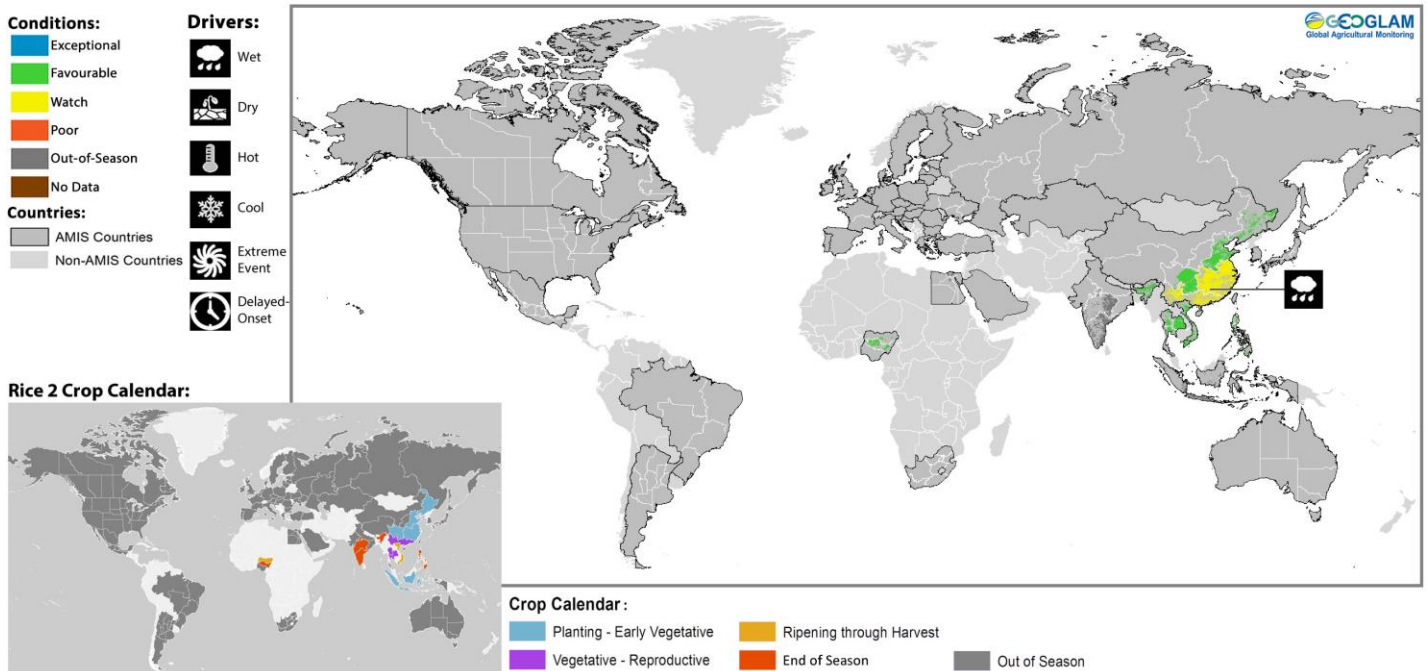
* Assessment based on information as of April 28th

Rice 1 Conditions for AMIS Countries



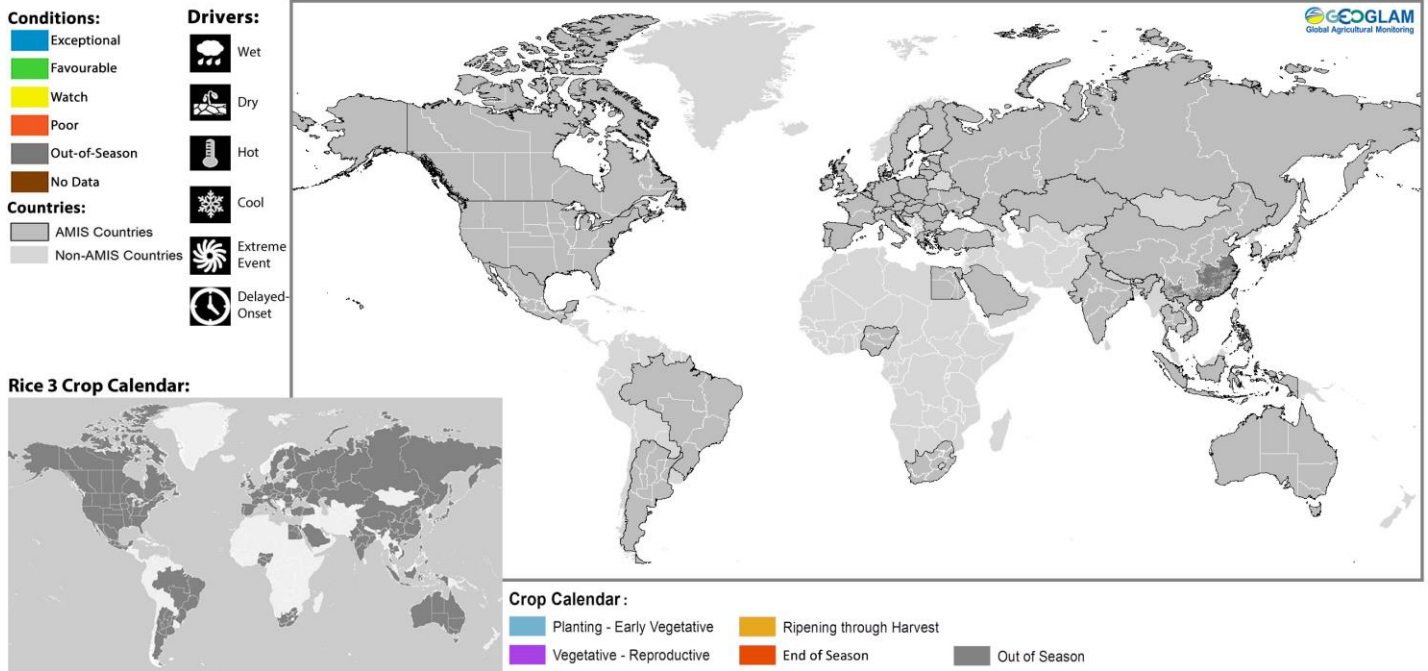
Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of April 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



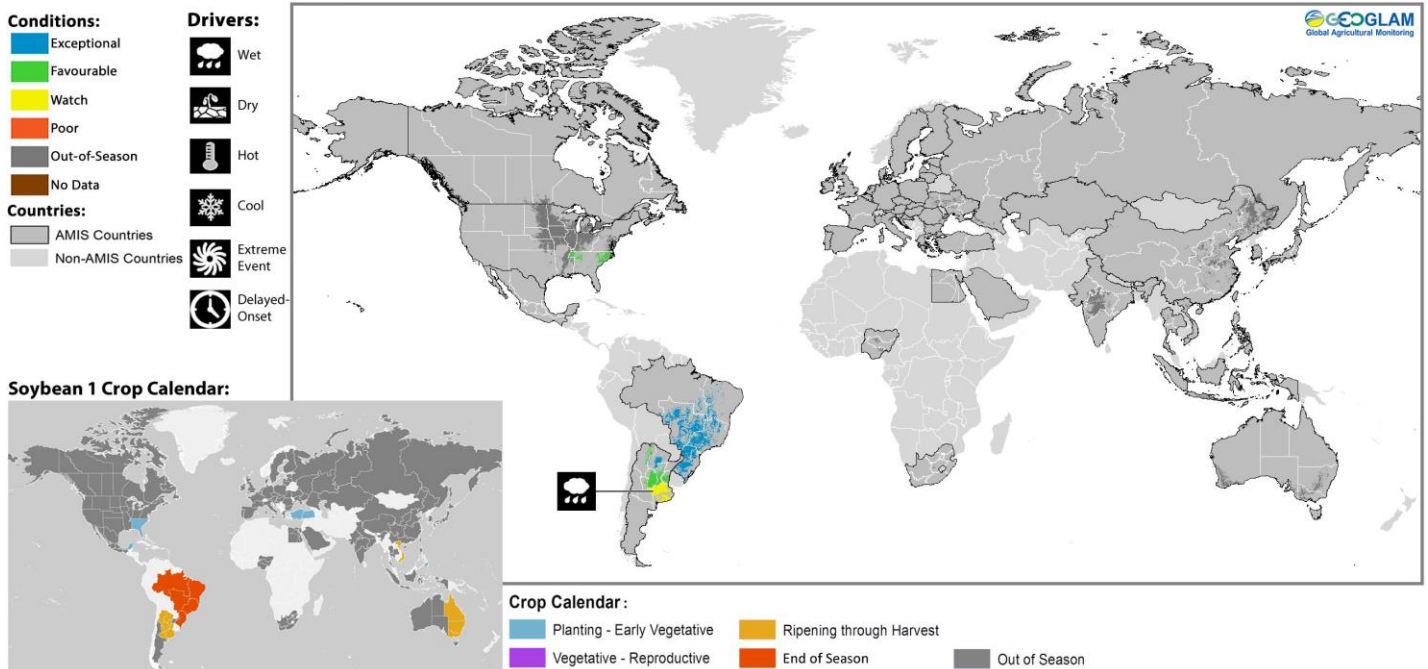
Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of April 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

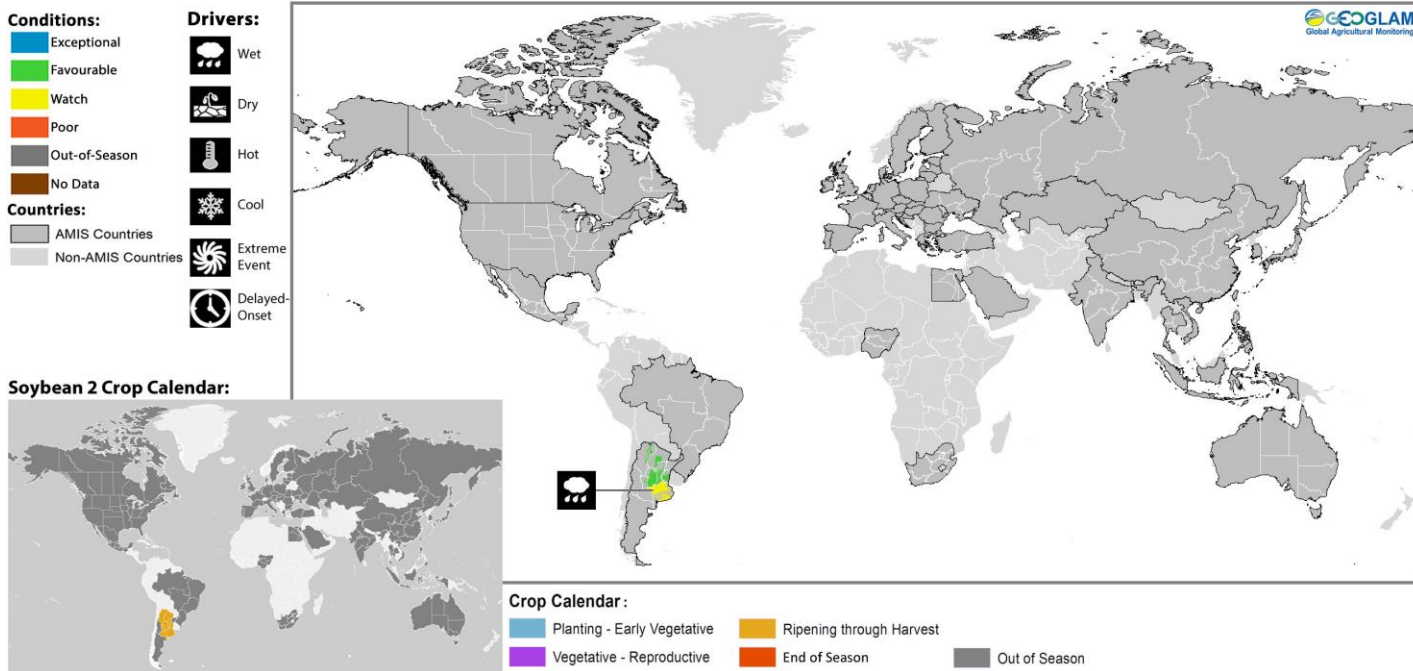
Soybean 1 Conditions for AMIS Countries



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 April 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.

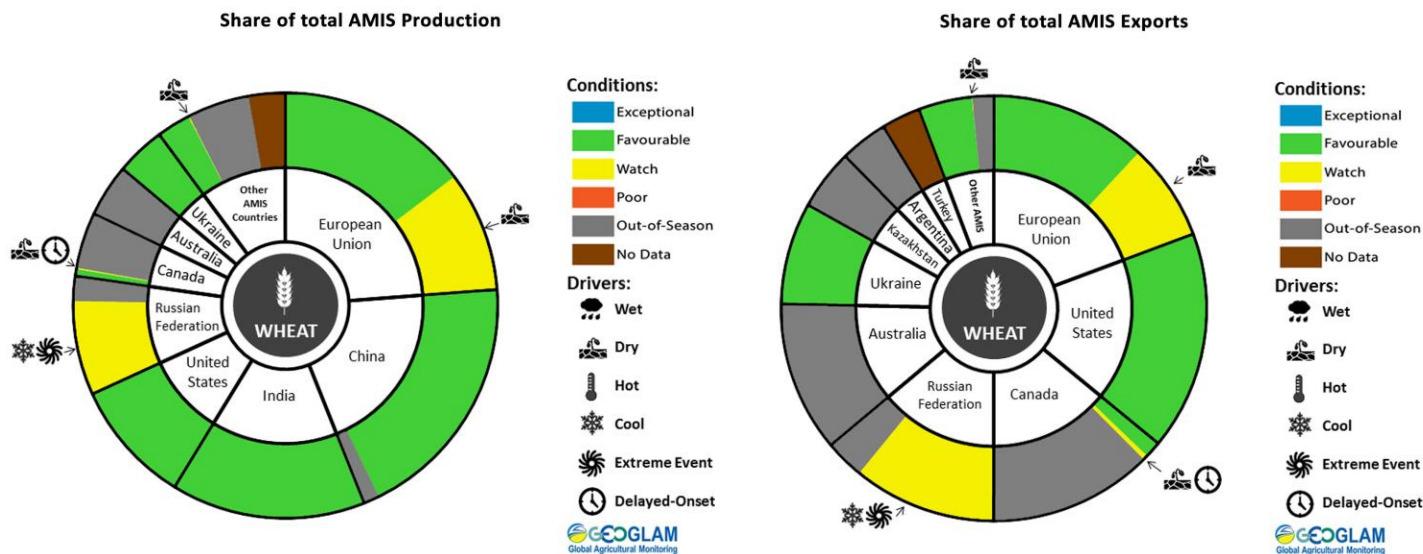
* Assessment based on information as of April 28th

Soybean 2 Conditions for AMIS Countries



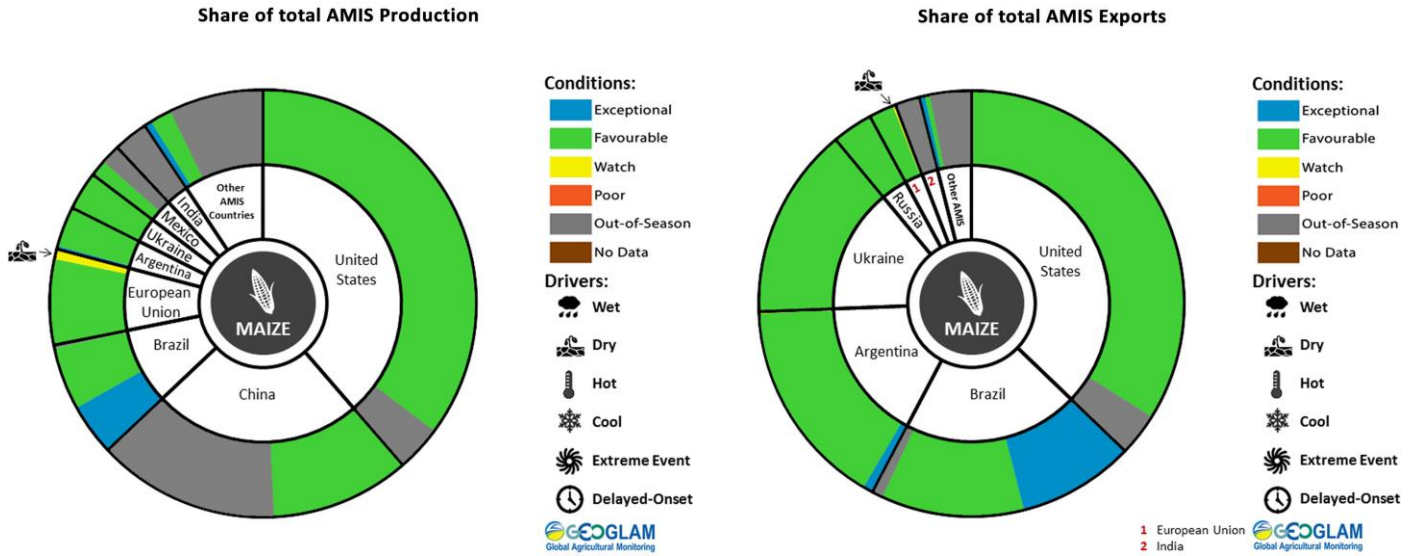
Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of April 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

Wheat AMIS Comparisons

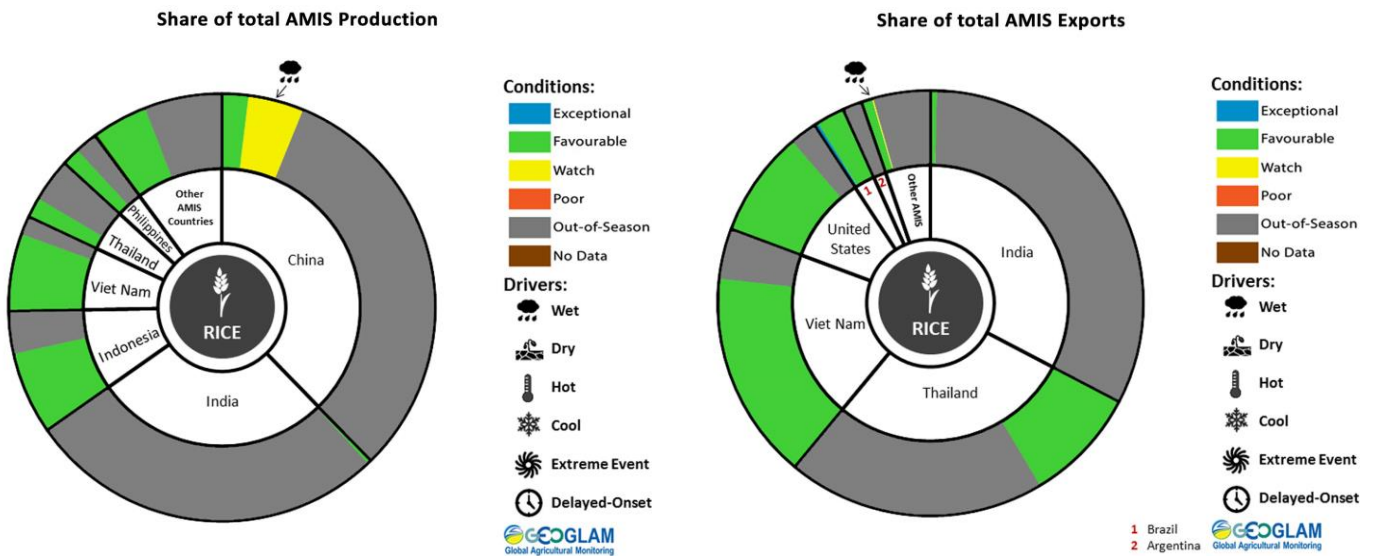


* Assessment based on information as of April 28th

Maize AMIS Comparisons



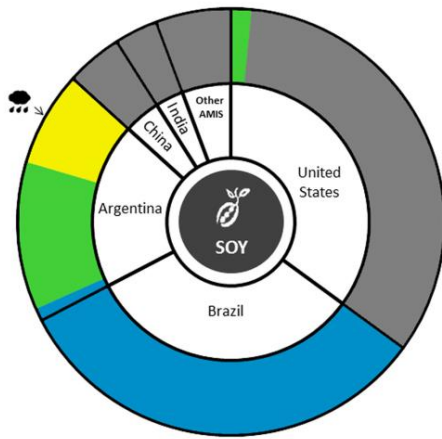
Rice AMIS Comparisons



* Assessment based on information as of April 28th

Soybean AMIS Comparisons

Share of total AMIS Production

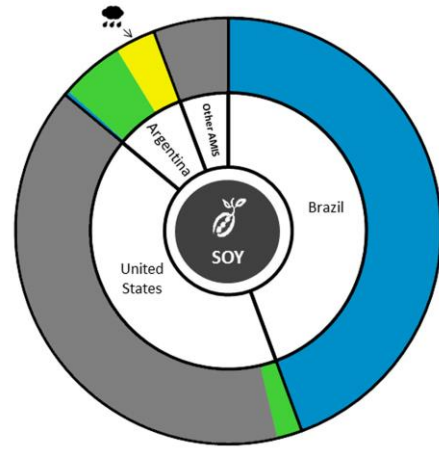


- Conditions:**
- Exceptional
 - Favourable
 - Watch
 - Poor
 - Out-of-Season
 - No Data

- Drivers:**
- Wet
 - Dry
 - Hot
 - Cool
 - Extreme Event
 - Delayed-Onset



Share of total AMIS Exports



- Conditions:**
- Exceptional
 - Favourable
 - Watch
 - Poor
 - Out-of-Season
 - No Data

- Drivers:**
- Wet
 - Dry
 - Hot
 - Cool
 - Extreme Event
 - Delayed-Onset



* Assessment based on information as of April 28th



Prepared by members of the GEOGLAM Community of Practice
Coordinated by the University of Maryland

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

Photo by: Conab, taken in Paraná, South Region, Brazil

www.geoglam-crop-monitor.org

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