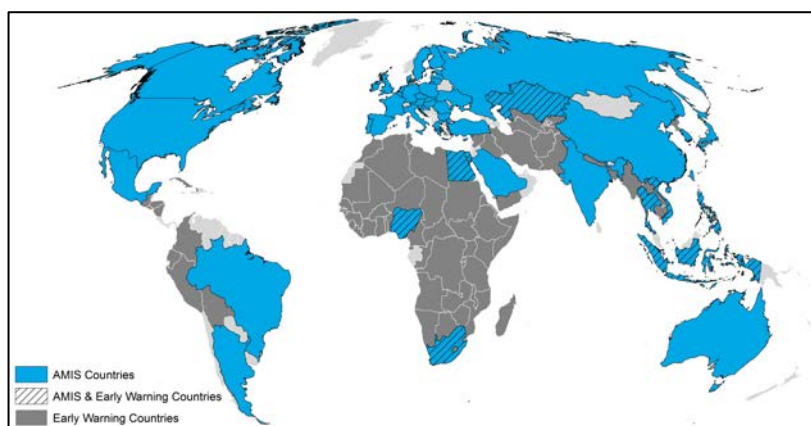


CROP MONITOR FOR AMIS

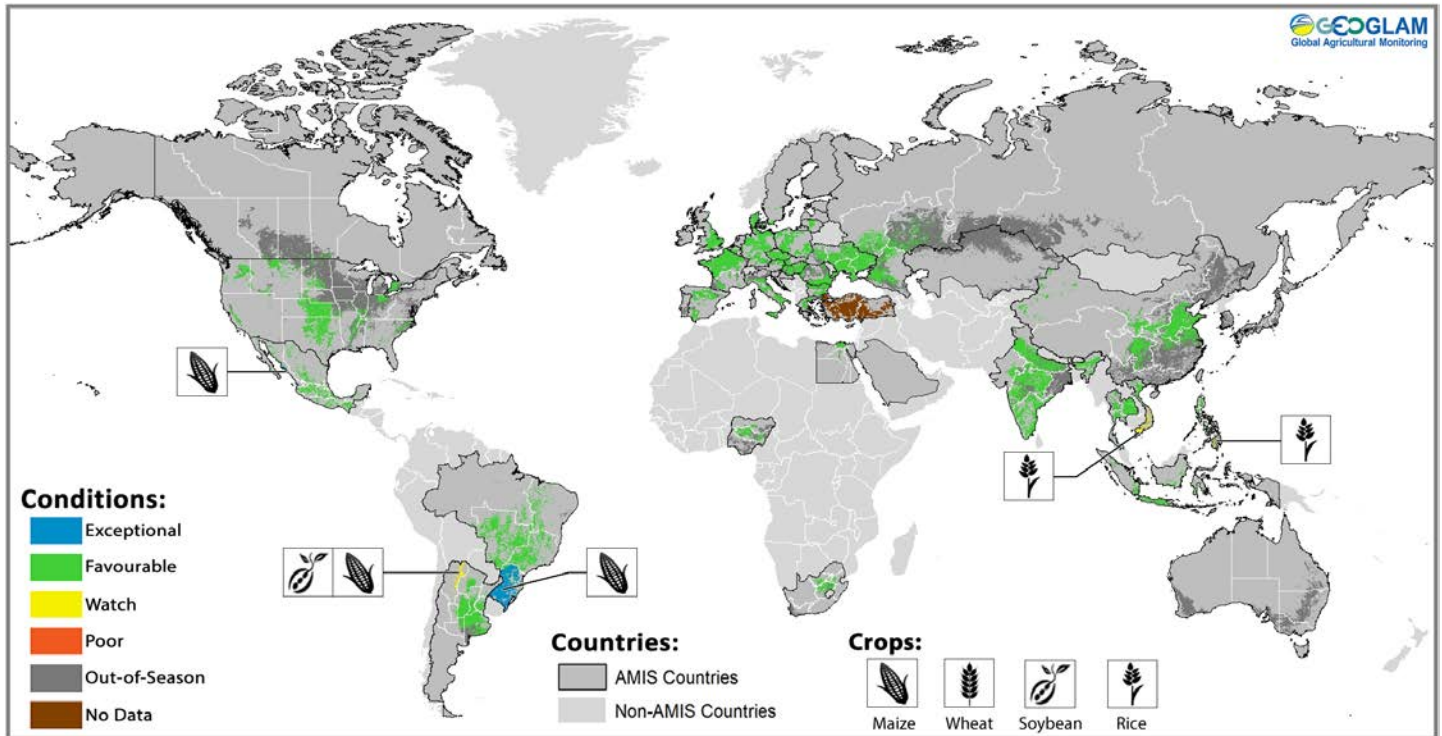
NO. 37

March 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 February 28th)



Crop condition map synthesizing information for all four AMIS crops as of February 28th. Crop conditions over the main growing areas for wheat, maize, rice, and soybean are based on a combination of national and regional crop analyst inputs along with earth observation data. **Crops that are in other than favourable conditions are displayed on the map with their crop symbol.**

Conditions at a glance

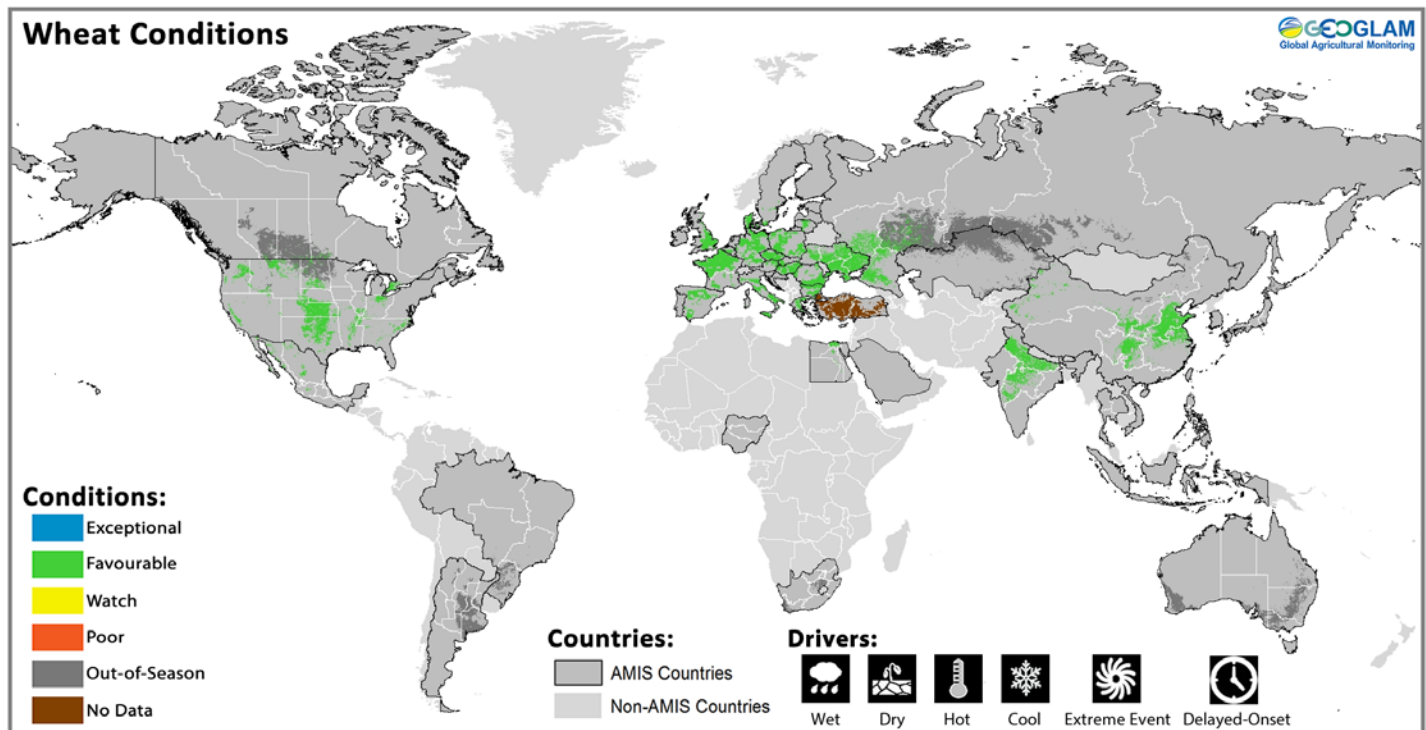
Wheat - The season is complete in the southern hemisphere. In the northern hemisphere, winter wheat is still in dormancy in most AMIS countries (with a notable exception of India), and conditions are generally favourable at this early stage of the season. Spring weather conditions will largely determine production prospects. In the US planted area is significantly down.

Maize - Overall conditions in the southern hemisphere are good. Brazil has improved production prospects for both the spring and summer crops. Conditions in Argentina have improved and in South Africa conditions remain favourable despite some concerns over armyworms in the north. In the northern hemisphere maize is mostly out of season.

Rice - The dry season rice is currently ongoing in the majority of AMIS countries in Asia with the exception of Indonesia where the wet season crop is in progress. Crop conditions in this region have generally improved relative to last month and are favourable across the region, with the exception of south Viet Nam and southern Philippines where heavy rainfall is causing some concerns.

Soybeans - In the southern hemisphere, conditions in Brazil are favourable and production prospects are up relative to last year. In Argentina conditions have markedly improved relative to last month to mostly favourable across the country. In the northern hemisphere the crop is out of season.

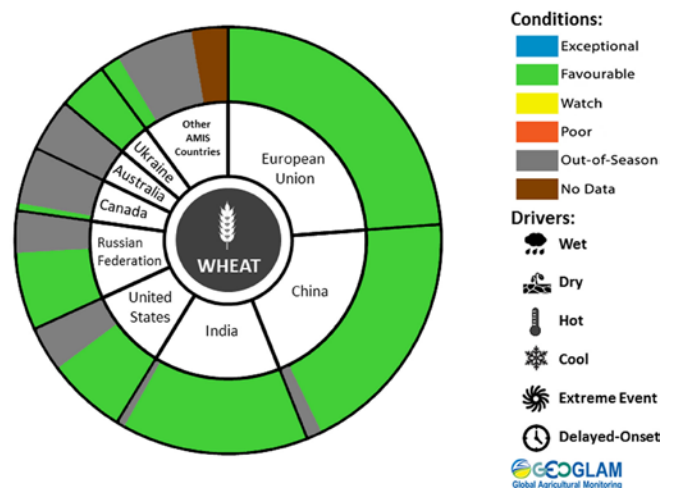
Wheat Conditions for AMIS Countries



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

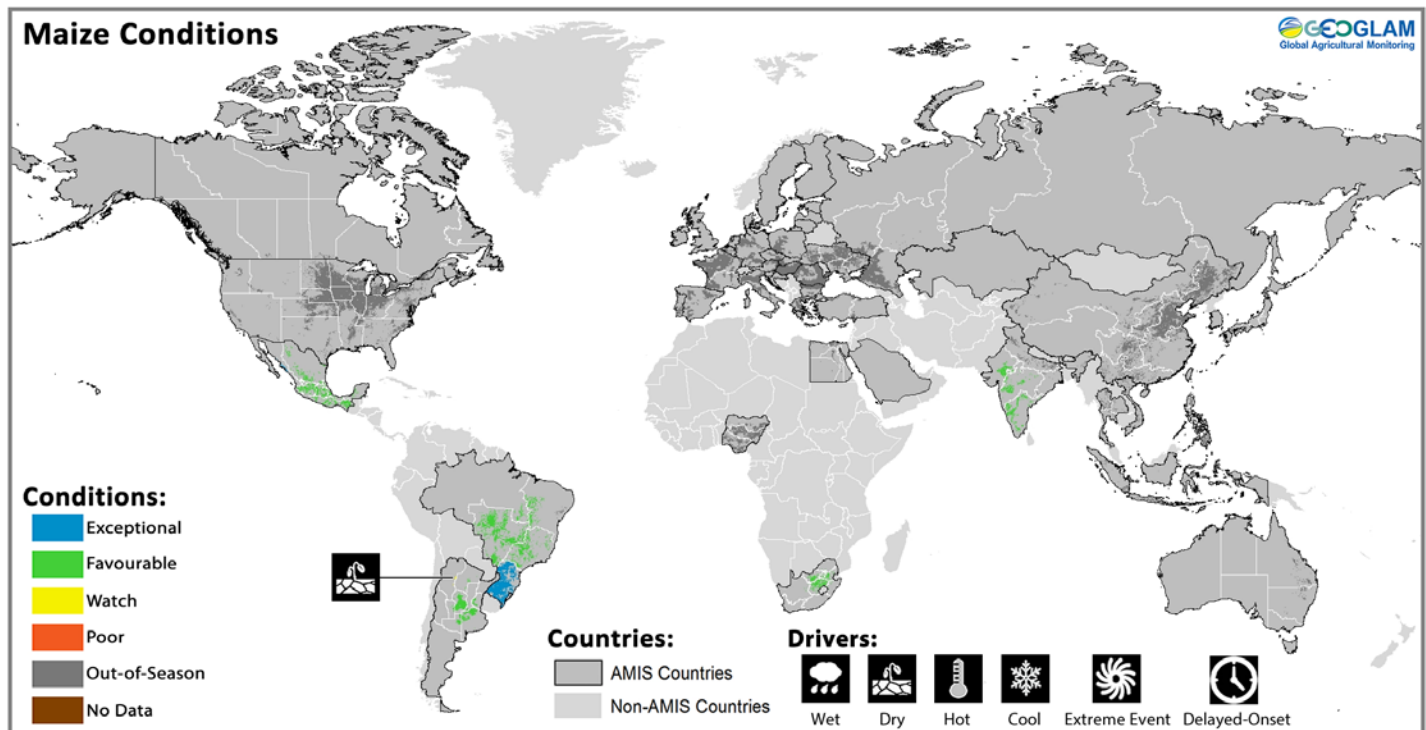
Wheat: Overall winter crop conditions are favourable in the northern hemisphere at this early stage of the season, and the crop is expected to break dormancy next month in most countries. In the **EU**, overall conditions are favourable with only limited frost damage reported despite widespread cold temperatures. In the **US**, conditions are favourable with warmer than usual temperatures, however planted area is down near a 100 year low. In **China**, winter wheat is under favourable conditions. In **India**, winter wheat is mostly in late vegetative to reproductive stages under good conditions with favourable production prospects. In the **Russian Federation**, conditions are favourable with adequate snow cover providing protection from low temperatures. Similarly in **Ukraine**, winter wheat is under generally favourable conditions with sufficient snow cover to protect the crop from the severe frosts and the very low temperatures experienced in February. In **Canada**, winter wheat is under favourable conditions with minor areas currently monitored for either winter-kill or spring flooding.

Share of total AMIS Production



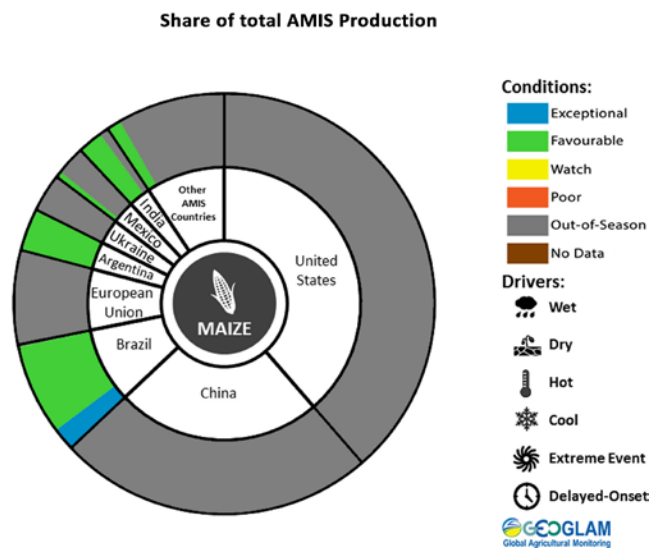
For detailed description of the pie chart please see box below.

Maize Conditions for AMIS Countries



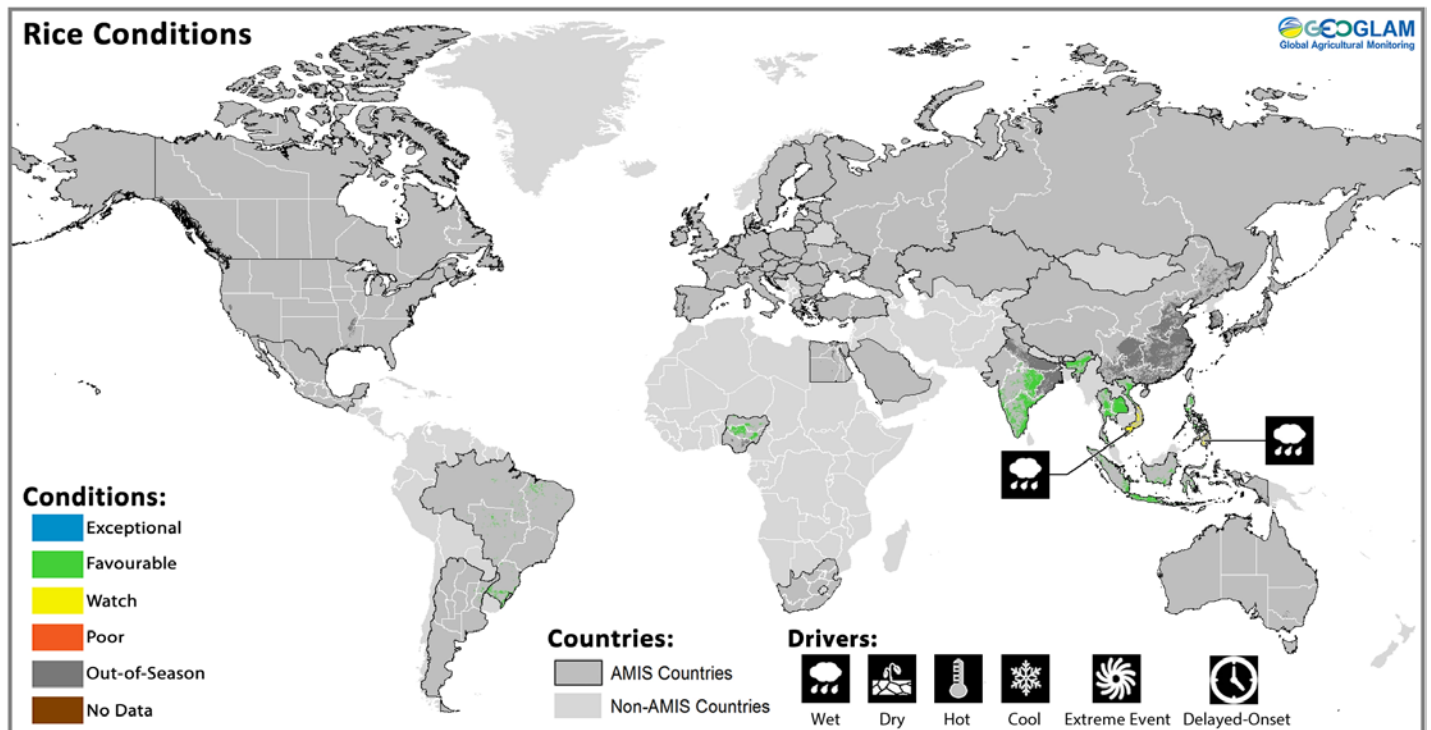
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in other than favourable conditions the climatic drivers responsible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

Maize: Overall conditions in the southern hemisphere are favourable with very good production prospects. In **Brazil**, overall conditions for both the spring and summer crops are currently good with much improved production prospects relative to last year. The spring crop experienced good weather conditions throughout the season, and is under favourable to exceptional conditions as harvest progresses in the south. Rains returned to the northeast, improving conditions relative to last month and increasing production prospects. The summer (larger) planted crop is under favourable conditions at the planting to early vegetative stages. In **Argentina**, favourable weather over the past month improved conditions, which are favourable throughout the country with only minor areas of dryness remaining. In **South Africa**, conditions are favourable with above average rainfall. There have been some reports of armyworm breakouts although so far these have not had a significant impact. In **Mexico**, the spring-summer crop is almost completely harvested and an increase in production relative to last year is expected. The autumn-winter crop is currently being planted under good conditions. In **India**, Rabi maize is concluding harvesting under favourable conditions.



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

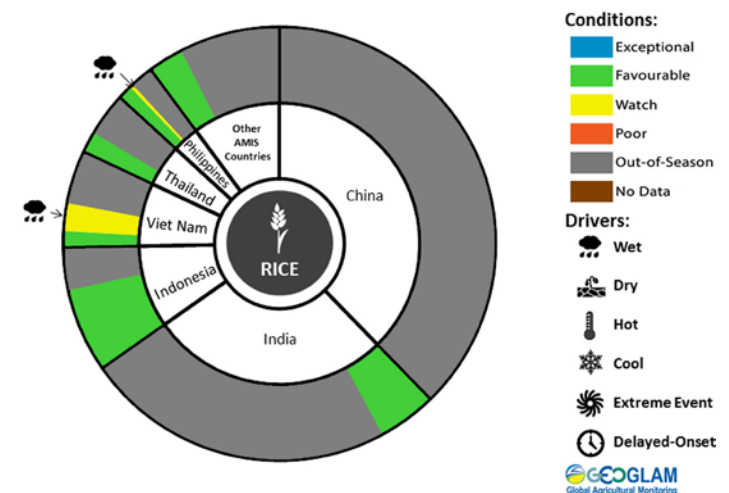
Rice Conditions for AMIS Countries



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

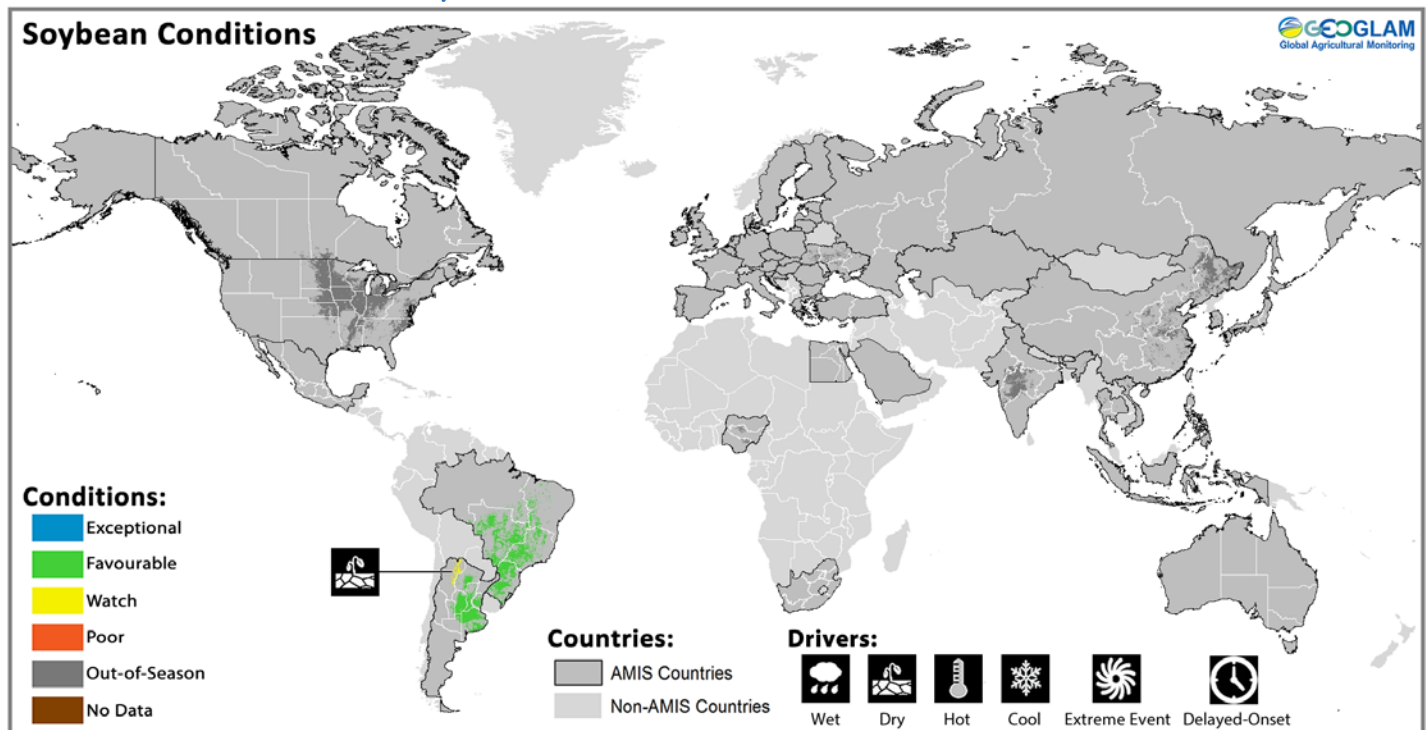
Rice: In **India**, Rabi rice is under favourable conditions in the vegetative to reproductive stage. In **Indonesia**, harvest is ongoing for the wet season crop with improved yield prospects relative to last month owing to the later planted rice receiving more precipitation than the earlier planted crops. In **Viet Nam**, sowing has begun in the north for dry season rice and is completed in the south with slightly lower total sown area due to heavy rains and flooding which are causing some concern. In **Thailand**, dry season rice is in the tillering stage under favourable conditions owing to unseasonable rains supporting irrigation needs. In the **Philippines**, dry season rice is in the vegetative to reproductive stages under generally favourable conditions except in the south where heavy rainfall has caused some crop damage. In **Brazil**, conditions are favourable and the crop is in the developmentally critical reproductive stage for the main producing region in the south.

Share of total AMIS Production



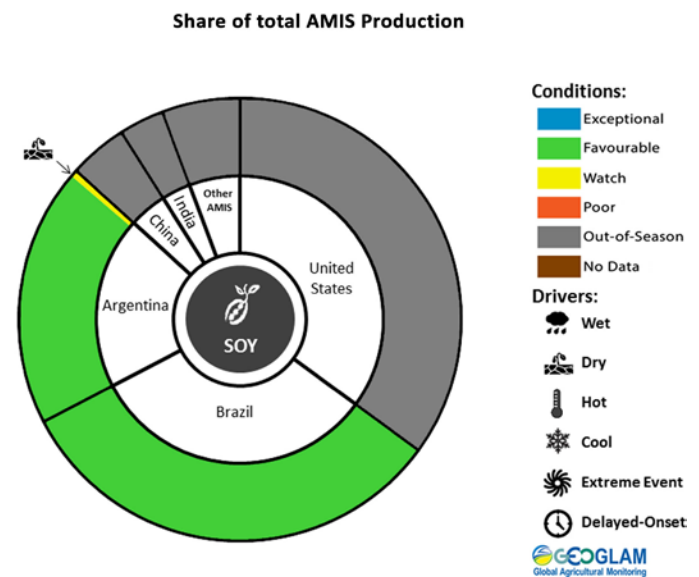
For detailed description of the pie chart please see box below.

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 February 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Soybeans: In **Brazil**, conditions are favourable across the country owing to continuing good weather, and production prospects are up relative to last year. The crop is mainly in the reproductive, ripening and harvesting stages, where good water supply is critical for the development of yields. In **Argentina**, conditions have improved to mostly favourable across the country for both early and late planted crops owing to good weather. Losses from the earlier flooding in the central region represent a minor proportion of the total sown area. Small areas of dryness persist in the northwest and in the very southeast.



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 February 2nd 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 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: 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, 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.

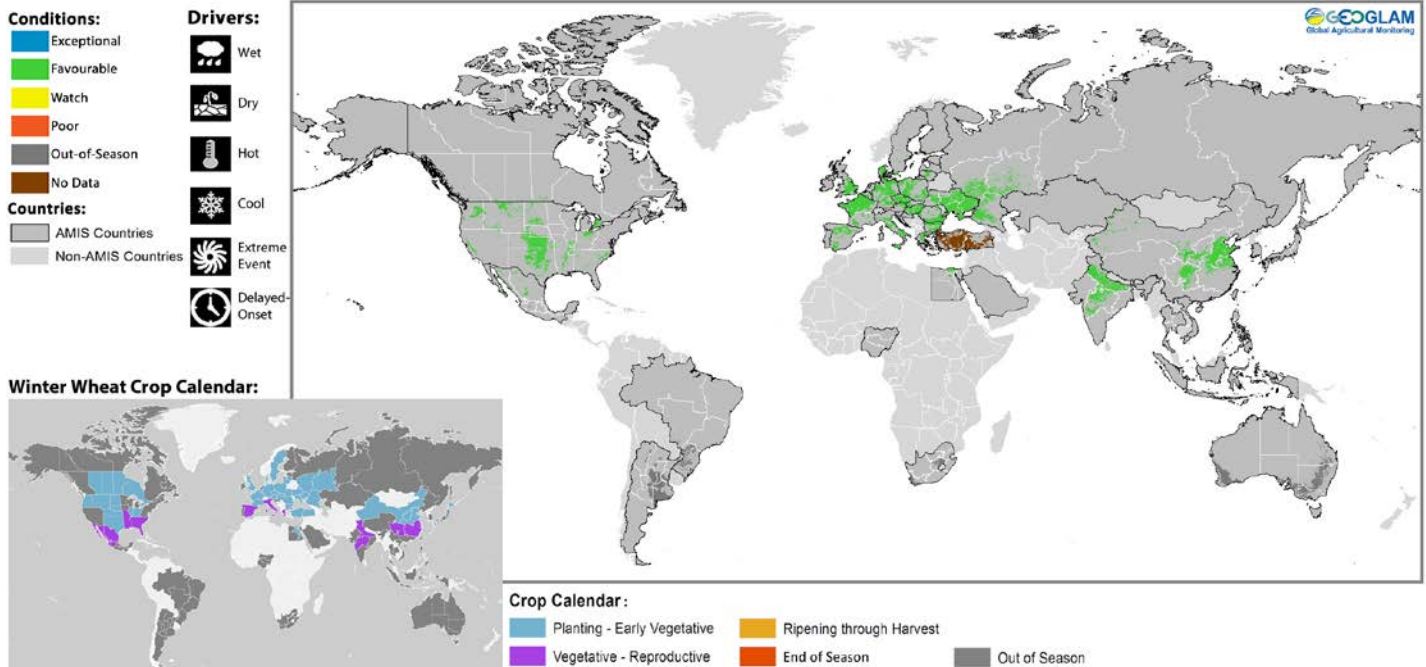
More detailed information on the GEOGLAM crop assessments is available at www.geoglam-crop-monitor.org

For information on country coverage and criteria:

<http://geoglam-crop-monitor.org/pages/about.php?target=approach>

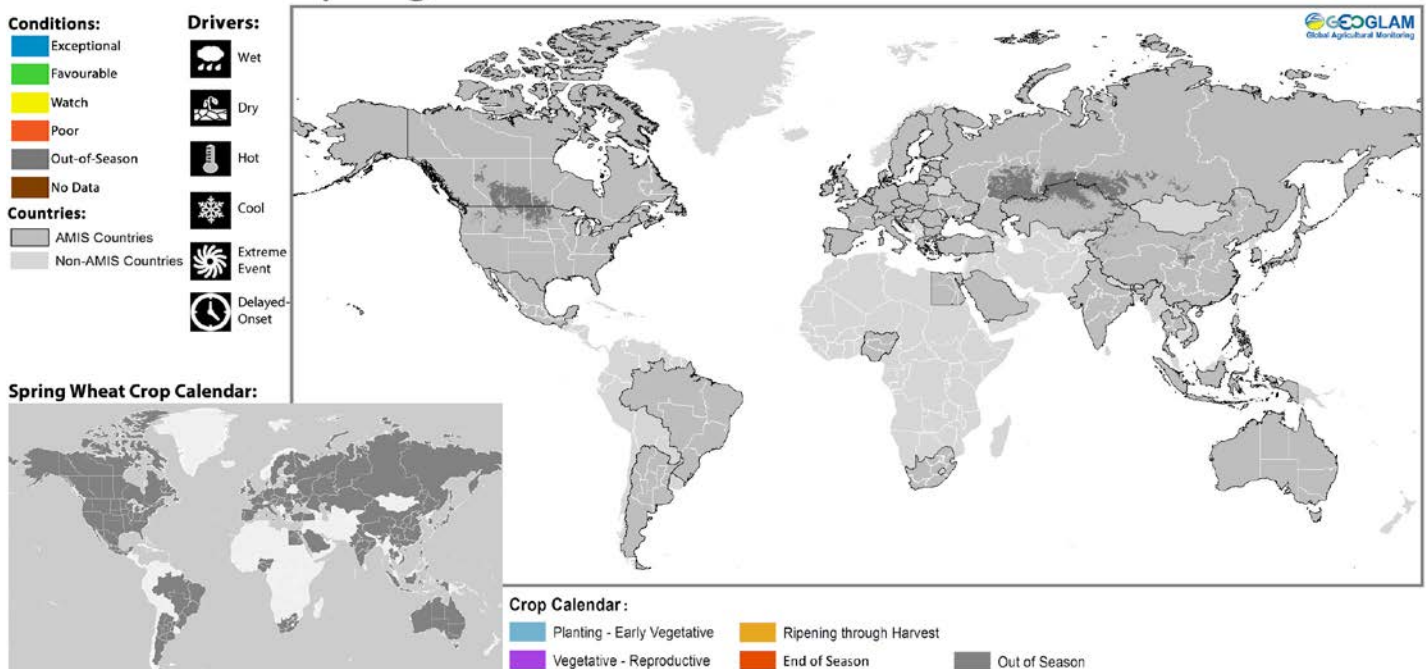
Appendix 2: Crop Season Specific Maps & Pie Charts

Winter Planted Wheat Conditions for AMIS Countries



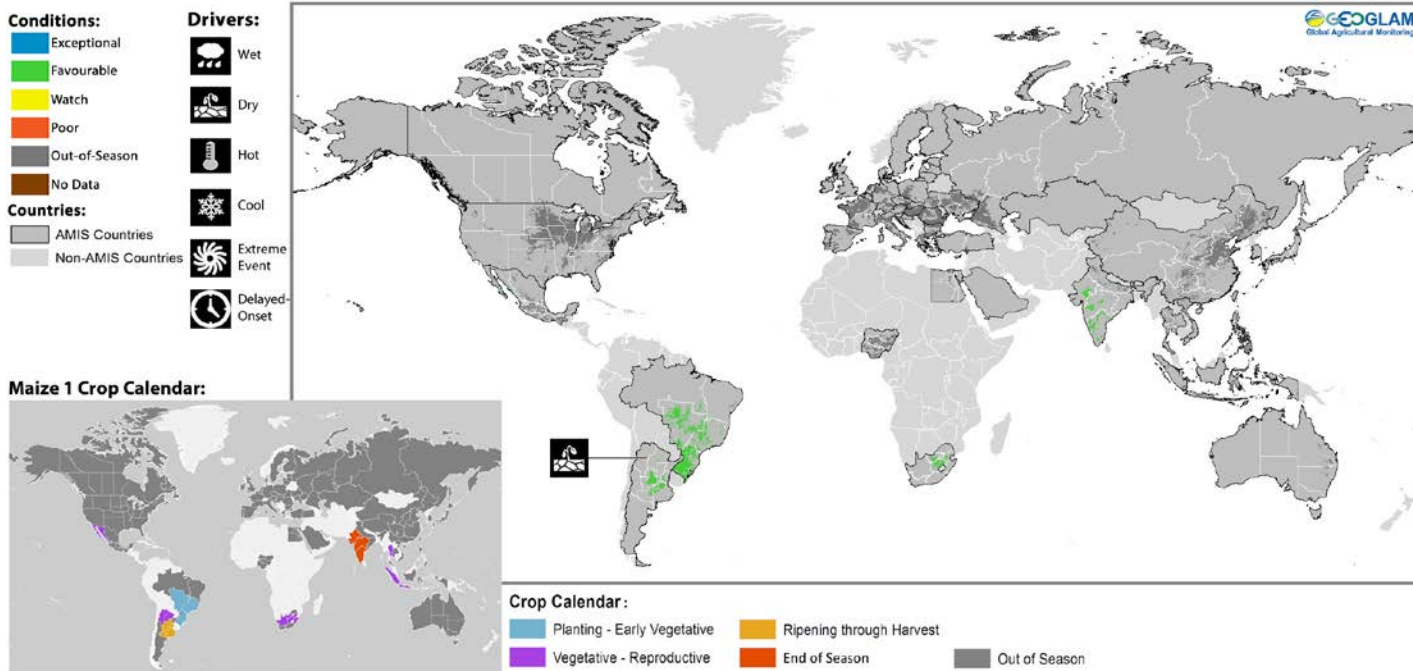
Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Spring Planted Wheat Conditions for AMIS Countries



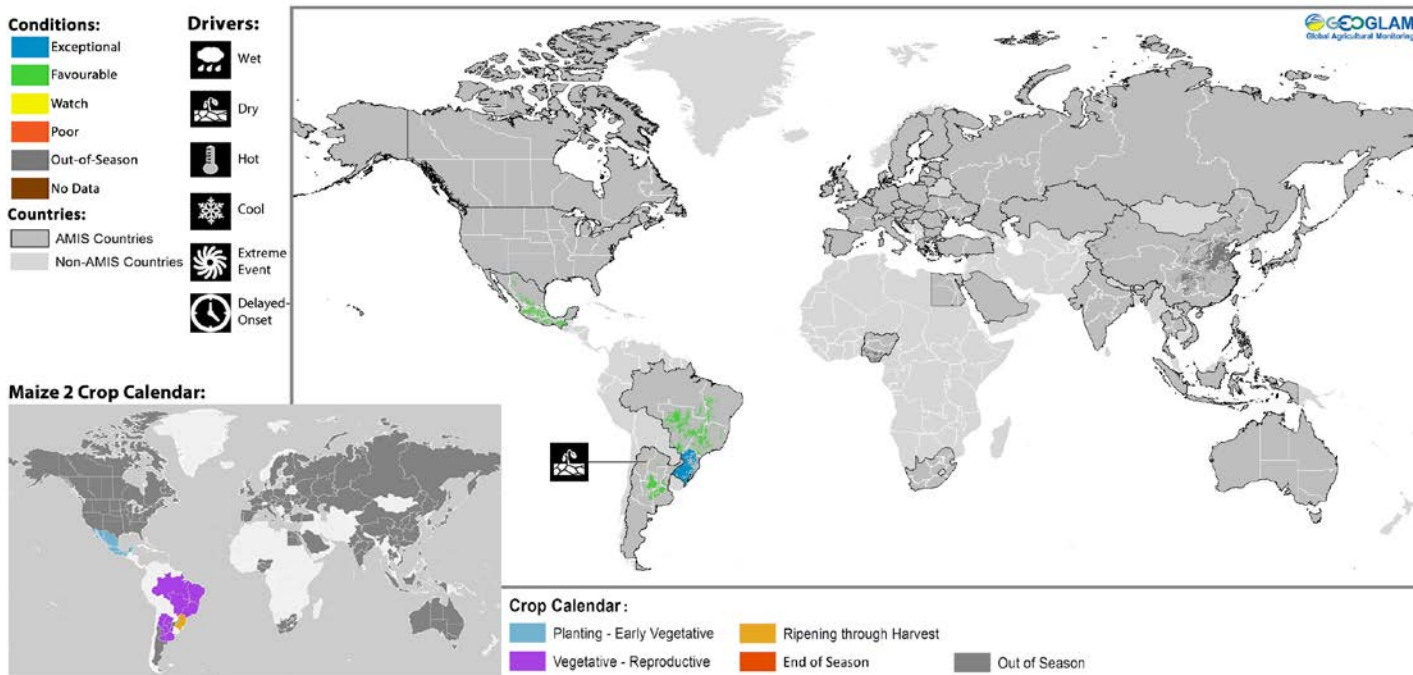
Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Maize 1 Conditions for AMIS Countries



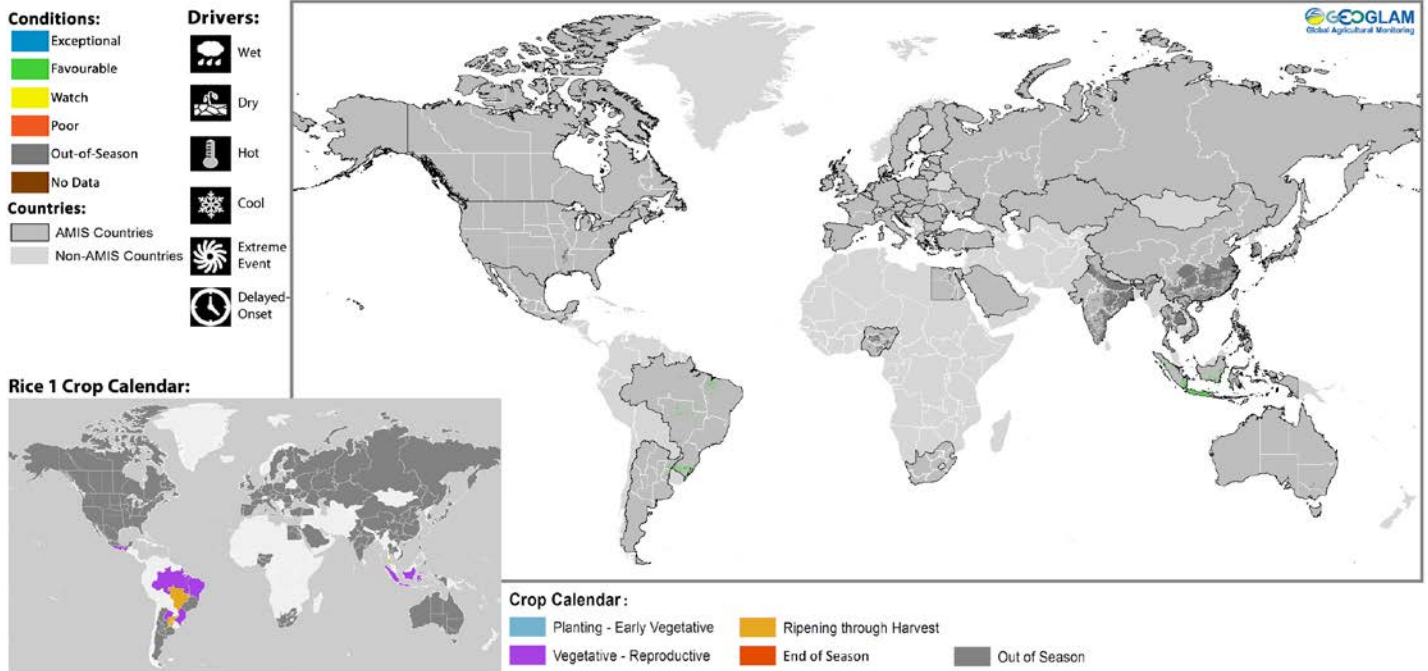
Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Maize 2 Conditions for AMIS Countries



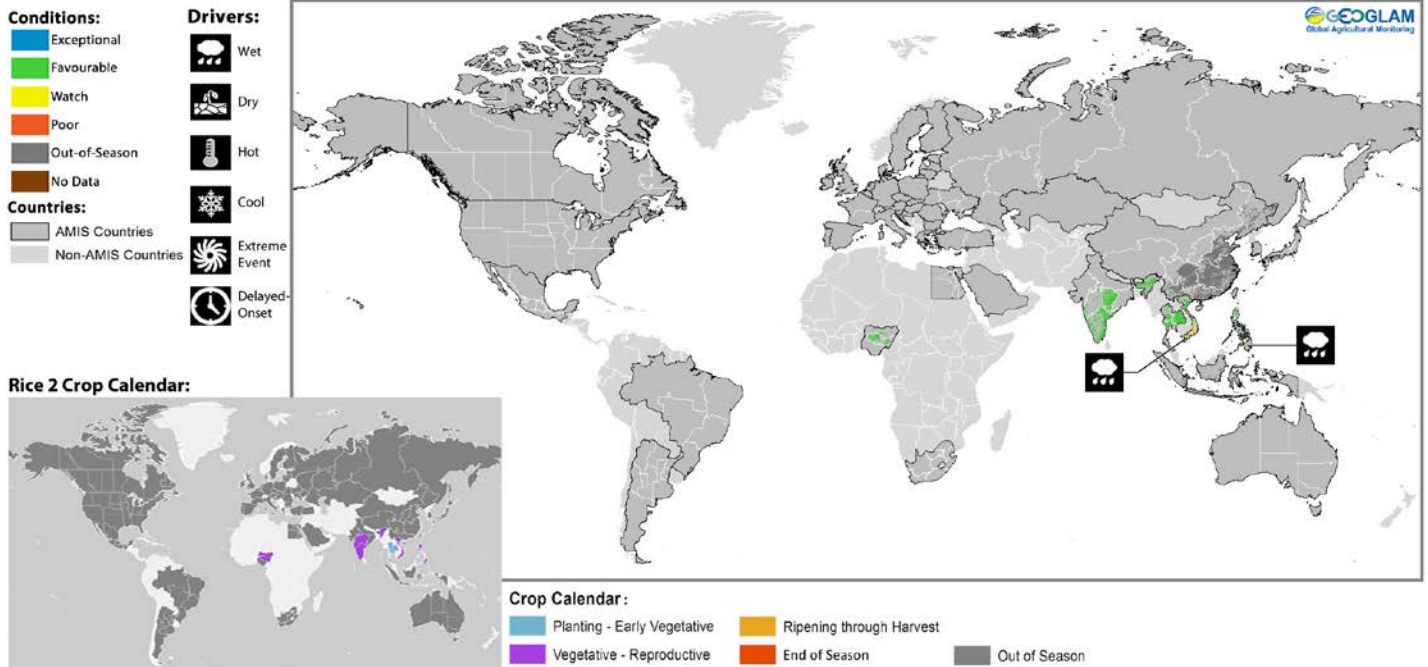
Maize 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Rice 1 Conditions for AMIS Countries



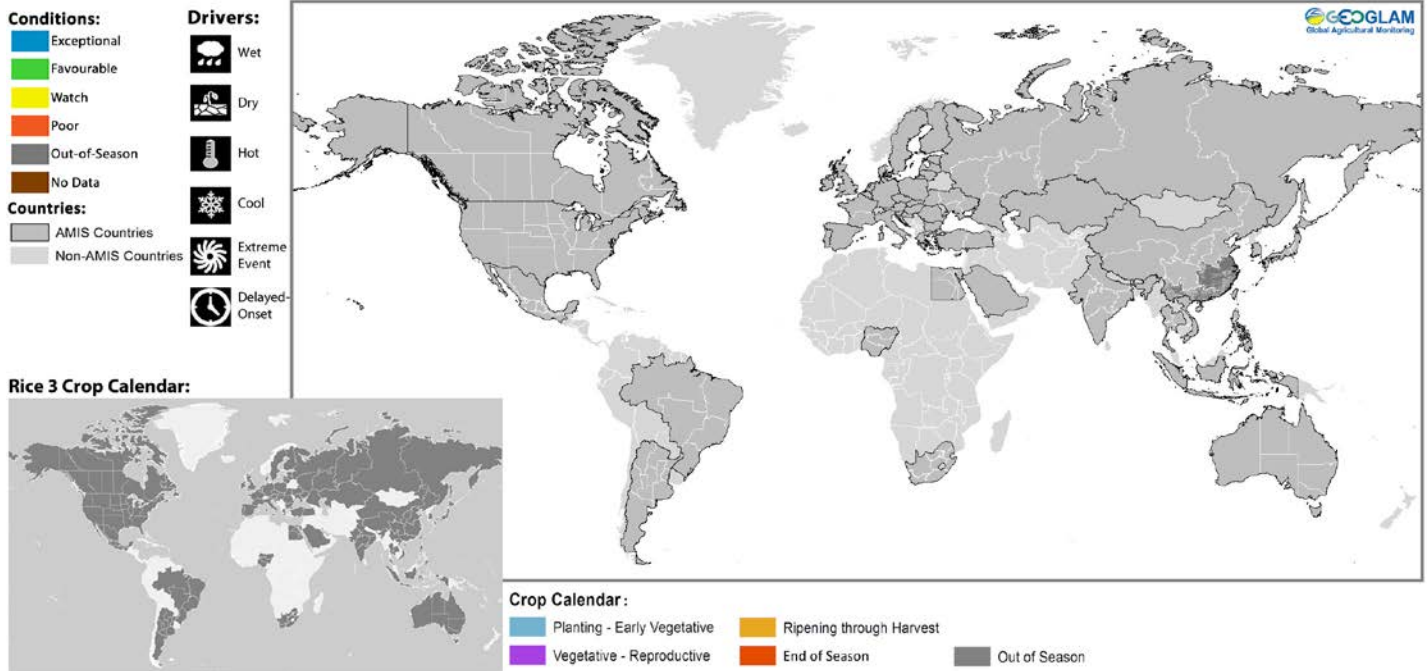
Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Rice 2 Conditions for AMIS Countries



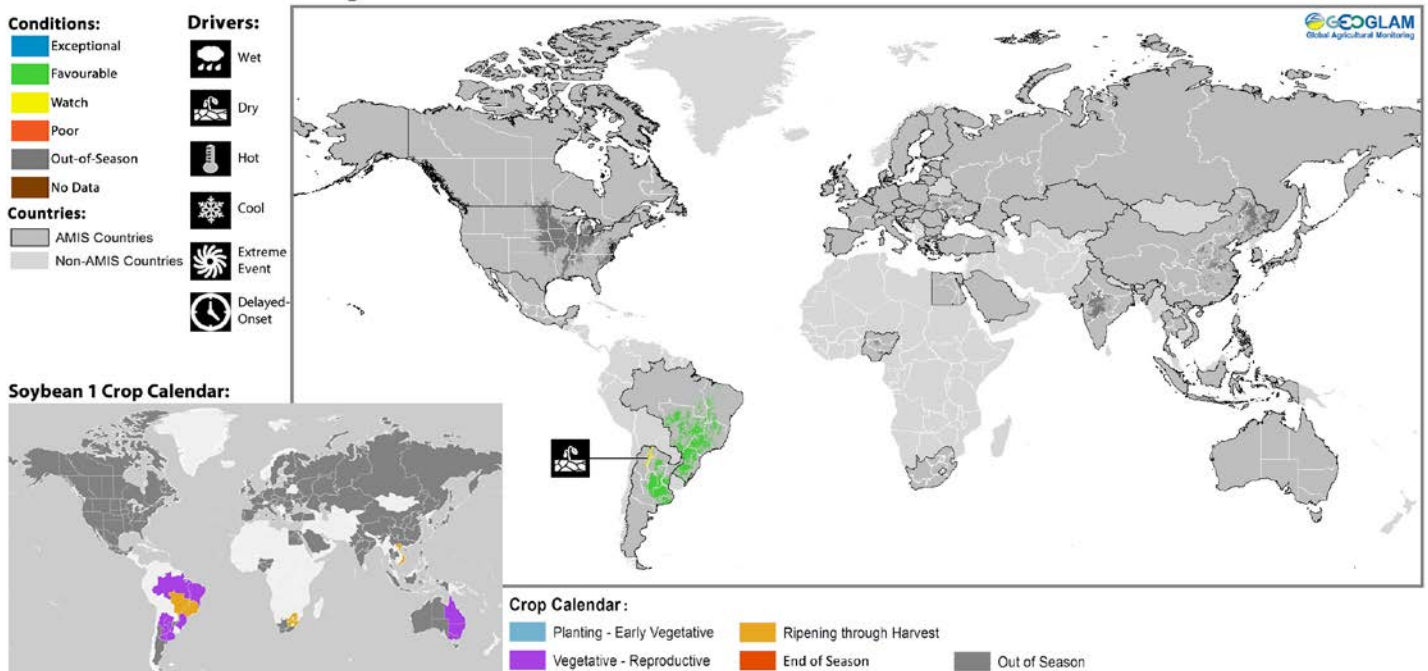
Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Rice 3 Conditions for AMIS Countries



Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

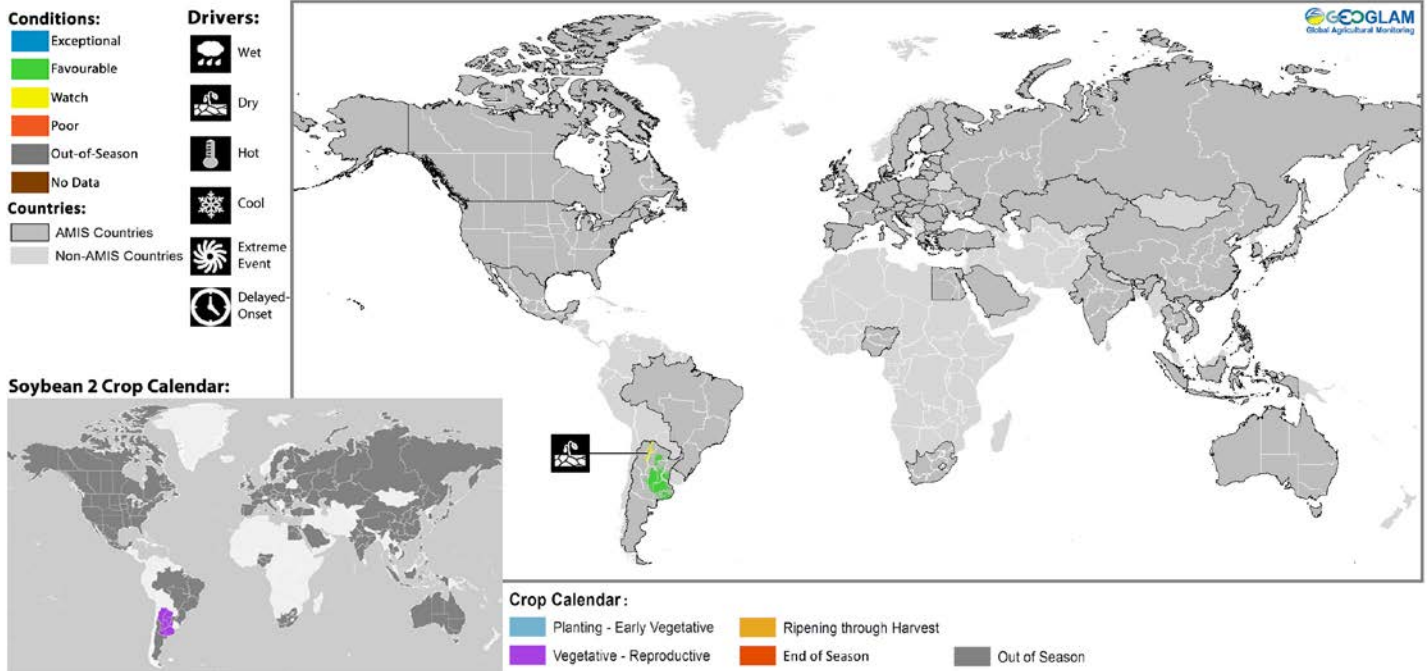
Soybean 1 Conditions for AMIS Countries



Soybean 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

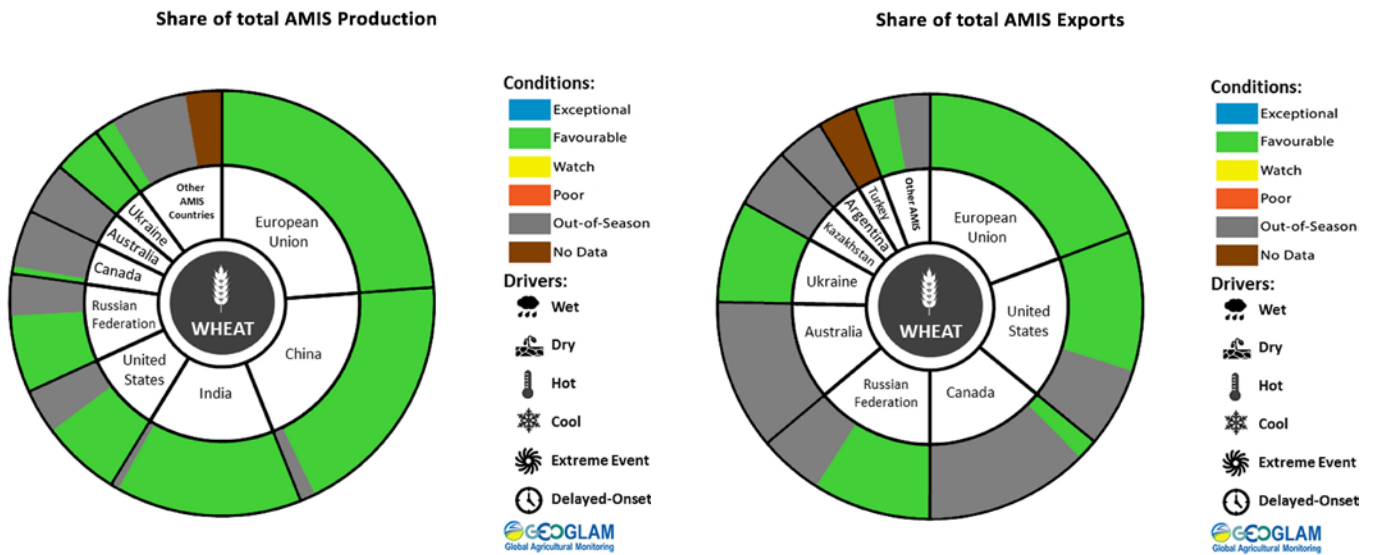
* Assessment based on information as of February 28th

Soybean 2 Conditions for AMIS Countries



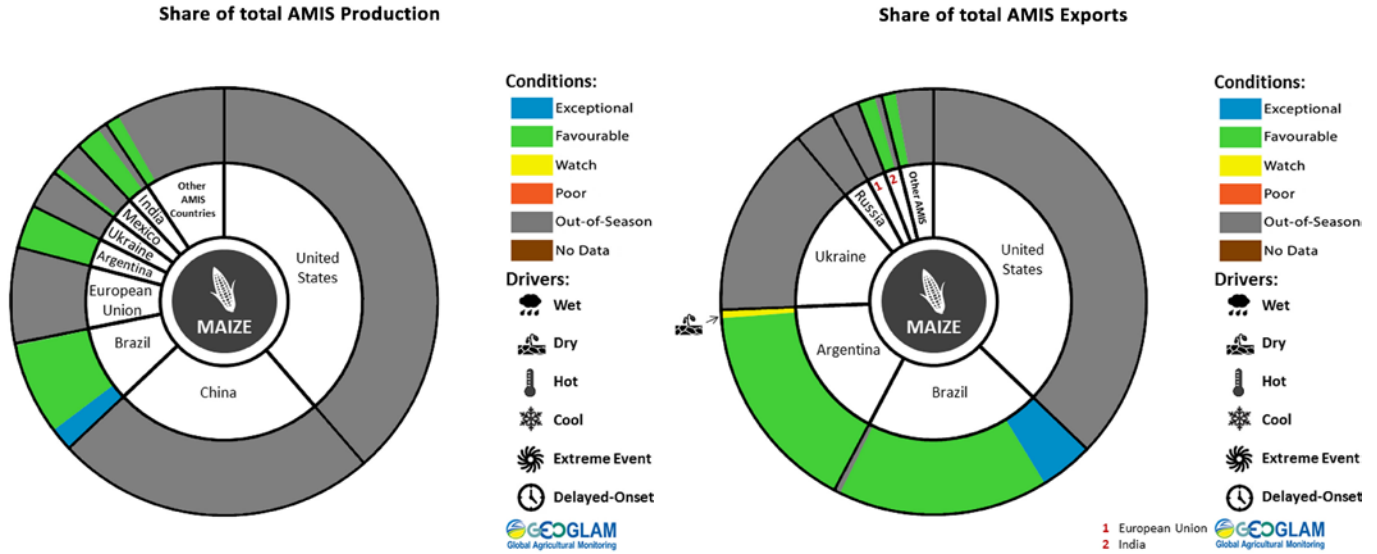
Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

Wheat AMIS Comparisons

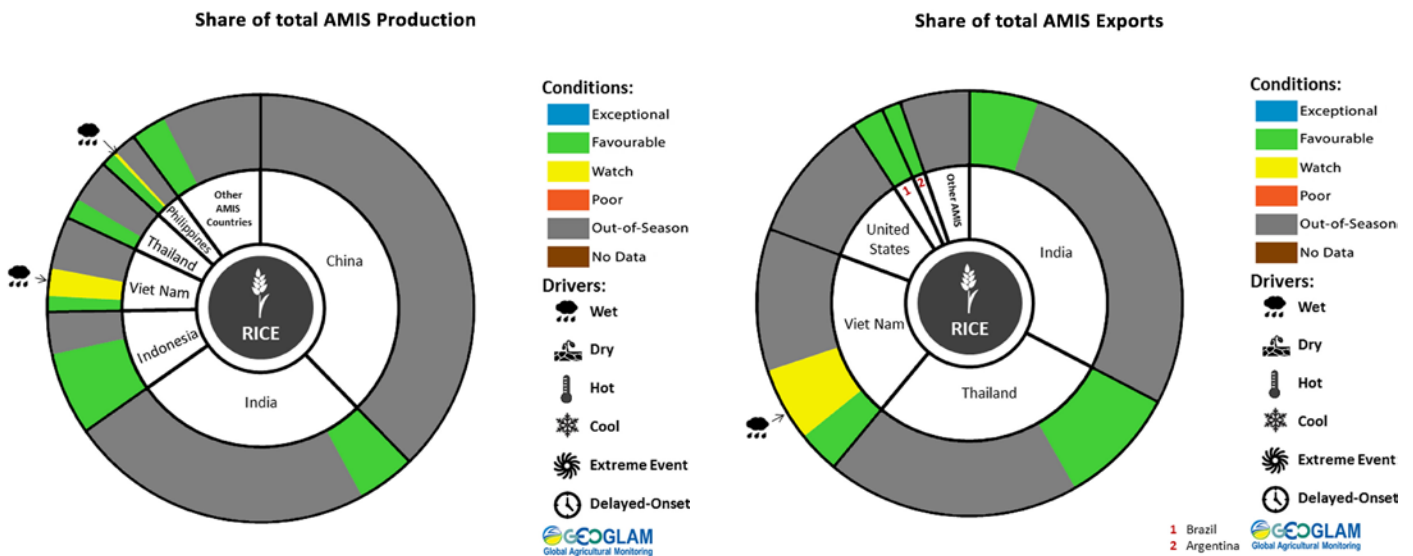


* Assessment based on information as of February 28th

Maize AMIS Comparisons



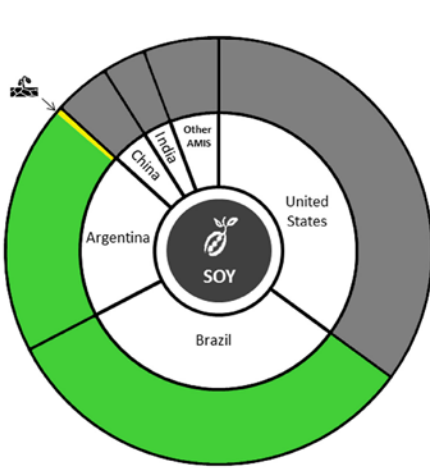
Rice AMIS Comparisons



* Assessment based on information as of February 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

GEGLAM
Global Agricultural Monitoring



Conditions:

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

Drivers:

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

GEGLAM
Global Agricultural Monitoring

* Assessment based on information as of February 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: Buenos Aires Grain Exchange

www.geoglam-crop-monitor.org

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