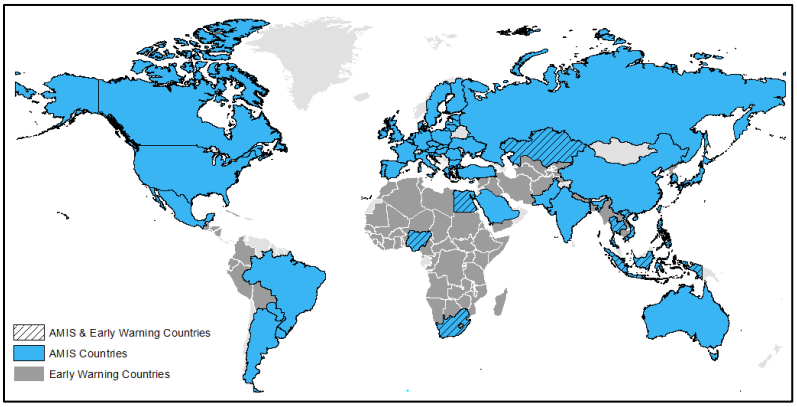
CROP MONITOR FOR **AMIS**

NO. 33

October 2016

The Group on Earth Observations' Global Agricultural Monitoring (GEOGLAM) initiative developed the Crop Monitor whose objection 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.



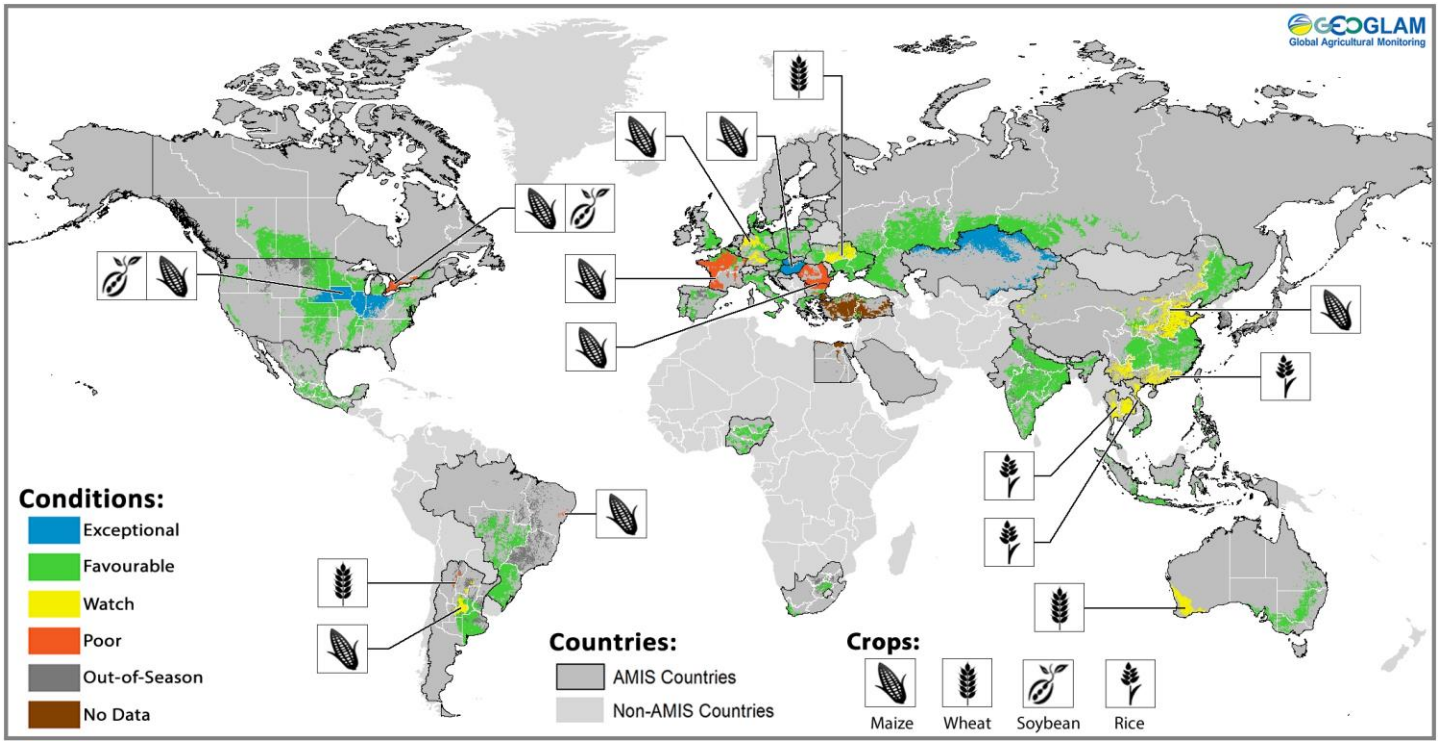
AMIS Agricultural Market Information System

GEO GROUP ON EARTH OBSERVATIONS

Crop Monitor a geoglam initiative

GEOGLAM Global Agricultural Monitoring

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



Crop condition map synthesizing information for all four AMIS crops as of September 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, overall wheat prospects remain good for the spring wheat season that is drawing to a close, with near-record yields reported in Kazakhstan. Winter wheat planting began under favourable conditions. In the southern hemisphere, conditions are generally favourable, with the exception of Western Australia, which experienced frost events that will likely constrain yields.

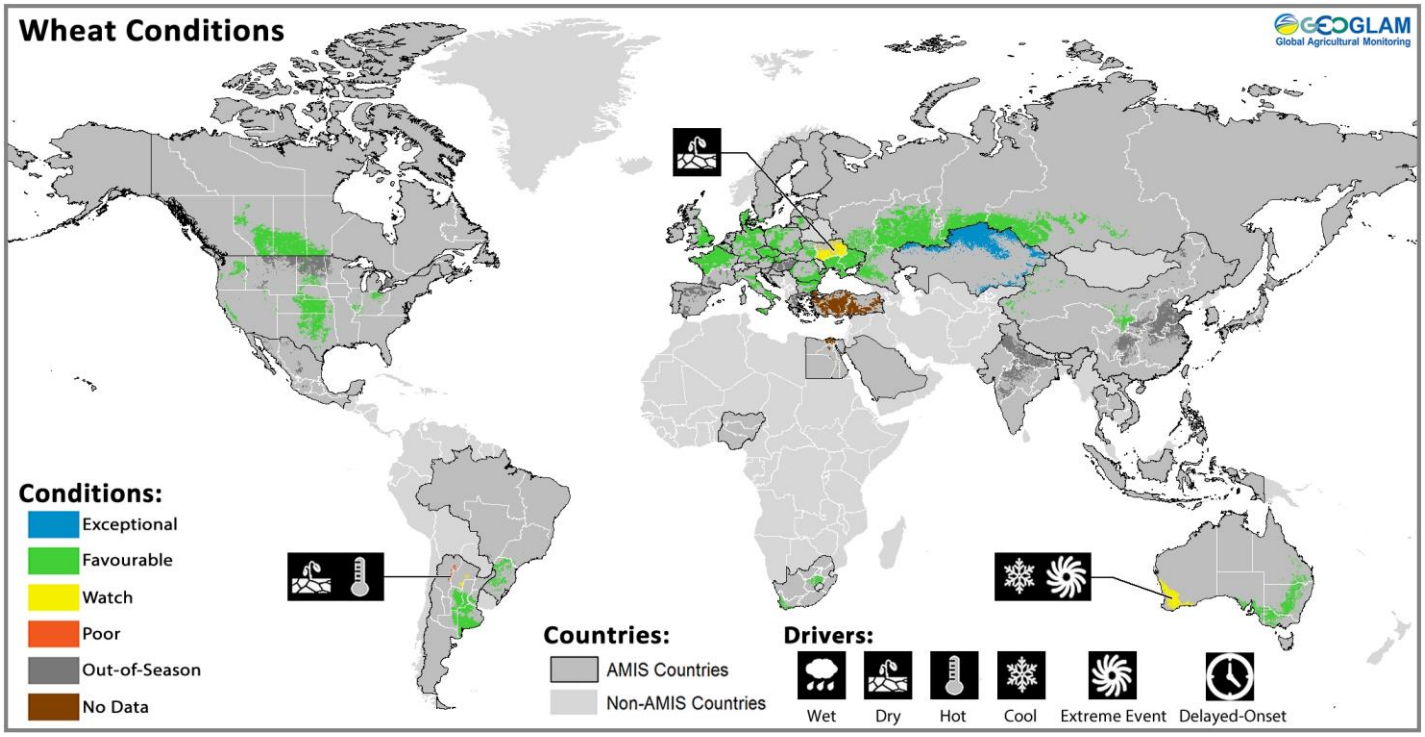
Maize - In the northern hemisphere, conditions are mixed. In the US, an above-average crop is expected; however, significant growing areas in the EU and Canada experienced adverse conditions reducing yield expectations. In the southern hemisphere, planting is underway under generally favourable conditions in Brazil and Argentina.

Rice - Rice conditions for Southeast Asia have generally improved and are favourable, most notably in India, Indonesia, and the Philippines. However, there is some concern over heavy rainfall in northern Viet Nam and over flash flooding and delayed start of the season in Thailand. Conditions remain mixed for China.

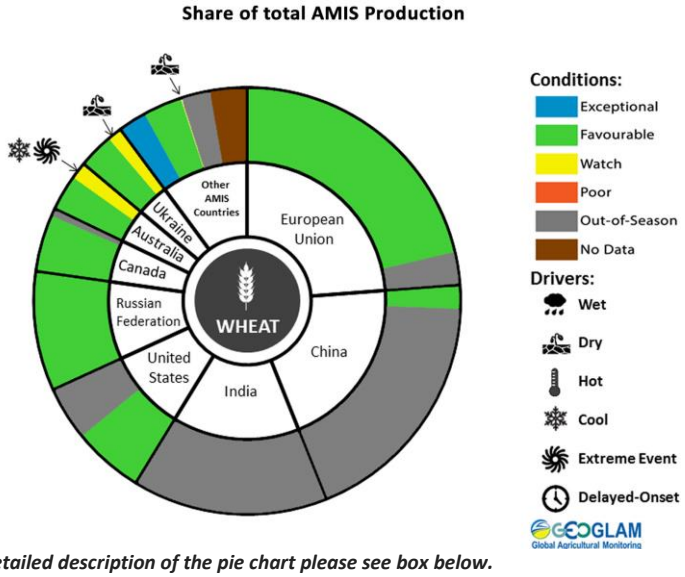
Soybeans - In the northern hemisphere, conditions remain generally favourable, with a very good crop expected in the US. However, in Canada, dry conditions in Ontario have lowered expected yields. In the southern hemisphere, planting began in Brazil.

* Assessment based on information as of September 28th

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 September 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.

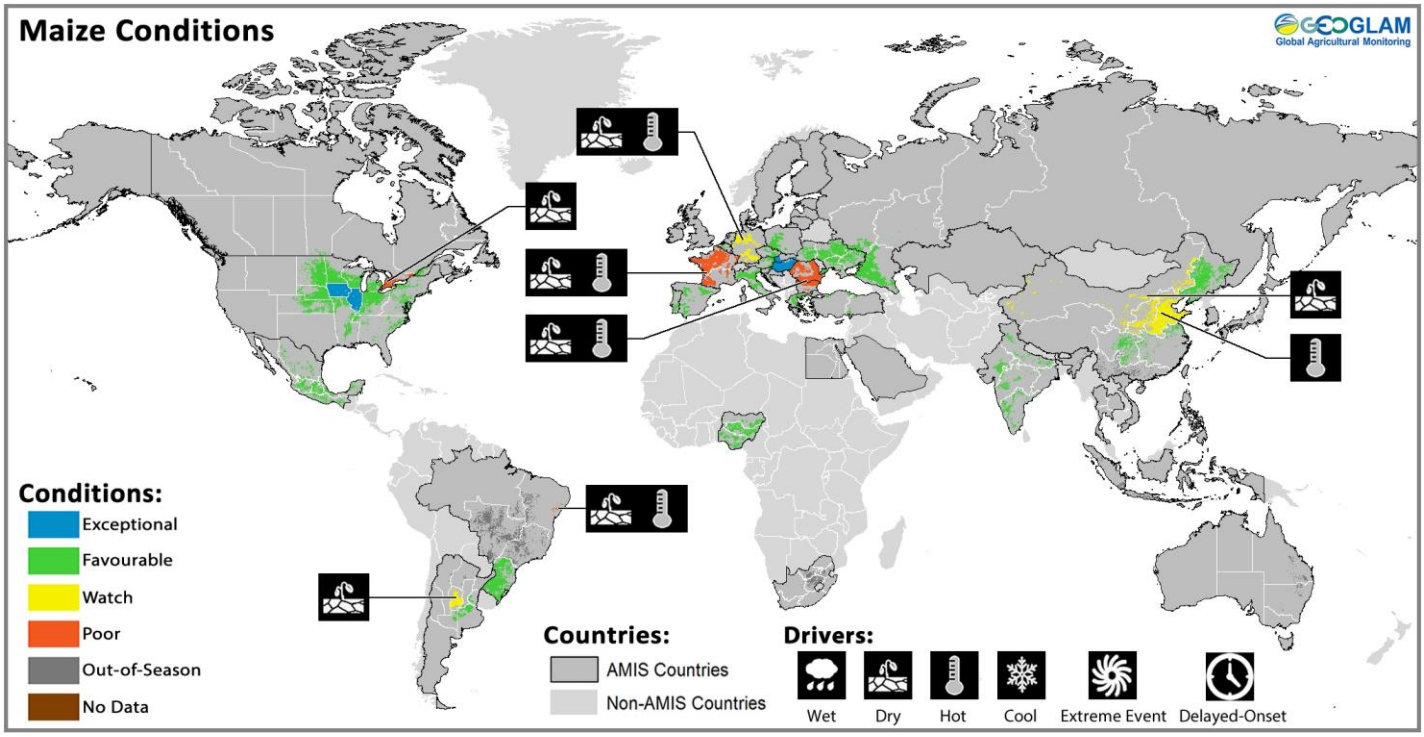


For detailed description of the pie chart please see box below.

Wheat: In the **EU**, winter wheat sowings have just begun under variable conditions. In the **US**, spring wheat harvest is complete and production was favourable. Winter wheat planting began under favourable conditions. In **China**, winter wheat planting has begun in the north. In the **Russian Federation**, spring wheat harvest is nearing completion under good conditions and winter wheat sowing is almost complete under favourable conditions. In **Canada**, spring wheat conditions remain favourable although continuing wetness in the west is delaying harvest operations and potentially affecting crop quality. In **Ukraine**, sowing of winter wheat began under generally favourable conditions. Dry soil moisture in the northern and central regions delayed planting, risking full establishment before winter. In **Kazakhstan**, harvest is just about complete with near-record yields reported. In **Australia**, conditions are favourable with average to above average winter rainfall across eastern Australia, with localized waterlogging in low-lying areas. Rainfall in Western Australia has been average, however significant frost events during August and September are likely to constrain yield prospects. In **Argentina**, conditions are favourable in the main producing regions. Dry soil moisture conditions persist in the northern and northwest regions, affecting the grain filling and could impact yield potential.

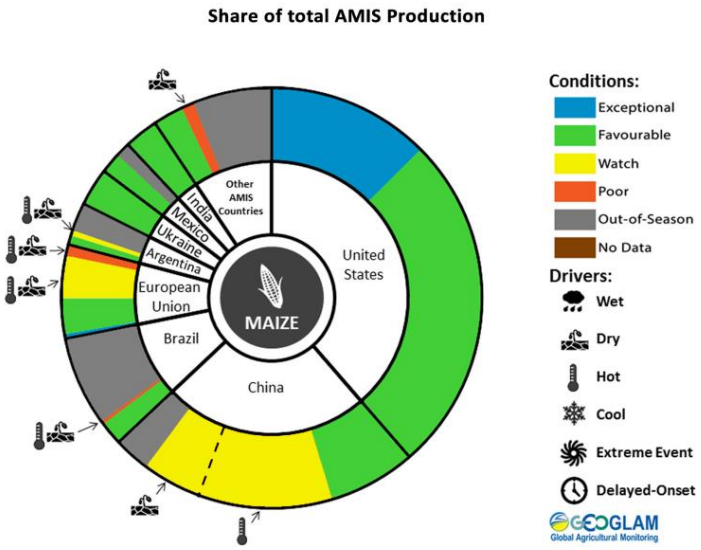
* Assessment based on information as of September 28th

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

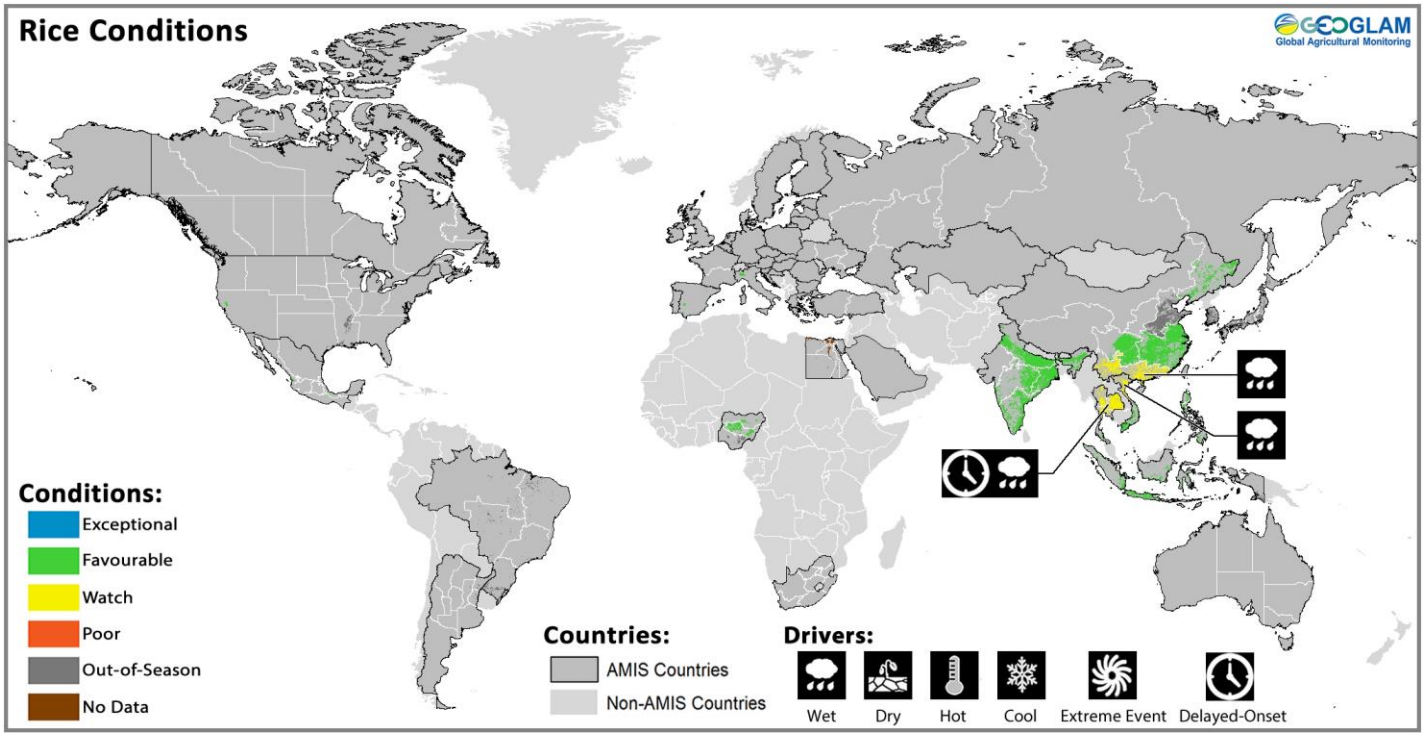
Maize: In the **US**, conditions heading into harvest are favourable throughout the country and are exceptional in the central Corn Belt states of Illinois and Iowa. Yields and total production could both be records for the county. In **China,** overall conditions are less favorable than last year this time, due to dryness in the north and high temperatures in the Loess and Huanghuaihai regions. In the **EU**, conditions are mixed due to hot and dry conditions, which affected crop-available water and shortened the grain filling stage in several countries, resulting in reduced yield expectations. In **Ukraine**, harvest began under favourable conditions and a good crop is expected. In **India**, conditions are generally favourable owing to ample rains, only minor pockets of dryness are reported. In **Mexico**, planting of the spring-summer crop is complete under favourable conditions. Expectations are for a larger harvest than last year as long as favourable weather conditions continue. In **Canada**, dry conditions in the largest producing province of Ontario resulted in below to well below-average yields. In the **Russian Federation**, harvest is ongoing under favourable conditions with yields about the same as last year. In **Nigeria**, conditions continue to be favourable. Subsiding rainfall in September decreased the risk from flooding In **Brazil**, planting of the spring crop is underway in the south under favourable conditions. The summer planted crop harvest is almost complete except for in the northeast region. In **Argentina**, planting of early maize is underway under generally favourable conditions. Dry soil moisture conditions in Cordoba and San Luis is delaying planting.



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

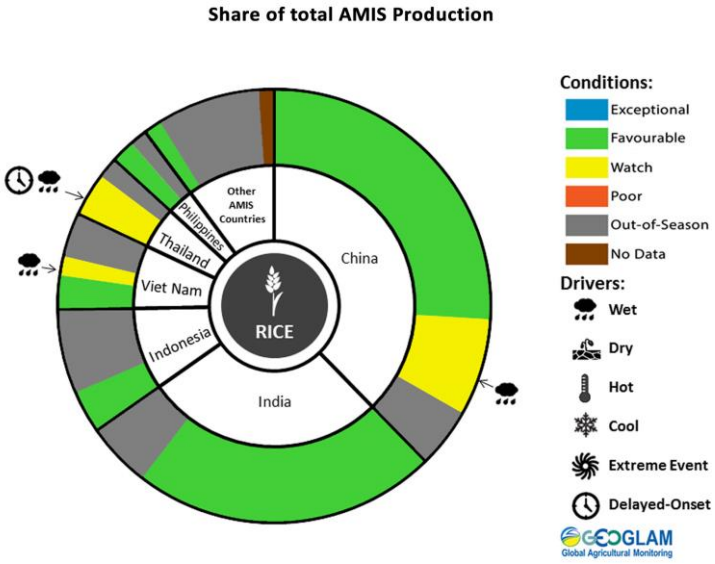
* Assessment based on information as of September 28th

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

Rice: In **China**, conditions are mixed with favourable conditions in the northeast and below-average conditions in southern China, due to heavy rainfall and insufficient radiation. In **India**, conditions for the kharif crop are generally favourable owing to the good monsoon rains. Localized excess rainfall resulted in some losses. In **Indonesia**, conditions are favourable for the dry season crop. Unseasonable precipitation has helped to increase total planted area, and yields are expected to be higher than the last two years. In **Viet Nam**, harvest of the summer-autumn crop begun in the south under favourable conditions. In the north, the seeding of autumn-winter rice is complete, but is adversely affected by heavy rainfall. In **Thailand**, the wet season crop received sufficient rainfall, however conditions are mixed due to the delayed start of the season and flash flooding in the north and northeast regions. In the **Philippines**, wet season rice planted in May-June is fully harvested, while wet season rice planted in July-August is under favourable condition. In the **US**, most of the rice crop is in favourable condition and harvest is progressing rapidly.



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

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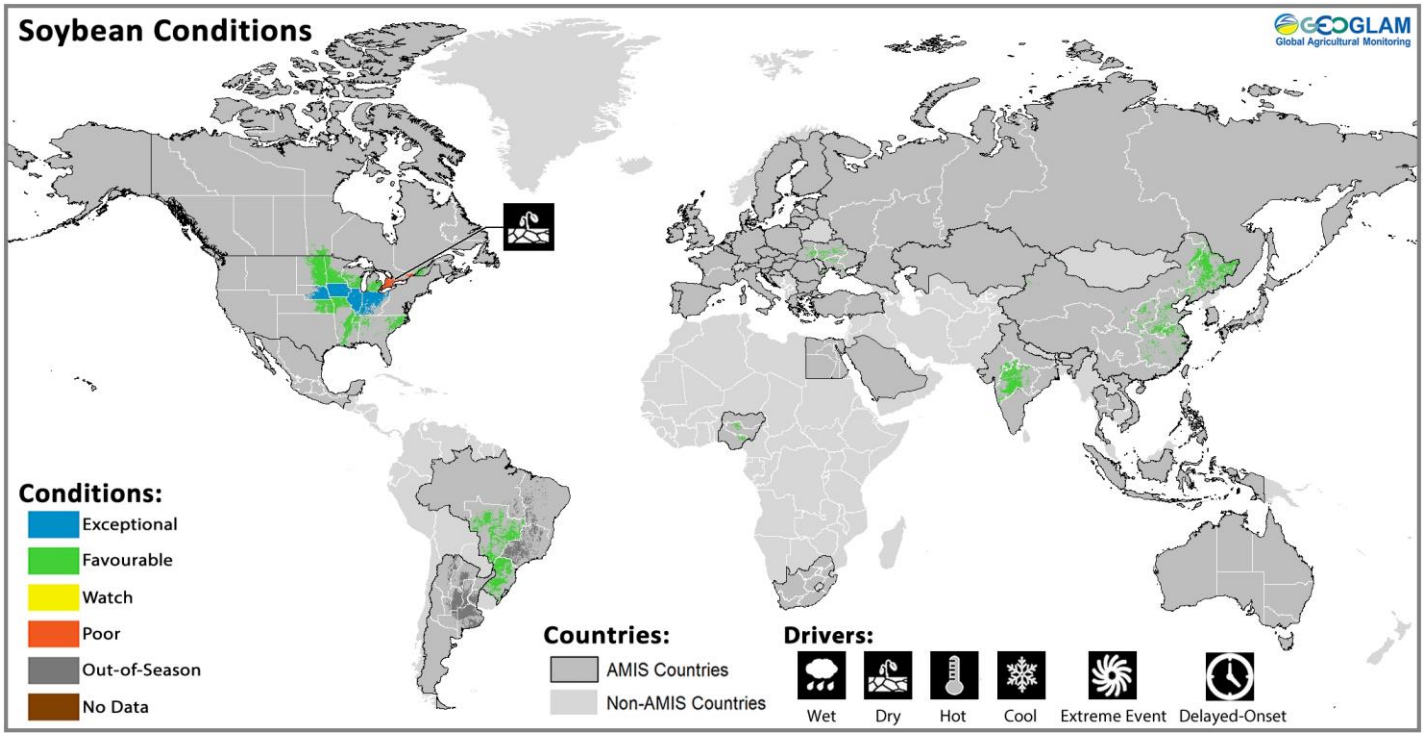
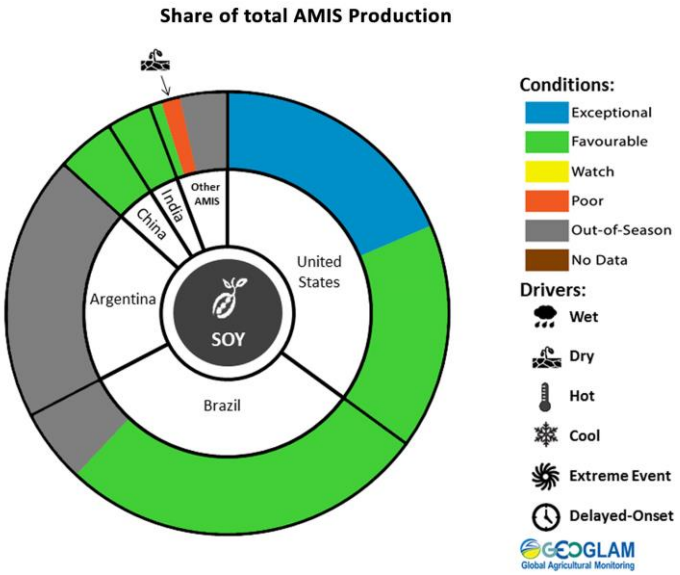
Soybean Conditions for AMIS Countries



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 September 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 the **US**, harvest is just getting underway with very good conditions across the country and in many areas production will likely be well above previous records, notably in Illinois, Indiana, Iowa, and Nebraska. In **Brazil**, planting began in the main producing regions in the south and central-west, only where conditions are favourable. In **China**, conditions are favourable and the crop is in the seed-filling stage. In **India**, the crop is in the vegetative stage with generally favourable conditions owing to good monsoon rains. In **Canada**, harvest has begun. Dry conditions during the growing season in the largest producing province of Ontario, has resulted in below to well below-average yields. In **Ukraine**, harvest began with favourable conditions and a good crop is expected.



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 October 6th 2016

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.

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.

*"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.

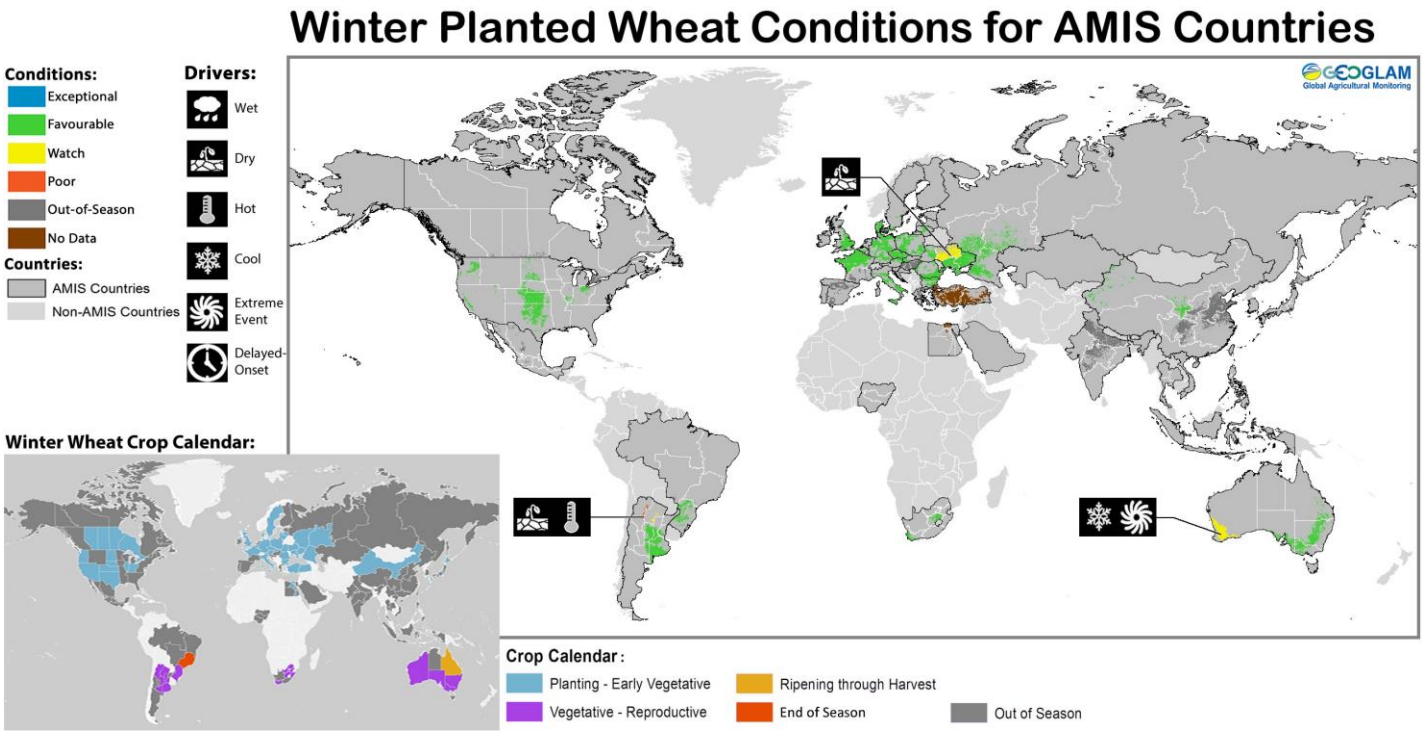
Wet: Higher than average wetness.
Dry: Drier than average.
Hot: Hotter than average.
Cool: Cooler than average or risk of frost damage.
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)
Delayed-Onset: Late start of the season

Sources & Disclaimer

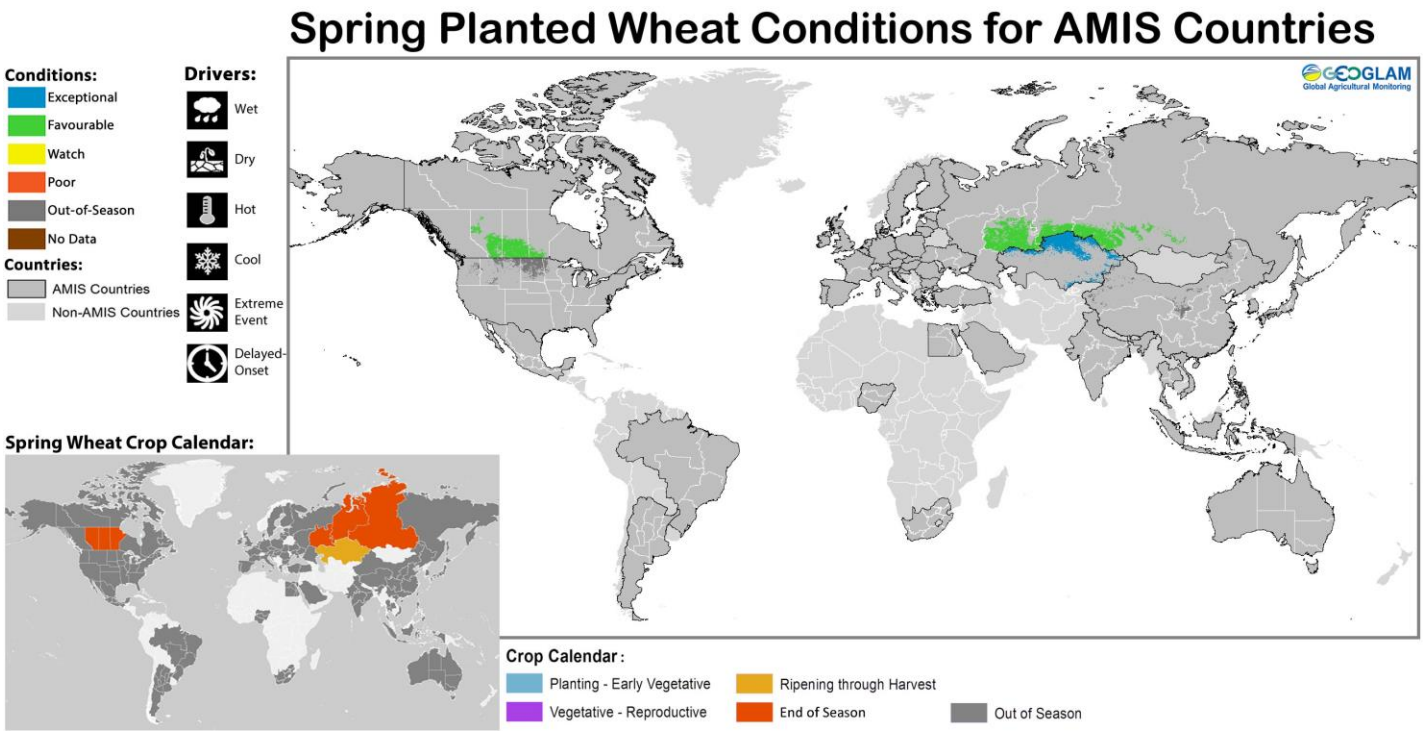
Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (Buenos Aires Grains Exchange, INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), 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

* Assessment based on information as of September 28th

Appendix 2: Crop Season Specific Maps & Pie Charts



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 September 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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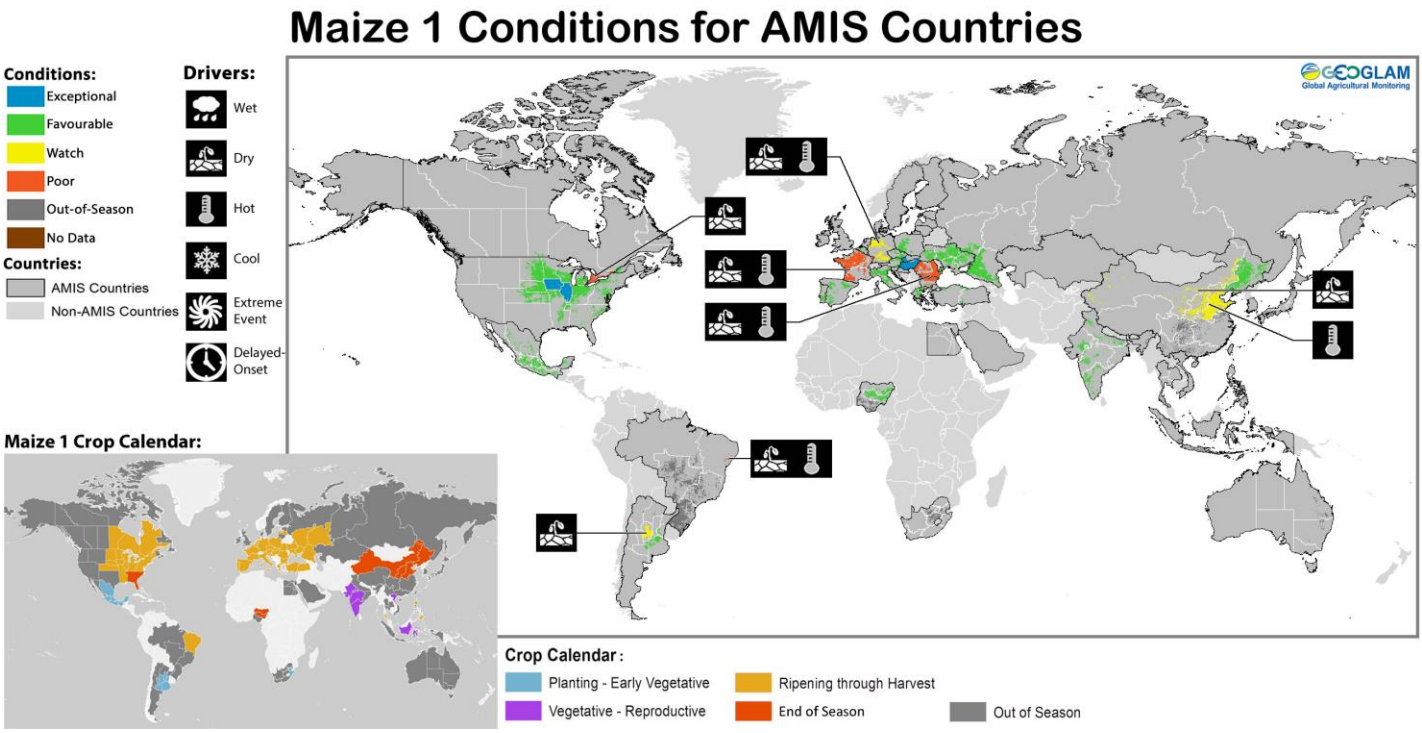

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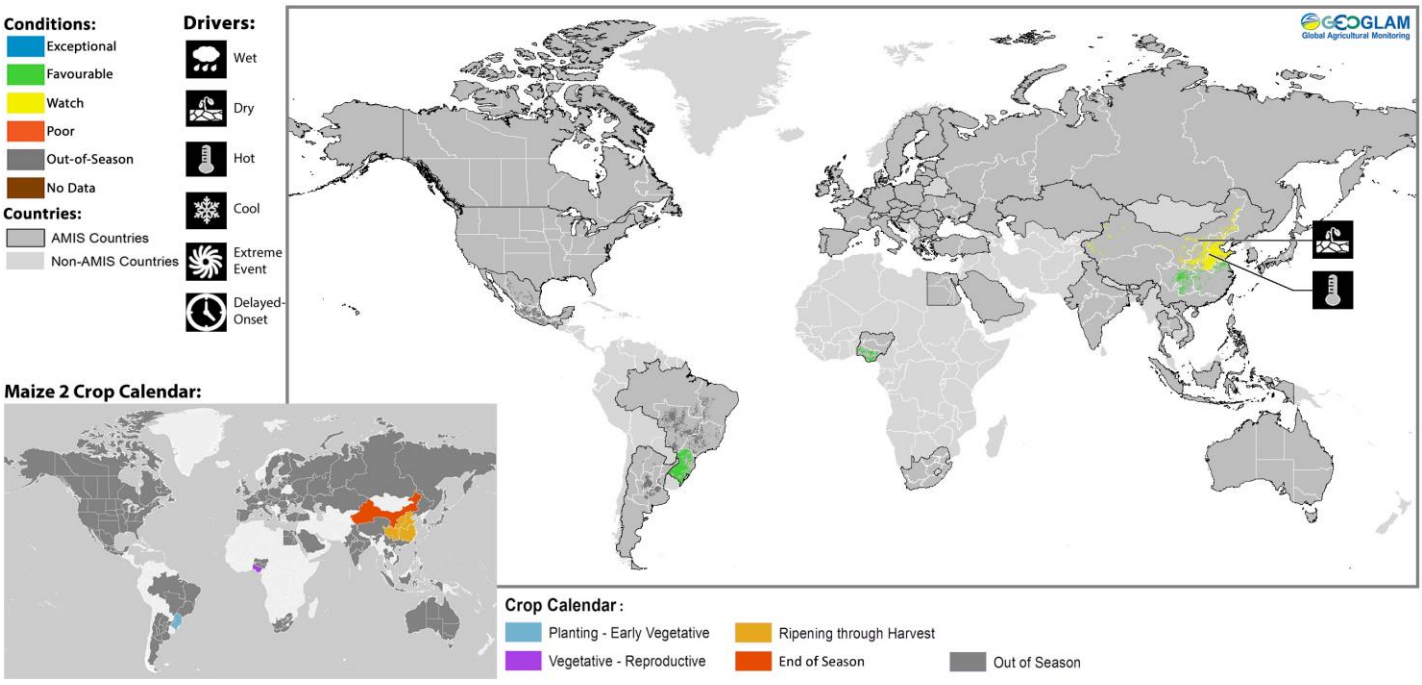
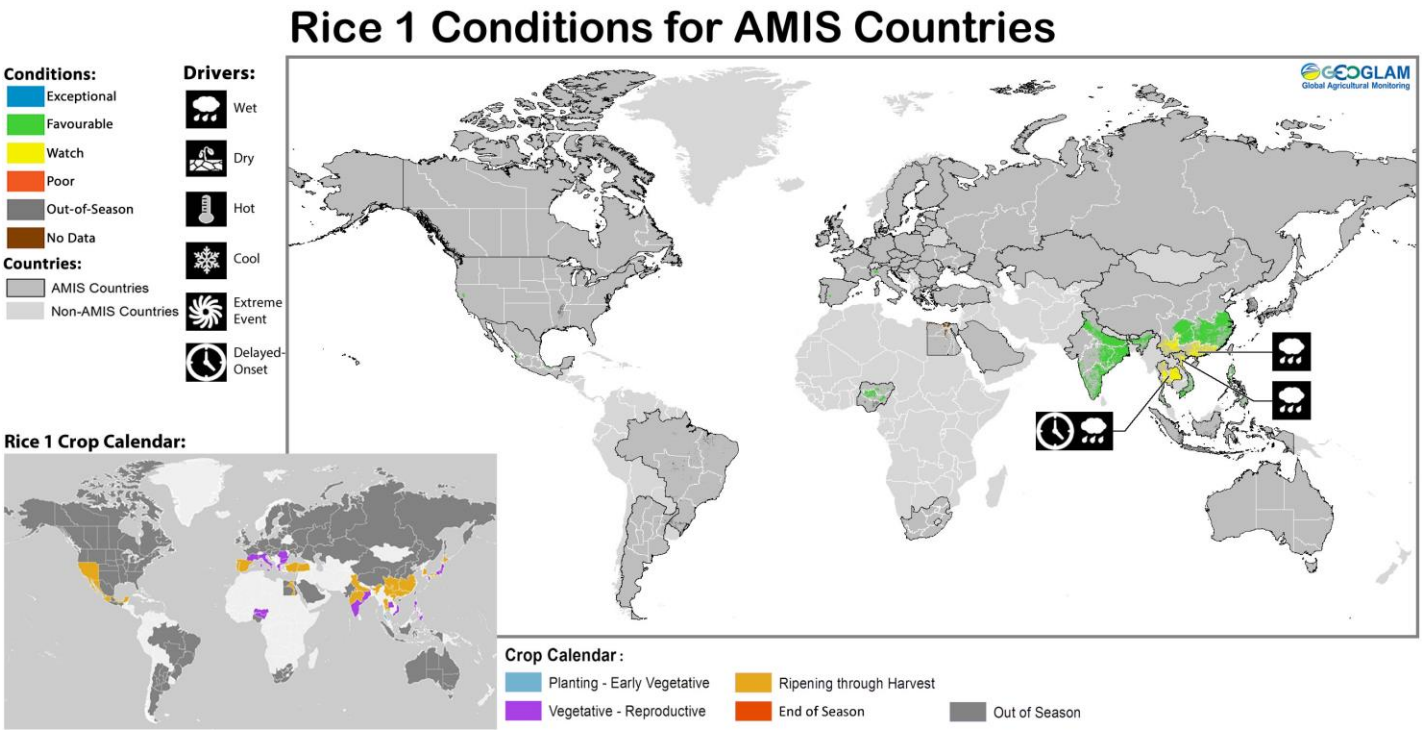
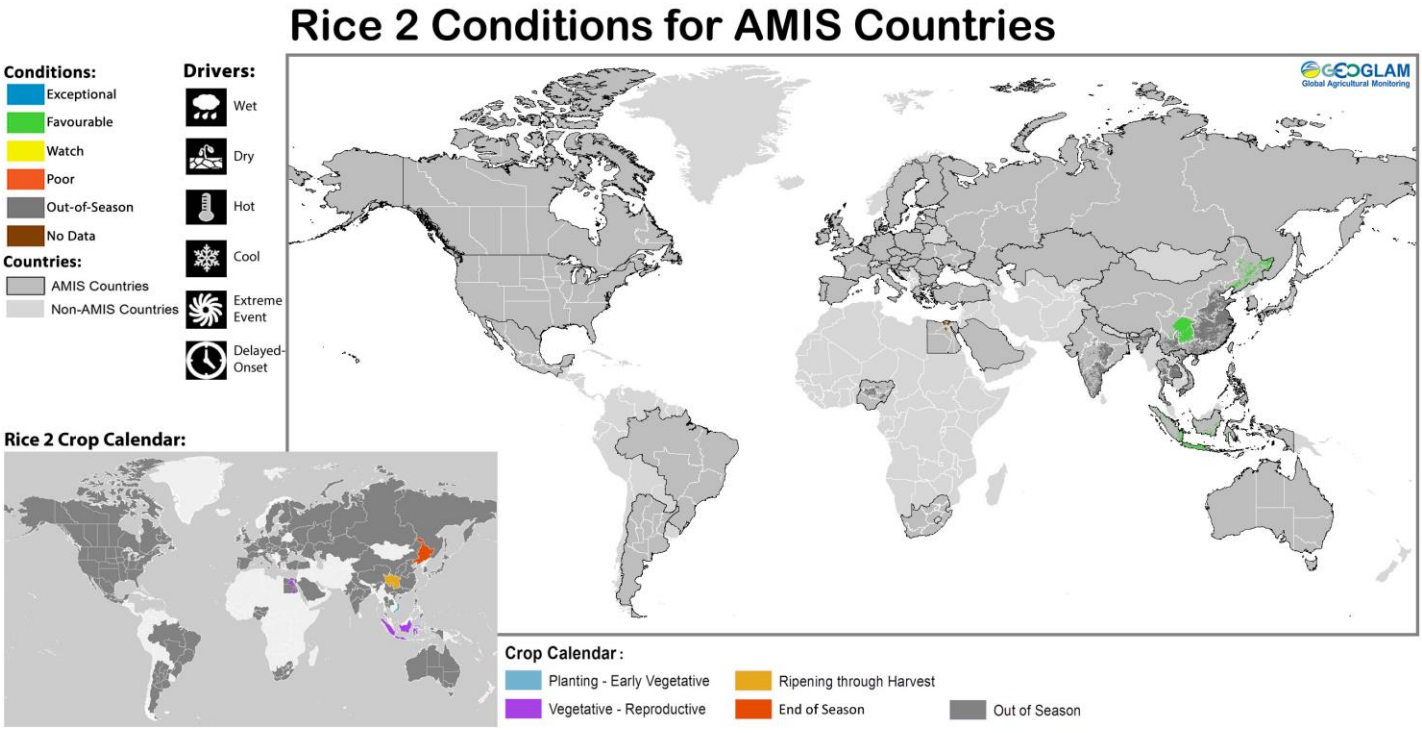


Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of September 28th. Where crops are in less than favourable conditions the climatic drivers responsible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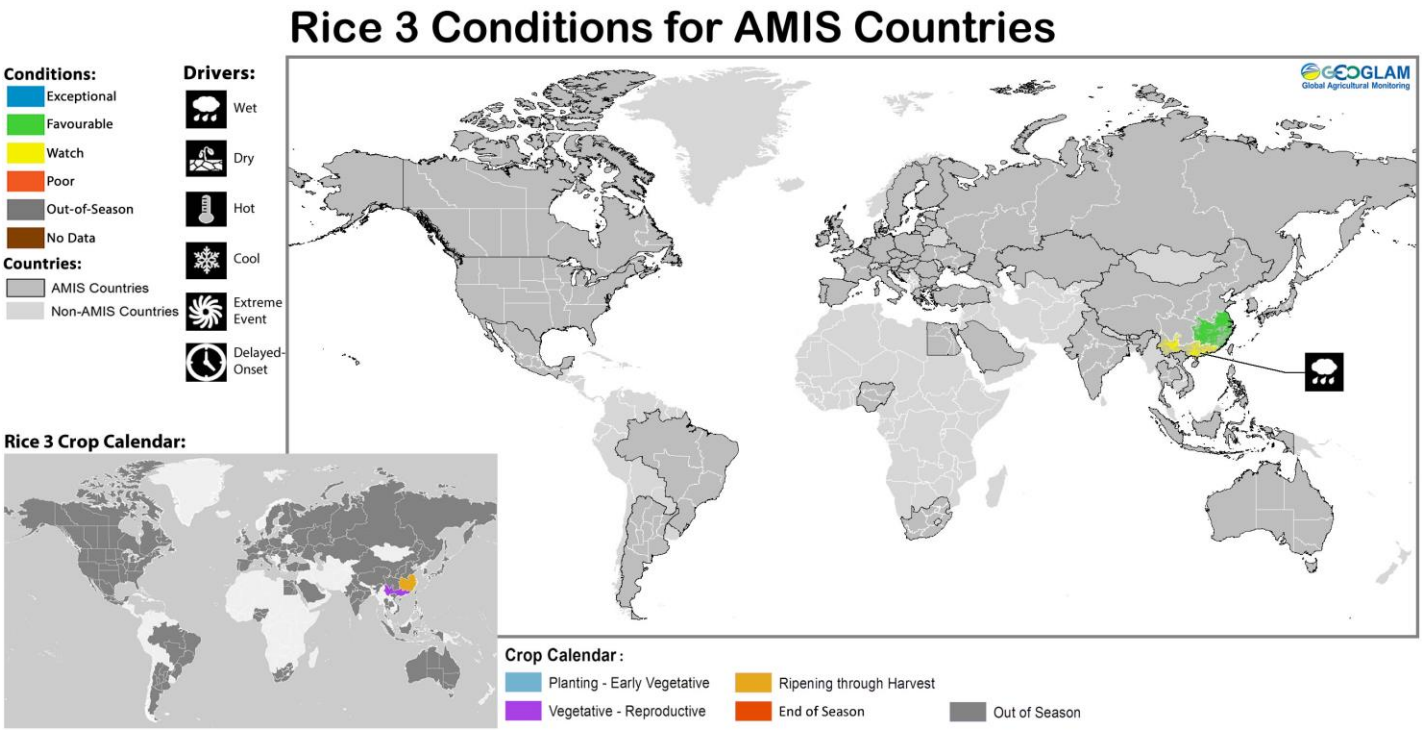
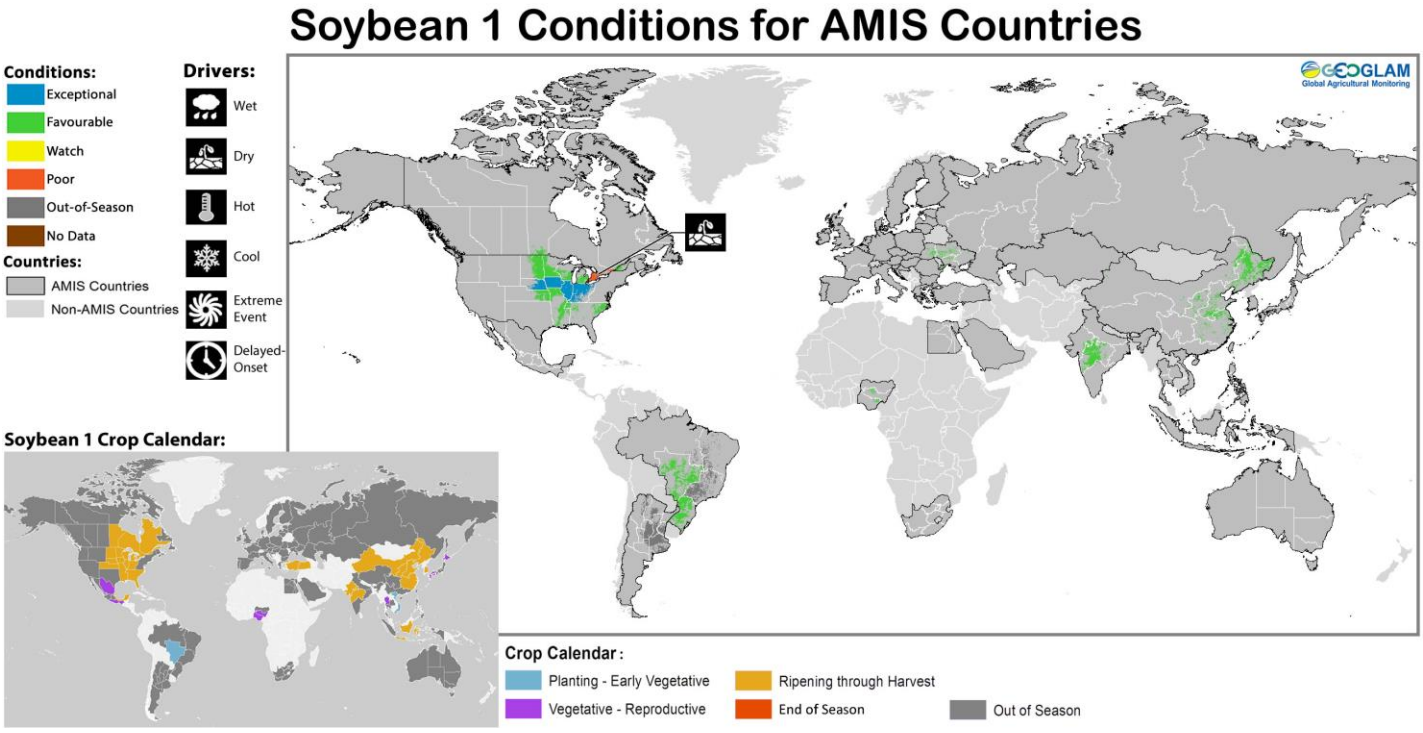


Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of September 28th. Where crops are in less than favourable conditions the climatic drivers responsible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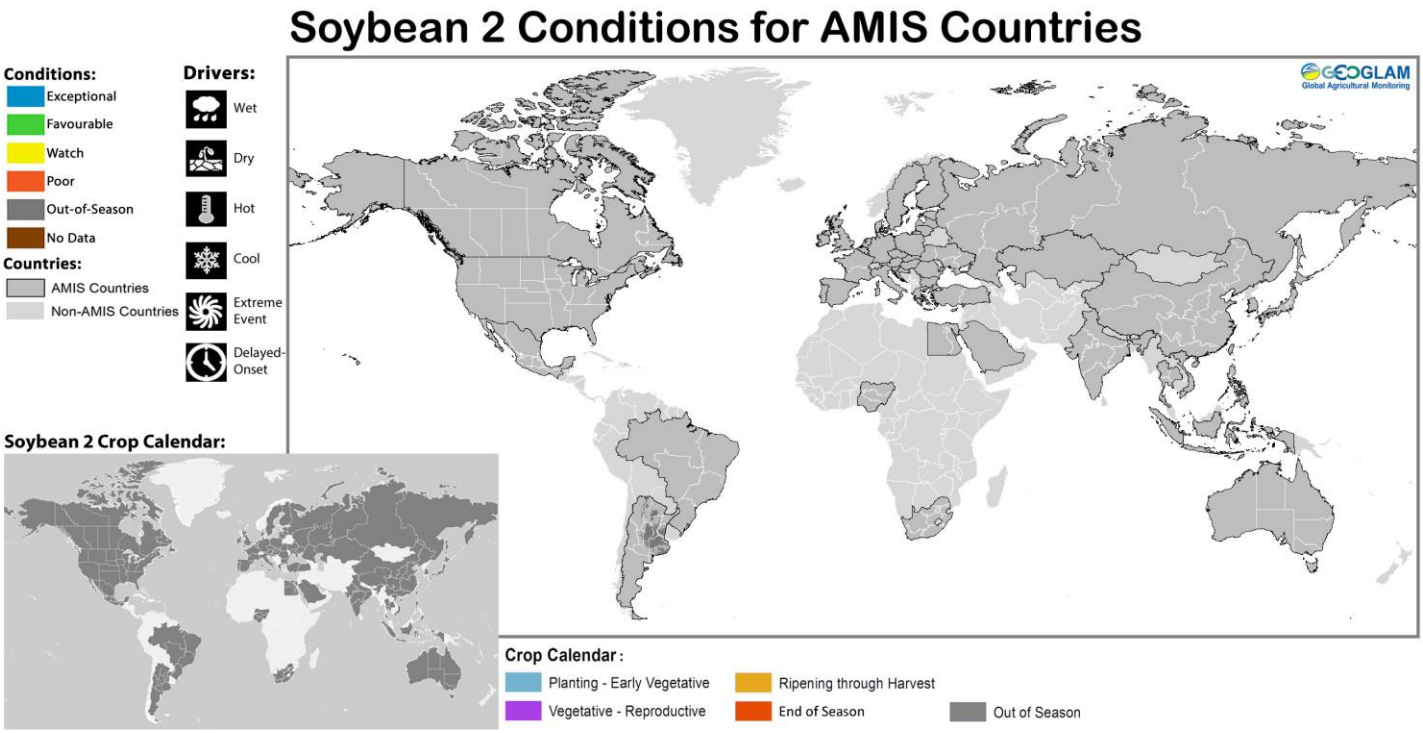

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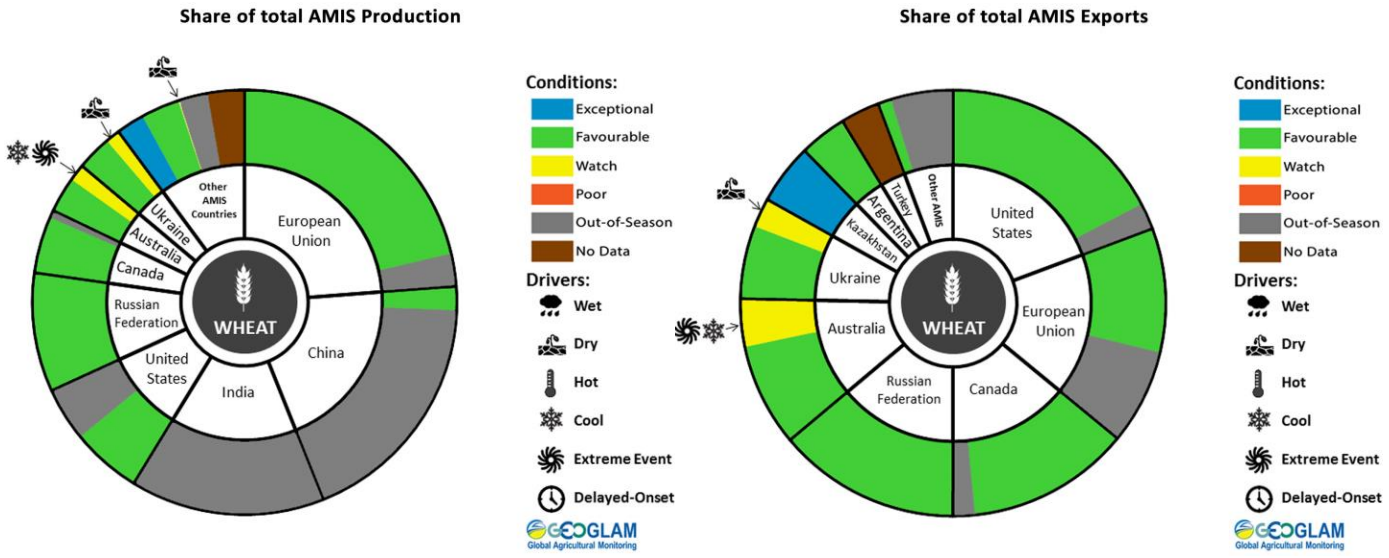
Wheat AMIS Comparisons



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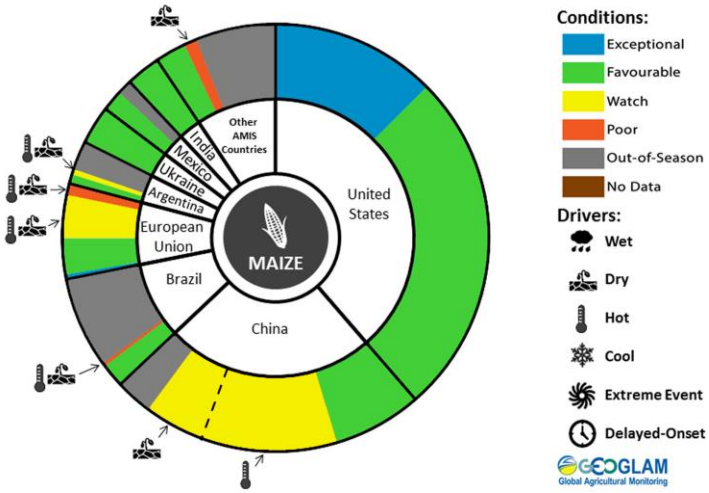
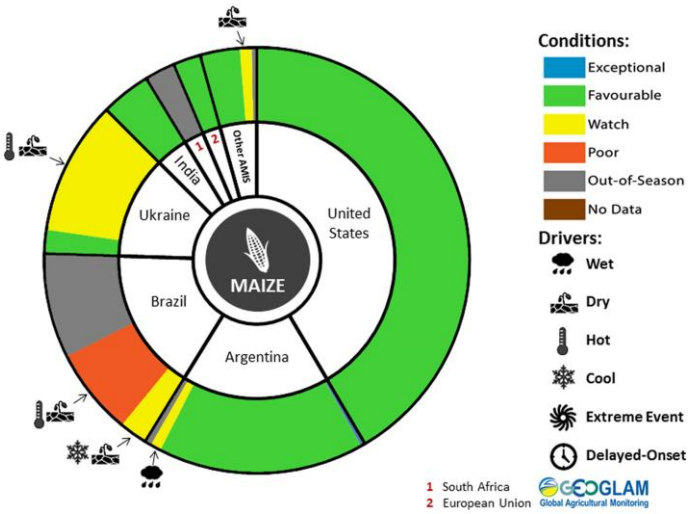
Maize AMIS Comparisons

Share of total AMIS Production

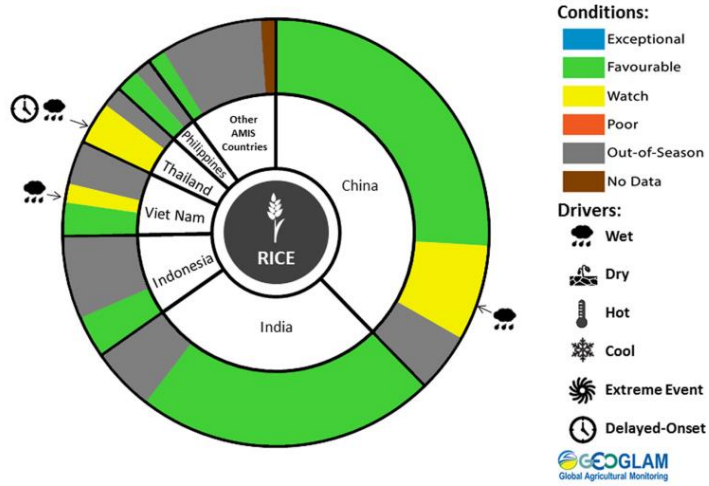


Share of total AMIS Exports

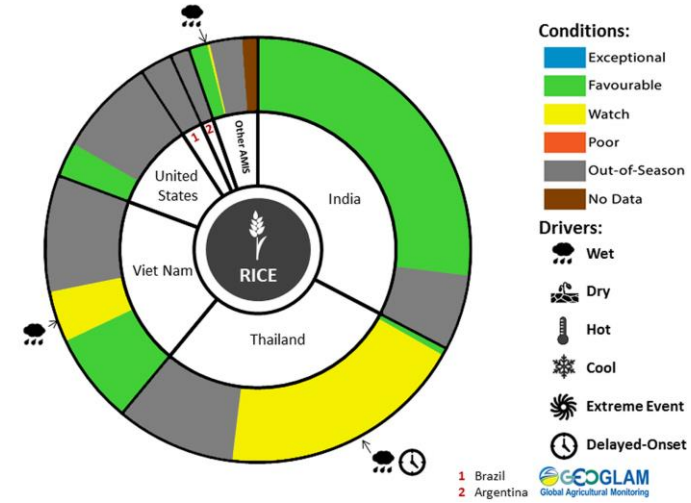


Rice AMIS Comparisons

Share of total AMIS Production



Share of total AMIS Exports



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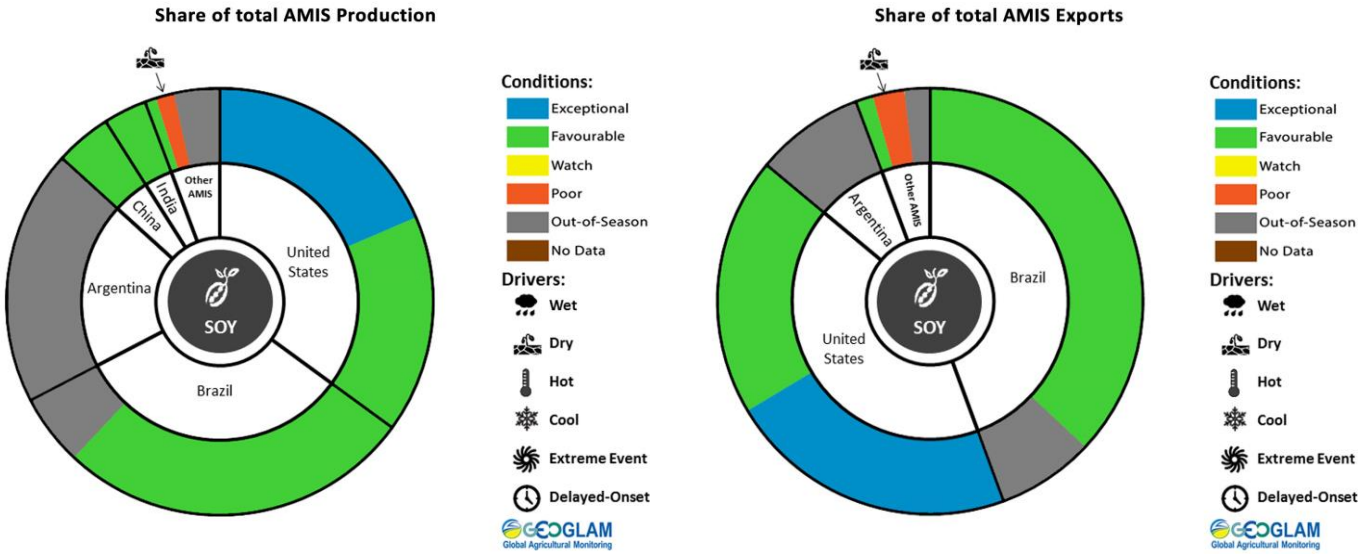
Soybean AMIS Comparisons



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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: Toshio Okumura

www.geoglam-crop-monitor.org

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