

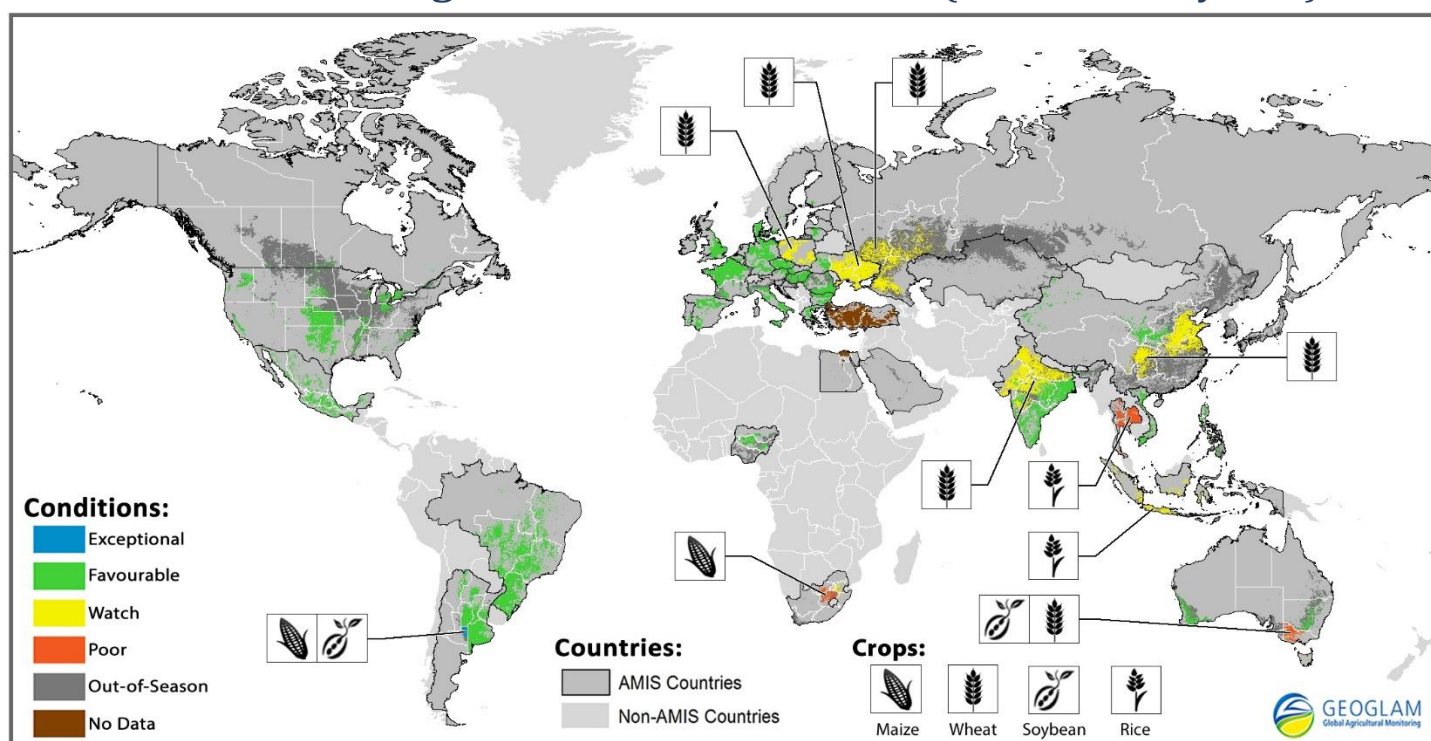
GEOGLAM Crop Monitor

No. 26 – March 2016



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

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 - In the southern hemisphere, the season has ended with mixed conditions. In the northern hemisphere, the winter crop is still mostly dormant in the majority of countries. Conditions are overall favourable at this early stage of the season. However, concerns continue in parts of Ukraine due to the poor establishment conditions in autumn, which also led to a reduction in planted area.

Maize - In the southern hemisphere conditions are mostly favourable with the exception of South Africa, where conditions remain poor over large parts of the country due to the severe drought attributed to El Niño. There are some

concerns due to lack of rain in northern Brazil. The northern hemisphere is largely out of season with the exception of India and Mexico where conditions are favourable.

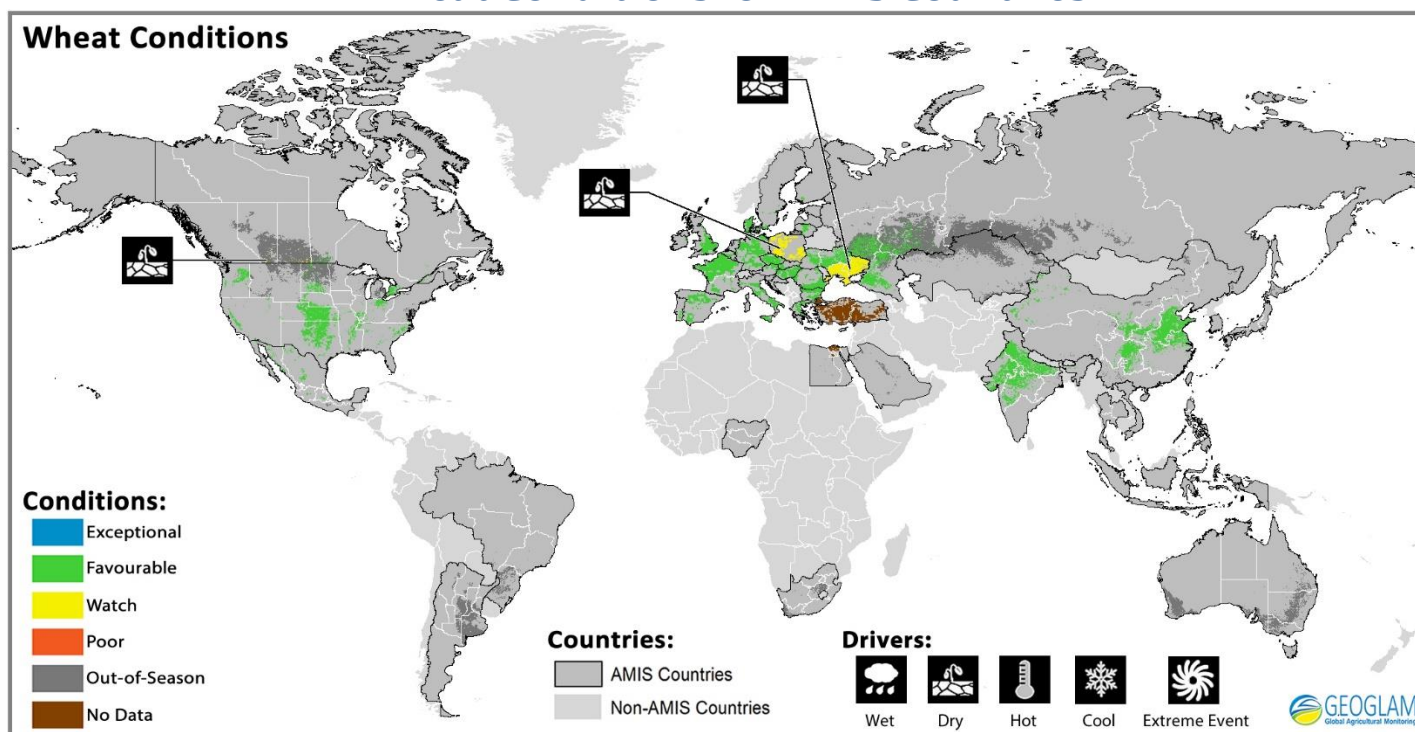
Rice - Conditions remain mixed in Southeast Asia in part due to the impacts of El Niño which is having a severe impact on Thailand where conditions remain poor. Conditions are generally favourable in all other countries.

Soybeans - Conditions in the southern hemisphere remain favourable with only a few localized issues. The northern hemisphere is currently out of season.

From El Niño to a posible La Niña

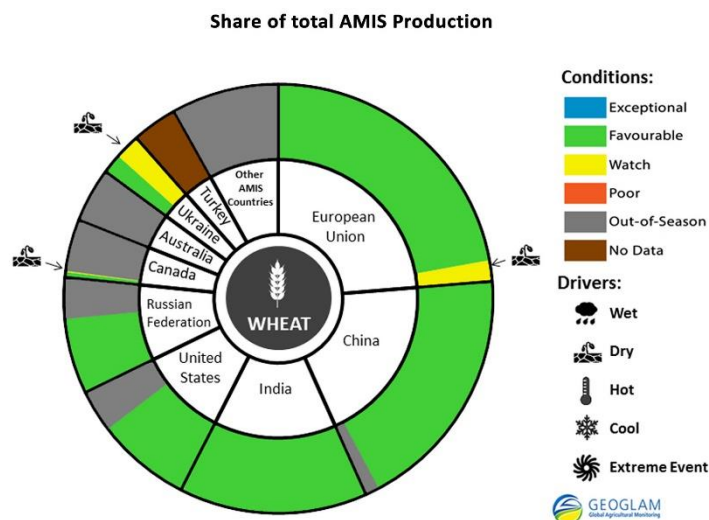
The ongoing El Niño peaked in late 2015 and is now in decline, with forecast models indicating that the transition to neutral conditions will be complete by about June. Drought is expected to continue in Southeast Asia and across northern South America, including northeast Brazil. In Southern Africa, drought impacts on crop production are widespread and severe. This has led to the issuance of a joint statement on regional food insecurity by the World Food Program, FEWS NET, the European Commission, and FAO (<http://www.fews.net/southern-africa/alert/february-2016>). In southeast Brazil and Uruguay, abundant rainfall is expected to continue. In Central Asia, the expected above average precipitation has not materialized, and winter snow pack is now below normal. In North America, southern California has likewise not received the good rains often associated with El Niño, and remains in the grip of drought, accompanied by hot temperatures. Northern California has fared somewhat better, but not well enough to emerge from multi-year drought. The Great Lakes region is projected to continue to be warmer and drier than usual through spring. No El Niño impacts are anticipated in the main summer growing season of the U.S., Canada, Europe, and western Russia. Thereafter, neutral conditions could persist through the last quarter of 2016, or we could see transition to La Niña. Odds of reverting to El Niño are low. A review of past El Niño events and model projections for October-December 2016 puts the probabilities at approximately 50 percent for La Niña, 40 percent for neutral, and 10 percent for El Niño.

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.

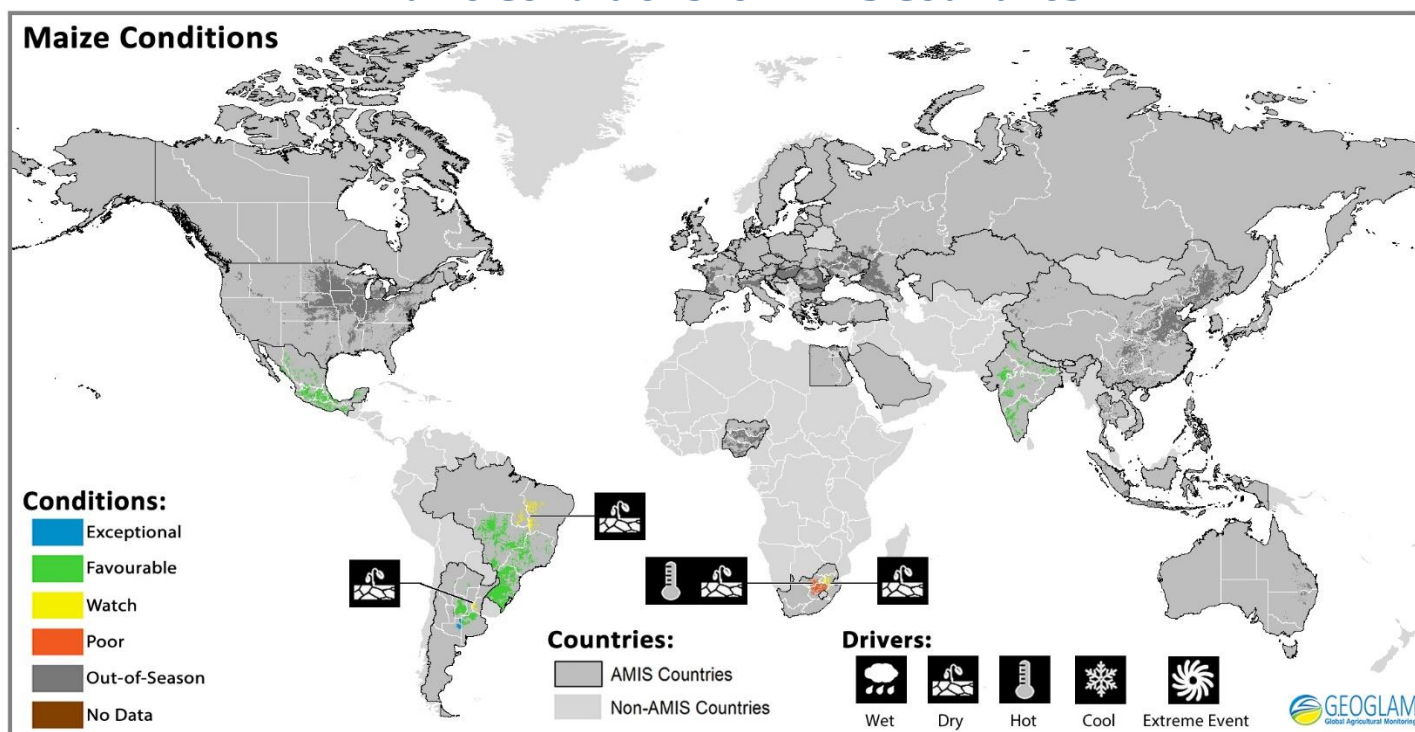
Wheat: In the **EU** conditions are generally favourable. Warmer-than-usual weather occurred in most of the winter wheat regions, while the western Mediterranean and Poland experienced substantially drier-than-usual conditions. In the **US**, conditions are favourable for the coming out of dormancy. In **China**, conditions are generally favourable as the crop starts to break dormancy in the northern growing regions, and jointing in the southwest region. In the **Russian Federation**, the crop is still dormant and warmer than usual conditions were observed throughout European Russia. Planted area is slightly down from last year. In **Canada**, conditions for winter wheat remain favourable in most of Manitoba, Ontario and Quebec. However, continued low snow cover in southern Alberta and southern Saskatchewan is resulting in an increased risk for winterkill in these areas. In **India**, conditions improved and the crop is in vegetative stages. In **Ukraine**, the crop began to break dormancy in the southern region, while the rest of the crop is still dormant. Concern continues in southern and eastern regions due to the poor establishment conditions in autumn as a result of severe dryness, which also led to reduced planted area. Winter damage will be assessed in the spring as the crop breaks dormancy.



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

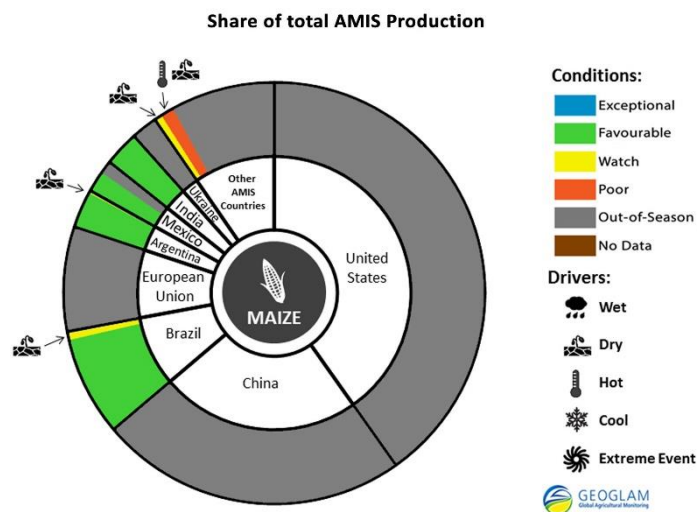
* Assessment based on information as of February 28th

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 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.

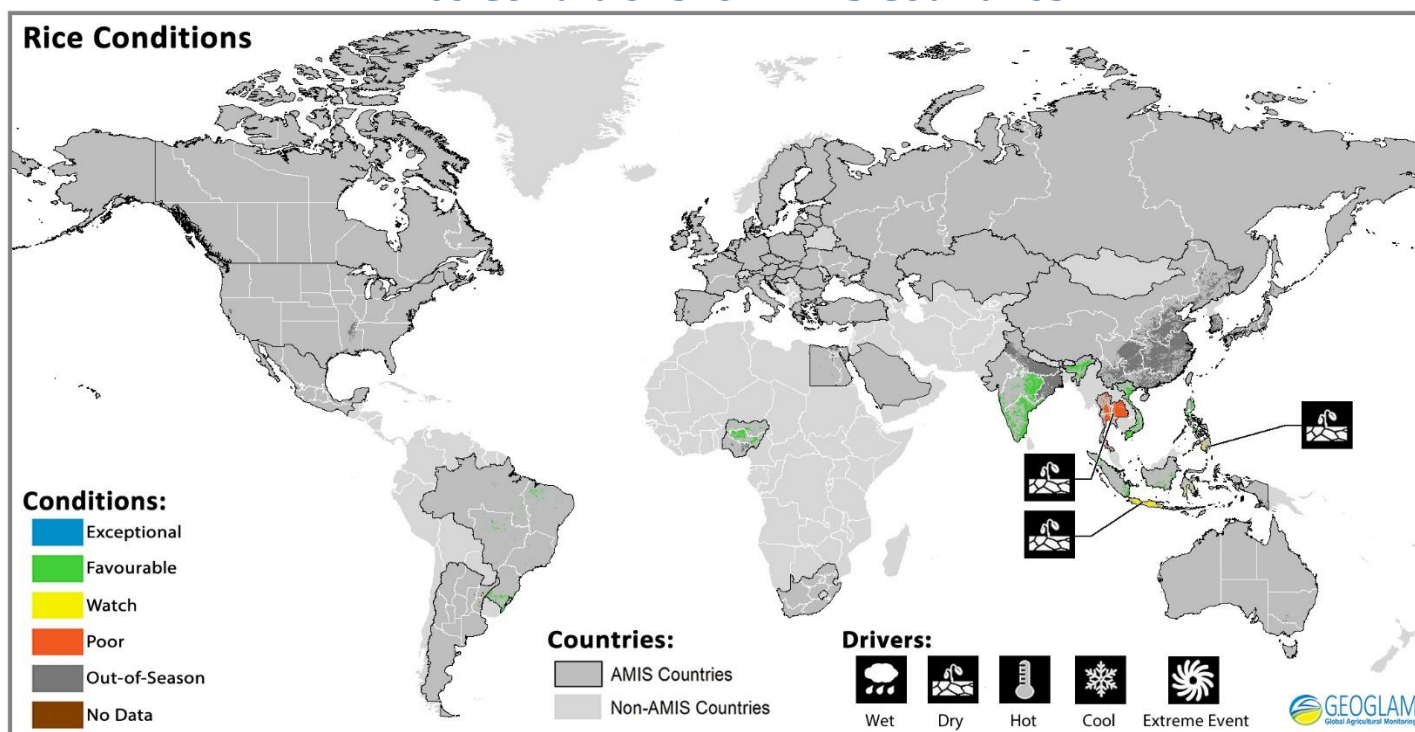
Maize: In **Brazil**, conditions for the summer-planted crop (the larger producing season) are favourable and the crop is generally in planting to early vegetative stages. The spring-planted crop is mostly in reproductive through harvesting stages and conditions are mostly favourable except in the northeast where there was a lack of rainfall. In **Argentina**, the crop is mostly in grain filling stages and conditions are favourable in most regions. However, there is some local variability in conditions due to both excessive moisture from this month and residual issues over a lack of moisture from January. In **South Africa**, drought and heat stress have had a negative impact on the crop in the western parts of the main producing region where white maize (main food crop) is produced. In **India**, harvest continues and conditions are favourable. In **Mexico**, harvest is almost complete for the spring-summer crop and conditions are favourable for the end of season conditions. Planting is almost complete for the autumn-planted crop and conditions are favourable.



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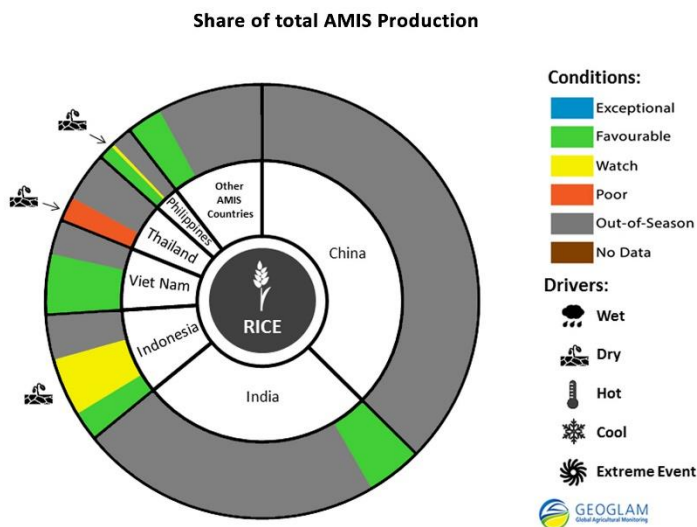
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Rice Conditions for AMIS Countries



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.

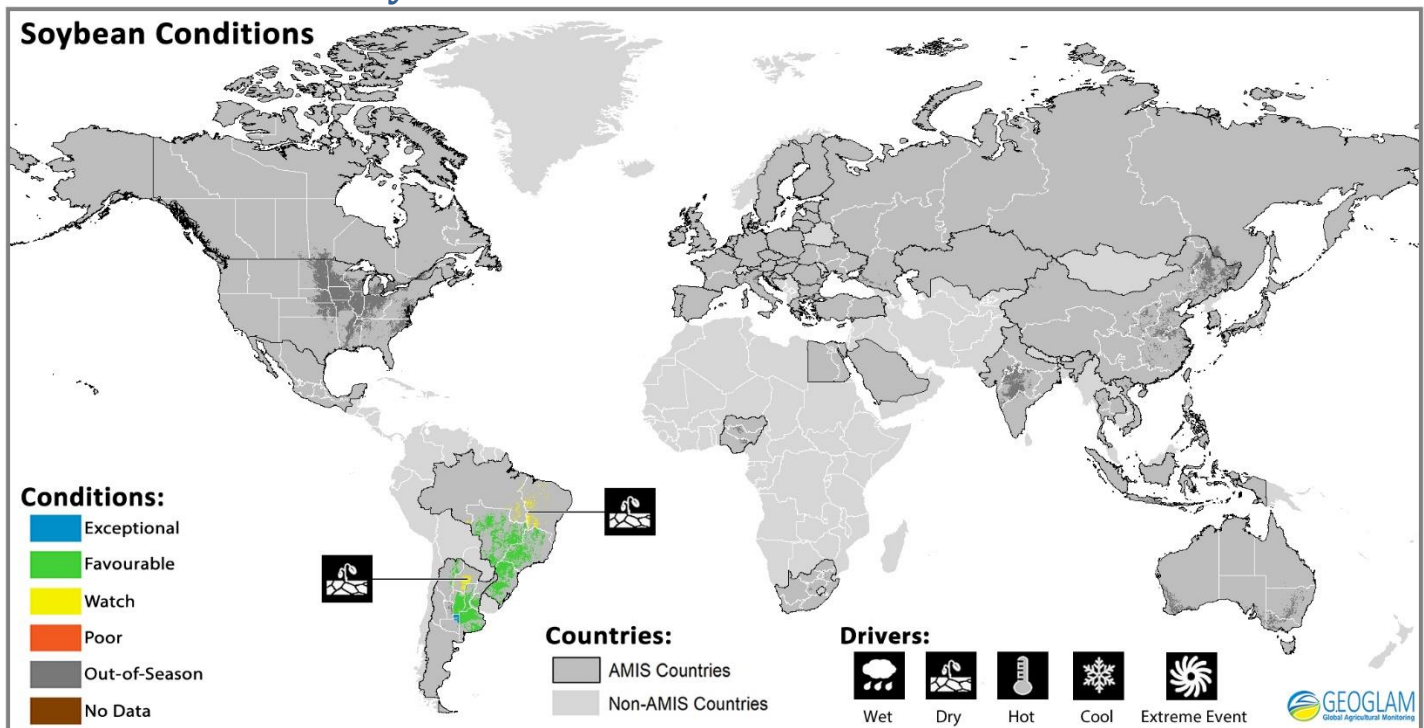
Rice: In **India**, conditions are favourable for the rabi crop, which is in the vegetative to reproductive stages. In **Thailand**, conditions for the dry season crop continue to be poor due to a water shortage attributed to El Niño and concern over pests and plant disease outbreaks. In **Viet Nam**, harvest is almost complete for the autumn-winter crop and end of season conditions are favourable owing to good weather conditions over the growing period. In **Indonesia**, the wet season crop is in the vegetative stage and conditions are mixed due to delayed monsoon rains caused by El Niño. In **the Philippines**, the dry season crop conditions are generally favourable except in the southern region due to insufficient rainfall. In **Brazil**, conditions are favourable owing to favourable weather conditions, although some planting delays have occurred due to excess rainfall. The crop is generally in reproductive to ripening stages. In **Argentina**, conditions are generally favourable and most areas are starting the flowering stage.



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

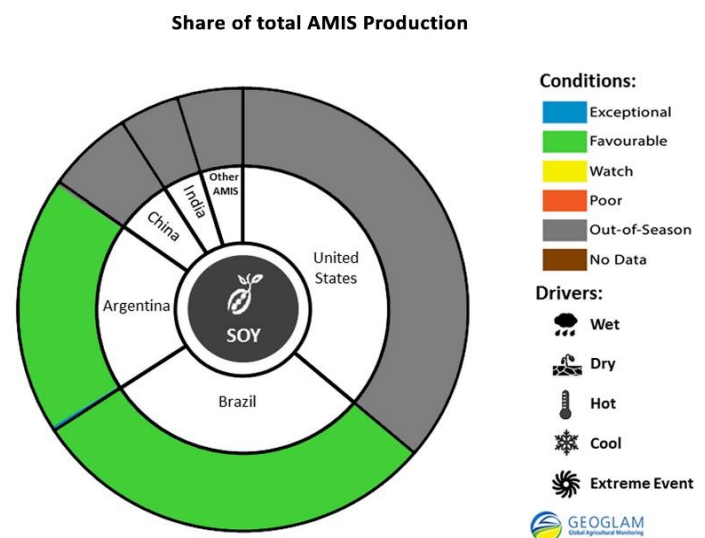
* Assessment based on information as of February 28th

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 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**, the crop is largely in vegetative to reproductive stages in the southern, north and northeast regions and is in ripening through harvesting stages in the rest of the country. The crop is in mixed condition in the north and northeast due to a lack of rainfall but favourable in the rest of the country. In **Argentina**, conditions remain mostly favourable but there are some areas affected by excess moisture from this month and lingering dry issues from January. The first crop is mostly in grain filling to maturity stages, and the second crop is in flowering to grain filling stages.



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

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 production.

Poor: Crop conditions are well below average*. Crop yields are likely to be more than 5% below average. This is only used when conditions are not likely to be able to recover, and impact on production is likely.

Out Of Season: Crops are not currently planted or in development during this time.

No Data: No reliable source of data is available at this time.

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

Conditions:

	Exceptional
	Favourable
	Watch
	Poor
	Out-of-Season
	No Data

Drivers:

These represent the key climatic drivers that are having an impact on crop condition status. They may result in production impacts and they 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.)

Drivers:

	Wet
	Dry
	Hot
	Cool
	Extreme Event

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.

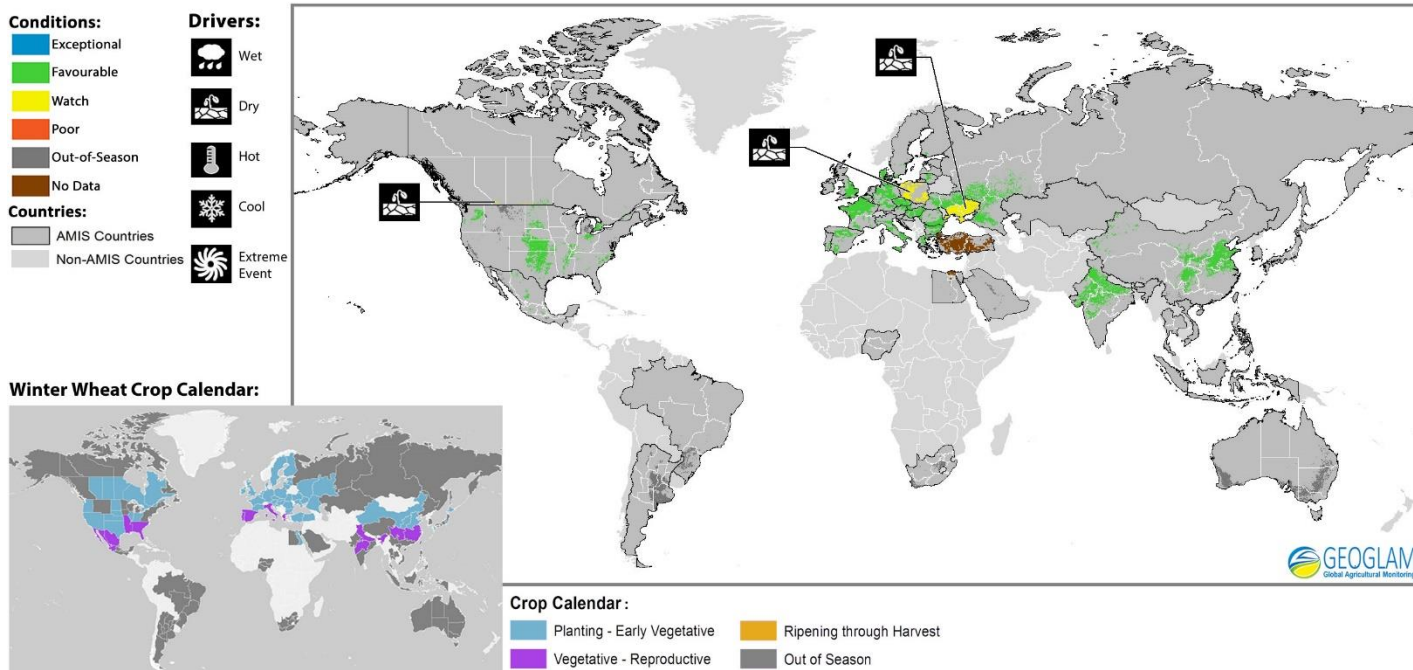
More detailed information on the GEOGLAM crop assessments is available at www.geoglam-crop-monitor.org

For information on country coverage and criteria:

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

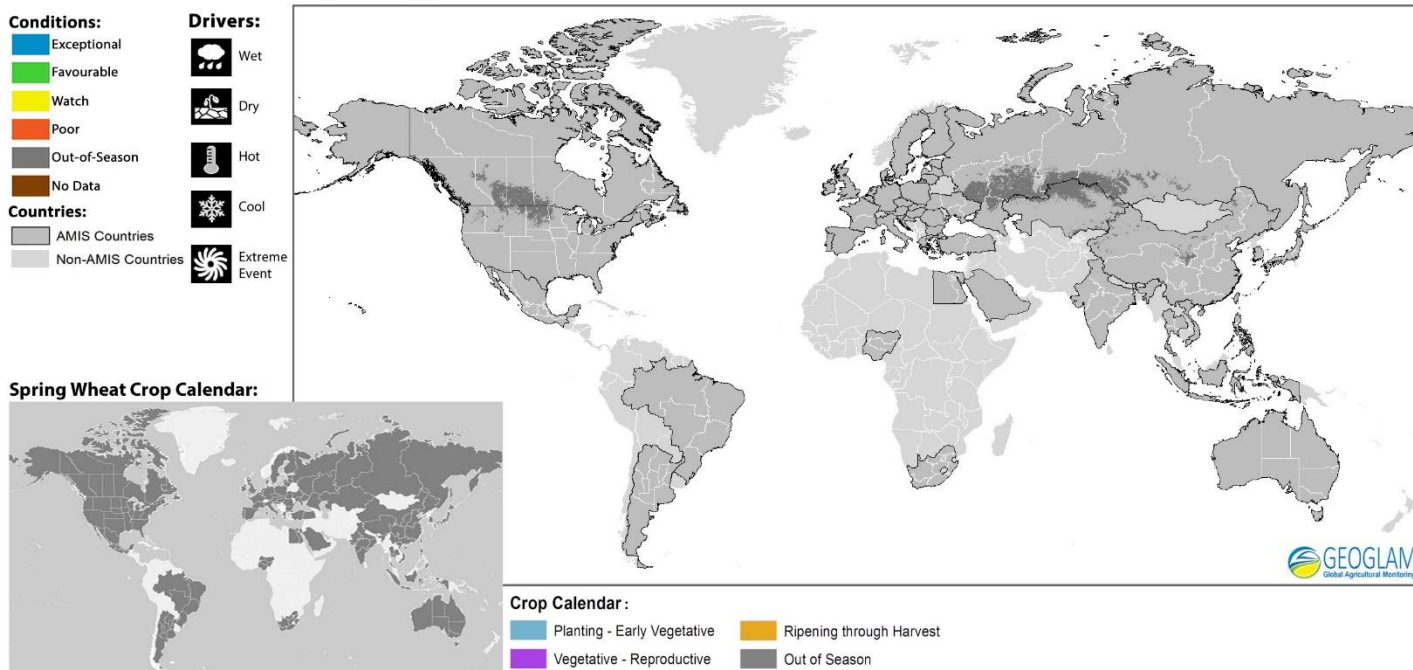
Appendix 2: Crop Season Specific Maps & Pie Charts

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.

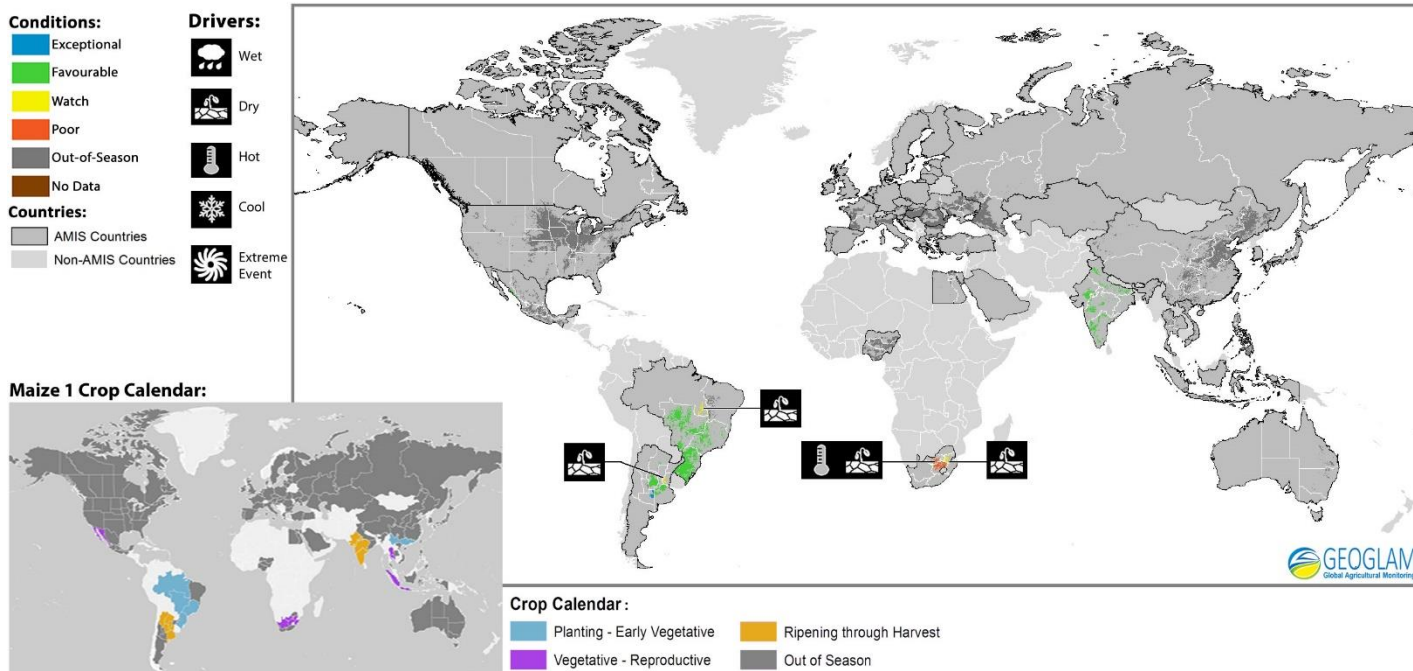
Spring Planted Wheat Conditions for AMIS Countries



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.

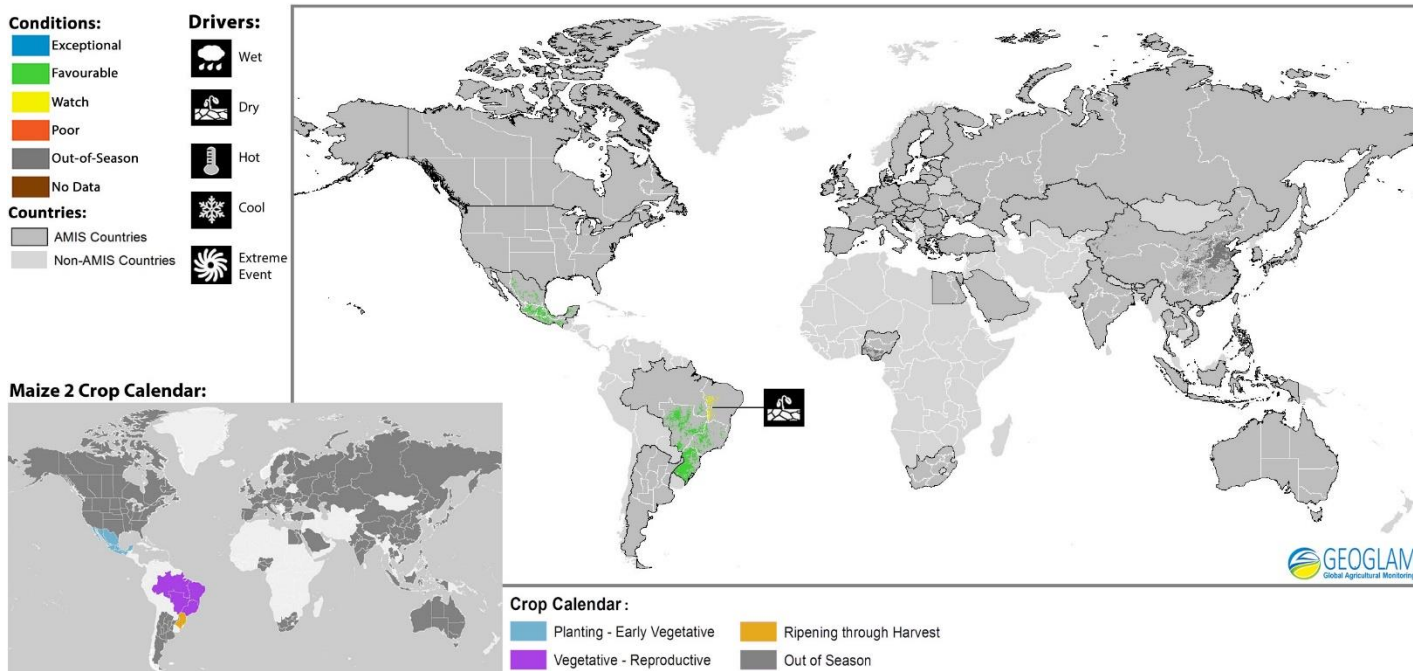
* Assessment based on information as of February 28th

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.

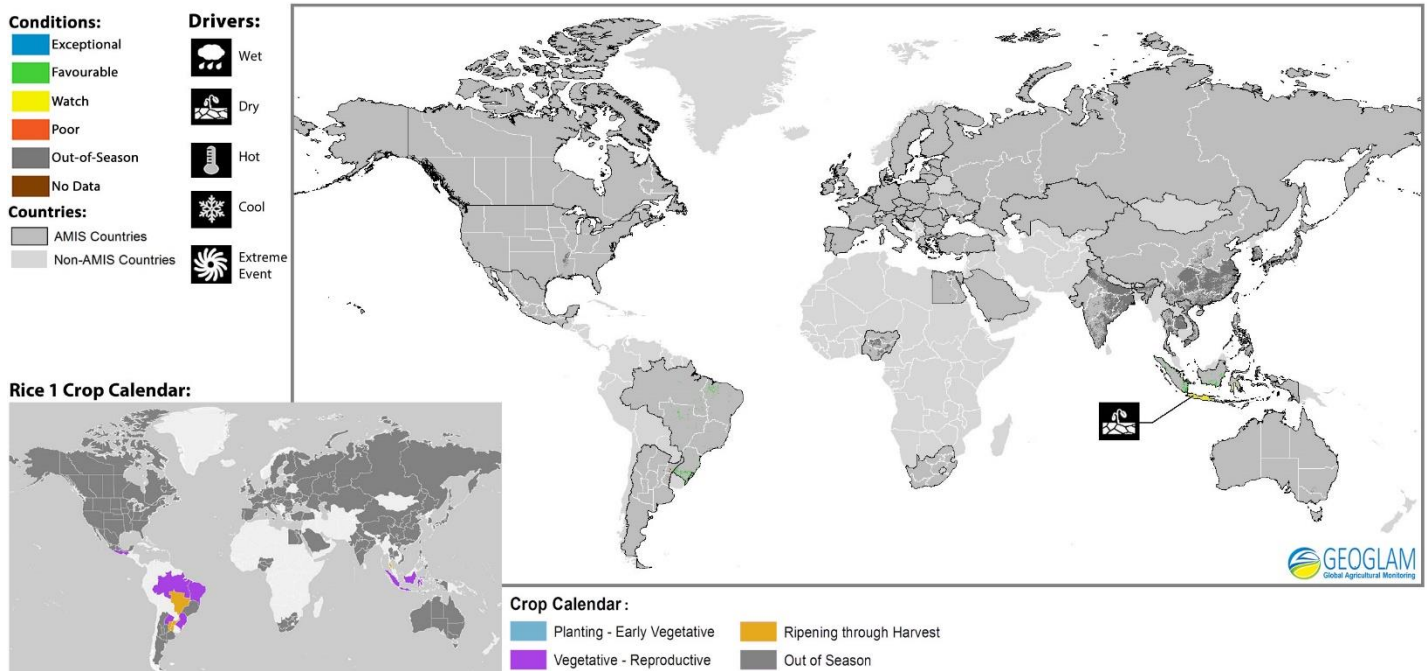
Maize 2 Conditions for AMIS Countries



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.

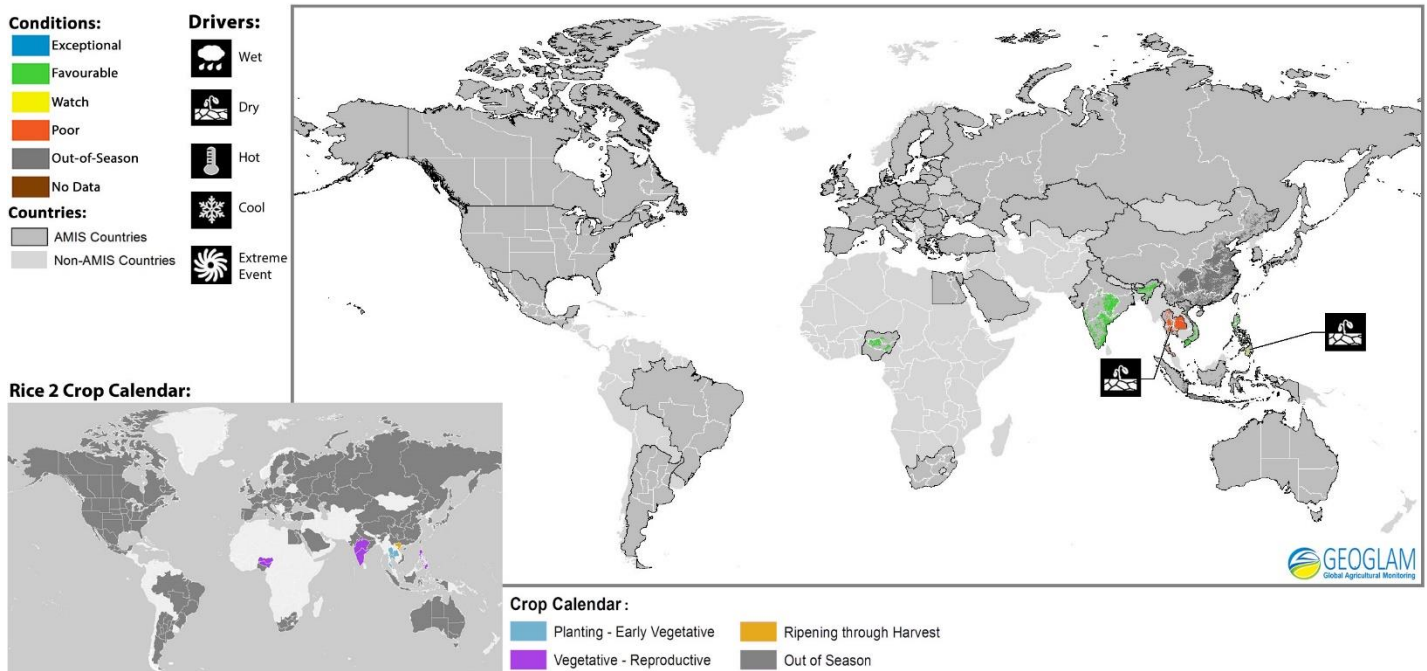
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Rice 1 Conditions for AMIS Countries



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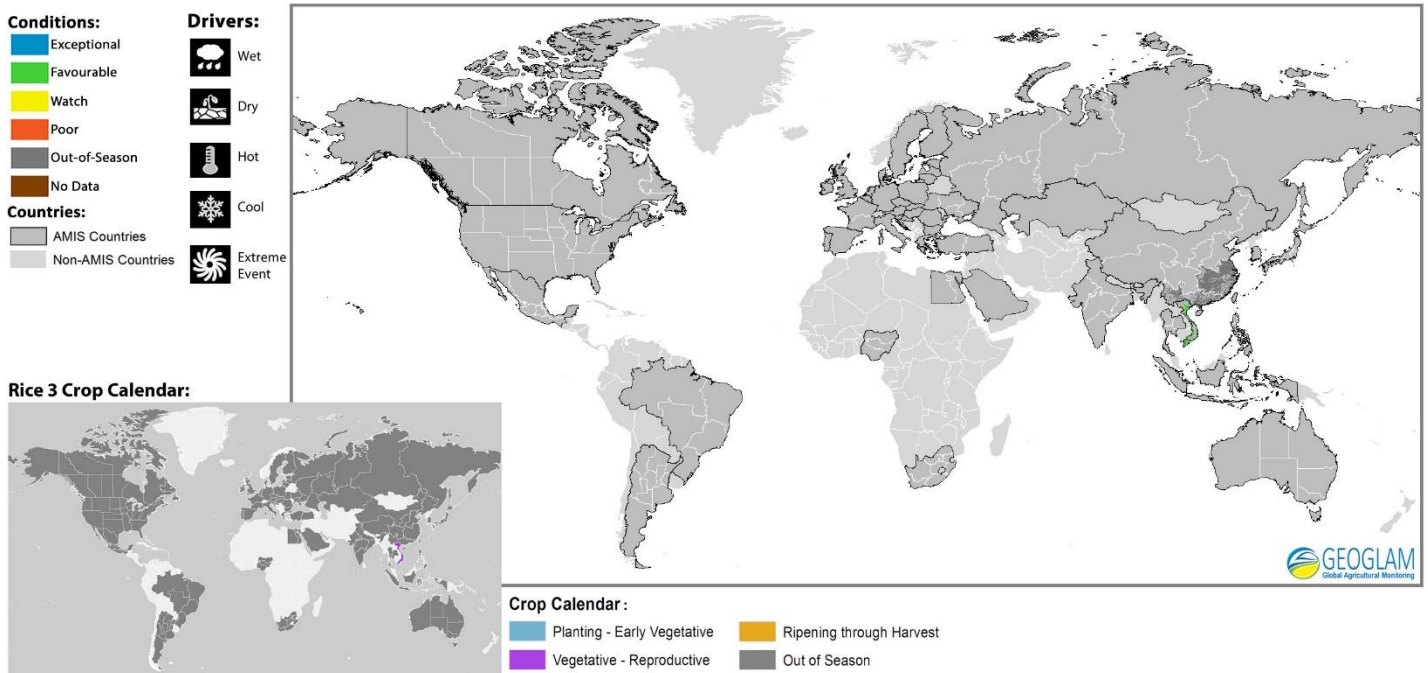
Rice 2 Conditions for AMIS Countries



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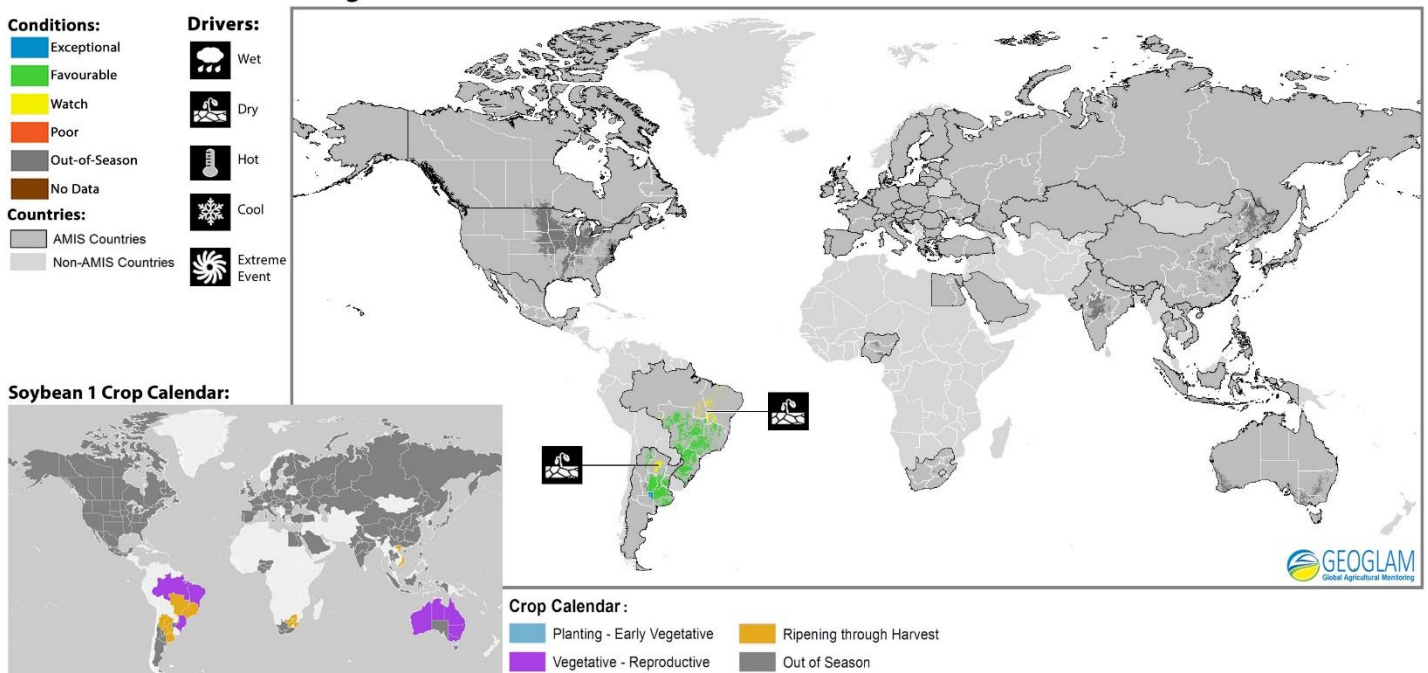
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Rice 3 Conditions for AMIS Countries



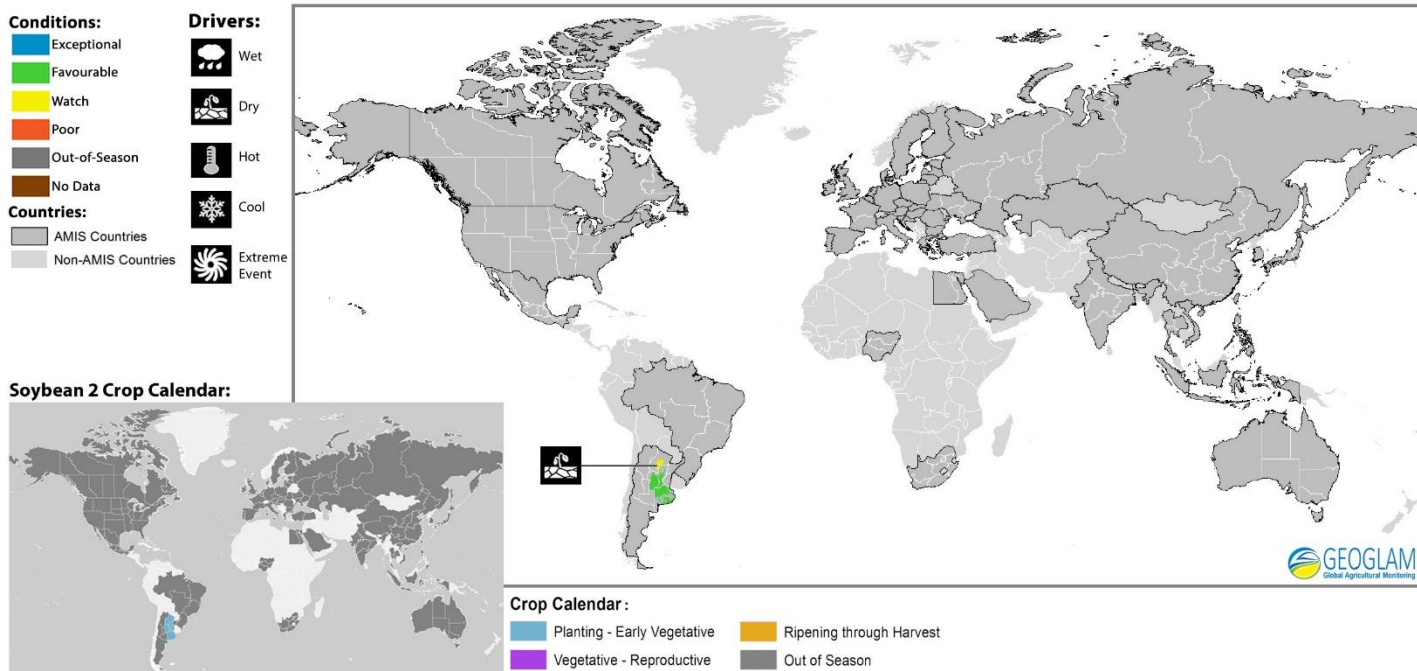
Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible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



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Soybean 2 Conditions for AMIS Countries

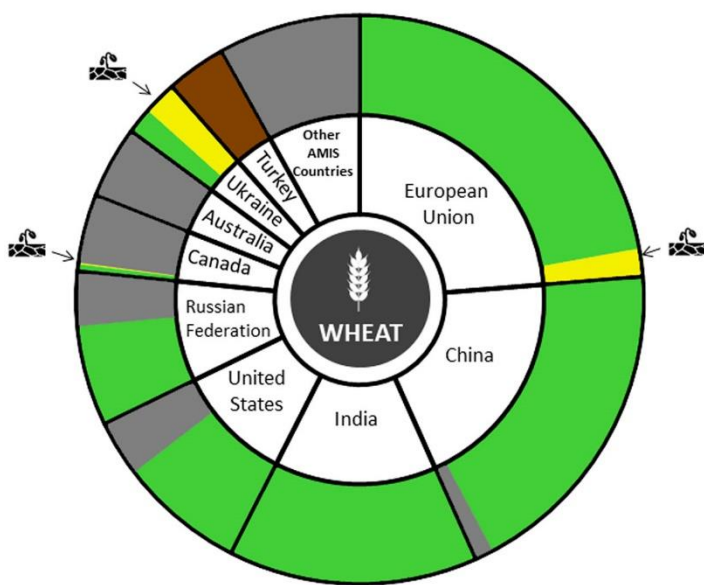


Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 28th. Where crops are in less than favourable conditions the climatic drivers responsible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

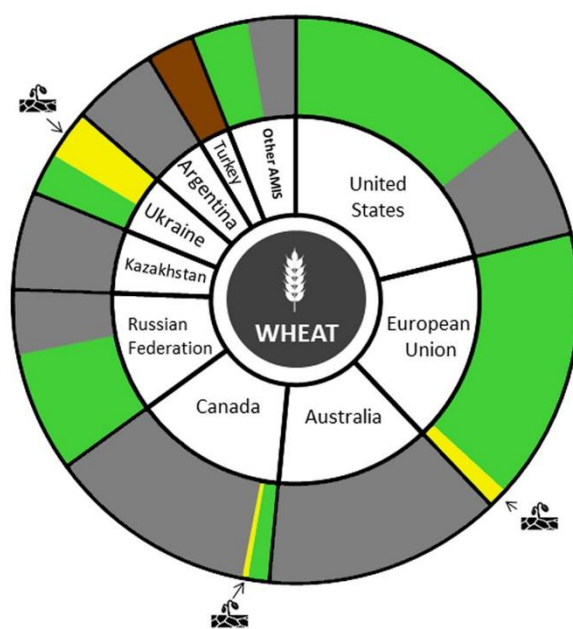
Wheat AMIS Comparisons



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



Share of total AMIS Production



Share of total AMIS Exports

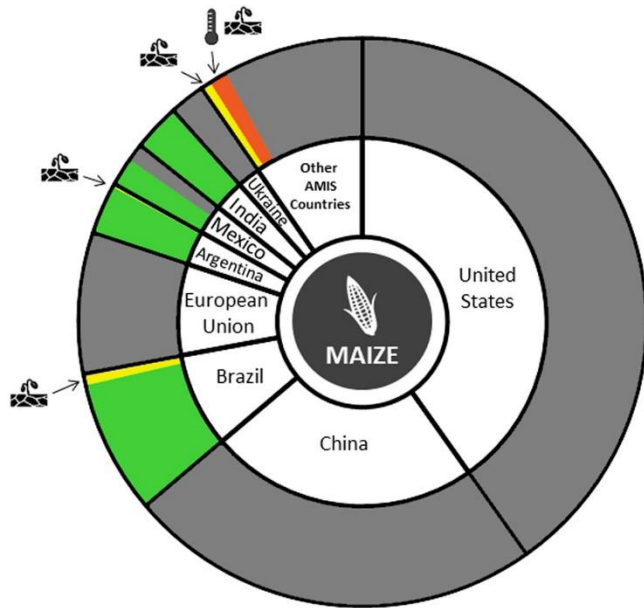
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Maize AMIS Comparisons

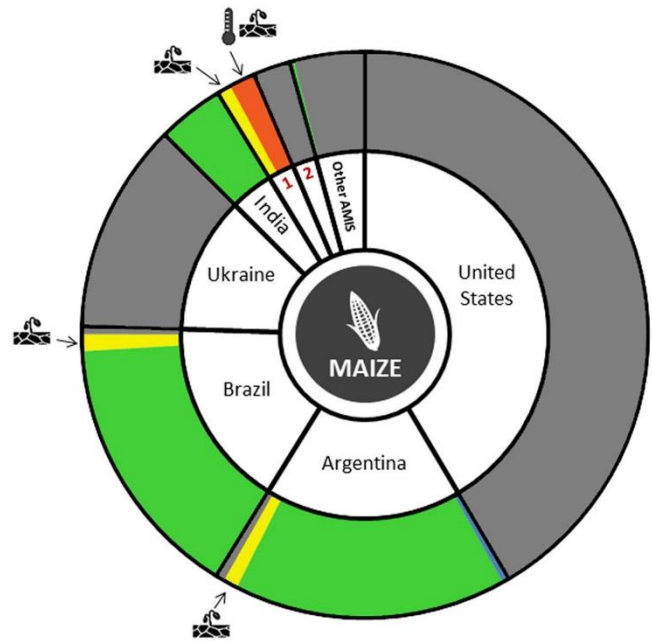
- Conditions:**
- Exceptional
 - Watch
 - Out-of-Season
 - Favourable
 - Poor
 - No Data

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

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



Share of total AMIS Production



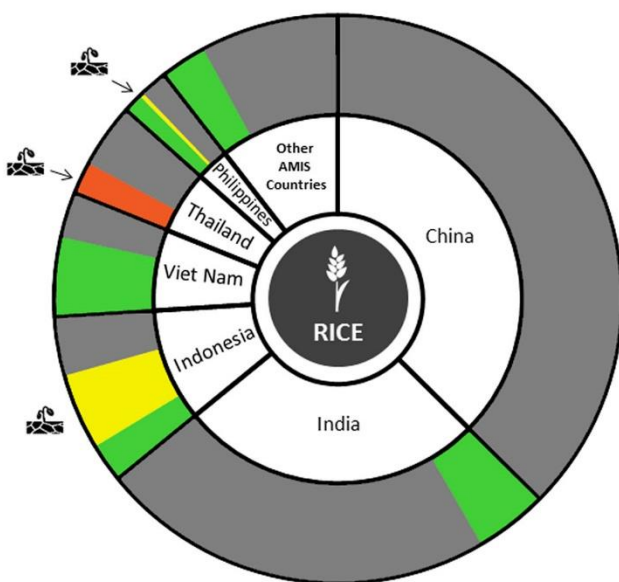
Share of total AMIS Exports

Rice AMIS Comparisons

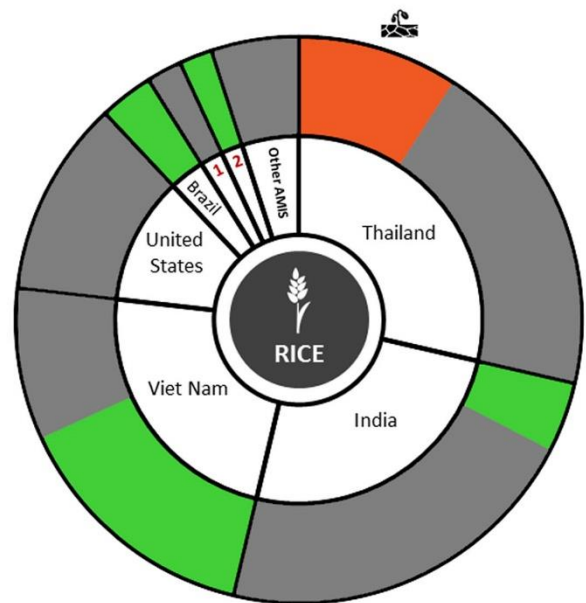
- Conditions:**
- Exceptional
 - Watch
 - Out-of-Season
 - Favourable
 - Poor
 - No Data

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

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



Share of total AMIS Production



Share of total AMIS Exports

* Assessment based on information as of February 28th

Soybean AMIS Comparisons

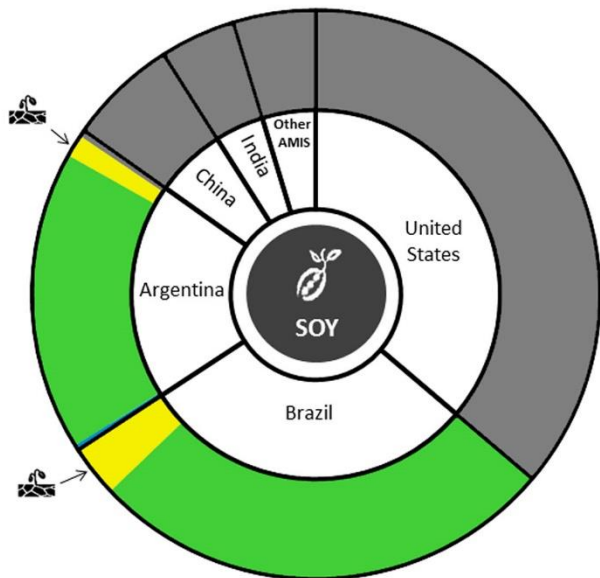
Conditions:

- Exceptional
- Watch
- Out-of-Season
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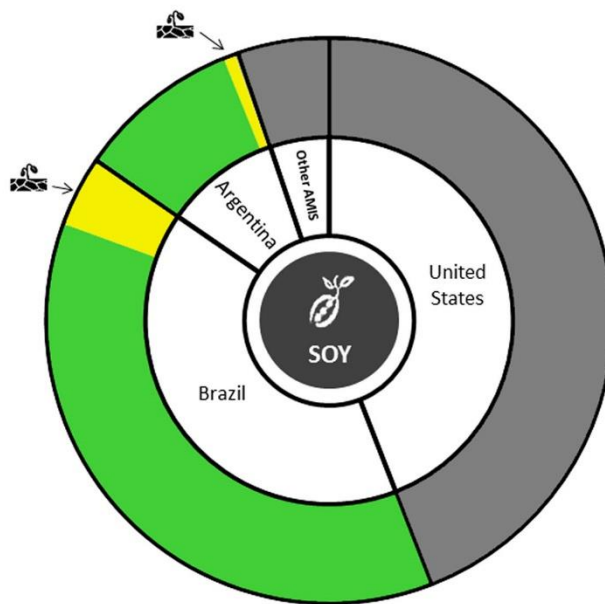
Drivers:

- Wet
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- Hot
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For detailed description of the pie chart please see box above.



Share of total AMIS Production



Share of total AMIS Exports

* Assessment based on information as of February 28th