Overview:
As of the end of October, conditions are mixed for wheat and rice, while generally favourable for maize and soybeans. In the Northern Hemisphere, spring wheat harvest is wrapping up while winter wheat is in early development before winter dormancy. In the Southern hemisphere, wheat conditions remain mixed in Australia, Argentina, and South Africa. Maize harvest is wrapping up under generally favourable conditions with spot areas of concern in western Europe and in parts of the US. Meanwhile, the sowing of the spring-crop is beginning in South America. Rice in Asia is under mixed conditions with some adverse conditions across all Southeast Asia countries. Soybean harvest is wrapping up under generally favourable conditions in the Northern Hemisphere while sowing in the Southern Hemisphere.
Conditions at a glance for AMIS countries (as of October 28th)

Crop condition map synthesizing information for all four AMIS crops as of October 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, spring wheat harvest wraps up in Kazakhstan and Canada. Winter wheat sowing is underway under generally favourable conditions albeit with spot areas of dryness. In the southern hemisphere, dry weather has downgraded conditions in western Argentina and eastern Australia.

Maize - In the northern hemisphere, harvest is ongoing under mixed conditions in Europe and North America, while under favourable conditions in China, India, and the Russian Federation. In the southern hemisphere, sowing of the spring crop continues under favourable conditions in Argentina and Brazil.

Rice - In China and India, harvest is beginning for late-season rice and Kharif rice, respectively. In Southeast Asia, conditions are mixed for wet-season rice across the northern region due to adverse weather conditions in Thailand and the Philippines. Conditions for dry-season rice are favourable in Indonesia.

Soybeans - In the northern hemisphere, the US harvest is about to end while harvest in Canada continues to be delayed. Conditions remain favourable in China and India. In the southern hemisphere, sowing is ongoing in Brazil and Argentina under favourable conditions.

Neutral ENSO & Positive IOD:

El Niño-Southern Oscillation (ENSO) conditions are neutral and are most likely to remain neutral through June 2020. The Indian Ocean Dipole (IOD) is in a strong positive state and is forecast to remain positive through the rest of 2019. A positive IOD tends to enhance rainfall in parts of East Africa and suppress rainfall in southern and central Australia.

Source: UCSB Climate Hazards Center

* Assessment based on information as of October 28th
Wheat Conditions for AMIS Countries

**Wheat Conditions**

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 October 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**, field preparations and sowing have begun for winter wheat under favourable conditions. In **Ukraine**, winter wheat is under mixed conditions due to severe soil drought in the central part of the country, which along with the resulting delayed sowing, has resulted in a lag in crop development heading into winter dormancy starting next month. In the **Russian Federation**, conditions are favourable for winter wheat sowing and emergence with an estimated increase in total sown area compared to last year. In **Kazakhstan**, spring wheat harvest is wrapping up under generally favourable conditions, with little to no impact from frosts in the northern regions. In **China**, winter wheat is under favourable conditions with above-average rainfall benefiting crop emergence and early-stage development. In the **US**, winter wheat is under favourable conditions for sowing and emergence, except for some dry conditions in Texas. In **Canada**, spring wheat is under mixed conditions as harvest is behind due to excessive moisture and delayed crop maturity. Winter wheat is sowing under generally favourable conditions albeit later than normal harvest of spring crops. In **Australia**, conditions are poor across much of New South Wales and Queensland due to severe dry and hot conditions throughout the season. Yields across the remaining states are expected to be about average. In **Argentina**, conditions are mixed with dryness in the west during the key development period reducing expected yields. By contrast, good soil moisture conditions in the east of the country have raised expected yields above average.

* Assessment based on information as of October 28th
Maize Conditions for AMIS Countries

Maize: In the US, conditions are generally favourable except for in the eastern Corn Belt. The harvest is underway but well behind normal pace for this time of year due to the delayed start of the season. Concern is rising for fields that have yet to be harvested as winter sets in. In Canada, harvest continues under watch conditions across the country caused by adverse weather throughout the season. In Mexico, harvest of the spring-summer crop is ongoing under favourable conditions, albeit slightly delayed, due to pockets of adverse weather across the country. In China, conditions are favourable as harvest is wrapping up for the summer-planted crop. In India, harvest is ongoing for Kharif maize under favourable conditions. There has been an increase in total sown area this year compared to the average. In the EU, conditions are mixed with below-average yields, particularly in France and Poland due to the summer heatwaves. In Ukraine, harvest is ongoing under favourable conditions with yields slightly above last year’s. In the Russian Federation, harvest is continuing under favourable conditions. In Brazil, sowing of the spring-planted crop (smaller season) is continuing in the south under favourable conditions with a slight increase in total sown areas expected. Sowing in the southeast is delayed in expectation of additional rainfall. In Argentina, sowing of the spring-planted crop is ongoing under generally favourable conditions where soil moisture allows.

* Assessment based on information as of October 28th
Rice Conditions for AMIS Countries

**Rice:** In China, conditions are favourable as late-season rice harvest begins. In India, conditions are favourable as harvest begins in the northern states for Kharif rice, which benefited from a higher than average monsoon rainfall. In Indonesia, conditions are generally favourable for the fourth month of the dry-season harvest with yields slightly lower than last year because of drought. Wet-season rice sowing is beginning albeit delayed due to water shortages at the end of the dry season. In Viet Nam, harvest of summer-autumn rice (wet-season rice) has begun in the north under mixed conditions due to less precipitation that reduced total sown area and is forecast to reduce final yields. In the south, harvest is progressing under generally favourable conditions with only minor reduction in yields compared to last year. In Thailand, wet-season rice conditions are mixed due to dry conditions during early development, followed by damage from heavy rainfall and flooding of fields in August and September. In the Philippines, conditions are mixed due to strong winds and flash floods brought by the southwest monsoon “Habagat” and the passage of five tropical depressions in northern Luzon. In Japan, harvest is ongoing under generally favourable conditions with higher yields in the north compared to the south. In the US, conditions are favourable as the season wraps up.

* Assessment based on information as of October 28th
Soybean Conditions for AMIS Countries

Soybeans: In the US, harvest is about to end slightly behind schedule across much of the country. Conditions are generally favourable with the exception of areas in Ohio, due to wet conditions earlier in the season. In Canada, conditions are mixed due to harvest delays and wet conditions. Recent frosts have had little to no impact on the crop, as all fields were able to reach maturity in advance. In China, harvest is wrapping up under favourable conditions. In India, harvest is ongoing under favourable conditions. In Ukraine, harvest is almost complete under favourable conditions with yields slightly below last year’s. In Argentina, sowing is beginning under generally favourable conditions where soil moisture allows. In Brazil, sowing is ongoing in the main producing regions with a slight increase in total sown area expected. In some regions sowing is delayed due to a lack of soil moisture, however still within the normal sowing period.

Pie chart description: Each slice represents a country’s share of total AMIS production (5-year average). Main producing countries (representing 95 percent of production) are shown individually, with the remaining 5 percent grouped into the “Other AMIS Countries” category. The proportion within each national slice is coloured according to the crop conditions within a specific growing area; grey indicates that the respective area is out of season. Sections within each slide are weighted by the sub-national production statistics (5-year average) of the respective country. The section within each national slice also accounts for multiple cropping seasons (i.e. spring and winter wheat). When conditions are other than ‘favourable’, icons are added that provide information on the key climatic drivers affecting conditions.

* Assessment based on information as of October 28th

Information on crop conditions in non-AMIS countries can be found in the GEOGLAM Crop Monitor for Early Warning, published November 7th.
Appendix 1: Terminology & Definitions

Crop Conditions:

**Exceptional**: Conditions are much better than average* at time of reporting. This label is only used during the grain-filling through harvest stages.

**Favourable**: Conditions range from slightly lower to slightly better than average* at reporting time.

**Watch**: Conditions are not far from average* but there is a potential risk to final production. The crop can still recover to average or near average conditions if the ground situation improves. This label is only used during the planting-early vegetative and the vegetative-reproductive stages.

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

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

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

* “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

Crop Season Nomenclature:

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

<table>
<thead>
<tr>
<th>Country</th>
<th>Crop</th>
<th>Season 1 Name</th>
<th>Season 2 Name</th>
<th>Season 3 Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Soybean</td>
<td>Spring-planted</td>
<td>Spring-planted</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>Maize</td>
<td>Summer-planted (larger producing season)</td>
<td>Spring-planted (smaller producing season)</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Wheat</td>
<td>Winter-planted</td>
<td>Spring-planted</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Maize</td>
<td>Spring-planted</td>
<td>Summer-planted</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Rice</td>
<td>Single-season</td>
<td>Late-season</td>
<td>Early-season</td>
</tr>
<tr>
<td>China</td>
<td>Wheat</td>
<td>Winter-planted</td>
<td>Spring-planted</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>Rice</td>
<td>Summer-planted</td>
<td>Nili season (Nile Flood)</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Maize</td>
<td>Kharif</td>
<td>Rabi</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Rice</td>
<td>Kharif</td>
<td>Rabi</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>Rice</td>
<td>Wet-season</td>
<td>Dry-season</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>Maize</td>
<td>Spring-planted</td>
<td>Autumn-planted</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>Maize</td>
<td>Main-season</td>
<td>Short-season</td>
<td></td>
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<tr>
<td>Nigeria</td>
<td>Rice</td>
<td>Main-season</td>
<td>Off-season</td>
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<td>Philippines</td>
<td>Rice</td>
<td>Wet-season</td>
<td>Dry-season</td>
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<td>Russian Federation</td>
<td>Wheat</td>
<td>Winter-planted</td>
<td>Spring-planted</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>Rice</td>
<td>Wet-season</td>
<td>Dry-season</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Wheat</td>
<td>Winter-planted</td>
<td>Spring-planted</td>
<td></td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Rice</td>
<td>Wet-season</td>
<td>Dry-season</td>
<td></td>
</tr>
</tbody>
</table>

* Assessment based on information as of October 28th
Appendix 2: Crop Season Specific Maps

**Winter Planted Wheat Conditions for AMIS Countries**

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

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

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

*Photo courtesy of: Bolsa de Cereales*

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**Sources & Disclaimer**

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