Overview:
As of the end of July, conditions are mixed for maize and soybeans. **Winter wheat** is under generally favourable conditions as harvest progresses in the Northern Hemisphere. **Spring wheat** is mixed with dryness in Canada and wet-cool conditions in the Russian Federation. **Maize** harvest is all but complete in the Southern Hemisphere. In the Northern Hemisphere, the US is suffering from wet conditions while Europe and China are experiencing hot-dry conditions. **Rice** in Asia is under generally favourable conditions with the exception of dry conditions in Thailand and wet conditions in southern China. **Soybean** conditions are mixed as the US and Canada are suffering from a slow start.
Conditions at a glance for AMIS countries (as of July 28th)

Crop condition map synthesizing information for all four AMIS crops as of July 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 is under generally favourable conditions with the exception of parts of Europe due to hot and dry conditions. Spring wheat in Canada has improved while cool conditions have slowed development in the Russia Federation. In the southern hemisphere, rainfall deficits continue to persist across eastern Australia.

**Maize** - In the southern hemisphere, harvest is continuing in Argentina and Brazil with a bumper production forecast. In the northern hemisphere, the US is suffering from wet conditions and delayed development, while hot and dry conditions are affecting areas in Europe and China.

**Rice** - In China, conditions are generally favourable for all three seasons with the exception of the south. In India, sowing of Kharif rice is ongoing albeit delayed. In southern Southeast Asia, dry conditions are affecting wet-season rice Thailand, while dry-season rice harvest begins in Indonesia.

**Soybeans** - In the northern hemisphere, conditions remain under watch in the US and Canada due to the wet spring and delayed development. Conditions are generally favourable across China, India, and Ukraine.

**Transition to ENSO-neutral**

El Niño-Southern Oscillation (ENSO) conditions have transitioned from a weak El Niño to ENSO-neutral, which is forecast to continue through early 2020 (50-55% chance). The chances for the return of El Niño (30% chance) are double that of La Niña starting in November.

The Indian Ocean Dipole is forecast to be in a positive state during August and through most of the remainder 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 July 28th
Wheat Conditions for AMIS Countries

Wheat: In the EU, winter wheat conditions are generally favourable with the recent heatwaves having only a limited impact, only worsening pre-existing unfavourable areas in Spain, Austria, and Lithuania. In Ukraine, harvest is ongoing under favourable conditions, with yields reported to be above last season. In the Russian Federation, harvesting of winter wheat is ongoing under favourable conditions as recent heatwaves facilitated ripening. Spring wheat is under mixed conditions with recent fluctuating weather across the country. In Kazakhstan, conditions are favourable for spring wheat with only spot areas of dryness. In China, spring wheat is under favourable conditions. In the US, harvest is wrapping up for winter wheat under favourable conditions. Spring wheat is also under favourable conditions. In Canada, dry conditions continue to hamper spring and winter wheat in parts of the prairies, however recent rainfall is improving conditions. In the East, winter wheat is under favourable conditions. In Australia, severe rainfall deficiencies persist across much of New South Wales and Queensland. In Argentina, sowing of wheat is nearly complete under favourable conditions.

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

Maize: In Brazil, harvest is ongoing for the summer-planted crop (higher producing season) under exceptional conditions. A bumper crop is forecast owing to an increase in total sown area and a large increase in yields compared to last season due to favourable weather across the season. In Argentina, conditions are exceptional to favourable as harvest is wrapping up for the spring-planted crop and continuing for summer-planted crops. In the US, conditions remain under watch in the northern Corn Belt due to continuing wet conditions. The crop is progressing, albeit behind schedule. In Canada, conditions are favourable in the main producing provinces of Ontario and Quebec, while dry conditions continue in Manitoba. In Mexico, harvest of the autumn-winter cycle crop is wrapping up under favourable conditions while sowing of the spring-summer crop is progressing under favourable conditions. In China, conditions are mixed as both spring-planted and summer planted crops are experiencing dry conditions in central China. In India, conditions are favourable with sowing ongoing and expected to reach average total sown area. In the EU, conditions are mixed with favourable conditions in southeast Europe and hot-dry conditions in central and western Europe. In Ukraine, conditions are favourable despite a lack in recent rainfall owing to adequate soil moisture. In the Russian Federation, conditions are favourable in the south and mixed in the north due to recent heatwaves.

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

Rice: In China, conditions are generally favourable as early-rice is being harvested, single-season rice is in vegetative stage, and late-rice is being sown. However, continuous rainfall and cloudy weather in the south is affecting rice conditions. In India, transplanting of Kharif rice is ongoing in many states under generally favourable conditions despite being delayed by late onset of the Monsson. Sowing speed is picking up and total sown area is still expected to be reached by the end of the sowing period. In Indonesia, conditions are favourable as sowing of dry-season rice continues for the fourth month and the harvesting of earlier sown dry-season rice begins. In Viet Nam, conditions are generally favourable for summer-autumn rice (wet-season rice) as sowing is now complete in the south. In Thailand, wet-season rice is now in the tillering stage under watch conditions due to several months of less than average rainfall. In the Philippines, wet-season rice is in the maturing stage under favourable conditions, owing to enough rainfall at the start of the season. In Japan, conditions are generally favourable with some southwestern prefectures experiencing a lack of sunshine. In the US, conditions are favourable.

* Assessment based on information as of July 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 July 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, conditions remain under watch due to the late sowing and excessive moisture throughout the main growing areas. Crops remain considerably behind schedule but progressing. In Canada, conditions are under watch across the country due to excess moisture in the East and dry conditions in the West, delaying crop development. In China, conditions are mixed due to dry conditions in the central provinces. In India, conditions are favourable and total sown area is close to average. In Ukraine, conditions are generally favourable with ripening beginning. Despite the lack of rainfall in June and July, adequate soil moisture is sustaining the crops.

*Assessment based on information as of July 28th*
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>Summer-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>Intermediate Crop</td>
<td>Early Crop</td>
<td>Late Crop</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>India</td>
<td>Soybean</td>
<td>Kharif</td>
<td>Rabi</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Wheat</td>
<td>Rabi</td>
<td>Kharif</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>Rice</td>
<td>Main-season</td>
<td>Second-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>
</tr>
<tr>
<td>Nigeria</td>
<td>Rice</td>
<td>Main-season</td>
<td>Off-season</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>Rice</td>
<td>Wet season</td>
<td>Dry season</td>
<td></td>
</tr>
<tr>
<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 July 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 July 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 July 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 July 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 July 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 July 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 July 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 July 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 July 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 July 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 July 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 July 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 July 28th
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 July 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

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Photo courtesy of: Brian Barker

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