



### **Overview:**

As of the end of May, conditions of the maize and rice crops are generally favourable while wheat and soybean conditions are mixed. **Winter wheat** and **spring wheat** in the northern hemisphere are under mixed conditions due to areas of primarily dry conditions. For **maize** in the southern hemisphere, harvest conditions are poor in Argentina while south Brazil is experiencing hot and dry conditions. Sowing continues in the northern hemisphere. **Rice** conditions are generally favourable with a two month delay in dry-season rice sowing in Indonesia. **Soybean** harvest conditions in Argentina are poor due to continuous rainfall. Sowing in the US is proceeding under favourable conditions.







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Assessment based on information as of May 28 <sup>th</sup>	



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





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

Crop condition map synthesizing information for all four AMIS crops as of May 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, conditions are mixed for both winter and spring wheat. The US, Canada, EU, Ukraine, and the Russian Federation are all experiencing adverse climatic conditions in some areas. In the southern hemisphere, sowing of winter wheat has begun under generally favourable conditions with the exception of dryness in Australia.

**Maize** - In the southern hemisphere, conditions remain poor in Argentina, were harvest is being hampered by continuous rainfall. Conditions are mixed in Brazil for the summer-planted crop. In the northern hemisphere, sowing is continuing in the US, Canada, EU, Ukraine, Russian Federation, China and Mexico under mostly favourable conditions. **Rice** - In China, early-rice and intermediate-rice is under generally favourable conditions. In India, Rabi rice harvest is wrapping up under favourable conditions. In Southeast Asia, crop conditions remain favourable as dry-season rice harvesting is ongoing in the northern countries. In Indonesia, sowing of dryseason rice has been delayed several months due to insufficient rainfall.

**Soybeans** - In the southern hemisphere, harvest of the crop in Argentina is being impacted by continuous rainfall. In the northern hemisphere, sowing is underway under favourable conditions with the only areas of concern in Canada.



## 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 May 28<sup>th</sup>. 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 remain mostly favourable with parts of central and eastern Europe affected by a lack of precipitation. In Ukraine, winter wheat conditions are generally favourable though recent hot and dry conditions in the south are causing premature ripening in some areas, creating a potential risk to final yields. In the Russian Federation, winter wheat is entering the critical development stages under mixed conditions due to recent hot and dry conditions in the south. Spring wheat sowing is ongoing under generally favourable conditions with some delays in the east due to wet weather. In Kazakhstan, spring wheat planting has completed under favourable conditions. In China, conditions are favourable for both winter and spring wheat. In the US, drought conditions still remain in the southern Great

Share of total AMIS Production



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

Plains (major production region), however the recent rainfall has potentially improved conditions for the winter wheat crop. In **Canada**, low soil moisture conditions in the prairies are affecting both spring and winter wheat. Precipitation in the next few weeks will be critical in this region for uniform germination and crop development, to avoid a significant decline in crop area. Winter wheat conditions in the main producing province of Ontario are favourable. In **Australia**, conditions are favourable in the west while low soil moisture across much of the eastern and southern areas is affecting winter wheat.



# **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 May 28<sup>th</sup>. 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 (larger) are mixed as hot and dry conditions have begun affecting the crop, most notably in the southern region. In addition, there is a reduction in total sown area this season. In Argentina, conditions remain poor across the country as harvest progresses. Prolonged drought throughout the season has taken its toll on the crops, while continuous rains over the past month hampered harvest and affected grain quality in the Pampa Plain. Yields and total production are expected to be significantly reduced compared to the previous year. In the **US**, sowing is continuing under favourable conditions with only minor delays in the Midwest due to a late spring. Crop emergence has begun in many areas. In Canada, sowing is nearing completion, but additional rainfall is needed to support crop development. In Mexico, harvest of the autumn-

Share of total AMIS Production



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

winter planted crop has begun under favourable conditions. Sowing of the spring-summer crop continues under favourable conditions with a slight increase in sown area expected. In **China**, the spring-planted crop is in the early vegetation stage under favourable conditions. In the **EU**, favourable weather is aiding sowing especially in the southern countries.

### GEDGLAM **Rice Conditions** Conditions: Exceptional Favourable Watch Poor Countries: Drivers: AMIS Countries Out-of-Season Non-AMIS Countries No Data Extreme Event Delayed-Onset Wet Dr Hot Cool

**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 May 28<sup>th</sup>. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed.* 

**Rice:** In **China**, early-rice and intermediate rice is under favourable conditions with exceptional conditions in the southern and southeastern provinces, but below average conditions in Guizhou and Hunan provinces. In India, Rabi rice harvest is wrapping up with production estimated to be above last year's crop. In Indonesia, harvest of wet-season rice continues with favourable yields that are in line with last year's crop. Sowing of dry-season rice in the main paddy producing provinces continues to be delayed by several months due to moderate to low precipitation. In Viet Nam, winter-spring rice (dry season rice) is under favourable conditions. Harvest is ongoing in the south with early yields estimated to be slightly above last year's. Sowing of summer-autumn rice (wet season rice) is beginning in the south under favourable conditions. In **Thailand**, harvest is approaching completion for dry-season rice

#### Share of total AMIS Production



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

with an increase in production forecast owing to the increase in sown area and favourable yields. Wet-season rice sowing is just beginning under favourable conditions with an increase in total sown area expected. In the **Philippines**, dry-season rice conditions are favourable with harvest nearly complete. An increase in production is observed compared to last year. In the **US**, sowing is wrapping up under favourable conditions.



# **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 May 28<sup>th</sup>. 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 Argentina, conditions remain poor as harvest continues for both the springplanted crop (larger) and the summer-planted crops. The prolonged drought throughout the season caused widespread damage and significantly reduced production. Further damage has occurred due to the recent continuous rainfall across the Pampa Plain region, causing fungal disease and bean sprouting on the plant. In the US, sowing has begun across the country under favourable conditions. In Canada, sowing is proceeding, but additional rainfall is needed to support crop growth and development. In China, conditions are favourable as sowing and crop emergence is underway in the northern provinces. In Ukraine, sowing is ongoing under favourable conditions.

Share of total AMIS Production



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

Information on crop conditions in non-AMIS countries can be found in the <u>GEOGLAM Crop Monitor for Early</u> <u>Warning</u>, published June 7<sup>th</sup> 2018

**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.

#### \* Assessment based on information as of May 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.	<b>…</b>	Wet
		Dry
Wet: Higher than average wetness.	а	
Dry: Drier than average.	8	Hot
Hot: Hotter than average.	****	
Cool: Cooler than average or risk of frost damage.	<i>8</i> 29%	Cool
<b>Extreme Events:</b> This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)	豢	Extreme Event
Delayed-Onset: Late start of the season	$\bigcirc$	Delayed-Onset

#### **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.

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

\* Assessment based on information as of May 28th



# Appendix 2: Crop Season Specific Maps



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 May 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 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 May 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.

# Winter Planted Wheat 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 May 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 May 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 May 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 May 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 May 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 May 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 May 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 Conditions for AMIS Countries



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

Photo by: Brian Barker

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#### **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, Agroindustry ministry), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), India(NCFC), Indonesia (LAPAN & MOA), International (CIMMYT, FAO GIEWS, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & CSIR & 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.

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