

Climate Impact Company Early AG Wire

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Tuesday May 15, 2018

Short & Medium-range Highlights – All Crop Areas

United States: Warm and thundery Great Plains.

This week: More thundershowers likely today across the southern Plains. Storms regenerate in the western Plains tomorrow and by Thursday severe storms return affecting mainly Kansas and Nebraska. Kansas to South Dakota is thundery on Friday. Storms reach Iowa by Saturday although severe weather is not expected. Turning cooler with a steady rain later this week northwest/north Great Plains. Otherwise a warm and humid week. The latest rainfall requirements to neutralize Palmer Drought Index show greatest deficits (6-9 in.) across central Kansas and parts of North Dakota and Minnesota (*Fig. 1*).

Days 6-10: Dry high pressure across the Great Plains early in the period shifts east. Moist southerly flow promoting showers and thundershowers return late in the period. Warm-to-hot high pressure ridge Texas/Oklahoma by day 10 to the north of a possible tropical system across the Yucatan Peninsula.

Days 11-15: The GFS is super warm while the ECM is warm just in the Great Plains. Generally, the models agree that a thundery regime accompanies the warmth in the Great Plains while only Texas is dry. So...a warm and humid pattern for the Central U.S. but not dry as thundershowers dominate. This pattern likely carries into early June.

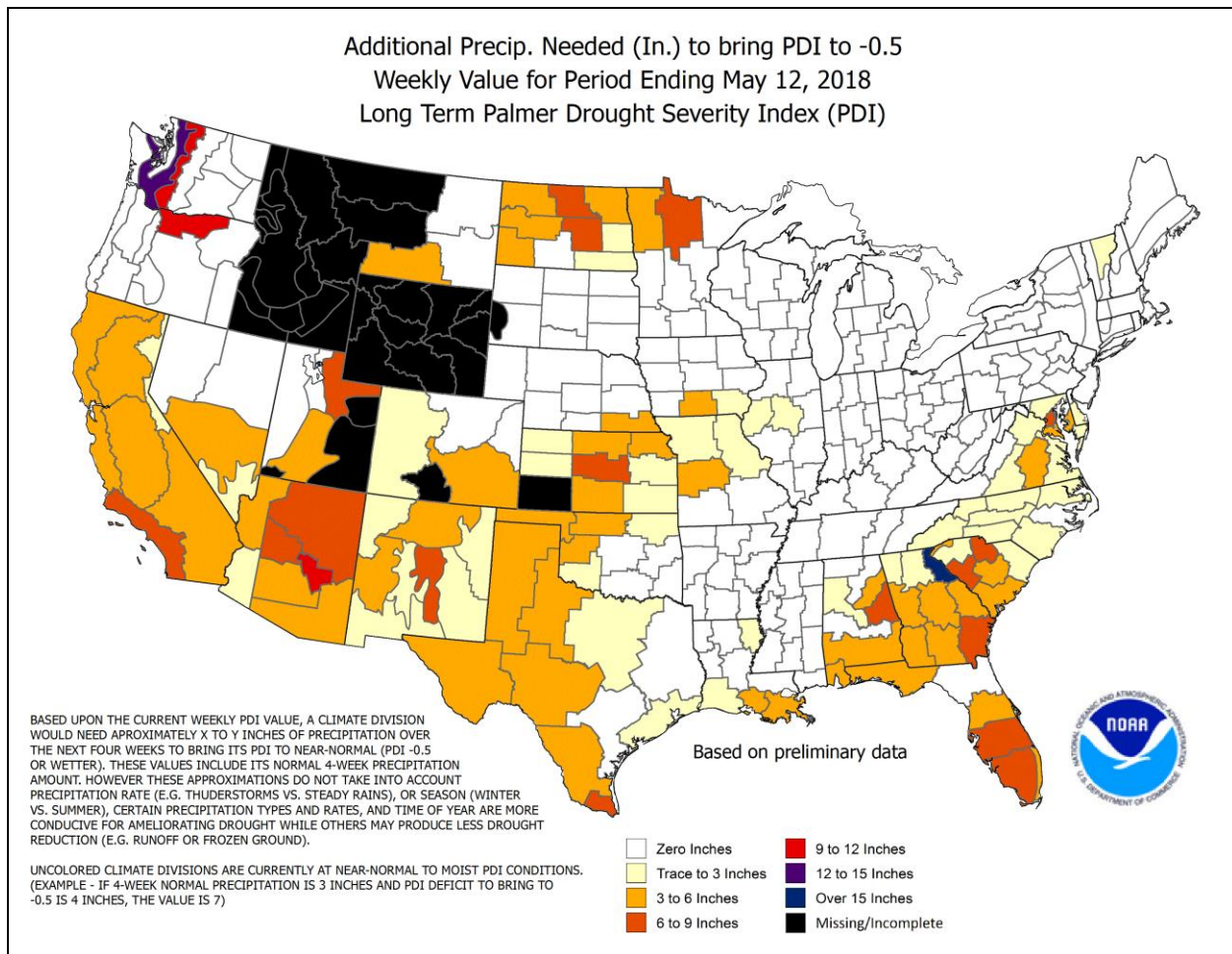


Fig. 1: Latest U.S. analysis of rainfall required to neutralize negative Palmer Drought Severity Index.

Europe: Southeast Europe is wet. Wheat zones avoid dryness.

This week: Energy ejected from the primary upper trough south of Greenland (associated with the North Atlantic cool SSTA pool) keeps finding a home over South-central Europe. A wet upper trough continues to release heavy rains over South-central and Southeast Europe. A low pressure area spinning out of the upper trough brings heavy rain to western Ukraine to Poland TUE/WED. That low pressure area stalls in eastern Poland FRI igniting more Eastern Europe/Western Russia rains while showers persist in Central Europe and also ignite across Spain. Most wheat areas are affected by a showery week. 1 to 1.5 in. is expected except near 3 in. parts of Poland to Romania.

Days 6-10: Southeast Europe stays wet. Most wheat areas observe near normal rainfall. North of the wheat belt no rain occurs. Therefore much of the wheat belt lay in a transition zone from wet (south) to dry (north). Models vary widely on temperature. Prefer the ECM ensemble which is warmer-than-normal Central and North Europe and temperate elsewhere.

Days 11-15: Not much change in the pattern as an upper trough sustains the showery pattern in Southeast Europe and areas to the north are generally dry and warm. The dry zone is mostly north of the wheat belt.

Western Russia/Ukraine/Black Sea region: Showers are around.

This week: A wet regime western Ukraine and Western Russia. However, just-the-opposite in far Southwest Russia and the eastern Black Sea region where dryness prevails. A warm and humid pattern although well to the east of the Black Sea region unseasonably chilly air resides.

Days 6-10: Marginal warmth and a wetter pattern. An upper trough in Central Russia elongates southwestward toward the wet zone in Southeast Europe bringing a showery regime to the Black Sea region to Southwest Russia.

Days 11-15: Showery pattern lingers Turkey and east of the Black Sea while Southwest Russia to Ukraine turns drier. Prefer the marginally warm ECM ensemble; the GFS is very warm.

China: Changeable pattern.

This week: A mean upper ridge pattern dominates guaranteeing much warmer than normal climate. However, a short wave trough moves into the mean ridge likely producing needed rainfall over north/northeast wheat sections of China. To the south a drier/hotter regime.

Days 6-10: The GFS and ECM indicate a mean trough position just west of Japan. On the back side of the upper trough the north/northeast China wheat areas flip drier than normal. Far south and west China are thundery. The upper trough brings cooler temperatures to northern China.

Days 11-15: ECM ensemble is dry and temperate while the GFS is much warmer. The warmer GFS is preferred.

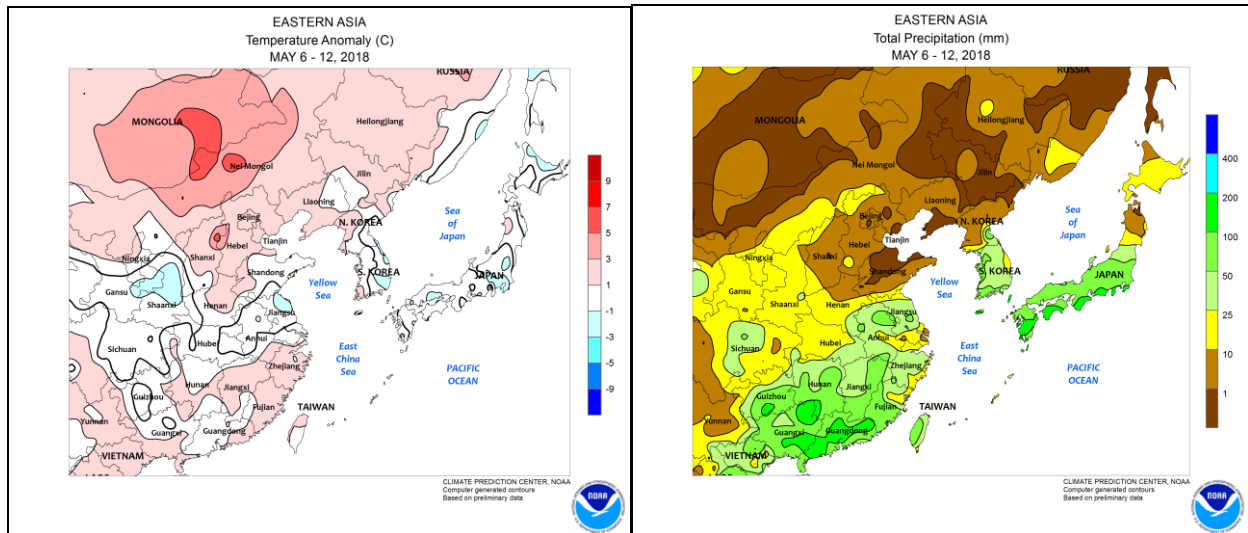


Fig. 2-3: Last week across China anomalous warmth and dryness dominated northern areas.

India: Dryness dominates.

This week: The eastern reach of the MJO is into the western Indian Ocean. Wet weather extends into southwest India from this regime this week. Otherwise most of India is dry. Only Western India is hotter than normal.

Days 6-10: There are no mechanisms to push a wet pattern. MJO has a tendency to retreat to tropical Africa. Therefore widespread dryness is expected. Only southwest India observes any significant rainfall. Prefer the anomalous warmth generated over Central India by the GFS. The ECM is not as hot as likely observed.

Days 11-15: Southern India may turn wet as MJO tries to shift east farther into the Indian Ocean. Areas to the north stay dry and are hotter than normal.

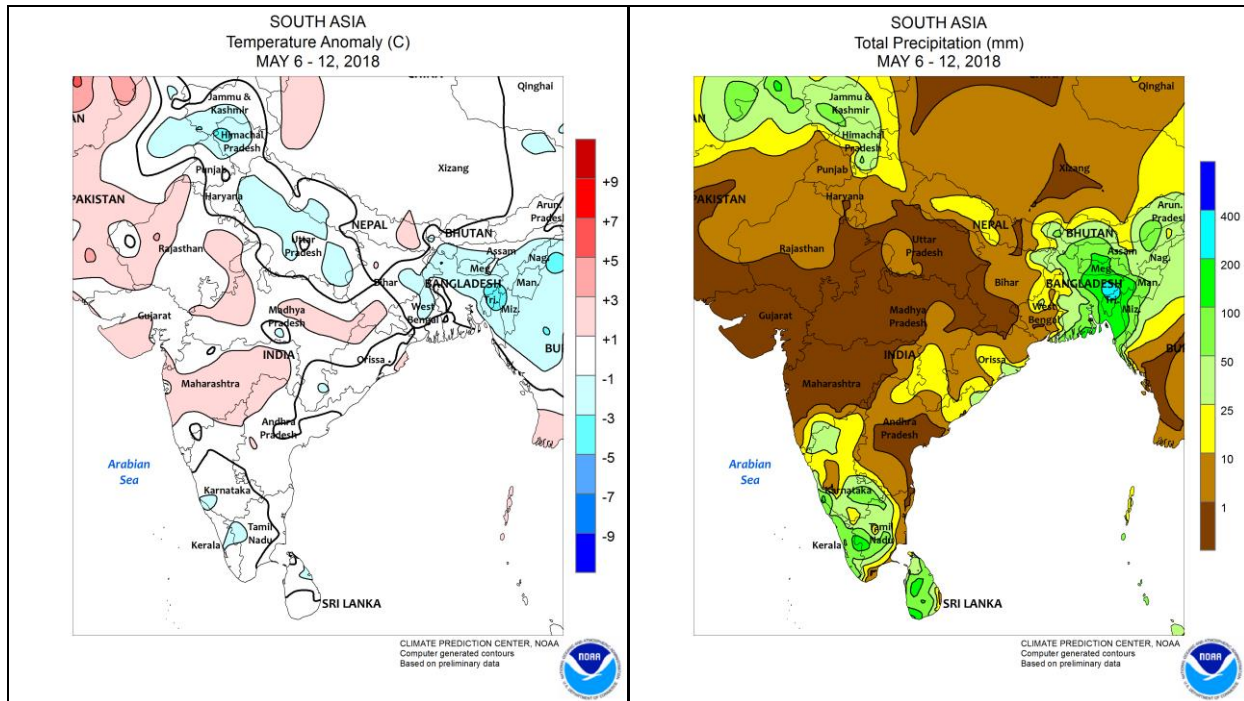


Fig. 4-5: Last week across India the thermal regime was near normal while northern India was dry and far southern section wetter than normal.

Australia: Dryness dominates.

This week: Dryness dominates the entire continent as Australia lay in the subsidence phase of the Madden Julian oscillation. Models agree on a cooler than normal regime, coolest central continent.

Days 6-10: Not much change as widespread dryness and cool temperatures persist.

Days 11-15: A warmer but still dry pattern is offered by the ECM ensemble. Given strong persistence prefer the ECM forecast over patchy wet weather offered by the GFS.

Needed is an eastward shift of the MJO from equatorial Atlantic/Africa eastward across the Indian Ocean to inspire wetter climate. Most models do not offer that requirement through the next 15 days.

South America: Wet this week, drier change next week.

This week: Heavy rains are likely in Brazil's second corn crop region south to northern Argentina and east to southeast Brazil this week. Eastern Brazil is dry and warm.

Days 6-10: A cold front brings a sweeping drier and cooler change to Argentina into Brazil.

Days 11-15: A wet regime separates Argentina and Brazil dryness from Paraguay to Uruguay.