Cotton Comments

OSU Southwest Oklahoma Research and Extension Center Altus, OK

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Oklahoma Cotton Planting Conditions Report

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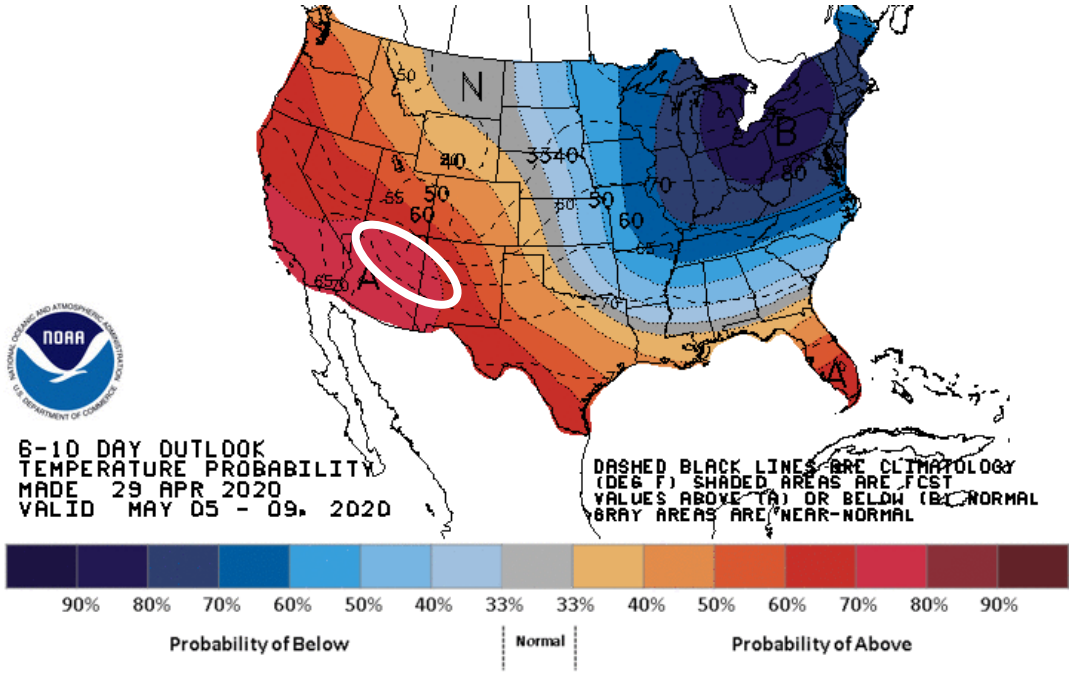
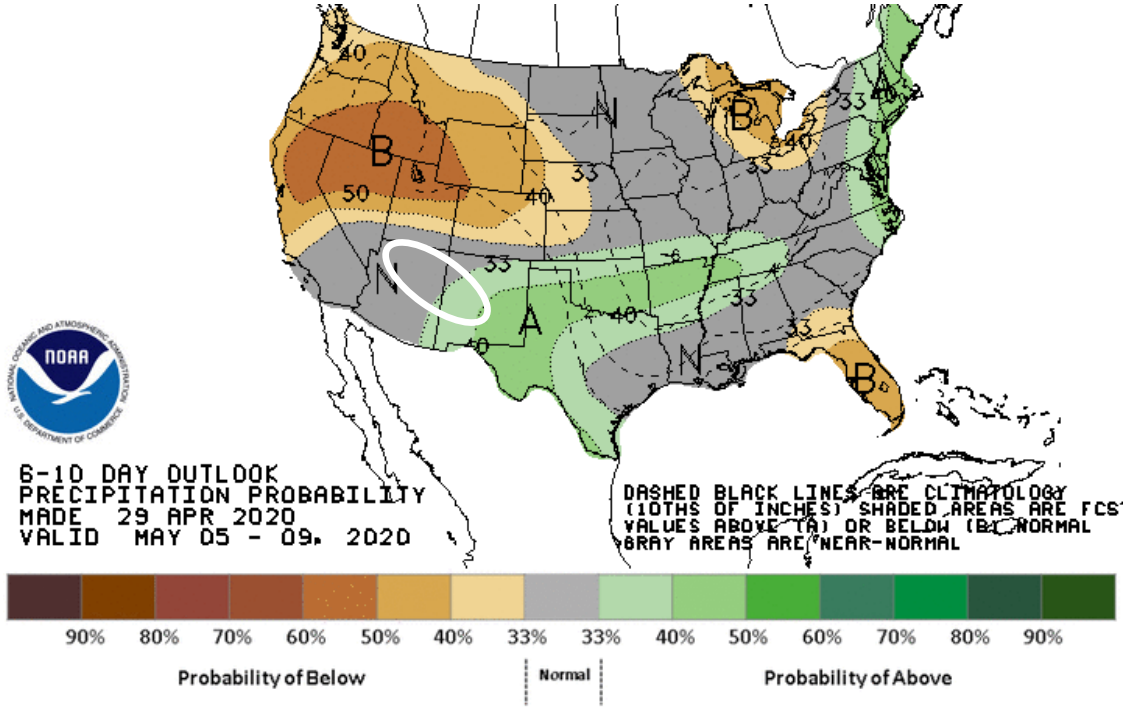
The southwestern and panhandle portions of Oklahoma began planting cotton in some capacity during late April. Temperatures forecasted across our state's cotton producing areas are above average for at least the next week, although there is a lot of day-to-day variability in forecasted high temperatures. For southwestern OK, there is unlikely to be a threat of overnight temperatures limiting or delaying emergence and stand establishment. However, the threat of rapidly diminishing moisture to germinated seedlings is high, particularly when considering the high winds forecasted in some areas over the next week which will quickly dry out the shallow soil depths where cotton seeds are typically placed. Even once emergence occurs, growth rates will likely remain slow due to high temperature stress and, in some areas, cotyledon injury to blowing sands.

In the panhandle, having these temperatures in late April will allow for much better planting conditions than were present in 2019. In this part of the state, getting an early start is key as the season length is incredibly short and windows with optimum planting temperatures are rare, particularly this early. However, moisture conditions in this region are similar to the southwest, although some areas did receive significant rainfall in late April. However, due to the temperatures and wind forecast the threat of diminishing moisture is still present. In areas where some pre-plant irrigation was applied, be diligent in checking moisture status in the seed bed in the days following planting. Although daytime highs look promising for early season growth, nighttime lows are still forecasted to drop below 60°F or even 50°F for the duration of the short-term forecast. This will slow growth and development, so alleviating any other stresses (water, thrips, etc.) will be critical. Any early season progress we may gain due to these favorable temperatures can be negated if the crop is stressed prior to, and after, emergence.





Due to a freeze that has proved disastrous for a once promising wheat crop, acres in many areas that were likely going to see wheat taken to harvest may now be planted to cotton. For acres in this scenario, soil moisture both in the seed bed and below needs to be evaluated and monitored. The water profile will be impacted by the stage of growth the wheat was at the time of the freeze and how much damage the crop sustained. Since the freeze event on April 15th, there has been no substantial rain received in the southwestern portion of the state.

There are likely some decisions that need to be made regarding crop insurance, but if intentions are to plant cotton then producers need to consider the value in chemically terminating what is left of the wheat crop. While the grain is injured and no longer requires the resources a healthy crop would, the vegetative portions of the plants are still green and thus still utilizing water to some extent. Crop selection and management decisions will need to be made in a timely manner to optimize planting and early season conditions for a summer crop, cotton or otherwise, following a failed wheat crop.

Regardless of your location in the state, producers may find themselves having to “dry plant” a portion of their acres, or place seed in the absence of moisture in the seed bed. In these situations, it is key to consider the depth to marginal moisture. While cotton seed can sit in dry soil and still germinate and emerge once moisture is present, planting depth needs to be carefully considered. If moisture is marginal at a shallow depth, seed will need to be placed above this depth. Otherwise, seed may imbibe enough water to initiate germination, but not enough to fuel emergence. This will lead to a germinated seedling failing to emerge and cause large skips or complete stand loss, a common occurrence in some parts of the state in 2018. Even when placed shallow, substantial rain will be needed to result in seedling emergence, as small or inadequate rainfall may result in germination, but the shallow soil profile will rapidly dry out, leaving the seed without enough moisture to emerge. Depth to soil moisture, precipitation forecast, planting depth, and the seedling vigor characteristics of the variety being planted all need to be considered when dry planting.

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