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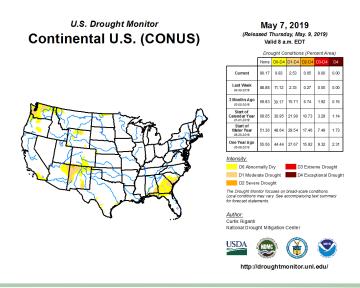
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General Status

Cloudy, cool, and raining for the whole area. Hale, Swisher, & Floyd have not been as wet as the majority of ag producing regions in the US have been this spring. In fact, several spots had only seen less than 1" moisture since last November until this round. For most soil situations there were residual deep soil moisture, but many producers were frightfully looking at the seed zone as a dry issue coming into planting season. This last week or more has changed that. Now there are new concerns over fields too wet to plant and/or soil temperatures being well below cotton's minimum requirements for a quick and healthy start.



The scattering of corn and sorghum that has been planted seems to be doing very well about the area, soaking up the recent moisture. I note no pests in those crops yet and so far, I do not think the soil temperature has gotten low enough to be of concern here. In fact, some fields should still be awaiting planting as soon as they are dry enough.



Cotton Planting and Soil Temperatures

Cotton gets off to its best start when planted in a recommended 69°F consistent temperature soil (roughly 64°F bare minimum with a warming trend). This winter and spring the soil temperature has followed the trends of the air temperature trends fairly closely as the seed zone has been drier for most fields. Higher moisture content in the soil usually slows the soil's response to air temperatures. This does not bode well for a rapid change or improvement in our cotton planting conditions with recent night temperatures slipping into the 30's and low 40's with more rain and less than optimal highs and lows in the upcoming forecast.

Kerry Siders, EA-IPM Hockley, Cochran, & Lamb, reminded us yesterday through his West Plains IPM Update out of Levelland about the dangers of chilling injury and he provided us agents a link an issue of Cotton Physiology Today from 2007 that went over all of these factors in great detail, https://www.cotton.org/tech/physiology/cpt/variety/upload/Planting-and-Replanting-Decisions-2007.pdf.





Cotton seedlings subjected to chilling temperatures (A) compared to seedlings not chilled (B) during imbibition from a study conducted by Hopper and Burke. Note the absence of normal taproot growth of the seedlings in A. Seedlings in A and B were exposed to the same temperature (86°F) with the exception of the first six hours of imbibition in which seedlings in A were exposed to chilling temperatures of 40°F.

Photos: N. Hopper and J. Burke

Bill Robertson, National Cotton Council, Memphis, TN; Sandy Stewart, LSU AgCenter, Alexandria, LA; Randy Boman, Texas A&M University, Lubbock, TX; Norman Hopper, Texas Tech University, Lubbock, TX; John Burke, USDA-ARS Plant Stress Laboratory, Lubbock, TX

The biggest question is how do we avoid chilling injury and the season long shortfalls and under performance that will bring (if fields establish), and still get our cotton planted in time? We know we have a deadline. June planted cotton in the High Plains of West Texas never equates to optimal cotton yields. Everyone should be reminded that calendar approved planted cotton placed into poor and cool conditions is just as bad if not worse than early June planted cotton. So, we should not get into the field as soon as the fields dry because we are only watching the calendar date. We can never widen a growing season by planting into poor conditions on the front end. Loosing profitability is lost profitability whether it is from planting late or into poor conditions. We must plant into good conditions.

Dr. Murilo Maeda, Cotton Agronomist Lubbock, shared with AgriLife agents today a few tools that can help with determining planting conditions in various areas. Most of us are familiar with the West Texas Mesonet and its offering of 8" soil temperatures. While very helpful, remember these are not placed in production fields and could be some distance from your local field location. Dr. Maeda also shared this one, http://climate.ncsu.edu/cotton_planting, from North Carolina that generates planting forecasts based upon forecasts and some DD60 modeling for your selected area. There are others as well. Several company resources have similar planting forecast aids, and I suggest reviewing them all.

Most of all, I not only suggest, but heavily recommend that you check for yourself in your field before actually planting.

Other tools can help guide your planning and planting a week away, but there is no substitute for knowing what conditions you are actually about to plant in. Taking a soil temperature reading is not rocket science. I have a 6" soil thermometer. I just stick it into the ground until the gage settles, which is usually less than 30 seconds. I have 3 to check for inaccuracies and to use as backups. Similar models sell for less than \$15, but nicer once could run into several \$100 as portions of a hand-held larger weather station. Honestly, my soil thermometer is little more than a glorified food thermometer that can be purchased at any grocery store for about \$1-\$3. These might be shorter, only 2-4" or so, and 6-8" is ideal for reading longer trends into soil temperatures, but 2-4" puts your right into the seed zone. That information could just save an unprofitable situation from hitting you this year. The best time to take your soil temperature is between 7 AM and 10 AM. That early morning period is when the soil temperature should be at its lowest, guaranteeing that the soil will remain consistently at that minimum temperature.



Waiting on field conditions to plant is tough. Waiting on cotton planting is testing.

If the weather situation does not improve soon, we could be looking at bumping the back end of our cotton calendar planting window. If the situation prolongs, potential planting could very well slide out-side that window with late plantings. Today, planting late and the loss of profitability from that lateness is a maybe, but the loss of profitability from planting into poor conditions is assured. At least it is ensured until we reach that minimum of 69°F or 65°F with a sharp warming trend afterward.



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For rapid pest alerts and updates-

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Pest Patrol Hotline, registration at:

www.syngentapestpatrol.

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Wheat

Wheat, at least the small portion of wheat that will be utilized for grain or silage, is progressing well. I note stages ranging from nearing flag



leaf to bloom for these known 'keeper' fields. Market forces have sent the vast majority of wheat to be used for some other purpose than grain. Very little looks to make it to harvest. For these few fields, I note very few pests in wheat this month thankfully. We have been bracing for disease issues to turn up in wheat for several weeks. While my recent time in wheat has been limited, I have noted some of these symptoms becoming more expressed. I have noted mostly rusts' in early stages, but other disorders could blow in from the south soon, especially under cooler and wetter conditions. If you feel a fungicide treatment might be needed to save your grain wheat for harvest, please note that the 'threshold' is generally to protect the flag leaf only, but to protect it at all costs. Some recent research suggests that a few more productive leaves would be helpful, particularly for hay or silage production, but for grain development, the flag leaf is critical.



Please avoid this view. Germinated and established pigweed too small to note from afar.

Blayne Reed