

GOP OF TEXAS GLA

ADOBE WALLS — GIN—



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Cotton Insights Newsletter

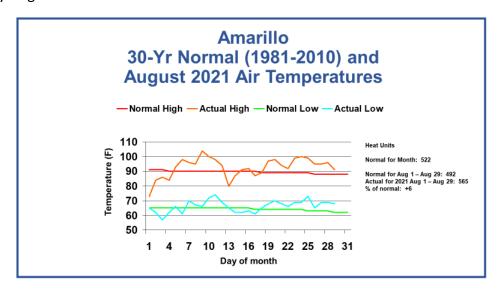
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Crop Update

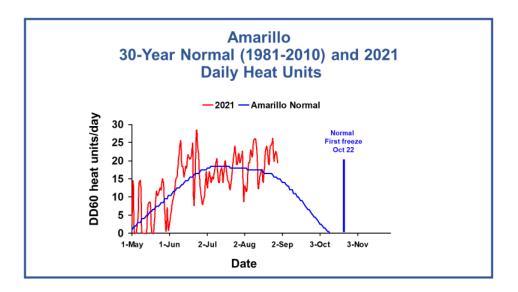
In the past week or so since our last newsletter, at Amarillo we had above normal temperatures, and pretty much no rainfall across the region. Cotton growth is progressing, but with the lack of rainfall in many areas, we are seeing stress in many dryland and marginally irrigated fields.



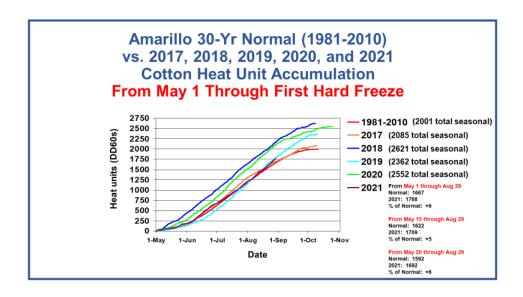
10-day to 2-week weather.com forecasts for much of the region indicate above normal temperatures for most of the period. Low chances of precipitation are currently forecasted for most of the next two weeks. The good news in this is that assuming water is available to the crop, the warm temperatures should help a lot with boll maturity, but the bad news is that without rainfall, the currently stressed fields will struggle.

Heat Unit Update

Daily cotton heat units have generally been above normal since our last newsletter, which has been good news, especially since long-term normal temperatures and daily heat units peaked in late July. Anything above the "normal" line is a plus from this point forward. This is presented in the graphic below.

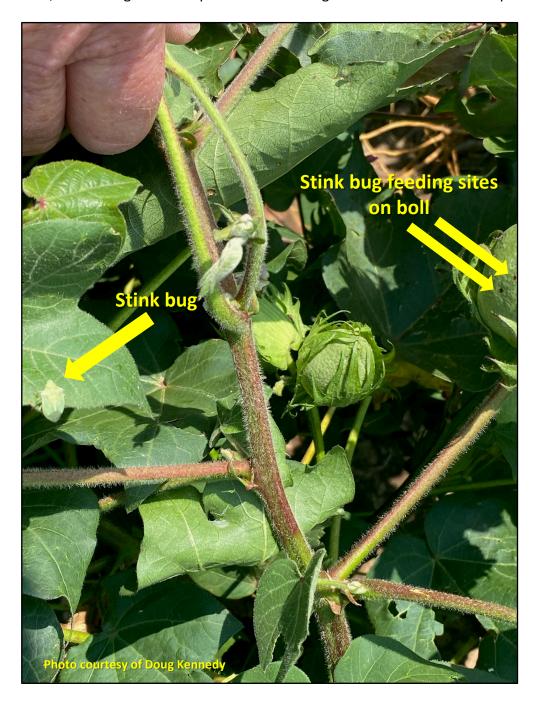


Amarillo has climbed slightly above the normal or 30-year average heat unit accumulation. The seasonal total from May 1 through August 29 is now about 6% above normal. Planting dates of May 15 and May 20 have similar increases thanks to higher temperatures during the month of August. Based on the current forecasts, it appears that the trend above normal will continue. The updated graphic is presented below.

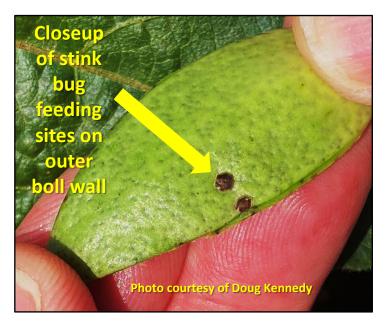


Identifying Stink Bug Damage

• While inspecting fields near Spearman a couple of weeks ago, Doug Kennedy and I found some level of stink bug damage. I am not an entomologist, but the damage was noticeable, and I thought I would provide some background information on this pest.



- Producers should be aware that lygus can generate similar damage, so it is important to know which pest species is present.
- Excellent information concerning this pest has been provided by Texas A&M AgriLife
 Extension's Dr. Suhas Vyavhare (Lubbock) and Dr. David Kerns (College Station). For
 more information on this insect, click on the following link and proceed to page 16 of
 the PDF. Managing Cotton Insects in Texas:
 https://lubbock.tamu.edu/files/2019/04/ENTO-075-2019.pdf
- Discussion of stink bugs was copied from this publication and is provided below.
- Stink bugs have piercing-sucking mouthparts and damage cotton by piercing the bolls and feeding on the developing seeds. Stink bug infestations can cause substantial economic losses through reduced yield, loss of fiber quality, and increased control costs.
- Although stink bugs favor medium-sized bolls, they can feed on any size boll. Although stink bugs may feed on bolls 25 or more days old, bolls of this maturity are relatively safe from yield loss.
- Their feeding on young bolls (less than 10 days old) usually causes the bolls to shed. In larger bolls, stink bug feeding often results in dark spots about 1/16 inch in diameter on the outside of bolls.
- These dark spots do not always correlate well with the internal damage—callus growths
 or warts and stained lint. There may be several spots on the outside of a boll without
 internal feeding damage being present. Damage to the internal boll wall is a good
 indication that lint and seed are affected.
- Excessive stink bug feeding causes reduced yield, stained lint, poor color grades, and reduced fiber quality. In addition to direct damage, stink bug feeding can transmit plant pathogens that cause boll rot.



Stink Bug Damage Inside Boll

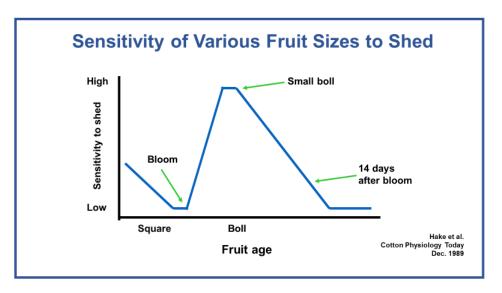




Irrigation Termination Considerations

Irrigation termination is not always an easy decision, especially under extremely dry conditions in some fields. Reflecting a bit on the crop's physiological needs can be of value.

• If the last bloom date to be able to obtain a fluffy, quality boll is assumed, the graph below indicates that excessive moisture stress should be avoided for about 14 days to reduce the probability of abscission (shed).



- As the crop progresses from maximum bloom to first open boll, the irrigation crop coefficients drop from 0.92 to 0.55 based on the TexasET Network's High Plains data from Halfway.
- Under recent environmental conditions, that transition indicates the crop evapotranspiration (ET) rate will drop from about 2 inches per week down to about 1.25 inches per week. For a calculator, click on the following link: https://texaset.tamu.edu/DataSummary/Daily/120?daysInSummary=7
- Due to the dry conditions in many areas and if temperatures remain above normal, fields which have depleted profiles will likely wilt fairly quickly once irrigation is interrupted.
- If the amount of wilting is unsuitable for the boll load and maturity, then the pivot can be passed over the field to apply an additional increment of water.
- With center pivots, low amounts of irrigation (0.75-1 inch) can be applied if the cotton is severely stressed after initial termination.
- The value of continued center pivot irrigation after bolls begin to open is probably questionable, unless record high temperatures and high ET rates are encountered and the field has a depleted moisture profile and a late boll load.
- Under warm to hot September and October temperatures, we generally observe about 2-5 percent boll opening per day <u>once bolls begin to open</u>. This implies that if the last irrigation is made at a few percent open bolls, then it should take about 10 days to reach 30-60 percent open bolls.