WINDSTAR GINS

Edcot Gin – Edmonson, TX
Phillip Kidd, Manager
Landon Kidd, Assistant Manager
(806) 864-3335

Top of Texas Gin – Hereford, TX
Billy Sam Borchardt, Co-Manager
Steven Birkenfeld, Co-Manager
(806) 258-7466

Adobe Walls Gin – Spearman, TX
Jerrell Key, Manager
Doug Kennedy, Assistant Manager
(806) 659-2574

Lonestar Gin – Pampa, TX
Carey McKinney, Manager
(806) 665-0677

Tule Creek Gin – Tulia, TX
Jaime Subealdea, Manager
(806) 627-4287

Lakeview Gin – Tulia, TX
Joe Borchardt, Manager
(806) 627-4227

Johnson Gin – Silverton, TX
Daniel Jenkins, Manager
(806) 823-2224

Cotton Insights Newsletter

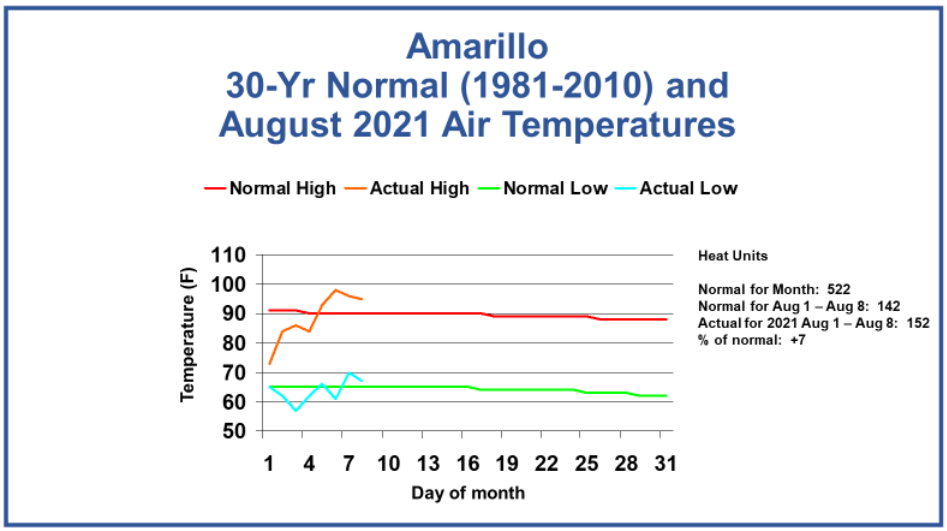
A service provided by Windstar, Inc. affiliated gins.

August 9, 2021

Randy Boman, Ph.D.
Windstar Cotton Agronomics Manager
(580) 481-4050
rboman@windstarinc.com
www.windstarinc.com

Crop Update

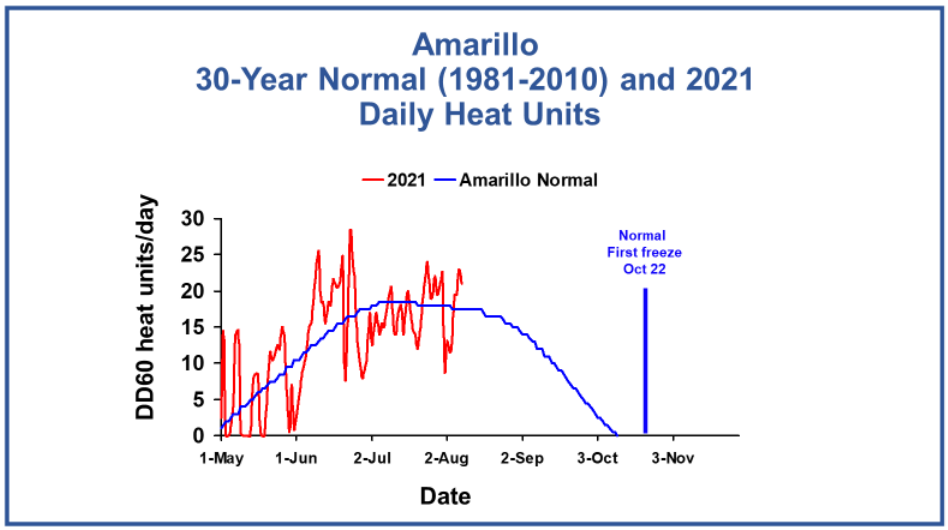
In the past week or so since our last newsletter, at Amarillo we had above normal temperatures, and pretty much no rainfall across the region. Cotton growth is progressing, but obviously we are still playing catchup, due to the lateness of first bloom across much of the area.



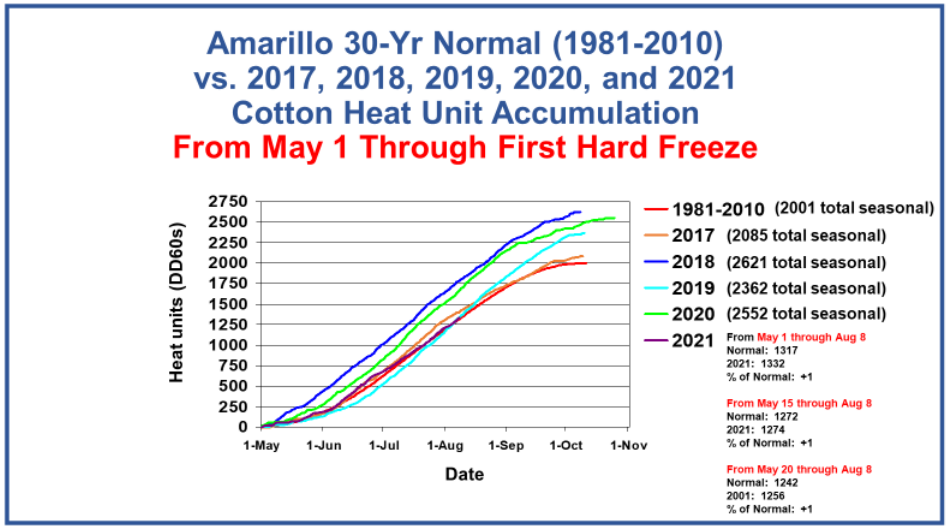
10-day weather forecasts for much of the region indicate above normal temperatures for most of this week, then trending toward slightly below normal to normal temperatures later. Increased chances of precipitation are currently forecasted for the upcoming weekend for Amarillo and surrounding locales. It would be outstanding if we receive this projected rainfall!

Heat Unit Update

Daily cotton heat units gained back a bit of ground in the past week, but Amarillo was below normal for several days. We are "over the hump" based on long-term normal temperatures and daily heat units, which have peaked. Anything above the "normal" line is a plus from this point forward. This can be readily seen in the graphic below.



We are still in a situation that looks similar to 2017 with respect to heat unit accumulation. I updated the graphic below with recent data. Last week I made a mistake in the text box for the different planting dates for the 2021 year. The copy/paste "monster" allowed me to say 2001 instead of 2021. I apologize for any confusion this may have caused. The graphic below is corrected to reflect we are indeed in 2021!



Cotton Bollworm Discussion (with Phillip Kidd)

- For many years now, we have become dependent upon Bt technology to reduce or eliminate the need for insecticidal sprays to control cotton bollworms. This is the same insect as the corn earworm, sorghum headworm, as it feeds on multiple crops.
- In 2021, many growers planted XtendFlex technology varieties that do not carry the Bollgard 2 or Bollgard 3 traits in order to shave expenses, especially in dryland fields.
- The same thing can be said for numerous FiberMax varieties that do not contain the TwinLink or TwinLink Plus traits.
- Currently, many bollworm populations carry some percentage of individuals that are resistant to the Bt trait components in Bollgard 2 (Cry1Ac + Cry2Ab), Widestrike (Cry1Ac + Cry1F) and TwinLink (Cry1Ab + Cry2Ae). The Vip 3Aa trait has been added as a third component to the Bollgard 2, Widestrike, and TwinLink traits and are known as Bollgard 3, Widestrike 3, and TwinLink Plus. Therefore, the Vip 3Aa trait is "pulling the wagon" with respect to controlling the bollworm larvae that are resistant to the earlier released Bt traits in cotton.
- This results in the need for both timely scouting and treatment of cotton bollworm larvae in both the Bollgard 2, Widestrike, and TwinLink varieties as well as non-Bt types.
- A list of non-Bt XtendFlex varieties planted in our region would include varieties such as DP 1822XF, DP 1909XF, NG 3500XF, NG 4050XF, and NG 4792XF. Non-Bt FiberMax varieties would include FM 1320GL, FM 1621GL, FM 1888GL, FM 2202GL, and FM 2322GL.

- Current economic threshold (ET) guidelines are somewhat confusing. When reading a publication, be careful to understand the specific situation to which the ET refers.
- Resistance to Bt is found in bollworm populations and some published information refers to thresholds where this resistance is occurring, while other information refers to Vip 3Aa containing cotton varieties or even non-Bt types.
- So basically, we just need to do the math and determine the value of the fruit being damaged or lost. A pound of lint is a pound of lint… whether it's Bt or not. A common Texas A&M AgriLife Extension Service ET number is 6% fruit damage. This level was developed, we believe, using somewhat lower lint price (perhaps 70 cents/lb and about $23/acre control cost).
- The control cost of Prevathon (Rynaxypyr active ingredient) at 14 oz/acre is about the same, but the current December futures price is close to 91 cents and a producer can contract for 84+ cents. So it's our opinion that a treatment can be economically justified below the 6% fruit damage level.
- The good news is that the lower labeled rates of rynaxypyr provide about 14 days of residual control, and the higher labeled rate provides about 20 days.
- It is likely that a 5% damaged fruit threshold and presence of worms is appropriate for cotton based on our current market situation.
- For more excellent information on this pest and its control from Texas A&M AgriLife Extension's Dr. Suhas Vyavhare (Lubbock) and Dr. David Kerns (College Station), click on the following links.

Managing Cotton Insects in Texas: https://lubbock.tamu.edu/files/2019/04/ENTO-075-2019.pdf

2019 Insect and Mite Pests Control Suggestions for Cotton: https://lubbock.tamu.edu/files/2019/08/2019-Cotton-Insect-Control-Suggestions_ENTO090.pdf

- Blayne Reed, Hale/Swisher Counties Extension IPM agent provides an excellent weekly update on insect and crop issues, the August 7 issue can be found here: https://hale.agrilife.org/files/2021/08/August-7-2021.pdf

Cotton Bollworm Control Strategies

- Rynaxypyr (chlorantraniliprole) active ingredient is sold under various trade names and formulations.
- These include Prevathon and Vantacor.
- Substantial residual control is provided by this insecticide, and it is rate dependent. Higher rates can provide longer residual control. Pests controlled can include cotton bollworm, tobacco budworm and armyworms of various species — while having minimal impact on beneficial arthropods when used as directed. Grasshopper control is also listed on the label. For more information on this, see the links provided below.

- For general Prevathon information from the FMC website, click on the link below:

https://ag.fmc.com/us/en/insecticides-miticides/prevathon-insect-control

- For a direct link to the Prevathon label, click on the link below:

https://www.cdms.net/ldat/ldFRR017.pdf

Pyrethroid Considerations

- Pyrethroids are typically much less expensive up front, but carry a lot of caveats. There are numerous products being sold hat are based on pyrethroid chemistries.
- Cotton bollworms have considerable resistance to the pyrethroid class insecticides. Resistance was detected by Texas A&M entomologists throughout much of the state in 2018.
- Once a field is "nuked" with pyrethroid class insecticides, the beneficial arthropod population is typically devastated.
- Ramifications of flaring aphids and/or mites are well worth consideration. Destruction of the beneficial arthropod population may lead to subsequent and potentially expensive follow-up insecticide applications for aphid and/or mite control.