Pest Cast

The Row Crops IPM Newsletter for the LRGV, a cooperative project of Texas AgriLife Extension Service, the Texas Pest Management Association, and the Cotton & Grain Producers of the lower Rio Grande Valley

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General Situation

Very hot and humid again this week as we had another thunderstorm storm roll in yesterday, Thursday morning bringing limited rains and strong winds. Heat units are certainly increasing, with temperatures forecasted to reach the 100s today and stay in the 100s all next week. This is good as sorghum harvest is underway and we need crop to dry up and have low moisture readings to get in and harvest fields. Cotton is looking beautiful across the Valley as heat units accumulate and there has been some great boll set established.

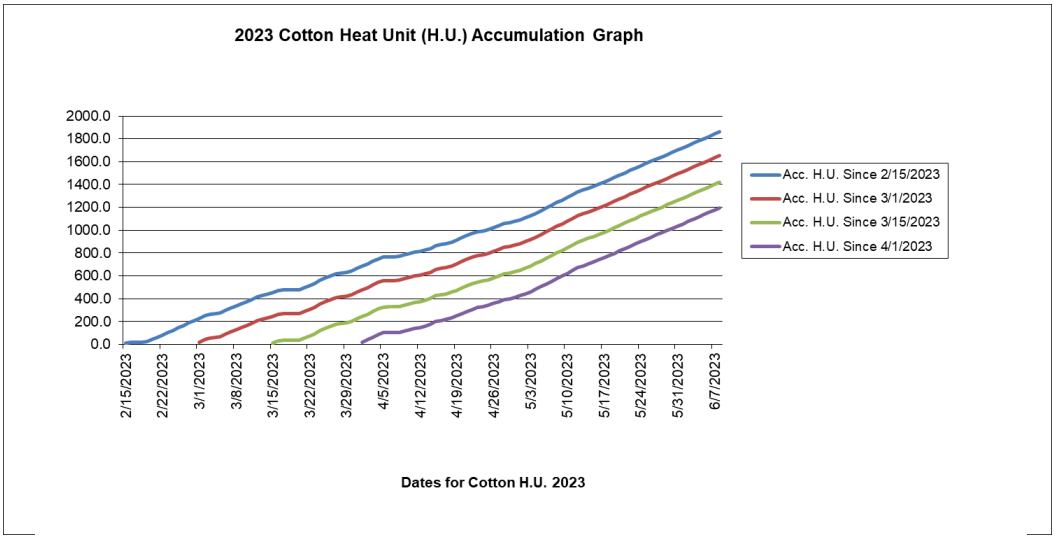


Figure 1: Heat Units accumulated in Cotton thus far for 2023 growing season.

Accumulated Heat Units for Cotton 2023				
	Acc. H.U. Since 2/15	Acc. H.U. Since 3/1	Acc. H.U. Since 3/15	Acc. H.U. Since 4/1
2023	1862	1654	1422	1197

Cotton

We have had a significant increase in fleahopper populations as well as Verdes & tarnished plantbugs in cotton this first week of June across the Valley. We have noticed an infestation level in cotton fields of 20-40% fleahoppers present in most fields. We are also finding tarnished & Verde plantbugs in low to moderate populations mixed in with the fleahoppers present. Please note that the Verde and tarnished plantbugs are not just being found along the river (La Feria, Progresso, Bluetown) and along the coast (Rio hondo, Los Fresnos, San Benito,Brownsville) but in the mid Valley in areas such as Lyford, Santa Rosa, La Sara, Donna, Hargill, so pretty much across the Valley. Please scout cotton fields and note the stage your cotton is in. If you have dime sized bolls and large squares those are penetrable to plantbugs (Verdes & tarnished). Remember each field is different and it is best to inspect

Figure 2: Cotton in the Weslaco area

Figure 3: Fleahopper adult (top) nymph (below)

fields and decide if treatment is necessary based on what is present. Also be mindful of mature sorghum fields being harvested or drying down next to cotton as there have been reports of high populations of tarnished plantbugs in mature sorghum and they will migrate to nearby cotton fields to feed once crop is dried up.

Fleahoppers:

If you notice anywhere from 15 to 25 fleahoppers per 100 terminals (2 to 3 per 10 plants) with squares being lost (rule of thumb: 10% the first week of squaring, 15%the second week of squaring, and 25% the third week of squaring, with treatment rarely needed after first bloom) treatment is justified.

Verde Plantbugs:

- Piercing-sucking mouthparts used to feed on large squares and bolls up to 1 inch in diameter.
- Causes dropped mature squares and young bolls and boll rot

Figure 5: Adult Verde & Tarnished plantbugs in sweepnet

Figure 4: Adult Verde bugs

Tarnished Plantbugs:

- Feed on cotton terminals, squares, flowers, and small bolls
- Feeding may cause:
  - Deformed bolls
  - Dirty bloom (damaged anthers) and puckered petals
  - Shedding of squares and small bolls
  - Stunted growth
  - Sunken lesions on outer surface of bolls
  - Damaged developing seeds or lint
  - are known for aborting pin head squares when feeding but also feed
  - on large squares and tender bolls.
  - will inject a toxin to help dissolve plant tissue so that it can be ingested.
  - Tarnished plant bugs prefer soft immature bolls and damage will appear as small dark sunken spots on the bolls.

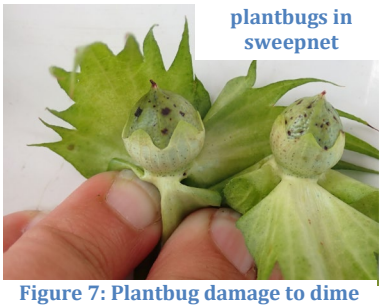


Figure 7: Plantbug damage to dime size bolls

Figure 6: Adult tarnished plantbug adult (top) & Nymph on bottom

- **Treat both Verde & Tarnished plantbugs when 20-25 bugs/100 plants, or**
- **(1-2 bugs per 10 sweeps) (4-5 per 20 sweeps)**
- **Beat bucket is 1 per cotton plant**
- Access your cotton field to see if you have more immature bolls than mature as once bolls are larger than 1 inch diameter and cannot be squeezed open they are generally safe from plant bug damage.

For insecticides labeled for use on fleahoppers & tarnished & verdes) click on link to cotton insect mgmt. guide:

https://southtexas.tamu.edu/files/2023/05/Managing-Cotton-Insects-in-Texas-ENTO-075_2019.pdf

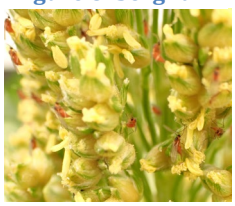
For all other helpful resources or pictures of these pests and others go to South Texas IPM website

and scroll down to find what you need:
https://southtexas.tamu.edu/programs-and-services/ipm/

Grain Sorghum

Lots of mature sorghum ready for harvest as several fields were sprayed to dry down the leaves. In flowering sorghum, we are still seeing heavy midge populations so do stay actively monitoring the stages of your later planted sorghum fields. Also picking up on low to moderate headworm and rice stinkbug populations in soft dough sorghum. Sugarcane aphid infestations were little to none this week as most fields have been treated.


Figure 8: Sorghum



Do realize that when treating your sorghum, you will probably be spraying for a multitude of pests so choose an insecticide that will control midge, headworms, and possible rice stinkbug infestations. See insecticide charts in the Sorghum insect mgmt. guide at the link below for controlling different pests in sorghum.


Figure 9: Headworms in sorghum

https://southtexas.tamu.edu/files/2023/05/managing-insect-and-mite-pests-of-texas-sorghum.pdf

We are seeing sorghum ergot (see Figure 10) in some sorghum fields across the valley. Ergot is a pathogen fungal disease that we see when there is an increase in rain events (especially during the flowering stage) pair that with our high relative humidity and moderate night temperatures and this favors the growth of the pathogen. Most fields I've inspected seeing the honeydew on the soft dough stage of the sorghum where the seed is developing; the damage has been done. However, if you have neighboring fields of sorghum down wind that have not been affected and you want to protect them from ergot forming into damaging conditions then you might want to treat with a herbicide to protect them since ergot can be dispersed easily to other fields by winds. To learn more about Ergot in sorghum please click on the links below:


Figure 10: Sorghum Ergot top & bottom

sorghum-ergot-new-disease-threat-to-the-sorghum-industry

SorghumErgot_field_identification

Fike Farms Field day June 6 2023, Edinburg Texas

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