



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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Volume XLV

Issue 10, June 16, 2023

General Situation

Very hot and windy this week as temperatures reached the 100s and portions of the Valley were under heat advisory warnings. Some cotton and grain are starting to be irrigated this week as plants were stressed from the heat. Heat units are accumulating, and cotton is really growing now that some PGR treatments were applied this week. Sorghum and corn harvest has also kicked off this week as well.

Cotton

This week in cotton we have noticed a decrease in **flea hopper** populations in most areas but still had some fields with younger squaring cotton that was above threshold that was treated this week for fleahoppers. **Tarnished and Verde plantbugs** are still very present and treatments applied have been offering good control thus far. Remember each field is different and it is best to inspect fields and decide if treatment is necessary based on what is present and what stage your cotton is in (dime sized bolls & squares are most susceptible to plantbug damage). Also be mindful of mature sorghum fields being



Figure 1: Verde plantbug on cotton square



Figure 2: tarnished plantbug

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. Also this week in cotton along the river I was picking up on moderate to high **whitefly** populations. Whiteflies can populate very quickly, especially after an irrigation under humid muggy conditions. I noticed several whitefly adults and nymphs present in most cotton fields along the river and treatment will be necessary to control their feeding so that way the sugars they excrete will not cause black sooty mold to grow and inhibit plant growth as well as run the risk of staining the lint once bolls start to open in the coming weeks. The other pest I was picking up on in low to moderate populations was **chilli thrips** in the new leaf growth on the tops of the cotton plants. The leaves were not exhibiting any bronzing just yet and I noticed more adults than larva but if populations of chilli thrips are left unmanaged we will start to see bronzing of the leaves late



Figure 3: Whitefly adults on cotton leaf

next week. If there are numerous immature bolls present, treatment may be justified to prevent yield loss and/or reduction in lint quality. Other than leaf desiccation due to feeding, they do not produce honeydew or create any threat to open bolls so at least that. Below is an insecticide efficacy trial done on chilli thrips last year in July 2022 and here is a link for more information on chilli thrips.

https://southtexas.tamu.edu/files/2022/05/chilli-thrips-in-cotton_2022.pdf



Figure 2. Chilli thrips on the underside of a cotton leaf where they remain near the leaf veins. Photo by Holly Davis.

Mean No. Chilli Thrips in Cotton Efficacy Spray Trial July 2022												
Insecticide Treatments	Mean # of chilli thrips larvae/ 10 leaves				Mean # of chilli thrips adults/ 10 leaves				Mean # of total chilli thrips / 10 leaves			
	21-Jul	28-Jul	4-Aug	11-Aug	21-Jul	28-Jul	4-Aug	11-Aug	21-Jul	28-Jul	4-Aug	11-Aug
untreated control	315.25 b	145.75 a	213.50 a	154.50 a	55.75 a	47.75 a	30.00 a	51.25 ab	371.00 b	193.50 a	243.50 a	205.75 a
Agrimek @ 3 oz/A (abemectin)	292.5 b	89.50 abc	64.50 b	112.50 ab	53.25 a	37.50 ab	18.00 ab	64.75 ab	345.75 b	127.00 ab	82.50 b	177.25 a
Acephate @ 1 lb/A	357.25 ab	52.75 bc	71.50 b	94.00 ab	70.00 a	24.50 ab	26.00 ab	77.75 a	427.25 ab	77.25 bc	97.50 b	171.75 a
Excirel @ 16 oz/A (Cyantraniliprole)	421.00 ab	58.00 bc	61.50 b	91.00 b	49.25 a	26.25 ab	17.00 ab	48.00 ab	470.25 ab	84.25 bc	78.50 b	139.00 ab
Leverage @ 3oz/A (Imidacloprid and β -cyfluthrin)	454.25 ab	106.75 ab	168.25 a	153.50 ab	53.25 a	38.00 ab	26.75 ab	44.00 b	507.50 ab	144.75 ab	195.00 a	197.50 a
Radiant @ 6oz/A (spinetoram)	345.25 b	25.75 c	51.25 b	27.00 c	46.00 a	17.25 b	11.75 b	36.50 b	391.25 ab	43.00 c	63.00 b	63.50 b
PQZ @ 3.2 oz/A (Pyrifluquinazon)	576.25 a	104.00 ab	204.75 a	153.00 ab	58.00 a	37.25 ab	31.00 a	60.00 ab	634.25 a	141.25 ab	235.75 a	213.00 a

*All insecticide treatments included 0.25 % v/v Dyne-amic. Controls were Not sprayed. Means within a column followed by the same letter are not significantly different (P>0.05; PROC ANOVA; Mean comparison by LSD [SAS 9.4]). Reference to specific products is provided for informational purposes. Experiments with pesticides on non-labeled crops or pests is part of the insecticide registration process, it does not imply endorsement or recommendation of non-labeled uses of pesticides by Texas A&M University. All pesticide use must be consistent with current labels

Figure 4: Chilli thrips efficacy trial 2022

**Thresholds for :
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

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.
- **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

Harvesting of grain sorghum has officially begun this week with many fields being harvested across the Valley. In flowering sorghum, we are picking up anywhere from 2-6 midge per head. In soft dough sorghum we are still seeing low to moderate populations of headworms and rice stinkbugs. Check fields and treat accordingly.

Sorghum fields in the early vegetative stages prior to boot are looking stressed with leaves twisting and those with irrigation started watering this week.

All insecticides to use for pests in sorghum can be found at this link below:



Figure 5: Sorghum being harvested in Cameron County 2023

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

Other Important Resources in IPM: please click on blue links below:

Cotton:

[Cotton & Grain Scouting School Part 1-2023](#)

[Cotton & Grain Scouting School Part 2-2023](#)

[Managing Cotton Insects in Texas ENTO-075 2019](#)-Cotton insect management guide

[Controlling Volunteer Cotton in Grain Sorghum using Herbicides 2022](#)

[Cotton Stalk Herbicide trial 2022](#)-Stalk destruction using herbicides

[Cotton Fleahopper Insecticide Efficacy trial 2020](#)-Danielle Sekula & Dr. Holly Davis

[Controlling Chilli thrips in Cotton Efficacy trial 2022](#)-Danielle Sekula (IPM agent)

[chilli-thrips-in-cotton 2022](#). ENTO- PU- 216

[Diagnosis-Management-Foliar-Diseases in Cotton](#)

[Herbicide use stalk destruction Report](#) – Dr. Josh Mcginty (agronomist) & Danielle Sekula (IPM agent)

[Chilli thrips 28 July](#) – Dr. Holly Davis

Sorghum:

[New Sorghum Insect Guide: managing-insect-and-mite-pests-of-texas-sorghum-2023](#)

[sorghum-ergot-new-disease-threat-to-the-sorghum-industry](#)

[SorghumErgot field identification](#)

Sesame:

[2020 Sesame Leafroller Report Efficacy report](#)

**Thank You
2023 IPM
Pest Cast
Sponsors!**

Diamond 

- *Americot-NexGen
- *Capital Farm Credit
- *BASF
- *Farmers Crop Insurance
- *Bayer
- *RegalAG

Platinum 

- *La Feria Co-op Gin
- *Simplot

Gold 

- *Cameron County Farm Bureau
- *Texas Sorghum Producers
- *Nichino
- *Valley Co-op Oil Mill
- *Sesaco
- *Vital Fertilizers
- *Texas Farm Credit

Silver 

- *Adams Farms
- *Rob See Co.
- *Frisby-Bell Gin Co.
- *Ross Gin Company ltd
- *Hargill Growers' Gin
- *Valley Ag Insurance Services Inc
- *RGV Gin Company, LLC
- *Willamar Operating, L.P.