



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



Figure 1: Beautiful cotton along the river in La Feria, TX

Very hot this week with temperatures in the mid 90s during the day with nights in the low 70s. Monday we had an isolated rainstorm that went through the Santa Rosa, Lyford areas and there were reports of some golf ball size hail and damage. For the most part the Valley's cotton is looking good this week with minimal pest activity.

Cotton

This week in squaring cotton we are seeing low to moderate fleahopper populations, it just depends on your field. Lots of fields were



Figure 2: Fleahopper adult
(top) Fleahopper nymph
(below)

clean of fleahopper activity that were treated last week and this week we had a few fields with reported fleahopper populations at threshold that were turned in for treatment in the mid- Valley. Fleahopper adults are 3mm in length, oval shaped light green in color and nymphs are quite smaller, are light neon green in color with purple antennae (Figure 2). It is during the first 3 weeks of squaring that finding 15-25 cotton fleahoppers (nymphs and adults) per 100 terminals may cause



Figure 3: Adult Verde Plantbugs

economic damage. Then we have many cotton fields already producing dime size bolls and they have mature bolls towards bottom of the plant so those are safe from fleahopper damage. However, this week along the river and along the coastal areas we were picking up on couple a of Verde plantbugs (Figure 3) and tarnished plantbugs (Figure 4) in cotton with large squares and dime size bolls. In these areas we have mature sorghum that will be harvested within the next two weeks and we found plantbugs (Verdes & tarnished) active in the sorghum right by cotton. So, after burndown of mature sorghum begins be mindful of your nearby cotton fields with large squares and dime size bolls as plantbugs tend to migrate out of mature



sorghum into cotton to feed on penetrable size bolls and large squares and can cause loss of yield as well as

degrade the quality of the lint by secreting a toxin while they feed. Threshold to treat for plantbugs is when you have 20-25 bugs/100 plants, or (1-2 bugs per 10 sweeps) or (4-5 per 20 sweeps) or if you are using a beat bucket it is when you are averaging 1 per plant. Make sure to 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. Plantbug pressure was very low this week, but I predict we will have moderate pressure by end of next week in some fields along the coast and river. Also, this week we are seeing a few whitefly adults in cotton along the river but in the Edinburg and McAllen areas I was picking up on 3 adult whiteflies per every other upper leaf scouted (moderate pressure) and was cause for treatment.



Figure 4: adult tarnished plantbug

Grain Sorghum

The number one pest this week in flowering sorghum is midge. Incredibly high populations of sorghum midge across the Valley in all 3 counties, so if you have flowering sorghum please scout diligently as no flowering sorghum is safe from midge from this point on and treat as needed. When checking for midge (Figure 5) inspect the heads for a small orange/reddish flying insect around the yellow flowering spikelets as this is where the female will lay her eggs, usually about 50 yellow-white eggs, the adults only live for one day. The eggs hatch in 2 to 3 days so you must check daily for sorghum midge as new populations emerge/hatch each morning. It is imperative that if you have flowering sorghum you try to get out there every 3 days between the hours of 10 am and 2pm to inspect for midge pressure. The threshold for midge is one per sorghum head but from here on out you will see about 15 to 20 sorghum midge per head (basically a swarm of them) in flowering sorghum. That is why it is crucial to be monitoring late sorghum flowering these next two months as midge populations will stay active till September with our high heat.



Figure 5: Sorghum midge above and below



Figure 6: Corn earworm (top), Fall armyworm (bottom) in soft dough



If you have soft dough sorghum, get out your 5-gallon white beat buckets and shake sorghum heads in bucket to scout for headworms (corn earworms & fall armyworms see Figure 6). Threshold for headworms in soft dough sorghum is 1 per head. So, if you beat 10 heads of sorghum and get 10 or more headworms treatment is necessary. This week I was finding low headworm pressure (1 per 10 heads), but I was checking in fields that were treated last week.

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 below for different pests in sorghum.

Aside from all the insect pressure in sorghum we do have a lot of beautiful hard dough sorghum ready for harvest and I saw many fields dried down as sorghum harvest is getting started this weekend in LRGV for the 2023 season.

Table F. Insecticides labeled for control of sorghum midges in grain sorghum (follow label directions).						
Active Ingredient	Insecticide	Mode of Action	Rate	Remarks	REI ¹	PHI ²
Post-emergence Treatment						
Alpha-cypermethrin	Fastac	3A	1.3–3.8 fl. oz./A	Restricted use. Danger-Poison.	12H	14 days
Beta-cyfluthrin	Baythroid XL	3A	1.0–1.3 fl. oz./A	Restricted use.	12H	14 days
Cyfluthrin	Tombstone	3A	1.0–1.3 fl. oz./A	Restricted use.		
Deltamethrin	Delta Gold 1.5 EC	3A	1.3–1.9 fl. oz./A	Restricted use. Danger-Poison.		
Esfenvalerate	Asana XL, generics	3A	2.9–5.8 fl. oz./A	Restricted use.		
Gamma-cyhalothrin	Declare 1.25, Proaxis 0.5	3A	0.77–1.02 fl. oz./A 1.92–2.56 fl. oz./A	Restricted use.		
Lambda-cyhalothrin	Warrior II with Zeon, Karate with Zeon, generics	3A	0.96–1.28 fl. oz./A	Restricted use.		
Lambda-cyhalothrin + chlorantraniliprole	Besiege	3A	5.0–6.0 fl. oz./A	Do not exceed total of 18 fl. oz./A per year. Restricted use.		
Spinosad	Blackhawk	3A, 28	1.5–3.3 fl. oz./A	See 2(ee) label for midges. For low to moderate midge infestations.		
Methomyl	Lannate LV, Lannate SP, generics	5	0.75–1.0 pt./A 0.25–0.5 lb./A	Do not use methomyl on sweet sorghum varieties. For SP, use a minimum of 10 GPA by ground or 2 GPA by air. Restricted use. Danger-Poison.	48H	14 days
Zeta-cypermethrin	Mustang Maxx, Respect	1A	1.28–4.0 fl. oz./A	Restricted use.	12H	14 days
¹ REI = Restricted entry level ² PHI = Pre-harvest interval						

Figure 7: Table F, Insecticides labeled for midge on pg. 31 of the Managing Insect & mite pests of Texas Sorghum guide, ENTO-PU-170 April 2023, Texas A&M AgriLife Extension

Table C. Insecticides labeled for control of aphids, including yellow sugarcane aphids, sorghum aphids, corn leaf aphids, and greenbugs (follow label directions).						
Active Ingredient	Insecticide	Mode of Action	Rate	Remarks	REI ¹	PHI ²
Post-emergence Treatment						
Afidopyropen	Sefina	9D	6.0 fl. oz./A	See supplemental label for sorghum.	12H	14 days for grain, 7 days for forage.
Alpha-cypermethrin	Fastac	3A	3.2–3.9 fl. oz./A	Not recommended for sorghum aphids. Restricted use. Danger-Poison.	12H	14 days
Dimethoate	Dimethoate 400, Dimethoate 4EC, Dimethoate 2.67	1B	0.5–1.0 pt./A 0.75–1.5 pt./A	Restricted use. Not recommended for sorghum aphids.	48H	28 days
Flupyradifurone	Sivanto Prime	4D	4.0–7.0 fl. oz./A	See 2(ee) label for reduced rates.	4H	21 days See 24(c) label for 14-day PHI for sorghum aphid.
Sulfoxaflor	Transform WG	4C	0.75–1.5 oz./A	—	24H	14 days for grain, 7 days for forage.

Figure 8: Table C, Insecticides labeled for Sugarcane aphids on pg. 29 of the Managing Insect & mite pests of Texas Sorghum guide, ENTO-PU-170 April 2023, Texas A&M AgriLife Extension

Table G. Suggested insecticides for control of the headworm complex in grain sorghum (follow label directions).						
Active Ingredient	Insecticide	Mode of Action	Rate	Remarks	REI ¹	PHI ²
Post-emergence Treatment						
Alpha-cypermethrin	Fastac	3A	1.3–3.8 fl. oz./A	Restricted use. Danger-Poison.	12H	14 days
Beta-cyfluthrin	Baythroid XL	3A	1.3–2.8 fl. oz./A	First and second instar (< ¼ in. long). Restricted use.	12H	14 days
Carbaryl	Sevin XLR Plus	1A	1–2 qt./A	Bee caution: Do not apply this product to target crops or weeds in bloom.	12H	21 days
Chlorantraniliprole	Vantacor, Shenzi 400SC	28	1.2–2.5 fl. oz./A 1.7–3.8 fl. oz./A	—	4H	1 day
Deltamethrin	Delta Gold 1.5EC	3A	1.0–1.5 fl. oz./A	Apply at least 2 GPA by aircraft or 5 GPA by ground. Restricted use. Danger-Poison.	12H	14 days
Esfenvalerate	Asana XL, generics	3A	5.8–9.6 fl. oz./A	Used for earworms on heads only. Restricted use.	12H	21 days
Gamma-cyhalothrin	Declare 1.25, Proaxis 0.5	3A	1.02–1.54 fl. oz./A 2.56–3.84 fl. oz./A	Use higher rates for large larvae. Restricted use.	24H	30 days
HearNPV	Heligen	31	0.7–1.4 fl. oz./A	Only effective on corn earworms. Use lower application rates when targeting larvae smaller than 0.3 inches long (first and second instar) and in mixtures with sprays for midge control (not ULV). Use higher application rates when targeting larvae larger than 0.3 inches long (third instar) or under high-pressure situations. Time applications when 50% of heads have reached 100 percent flowering for optimal control.	4H	0 days
Lambda-cyhalothrin	Warrior II with Zeon, Karate with Zeon, generics	3A	1.28–1.92 fl. oz./A	Restricted use.	24H	30 days
Lambda-cyhalothrin + chlorantraniliprole	Besiege 1.25 SC	3A, 28	6.0–10.0 oz./A	Use higher rate range for large larvae. Do not exceed a total of 18 fl. oz./A per year. Restricted use.	24H	30 days
Methomyl	Lannate LV, Lannate SP	1A	0.75–1.5 pt./A 0.25–0.05 lb./A	Do not use on sweet sorghum varieties. Restricted use. Danger-Poison.	48H	14 days
Novaluron	Diamond	15	6.0–12.0 fl. oz./A	Fall armyworms only. See label.	12H	7 days for forage, 14 days for grain and stover.
Spinosad	Blackhawk	5	1.7–3.3 fl. oz./A	Apply to coincide with peak egg hatch or small larvae. Use a higher rate range for heavy infestations, advanced growth stages of target pests, or difficult spray coverage situations.	4H	21 days
Zeta-cypermethrin	Mustang Maxx, generics	3A	1.76–4.0 fl. oz./A	Restricted use.	12H	14 days

¹ REI = Restricted entry level
² PHI = Pre-harvest interval
 Resistance to pyrethroids (products with only mode of action 3A) in corn earworms has been reported from some areas. If resistance is present, applying pyrethroids can result in poor control of corn earworms, especially when the larvae are larger than 1/4 inch (second instar). Also, pyrethroids are not recommended for fall armyworms larger than 1/4 inch.
 Pyrethroids are not recommended for sorghum webworms.

Figure 9: Table G, Insecticides labeled for headworms on pg. 32 of the Managing Insect & mite pests of Texas Sorghum guide, ENTO-PU-170 April 2023, Texas A&M AgriLife Extension

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Table H. Insecticides labeled for control of stink bugs, leaf-footed bugs, false chinch bugs, and Lygus bugs in grain sorghum (follow label directions).						
Active Ingredient	Insecticide	Mode of Action	Rate	Remarks	REI ¹	PHI ²
Post-emergence Treatment						
<i>Alpha</i> -cypermethrin	Fastac	3A	1.3–3.8 fl. oz./A	Restricted use. Danger-Poison.	12H	14 days
<i>Beta</i> -cyfluthrin	Baythroid XL	3A	1.3–2.8 fl. oz./A	First and second instar (< ¼ in. long). Restricted use.	12H	14 days
Cyfluthrin	Tombstone 2	3A	1.3–2.8 fl. oz./A	Restricted use.	12H	14 days
Deltamethrin	Delta Gold	3A	1.5–1.9 fl. oz./A	Not labeled for false chinch bugs. Restricted use. Danger-Poison.	12H	14 days
<i>Gamma</i> -cyhalothrin	Declare, Proaxis	3A	1.02–1.54 fl. oz./A 2.56–3.84 fl. oz./A	Use higher rates for large larvae. Restricted use.	24H	30 days
<i>Lambda</i> -cyhalothrin	Warrior II with Zeon, Karate with Zeon, generics	3A	1.28–1.92 fl. oz./A	Apply no more than 6 oz. of <i>lambda</i> -cyhalothrin-containing products once the crop has reached soft-dough stage. Not labeled for false chinch bugs. Restricted use.	24H	30 days
<i>Lambda</i> -cyhalothrin + chlorantraniliprole	Besiege 1.25 SC	3A, 28	6.0–10.0 oz./A	Do not exceed total of 18 fl. oz./A per year. Apply no more than 6 oz. of <i>lambda</i> -cyhalothrin-containing products once the crop has reached soft-dough stage. Not labeled for false chinch bugs. Restricted use.	24H	30 days
<i>Zeta</i> -cypermethrin	Mustang Maxx, generics	3A	1.76–4.0 fl. oz./A	Restricted use.	12H	14 days
¹ REI = Restricted entry level						
² PHI = Pre-harvest interval						

Figure 10: Table H, Insecticides labeled for Stinkbugs on pg. 33 of the Managing Insect & mite pests of Texas Sorghum guide, ENTO-PU-170 April 2023, Texas A&M AgriLife Extension

IPM Resources available online please click on link below & Scroll down to where it says “Important Resources in IPM” :

<https://southtexas.tamu.edu/programs-and-services/ipm/>

Important Resources in IPM:

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](#)

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