WEST PLAINS IPM UPDATE

News about Integrated Pest Management in Hockley, Cochran, and Lamb Counties from Kerry Siders

July 14, 2022

Vol. 27 – No. 9

CROP AND PEST SITUATION

Cotton ranges from 7 true leaves just starting to square to 16 total nodes with 1.2 first position bolls and 7.2 nodes above white flower. Square set continues to be in the mid 90% range. Blooming cotton is the exception not the rule right now. Cotton is going into bloom with 7.8 nodes above white flower (NAWF), which provides a projection for most acres to bloom near July 25. The heat, if it continues, will drive cotton plants to bloom sooner, lowering this value of going into bloom to less than 6-7 NAWF. If temperatures would moderate, making irrigation go further, and we have our fertility in place to encourage continued growth (vegetative and reproductive) then we can maintain a good yield expectation. Ideally, we would not get to 5 NAWF until August 5th. If a plant does go to 5 NAWF too soon it will not achieve its full potential and take advantage of the full season. I always try to stress that ***we make cotton in August***.

Priorities for the next few weeks:

1. *Water as efficiently as possible (deliver water near to the ground). If heat continues, do not share water by towable systems, or shared wells. Cut back to your best.*
2. *Get fertilizer out now, there is no advantage of waiting. It only delays progress and maturity.*
3. *Continue PGR applications if you have good water, fertility, and a well developing plant. Otherwise, wait till temps moderate and then resume PGR plans.*
4. *Scout, scout, scout! Do not let insects rob you of precious fruit.*

Lygus bugs

There are three predominant species of lygus in Texas cotton: the western tarnished plant bug, the tarnished plant bug, and the pale legume bug. The western tarnished plant bug is the most common species in the western half of Texas, and the tarnished plant bug dominates in the eastern half of the state. These species are similar in appearance, biology, and the damage they cause. In this publication, we will call them lygus and discuss them as a single pest.

Lygus bugs feed on cotton terminals, squares, f lowers, and small bolls. Adults are 1/4 inch long, have a conspicuous dark-colored triangle in the center of the back, have wings, and vary from pale green to yellowish brown with reddish-brown to black markings are uniformly pale green with red-tipped antennae; late instars have four conspicuous black spots on the thorax and one large black spot near the base of the abdomen. The nymph's wings are not developed, but they can move rapidly and are difficult to detect in cotton foliage. It is easy to mistake small nymphs with aphids, cotton fleahoppers, and leafhopper nymphs, but their broader shape, quick movements, larger size, and the specific characteristics discussed above help differentiate them.

Lygus bugs prefer legumes to cotton and usually occur in large numbers in alfalfa, potato fields, or on wild hosts such clovers, dock, mustard, pigweed, Russian thistle, vetches, and wild sunflower. Lygus bugs are attracted to succulent growth. In cotton,

their feeding causes:

- Deformed bolls
- Dirty bloom (damaged anthers in blooms) and puckered areas in petals

- Shedding of squares and small bolls
- Stunted growth
- Small black spots or small, dark, sunken lesions on the outer surface of the developing bolls that can penetrate the boll carpel wall and damage developing seeds or lint

Scouting and decision making

The abundance of lygus bugs in relation to the fruiting condition of the cotton plants determines the need for control measures. Inspect fields for lygus bugs at 4- to 5-day intervals throughout the fruiting period. Before peak bloom, using a sweep net is the most accurate way to sample for lygus. After peak bloom, a drop cloth is best.

Action thresholds

Table 1. Lygus action threshold		
Cotton stage	Drop cloth	Sweep net
1st 2 weeks of squaring*	1–2 per 6-ft row with unacceptable square set	8 per 100 sweeps with unacceptable square set
3rd week of squaring to 1st bloom	2–3 per 6-ft row with unacceptable square set	15 per 100 sweeps with unacceptable square set
After peak bloom	4–6 per 6-ft row with unacceptable fruit set the first 4–5 weeks	15–20 per 100 sweeps with unacceptable fruit set the first 4–5 weeks
Sweep net: Standard 15-inch net, sample 1 row at a time, taking 15–25 sweeps. Recommended before peak bloom. Drop cloth: Black recommended, 3-foot sampling area, sample 2 rows. Recommended after peak bloom. Stop sampling and treating when NAWF = 5 + 350 DD60s. *In West Texas, insecticide applications for lygus are rarely needed in pre-bloom cotton as lygus generally stay in roadside weeds and vegetation until cotton begins flowering.		

Pest	Product Name/ Common Name	Active Ingredient/s	Formulated Rate (fl oz or oz/A)	lb AI/A	Acres Treated per gallon/lb	Signal Word	Insecticide Class (*IRAC Groups)	Re-entry Interval	Pre-harvest Interval
Plant Bugs									
	Vydate C-LV 3.77	oxamyl	8–32	0.125–0.5	16–4	Danger	Carbamate (1A)	48h	14
	Intruder Max 70WP/Strafer Max	acetamiprid^	0.6–1.1	0.025–0.05	26.67–14.55	Caution	Neonicotinoid (4A)	12h	28
	Acephate 90 Prill	acephate^	4.4–17.6	0.248–0.99	3.64–0.91	Caution	Organophosphate (1B)	24h	21
	Orthene 97	acephate	4–16	0.244–0.974	4–1	Caution	Organophosphate (1B)	24h	21
	Diamond 0.83 EC	novaluron	9–12	0.0584–0.0778	14.22–10.67	Warning	Benzoylureas (15)	12h	30
	Steward EC	indoxacarb	9.2–11.3	0.09–0.11	14–11.5	Caution	Oxadiazines (22A)	12h	14
	Carbine 50WG	flonicamid	1.7–2.8	0.053–0.089	9.41–5.71	Warning	Flonicamid (29)	12h	30
	Dimethoate 4E	dimethoate^	8	0.25	16.0	Warning	Organophosphate (1B)	48h	14
	Bidrin 8	dicrotophos^	4.0–8.0	0.25–0.5	32–16	Danger	Organophosphate (1B)	6d	30
	Alias 4F	imidacloprid^	1–2	0.0313–0.0625	128–64	Caution	Neonicotinoid (4A)	12h	14
	Centric 40 WG	thiamethoxam	1.25–2.5	0.0313–0.0625	12.8–6.4	Caution	Neonicotinoid (4A)	12h	21

West Plains IPM Update is a publication of the Texas A&M AgriLife Extension Service IPM Program in Hockley, Cochran, and Lamb Counties.

Editor: Kerry Siders, Extension Agent-IPM
Contact information:
1212 Houston St., Suite 2 Levelland, TX 79336
(806) 894-3150 (office),
638-5635 (mobile), or 897-3104 (Fax)
ksiders@tamu.edu (E-mail)

Partners with Nature