

WEST
PLAINS
IPM
UPDATE

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

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CROP AND PEST SITUATION

Cotton ranges from 8 to 16 total nodes, with square set remaining near 80%. The heat is responsible for some square loss with fleahoppers taking some as well. I would continue to scout for fleahoppers as they continue to move in and out of fields. I saw my first blooms of the season on Monday, July 13. As it is now most fields are going into bloom with 8.5 nodes above white flower (NAWF). This heat, if it continues, will drive cotton plants to bloom sooner, lowering this value of going into bloom to less than 8 NAWF. The stress of this heat causes the plant to hasten the reproductive period and sacrifices all other growth to produce seed quickly. This is a survival mechanism. 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.***



So, 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.*

Peanuts continue to make good progress. Bloom has slowed somewhat with this heat. Where irrigation is being managed to create a good environment in-canopy, the pegging and pod development process is also progressing. Irrigation must not only be looked at as “watering the plant”, but also as creating this environment. To achieve this irrigation frequency is as important as amount. At least until this weather pattern changes to more moderate temps and possibly rain showers, I would encourage peanut producers to get around a circle of peanuts at least every 5-6 days with at least an inch of irrigation water. If necessary, lower the amount to increase the frequency. We can slow the pivot, hopefully soon, to deliver more water. I have not seen much in the way of pathogens, which are most likely being suppressed by this heat.

Grain sorghum. Reports continue to be received of sugarcane aphids being found east and north east of us in Lubbock, Floyd, and Hale counties.

Lygus Bugs on Cotton

The western tarnished plant bug (*Lygus hesperus* Knight) is one of several *Lygus* species that feeds on cotton terminals, squares, and small bolls. Adults are 1/4-inch-long, have a conspicuous triangle in the center of the back, are winged, and vary in color from pale green to yellowish brown with reddish brown to black markings. Immature lygus bugs are called nymphs. They 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 nymphs can move rapidly and are difficult to detect in cotton foliage. Small nymphs may be confused with aphids, cotton fleahoppers and leaf hopper nymphs. Plant bugs prefer legumes to cotton and usually are found in large numbers in areas of alfalfa or potato production or areas providing wild hosts such as clovers, vetches, mustard, and dock. Lygus bugs are attracted to succulent growth, their feeding results in shedding of squares and small bolls, stunted growth and boll deformation. Feeding damage to small bolls is often characterized as small black spots or small, sunken lesions. The feeding that causes these spots or lesions may or may not penetrate the boll wall and damage developing seeds or lint. Damage to blooms appears as black anthers and puckered areas in petals.



Management and decision making. The need for lygus bug control is determined by their abundance in relation to the fruiting condition of the cotton plants. Fields should be inspected for lygus bugs at 4- to 5-day intervals using a drop cloth.

During the first week of squaring, the economic threshold is one lygus bug adult or nymph per 3 feet of row combined with less than 90 percent square set. In the second week of squaring, the economic threshold is one lygus bug adult or nymph per 3 feet of row combined with less than 85 percent square set. In the third week of squaring, the economic threshold is one lygus bug adult or nymph per 3 feet of row combined with less than 75 percent square set. After the third week of squaring, the economic threshold is two lygus bug adults or nymphs per 3 feet of row with less than acceptable fruit retention. After peak bloom, begin treatment when drop cloth counts exceed two lygus bug adults or nymphs per 3 feet of row and plants have failed to retain squares and set bolls normally during the first 4 to 5 weeks of fruiting.

Research in Arizona and California indicates that the western tarnished plant bug (*Lygus hesperus*) may be more difficult to control with insecticides and may require the use of higher labeled rates of suggested insecticides.

Suggested Insecticides for control of cotton fleahoppers and Lygus.

<u>Insecticide</u>	<u>Formulated amount per acre</u>	
	<u>Fleahopper</u>	<u>Lygus</u>
Address® 75S	4 - 5.33 oz.	10.66 - 21.33 oz
Address® 90S	3.34 - 4 oz	9 - 17.77
Orthene® 90S	3.34 - 4 oz	9 - 17.77
Orthene® 97	3.10 - 3.71 oz	8 - 16 oz
Intruder 70 WP	0.6-1.1 oz	1.1 oz
Capture® 2E	----	2.6 - 6.4 oz
Baythroid® 2E	----	1.6 - 2.6 oz
Leverage® 2.7SE	----	3.75 oz
Karate® 1E	----	2.56 - 3.84 oz
Karate® 2.08 CS	----	1.28 - 1.92 oz
Ammo® 2.5 E	----	2 - 5 oz
Decis® 1.5 E	----	1.11 - 1.62 oz
Lorsban® 4E	6 - 16 oz	----
Bidrin® 8E	0.8 - 3.2 oz	8 oz
Dimethoate® 2.67E	5.3 - 10.5 oz	10.7 oz
Dimethoate® 4E	4 - 8 oz	8 oz
Dimethoate® 5E	3.2 - 6.4 oz	6.4 oz
Asana XL® 0.66E	----	5.8 - 9.6 oz
Proaxis 0.5 E	----	2.56 - 3.84 oz
Prolex 1.25 E	----	1.02 - 1.54 oz
Provado® 1.6F	3.75 oz	3.75 oz
Trimax 4F	1.5 oz	
Steward® 1.25SC	9.2 - 11.3 oz	----
Lannate® 2.4LV	6 - 12 oz	0.75 pt
Methyl Parathion 4E	3.2 oz	1 - 2 pts
Vydate® 2L	1 pt	1 pt
Vydate® 3.77 C-LV	8.5 oz	12.7 - 34.0oz
Centric 40 WG	1.25-2.5 oz	
Parathion 8E	----	8 - 16 oz
Scout®X-tra 0.9E	----	2.28 - 2.84 oz
Fury® 1.5 E	----	2.99 - 4.26 oz

The use of synthetic pyrethroid insecticides may increase cotton aphid numbers

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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),



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