

TEXAS COOPERATIVE EXTENSION

Partners with Nature

WEST PLAINS IPM UPDATE

News about Integrated Pest Management in Hockley and Cochran Counties

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IN THIS ISSUE:

- ? Cotton Situation
- ? Peanuts & Other Area Crops
- ? Lygus Bugs
- ? Texas IPM Network Web Site

COTTON SITUATION

It is difficult to generalize the current situation of the cotton crop in Hockley and Cochran Counties. Yet, I would say that this is one of the best starts to a growing season for a majority of producers. I know both counties have received their share of hail, albeit limited to relatively small areas. We will probably see some blooming cotton within the next 7-10 days in some of the early planted cotton acres. On average most cotton acres are at 6-8 true leaf stage with 1-3 squares. Square set is averaging in the 90% range. Those cotton fields with lower than average square set at this time could probably be attributed to fleahoppers. The other culprit would probably be weather. Speaking of weather, let us consider a field which set first square today (6/25/04). Okay the cotton plant requires 450 heat units from first square to first bloom. If we average about 21 heat units (DD 60) per day we could anticipate first bloom around July 16th. If we then say we have a high probability of a bloom/boll contributing to yield before August 10 and a final date of August 20-25th for last effective bloom date, we could have at least 4 weeks of effective bloom period. If we set a boll going up the main stem every 3 days, then we could expect at least 9 main stem boll positions. This is not counting any 2nd or 3rd position bolls. Let us dream a little more here: if you have 3 plants per foot this would translate into 39,208 plants per acre on 40 inch rows. If we harvest just 7 bolls per plant with 39,208 plants per acre, and it takes 375 bolls to make a pound of lint than we might expect to harvest 731 pounds of lint per acre. We can play around with numbers all day long. We can for sure say that most stands are better this year; that hopefully boll size will be good and that it might be closer to 325 bolls to make a pound of lint; and who knows we might harvest more than 7 bolls per plant. So with continued help from Mother Nature this season could be the one we needed.

PEANUTS AND OTHER AREA CROPS

Peanuts are doing very well at this time. Most peanuts are blooming with no pest problems noted this week. Some blooms have been banged up by 2,4-D,B applications. Weeds continue to be the pest of concern at this time. I can not stress enough how much control options will be limited and cost will be increased as time goes on. Nodulation evaluation should be conducted to determine your fertilizer strategy for the season. Be careful in cultivation activity not to pitch soil to the plant. This could cause various problems. If we interfere with pegging early it will run the crop late. Earliness is not just a factor to contend with on cotton. Blooms and pegs result in pods. If we miss an opportunity to set a bloom and resulting peg then we lose time, yield, and dollars. Not having the proper moisture conditions is major concern during this period. No southern corn rootworm larva were seen this week. No disease symptoms were noted.

Grain sorghum has not been noted to have pest problems at this time. I anticipate weeds to be a concern on most acres. Be thinking ahead. Also, for sorghum which will be late be thinking of sorghum midge - how to scout, what is the threshold, how to control. We will cover this situation more in-depth later.

Lygus Bugs

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 1 *lygus* bug adult or

nymph per three feet of row combined with less than 90 percent square set. In the second week of squaring, the economic threshold is 1 lygus bug adult or nymph per three feet of row combined with less than 85 percent square set. In the third week of squaring, the economic threshold is 1 lygus bug adult or nymph per three feet of row combined with less than 75 percent square set. After the third week of squaring, the economic threshold is 2 lygus bug adults or nymphs per three feet of row with less than acceptable fruit retention.

After peak bloom, begin treatment when drop cloth counts exceed 2 lygus bug adults or nymphs per three 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 the 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.

TEXAS IPM NETWORK WEB SITE

The Texas A&M University Entomology Department and Texas Cooperative Extension have launched a new internet web site that focuses on web based IPM information available through the TAMU system. The web site may be accessed at <http://ipm.tamu.edu>. The website offers web visitors an array of topics that pertain to various agricultural commodities (including fruits and vegetables), ornamental plants, lawn care and much more. The web site provides links to various information regarding plant pests and diseases, with additional links to harvest aids, plant variety information, and weed control methods. It draws from a number of web sites managed by different department at TAMU and regional centers.

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