



TEXAS COOPERATIVE EXTENSION

SOUTHERN BLACKLANDS

PEST MANAGEMENT NEWS

WILLIAMSON AND MILAM COUNTIES

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GENERAL SITUATION

Much welcomed rain fell across the Southern Blacklands last weekend bringing between 1.5 to 3.5 inches of much needed rainfall. In addition, a few isolated showers brought some additional rain, early in the week mainly to areas South of Hwy. 79. Being totally dependent on mother nature for our rain, we will take what we can get whenever we get it. But for the cotton crop, this rain came at about the perfect time. There are some growers who could of used some rain on their cotton a week or so earlier which would of maybe prevented some of the small boll and small to medium square shed that we saw following the weekends rain. Due to the fact that we were very short on moisture at peak bloom, most cotton was about to begin shedding fruit; instead, this rain will allow additional fruit to be set in the place of fruit shedding which was about to begin. In addition to the rainfall, we have continued to have some sunlight to keep the plants photosynthetic activity going which should help in decreasing the amount of fruit shed that we sometimes see following periods of cloudy and saturated conditions.

GRAIN SORGHUM

Grain sorghum is maturing rapidly and insect pressure has been relatively light. For the most part, headworm and stinkbug pressure has been fairly light with a few exceptions. There is still a small amount of sorghum in some fields that has not completed flowering and I would expect that midge numbers could be relatively high in those areas, but the areas that have yet to bloom out are small and therefore not really large enough to warrant an insecticide application.

COTTON

Cotton ranges from pin-head square to having full size bolls. Boll size has appeared to really increase this past week following the rainfall. The maturest fields were at 2 NAWB. We are seeing new leaves developing already in the terminal of the plant

and I expect some of the cotton to put on several inches of terminal growth giving all of the unused fertilizer that is still available following this rain and due to the limited plant size that we currently have. With that said, I do not see the need for widespread use of plant growth regulators (PGRs) at this point. Each field should be evaluated individually for the need for PGRs based on variety, amount of rainfall received (available soil moisture), nitrogen fertilizer, crops stage, and how good of soil is in the field (the tendency for cotton to put on excessive growth in that particular field).

We do not have data supporting the recommendation of any one PGR over another, the main aspects to look at when deciding on which product to use is the cost and the use rates. All PGR products have the potential to manage excessive growth when used at the proper rates.

Cotton fleahopper pressure is moderate in some of the cotton that is between pinhead and 1/3 grown square with counts as high as 30 fleahoppers per 100 plants checked.

Aphid pressure had dropped down across the area over the past week; however, new colonies of aphids are beginning to show up in some fields this week again. Beneficial insect levels are relatively light in these fields and additional insecticide applications will help add to the increasing aphid levels in these fields, even though they may not need any additional assistance in order to increase.

The one pest that is coming on very rapidly and early for this point of the season is **cotton bollworm**. Bollworm eggs range from 12 to 190 per 100 plants checked. Worm counts have remained relatively low.

It is still too early to say just how big of a worm hatch-out will take place, but with the relatively cool, cloudy conditions that we have experienced over the past several days, I would expect a large percent of the worms to hatch-out. If that occurs, then fields will need additional monitoring for worm development and also levels of beneficials. Remember that small worms (three days old or less or worms less than 1/4 inch in length) are the least difficult to control. So once worms begin hatching, one will only have a day or two to determine if insecticide applications are needed.

Bollworm Management and decision making: Fields should be carefully scouted at least once a week and twice weekly during peak periods of egg deposition.

Eggs and newly hatched worms are usually found in the plant terminals and indicate possible outbreaks. Natural mortality agents such as weather and predators frequently control these stages before any damage occurs. Once worms reach 1/2 inch long, natural control factors are much less effective.

Frequently, examination of the upper third (terminal) of the plant (leaves, stems, squares, blooms and bolls) for eggs and small larvae is all that is needed to make sound management decisions. However, moths sometimes deposit eggs on the fruit and stems lower on the plant. Detection of eggs and small worms is more difficult when eggs are deposited throughout the plant. Also, as bollworm/budworm larvae increase in size, they attack fruit lower on the plant. Whole plant inspections are, therefore, recommended to worm

To assess worm populations, eggs it is recommended to divide the field into four quadrants and examine 25 plants, selected at random from each quadrant, for small larvae and eggs. Also, from each quadrant, examine 25 one-half grown and larger green squares for bollworms and bollworm damage. Squares should be selected at random and flared or yellow squares should not be included in the sample.

Before first bloom, insecticide application may be justified when 15 to 25 percent of the green squares are worm damaged. Once blooms are present, an insecticide application may be justified when 8 to 12 or more small larvae are present per 100 plant terminals and 5 to 15 percent of the squares or bolls are worm damaged. If worm numbers are high, it may not be appropriate to wait until the damage threshold of 5 to 15 percent square damage is reached. If previous insecticide applications have eliminated natural enemies, fewer bollworms/tobacco budworms can be tolerated before economic damage occurs. If insecticides have been applied after first bloom and natural enemies eliminated, treatment may be justified when infestations reach or exceed four to five small worms per 100 plants, eggs are present, and 5 percent of the squares and small bolls have been damaged by worms.

