

# FOCUS on South Plains Agriculture

Texas AgriLife Research and Extension Center at Lubbock  
1102 E. FM 1294, Lubbock, Texas 79403

## Cotton Insects

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## Cotton Insects

### Cotton Fleahoppers

So far this year, cotton fleahoppers have been few and far between, but their numbers have increased slightly over the past week. The high temperatures have probably hastened the drying of the blossoms of some of their weedy hosts, forcing them to move. That being said, I am still not seeing very many. A lot of the cotton is beyond susceptibility to significant fleahopper damage, but there is still quite a bit of cotton out there that is in the second or third week of squaring and these fields still need to be watched. Think twice about treating pre-bloom dryland cotton for fleahoppers or Lygus. Right now much of the dryland crop has set a pretty good fruit load, but that could quickly change if the heat and dry weather continues, causing that fruit to shed. It's simply a gamble to protect early squares on dryland, just to have them shed anyway. However, with much of our dryland being late, and if rain comes in a timely manner, if we lose early squares to insects, it is questionable if we will be able to replace those squares; particularly if we don't have an open fall. There is no easy answer to dealing with pre-bloom insect pests in late dryland cotton.

### Lygus

Lygus have picked up a bit in the past week. I am seeing a lot in the alfalfa with 100+ Lygus per 100 sweeps, and I'm also seeing Lygus in flowering pig weed (80 per 100 sweeps). In cotton adjacent to recently cut alfalfa I have picked up 6-7 Lygus per 100 sweeps (near threshold) near the alfalfa, but the number declined as I moved further into the field. Most of the Lygus appear to be mov-

ing from south to north with the prevailing wind, and so far they really do not appear to be colonizing cotton, but simply moving through. In our area *Lygus* really do not like to colonize small cotton and most of our cotton is pre- to early bloom. Once you get into full bloom, you need to watch more closely for colonization. If you find yourself in the position where you have what appears to be transient *Lygus* moving into your field, don't rush to spray. Check your square set to see if they are actually feeding. Chances are at this point they are probably not doing much. The other thing I noticed is that flowering weeds are acting as a trap crop. I visited one cotton field just north of some recently cut alfalfa, and although there were a few *Lygus* present in the cotton, there were about 12X more in the flowering weeds along the corners, ditches and the pivot road. If you apply Roundup, plow or mow weedy areas such as these, watch carefully for *Lygus* moving into nearby cotton. I covered identification and sampling for *Lygus* in [last week's issue of FOCUS](#).

### Aphids

Last week I mentioned that we were seeing a few aphid colonies around. There are still some out there, but their numbers have declined considerably due to predators and the heat.

### Bollworms

We've been picking up a few bollworms and, although numbers have been low, I have heard of some non-Bt fields being treated for bollworms in Gaines County, and Rick Minzenmayer is reporting some high egg lays to the south of us in Runnels and Tom Green counties, although natural mortality is high. So be on the look out for bollworms, particularly in our non-Bt fields.



*Cotton bollworm feeding on a square*

Prior to bloom, concentrate of sampling for damaged squares. Randomly sample 25 squares from various areas of the field and calculate the percentage that are damaged. Additionally, look for live worms by inspecting the entire plant. Inspect the terminals, squares, and any blooms or small bolls if present. If you find 30% or more damaged squares along with live worms, an insecticide treatment is justified. Avoid spraying based solely on bollworms eggs or damage. It is not unusual for eggs and small worms, this time of year to fall prey to predators or environmental factors such as heat and rain, particularly those laid in the terminal. With the heat we have been experiencing, egg mortality has been extremely high. But keep in mind that egg survivorship tends to be higher for eggs laid within the canopy on bracts and bloom. This is why we often see bollworm larvae most prevalent in blooms and tags. If you hit threshold, do not wait for something to happen to small worms when present. You cannot afford to sit back and hope a beneficial comes along and eats your worm population back to sub-threshold levels. Small worms are much easier to control with insecticides than larger ones. Additionally, large worms tend to reside lower in the plant canopy where insecticide

coverage may be more difficult. When targeting populations composed of worms >1/2 inch in length, higher insecticide rates should be considered, and effort should be made to maximize spray coverage. As small as the cotton is, I doubt that coverage will be an issue unless you are having the insecticide go out by air. If going by air, do not use less than 3 gallons of spray per acre. Also, the addition of a good surfactant may help. [The bollworm threshold is presented here.](#)

With bollworm populations being so high this early, we are going to have to watch the non-Bt cotton closely the remainder of the year. Additionally, as time passes, it is a good idea to keep watch on the Bt-varieties as well. This is especially important for the Bollgard I varieties where the Bt titer tends to be lower in the blooms, and worms feeding on these may sneak by.

For more information on cotton bollworm refer to [Managing Cotton Insects in the High Plains, Rolling Plains, and the Trans Pecos Areas of Texas 2009](#). Additionally, for a listing of recommended insecticides for managing bollworms refer to [Suggested Insecticides for Managing Cotton Insects in the High Plains, Rolling Plains, and the Trans Pecos Areas of Texas 2009](#).

There has been a great deal of concern regarding pyrethroid resistant bollworms over the past few years, especially in South Texas. Data from the High Plains has been much more favorable, and there has been no data to support the occurrence of resistant populations here. However, I would suggest that all insecticide applications targeting bollworms be followed up closely with good sound scouting practices, particularly when dealing with populations of worms that are larger than 1/4 inch in length. If you noticed difficulty controlling bollworms with any insecticide, please contact David Kerns (806) 746-6101, or your local Texas AgriLife Extension Office. DLK

### Cotton Pests Around the State

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## Cotton Agronomy

### Crop Situation

Based on the last week or so, it is finally apparent that summer has arrived. A high pressure system has been sitting on top of us cooking the region. High temperatures since July 8 have been around 100 degrees. [Click here to view July temperatures.](#) Lows have been in the upper 60s to mid 70s. This is generating heat units. Cotton heat unit accumulation for the first fifteen days of the month of July was about 27% higher than the long-term average (356 vs. 280 for Lubbock). Cotton continues to progress very well where adequate moisture has been available. Based on my observations of several fields this week, many were entering blooming during that time, and most were planted around May 10-15. Many of these irrigated fields I observed entered bloom at 8-10 nodes above white flower (NAWF). In many areas where we still have dryland cotton, the fields are going to need some rainfall soon. It appears that we are going to have a break from the extremely high temperatures soon, as cooler temperatures and a chance of rain are forecasted for the next several days. Due to the crop stage and forecast crop water use is going to reach peak demand soon. [Click here to view water use requirements.](#) Once blooming, the crop will use between 0.25 and 0.40 inches per day, depending upon the overall environment. This will continue for the next month or so. Hopefully we will get some badly needed rainfall to assist with reducing pumping costs for this crop. RKB

### Corn Insects

I don't have a crystal ball, but here are a few possibilities for how things might play out in the next couple of weeks. First of all, if you grow Bt corn then there is no need to worry about southwestern corn borer and fall armyworm. Trap catches of southwestern corn borer are starting to creep up, and this

indicates the start of the second generation flight. The next generation of fall armyworm adults will be along in a week or so. Non-Bt corn should be scouted for these pests.

Bt corn is protected from southwestern corn borer, and fall armyworm to a lesser extent, but it has no immunity to spider mites. All corn should be scouted for mites. Monti Vandiver, IPM Agent in Parmer and Bailey counties, is reporting fields with 10 to 90 percent of plants infested by Banks grass mite. Refer to [Texas Corn Production Emphasizing Pest Management and Irrigation](#) for mite scouting procedures and thresholds. If a field needs to be treated, then the next question is which miticide should be used? Well, spider mite populations can increase rapidly at tassel, and the two products that make the most sense at this time are Oberon and Hero. Oberon is a dedicated miticide and does a very good job; it has activity on all mite life stages and has performed well in my trials over the years. Hero, which is fairly new to the market, is a mixture of two pyrethroids (including bifenthrin, formerly known as Capture), and also performed well in our tests last year. For Bt corn I would suggest thinking about Oberon. That is because you don't need to control southwestern corn borer. However, for non-Bt corn I would suggest Hero if southwestern corn borer could be an economic problem. Hero will give good control of southwestern corn borer in addition to Banks grass mite. (Hero will also control corn rootworm beetles in Bt or non-Bt corn. In our area it is uncommon to have serious silk pruning, but it does happen.) Of course Hero will provide equally good control of mites on both Bt corn and non-Bt corn, but from a resistance management perspective it might be prudent to not use a pyrethroid mixture if you don't need to control southwestern corn borer or rootworm beetles in addition to spider mites. In this area we have been fortunate in not developing significant resistance to bifenthrin in our mite populations. (The people north of Amarillo were not as lucky.) Over-use of any one miticide/insecticide increases selection for resistance, and right now we have the best

possible situation: four miticides that have different modes of action. Choose the one that matches your pest profile, use it only once per season so as to preserve the genes for susceptibility in your mite population. If for some reason a second miticide application is necessary in the same season, then choose a different product.

The other two miticides out there are Comite II and Onager. Both of these products are "early use" according to the label, and not recommended after tassel. However, I have a post-tassel (applied at brown silk) mite trial out now that shows Onager at 12 oz. per acre is doing a very good job under extremely heavy mite pressure. It is too early to say that Onager can be used post-tassel, and I'm not recommending it at this time. I am adding this paragraph in order to say that the use window for Onager might be able to be expanded in the future. RPP

#### Trap Captures as of July 15th

- [Cotton bollworm Lubbock Co.](#)
- [Beet armyworm Lubbock Co.](#)
- [Fall armyworm Lubbock Co.](#)
- [Southwestern corn borer Lubbock Co.](#)
- [Fall armyworm Hale Co.](#)
- [Southwestern corn borer Hale Co.](#)

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