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## EDITOR'S COMMENTS

I'm back in western Colorado again---no, not on a vacation but working with my architect, builder, bank and suppliers---getting ready to build a house next March. Yes, it is going to happen. My wife and I will be moving up here next summer. And by the way, it has been hot here during the day with temperatures in the 90's but lows have been in the high 50's---very comfortable. While this newsletter issue comes to you from Cedaredge, Colorado, I will be skipping next week with the 6<sup>th</sup> issue of FOCUS scheduled for a July 22<sup>nd</sup> release. **JFL**

## COTTON INSECTS

Cotton continues to make excellent progress but with the highly variable stages of cotton found across the area, insect numbers and their

management decisions will be quite variable too. Fleahopper numbers have significantly increased in some areas but Lygus bug numbers remain relatively static. Bollworm eggs and small larvae are being found, especially Lubbock south, but no treatable infestations thus far have been reported. Terminal infestations of aphids are in many fields but not a concern at this time unless an infested field is sprayed with one of the disruptive insecticides. Pink bollworms continue to emerge from overwintering slumber but we are on the down side of emergence. Boll weevil trap catches dropped significantly last week but were still much higher than last year at this time.

**Cotton fleahopper numbers have increased** over the previous week. Both adults and nymphs are present in most fields that are two to three weeks into squaring. This means that in-field reproduction has taken place. This is about the stage when fleahopper numbers can begin to overwhelm square set. So far most fields are carrying a good load of squares with retention averaging above 80% for the most part. There are some fields that have dropped to 60% square set and need to be treated. We are finding as many as 65 fleahoppers per 100 terminals in some of these problem fields. Our bug threshold is 25-30 per 100 plant terminals. Most of these problem fields are also located near weedy areas such as weedy CRP fields and weedy roadside ditches.



**Fleahopper adult**

Fields with the most danger of not recovering from early square losses will be those irrigated fields in which irrigation was delayed until

after flowering begins or dryland fields that were stressed prior to bloom. See [last week's FOCUS](#) for insecticide recommendations.

**Lygus bug (western tarnished plant bugs) numbers remain below damaging levels** in most fields. We have not seen a corresponding increase in Lygus bug numbers associated with the increase in fleahopper numbers. This could change once more fields enter the bloom stage.

Lygus bugs tend to hold off moving into cotton until blooms appear, unless forced by destruction of their weed hosts through mowing, disking or herbicide applications.

Remember that

Lygus bugs can damage all sizes of squares plus flowers, and small to medium sized bolls. Therefore their damage potential is much higher than that of fleahoppers, which can damage only pinhead sized squares. Count Lygus bugs as worth 3X as far as damage potential when comparing to fleahoppers during the first 3-5 weeks of squaring. [Surveys](#) conducted through Dr. Megha Parajulee's research program at Lubbock have indicated that *Lygus* numbers in alternate hosts remain down from last year and generally less or at the same levels observed in 2002. Still virtually no Lygus bugs found in cotton in his survey so far this year.

**The first wave of bollworm activity is underway** in the southern areas of the High Plains. We are finding some eggs and a few larvae but most of these are being taken out by the heat and decent natural enemy activity. Heat plays a major mortality role until cotton gets some size to it and starts shading the "middles". Very few if any fields will fall victim to this first wave of activity in most years. I do not believe that we have had any long



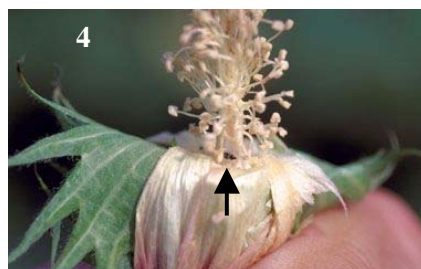
distance movements of moths into the area from South Texas at this time.

If bollworm control is needed during this first wave of activity, coverage should not be a problem. The biggest danger is to make a treatment too early on borderline infestations, not allowing sufficient time for the heat and natural enemies to do their job. My beginning threshold for treatment would be about 10,000 3-4 day old larvae (1/4 inch to 3/8 inch). I might even bump this up to 15,000 larvae if I was



going to be trigger-happy. I am well aware that our guide has 5,000 small larvae per acre as a treatment guideline but that threshold is for beginners or folks that have real trouble finding the tiny caterpillars. If there truly are only 5,000 or so larvae per acre in a sprayed field then you have accomplished two things---spent money unnecessarily and killed your beneficial insects and spiders needlessly.

I usually do not spray for bollworms until after many flowers appear. Early in the flowering cycle smaller fruit, i.e., squares, flowers and some small bolls, represents most of the crop. This would mean that each caterpillar would consume more fruit than later on when larger bolls are available. The key to this time is to avoid cycling through too many bollworms but realize that plants can compensate for this loss occurring very early in the flowering period.



**Pyrethroids are the cheapest way to go but are also the most disruptive.** I would not recommend this chemistry at this time as they are disruptive on aphids and kill most of our natural enemies. They are long lasting and keep beneficial

Minute pirate bug adult

insects and spiders from recolonizing longer than other insecticide groups. Products that would be less harsh on natural enemies would include Larvin, Tracer and various Bt products. And remember that Bt cotton (Bollgard varieties mainly now) should take care of these early infestations without additional help. The pyrethroids-alternative insecticides tend to be less efficacious, have shorter residual times and cost more than pyrethroids.

**Cotton aphids can be found in most fields** but are generally in plant terminals and of little concern now. These terminal infestations are providing a good food source for our natural



enemy populations to increase on before they are needed for more important pests such as bollworms. But once aphids move down to the undersides of fully

expanded leaves---watch out! The potential for a blowup is high. Also, it bears repeating, early use of pyrethroids will encourage this downward movement, increase the aphid's reproduction rate and eliminate the natural enemies that would have had a chance of maintaining these aphids below danger levels.

**Pink bollworm problems have been minimal this year.** That does not mean that there haven't been lots of moths flying around---because there have according to our [trapping program results](#). But because more irrigated acreage in the high risk areas planted Bollgard varieties and refuge acreage generally shifted away from the 20% sprayed to the 5% unsprayed option, very little treatment has occurred or been necessary. My biggest concern is for non-Bollgard acreage that is not being monitored adequately in or near the high risk areas of Gaines and Yoakum counties. I hope pinkies are not getting established there.

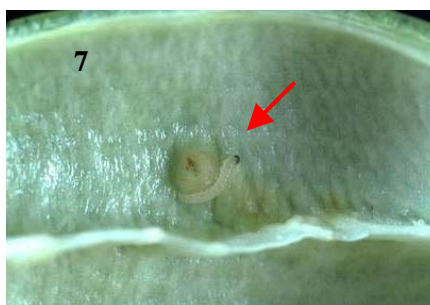
We are on the downside of the overwintering emergence curve (see Plains Cotton Growers "[Pink Bollworm Information](#)") so I expect trap catches to continue to fall over the next few weeks. IPM Agent Kerry Siders finally did catch a few moths in Cochran and Hockley last week, leaving Swisher County as the only area left without a moth catch to date. Counties that are in the higher risk category for pink bollworm infestations this year include Gaines, Glasscock, Reagan, Runnels, Tom Green and Upton. But don't ignore the counties adjacent to these areas. Remember too that once small bolls are present in fields, switch from management decisions based on traps to decisions based on percent-infested bolls.

Early evidence of an infested field can be seen by the presence of rosetted flowers. They are produced by larvae feeding on squares just prior to flower with



**Rosetted bloom**

their silken threads tying up the flower petals in a pinwheel fashion. Once pink bollworm larvae enter bolls, you will have to open bolls and look at the inside of the carpel wall (boll wall) for the presence of "warts" and small larvae. Lint associated with the wart area can be



**Small pinkie and wart**

discolored. While pinkies get their name from the pink color of caterpillars, this color does not appear until the later instars. So you will be looking for generally clear colored very small larvae, almost

invisible to the unaided eye. Sounds like fun doesn't it? Insecticides generally used are in the pyrethroids class of chemistry although some

folks have had good results with Dow' insecticide, Lock-On. For more pink bollworm information see [Pink Bollworm Management Tips I](#) in the Crop Production Guide Series of FOCUS and [Pink Bollworm Management In Texas](#).

**Trap catches continue their downward spiral** as more fields become hostable, overwintering emergence nears an end and eradication sprays keep the pressure on and weevils captured. Permian Basin and St. Lawrence zone trap captures dropped by over 70% compared to two weeks ago. But the Permian Basin zone trap captures were still over 5X higher than last year at this time. The Texas Boll Weevil Eradication Foundation has some work to do this year but with the inclusion of the St. Lawrence area in eradication, I expect numbers to drop significantly in the joining zones.



The Valley program is off to a fast start with trap captures of weevil jumping significantly last week. This is probably due to the precipitous decline in hostable fruit in many cotton fields as bolls are popping open like firecrackers on the 4<sup>th</sup> of July. The newly included Northern Blacklands zone has just started trapping. Foundation beet armyworm trap captures indicate only a few potential risk areas in west Texas at this time including the Rolling Plains Central and the Western High Plains zones. Luckily, there isn't much spraying going on at this time to disrupt beet armyworm natural enemies. **JFL**



**Average number of boll weevils caught per trap inspection and sprayed acreage through July 3. Number of boll weevils caught for the week ending July 3, 2005.**

High Plains Zone	2005	2004	Sprayed acres	Total weevils caught this week
Permian Basin	0.0489	0.0089	78,907	892
Western High Plains	0	0.00001	0	0
Southern High Plains	0.0001	0.0001	6,195	0
Northern High Plains	0	0.00002	0	0
Northwest Plains	0	0	0	0
Panhandle	0	NA	0	0
St. Lawrence	0.7419	NA	17,422	3,079

**COTTON AGRONOMY**

**Cotton continues to progress nicely across much of the region.** Many fields are blooming or should be reaching first bloom over the next few days. Overall we had a good week with hot ([see charts](#)), dry conditions tempered by an occasional rainfall event here and there.

Several thunderstorms have moved across the region, mostly from Lubbock north, but there has been some good rainfall in parts of Lynn and Terry counties also. Some hail was associated with the storms that tracked across areas of Floyd and northern Crosby County and some cotton was lost in that area. Rainfall amounts of up to 2 inches or so have been obtained in many of these areas.

There is still considerable dryland acreage with good stands that could use some moisture at this time. These areas are not melting down yet, but for continued growth, a good rainfall event would be welcome. There is quite a lot of late dryland cotton that I saw this week in Dawson County that pretty much fits that category. The irrigated crop is still progressing very well and many producers have cranked up irrigation in areas where no rainfall has occurred and soil moisture is getting short. **RB**

### PEANUT PRODUCTION MEETINGS

Five peanut production meetings from Texas Cooperative Extension are offered the week of July 18<sup>th</sup>. Topics will include variety trials, plant disease management, weed control, and fertility and *Rhizobium*. For more information contact the county agent listed below.

1) Monday, July 18, Hockley Co., 7:00 PM—Meet at Clint Williams peanut facility south of TX 114 about 2 miles east of Levelland (Kerry Siders, Chris Edens, Calvin Trostle). Contact Chris Edens, Hockley Co. Ag. Extension Agent, 806-894-3159. CEUs offered.

2) Wednesday, July 20, Terry/Yoakum/Cochran Counties, 9:00 AM—Meet at Tokio Co-op Gin at intersection of U.S. 82/380 & FM 1780 (Peter Dotray, Chip Lee, Calvin Trostle, Scott Russell, Arlan Gentry, Chris Bishop, Jeff Wyatt). Will view Valencia and Virginia variety trials and a weed control study. Contact Arlan Gentry, Yoakum Co. Ag. Extension Agent, 806-456-2263, Chris Bishop, Terry Co. Ag. Extension Agent, 806-637-4060, or Jeff Wyatt, Cochran Co. Ag. Extension Agent, 806-266-5215. Breakfast provided, 3.0 CEUs offered.

3) Wednesday, July 20, Lamb & Bailey Cos., 3:00 PM—Meet at Brad Heffington's barn on U.S. 385 about 3 miles north of Littlefield (Calvin Trostle, Chip Lee, Todd Baughman, Kent Lewis). Will view Valencia and foliar feeding trials. Contact Kent Lewis, Lamb Co.

Ag. Extension Agent, 806-385-4222, Ext. #235. 1.5 CEUs offered.

4) Thursday, July 21, Gaines Co., 8:30 AM—Meet at Gaines Co. Civic Building southeast of Seminole H.S. football field (Peter Dotray, Todd Baughman, Chip Lee, Calvin Trostle, Terry Millican, Andy Cranmer). Pesticide Applicator Training will be offered at 11:30 AM. Contact Terry Millican, Gaines Co. Ag. Extension Agent, 432-758-4006. Lunch provided, CEUs to be determined.

5) Thursday, July 21, Dawson Co., 6:00 PM—Meet for supper at Dawson County Community Building at South 8<sup>th</sup> & Houston and tour fields afterwards (Peter Dotray, Todd Baughman, Chip Lee, Calvin Trostle, Tommy Doederlein, Casey Barrett). Contact Casey Barrett, Dawson Co. Ag. Extension Agent, 806-872-3444. CEUs offered. **CT**

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