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IN THIS ISSUE

NEWSLETTER CONTRIBUTORS

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COTTON AGRONOMY & INSECTS

Rainfall Thursday increased dryland cotton yield potential. And there are more rain chances for Friday through Monday. The rainfall pattern did not cover the entire High Plains area, becoming spottier north of Lubbock. Post, Tahoka, and south Lubbock had rainfall amounts often between 1-2 inches. Much of the crop that still has some "horsepower" left has about 10 days of blooms left for harvestable bolls in the Lubbock area. Dimmitt and the northern areas have about 5 days and Lamesa south has until about August 20th. This is for a 50% chance of making a bloom into a harvestable boll.

Depending upon where you are, some earlier planted fields are blooming out the top where moisture has been short. Others are in the 2-6 Nodes Above White Flower (NAWF) range. Cutout occurs around NAWF=5. If you have 6-8 NAWF left then you have enough "horsepower to make more yield". This would be true of later planted fields with sufficient moisture.

Bollworm infestations are worse in the later planted lush fields. Most fields don't have bollworm problems but caterpillars can be found in the 0-3,000 per acre range. We have been catching large numbers of moths in traps in Dawson, Lubbock and Hale counties for the last month although the Hale County trap catches fell off this week. These are probably locally grown moths. I still do not have any reports of mass movement of bollworm moths out of south Texas. These flights are the ones that usually get us into the heavier infestations. We still have time for these flights to occur so watch out.

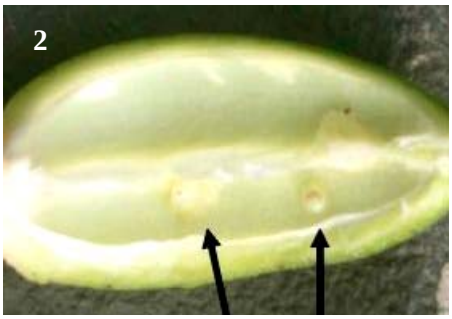
Bollworm under bloom tag

Even though bollworm infestations remain spotty and generally below threshold, some fields have had chronic infestations for three to four weeks and have sustained sufficient damage to warrant putting a stop to their feeding rampage. These infestations are still generally no higher than 10,000 larvae per acre and could easily be controlled by non-pyrethroids such as Tracer, Steward and Denim. But coverage of bigger plants may become an issue and this is where I would take

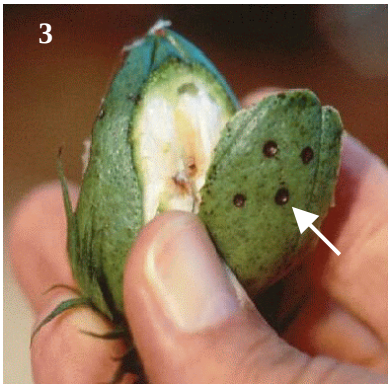
a chance on flaring aphids and use pyrethroids. Make sure when scouting that you look not only at squares and bolls but under bloom tags as well.

Oh, and before I forget, if you planted a Bollgard or Bollgard II variety, we probably haven't had enough bollworm pressure to overwhelm the Bt traits of these varieties. Megha Parajulee and I put out a test Wednesday to see how much pressure Bollgard II varieties can handle. Our treatments ranged from 50,000 to 400,000 eggs per acre applied through a backpack sprayer. This project is funded by Monsanto.

Lygus bug numbers remain low in both weeds and cotton. Surveys conducted through Dr. Megha Parajulee's research program at Lubbock continue to show 2005 as a low Lygus bug year. While this could change as we move through August and into September (Lygus bugs are often a late season pest here), my main concern will be for the confusion that can take place in pink bollworm infested fields in distinguishing the damage of these two pests. However, since we use 15% boll damage for both of these pests later in the season, it may not be such a problem if one uses a pyrethroid. This class of insecticide works well for both pests.

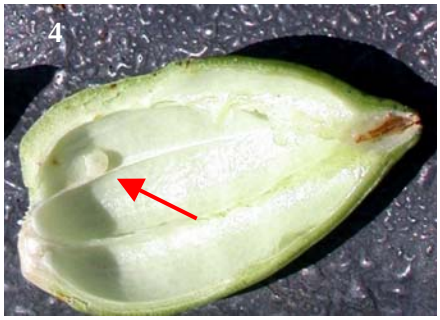


Lygus bug warts



Lygus external boll lesions

Pink bollworm trap catches have dropped significantly the last week in most counties (see chart). We are not seeing the same problems developing as we did in 2004 when more acreage was in the sprayed refuge option for resistance management and folks were using trap catches to target applications---sometimes as many as 20+ in a few fields. With more Bollgard acreage and most refuge acreage in the 5% unsprayed option, pink bollworm sprays are way down.



Pink bollworm wart

First summer generation moths should be flying in most infested areas by now but their numbers may be way down (see Plains Cotton Growers "Pink Bollworm Information"). I believe there were a significant number of moths that emerged before 6-leaf cotton was available for oviposition. Pinkies generally cannot survive and develop in squares that are smaller than a matchhead. Therefore, this August generation of pink bollworm larvae may not be very heavy. But the September field generation could be problematic for late fields.

Pink bollworm wart & 1st instar pinkie

The Texas Department of Agriculture IPM grant program funds pink bollworm studies conducted this year. 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.

We still have not observed problems with aphids, beet armyworms or spider mites. But if we need to start spraying more bollworm infested fields, a few more pinkie or

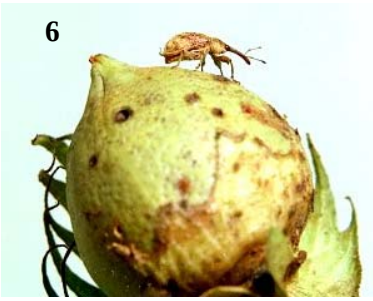
Lygus bug infested fields with pyrethroids, then we could see more of these pests around. The threshold for aphids now is an average of 50 per leaf (averaging top and middle plant expanded leaves). Intruder would be my first insecticide choice.

The threshold for beet armyworms is 20,000 small worms per acre and at least 10% of the plants examined are infested. This threshold is for infestations in which caterpillars are feeding on both fruit and leaves. If feeding shifts more toward leaves or flower petals and bracts or more toward fruit, adjust this number up or down accordingly. An early detection threshold would be two or more hatching egg masses per 100 row feet examined. My first insecticide choice would be Intrepid.

Spider mite infestations can easily develop following pyrethroid applications, especially in field margins exposed to dusty turnrows or county roads. Treat when noticeable damage appears. Western flower thrips are excellent predators of spider mites and often clean up lower infestation numbers. I have no favorite insecticides here. Kelthane, Zephyr, Curacron and Comite are listed in our guides.

For more management information on west Texas cotton insects, including a list of recommended insecticides, go to: Managing Cotton Insects in the High Plains, Rolling Plains and Trans Pecos Areas of Texas 2005 (E-6) and Suggested Insecticides for Managing Cotton Insects in the High Plains, Rolling Plains and Trans Pecos Areas of Texas 2005 (E-6A).

Boll weevil trap catches have continued their downward spiral. Catches dropped from 68 to 14 in the Permian Basin zone and from 454 to 136 in the St. Lawrence zone for the week ending July 31.



The other 5 west Texas zones caught no weevils. Trap catches could begin increasing toward the end of August as more fields cutout and squares become scarcer. Time will tell just how successful the Texas Boll Weevil Eradication Foundation program has been this year. I am very optimistic! **JFL**

Average number of boll weevils caught per trap inspection and sprayed acreage through July 31. Number of boll weevils caught for the week ending July 31, 2005.

High Plains Zone	2005	2004	Sprayed acres	Total weevils caught this week
Permian Basin	0.0273	0.0084	156,274	14
Western High Plains	0.00001	0.00001	5,301	0
Southern High Plains	0.00003	0.00004	15,577	0
Northern High Plains	0	0.00001	0	0
Northwest Plains	0	0	0	0
Panhandle	0	NA	0	0
St. Lawrence	0.2872	NA	339,329	136

PEANUT DISEASES

Sclerotinia blight was found last week in Gaines County peanuts. This soil borne fungus causes plant death. Symptoms associated with Sclerotinia blight include stems turning light brown or tan in color, formation of small black sclerotia, and white mycelia.

Fungicides that are recommended for control of Sclerotinia blight include Omega 500F (Syngenta) at 1.0 - 1.5 pints/acre and Endura (BASF) at a maximum rate of 10.0 fl. oz./acre. Producers last year also used Topsin M in some *Sclerotinia* fields, although it is not labeled for *Sclerotinia* control. Topsin M 4.5 FL is recommended for other peanut diseases at a rate of 10.0 fl. oz/acre (Cerexagri, Inc).

A graduate student at Texas A&M University (Merribeth Henry) and Dr. Charles Kenerley have been testing the affect of these three fungicides on several hundred isolates of *Sclerotinia minor* collected from 8 fields. Their results were presented at the national meeting for the American Phytopathological Society this week. They found that the average rate of the active ingredients of Endura, Omega 500F, and Topsin M necessary to reduce growth of *S. minor* by 50% (EC50) were 0.09, 0.09, and 2.59 µg/ml, respectively. The National Peanut Board funded this work. The maximum labeled rate of each fungicide is compared with each EC50 value in the accompanying table. This data was collected in the laboratory and needs to be confirmed as best as possible with field observations.

Sclerotinia blight symptoms

I would caution producers against using Topsin M for *Sclerotinia minor* control unless field tests can be found where this product was effective against the pathogen in peanuts. The laboratory data suggests that a producer would need to apply 29 times as much active ingredient of Topsin M as Endura or Omega 500, to get similar control. Currently, the label for Topsin M does not allow for even equal amounts of active ingredient.

Comparison between applied rates of fungicide, active ingredient used, and EC50 for control of *Sclerotinia minor*.

Product	Maximum rate (oz/acre)	Active ingredient applied (grams/ acre)	Average EC50 (µg/ml)
Endura	10	200	0.09
Omega 500F	24	355	0.09
Topsin M 4.5F	10	160	2.59

We are working on methods to disinfest after coming out of *Sclerotinia* infected peanut fields. Our work (which is being conducted by Jeffrey Willson at Texas Tech University), which is still in preliminary stages, indicates that it takes 30 min. of soaking in 100% fresh Clorox when the sclerotia are associated with soil particles, to kill *S. minor*. If the sclerotia are in water or have no soil or other materials on them, then 5 min. of 100% fresh Clorox is sufficient to kill the sclerotia. We have not tested kill of sclerotia with reused Clorox. **TW**

COTTON INSECT PHOTO CREDITS

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