

## GAINES COUNTY IPM NEWSLETTER

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### Upcoming Meetings

#### August 24th Gaines County Ag Tour

Details to follow

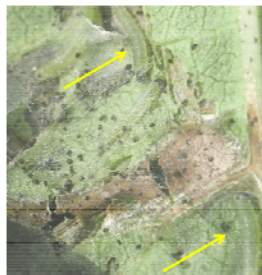
### Cotton General Situation

Cotton stages range from 2 to 6 Nodes Above White Flower (NAWF), with a majority of the fields at 4 to 5 NAWF.

We are picking up cotton bollworms, cotton square borers, beet armyworms, and fall armyworms at various levels in some of our non-Bt (conventional) cotton fields. Worms need to be correctly identified because different insecticides are need for the different worms.



**Figure 1. Beet armyworm etching on square and square bracts**



**Figure 2. Beet armyworms feeding on a leaf**

Beet armyworm stages range from just hatched to 1/4 inch. Beet armyworms are usually light green and hairless. They also have a small black dot on each side of the body near the head. Right now the beet armyworms are mainly feeding on the leaves and square bracts. However, we are also seeing square damage when there are two or more beets on the same square. They also seem to be more likely to feed on flowers when they are in the candle stage.

Bollworm moth trap catches have increased significantly this week. Small bollworm counts ranged from 0 to 25 per 100 plants, with a majority of the fields at 0 to 5 small worms per 100 plants. We have only treated one third of the non-Bt fields that we are scouting. Also, remember fields treated for worms will likely be hit with secondary pests, such as, aphids.



**Figure 3. Cotton Bollworm**



**Figure 4. Fall Armyworm**

Fall armyworms color varies from light tan to shade of green. The head is brown or black with a prominent white line between the eyes which forms an inverted "Y". They also have four large spots that form a square on the upper surface of the last segment of its body. We are finding fall armyworm egg masses and egg masses with hatching larvae.

Infestations seem to be sporadic throughout the county. Fields within a mile of each other had very different levels of worm pressure. Therefore, fields should be scouted on an individual basis to determine if there is a treatable population.

Low aphid populations continue to be present in a majority of the fields.

We have not seen any worm activity in the Bt (transgenic) cotton.

## Peanut General Situation

We have passed our peak blooming period in peanuts and very few blooms are being found at this time. Like the cotton, the peanut plants are concentrating more on maturing the fruit load. We have received some reports of growers finding southern corn root worm damage. The larvae of the southern corn root worm feed on the pods. The adult is a small lime green beetle with black spots on its back. As with any insect, make sure the insect is still present, do not apply insecticides when you are only finding the damaged pods. The decision to treat a field should be made on a field by field bases and not on what is being found in neighboring fields. Be cautious when applying insecticides in peanuts because you increase your chances of flaring secondary pests such as spidermites. The pictures below are from the <http://Peanut.tamu.edu>



Figure 5. Southern corn root worm damage



Figure 6. Southern corn root worm larvae

## "Worm" Management - Reported by Dr. David Kerns

**Bollworms** are continuing to hit non-Bt fields. Most of what we are seeing are light to moderate populations, but be careful; these are the ones that will get you in trouble. It is not uncommon to get several egg lays over a week's time that results in a treatable bollworm population. Problem is, by the time you reach your treatment point; you may have difficulty controlling the old/larger worms. Remember the treatment threshold for < 1/4 inch long worms is 10,000 worms per acre and 5,000 larger worms per acre. In my opinion, pyrethroids are still the best option to deal with the larger worms, but use higher rates, and maximize coverage the best you can by using a ground rig and/or increased spray volume. If you are dealing with larger bollworms you may also consider using one of the "refined" pyrethroids. These are pyrethroids where they have removed the less active chemical isomers and "heated" the chemical up. For instance, Ammo or cypermethrin has been refined to Mustang Max or zeta-cypermethrin. Others include Baythroid, or cyfluthrin to Baythroid XL or beta-cyfluthrin, cyhalathrin to lambda-cyhalothrin or Karate and Proaxis or gamma-cyhalothrin.

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If treating a field for bollworms with a pyrethroid that also contains some aphids, be prepared to make a follow-up application of an aphicide in 7-12 days. Alternatively, include an aphicide with your pyrethroid. If your aphid population is 20 per leaf or less, you can use reduced rates of Intruder or Centric. You may also consider using one of the premixes such as Endigo (Pyrethroid + Centric), Leverage (Pyrethroid + Trimax Pro) or Bidrin XP (Pyrethroid + Bidrin).

Unfortunately we do not have a research based threshold for **fall armyworms**, but we do have some good guesses based on experience. This late in the season in non-Bt cotton, if you are picking up small (<1/4 inch long) fall armyworms in the upper portions of the plant feeding in the terminal tissue or blooms, then 8,000-10,000 worms per acre is a good threshold. However, if the worms are feeding deep in the canopy or if they are larger than 1/4 inch in length, then a threshold of 5,000 worms per acre is probably a better choice.

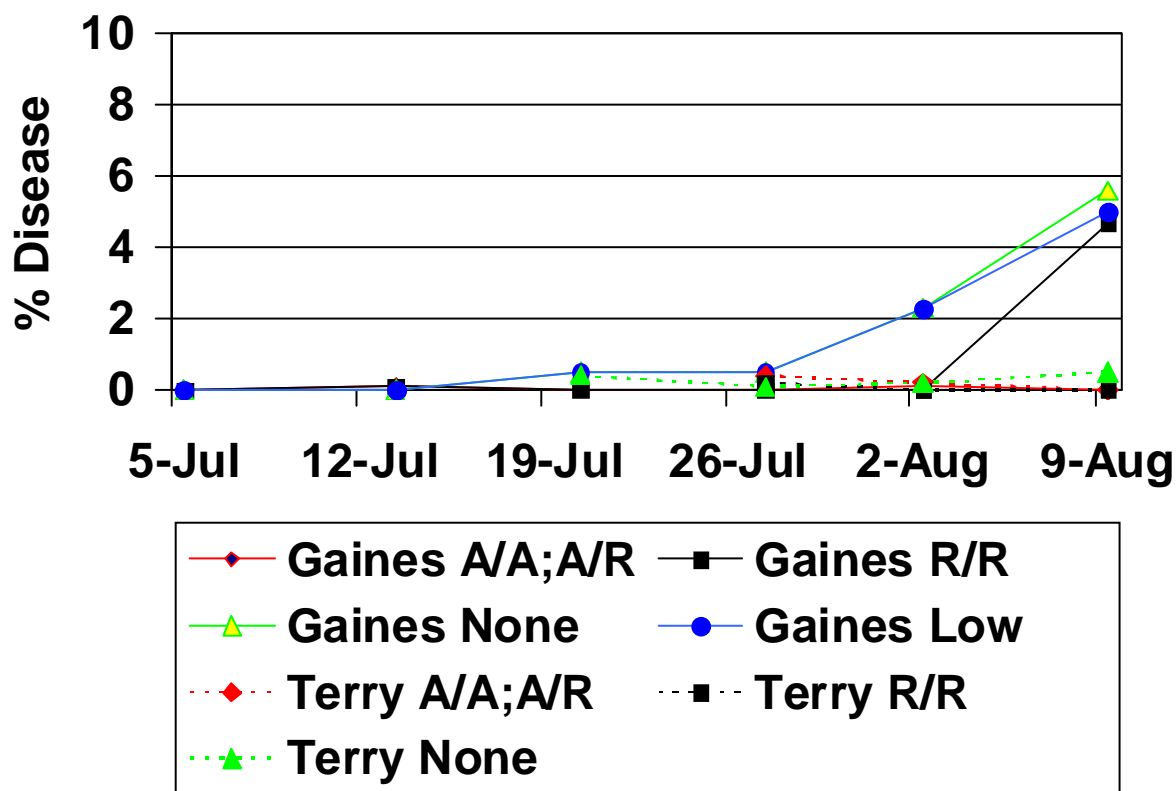
Pyrethroids are weak against fall armyworms, especially if the worms are deep in the canopy or have much size to them. If you have a mix of fall armyworms and bollworms, a pyrethroid should kill the bollworms but will miss the armyworms. Intrepid and Tracer on-the-other hand are weak on bollworms but better on fall armyworms. Belt or Coragen may prove to be good alternatives.

They both have shown activity towards fall armyworms and although somewhat weaker, they do have activity toward bollworms. Regardless of what you use, maximize coverage and try to target those worms while exposed in the blooms in the upper portion of the plant. All of the fall armyworm products mentioned above are most effective if eaten by the worm. Tracer, Coragen and Belt all have translaminar activity.

When dealing with worm populations that are predominately **beet armyworms**, there are a number of highly effect insecticides available including: Diamon, Denim, Intrepid, Steward, Belt, and Tracer. If the beets are hitting the fruit, or if the cotton is growthy or rank, coverage may be an issue and some products will be more sensitive to coverage than others. Products that have translaminar activity, which means they "soak" into the leaf tissue, tend to be less coverage sensitive since they can contact the upper side of a leaf and still kill worms feeding on the underside of the leaf. Translaminar insecticides will also provide a greater degree of rain and irrigation fastness since they are absorbed within a few hours after application. All of the previously mentioned insecticides except Intrepid are translaminar. For Intrepid, the worm must eat the product off the surface of the plant tissue. Regardless of the insecticide used, good coverage may be essential to achieve desired results. If coverage is a concern, or the beet armyworm population is comprised of a large percentage of large worms, high-end rates are probably advisable. Don't expect these insecticides to kill the worms immediately after application. Denim, Steward, and Tracer usually require 2-3 days to see good results, and Diamond and Intrepid, since they affect insect growth and development, amy require as many as 5 days.

## Peanut Pod Rot Research

Below are the results from the on-going pod rot peanut research trials that are being conducted in Gaines County and in Terry County. We are evaluating eight different chemical treatments. Treatments in this test include calendar based timings and pod rot level treatments. The calendar based treatments are Abound followed by Abound, Abound followed by Ridomil plus Provost, and Ridomil plus Provost followed by Ridomil plus Provost and they are applied at approximately 75 and 110 days after planting. The pod rot level treatments are applied when the pod rot levels reach 2% (low threshold), 4% (medium threshold), and 6% (high threshold).



Things to NOTE:

- 1) Almost all pod rot is Pythium. We are also picking up a lot of secondary fungi (fungus that infect pods previously infected with another fungi).
- 2) Last week (August 2nd) we applied the fungicide on the low threshold plots in Gaines County. Therefore the Aug. 9 low threshold numbers represent the effects one week after spraying. It can take around two weeks before we see the effects of a fungicide application.
- 3) Terry county has not shown any increase in pod rot yet. It appeared to be pure Pythium this week, so fields must be scouted individually, we cannot infer when one field will increase pod rot based on the increase in another field, even if both have Pythium. The fields may not have the same species of Pythium.

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**Information for this newsletter was obtained from the following publications:**

- **July 30, 2010 Focus on South Plains Agriculture**
- **August 21, 2009 Focus on South Plains Agriculture**
- **August 15, 2008 Focus on South Plains Agriculture**

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