

## GAINES COUNTY IPM NEWSLETTER

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August 6, 2010

### Upcoming Meetings

#### **August 13th - Management of Insects and Diseases in Peanuts**

9am to 11am in Brownfield at Tejas Peanuts, 1681 FM 403

Speakers: Dr. Jason Woodward and Scott Russell

For further information please contact Chris Bishop at 806-637-4060

#### **August 24th Gaines County Ag Tour**

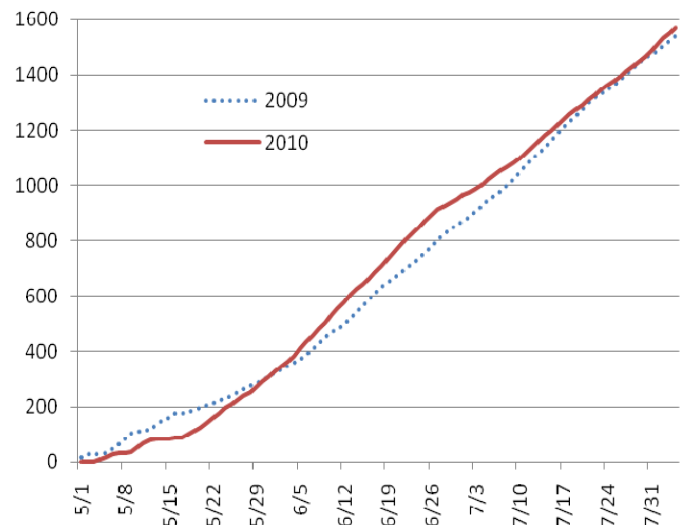
Details to follow

### Cotton General Situation

We have not received any significant rainfall since early July. The plant's water use increases dramatically from first bloom to open boll. Once blooming starts, cotton prefers frequent, low-volume applications of water rather than large, less frequent amounts. This strategy minimizes the degree of water stress between rain or irrigation and thus increases fruit retention.

Cotton stages range from 3 to 8 Nodes Above White Flower (NAWF), with a majority of the fields averaging 5.5 NAWF. Several fields have reached cutout, which is 5 NAWF. The crop is maturing quickly due to the hot conditions. It takes approximately 1640 Heat Units (H.U.) from planting to first open boll. Since May 1 we have accumulated 1569 H.U.

#### **Accumulated Heat Units (H.U) from May 1 to August 4, 2009 and 2010**



### Peanut General Situation

Large pods have formed and growers need to make sure that they do not get behind on their irrigation. Pod rot caused by Pythium is starting to show up in more peanut fields. Pods infected with Pythium usually have greasy dark brown-black lesions and pods may have a wet loose white fungus mat. Varying levels of early leaf spot is also present in a majority of the peanut fields. Verticillium wilt is present in peanut and cotton fields.

## **Peanut Crop Update - Reported by Dr. Todd Baughman, State Extension Peanut Specialist**

The peanut crop is in full swing now with the crop setting a heavy pod load. Maintaining irrigation will be the key to successfully fulfilling the yield potential of this crop at this stage of the season. With the increase in daytime highs we are already starting to see the crop exhibit signs of stress (upturned leaves and a silver cast to the field).

In addition with the heavy rainfall this year nitrogen stress is showing up in many of our fields. If you are considering applying additional nitrogen, don't apply more than 30lbs/acre in one application and do not apply any nitrogen too late in the season. High applications rates of nitrogen or late applications can lead to increased pod rot and decreased maturity issues.

## **Leaf Spot Management in Peanuts - Reported by Dr. Jason Woodward, Extension Peanut Pathologist**

We are seeing moderate levels of early leaf spot across the region. Early leaf spot, caused by *Cercospora arachidicola*, is the predominant leaf spot in most fields. Several questions have been made regarding post-infection (i.e. after leaf spot lesions are observed) fungicide options for leaf spot.

Work conducted by Dr. Albert Culbreath at the University of Georgia, Coastal Plain Experiment Station in Tifton indicates that several fungicide options are available for post-infection situations.

Headline (9.0 fl oz/A) provided adequate control of leaf spot under post-infection conditions; however, use of Headline in such a manner would not be recommended for fields where Abound is being used in pod rot programs. This is due to the potential for development of fungicide resistance to strobilurin fungicides in the leaf spot pathogen. The addition of Topsin 4.5FL (5.0 fl oz/A) as a tank-mix partner with other fungicides, such as Folicur or other tebuconazole formulations, Tilt/Bravo or other propiconazole/chlorothalonil formulations, or Provost has performed similar to Headline. Despite the activity of Topsin 4.5FL at 5.0 fl oz as a tank mix partner, applications of Topsin alone are not recommended due to the potential for insensitive populations. Furthermore, no more than two tank-mixes comprised of Topsin should be used within a season, due to concern for fungicide resistance development.

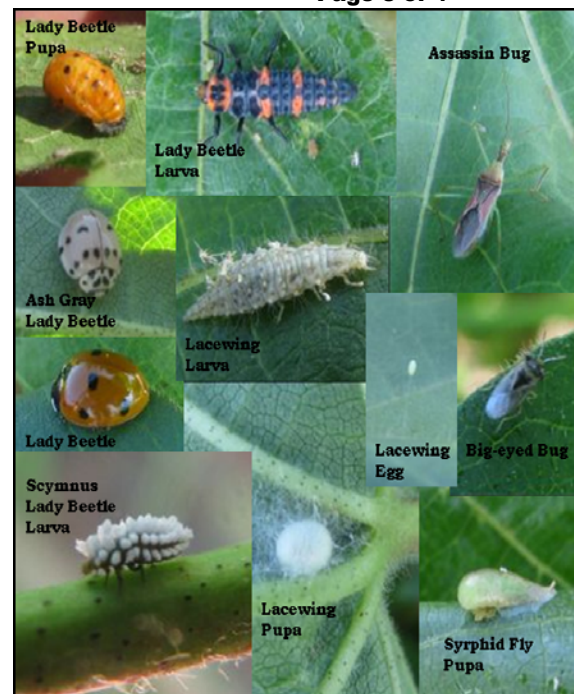
Best management options for minimizing the development of leaf spot resistance include alternating chemical classes (i.e. fungicide groups), utilizing fungicides with multiple modes of action, and properly timing fungicide applications.

## Cotton Aphids and Beneficial Insects

Cotton aphids have increased in all of the fields that we are scouting. Fields that were treated for bollworms have had the greatest increase in aphid populations. Fields that were not treated for bollworms have had a minor increase in aphid populations. Beneficial insect counts are also up in a majority of the fields. Beneficial insect counts range from 0.2 beneficials per plant to 0.73 beneficials per plant. Monitoring the aphid populations and beneficial insect populations will help you to determine if the beneficial insects (See *Figure 1*) are having an impact on your aphid populations or if your aphid populations have reached the 50 per leaf threshold and are increasing rapidly. When counting aphids do not count the light-colored shed skins (see *Figure 2*). Like other insects, aphids shed their skin as they grow.



*Figure 2. Aphid shed skins*



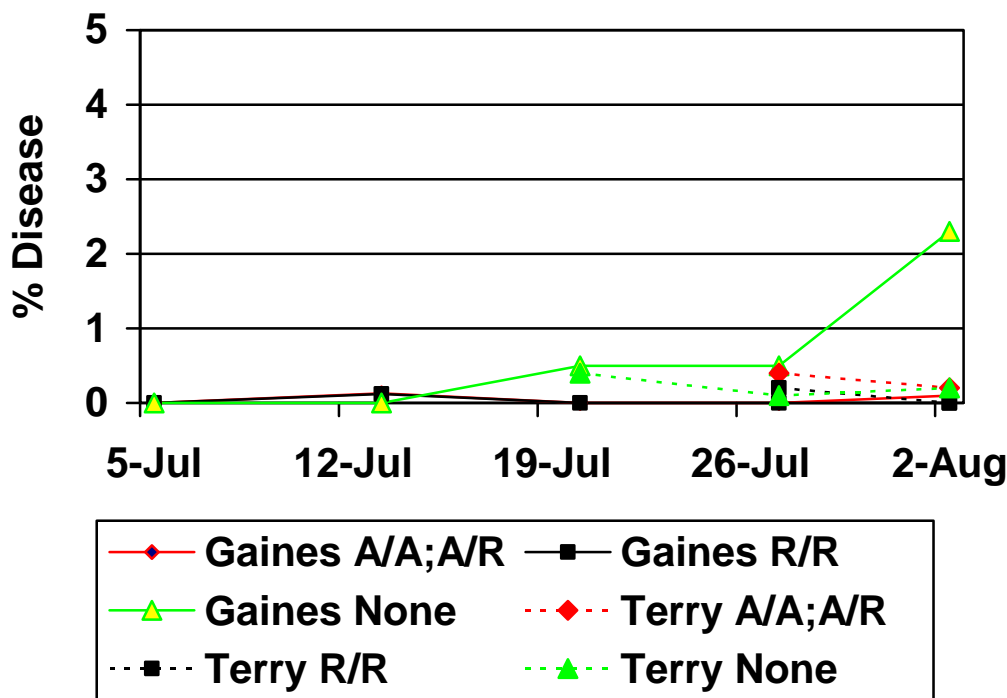
*Figure 1. Beneficial Insects*

## Peanut Pod Rot Research

Dr. Terry Wheeler, Dr. Jason Woodward, Scott Russell, and I are working on a research project to evaluate economical return of fungicide applications and peanut pod rot thresholds. Two commercial production fields are being evaluated in this study. The first is a runner market type peanut field in Gaines County that was planted on April 27. The second is a Virginia market type peanut field in Terry County that was planted on May 11. We are evaluating eight different chemical treatments. Each treatment is replicated three times in the field and the plots will be machine harvested at the end of the season to determine the economical return. 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). Each week we are intensively sampling each of these fields to determine the pod rot levels in each plot. Below is a graph that depicts the results thus far. This week the Gaines County field reached the low threshold of 2% pod rot in the untreated plots. In plots which were treated with Abound at approximately 75 days after planting, there was essentially no pod rot (0.1%). The Terry County field received the 75 days after planting treatment on July 27th and had 0.2% pod rot or less in all the treatments. Pythium was the most abundant pathogen in these two fields this week.

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