August 7, 2013

Texas IPM
Partners With Nature

TEXAS A&M AGRILIFE EXTENSION

Gaines County IPM Newsletter

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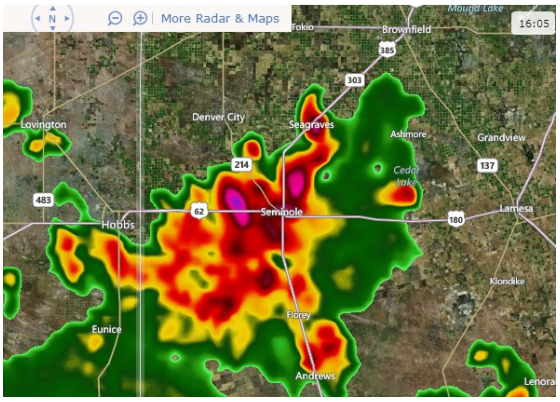
General Situation

The rainfall we received in mid-July was a game changer for the 2013 crops that had not already been failed due to the ruff early season conditions. However, as the July rainfall event drifts further into the past and as we enter into cotton boll fill and peanut pod fill, we are slipping back into the pre-rainfall situation of struggling to keep up with the crop water demands. The 100 plus days have been a natural pix for several of our cotton fields and we are seeing wilting plants in the hot afternoon sun. On the bright side, as I am writing this newsletter there is a large thunderstorm moving through Gaines County. Hopefully, it will bring us some much needed relief from the hot dry conditions we have been experiencing over the last couple of weeks.



Cotton stages range from 4 Nodes Above White Flower (NAWF) to 7 NAWF. It takes approximately 18-21 days from a pinhead square to a bloom, and depending on who you talk to our last effective bloom date is around August 20. Blooms after this date are less likely to become a mature harvestable boll because our daily heat unit accumulation decreases the further we get into September. It takes approximately, 850 heats for a bloom to become an open boll.

Insect pressure has remained relatively light, except for the bollworms being found in non-Bt cotton and peanuts. Small pockets of cotton aphids are being reported in the counties north of us, however, no fields have reached treatable levels.

Peanuts continue to look good. We are still seeing several blooms, pegs, and maturing pods. Over the last two weeks we have picked up pod rot in 90% of the peanut fields that we are scouting. All of these fields have been treated during the last two weeks for pod rot. We have also received reports of Sclerotinia blight in some peanut fields. We have seen very little leaf spot in peanuts. On the cotton side, we have seen an uptick in the amount of fields showing signs of Verticillium wilt. Nematodes continue to plague several of our cotton fields.

Worms in Peanut

We have seen an increase in worm populations in peanuts. However, worms have not reached treatable levels in peanuts. Peanut plants can tolerate extensive foliage loss before there is a significant yield loss. Spanish and Valencia peanuts can tolerate approximately 6-8 medium to large worms per foot of row. Runners and Virginias have more foliage area and can tolerate 10-12 worms per foot of row. Be sure to scout your fields to determine if an economically damaging population is present. If chemical control measures become necessary, apply when worms are small. After insecticides are applied be sure to continually monitor the field for secondary pests such as spider mites.

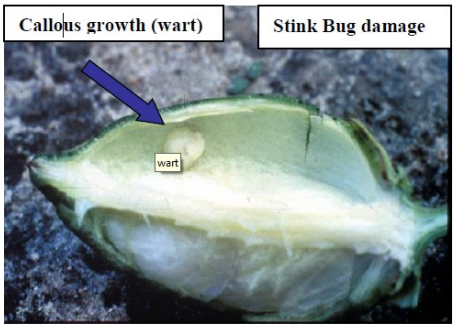
Nodes Above White Flower (NAWF) and Scouting Cutoff for Some Cotton Insect Pests

Several cotton fields are quickly approaching physiological cutout, which is 5 NAWF. Cutout is an important stage to note for each of your fields. End of the season scouting cut off for bollworm, lygus, and stinkbug is based on the number of heat units accumulated after cutout. Bolls are safe from caterpillar feeding damage at 350 heat units accumulated past cutout. Bolls are safe from Lygus and stink bug feeding damage at 450 heat units accumulated past cutout.

We have received a few calls regarding stink bug and lygus in cotton. The threshold for lygus in cotton is 15 per 100 sweeps or 4 per beat sheet (6 ft-row).

Use a drop cloth to sample 6-ft of row for stinkbugs in several locations in the field. If stinkbugs are found,

bolls one inch in diameter should be sampled and inspected for internal injury. The Stinkbug Action Threshold is 1 per 6 ft-row with 20% internal injury. Stephen Biles, Extension Agent-IPM for Calhoun, Refugio, & Victoria Counties, has done a lot of research on stink bugs and he says that the size of the bolls is critical to using this threshold. If bolls sampled are too small or too large, the feeding will either not be found or could be older feeding.



Picture from Clyde Crumley's July 17, 2013 Upper Coast Crop Improvement Newsletter.

Bollworms in Non-Bt Cotton

Over the last two weeks we have picked up treatable levels of bollworms in non-Bt cotton fields. My estimate is that 99% of the worms found have been bollworms. This is a different scenario than what we have seen in previous years, where we had mixed populations of bollworms and fall armyworms. The Action Threshold in non-Bt cotton is 10,000 worms/ acre if bollworms are less than or equal to ¼ of an inch. If they are larger than ¼ of an inch, then the threshold is 5,000 worms/acre.

Over the last couple of months three producers have applied 1-3 applications of Dupont™ Prevathon™ or Dupont™ Coragen® targeting bollworms. Rynaxypyr is the active ingredient for both of these products, however, Prevathon has 0.43 lb of active ingredient per gallon, whereas Coragen has 1.67 lb of active ingredient per gallon. We have seen mixed results from these applications. Below is the application history for these three producers.

Producer #1

On June 24, a ground application of Prevathon was applied at a rate of 20 oz per acre in a 18 inch band in 20 gallons of water per acre. This application was very efficacious. For three weeks bollworm populations did not exceed economic thresholds following the June 24 Prevathon application.

During the week of July 15, bollworm populations exceed threshold in this field and five other fields. All six of the fields were treated by ground with the following tank mix:

- 16 gallons per acre broadcast
- 20 oz Prevathon (Active Ingredient Rynaxypyr)
- 6 oz Energy Max (PGR4)
- 2 qrts MicroPlus U
- 25 oz Iron & 25 oz Zinc

Bollworm populations were not reduced below economic thresholds with this application in five of the six fields treated. These five fields were retreated on July 25 with the following tank mix:

- 16 gallons per acre broadcast
- 20 oz Prevathon (Active Ingredient Rynaxypyr)
- 10 oz Asana (Pyrethroid)
- 1 gallon of MSO/100 gallons of water

Bollworms populations were reduced below economic thresholds at 7 days after this treatment.

Producer #2

One July 23 & 24 two fields were treated with an aerial application of the following tank mix:

- 4 gallons of water per acre
- 20 oz Prevathon (Active Ingredient Rynaxypyr)
- 3.33 oz Pentia
- 8 oz Destiny HC
- 1 lb Solubar

Bollworm populations were not reduced below economic thresholds with this application. Both of these fields were retreated with the following tank mix:

- 16 gallons per acre broadcast
- 20 oz Prevathon (Active Ingredient Rynaxypyr)
- 10 oz Asana (Pyrethroid)
- 1 gallon of MSO/100 gallons of water

Bollworms populations were reduced below economic thresholds at 6 days after this treatment.

Producer #3

One July 29 one field was treated with an aerial application of the following tank mix:

- 3 gallons of water per acre
- 3.5 oz Coragen (Active Ingredient Rynaxypyr)
- 1 qt of LI700/100 gallons of water

Bollworm populations were not reduced below economic thresholds with this application. At nine days after the application we found over 10,000 bollworms per acre that were approximately 12 days old. Therefore, these worms were approximately 3 days old at the time of application.

Our local Dupont Salesman and two Development Representatives have visited some of the fields. The

Dupont Salesman has also commented about one other situation in which less than desirable worm control was seen with a Prevathon application which included a micronutrient in the tank mix. All other reports have indicated that producers & researchers achieved very good control with these products.

If you have bollworms in your field and you decide to apply Prevathon, Dupont suggests using the following tank mix:

- 15 gallons of water by ground
- 20 oz Prevathon (Active Ingredient Rynaxypyr)
- 1% MSO

Additionally, Dupont recommends applying Prevathon when bollworms are 1-3 days old. At 5 days after treatment the effects of the application should be seen. Rescouting the field at 10-14 will help you to determine if a follow up application is needed.

At this point we are not sure why we saw less than desirable control with some of our Prevathon/Coragen applications. Dr. Apurba Barman, Texas A&M AgriLife Extension Service Entomologist and I are looking into it. We are working with the Dupont Representatives to develop research projects that will address our concerns about the use of Prevathon.

Additionally, Dr. Barman and I have applied a bollworm insecticide trial in Gaines County. Results from these trials and further information on bollworm control will be included in future editions of the Gaines County IPM Newsletter and the FOCUS on South Plains Agriculture Newsletter.

Verticillium wilt in Cotton

By Dr. Jason Woodward, Texas A&M Extension Service Plant Pathologist in the August 2, 2013 edition of FOCUS on South Plains Agriculture

The cooler temperatures that accompanied rain received across the High Plains in conjunction with the increased water demand of plants required during boll fill all favor development of the disease. In fields where the disease has been observed, both incidence and severity should increase over the next few weeks, especially as temperatures warm up. I have received a few phone calls inquiring about the impact the application of fungicides and/or foliar fertilizers will have on Verticillium. In short, the answer is applications of these products alone or as tank mixtures will have no affect on the disease as infections have already occurred. Likewise, the use of growth regulators will have no effect on symptom expression and will not reduce the amount of disease severity. Refer to the previous issue of FOCUS on South Plains Agriculture for more information on Verticillium wilt.

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