



Cotton/Soybean Insect Newsletter

Volume 11, Issue #11

Edisto Research & Education Center in Blackville, SC

15 July 2016

Pest Patrol Hotline

The information contained herein each week is available via a toll-free hotline. I will update the short message weekly for at least as long as the newsletter runs. Call the free number (877) 285-8525 and select the messages you would like to hear. Select #1 for updates from the Southern Region. Select #3 for the Southeast, and then select #1 to hear my message. After a new message is on the hotline, a text message alert can be sent alerting users that I have recorded a new update. Users can subscribe for text message alerts for my updates in two easy steps. Step one: register by texting **pestpat7** to 97063. Step two: reply to the confirmation text you receive by texting the letter “y” to complete your registration. The hotline is sponsored by Syngenta.

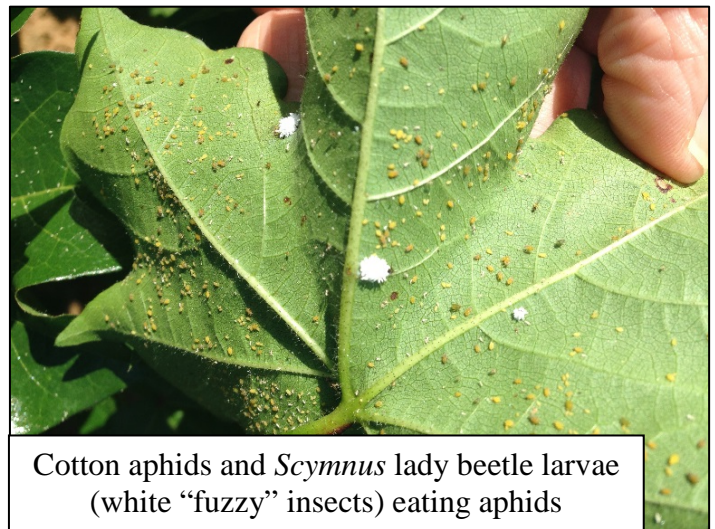
Updates on Twitter

When noteworthy events happen in the field, I will be sending them out quickly via Twitter. If you want to follow those quick updates, follow me at @bugdocisin on Twitter.



News from Around the State

Charles Davis, county agent covering Calhoun and Richland Counties, reported that “aphids are on the rise in Calhoun County. I hope the fungus shows up soon! Also finding a few bolls with internal damage. This could have been stink bug but couldn’t find any warting on the inside. I expect stink bug numbers to start climbing soon as bolls show up and corn dries down.” **Drake Perrow**, crop consultant, is seeing stink bug numbers and initial injury climb and is still finding populations of aphids that will not “crash” with the fungus, despite observing this natural control in other fields. He is also getting worried about spider mites in a few places. Maybe the heavy, but scattered, rains will help some with spider mites.



Cotton aphids and *Scymnus* lady beetle larvae (white “fuzzy” insects) eating aphids

Training Opportunities

- **Charles Davis** and **Jonathan Croft**, will be hosting an in-field training (a Scout School) in Cameron on 19 July. We will begin with registration at 9:00AM at Cameron Cotton and Seed, have field tours in cotton and soybeans, and end with lunch. I will be present for the hands-on portions of the field visits. Join us! We should have a good time identifying insects and talking about scouting methods, thresholds, and control options. There will be much discussion, questions, and, hopefully, some good answers! ☺ We will have

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more information next week, but please contact Charles and let him know, if you plan to come. Call his office or send him an email. We need a head count to plan for the lunch and drinks. Thanks!

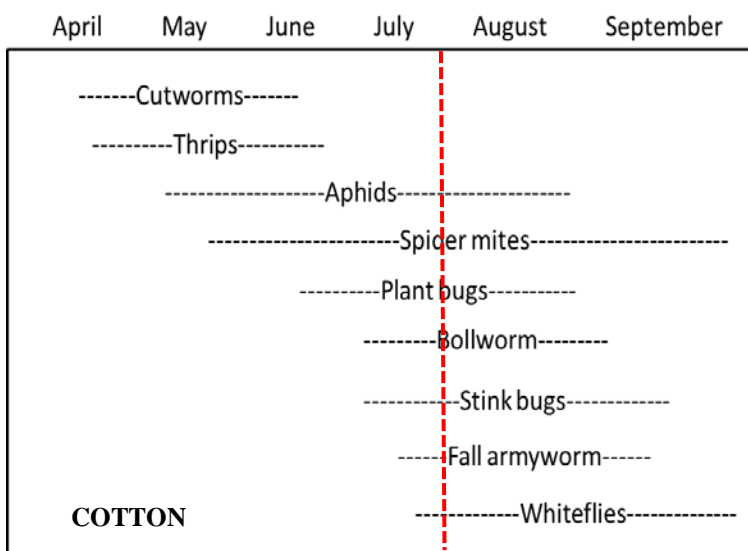
- Also, we will be having our Row-Crop Field Day on 11 August 2016. Here is the link for the agenda: <http://www.clemson.edu/public/rec/edisto/2016rowcropfieldday.pdf>

Cotton Situation

As of 10 July 2016, the USDA NASS South Carolina Statistical Office estimated that about 60% of the crop was reported as squaring, compared with 51% at this time last year and 61% for the 5-year average. About 12% of the crop was reported as setting bolls, compared with 16% at this time last year and 21% for the 5-year average. The crop was described as 6% excellent, 41% good, 52% fair, 1% poor, and 0% very poor. These are observed/perceived state-wide averages.

Cotton Insects

As I mentioned last week, we will be dealing with aphids, plant bugs, and spider mites for another week or two, until we start looking at bollworm and stink bugs, primarily, to end the insect season. Our moth captures (bollworm and budworm) in pheromone traps here at Edisto REC increased this past week, and they continue to climb. We will see pressure increase in terms of hatching bollworm eggs from now and into August. Thankfully, the Bt technologies will get most of the bollworms and all of the tobacco budworms. However, we still need to check cotton for caterpillars just to make sure no escapes are present. When you begin to monitor for stink bug injury, you will see any caterpillar damage there, but that will be too late, right? You will need to check squares, blooms, and under bloom "tags" on small bolls to catch any caterpillars that escape control from the Bt proteins. Continue to monitor square retention for plant bugs, and it is time to start honing in on what week of bloom you are in for proper control of stink bugs



Decision aid for stink bug thresholds in Southeast cotton

- 1 Pull random sample of quarter size diameter bolls, avoid field edges. (boll sizes between 0.9" and 1.1")
- 2 1 boll / acre, no less than 25 / field.
- 3 Sort bolls into two piles: those with and those without, obvious external lesions.
- 4 Crack and inspect bolls with external lesions for internal damage (boll wall warts, stained seed or lint).
- 5 If threshold is not met for that week, (see chart) check the remaining bolls for internal damage.
- 6 Treat field only if the threshold is met for that week.

0.9"

Bolls should fit through the large hole but not the small one.

1.1"

Week of bloom	Threshold (% internal boll damage)
1	50%
2	30%
3	10%
4	10%*
5	10%*
6	20%
7	30%
8	50%

*Consult state guidelines for scouting intervals.

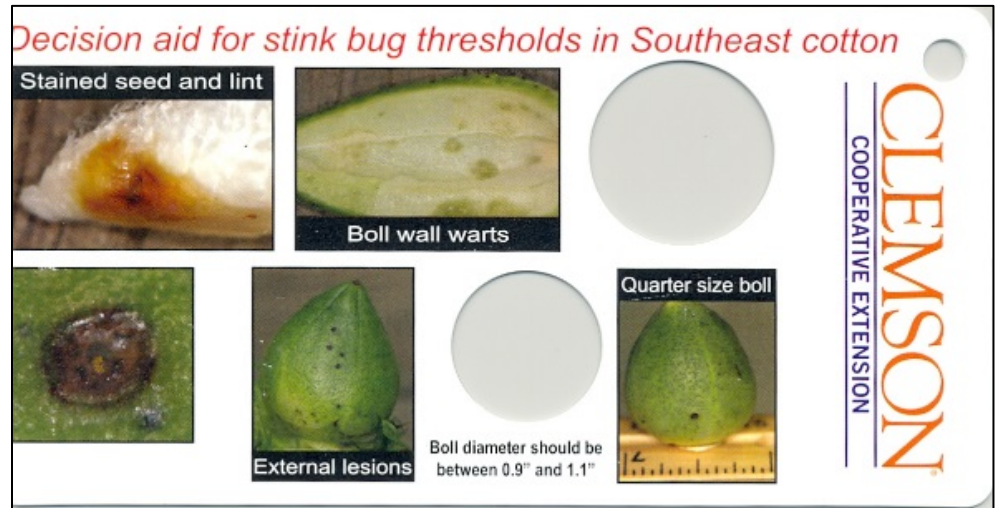
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(decision aid card shown here). Our recommendations are based on being able to know what week of bloom each field is in for that week. So, start by labeling fields as Week 1 when you observe an initial bloom on about every other plant. After that, week of bloom is easy, right? Just add a week each week! The trick is keeping good notes about each field and knowing when you are starting the 1st week of bloom. See our updated Pest Management Handbook for thresholds and guidelines for control of plant bugs, stink bugs, and bollworm.

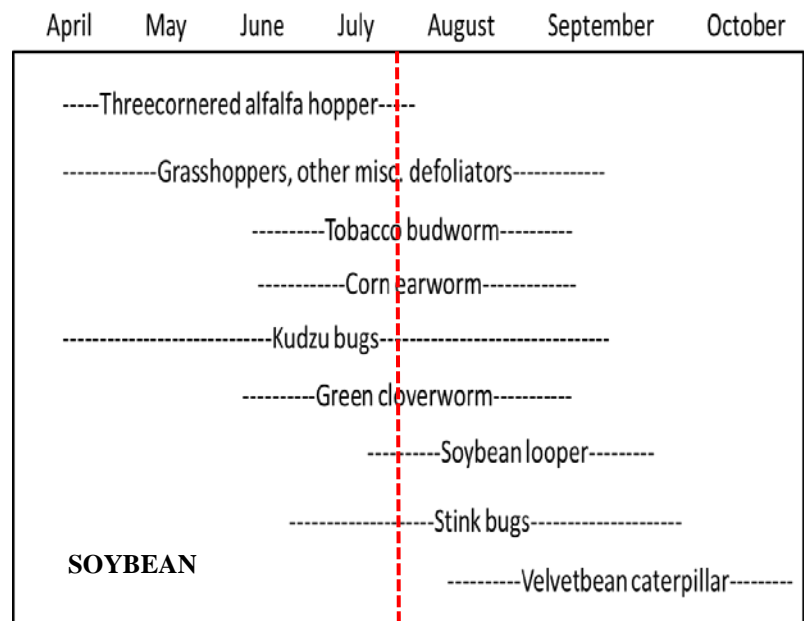


Soybean Situation

As of 10 July 2016, the USDA NASS South Carolina Statistical Office estimated that about 96% of our soybean crop has emerged, compared with 88% this time last year and 89% for the 5-year average. About 11% of the crop is blooming, compared with 3% at this time last year and 9% for the 5-year average. The crop was described as 23% excellent, 61% good, 13% fair, 3% poor, and 0% very poor. These are observed/perceived state-wide averages.

Soybean Insects

It is still quiet concerning insects in soybeans. Caterpillars will be here quickly. On the next page are some reminders about what the moths look like that you will see in the field before you see caterpillars. **Repeat from last week – but worth another look.** Learning what the adults look like is a valuable skill in predicting what will happen after a week or two in the field – many hatching and hungry caterpillars. This can be especially important in our southernmost counties where velvetbean caterpillar (VBC) can show up where you have not previously treated for insects. Now that early season infestations of kudzu bugs are not likely, be on the lookout for VBC. The moths are easy to identify. As a reminder, use these hints to



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help you identify moths. Look for the snout on the green cloverworm, the widespread wings on VBC when at rest, the dark moths with light spots on the wings for soybean looper, and the light brown moths for corn earworm (CEW) (podworm, bollworm, etc.). Tobacco budworm (TBW) moths have the lines on the wings. Remember that CEW and TBW are indistinguishable to the naked eye in the field as caterpillars. If you can spot these moths “flushing” as you walk soybeans, you can get a sense of species composition between these species and avoid misidentification and use the appropriate insecticide for populations that are predominantly TBW. See our Pest Management Handbook for differences in control recommendations for these species. It is important!

Tobacco budworm moth at right. Caterpillar looks identical to corn earworm below.



	<p>CORN EARWORM 4 + 1 pair prolegs Curls up in hand Black “warts” on body</p>	
	<p>SOYBEAN LOOPER 2 + 1 pair prolegs Fatter at tail end Looping movement</p>	
	<p>VELVETBEAN CATERPILLAR 4 + 1 pair prolegs Very active when handled</p>	
	<p>GREEN CLOVERWORM 3 + 1 pair prolegs Not fatter at tail end Looping movement</p>	

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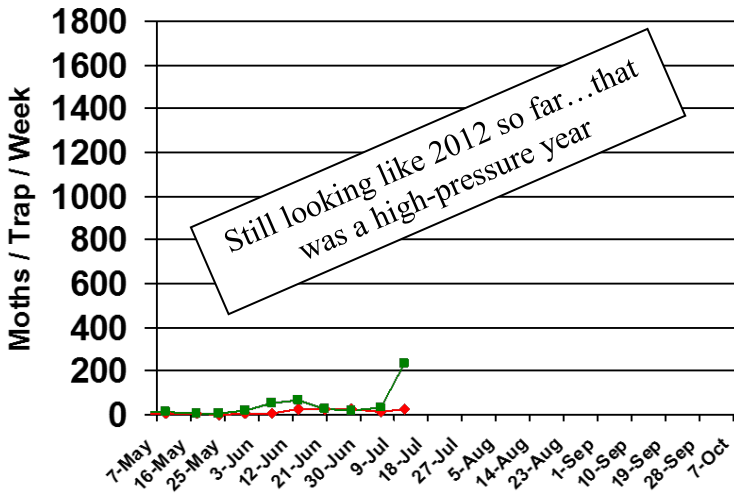
Bollworm & Tobacco Budworm



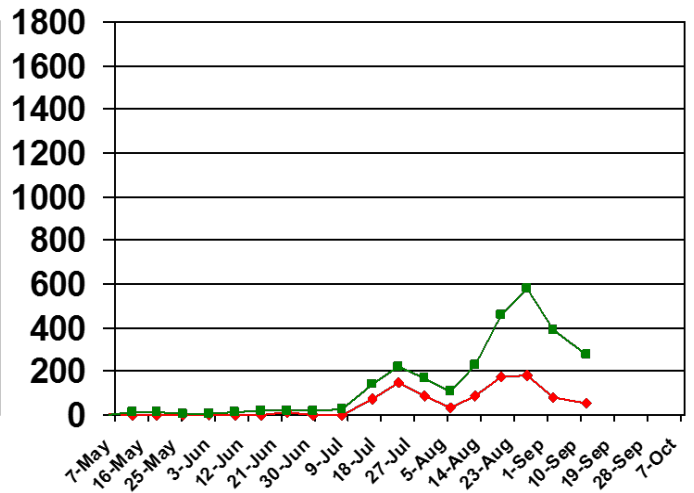
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2015 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state.



Pheromone Trap Capture SC - 2016

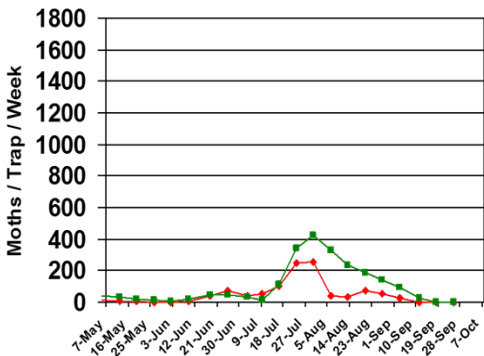


Pheromone Trap Capture SC - 2015

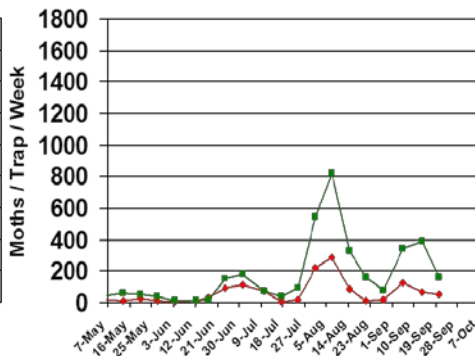


Trap data from 2012-2014 are shown below for reference to other recent years of trapping data from EREC:

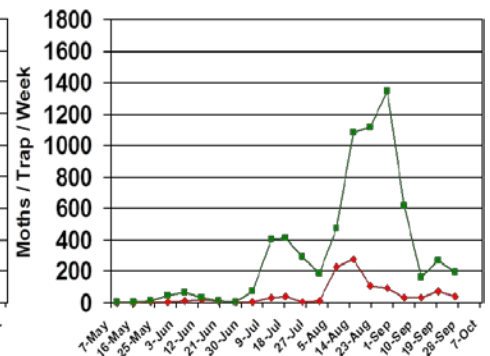
Pheromone Trap Capture SC - 2014



Pheromone Trap Capture SC - 2013



Pheromone Trap Capture SC - 2012



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Pest Management Handbook - 2016

Insect control recommendations are available online in the 2016 South Carolina Pest Management Handbook at: <http://www.clemson.edu/extension/rowcrops/pest/>

Free Mobile Apps: “Calibrate My Sprayer” and “Mix My Sprayer”



Download our free mobile apps called “Calibrate My Sprayer” and “Mix My Sprayer” that help check for proper calibration of spraying equipment and help you with mixing user-defined pesticides, respectively, in custom units (available in both iOS and Android formats):

<http://www.clemson.edu/extension/mobile-apps/>

Need More Information?

For more Clemson University Extension information: <http://www.clemson.edu/extension/>

For historical cotton/soybean insect newsletters:

http://www.clemson.edu/extension/rowcrops/cotton/pest_management/newsletters/index.html

Sincerely,

Jeremy K. Greene, Ph.D.
Professor of Entomology



Visit our website at:
<http://www.clemson.edu>

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