



Cotton/Soybean Insect Newsletter

Volume 11, Issue #15

Edisto Research & Education Center in Blackville, SC

12 August 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

We are still following the reports of bollworm damage in Bt cotton. Most of what I have heard is that the damage is not something we haven't seen before. There could be something going on with the pyrethroids and reduced control of bollworms, but we are still looking into that issue. For now, the pyrethroids remain our best option for control of stink bugs and escaped bollworms in cotton. These practices (or at least the recommendations) could change some in the near future regarding this. Stay tuned, and let me know if you see something unusual. I want to visit and see these situations.

Getting the Most from Your Sprayer?

Are you giving your pesticide the best chance to work? When your sprayer pulls out of a field, did you do everything you could have to maximize the effectiveness of the spray that you just applied? For what were you spraying? Were you killing weeds, insects, diseases, regulating growth, fertilizing, etc? Will **one** set-up (spray tips, pressure, volume, etc.) work best for all of those? The answer is ‘absolutely not’! We are going to be conducting some research and demonstrations on that topic to exclaim that, but just think about it. Should you be spraying for insects with those coarse droplets that you need to use for weed control? NO. If possible, everyone should have the multi-selective nozzle body assemblies (like the TeeJet one pictured here) that allow you to rotate to the most appropriate nozzle tip for the task/trip across the field. We will talk more about this in the future.



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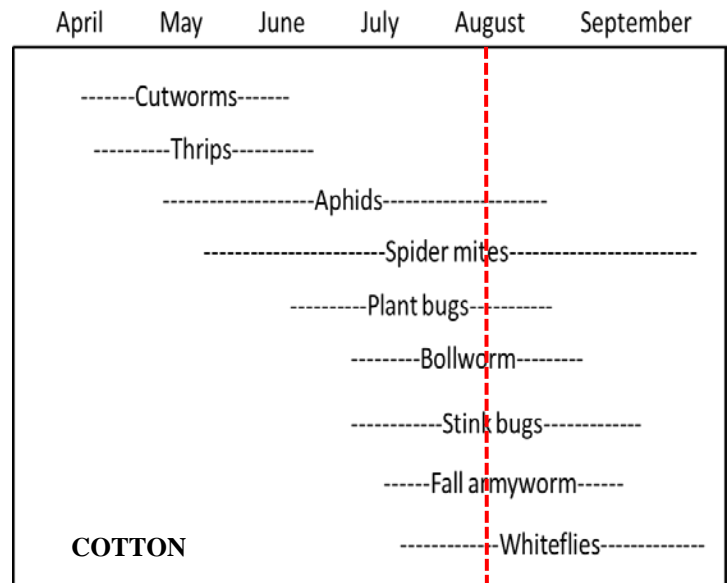


Cotton Situation

As of 7 August 2016, the USDA NASS South Carolina Statistical Office estimated that about 95% of the crop was reported as squaring, compared with 100% at this time last year and 96% for the 5-year average. About 80% of the crop was reported as setting bolls, compared with 90% at this time last year and 71% 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

August is stink-bug month – all month. At this point, you should have a good history for each field, knowing where you are and have been with growth stage of the crop, insect numbers, injury levels, sprays, etc. Most fields have likely been sprayed for stink bugs at least once. If you have not sprayed for stink bugs, those fields need to be checked thoroughly. Don't spray fields just because "it is time to spray" them. If your boll injury levels have been in check and under threshold, you are good to go. Follow the crop out through the 6th and 7th week of bloom (longer if irrigated and still some crop to go) to finish off protection from stink bugs. Check for injury from both stink bugs and bollworm right now. Look for feeding symptoms and follow the dynamic threshold. Spider mites remain a concern in some locations, but the recent rains should have helped with that pest. Check for all arthropods!



Soybean Situation

As of 7 August 2016, the USDA NASS South Carolina Statistical Office estimated that about 52% of our soybean crop is blooming, compared with 50% at this time last year and 61% for the 5-year average. About 5% of the crop is setting pods, compared with 12% at this time last year and 16% for the 5-year average. The crop was described as 23% excellent, 60% good, 13% fair, 4% poor, and 0% very poor. These are observed/perceived state-wide averages.

Soybean Insects

Soybean loopers are becoming very numerous on the drop-cloth samples I am taking. There are very small caterpillars, if you look closely. Watch defoliation levels and use appropriate materials for soybean looper. Consult our recommendations in the 2016 Pest Management Handbook for insecticides active on loopers. Podworm (same as corn earworm, bollworm, etc.) numbers in moth traps (see chart below) are increasing again, so I expect podworm to be important in the next few weeks. You have to use a sweep

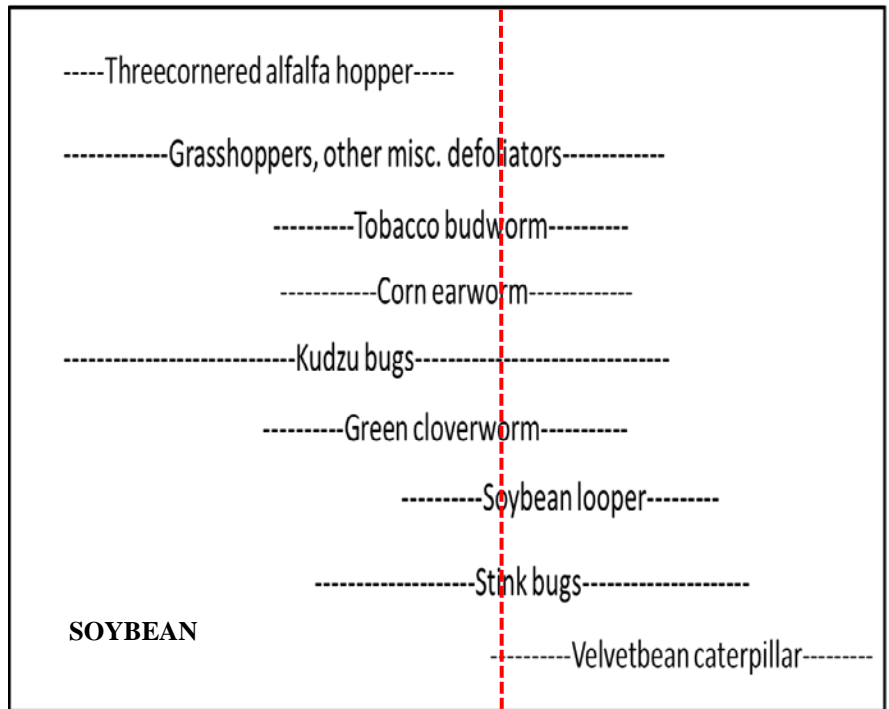
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net or drop cloth to assess numbers of podworm. Don't let them eat the blooms and small pods. Remember, podworm doesn't focus on eating leaves...they are after the seeds. You will not see their damage until it is too late. Stink bugs will shift from cotton, peanuts, and other crops to soybeans soon, so look out for stink bugs also in those samples. Consult the entire section on soybean insect pests in the Handbook for all recommendations.

Below is information on sampling and thresholds for major pests of soybeans in SC. This information and more can be found in the Pest Management Handbook under Soybean Insect Control. The first table covers threshold numbers for major species if using a drop cloth (shake sheet, beat cloth, etc.). The second table covers threshold numbers for major species if using a sweep net to sample soybeans. If you do not have a sweep net or drop cloth, I would encourage you to get a drop cloth and sweep net to use as routine sampling tools in the crop. I do not sample research plots or enter a grower's field to diagnose a problem without these tools for estimating the insect numbers. They are a must.

April May June July August September October



BEAT CLOTH THRESHOLDS

Treatment thresholds (per 3 row ft) for soybean insects sampled with beat cloth.					
Pest	Row width (inches)				
	38	30	21	14	7
stink bug	3	2.4	1.6	1.1	0.5
corn earworm*	6	4.7	3.3	2.2	1.1
velvetbean caterpillar	12-18	12	8.3	5.5	2.7
soybean looper	18-24	16	11.6	7.7	3.8

*this is the pod-feeding threshold for corn earworm

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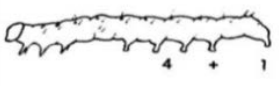





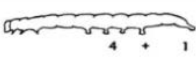

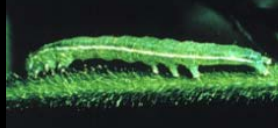


SWEEP NET THRESHOLDS

Use percent defoliation estimates as an additional treatment guideline for foliage feeders. Prior to bloom, up to 30% defoliation is acceptable without economic yield loss, but once blooming begins, the guideline drops to 15% defoliation.

Treatment guidelines for soybean insects sampled with a sweep net.		
Pest	Number per 10 sweeps	Comments
stink bug	1-2	
corn earworm	3	or 15% foliage loss
velvetbean caterpillar	10	or 15% foliage loss
soybean looper	15	or 15% foliage loss
kudzu bug	10 (nymphs)	1 nymph per sweep
For other foliage feeders use a threshold of 30% defoliation before first bloom, 15% after first bloom.		

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

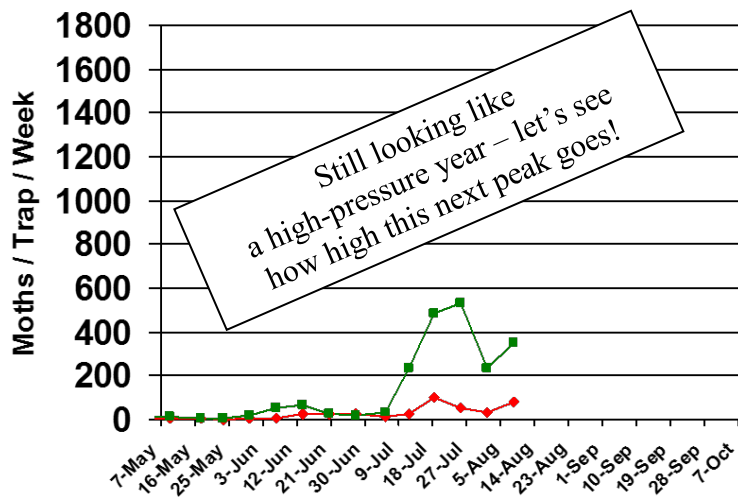


Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2015 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these

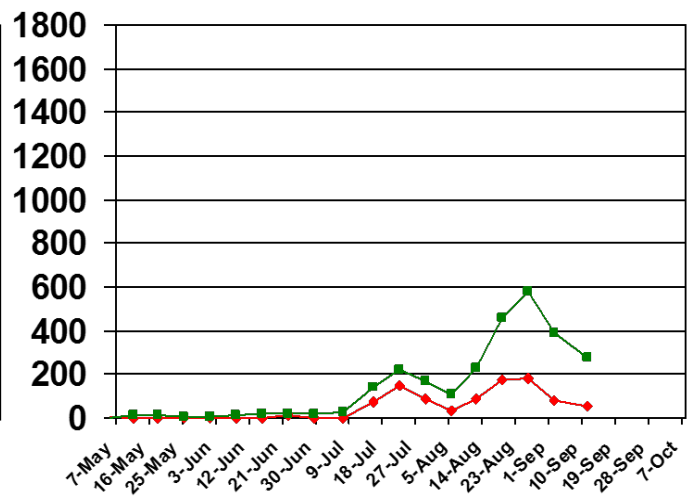
data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state.



Pheromone Trap Capture SC - 2016

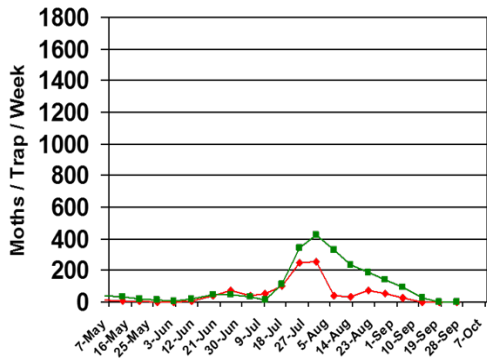


Pheromone Trap Capture SC - 2015

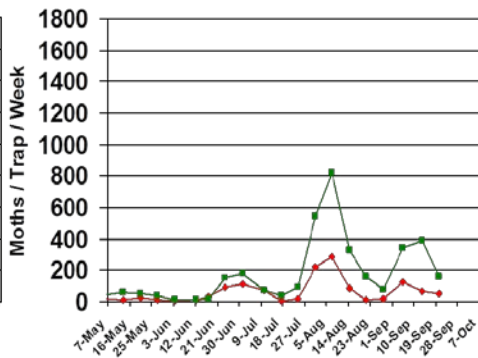


Trap data from 2012-2014 are shown below for reference to other recent years of trapping data from EREC:

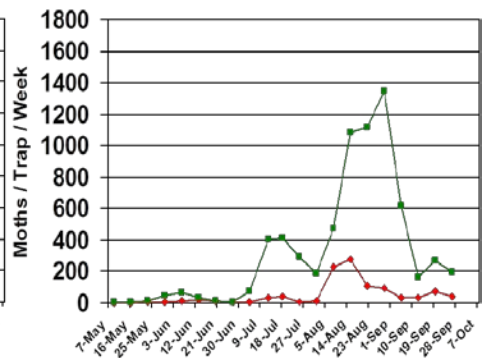
Pheromone Trap Capture SC - 2014



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

