



Cotton/Soybean Insect Newsletter

Volume 11, Issue #13

Edisto Research & Education Center in Blackville, SC

28 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

Collins Gardner, an experience crop consultant in the Pee Dee Region, reported that he is through ‘Round 1’ of spraying for stink bugs in cotton, and that they are seeing some soybean loopers in soybeans. Again this week we observed podworm (*H. zea*) in blooming soybeans, so get out and scout any soybeans that are blooming and setting pods. See the moth in this photo hiding in the shadow opposite the grasshopper?



Training Opportunities

We will be having our **Row-Crop Field Day on 11 August 2016**. We will start registration at 8:30AM and load buses for transport to concurrent tours at 9:00AM. Join us!

Here is the link for the agenda:

<http://www.clemson.edu/public/rec/edisto/2016rowcropfieldday.pdf>

Cotton Situation

As of 24 July 2016, the USDA NASS South Carolina Statistical Office estimated that about 85% of the crop was reported as squaring, compared with 90% at this time last year and 85% for the 5-year average. About 40%

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Public Service Activities

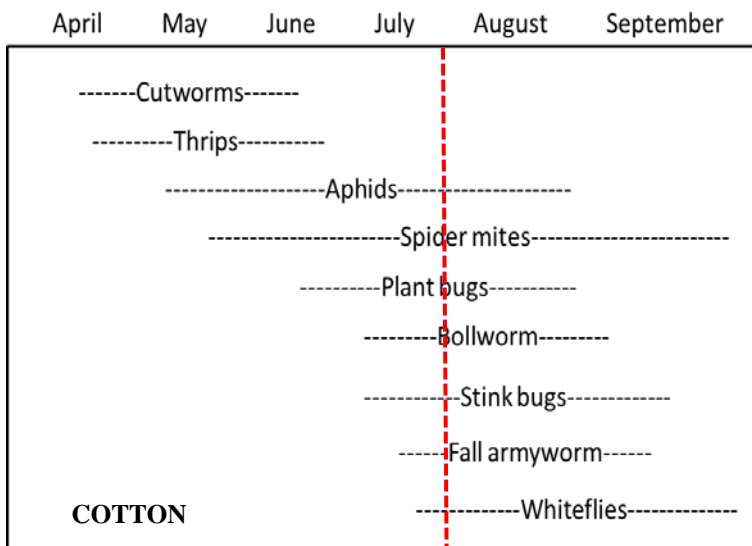
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of the crop was reported as setting bolls, compared with 59% at this time last year and 47% for the 5-year average. The crop was described as 6% excellent, 40% good, 53% fair, 1% poor, and 0% very poor. These are observed/perceived state-wide averages.

Cotton Insects

It is almost stink-bug month, but you should be well into checking for stink bugs by now. I hope that everyone knows what week of bloom each field is in, so they can



use the appropriate threshold for that growth stage. Again, open the largest, soft bolls you can find, and those will be the correct size. Look for feeding symptoms and follow the dynamic threshold. See our updated Pest Management Handbook for thresholds and guidelines for control of stink bugs. Aphids continue to linger in spots, but I do not get too excited about aphids, unless the stresses are just too much for the plants. That is a field-by-field decision. Spider mites will be a concern again after we spray for stink bugs. Check for all arthropods!

Treatment Thresholds for Stink Bugs in SC Cotton

- Examine 1 quarter-sized boll/acre, no less than 25/field
- Sort by those with and without obvious external lesions
- Open and inspect bolls for internal damage (warts or stained seed or lint associated with feeding puncture), beginning with the bolls displaying external injury
- Treat field if threshold is met for that week of bloom



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

Soybean Situation

As of 24 July 2016, the USDA NASS South Carolina Statistical Office estimated that about 31% of our soybean crop is blooming, compared with 21% at this time last year and 33% for the 5-year average. The crop was described as 23% excellent, 61% good, 12% fair, 4% poor, and 0% very poor. These are observed/perceived state-wide averages.

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Soybean Insects

Soybean looper (SBL – a migratory species) is showing up, so what for defoliation levels to increase. Remember, the pyrethroids will not control SBL. You will need to use an insecticide selective to caterpillars for SBL. Here is the section from our handbook that covers SBL, tobacco budworm, and armyworms:

SOYBEAN LOOPER, TOBACCO BUDWORM, BEET & FALL ARMYWORM (FAW rarely a problem)

Product	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
indoxacarb Steward 1.25 EC	5.6-11.3 oz	0.054-0.11	11.3-22.8	12 hr	21 d	See CEW defoliation thresholds. It takes 6-8 large loopers per row ft to cause major defoliation. Existing stocks of Tracer. *Not for TBW.
spinosad Tracer 4 SC Blackhawk 36 WG	1.0-2.0 oz 1.1-2.2	0.03125-0.062 0.025-0.05	64-128 -	4 hr	28 d	
methoxyfenozide Intrepid 2 F*	4.0-8.0 oz	0.0625-0.125	16-32	4 hr	14 d	
flubendiamide Belt 4 SC	2.0-3.0 oz	0.0625-0.094	42.6-64	12 hr	14 d	6 oz limit per season
chlorantraniliprole Prevathon 0.43 SC	14.0-20.0 oz	0.047-0.067	6.25-9.1	4 hr	21 d	3-d interval/ application

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.

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

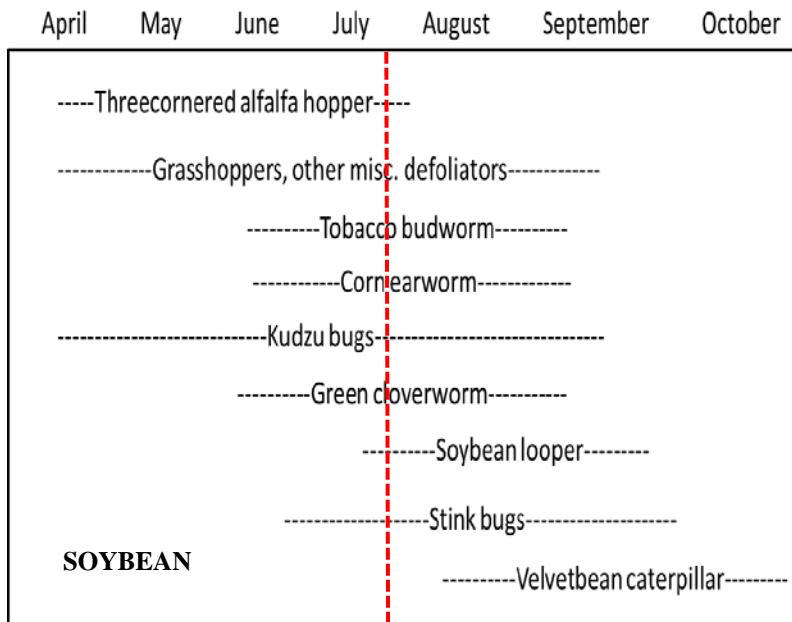
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SWEEP NET THRESHOLDS

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.		





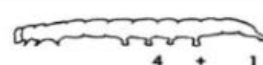

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Tobacco budworm moth at right. Caterpillar looks identical to corn earworm below.

	 <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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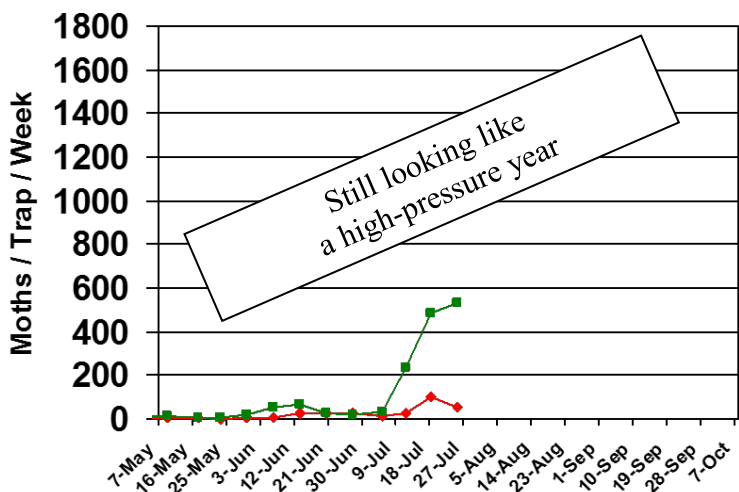
Bollworm & Tobacco Budworm



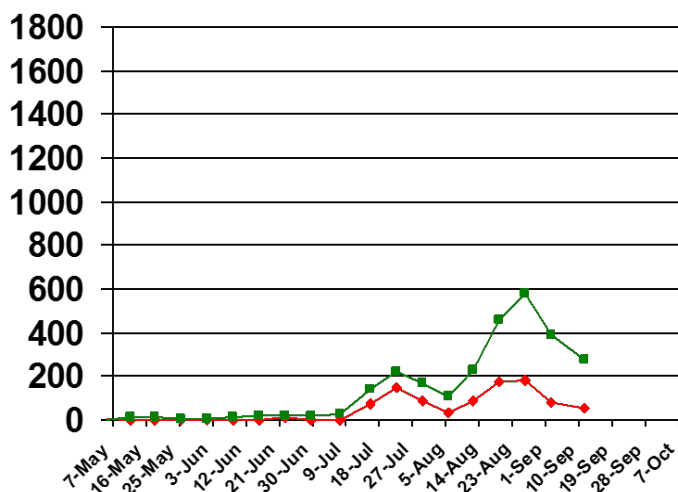
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2015 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth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

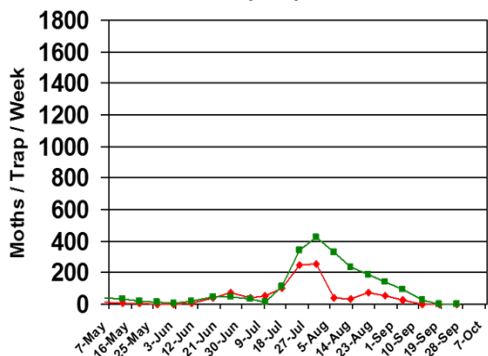


Pheromone Trap Capture SC - 2015

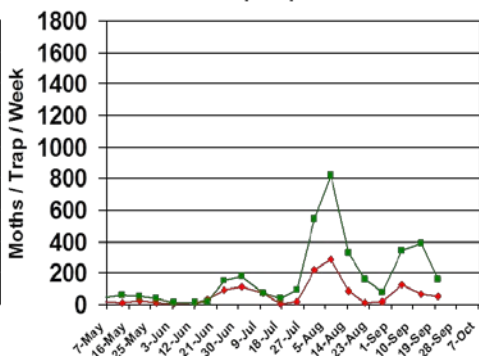


Trap data from 2012-2014 are shown below for reference to other recent years of trapping data from EREC:

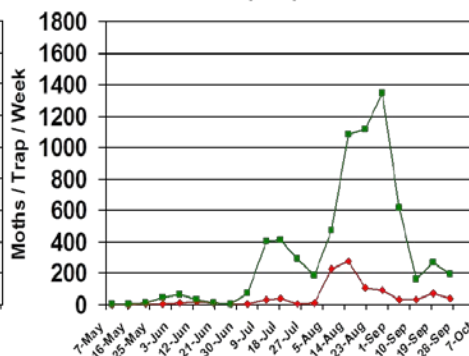
Pheromone Trap Capture SC - 2014



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



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