



Cotton/Soybean Insect Newsletter

Volume 8, Issue #3

Edisto Research & Education Center in Blackville, SC

23 May 2013

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. Text alerts are also available. The hotline is sponsored by Syngenta.

Cotton/Soybean Insect Workshops

We are tentatively planning to have two workshops in June devoted to insect sampling, identification, and management in cotton and soybeans. The first one will be here here at the Edisto REC (64 Research Road, Blackville, SC 29817 – just west of Blackville on Hwy 78) on 20 June. The second one will be the following week on 27 June at the Pee Dee REC (2200 Pocket Road, Florence, 29506). At each workshop, we will have an indoor and in-field program, allowing for some hands-on training. Here is a tentative agenda for the workshop at Edisto REC on 20 June:

	AM
Registration (Lobby/Auditorium at Edisto REC)	8:30
Welcome (Marion Barnes, Joe Varn, or Jeremy Greene).....	9:00
Safety/Personal Protective Equipment (Marion Barnes)	9:10
Overview of Important Soybean and Cotton Insects (Jeremy Greene)	9:30
Break and Travel to Plots.....	10:00
Tour of Soybean and Cotton Plots	10:15
Return to Auditorium.....	11:45
	PM
Lunch and Program Adjournment	12:00

News from Above the Lakes

No news to report this week. Email your observations to me by Wednesday for inclusion here.

News from Below the Lakes

Charles Davis, county agent covering Calhoun County, reported that “a lot of cotton went in the ground last week here in Calhoun County. Farmers are trying to balance cotton and peanut planting and 2 inches of rain Sunday has slowed the pace down a bit, but tractors are still rolling. I have seen some Reflex damage on small cotton, and will probably see a lot more this week due to the heavy downpours last weekend. Thrips are out and abundant. I have seen some spotty damage but this cotton coming up now and next week may be in for a tough time.”

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Jonathan Croft, county agent covering Orangeburg, Dorchester, and Berkeley Counties, reported that he has “not gotten any calls on problems with insects on crops in Orangeburg, Dorchester, or Berkeley County. The cotton seedlings I have looked at look good so far. The cotton I have looked at is just starting to put on the first true leaf. Rain this week as stopped planting in some areas again.”

News from the Piedmont/Upstate

No news to report this week. Email your observations to me by Wednesday for inclusion here.

Cotton Situation

As of 20 May 2013, the USDA NASS South Carolina Statistical Office had the cotton crop at 36% planted, well behind where we were last year at 66% planted and the 5-yr average of 62% planted. Soil moisture conditions as a whole for the state were described as 8% short, 83% adequate, and 9% surplus, with some areas getting too much rain and others not getting any or enough. These are observed/perceived state-wide averages.

Current Problems in Cotton

Thrips are just about the only group of insects attacking cotton right now. We do have occasional reports of grasshoppers and cutworms, but tobacco thrips, *Frankliniella fusca*, is our predominant pest right now. Data from recent years have shown that we get the most “bang for our buck” when we apply insecticide early – around the 1st true leaf. Get that spray out early. Here are some guidelines for foliar sprays:

THRIPS (FOLIAR SPRAYS)

Product	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
dicrotophos (R) Bidrin 8 E	1.6-3.2 oz	0.1-0.2	40-80	6 d	30 d	3.2 oz limit pre-square
acephate Orthene 97 Acephate 97UP Orthene 90 S Acephate 90 S	3.0 oz 3.0 oz 3.2 oz 3.2 oz	0.18	- - - -	24 hr	21 d	
dimethoate Dimethoate 4 EC	4.0-8.0 oz	0.125-0.25	16-32	48 hr	14 d	

Generally a soil insecticide used at planting will protect seedling plants from the severe stunting that is characteristic of thrips injury. Occasionally, however, conditions will be unfavorable for proper uptake of systemic insecticides (too cool, dry soil, excessive moisture, etc.) and plants can be severely damaged. **Foliar treatments will be most effective when applied to cotton seedlings prior to unfolding of the second true leaf.** At this growth stage a foliar insecticide treatment may be needed when two or more thrips are found per plant. Shake each plant (randomly select 25 or more) into a coffee cup or a similar utensil to facilitate counting. When most plants have severely damaged growing points and immature thrips are present, one or more foliar treatments may be needed to allow the plants to resume normal growth and development. Examine plants 5-7 days after the initial treatment, and treat again if immatures are still present on most plants. When the newly unfolded leaves of infested plants are free of damage, and plants appear to be growing at a normal rate, further applications of insecticides will have little benefit. Treatments applied beyond the four-leaf stage of growth may actually be counterproductive, as these would likely reduce beneficial populations and result in early-season problems with other pests.

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Soybean Situation

As of 20 May 2013, the USDA NASS South Carolina Statistical Office had our progress at 26% planted, well behind where we were last year at 46% but not too far behind the 5-yr average of 36% planted. About 11% of the soybean crop has emerged, behind where we were last year at 31% and the 5-yr average of 21%. These are observed/perceived state-wide averages.

Kudzu Bugs

The kudzu bug is showing up in early-planted soybeans in SC. Just as I reported last week about populations building in GA soybeans, another colleague of mine, Dr. Dominic Reisig, is seeing the same in early-season soybeans in NC. So, here is the question: are these early infestations causing economic damage?



Because early-season infestations on soybeans only happened last year for the first time in the USA, we do not know the answer to that question. We are conducting additional trials this year that will help us understand the importance of controlling the insect this early. We do know that they can cause significant losses if populations are allowed to build all season and are not controlled. We have seen yield losses exceed 60%. There is some evidence that early infestations can reduce yield, but we need more. So, what is a grower to do about these early infestations? Here are a few things to consider for these early infestations:

1. We are in the middle of a big migratory interval where the overwintered adults are looking for suitable reproductive hosts. This window of migration will continue for a couple of more weeks, so early sprays, although effective in killing what is in the field, will not have a long enough residual to control the continuing immigration. You might very well have to treat again, if you spray too early. As the migratory period slows, the adults will lay eggs, and those eggs will hatch in about 1 week. Insecticides will be, for the most part, ineffective on eggs – they must hatch before you can kill the developing new generation. So, how many times are you prepared to treat the early infestation? If just once, you need to practice patience and wait for the best time to do it, and that is what we are trying to determine.

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Public Service Activities

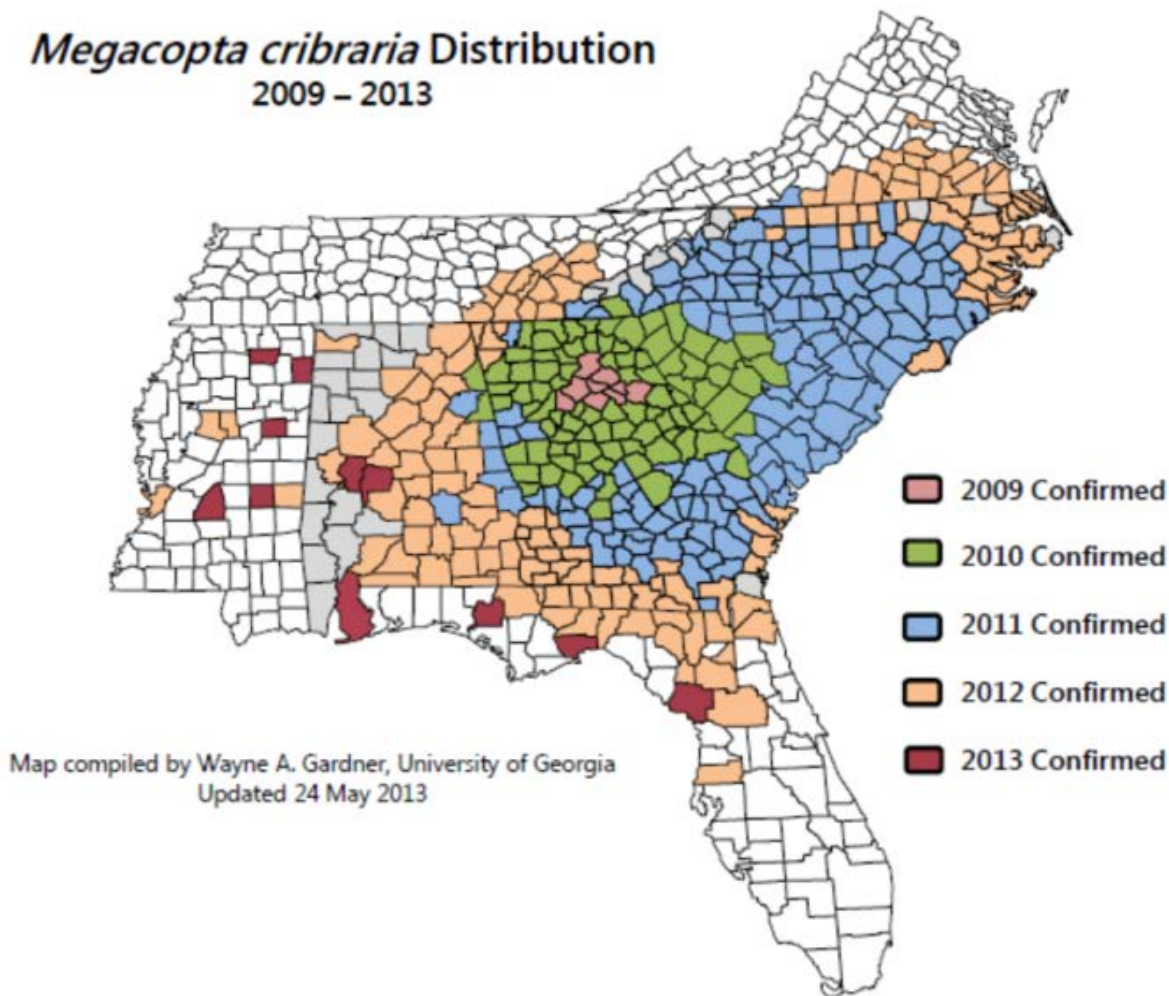
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2. If they are confined primarily to border rows, consider spraying a pass or two down the field edges, covering the row ends or perimeter rows with a boom or pass. This insect often develops initially along the outer edges of fields, so this behavior might be exploited with a border spray, at least for the first application. I think we should be doing some of this with these initial infestations until we have a better handle on how much injury they are actually causing this early. This would save money and very likely buy some time until the entire field should be treated.
3. The overwintered adults will die soon, and the first new generation will develop as immatures from eggs left by the overwintered adults. We saw this last year.

Here is the latest distribution of the species in the southeastern USA.

Megacopta cribraria Distribution
2009 – 2013



For now, our best recommendations are located in a kudzu bug field guide the USB helped us produce last year that is available online at: <http://digital.turn-page.com/i/87846>

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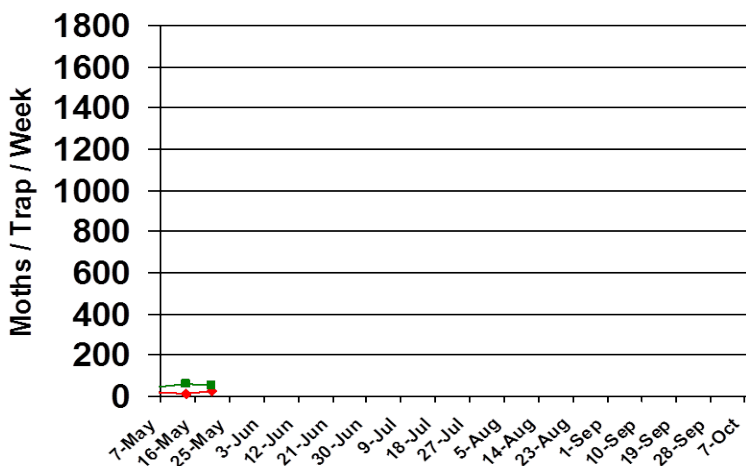
Bollworm & Tobacco Budworm



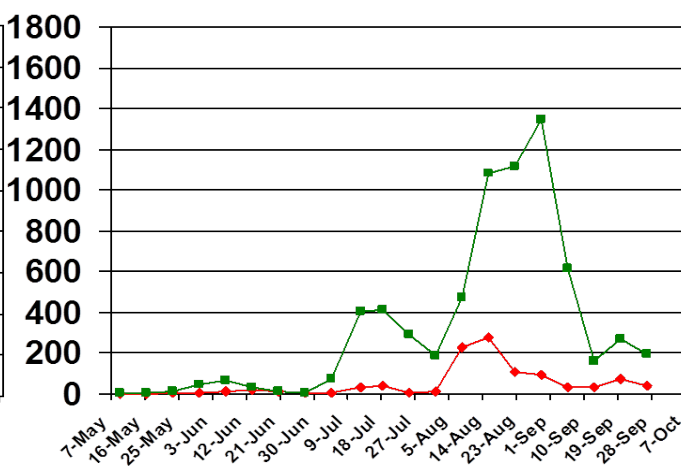
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2012 for reference. Tobacco budworm continues to be important for our soybean acres and for a very limited number of non-Bt-cotton acres. I provide these data as a measure of moth activity in our local area as an indication of moth presence and activity near my research plots. The numbers are not necessarily representative of the species throughout the state.



Pheromone Trap Capture SC - 2013



Pheromone Trap Capture SC - 2012



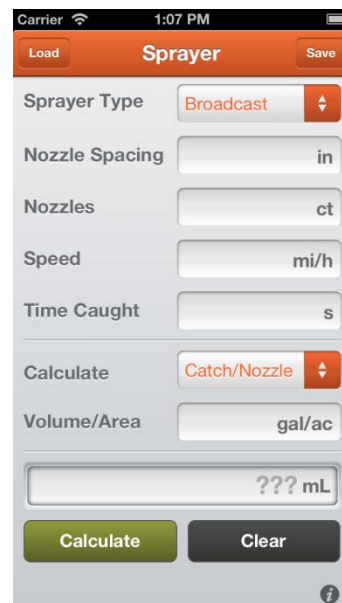
Sprayer Calibration Mobile App



I mentioned this last week...we have created a mobile app called "Calibrate My Sprayer" that helps check for proper calibration of spraying equipment. It can be downloaded for free onto your mobile device from the following webpage:

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

It is available in both iOS and Android formats. Here are a couple of screenshots. Additional mobile apps are on the way. I would appreciate your feedback on this app and the need for additional tools like this. If they are perceived as very useful, we will create more mobile apps.



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Pest Management Handbook - 2013

Insect control recommendations are available online in the 2013 South Carolina Pest Management Handbook at:
<http://www.clemson.edu/extension/rowcrops/pest/>

Need More Information?

For more 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 – Entomologist



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