



Cotton/Soybean Insect Newsletter

Volume 18, Issue #12 Edisto Research & Education Center in Blackville, SC

27 July 2023

Pest Patrol Alerts

Some of the information contained herein each issue is available via text alerts that direct users to online recordings. I will update the short message often for at least as long as the newsletter runs. After a new message is posted, a text message is sent to alert 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. Pest Patrol Alerts are sponsored by Syngenta. Alternatively, you can sign up online at <https://www.syngenta-us.com/pest-patrol/south-carolina>

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 [@BugDocIn](https://twitter.com/BugDocIn) on Twitter.



News from Around the State

Charles Davis, county agent in Calhoun County, reported that “cotton is pretty quiet this week. Aphids are gone. Most of my cotton is blooming. I should be able to start cutting some bolls [for stink bugs] next week. Moths were hard to find, as were eggs. Square retention looked good.” **Jonathan Croft**, county agent covering Orangeburg, Dorchester, and Berkeley Counties, reported that “the soybeans I have looked at this week had low levels of kudzu bugs and green cloverworms. We did find a few soybean loopers this week, but numbers were extremely low where I saw them.” **Kyle Smith**, county agent covering Darlington and Marlboro Counties (and a couple of more counties temporarily), reported seeing “some kudzu bugs, TCAHs, and grasshoppers in some Group 5 beans earlier this week.”

Insect Scouting Workshops for 2023

Two of the three insect scouting workshops for cotton and soybeans were held last week, and we had numerous interested stakeholders participate at each venue. Special thanks go out to David DeWitt, William Hardee, Kyle Smith, and Hannah Mikell for organizing the workshop in Bishopville, SC, and additional special thanks go out to Marion Barnes and Rogan Gibson for organizing and helping with the workshop at the Edisto REC in Blackville, SC. Dr. Mike Marshall also offered a field visit here to see herbicide injury in crops and identify weeds. The workshop organized by Charles Davis and Jonathan Croft in St. Matthews, SC, had to be cancelled due to lack of folks signing up beforehand. We appreciate their efforts to get the workshop organized. We will offer more workshops in 2024, but please RSVP if you are planning to attend, so we can make plans for lunch, etc. Have a great rest of the 2023 field season!

Cotton Situation

As of 23 July 2023, the USDA NASS South Carolina Statistical Office estimated that about 79% of the crop is squaring, compared with 66% the previous week, 89% at this time last year, and 82% for the 5-year



average. About 41% of the crop is setting bolls, compared with 19% the previous week, 61% at this time last year, and 46% for the 5-year average. The conditions of the crop were reported as 9% excellent, 56% good, 33% fair, 1% poor, and 1% very poor. These are reported statewide averages.

Cotton Insects

Bollworm – Captures of bollworm moths in our pheromone traps are trending up this past week, so the “flight” out of corn is occurring. I expect that the next rain event will release many moths from corn fields, and any irrigation right now will soften up the ground and facilitate moth emergence. I am starting to see moths “flushing” in the field now as I walk through. Adults and freshly deposited eggs can be seen in the morning. I took this photo this week, and it was not hard to find eggs. We will likely see numbers increase in traps again next week, as pupating corn earworms continue to emerge from corn ground as bollworm moths. Again, most 3-gene Bt cotton will be unaffected by bollworm, but some of the remaining 2-gene cotton (e.g. DP1646 and other 2-gene Bt varieties) might still need supplemental sprays for bollworm. Don’t expect good control of bollworm with pyrethroid sprays, as our bioassay data from 2022 and so far in 2023 indicate decreasing efficacy on the species. Consult the non-pyrethroid section or the multiple pests section of the 2023 Pest Management Handbook for up-to-date recommendations.



Spider Mites – Don’t forget to check for spider mites on your scouting trips to cotton fields. I am hearing more about issues popping up with spider mites being prevalent. Look for the stippling on leaves, but try to catch it early.

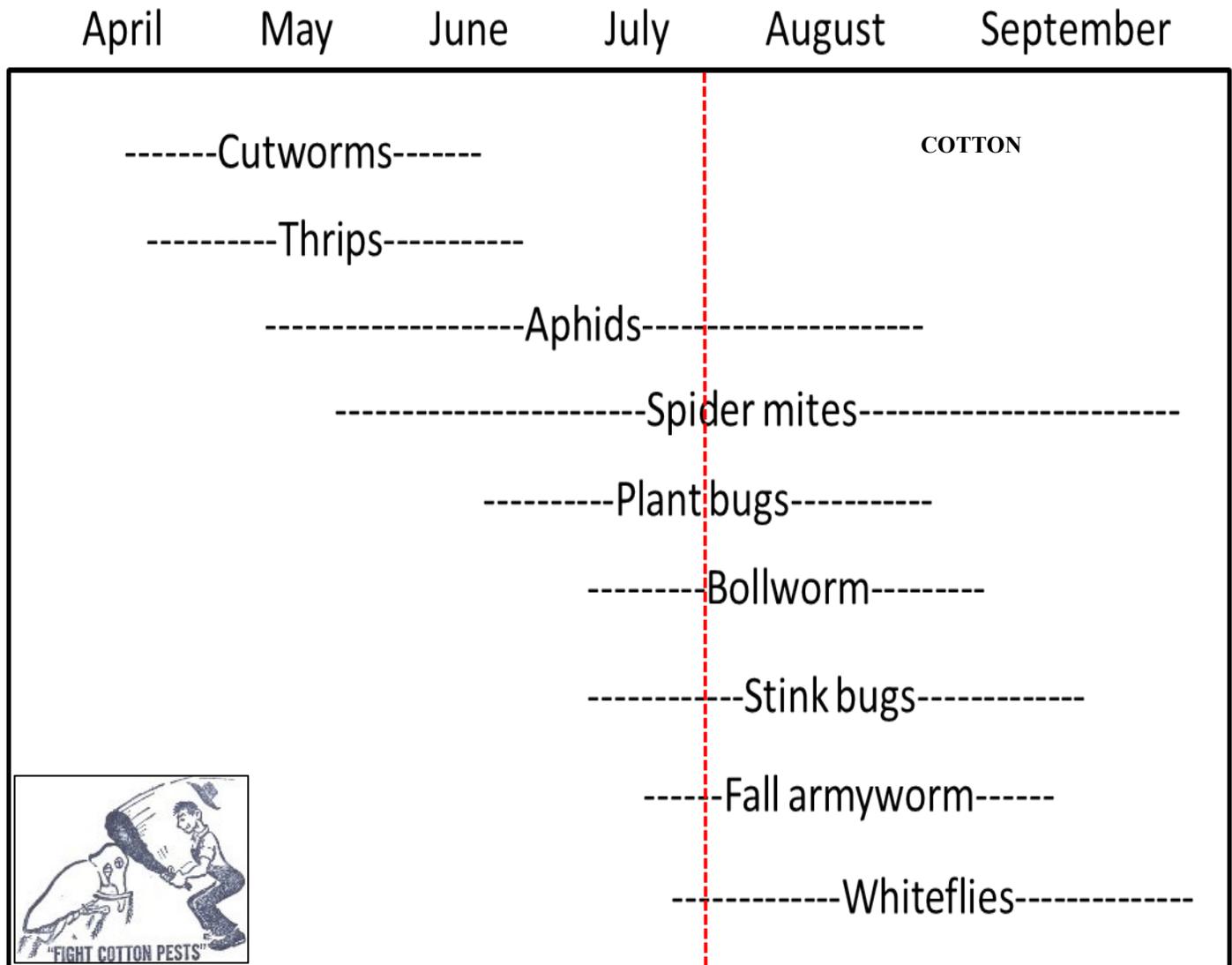


Plant Bugs – I think that cotton a week or two on either side of first bloom is when we are most susceptible to plant bugs, specifically the tarnished plant bug (TPB), *Lygus lineolaris*. So, that 3- or 4-week window is when we need to really be looking for plant bugs (with a sweep net before bloom and a black drop cloth after bloom). Most cotton should be blooming now, so the drop cloth should be the tool of choice for seeing small TPB nymphs (greatly enlarged but pictured here). They are green and run fast on the drop cloth. They feed on squares and blooms. We found threshold numbers of nymphs this week on non-ThryvOn cotton that had not yet been treated. I sprayed that treatment.





Stink Bugs – Our number one pest of cotton in South Carolina is the stink bug complex. This group of species includes “the big 3” species, the brown stink bug, *Euschistus servus*, the green stink bug, *Chinavia hilaris*, and the southern green stink bug, *Nezara viridula*. To properly manage stink bugs in cotton, you need to know in what week of bloom each field is, so **be sure to note when each field is in the first week of bloom!** This is defined as when every other plant has its initial bloom. We will talk more about stink bugs in the next few weeks.



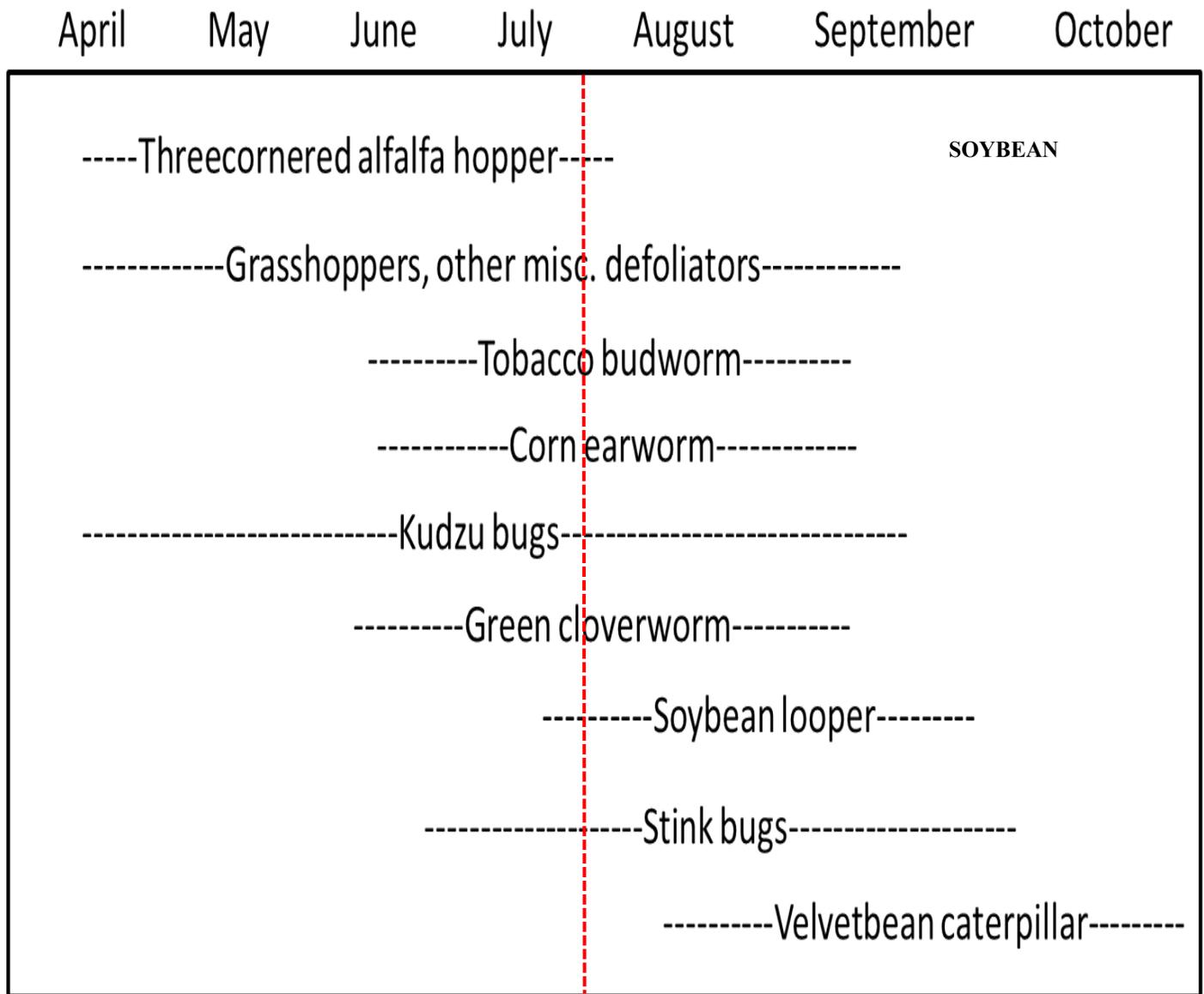


Soybean Situation

As of 23 July 2023, the USDA NASS South Carolina Statistical Office estimated that about 42% of the crop is blooming, compared with 28% the previous week, 48% at this time last year, and 30% for the 5-year average. About 14% of the crop is setting pods, compared with 7% the previous week, 13% at this time last year, and 5% for the 5-year average. The conditions of the crop were reported as 7% excellent, 60% good, 23% fair, 7% poor, and 3% very poor. These are reported statewide averages.

Soybean Insects

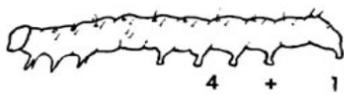
Again this week, problems with insects in soybeans have not been widely reported, but that will change very soon. We are seeing more activity with numerous species. I have observed some small soybean loopers, so that migratory species will be here soon, and our stink bug complex is moving into fields now.



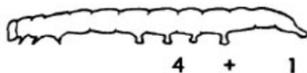


As moth activity increases, deposited eggs will yield caterpillar pests on soybeans. It is good skill to be able to identify adult moths flying around in fields. Use this chart to study moth and caterpillar identification.

FIELD KEY TO COMMON SOYBEAN CATERpillARS



CORN EARWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body



VELVETBEAN CATERPILLAR
4 + 1 pair prolegs
Very active when handled



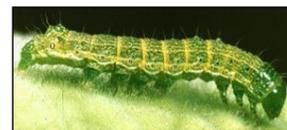
SOYBEAN LOOPER
2 + 1 pair prolegs
Fatter at tail end
Looping movement



GREEN CLOVERWORM
3 + 1 pair prolegs
Not fatter at tail end
Looping movement



TOBACCO BUDWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body



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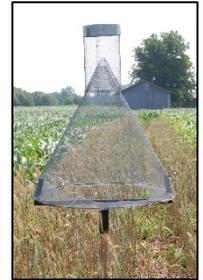


Bollworm & Tobacco Budworm

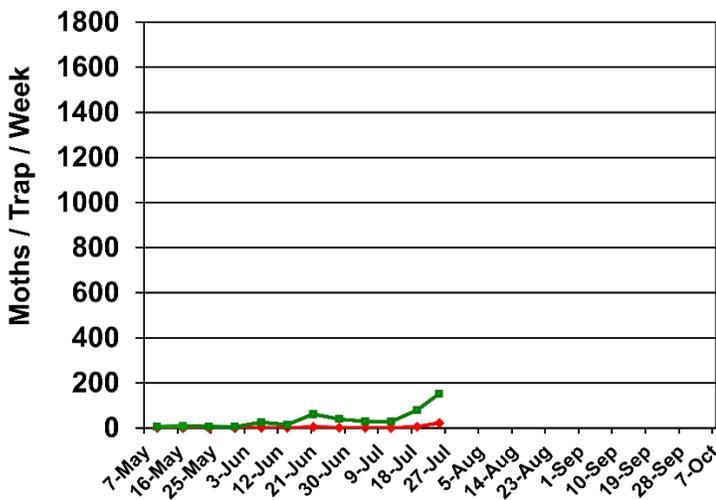


Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2007-2022 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these

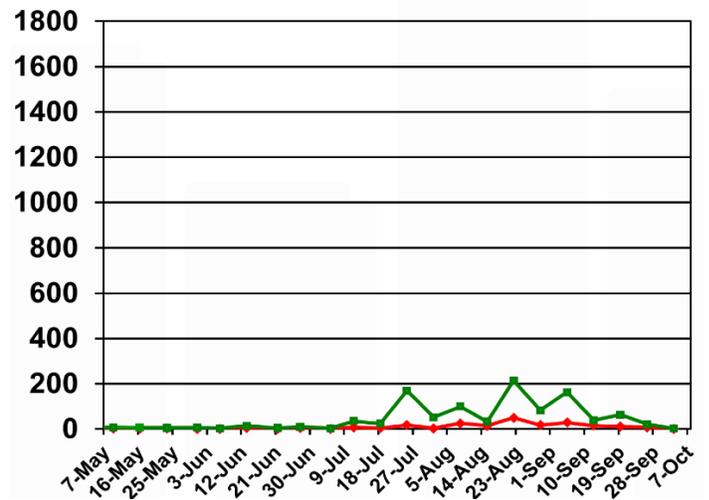
data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state but are useful for general trends.



Pheromone Trap Capture SC - 2023

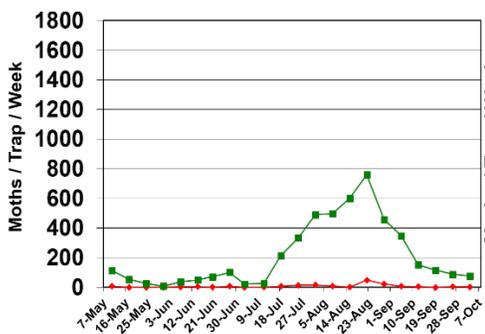


Pheromone Trap Capture SC - 2022

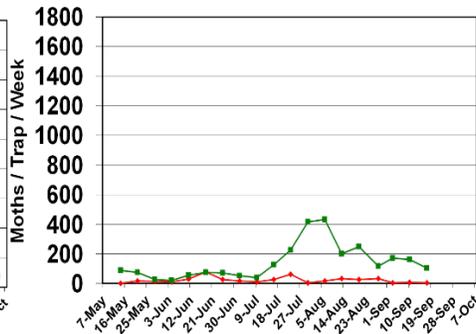


Trap data from 2007-2021 are shown below for reference to other years of trapping data from EREC:

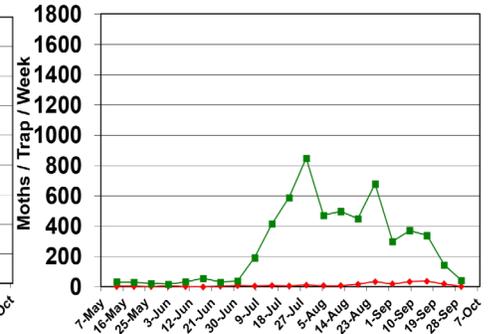
Pheromone Trap Capture SC - 2007



Pheromone Trap Capture SC - 2008



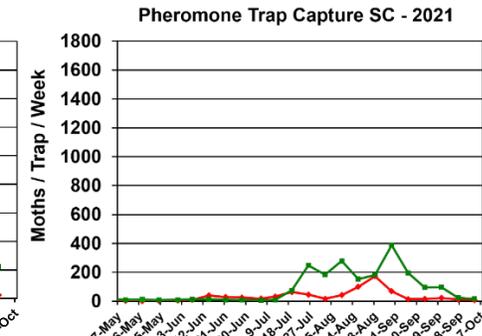
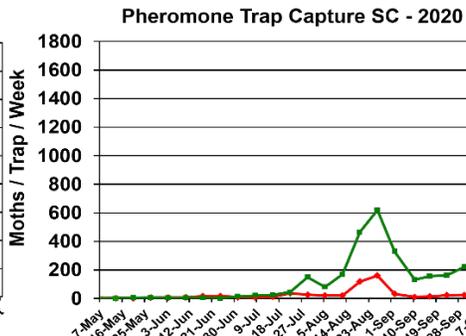
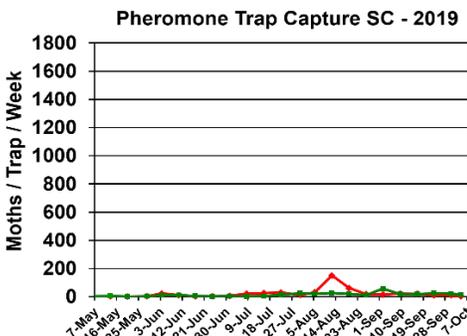
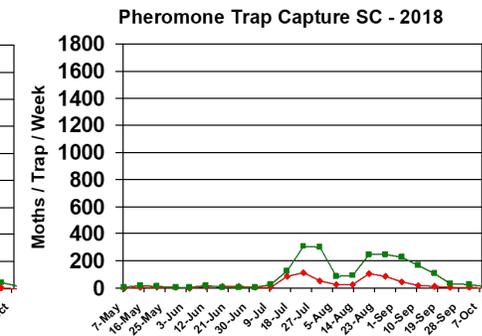
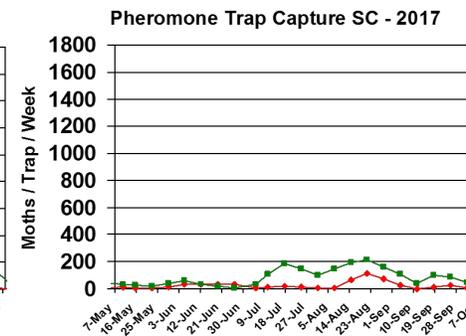
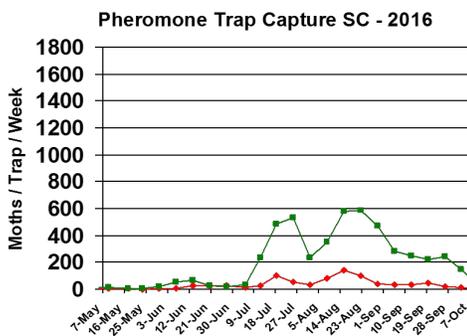
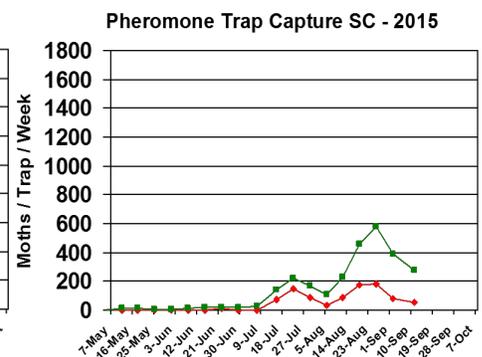
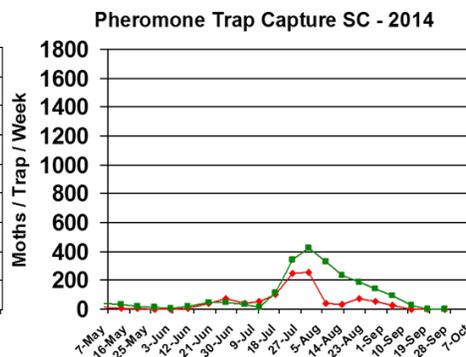
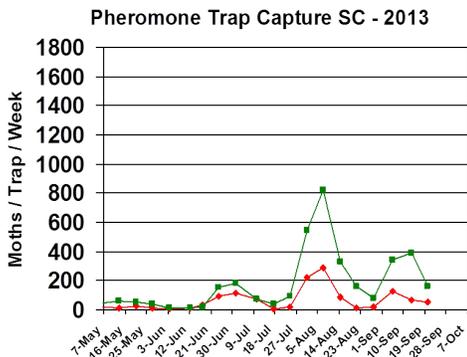
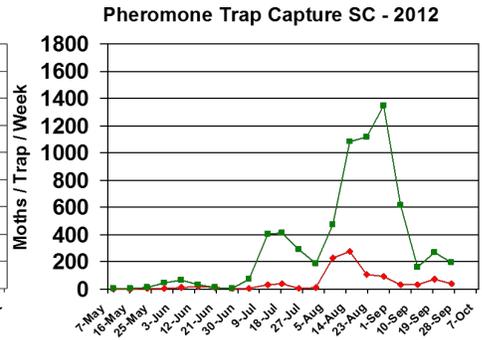
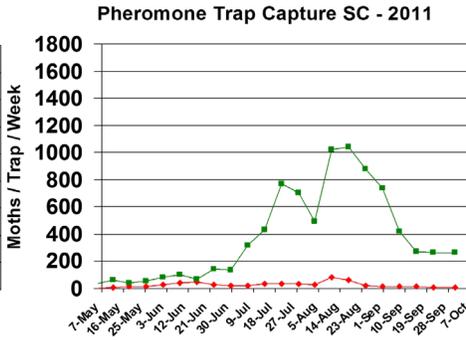
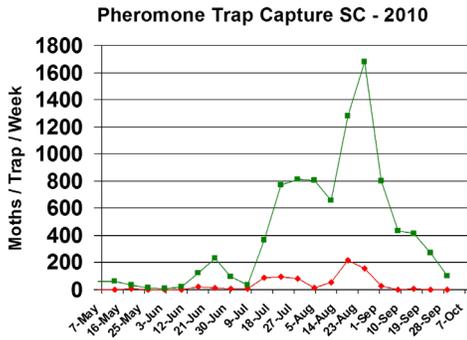
Pheromone Trap Capture SC - 2009





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Pest Management Handbook – 2023

Insect control recommendations are available online in the 2023 South Carolina Pest Management Handbook at:

<https://www.clemson.edu/extension/agronomy/files/pest-management-handbook-clemson-extension.pdf>

South Carolina Crops Blog

The SC Crops Blog contains content about production of major row crops at the following link, if you want more information: <https://blogs.clemson.edu/sccrops/>

Archived issues of the Cotton/Soybean Insect Newsletter can be viewed at a convenient link on the SCCrops page. Contact **Dr. Michael Plumblee**, if you have any questions about the blog.

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):

<https://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:

<https://www.clemson.edu/extension/agronomy/cotton1/newsletters.html>

Sincerely,

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



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