



Cotton/Soybean Insect Newsletter

Volume 18, Issue #10 Edisto Research & Education Center in Blackville, SC

6 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 **@BugDocsIn** on Twitter.



News from Around the State

Jonathan Croft, county agent covering Orangeburg, Dorchester, and Berkeley Counties, reported “Cotton is loving this warm weather. Could use a shower of rain in places to help the corn and beans. I did get a report today [Wednesday] from a grower that he is seeing a few stink bugs in group 4 beans, but no applications have been needed yet.” **Charles Davis**, county agent in Calhoun County, reported “aphids are on the rise. They were mostly spotty in the fields I looked at, but you can find them almost anywhere, if you look hard enough. Beneficials are ramping up as well. I saw a couple of plant bugs today, but that was about it. Things are mostly quiet.”

Insect Scouting Workshops for 2023

We will offer several insect scouting workshops for cotton and soybeans in various locations across the state. We will have a morning program in the field scouting for and talking about important insects in the two crops, and two of the trainings will feature afternoon sessions covering peanuts and weeds. See below and the attached flyers for details. We have the following dates and locations planned:

- Pee Dee Region of the state – 18 July at the SC Cotton Museum in Bishopville, SC (insect scouting workshop only in the AM, ending with lunch)
- Barnwell County area – 19 July at the Edisto REC near Blackville, SC (insect scouting in the AM and weed identification and herbicide injury in the PM).
- Calhoun or Orangeburg County area – 20 July at Lone Star Plantation in St. Matthews, SC (insect scouting in the AM with PM session covering peanuts)



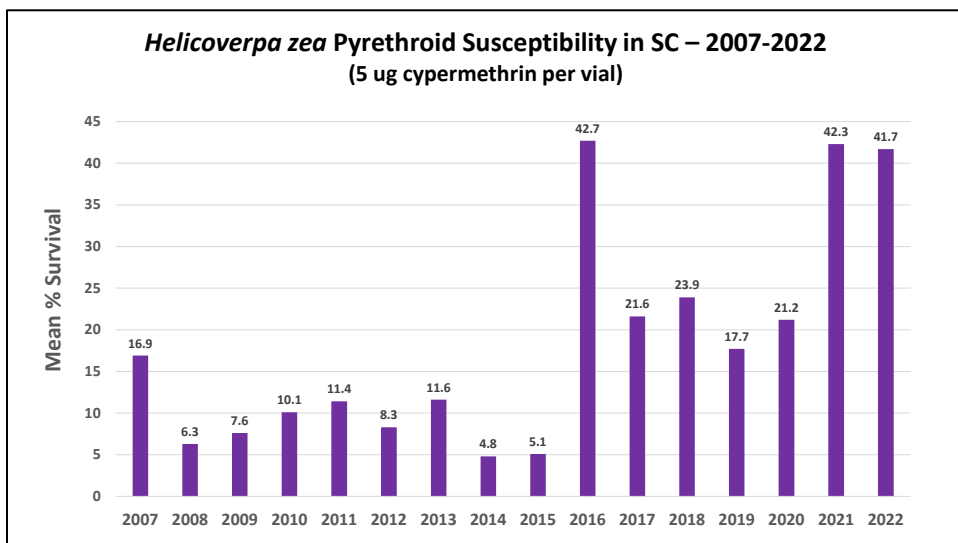


Cotton Situation

As of 2 July 2023, the USDA NASS South Carolina Statistical Office estimated that about 27% of the crop is squaring, compared with 18% the previous week, 47% at this time last year, and 44% for the 5-year average. The conditions of the crop were reported as 8% excellent, 58% good, 34% fair, 0% poor, and 0% very poor. These are reported statewide averages.

Cotton Insects

Bollworm – Some bollworm eggs are showing up on cotton. The egg here was found on some cotton just putting on initial squares. As corn earworm cycles out of corn soon, we will see new moths in the air and more eggs on plants. Data from our pheromone trapping program indicate that we have yet to see large numbers of new moths emerging from corn fields, but they will. Most 3-gene Bt cotton will be unaffected by bollworm, but some of the remaining 2-gene cotton might still need supplemental sprays for bollworm. Don't expect good control of bollworm with pyrethroid sprays, as our bioassay data from 2022 indicate decreasing efficacy on the species. An early run of moths through vials yesterday also shows that the trend is continuing this season.



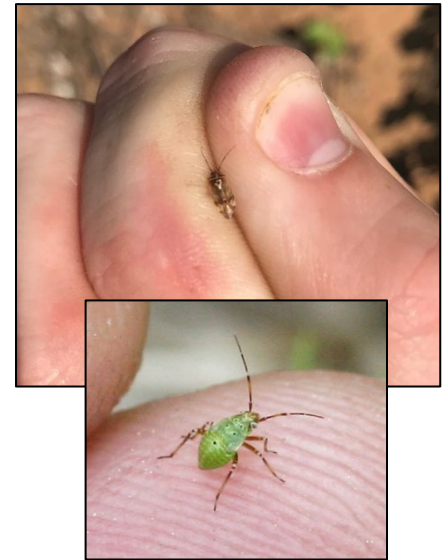
Aphids – Populations of aphids will be a mess until the fungus *Neozygites fresenii* appears and decimates cotton aphid. This “aphid fungus” has become less predictable over the years, but it is a good bet that it will exert control of aphids at some point (it almost always does). Unfortunately, it comes late some years, and, often, an epizootic happens right after some sprays are made, resulting in wasted money on an unnecessary application. It’s analogous to turkey hunting, where you just need to wait 5 more minutes for “Tom” to show up. 😊



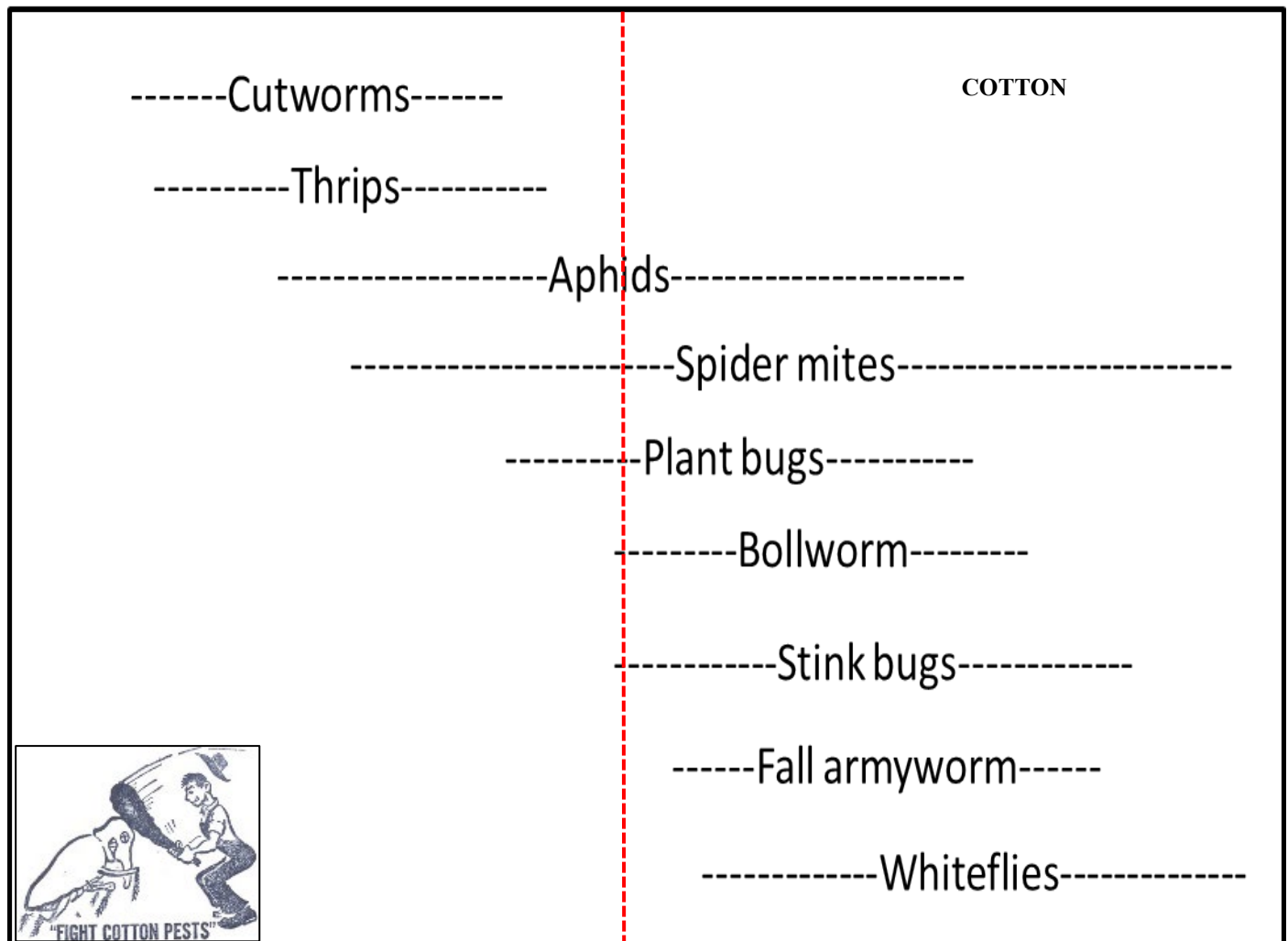
Just continue to wait on the fungus to show up. Most aphid sprays don't pay for themselves.



Plant Bugs – We swept some early squaring cotton again this week for tarnished plant bug (TPB), *Lygus lineolaris*, and easily found populations exceeding threshold in cotton. In untreated non-ThryvOn cotton, we observed about 11 adults per 100 sweeps. In untreated ThryvOn cotton, we saw about 5 adults per 100 sweeps. The treatment threshold is 8 per 100 sweeps. In cotton treated last week, numbers were between 2-4 per 100 sweeps, so the treatments worked. Counts of square retention indicated excellent retention (above 90%). Sweep cotton pre-bloom, and look for the adults that crawl up and fly out of the net when examining the contents, but use a black drop cloth after blooming starts to see the small green nymphs running on the cloth.



April May June July August September



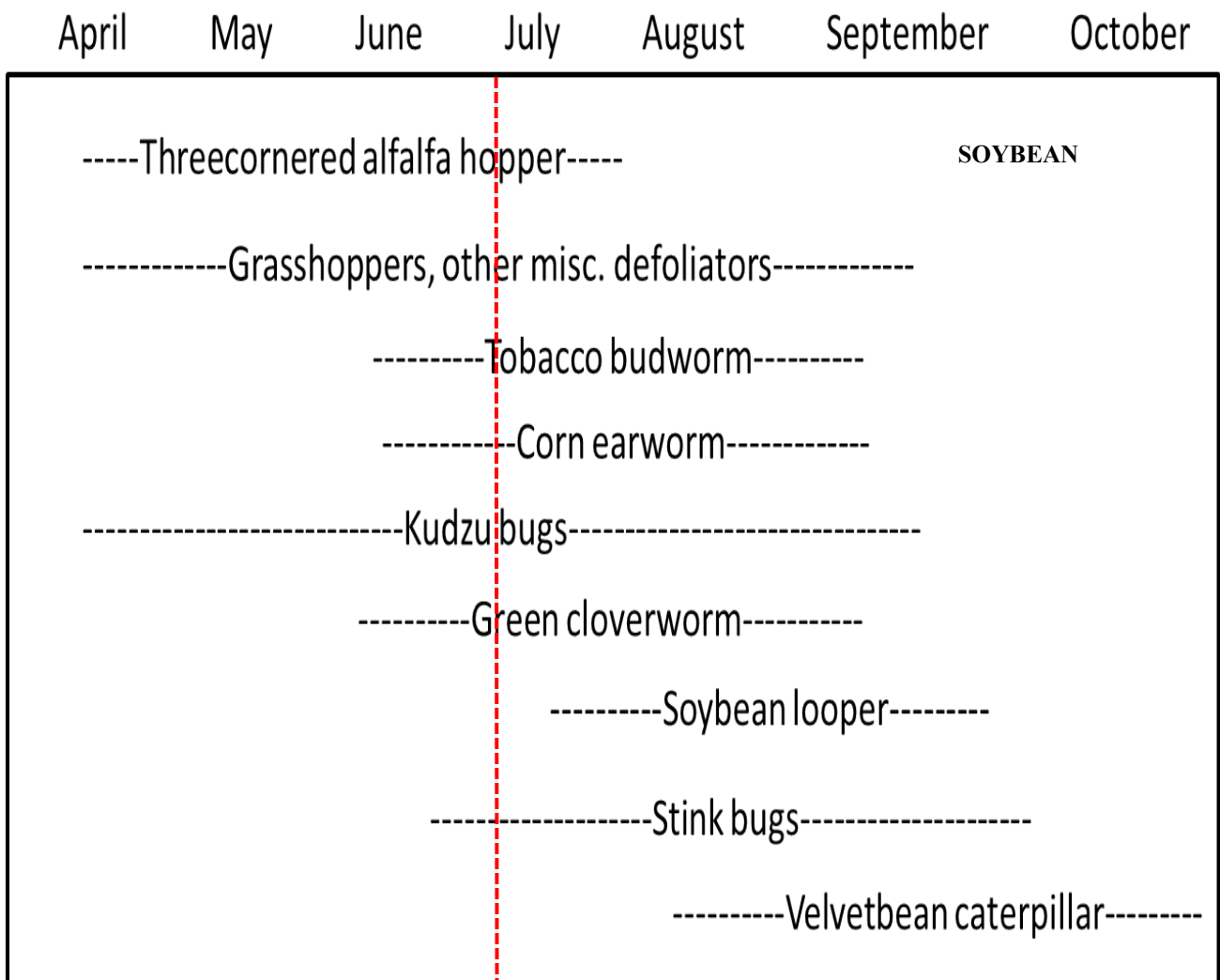


Soybean Situation

As of 2 July 2023, the USDA NASS South Carolina Statistical Office estimated that about 96% of the crop has been planted, compared with 87% the previous week, 99% at this time last year, and 95% for the 5-year average. About 85% of the crop has emerged, compared with 74% the previous week, 95% at this time last year, and 87% for the 5-year average. About 6% of the crop is blooming, compared with NA% the previous week, 17% at this time last year, and 8% for the 5-year average. The conditions of the crop were reported as 4% excellent, 80% good, 16% fair, 0% poor, and 0% very poor. These are reported statewide averages.

Soybean Insects

Again this week, problems with insects in soybeans have not been reported, although pests are slowly building in the crop. Continue to watch out for problems with grasshoppers, kudzu bugs, and threecornered alfalfa hopper. Some stink bugs and the green cloverworm have already been noticed, along with a few other migratory, defoliating species. Podworm numbers will increase in soybeans soon. As mentioned in the cotton section, corn earworm is cycling through corn right now.



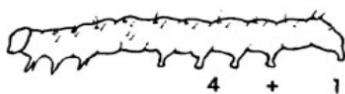


As moth activity increases, deposited eggs will yield caterpillar pests on soybeans. It is good skill to be able to identify adult moths flying around in fields. Use this chart to study moth and caterpillar identification.

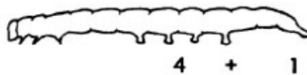
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(2017) Prepared by Jeremy Greene, Professor of Entomology

FIELD KEY TO COMMON SOYBEAN CATERpillARS



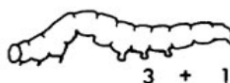
CORN EARWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body



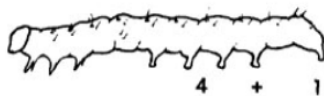
VELVETBEAN CATERPILLAR
4 + 1 pair prolegs
Very active when handled



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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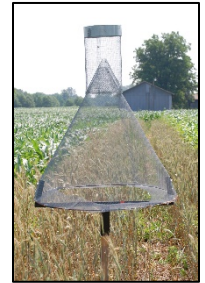


Bollworm & Tobacco Budworm

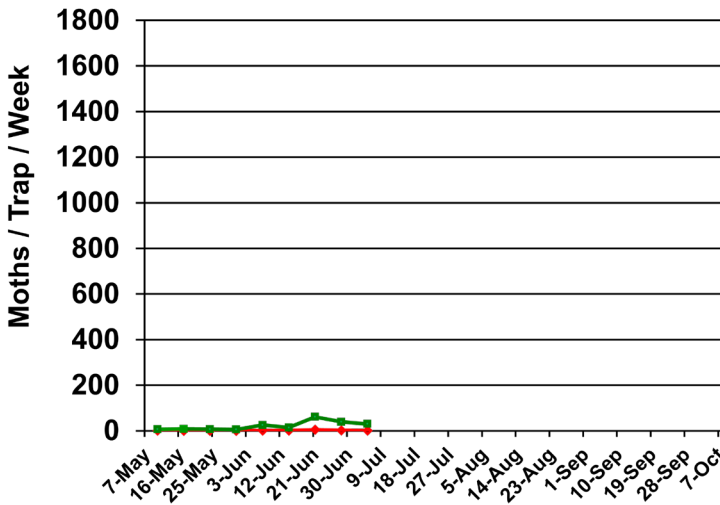


Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2007-2022 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these

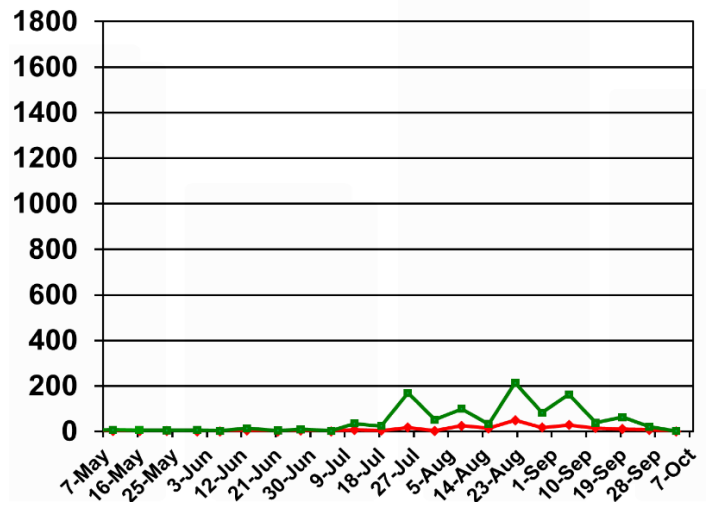
data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state but are useful for general trends.



Pheromone Trap Capture SC - 2023

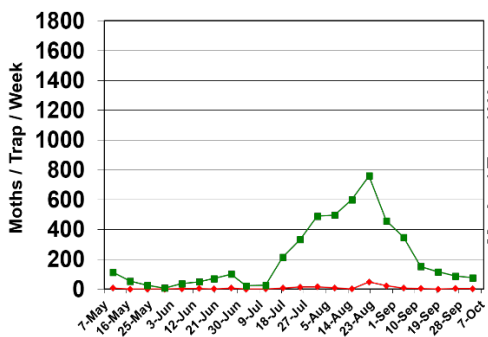


Pheromone Trap Capture SC - 2022

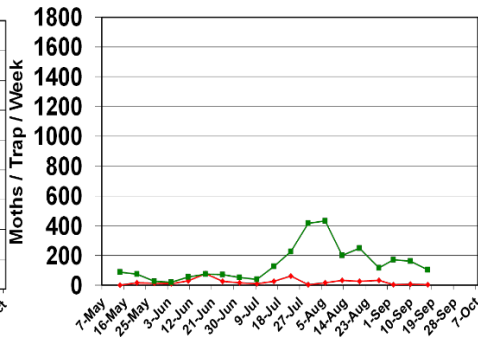


Trap data from 2007-2021 are shown below for reference to other years of trapping data from EREC:

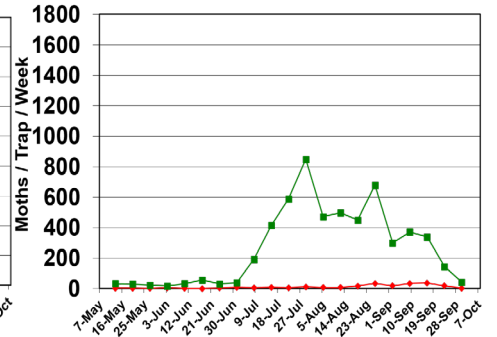
Pheromone Trap Capture SC - 2007



Pheromone Trap Capture SC - 2008



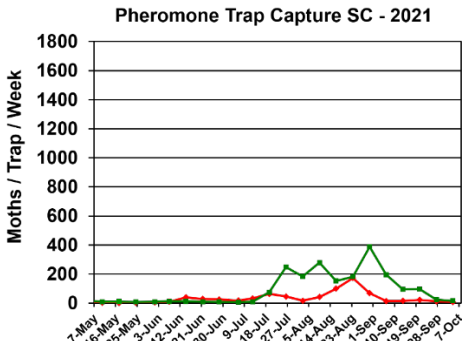
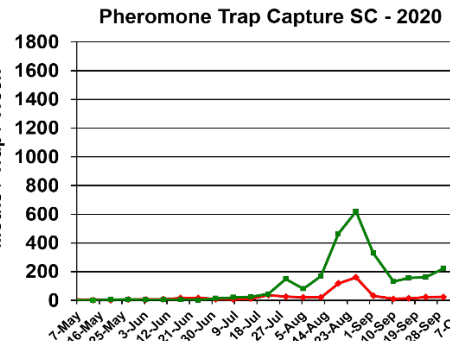
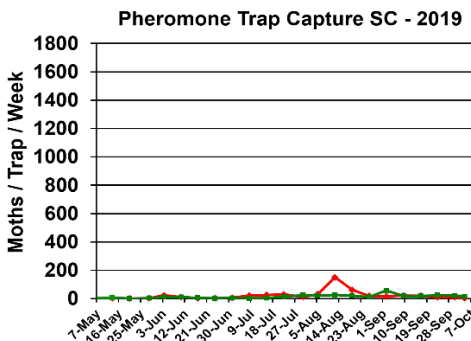
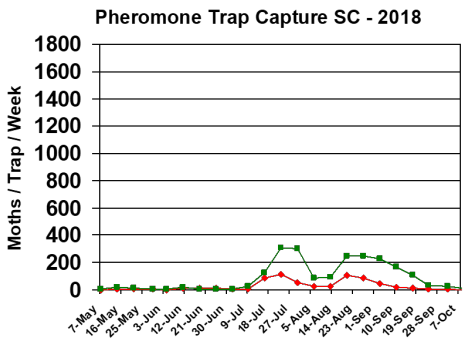
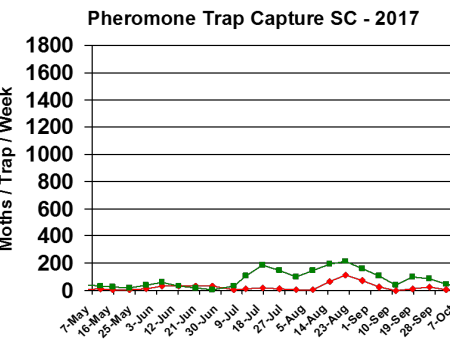
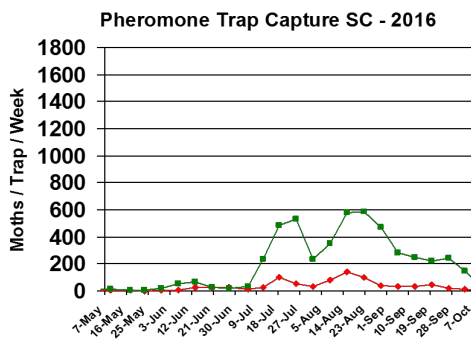
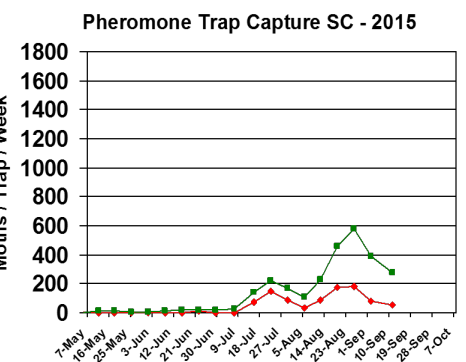
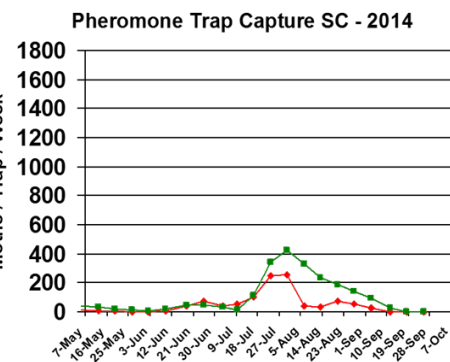
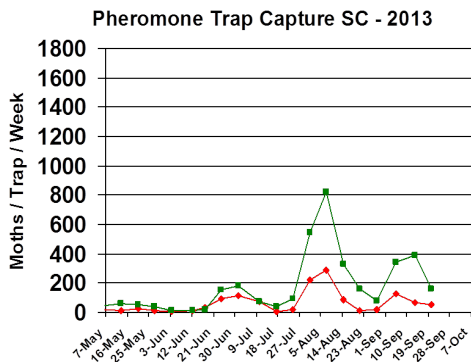
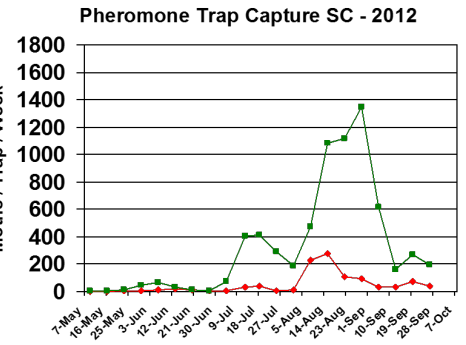
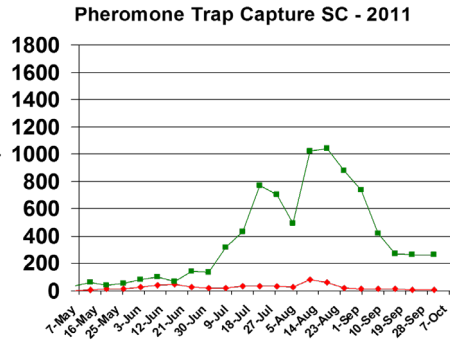
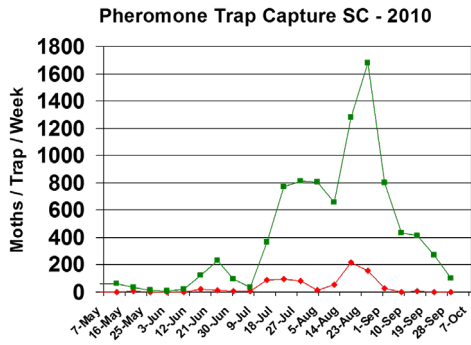
Pheromone Trap Capture SC - 2009





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Pest Management Handbook – 2023

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

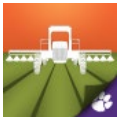
<https://www.clemson.edu/extension/agronomy/files/pest-management-handbook-clemson-extension.pdf>

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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