



Cotton/Soybean Insect Newsletter

Volume 18, Issue #7 Edisto Research & Education Center in Blackville, SC

15 June 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 [@BugDoclsIn](https://twitter.com/BugDoclsIn) on Twitter.



News from Around the State

Jonathan Croft, county agent in Orangeburg County, reported that he “got a report today [Wednesday] of a grower who was going to treat for grasshoppers in soybeans that have just emerged.” **Kyle Smith**, county agent covering Darlington, Dillon, Florence, and Marlboro Counties, reported that he is “still seeing some thrips damage in cotton. Picture (at right) is some injury in cotton planted mid-May. Deer continue to snack on soybeans.” **Charles Davis**, county agent in Calhoun County, reported “cotton is finally waking up from its long winter nap. Fields I walked this week seem to be trying to shake off the thrips damage and move out new growth. Grasshoppers seemed to be less obvious. Otherwise relatively quiet in the cotton fields I looked at.”



Insect Scouting Workshops for 2023

This year, we will again offer at least 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. We will end the workshop with lunch. We have the following dates and locations planned:

- Pee Dee Region of the state – 18 July at the SC Cotton Museum in Bishopville, SC
- Barnwell County area – 19 July at the Edisto REC near Blackville, SC
- Calhoun or Orangeburg County area – 20 July, with the location to be announced later



Cotton Situation

As of 11 June 2023, the USDA NASS South Carolina Statistical Office estimated that about 95% of the crop has been planted, compared with 81% the previous week, 95% at this time last year, and 93% for the 5-year average. About 1% of the crop is squaring, compared with 0% the previous week, 3% at this time last year, and 7% for the 5-year average. The conditions of the crop were reported as 5% excellent, 70% good, 25% fair, 0% poor, and 0% very poor. These are reported statewide averages.

Cotton Insects

Thrips – Thrips were low to moderate across most of the state, but some areas experienced heavy pressure. Smaller seedlings are still experiencing injury from thrips, but we should be putting thrips behind us soon. Here are a few final photos of some of my plots comparing at-plant treatments for thrips. These were taken this afternoon and show where the treatments are at about 50 days after planting. Some treatments have significantly more above-ground biomass than others. While an at-plant treatment for thrips might not always translate into more profit by itself, bigger and more robust plants will canopy faster, shading out weeds and maybe saving some herbicide costs. Good at-plant treatments from thrips will allow cotton seedlings to compete better for resources against weeds. Having larger plants will certainly get the crop to maturity faster so harvest can occur on time, potentially outpacing bad weather later in the year. All of these factors and more can result in more profit with all things considered. So, having healthy, fast-growing cotton seedlings is ideal. These later side-by-side comparisons are useful in seeing what the at-plant treatment did to get the plants to this point.



ThryvOn cotton seemed to be “boosted” with the addition of AgLogic at 5 lb/acre in the furrow at planting.



ThryvOn cotton with AgLogic at planting still looks way better than unprotected cotton with 1 spray of Orthene at 1st leaf.



ThryvOn cotton with imidacloprid (Admire Pro) as an in-furrow spray (IFS) at planting looks much better than the non_ThryvOn untreated cotton.



Non-ThryvOn cotton with imidacloprid as a seed treatment (Gaucho) didn't look bad, but it was not as large at ThryvOn with AgLogic.



ThryvOn cotton with imidacloprid as a seed treatment (Gaucho) looked much better than non-ThryvOn cotton with imidacloprid as an IFS.



ThryvOn looked a little better with the addition of imidacloprid as an IFS than by itself (trait only).



ThryvOn cotton sprayed with acephate (Orthene) at 1st leaf was comparable to ThryvOn with AgLogic in the furrow.



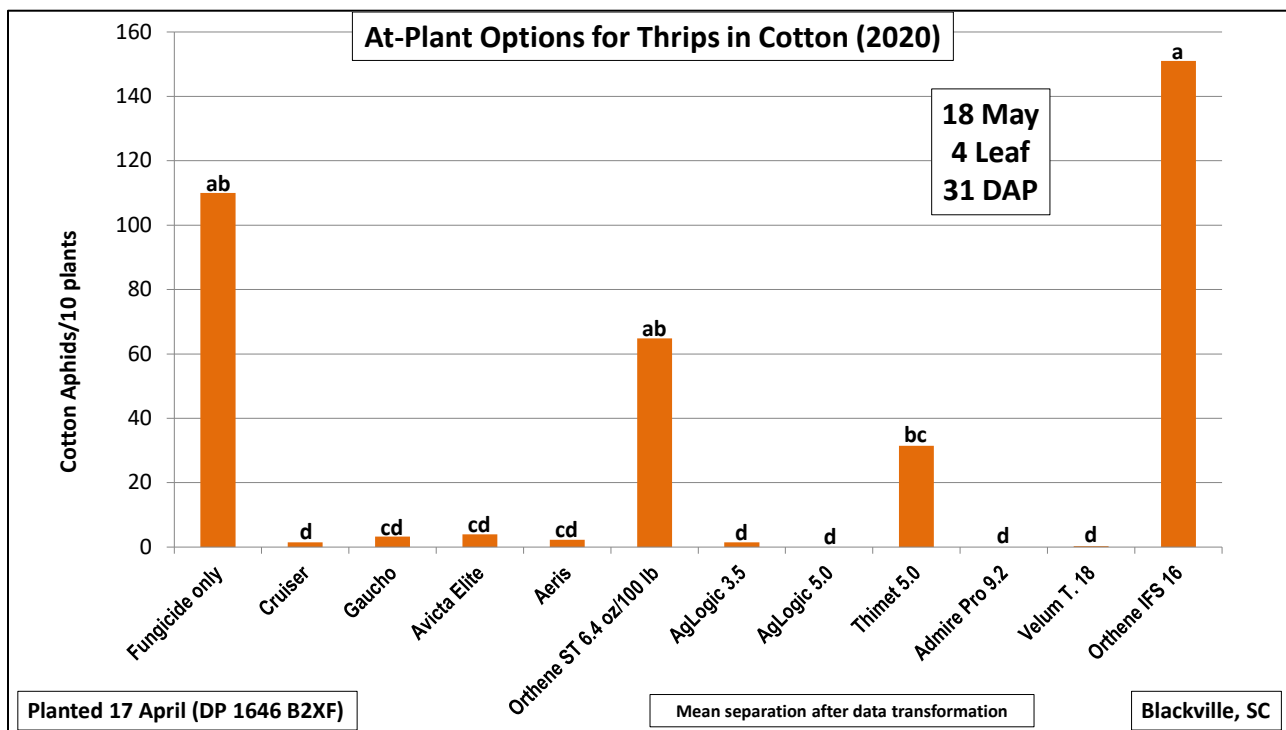
The addition of imidacloprid as a seed treatment (Gaucho) greatly helped non-ThryvOn cotton with accumulation of above-ground biomass.



Non-ThryvOn cotton with AgLogic was larger than ThryvOn cotton sprayed with Orthene at 1st leaf.



Aphids – Populations of aphids have already started increasing, and you might have already noticed them on some seedlings. In thrips trials a few years ago where we counted aphids, we observed that any seed not treated with a neonic seed treatment or treated with acephate (Orthene) as a seed treatment or any untreated seed with an in-furrow application of Orthene had significantly more aphids than other treatments. The chart below shows some of those data where the organophosphates (acephate and phorate) had more aphids than other treatments with neonics (imidacloprid in particular) on the seed or in the furrow and the carbamate aldicarb. Some of the patchiness we see with aphids building might be due to non-uniform application of the materials that suppress aphids systemically. Because I think aphids are not a big player for us in robbing yield, this is mostly an academic exercise, but the reasons behind aphids perhaps getting an early start is good to know.

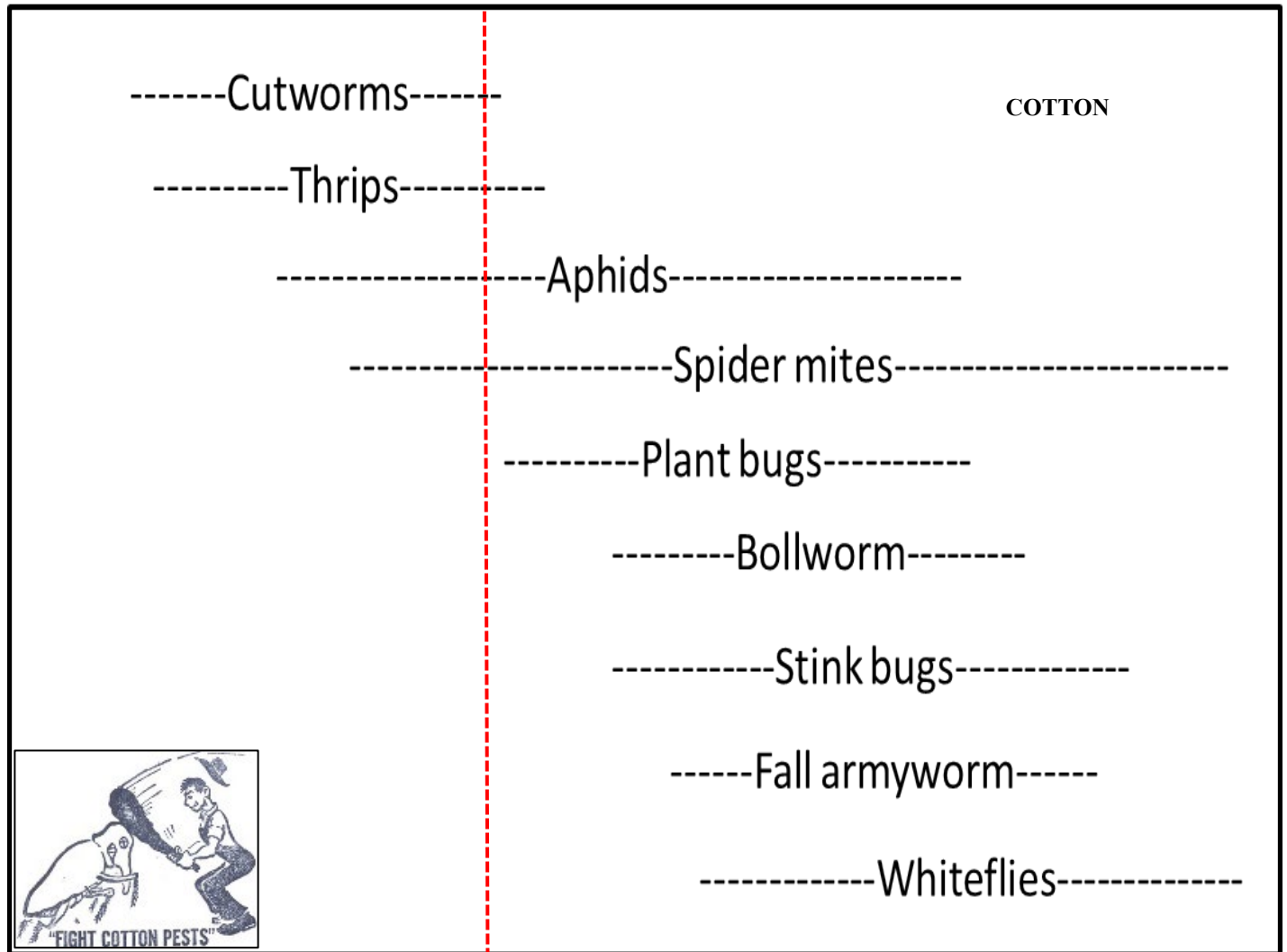


Plant Bugs – I am getting reports from Georgia about large populations of adult tarnished plant bugs being counted with sweep nets in young, squaring cotton. We will focus on plant bugs, particularly the tarnished plant bug, for the next few weeks. We recommend using a sweep net to check for plant bugs on pre-blooming cotton. Look for adults initially, as nymphs will mostly show up later in blooming cotton. The treatment threshold is around 8 per 100 sweeps, and we also need to keep square retention above 80%. Plant bugs feed on squares, blooms, and small bolls. If square retention drops below 80% and plant bugs are at or above threshold, it makes deciding to spray easy. Just remember that square shed can occur from physiological reasons also. Cotton plants shed many squares because of the weather, genetics, and insects – work to recognize the differences.





April May June July August September



Soybean Situation

As of 11 June 2023, the USDA NASS South Carolina Statistical Office estimated that about 69% of the crop has been planted, compared with 63% the previous week, 80% at this time last year, and 73% for the 5-year average. About 52% of the crop has emerged, compared with 40% the previous week, 61% at this time last year, and 56% for the 5-year average. The conditions of the crop were reported as 0% excellent, 93% good, 7% fair, 0% poor, and 0% very poor). These are reported statewide averages.

Soybean Insects

Again this week, problems with insects in soybeans are not widespread. The report about grasshoppers being treated and the earlier reports of injury from threecornered alfalfa hopper (TCAH) are about it so far this season. Watch out for grasshoppers and TCAH.



April May June July August September October

-----Threecornered alfalfa hopper-----

SOYBEAN

-----Grasshoppers, other misc. defoliators-----

-----Tobacco budworm-----

-----Corn earworm-----

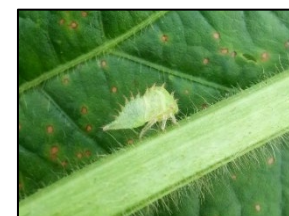
-----Kudzu bugs-----

-----Green cloverworm-----

-----Soybean looper-----

-----Stink bugs-----

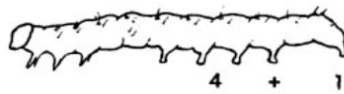
-----Velvetbean caterpillar-----



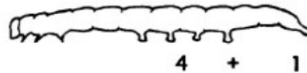


As moth activity increases, deposited eggs will yield caterpillar pests on soybeans. It is good skill to be able to identify adult moths flying around in fields. Use this chart to study moth and caterpillar identification.

FIELD KEY TO COMMON SOYBEAN CATERpillARS



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



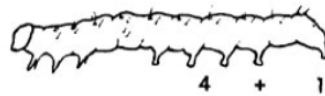
VELVETBEAN CATERPILLAR
4 + 1 pair prolegs
Very active when handled



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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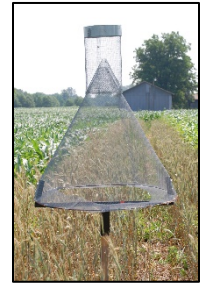


Bollworm & Tobacco Budworm

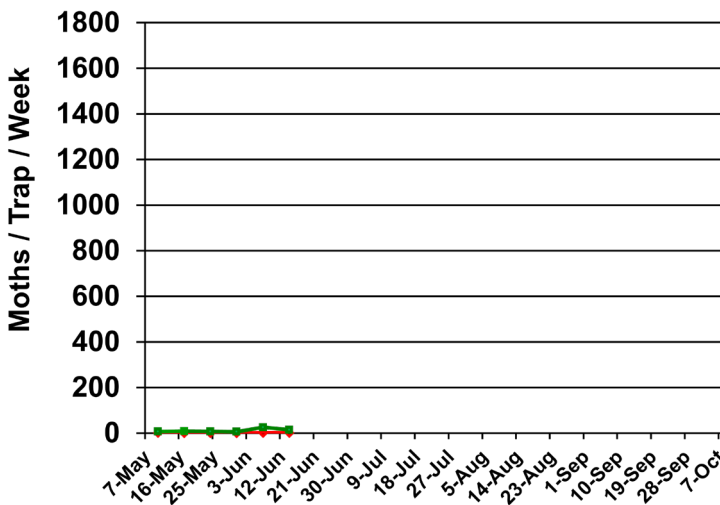


Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2007-2022 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these

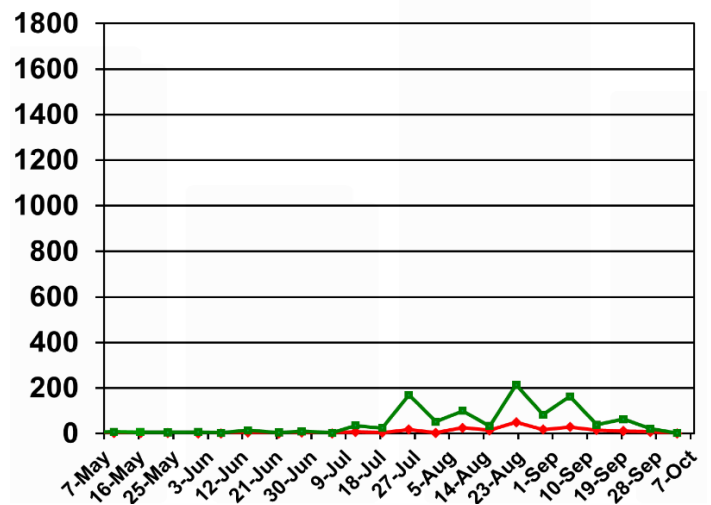
data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state but are useful for general trends.



Pheromone Trap Capture SC - 2023

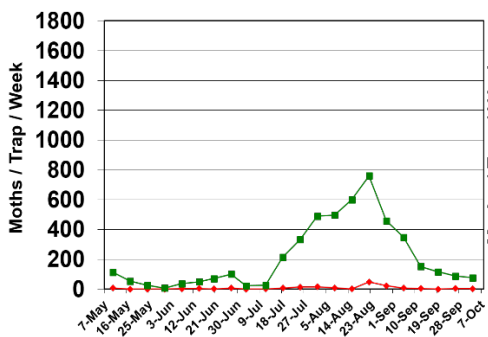


Pheromone Trap Capture SC - 2022

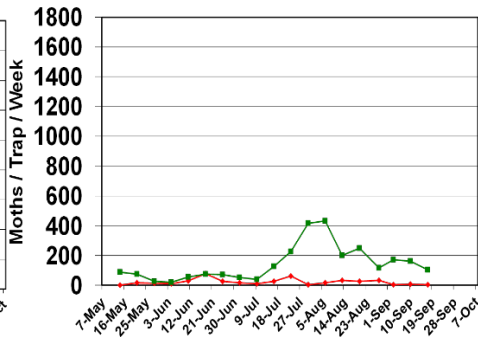


Trap data from 2007-2021 are shown below for reference to other years of trapping data from EREC:

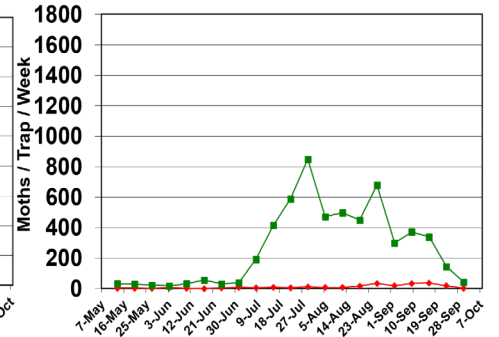
Pheromone Trap Capture SC - 2007



Pheromone Trap Capture SC - 2008



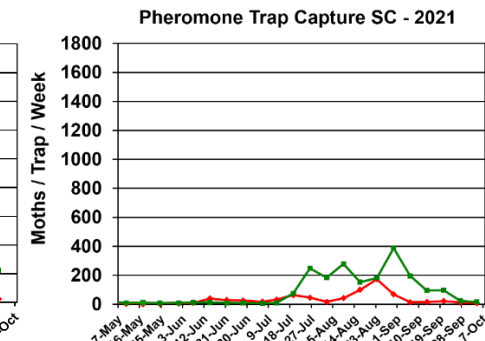
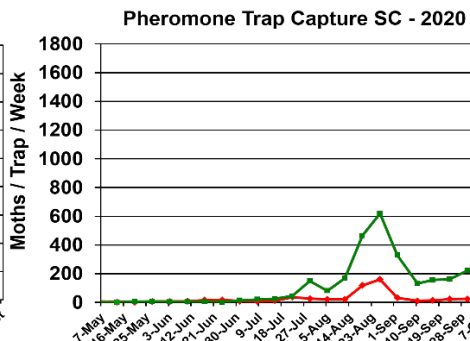
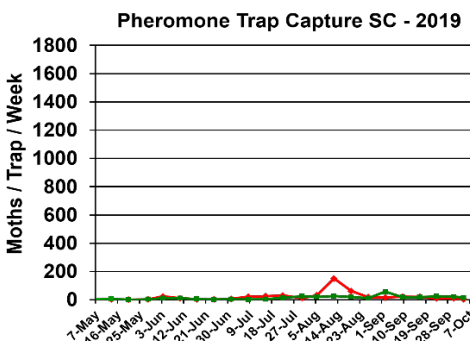
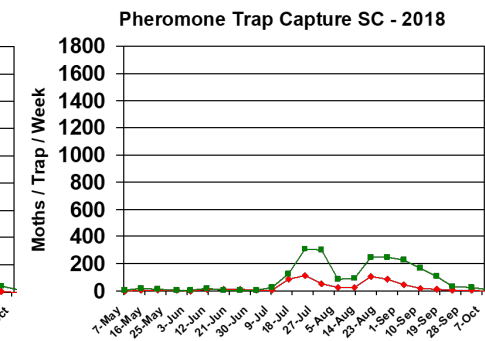
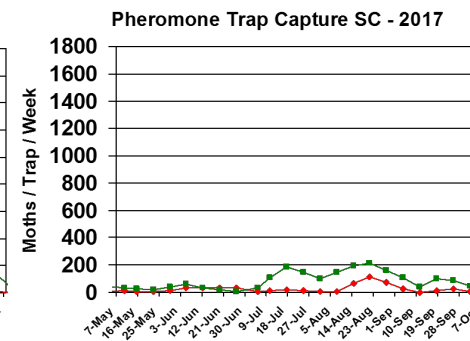
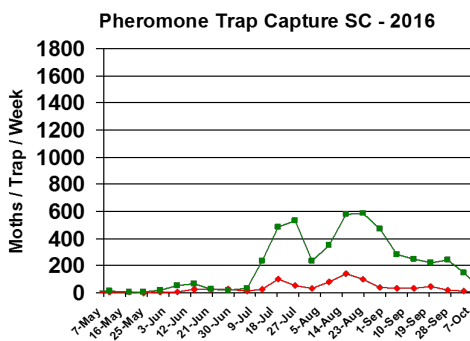
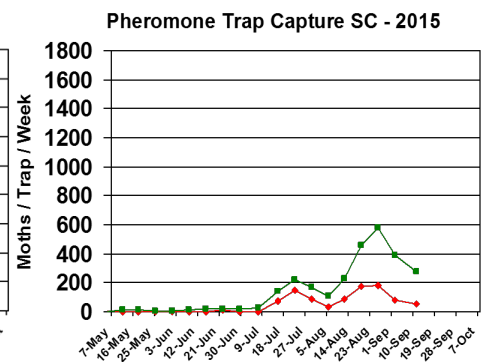
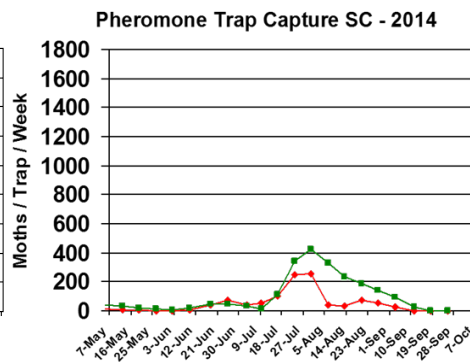
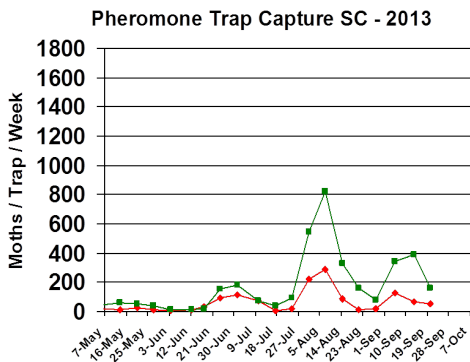
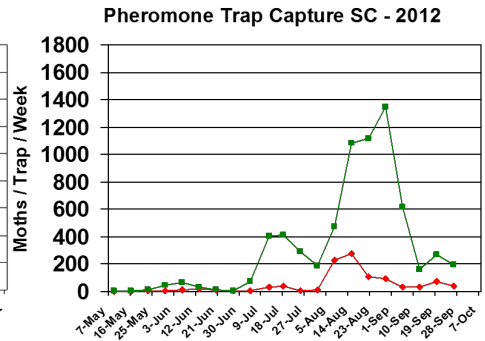
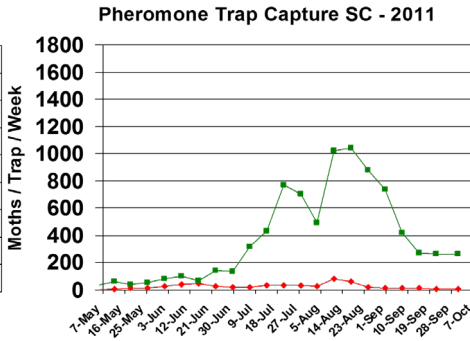
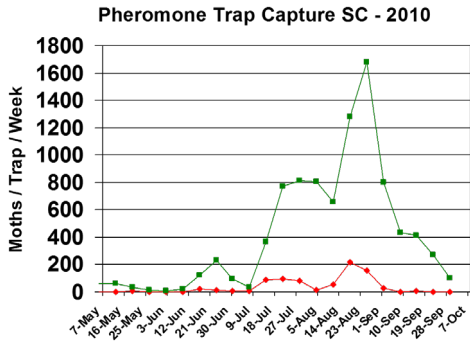
Pheromone Trap Capture SC - 2009





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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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