COOPERATIVE EXTENSION
College of Agriculture, Forestry and Life Sciences

Cotton/Soybean Insect Newsletter

Volume 18, Issue #3 Edisto Research & Education Center in Blackville, SC 18 May 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 the 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

Charles Davis, county agent in Calhoun County, reported "A lot of cotton is going in this week. What I have seen up looks good and the rains today (Wed) and tomorrow (Thurs) should help a lot. Some ThryvOn is going out. A few bags at a time so we should get some field looks soon." **Jonathan Croft**, county agent in Orangeburg County, reported "seeing cotton emerging and will be looking for thrips next week. Four-legged pests have been the biggest complaint from growers I have heard about in early planted soybeans. **Jay Crouch**, county agent in Newberry County, reported his growers "covered a good bit of ground with the planters this past week, some cotton beginning to emerge. Soil moisture is leaving quickly - missing these last few rain forecasts…getting concerning."

Cotton Situation

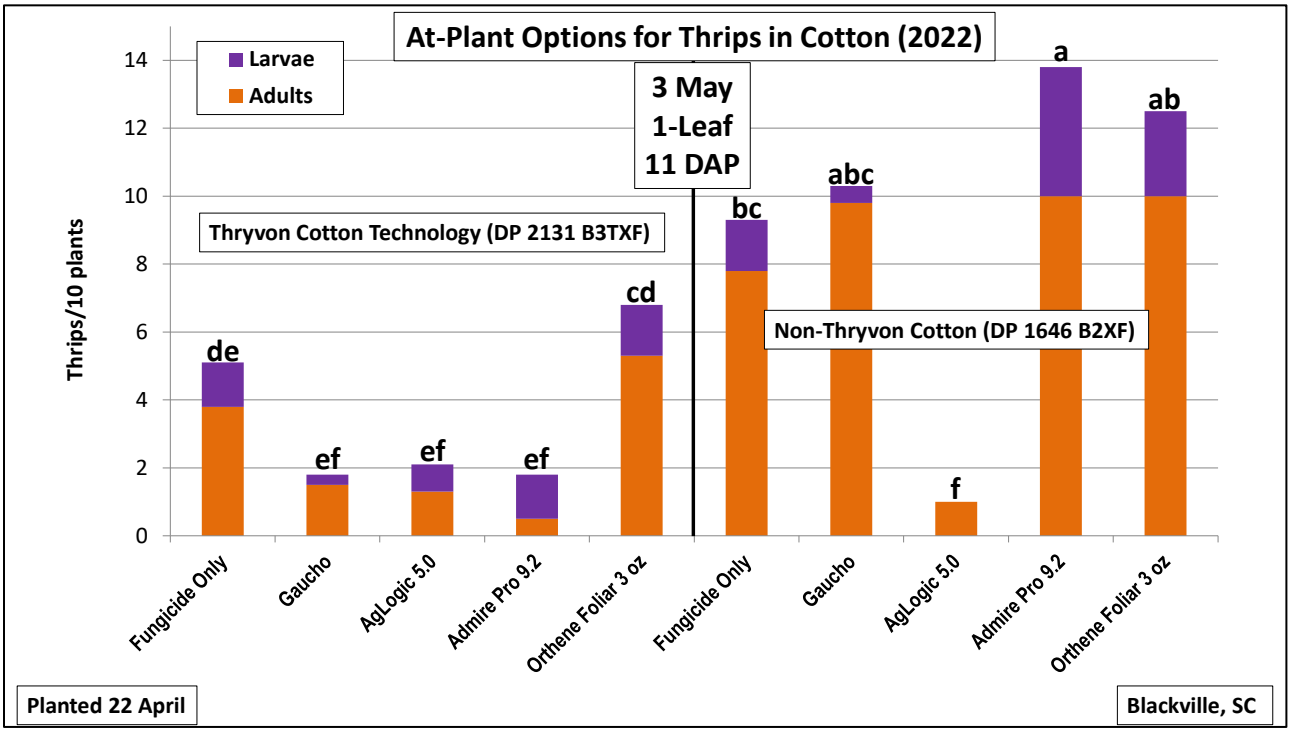
As of 14 May 2023, the USDA NASS South Carolina Statistical Office estimated that about 25% of the crop has been planted, compared with 10% the previous week, 44% at this time last year, and 42% for the 5-year average. The conditions of the crop were not yet reported (-% excellent, -% good, -% fair, -% poor, and -% very poor). These are reported statewide averages.

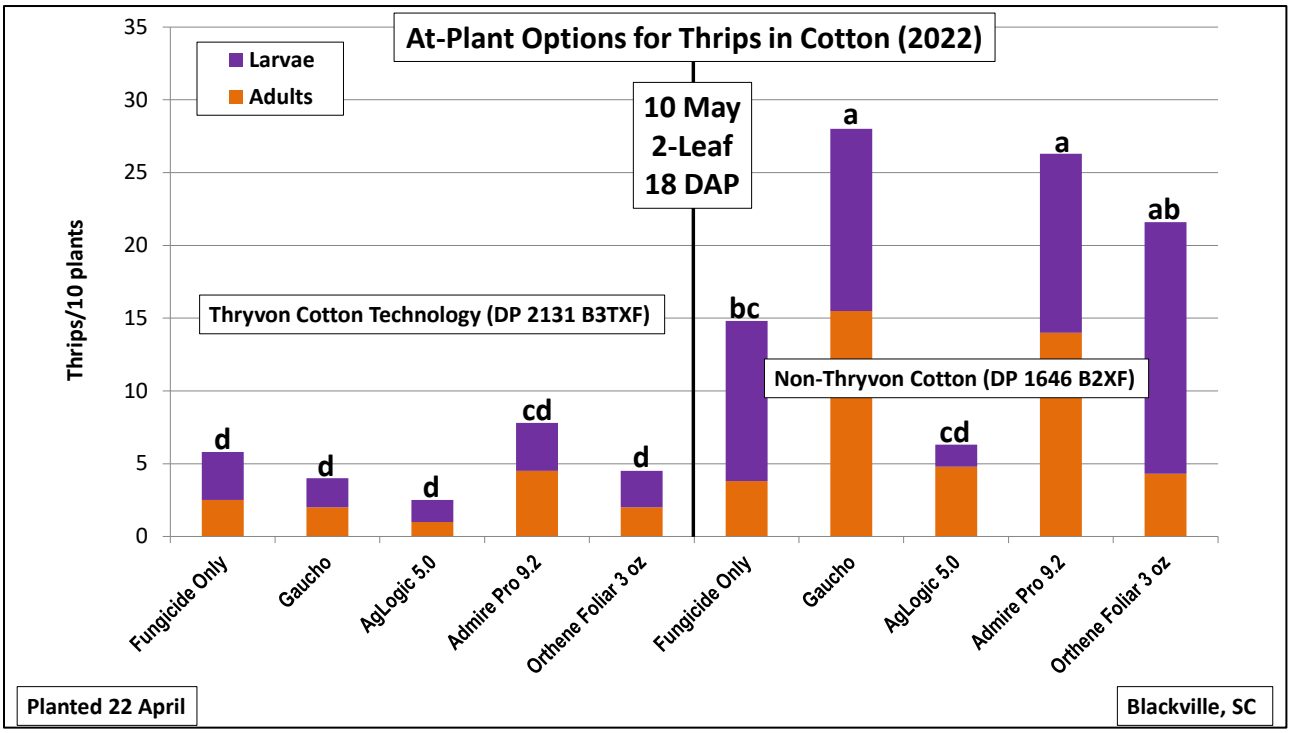
Cotton Insects

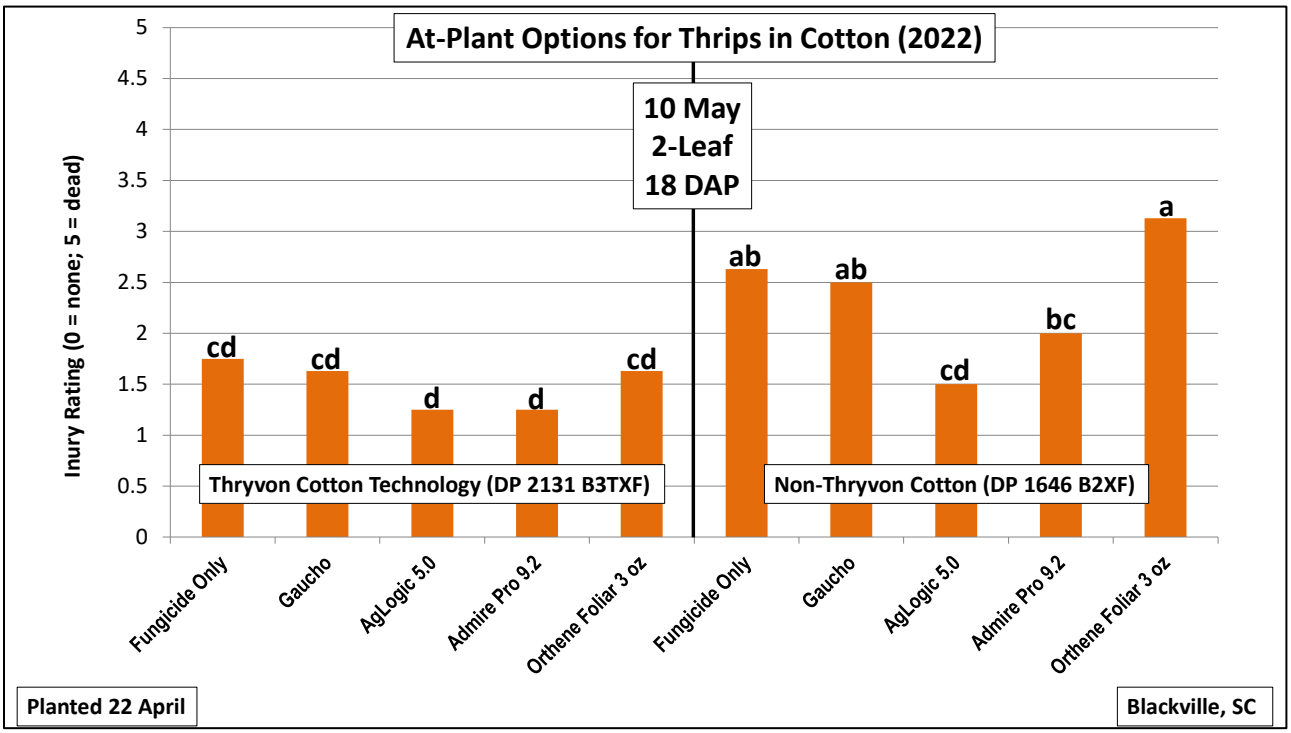
Widespread problems with insects in seedling cotton are not being reported because much of the crop is still being planted or is just emerging. I am seeing some injury in my research plots, especially in cotton planted here in Blackville during the last week of April.

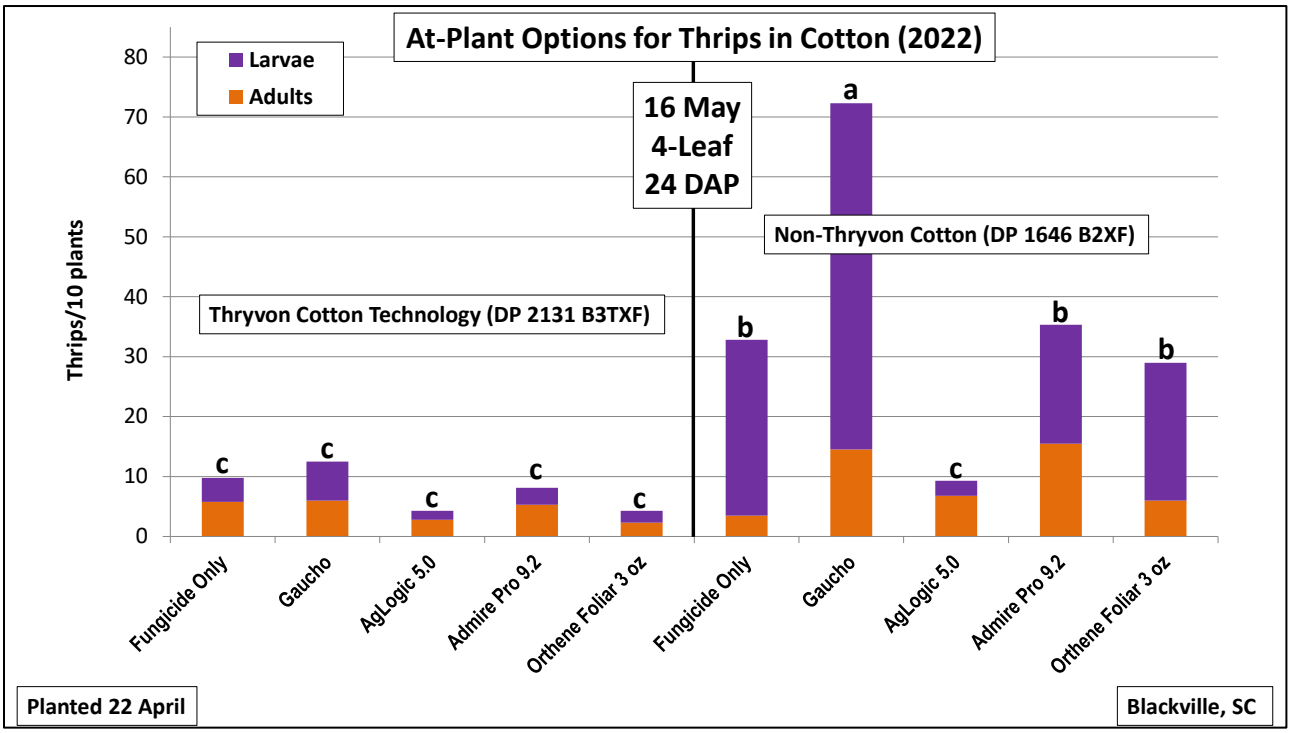
Thrips – We will spend another couple of weeks covering thrips, I'm sure, so let me share some data from last year. We put out several at-plant insecticide options and a foliar spray for thrips last year in ThryvOn and non-ThryvOn cotton and counted thrips, rated injury, measured plant heights, assessed above-ground

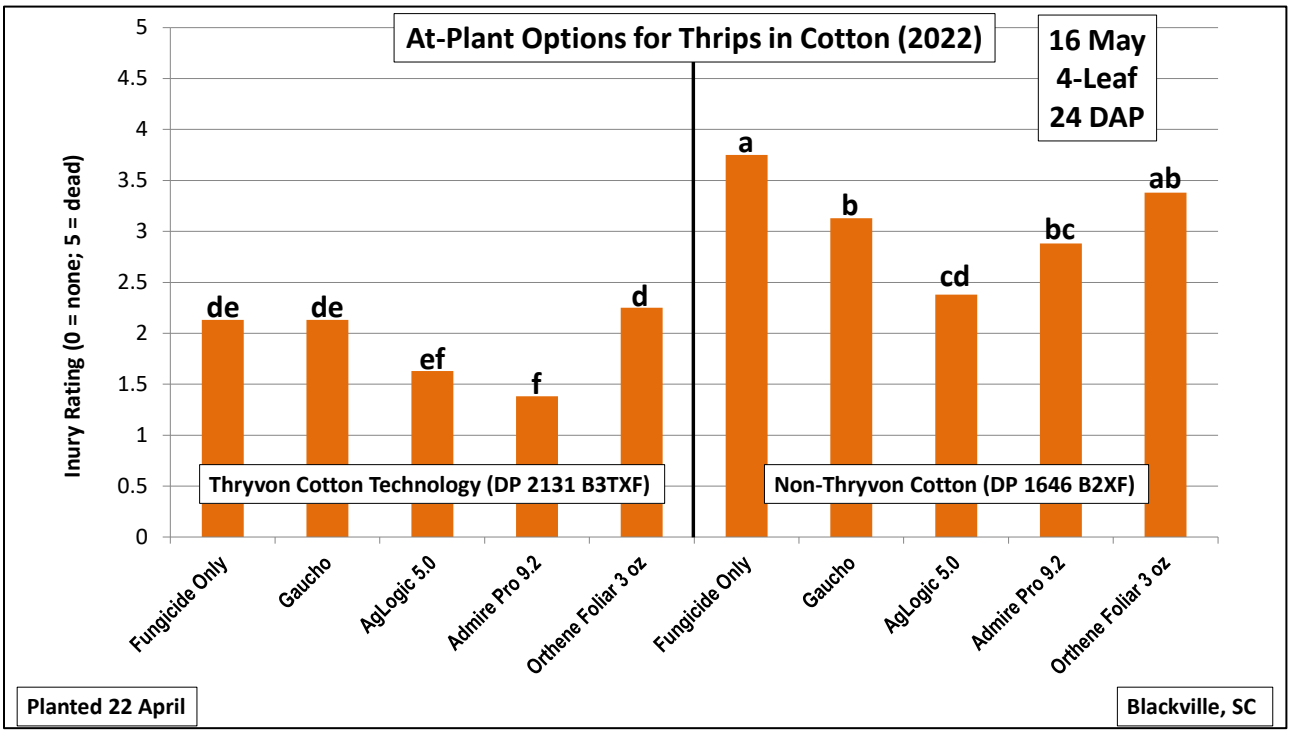
biomass, and estimated plot yields. The charts below show what we observed in 2022 at the 1-, 2-, and 4-leaf stages regarding thrips density and injury ratings. At the 1-leaf stage (11 DAP), it was clear that higher numbers of thrips were found in the non-ThryvOn cotton than in the ThryvOn cotton. Also, AgLogic provided significant control of thrips in the non-ThryvOn cotton (right side of chart), compared with the other treatments, but not statistically better control than what the ThryvOn trait (left side of chart) provided alone (fungicide-only seed). The same patterns for thrips densities were observed at the 2-leaf stage (18 DAP). Ratings of feeding injury by thrips (0 = no damage; 5 = dead plants) at the 2-leaf stage showed slightly higher injury in the non-ThryvOn cotton compared with the ThryvOn cotton, and AgLogic was the best treatment in the non-ThryvOn cotton. At the 4-leaf stage (24 DAP), numbers of thrips were lowest in all of the ThryvOn treatments and the AgLogic treatment in the non-ThryvOn cotton, and injury ratings at that time were similar to those made at the 2-leaf stage. Densities of thrips across all sampling dates showed essentially the same patterns, with limited to no benefit of any insecticide used on top of the ThryvOn trait, but AgLogic was the best treatment for thrips in non-ThryvOn cotton and statistically equal to that provided by ThryvOn cotton. Above-ground biomass at 45 DAP validated thrips counts and injury ratings by showing that AgLogic produced the largest non-ThryvOn plants and that only the Gaucho seed treatment might have helped plant growth in the ThryvOn cotton. Yield data from this trial indicated that ThryvOn cotton did not yield more with any of the insecticides used for thrips; however, use of AgLogic on the non-ThryvOn cotton resulted in statistically higher yields than those observed with fungicide-only seed and the foliar treatment option.

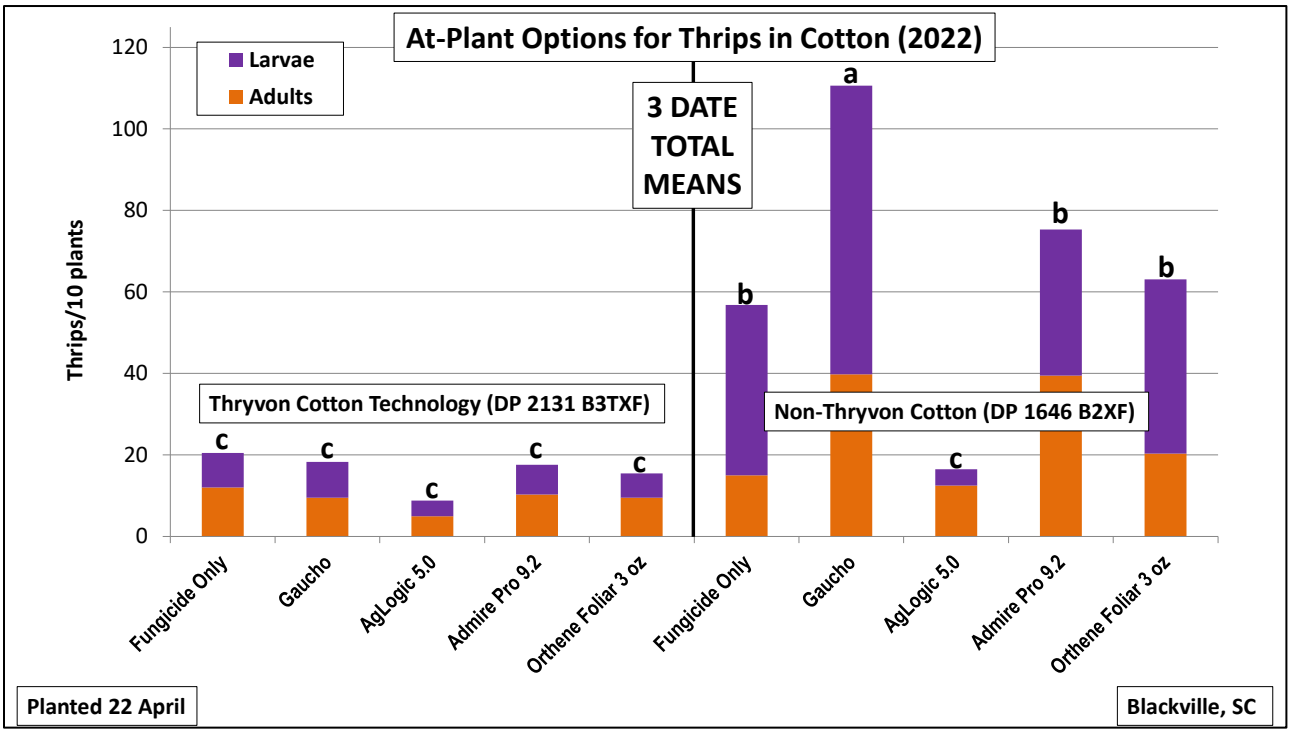


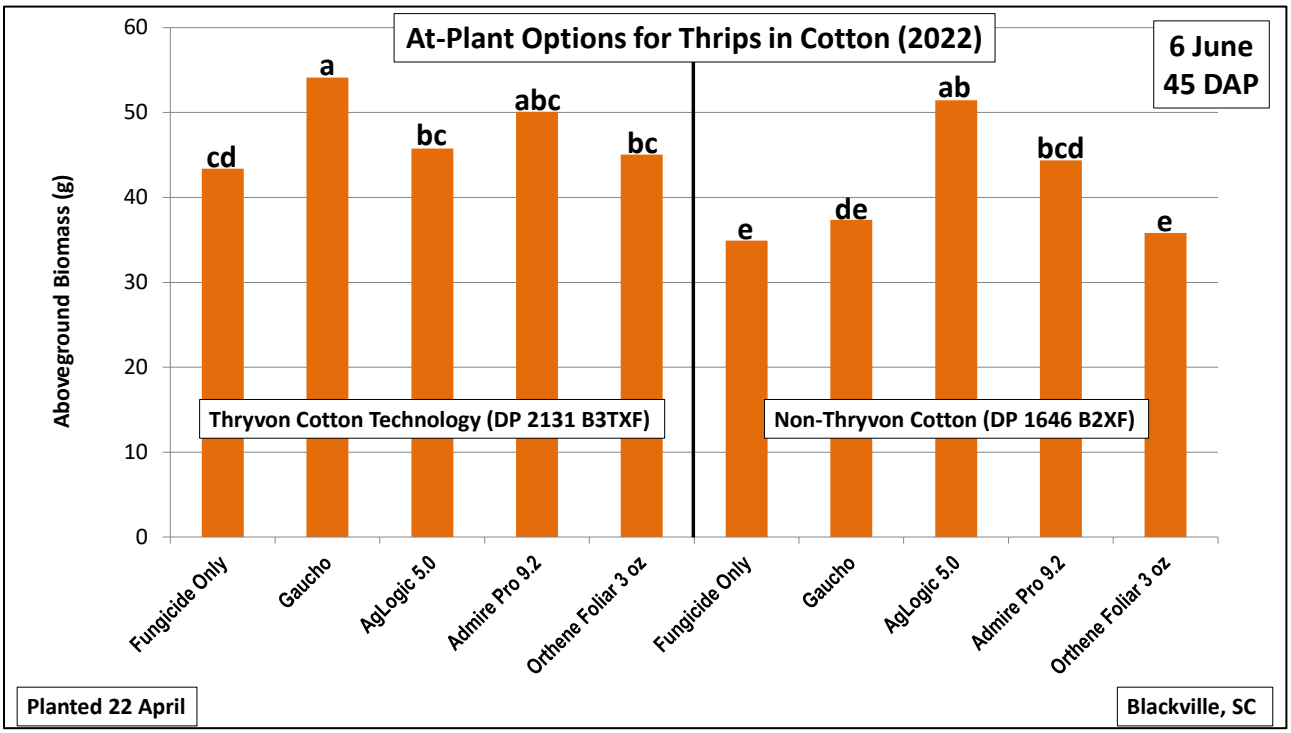












Again, on the final pushes to plant cotton, I encourage all producers and farm managers to consult the Thrips Infestation Predictor for Cotton at https://products.climate.ncsu.edu/ag/cottontip/ to see what level of risk for injury from thrips your field and planting date combinations are showing. This will help you decide what to use for thrips at planting. If risk is high, consider a better thrips protection option. If risk is low, use something less expensive that will work good enough.

Here are the options as I view them:

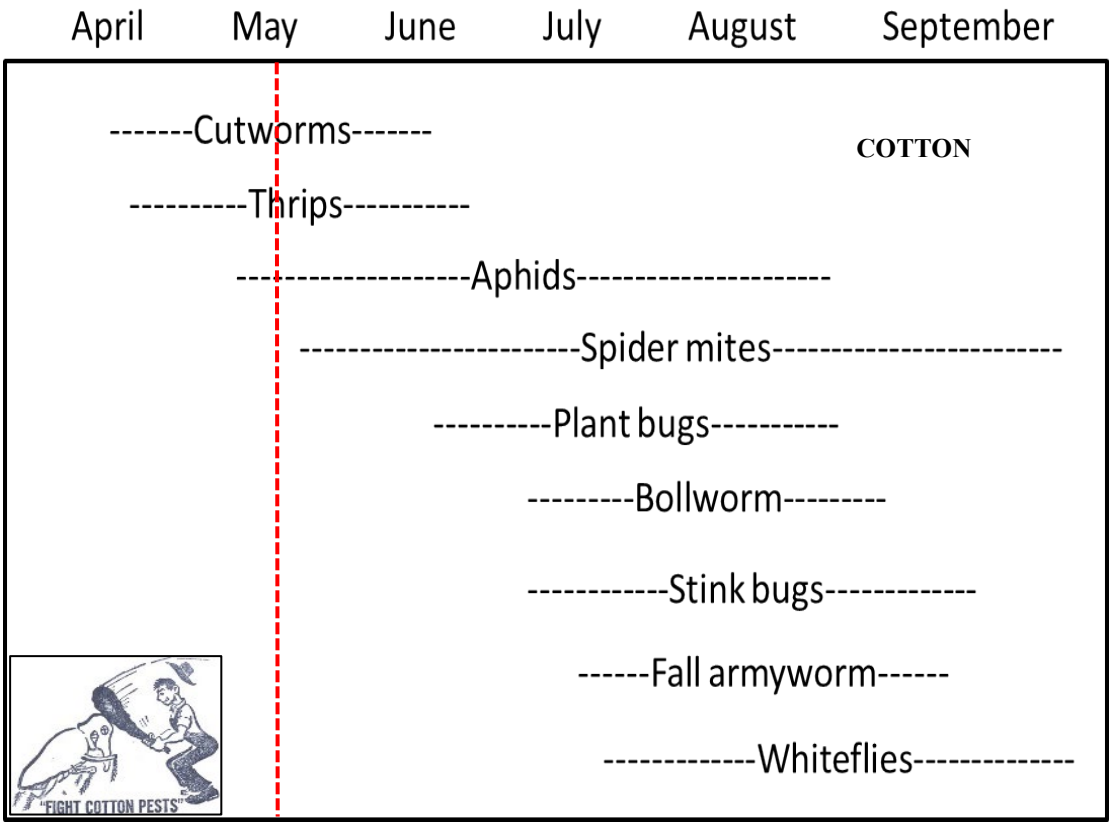
Thrips Risk

Bad
- No at-plant insecticide for thrips and using foliar insecticides alone
- Don't do this, unless you know, for sure, that you have no risk for thrips damage

Good
- Insecticide seed treatments
  - Acephate (Orthene, etc.)
  - Neonicotinoid – imidacloprid (Gaucho)
  - Neonicotinoid – imidacloprid + carbamate – thiodicarb (Aeris seed treatment)

Better
- In-furrow granular application of organophosphate phorate (Thimet)
- In-furrow liquid spray of neonicotinoid imidacloprid (Admire Pro, etc.)

Best
- In-furrow granular application of carbamate aldicarb (AgLogic)
- In-plant Bt trait ThryvOn



Soybean Situation

As of 14 May 2023, the USDA NASS South Carolina Statistical Office estimated that about 20% of the crop has been planted, compared with 9% the previous week, 26% at this time last year, and 21% for the 5-year average. About 2% of the crop has emerged, compared with 1% the previous week, 2% at this time last year, and 7% for the 5-year average. The conditions of the crop were not yet reported (-% excellent, -% good, -% fair, -% poor, and -% very poor). These are reported statewide averages.

Soybean Insects

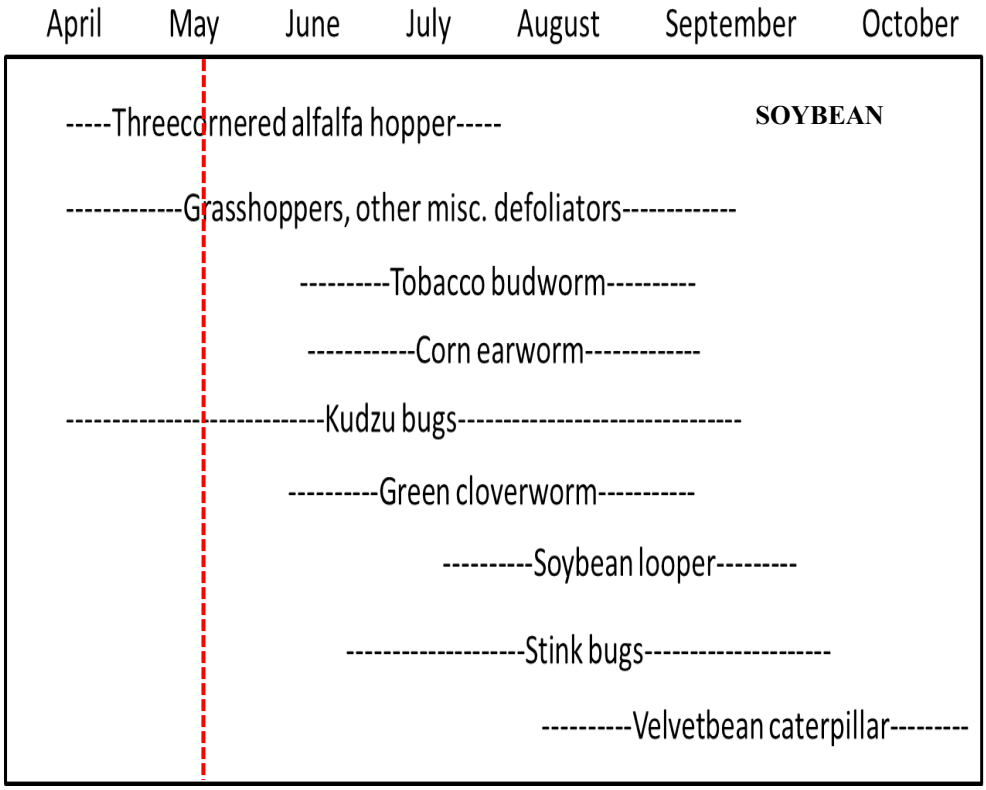
We are still early for reports of issues with insects in soybeans. The only issues mentioned so far are grasshopper fears and problems with deer. So, as you plan for the insect season in soybeans, make sure you have good sampling equipment for assessing fields for insects. You need at least one heavy-duty sweepnet to use later when checking soybeans for various species. Suppliers for those are:

- https://www.sweepnets.com/ ($51.00 each)
- https://gemplers.com/collections/pest-insect-control-sweep-nets ($85.49 to $107.99 each)

There are other suppliers, but beware because some sweepnets will not be sturdy enough to sweep row crops. They will bend, rip, and break. I have tried other suppliers, believe me.

You will also need a drop cloth or two. You can make your own drop cloths out of canvas or plastic (white or black) and wooden dowel rods. Just sew loops on the sides for the dowel rods. Suppliers for drop cloths are limited but include:

- https://www.greatlakesipm.com/field-equipment/ground-cloths/ ($26.75 each in vinyl)
- https://www.forestry-suppliers.com/p/53647/69610/insect-ground-sampling-cloth ($44.50 each)



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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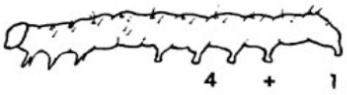
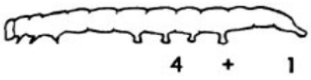
FIELD KEY TO COMMON SOYBEAN CATERPILLARS

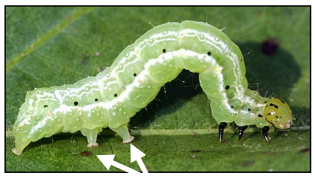


CORN EARWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body

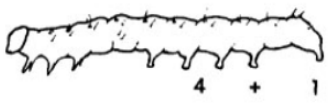


VELVETBEAN CATERPILLAR
4 + 1 pair prolegs
Very active when handled

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

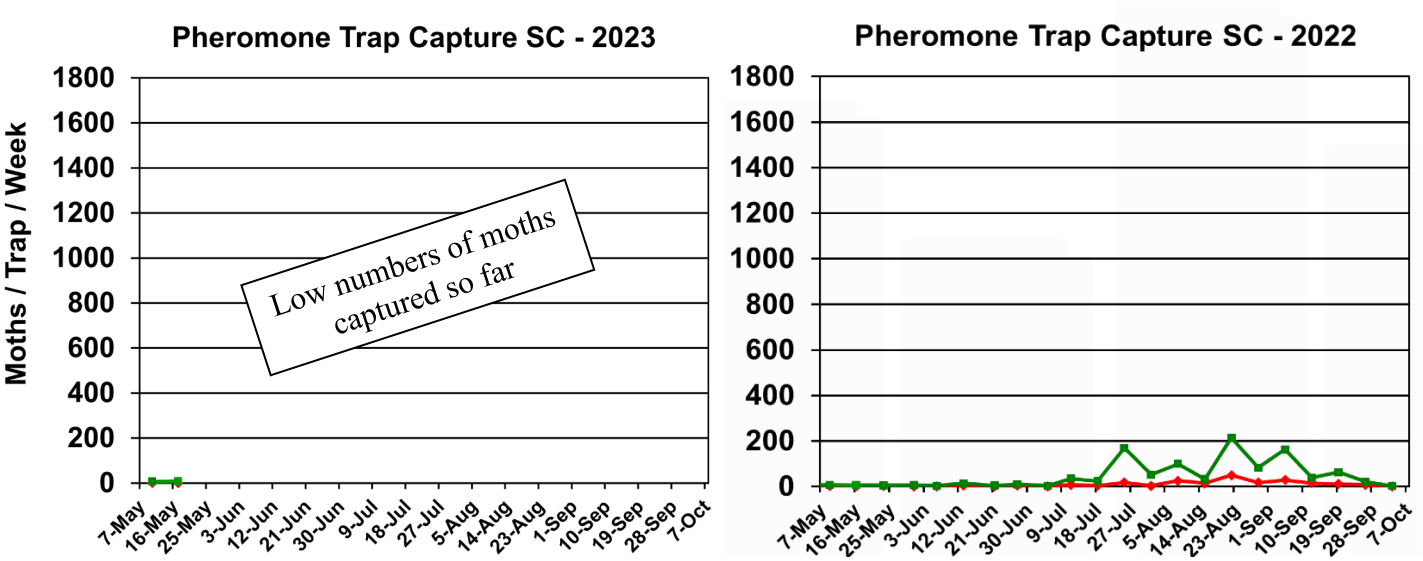


TOBACCO BUDWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body

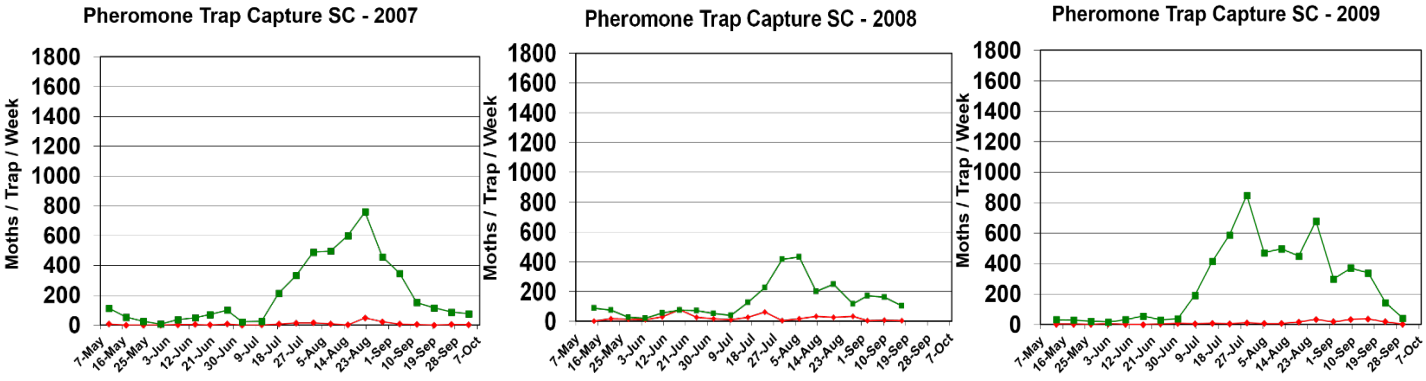
(2017) Prepared by Jeremy Greene, Professor of Entomology

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.



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



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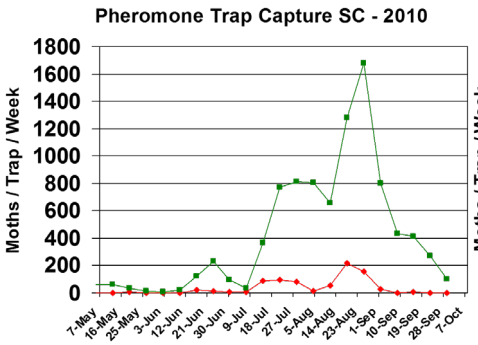

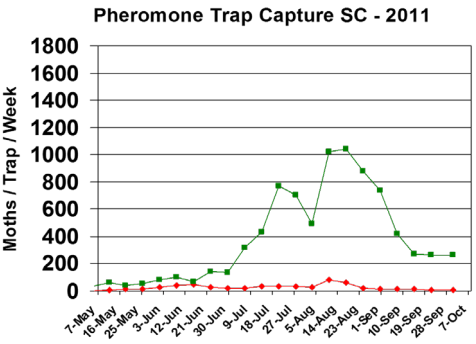

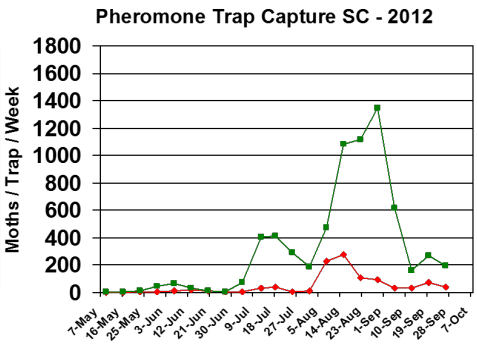

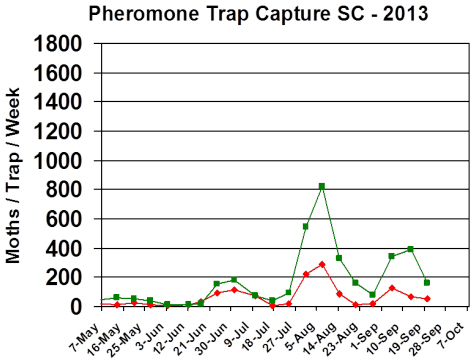

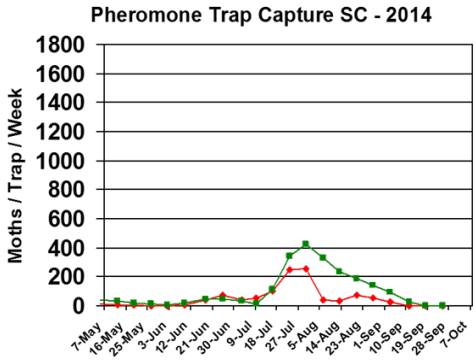

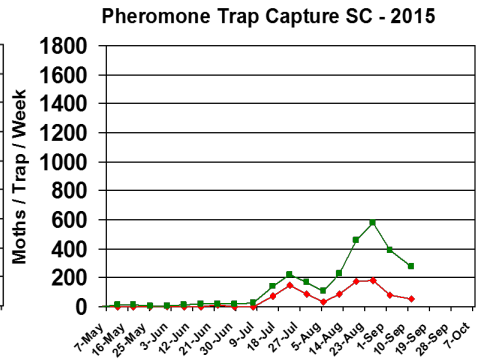

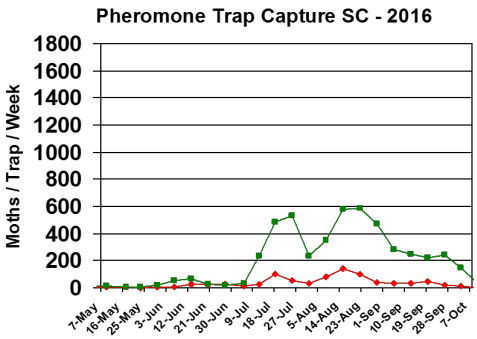

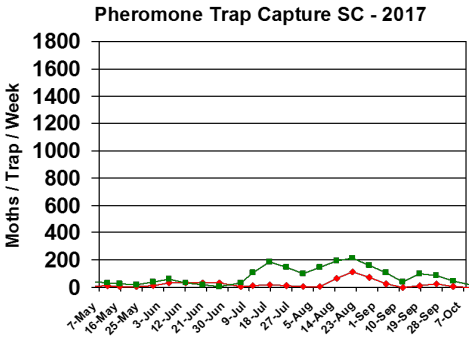

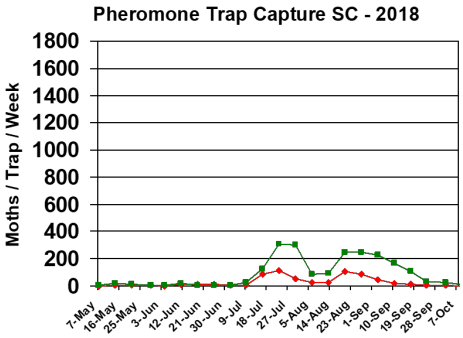

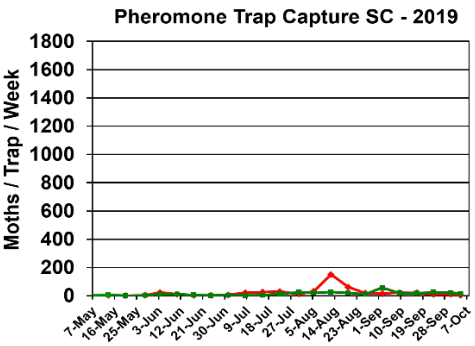

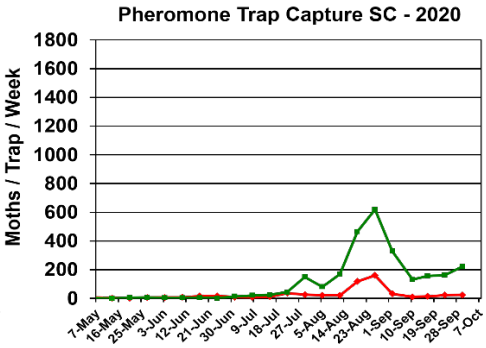

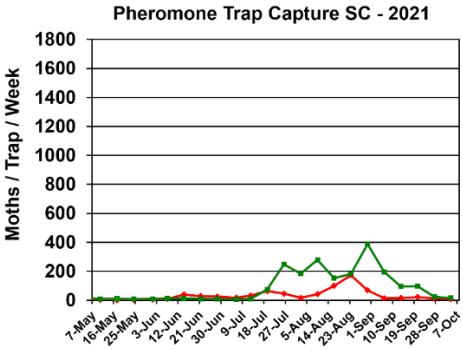

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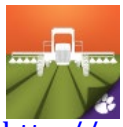
Pest Management Handbook – 2023

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

Sincerely,

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

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