COOPERATIVE EXTENSION
College of Agriculture, Forestry and Life Sciences

Cotton/Soybean Insect Newsletter

Volume 18, Issue #14 Edisto Research & Education Center in Blackville, SC 10 August 2023

Pest Patrol Alerts

Some of the information contained herein each issue is available via text alerts that direct users to online audio 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. Subscribers can just click on the link in the text to hear the update. Users can subscribe for text message alerts for my updates by signing up online at https://www.syngenta-us.com/pest-patrol by scrolling down on this landing page, entering your information, and including your mobile number. Select 'South Carolina' from the list, and you can sign up for multiple states at the same time. Pest Patrol Alerts are sponsored by Syngenta. Thank you!

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 "I have been in cotton fields the last two days, and all is quiet. I saw some immature TPBs and parrot-beaked bolls but no stink bug damage inside. Target spot is the main issue in cotton right now. I heard some reports of mildew, but I haven't seen any." **Jonathan Croft**, county agent covering Orangeburg, Dorchester, and Berkeley Counties, reported that he "checked some soybeans Monday outside of Orangeburg. Starting to see a few more worms but still not above the threshold. I did pick up some VBC (pictured here) and a few loopers today, where it had only been green cloverworms in this field." **Kyle Smith**, county agent covering Darlington, Marlboro, Dillon, and Florence Counties, reported that a producer in Marlboro County is about to spray some 2-gene Bt cotton for bollworm. **Jay Crouch**, county agent covering Newberry, Saluda, Edgefield, York, and Chester Counties, reported that he "cut bolls in several cotton fields, all was good. Soybeans remain in good shape so far."

Upcoming Field Days

Our annual fall field days are almost here. Stay tuned for more details on the topics that will be covered. There will be pesticide and CCA credits offered, and most field days include lunch also!

- 16 August – Forage Field Day at Edisto REC in Blackville, SC
- 31 August – Field Day at Pee Dee REC in Florence, SC
- 7 September – Peanut Field Day at Edisto REC in Blackville, SC
- 14 September – Piedmont Field Day at the Simpson Station
- 21 September – Row-Crop Field Day (cotton, soybeans, etc.) **and** Vegetable/Fruit Field Day (sweet potatoes, pumpkins, tomatoes, watermelons) at Edisto REC in Blackville, SC

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Cotton Situation

As of 6 August 2023, the USDA NASS South Carolina Statistical Office estimated that about 96% of the crop is squaring, compared with 93% the previous week, 97% at this time last year, and 93% for the 5-year average. About 70% of the crop is setting bolls, compared with 55% the previous week, 79% at this time last year, and 69% for the 5-year average. The conditions of the crop were reported as 5% excellent, 55% good, 36% fair, 3% poor, and 1% very poor. These are reported statewide averages.

Cotton Insects

Bollworm – Captures of bollworm moths in our pheromone traps continued to rise again this past week. If this trend continues, we will likely see issues in 2-gene Bt cotton. I found a population of bollworm in some 2-gene Bt cotton this afternoon that exceeded our treatment threshold of 5% square or boll damage (we found 3% damaged bolls and 4% damaged squares – see photos here I took in that 2-gene Bt cotton). I expect this pressure to continue for at least another week. Again this week, our bioassay data continue to show decreased efficacy with pyrethroids on the species (50% survival), so, if you need to treat 2-gene Bt cotton for bollworm, consult the non-pyrethroid section or the multiple pests section of the 2023 Pest Management Handbook for up-to-date recommendations. The 3-gene Bt cotton I looked at today was clean, with no larvae or damage observed, so we have that going for us. 😊

Spider Mites – Populations of spider mites continue to build in some locations, but the regular thunderstorms in some locations can knock them back. Look for the stippling on leaves that starts in the folds of the leaves. You can see this underneath and on top of leaves. Mites often aggregate near the petiole between the main veins on the underside of leaves. You will need a hand lens to see them and their eggs.

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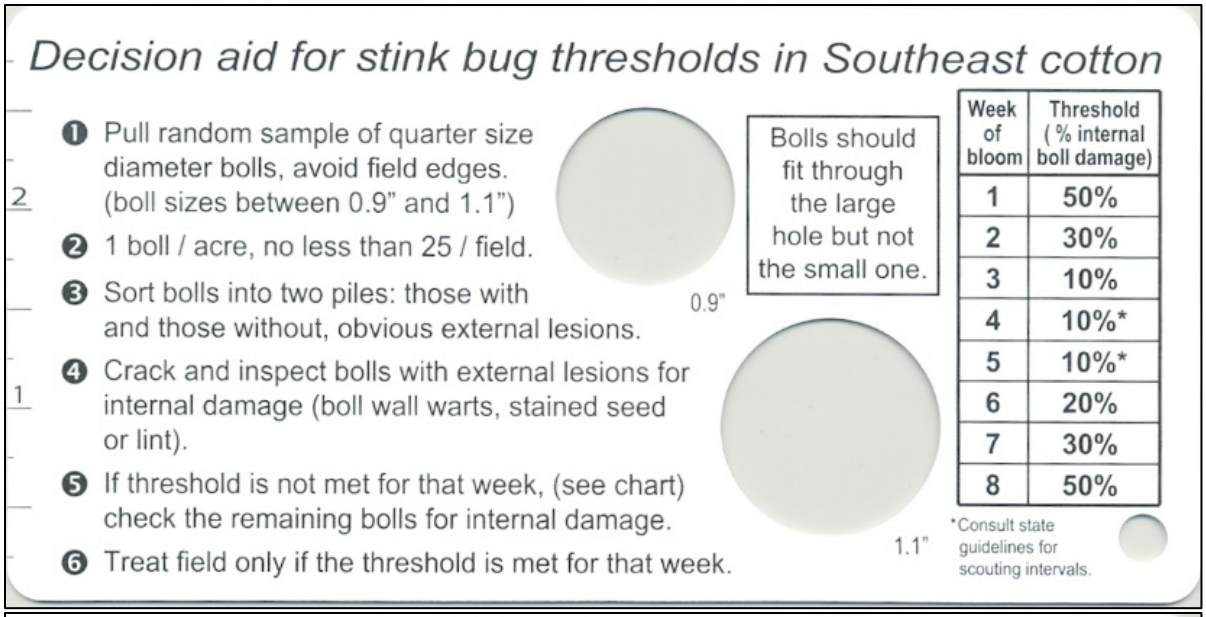
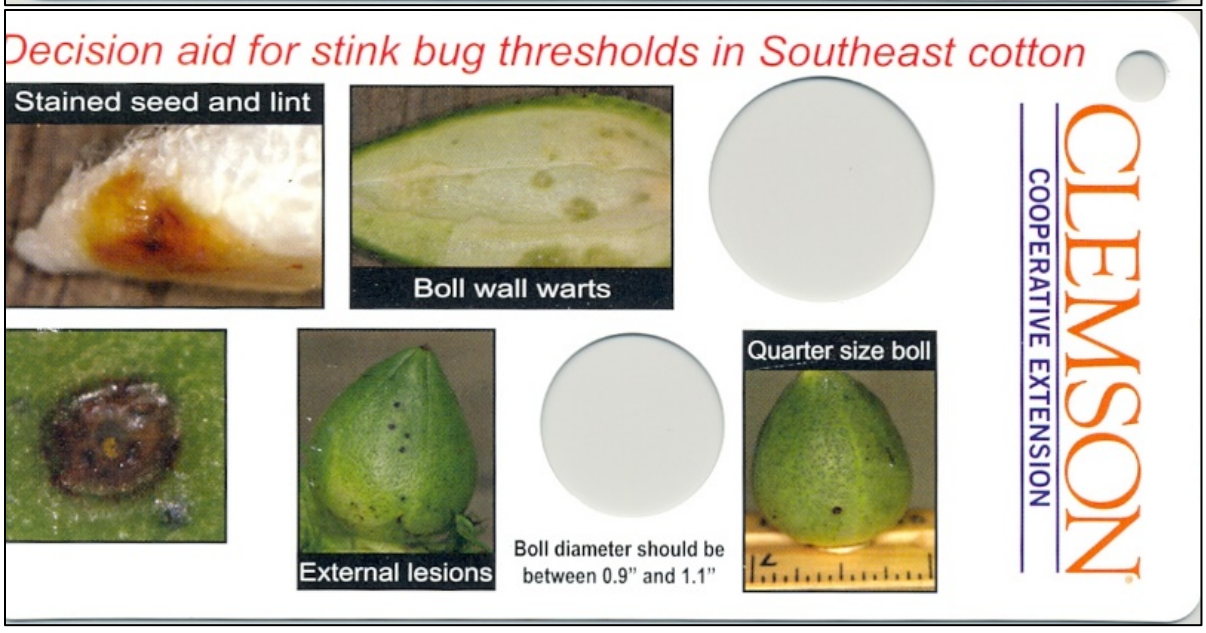
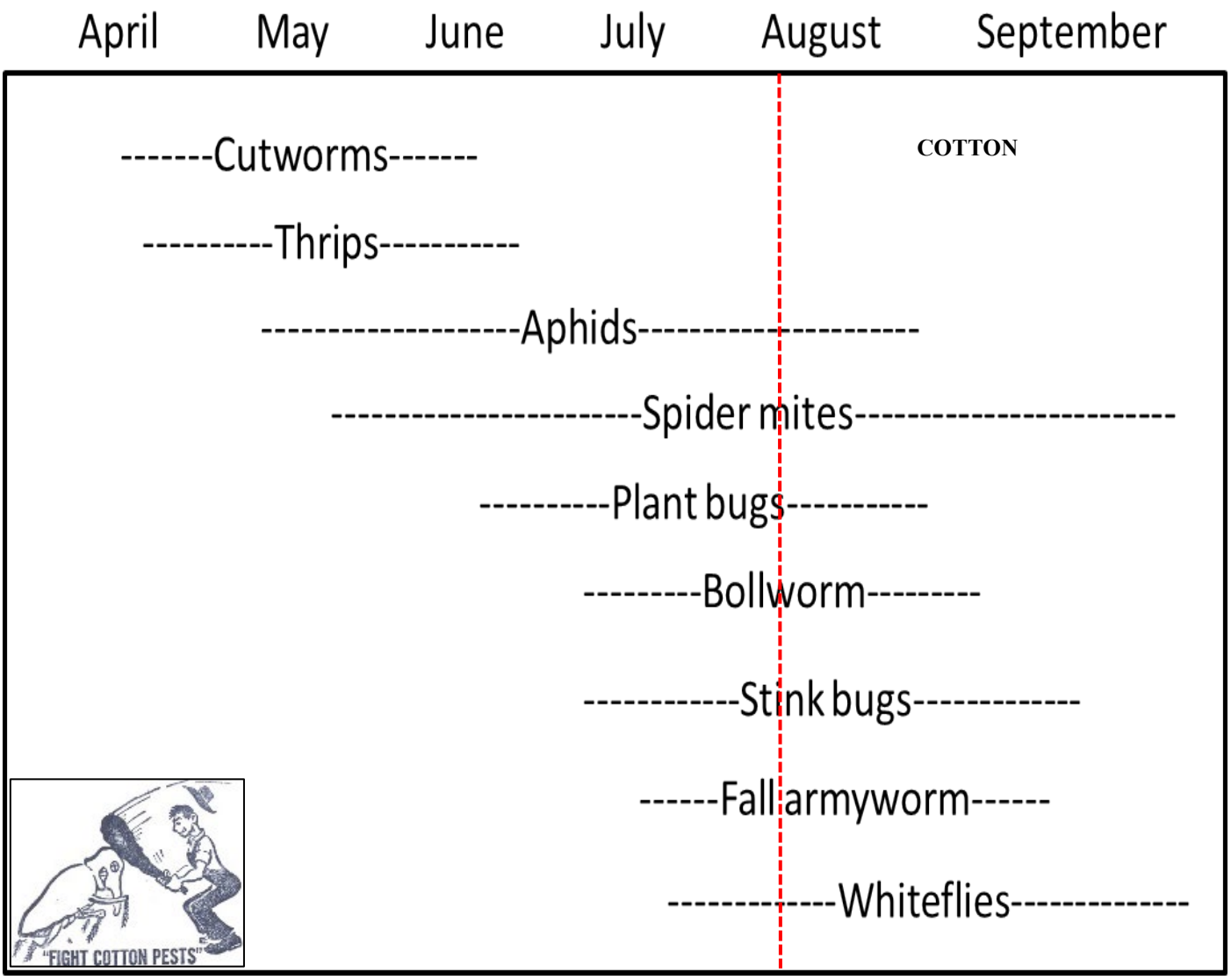
Plant Bugs – Most cotton is past our "plant bug window," but, any cotton in the first few weeks of bloom remains susceptible. Once fields get to the 3rd week of bloom, the focus should be on stink bugs. The tarnished plant bug (TPB), *Lygus lineolaris*, will join stink bugs as a part of the boll-feeding complex because TPBs can feed on small bolls. However, insecticides used for stink bugs will likely suppress or kill plant bugs, so manage stink bugs, and you will control any leftover plant bugs.

Stink Bugs – The stink bug complex remains the number one insect pest of cotton in South Carolina, and more activity is noticed each week. Use the dynamic boll-injury threshold by week of bloom to manage the complex, and you should be in good shape. The decision cards we made years ago (shown here) summarize how to use the threshold.







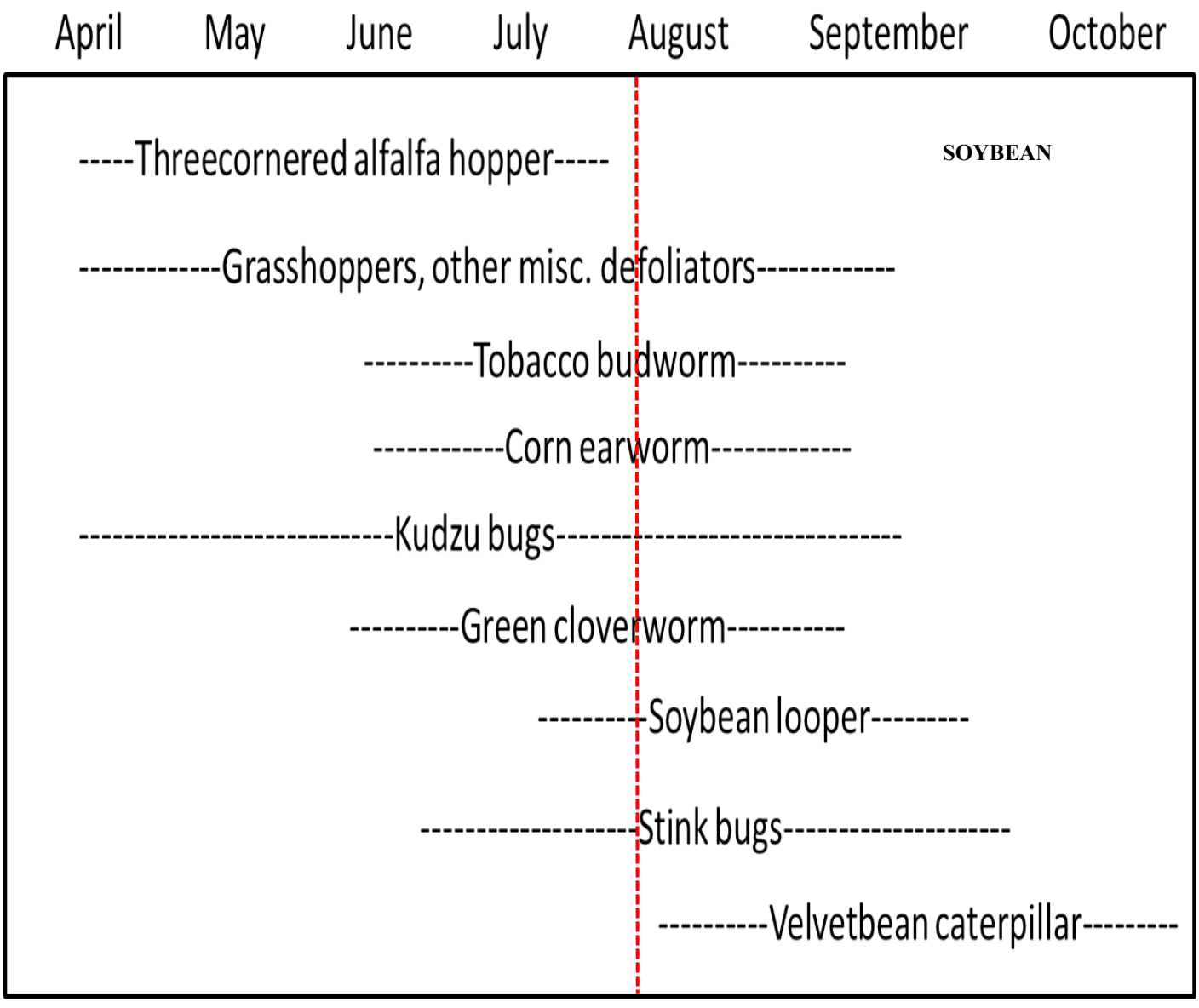
Soybean Situation

As of 6 August 2023, the USDA NASS South Carolina Statistical Office estimated that about 60% of the crop is blooming, compared with 52% the previous week, 58% at this time last year, and 51% for the 5-year average. About 30% of the crop is setting pods, compared with 24% the previous week, 26% at this time last year, and 17% for the 5-year average. The conditions of the crop were reported as 7% excellent, 28% good, 39% fair, 18% poor, and 6% very poor. These are reported statewide averages.

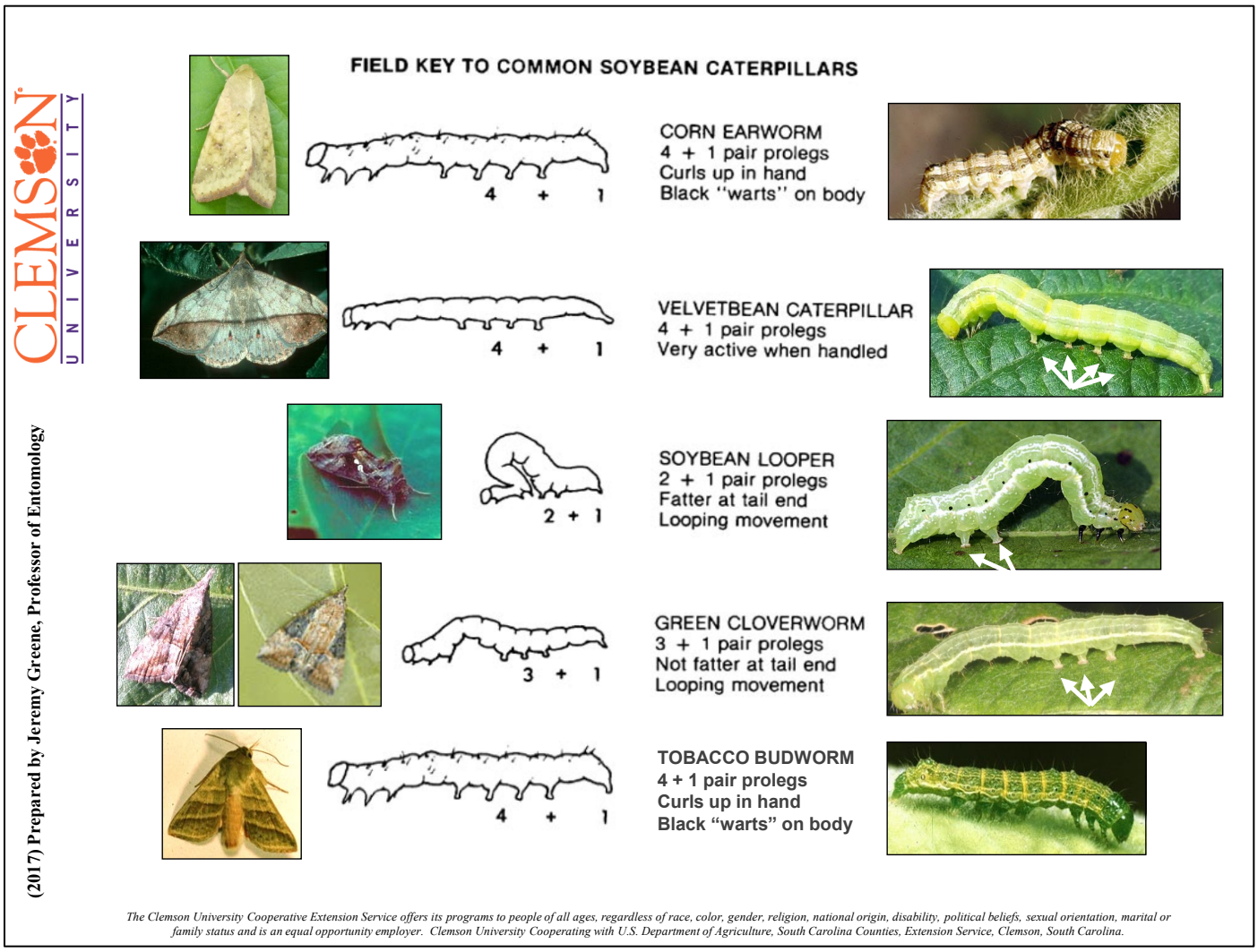
Soybean Insects

More activity is showing in soybeans this week, as some of the migratory defoliation species are starting to cause more defoliation. Green cloverworm, soybean looper, and velvetbean caterpillar (VBC) are becoming more numerous. I had a report this week out of Georgia where they are battling a seemingly

resistant population of VBC. Years ago, we had some migratory VBC show up in selected field here in South Carolina that we could not control with anything. Hopefully, that is not going to be the case again this season. I will monitor that situation and report back on any news. For now, with the increase in captures of podworm moths in our traps, you should be checking blooming and pod-setting soybeans for that pest. Because podworm feeds directly on blooms and pods, it can significantly impact yield. Also, don't forget that stink bugs are major pests of soybeans, and they are getting started in the crop also. I easily came across a hatching egg mass today, and I wasn't even looking for insects.

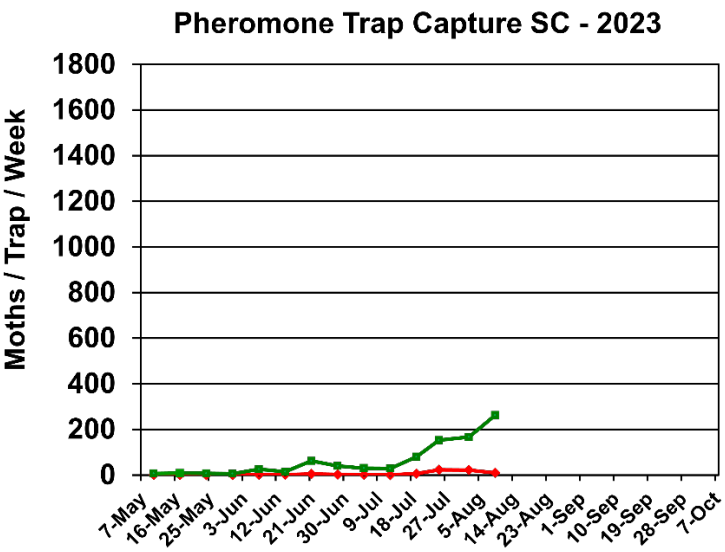


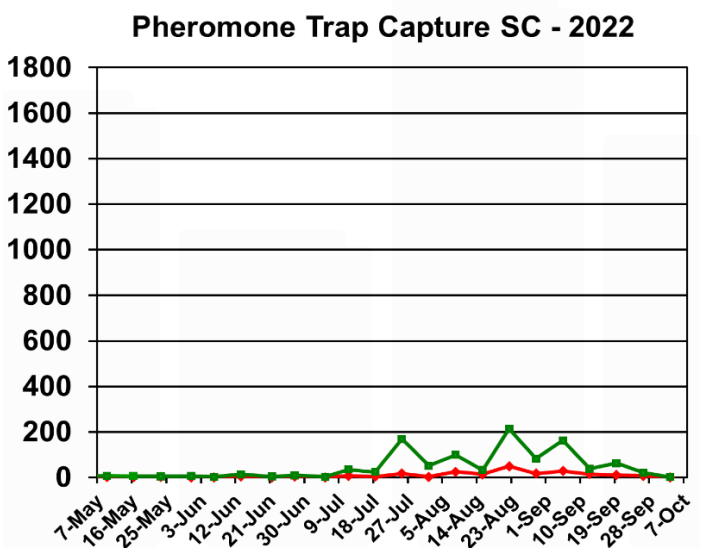
As moth activity increases, deposited eggs will yield caterpillar pests on soybeans. It is good skill to be able to identify adult moths flying around in fields. Use this chart to study moth and caterpillar identification.



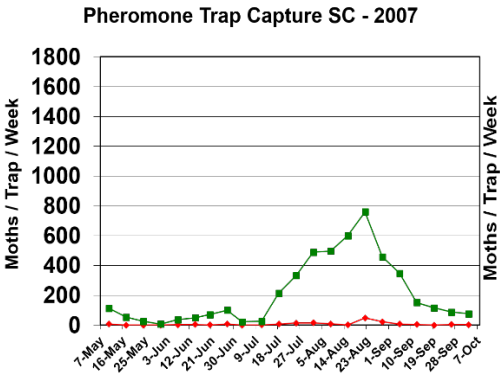
Bollworm & Tobacco Budworm

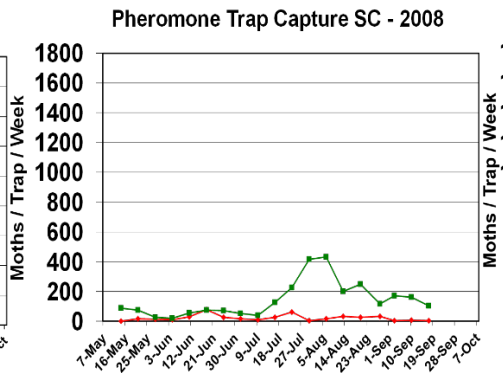
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2007-2022 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of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

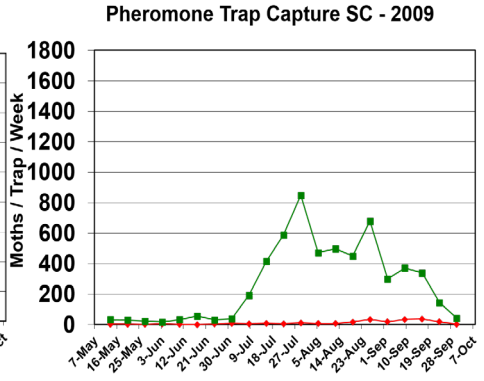




Trap data from 2007-2021 are shown below for reference to other years of trapping data from EREC:







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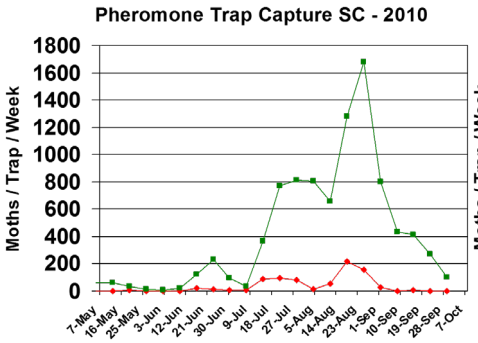

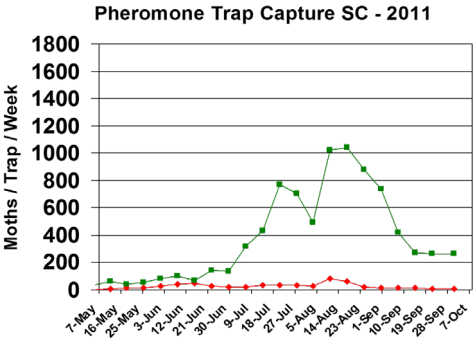

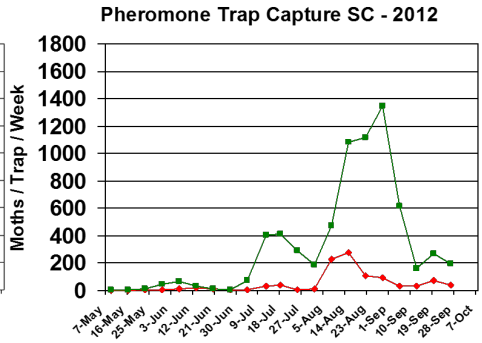

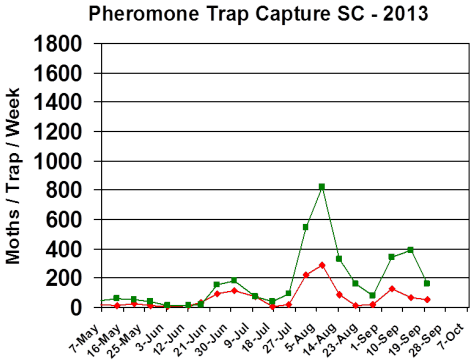

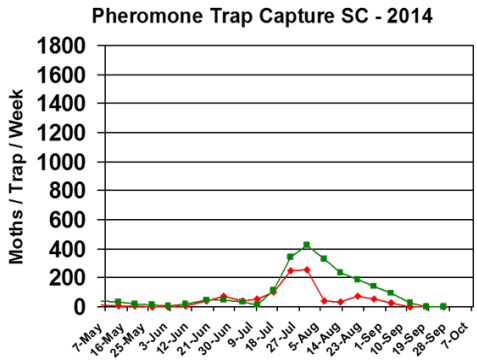

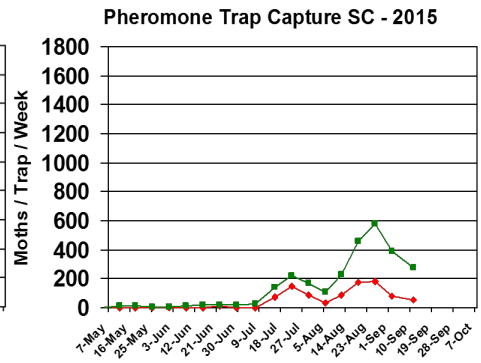

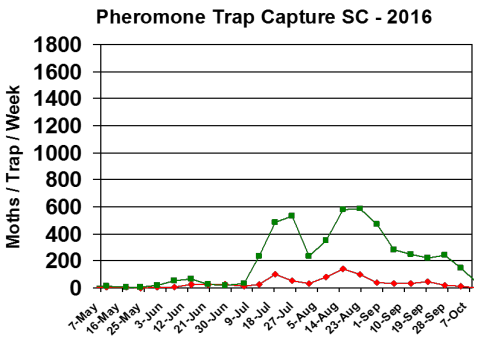

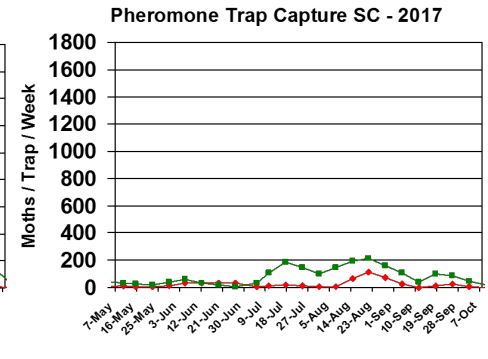

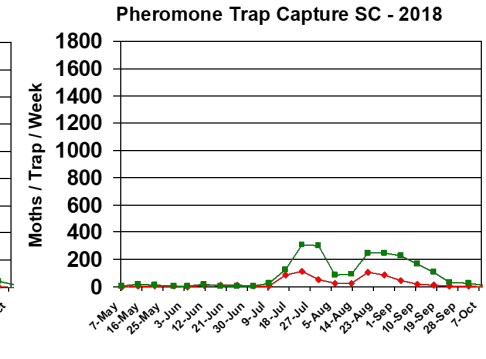

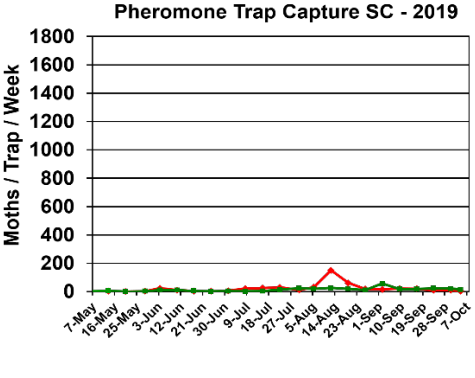

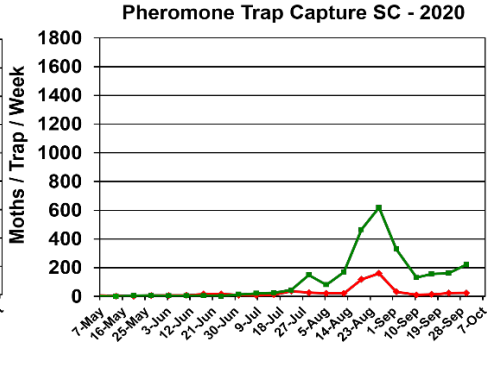

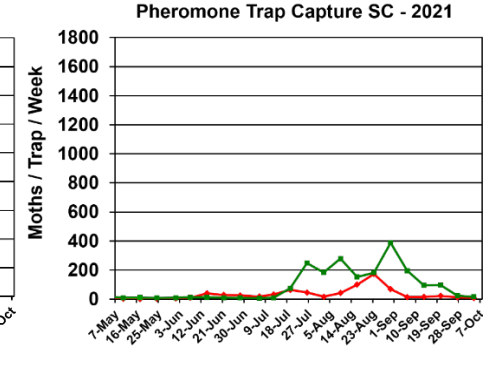

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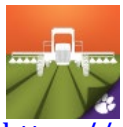
Pest Management Handbook – 2023

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):
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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