



Cotton/Soybean Insect Newsletter

Volume 12, Issue #16 Edisto Research and Education Center in Blackville, SC 31 August 2017

Pest Patrol Alerts

The information contained herein each week is available via text alerts that direct users to online recordings. I will update the short message weekly 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.

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 @bugdocisin on Twitter.



News from Around the State

I collected hundreds of soybean loopers yesterday with **Hannah Mikell**, county agent in Clarendon County, and **Cag Brunson**, producer near Summerton, SC (thanks for the help Cag!), that were treated within a 2-week window that probably should not have been at the levels we saw in the field. Those will be tested to determine the level of resistance, if any, to that insecticide. **Marion Barnes**, county agent in Colleton County, reported that “while looking for rust in soybeans...finding lots of loopers and a few adult kudzu bugs in Colleton & Hampton counties.” I had an anonymous report this week from someone stating that “this is certainly the *year of stink bugs* for SC.” He reported walking a lot of fields where, seemingly, stink bugs caused injury that required two sprays closer together than normal or a minimum of one spray at a high rate. He also made this statement, and I completely agree with him: “Consultants were a wise investment this year!” **Charles Davis**, county agent covering Calhoun and Richland Counties, reported that “most cotton in Calhoun County is pretty much cut out. Some late planted cotton still in need of watching but for the most part the crop is made. A few fields might get a final stink bug application along with a final heavy growth regulator to keep the buggy whips out of the tops, but for the most part attention has shifted to peanuts. The only soybean field I have been in was sprayed last week with Quilt XL and Besiege. Seemed to have done a good job with only a few Kudzu Bugs and a looper or two to be found.” I worked with **Jonathan Croft**, county agent covering Orangeburg County, yesterday on a spray test in soybeans where we are investigating the effects of sprayer speed (“slow” and “fast”) and spray tips (“coarse” and “finer” droplets) on control of soybean loopers. A big thanks to Bert and Perry for helping also! We will report on that trial soon. Jonathan reports seeing soybean loopers and stink bugs in soybeans as the main 6-legged culprits in other fields in his county.

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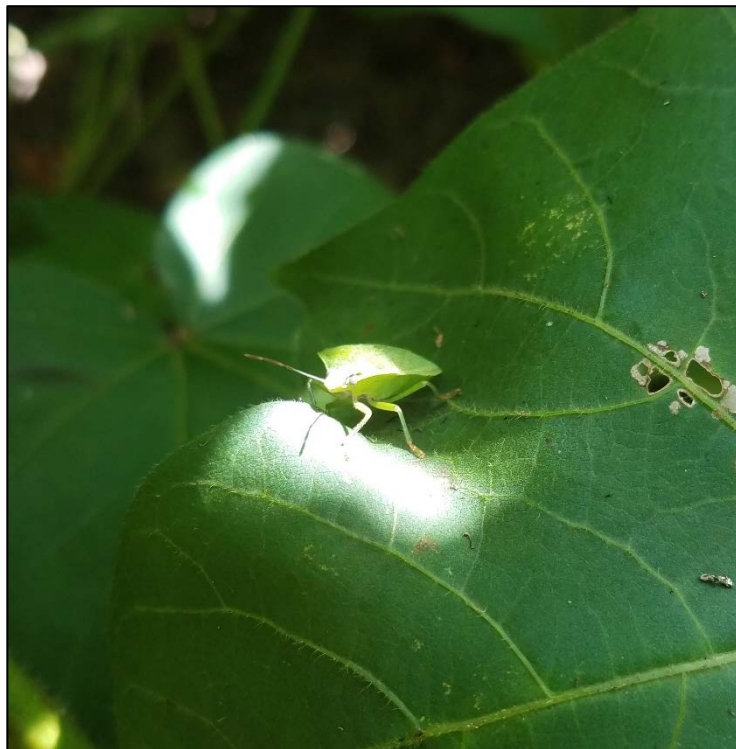


Cotton Situation

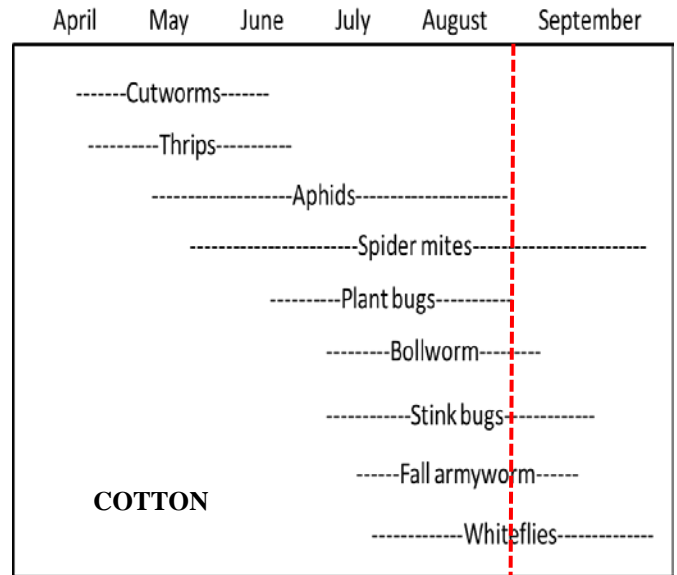
As of 27 August 2017, the USDA NASS South Carolina Statistical Office estimated that about 95% of the crop is setting bolls, compared with 84% the previous week, 96% at this time last year, and 92% for the 5-year average. About 21% of bolls are opening, compared with 9% the previous week, 11% at this time last year, and 12% for the 5-year average. The condition of the crop was described as 42% excellent, 54% good, 4% fair, 0% poor, and 0% very poor. These are observed/perceived state-wide averages.

Cotton Insects

August is “stink bug” month, and today is the last day of August! Does that mean that stink bugs will check the calendar in the morning and stop feeding on and



injuring cotton tomorrow? No. Any cotton that was planted in the second half of our normal planting window, especially fields planted really late, remain susceptible to boll injury from stink bugs. There are still plenty of bugs out there (like the adult pictured here in the “spotlight” of the sun coming through the canopy). If any fields have not been checked and treated in a couple of weeks, you could have treatable populations of stink bugs again. You have to know what week of bloom and where you are on the dynamic boll-injury threshold scale. Remember, immature stink bugs cannot fly and cannot leave the field. They are committed to feeding and becoming adults. Give those late fields another look. Bollworm is likely out of the picture in most fields, and spider mites have not been bad generally. Finally, we have not experienced the severe outbreaks of silverleaf whitefly that our neighbors in GA have so far this year. We have had a low level of whiteflies in our southernmost counties, but, in general, we have not had to deal with that mess. We might in the future, so we will keep following that problem, and I will certainly keep you informed, if anything changes for us here in SC.



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Soybean Situation

As of 27 August 2017, the USDA NASS South Carolina Statistical Office estimated that about 92% of the crop is blooming, compared with 84% the previous week, 87% at this time last year, and 86% for the 5-year average. About 61% of the crop is setting pods, compared with 42% the previous week, 52% at this time last year, and 49% for the 5-year average. The condition of the crop was described as 29% excellent, 66% good, 4% fair, 1% poor, and 0% very poor. These are observed/perceived state-wide averages.

Soybean Insects

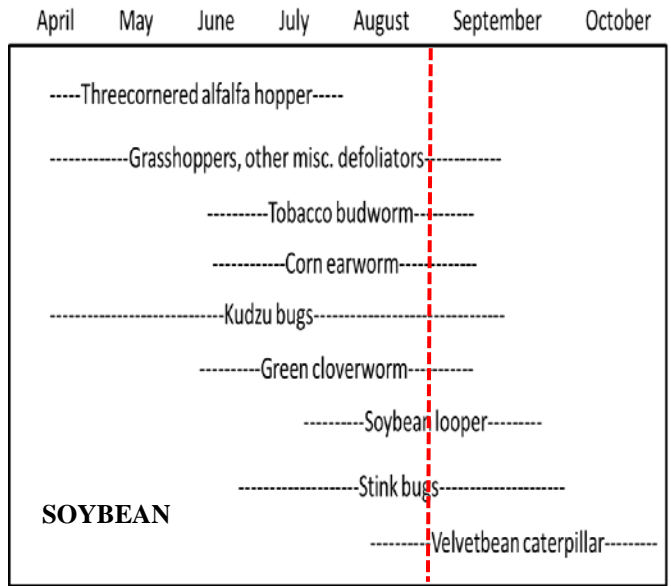
Just as it has been for weeks now, there are many different species of pests present in soybeans.

Soybean loopers and stink bugs are our main concerns right now. I am seeing many more stink bug egg masses and hatchouts of stink bug nymphs, so be looking for stink bugs, for sure, in your scouting trips in soybeans. Here is a picture I took the other day of an egg mass from southern green stink bug, our most important pestiferous species in soybeans in SC. When we have “stink bug years” it is because of this species being numerous that year. This is one of those years, as our previous winter was mild, allowing high winter survival rates for the species that is susceptible to cold winter temperatures. We also have more than usual numbers of redbanded stink bugs, another species that is susceptible to harsh winters, so we should anticipate treatable populations at some point in most fields. But, you have to check each field! Also, see the



photo at the right

(Bt soybeans on right, and non-Bt soybeans on left) showing that soybean loopers and velvetbean caterpillars can cause much damage, and loopers are very abundant right now. This is much higher defoliation than our post-bloom threshold of 15%, and most of it happened in a week! Go scout!



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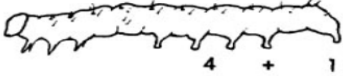


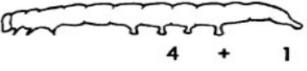









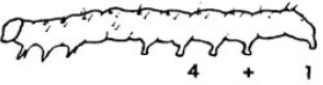
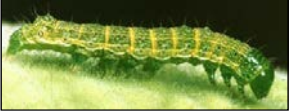
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Make sure you can tell the difference between a green cloverworm (GCW) and a soybean looper (SBL). Often, when the caterpillars are small, GCW can look a lot like SBL. Remember, GCW is easy to control with a pyrethroid that will also control most other pests (stink bugs, podworms, etc.), but SBL requires a much more expensive and selective insecticide. So, correct identification of caterpillars is a critical initial piece of information. Use magnification in the field to correctly identify the species present. In my opinion, the drop cloth is the best tool for checking soybeans, as it will help you sample down into the canopy. There are many tall soybeans this year, so the sweepnet might underestimate what is actually there. Also, notice in the pheromone trapping data (next page) that numbers of tobacco budworm (TBW) moths were recently higher than normal in traps. That means that species could also be developing in soybeans, and this is important because control of TBW is analogous to that of SBL. Just like GCW can look like SBL, TBW looks identical to corn earworm (CEW) as larvae, and control of TBW requires using the selective insecticides used for SBL, as it is tougher to control than CEW. Check out our Pest Management Handbook for options for insecticides.

CLEMSON UNIVERSITY
 Prepared by Jeremy Greene, Professor of Entomology

FIELD KEY TO COMMON SOYBEAN CATERpillARS

  $4 + 1$	<p>CORN EARWORM 4 + 1 pair prolegs Curls up in hand Black "warts" on body</p>	
  $4 + 1$	<p>VELVETBEAN CATERPILLAR 4 + 1 pair prolegs Very active when handled</p>	
  $2 + 1$	<p>SOYBEAN LOOPER 2 + 1 pair prolegs Fatter at tail end Looping movement</p>	
   $3 + 1$	<p>GREEN CLOVERWORM 3 + 1 pair prolegs Not fatter at tail end Looping movement</p>	
  $4 + 1$	<p>TOBACCO BUDWORM 4 + 1 pair prolegs Curls up in hand Black "warts" on body</p>	

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Bollworm & Tobacco Budworm



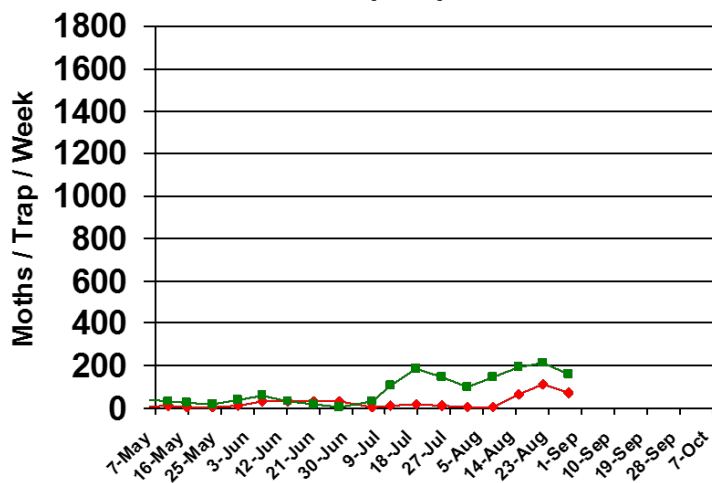
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are captures from 2007 to 2016 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these

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.

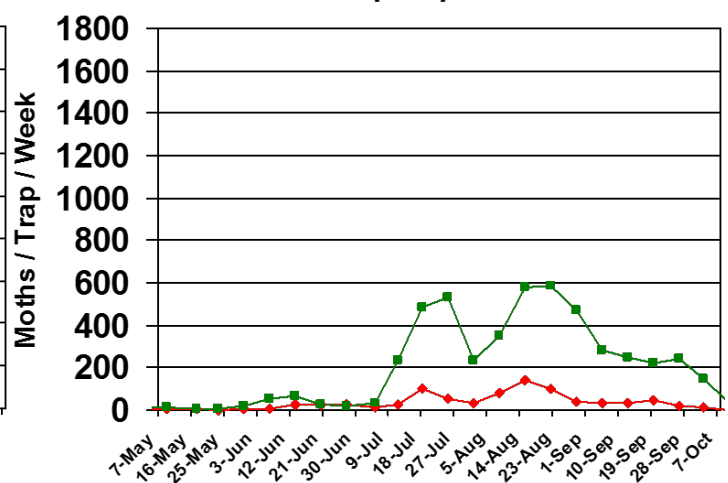
TBW
BW



Pheromone Trap Capture SC - 2017

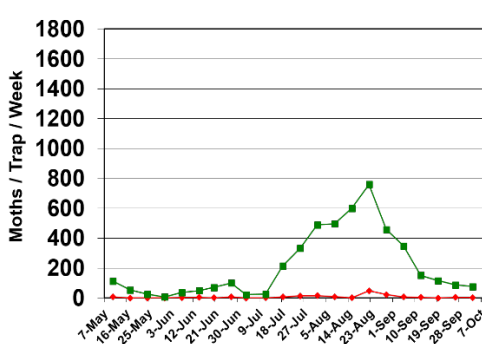


Pheromone Trap Capture SC - 2016

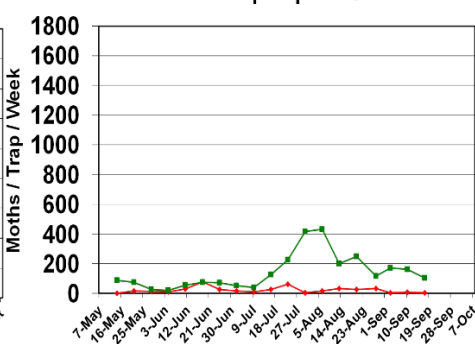


Trap data from 2007-2015 are shown below for reference to other years of trapping data from EREC:

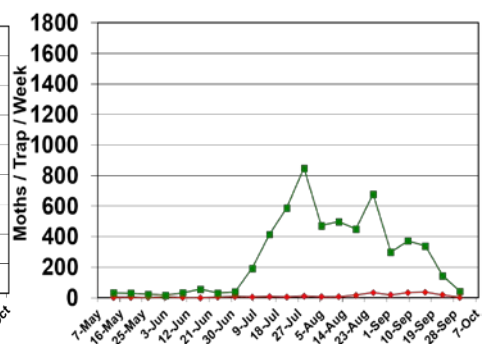
Pheromone Trap Capture SC - 2007



Pheromone Trap Capture SC - 2008



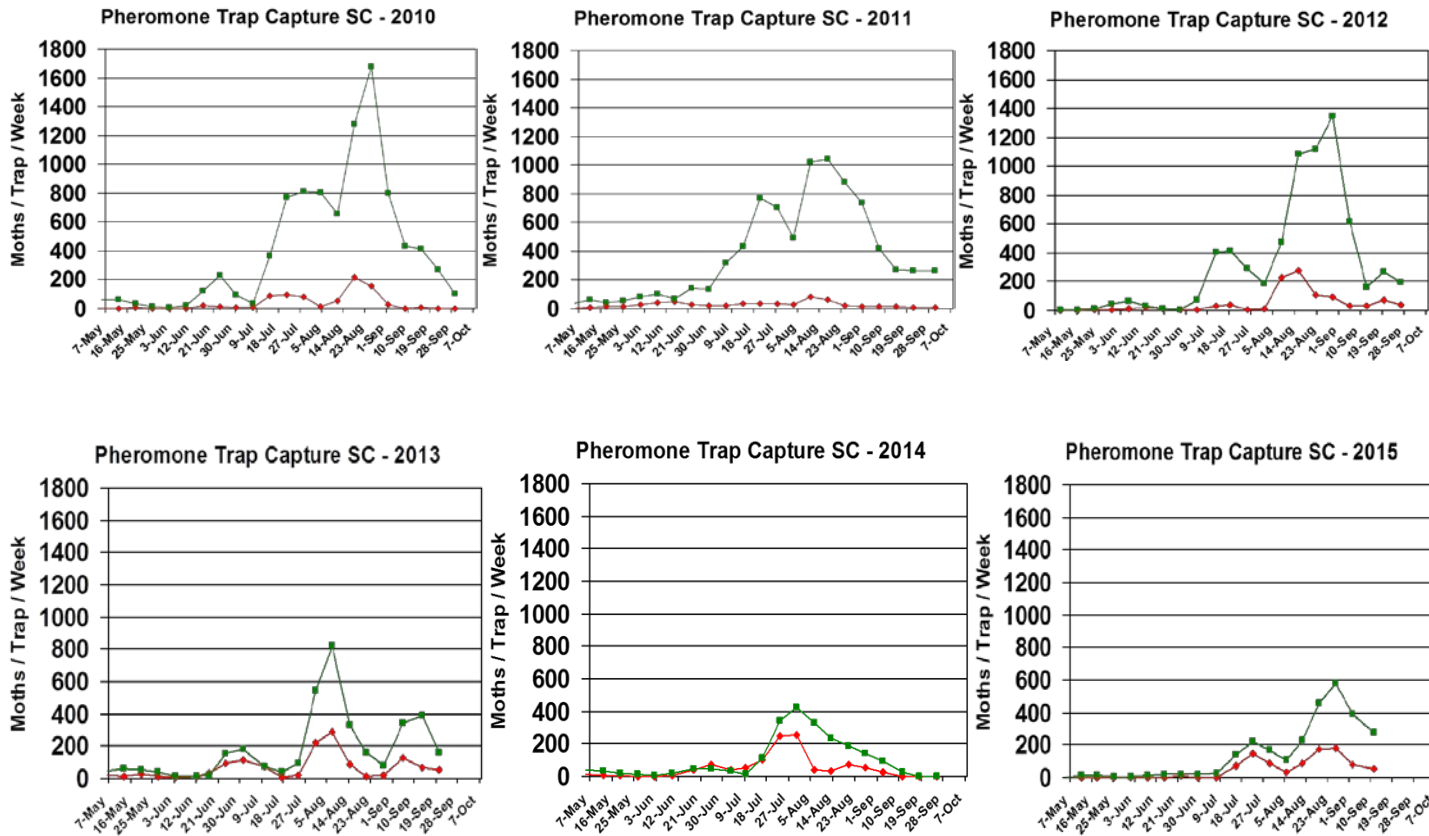
Pheromone Trap Capture SC - 2009



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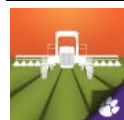
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Pest Management Handbook – 2017

Insect control recommendations are available online in the 2017 South Carolina Pest Management Handbook at: <http://www.clemson.edu/extension/agronomy/pest%20management%20handbook.html>

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:

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

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Sincerely,

A handwritten signature in black ink that reads "Jeremy K. Greene".

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



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