



Cotton/Soybean Insect Newsletter

Volume 4, Issue #9

Edisto Research & Education Center in Blackville, SC

9 July 2009

Pest Patrol Hotline

A summary of current problems with insects is available this season via a toll-free hotline. Simply call the free number (877) 285-8525 and select the messages you would like to hear. I will update the short message weekly for at least as long as the newsletter runs. The hotline is sponsored by Syngenta.

Cotton Situation

As of 5 July 2009, the USDA NASS South Carolina Statistical Office had our progress at 49% squaring, ahead of where we were last year at 38% but just behind the 5-yr average of 52%. Conditions were described as 1% excellent, 51% good, 48% fair, and 0% poor or very poor for the crop. Recent rains have certainly helped. These are observed/perceived state-wide averages.

Soybean Situation

As of 5 July 2009, the USDA NASS South Carolina Statistical Office had our progress at about 92% of soybeans as emerged, slightly ahead of where the crop was this time last year at 85% and a equal to the 5-yr average emergence of 92%. Conditions were described as 0% excellent, 45% good, 55% fair, and 0% poor or very poor. Recent rains have helped tremendously. These are observed/perceived state-wide averages.

News from Above the Lakes

No news to report this week. Please email or call me with your observations and comments by Wednesday!

News from Below the Lakes

Tommy Walker, county agent in Hampton County, reported that he is “flushing bollworm moths in fields now” and that he is seeing very noticeable numbers of cotton fleahoppers in blooming cotton. Some of the cotton down his way that was planted the last week of April has bolls with internal boll injury ranging from 10-60%. Some of this cotton will be treated for bugs next week during the 3rd full week of bloom. (See “Boll Injury Threshold Research” below). He is also seeing scattered infestations of aphids, but nothing requiring attention.

2009 SC Cotton Growers’ Guide, Pest Management Handbook, and Insect Control Guides

The 2009 South Carolina Cotton Growers’ Guide is available from your local county office in paper copy or online at: <http://www.clemson.edu/psapublishing/pages/AGRO/EC589.PDF>.

The 2009 Pest Management Handbook is available in limited quantities. Contact your local county office for availability. A \$10 fee might be charged for the handbook. You can also download the handbook from: <http://www.clemson.edu/extension/rowcrops/index.html>

Clemson University offers its programs to all eligible persons, regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Equal Opportunity Employer.

The mention of any commercial product in this publication does not imply its endorsement by Clemson University over other products not named, nor does the omission imply that they are not satisfactory.



Clemson University Publications IC97 (Cotton Insect Management) and SL1 (Soybean Insect Management) are available free from your local county office in paper copy or online at:

<http://www.clemson.edu/psapublishing/pages/ENTOM/IC97.PDF> and <http://www.clemson.edu/psapublishing/pages/AGRO/SL1.PDF>

Bollworm & Tobacco Budworm

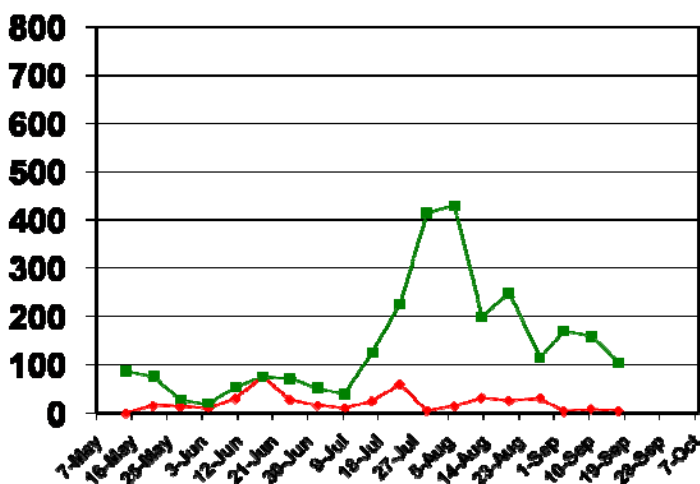
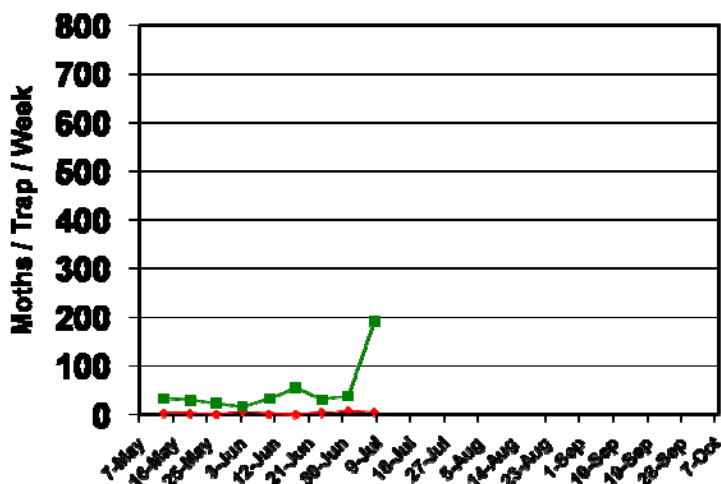


Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season and last season are presented. The scales on the charts are the same to illustrate where we are compared with last year. We trapped about 193 BW and 6 TBW moths per trap this past week. Captures of BW moths have dramatically increased, and I expect those numbers to be up again next week. Trap numbers continue to look much like they did last year, except increases are occurring about a week earlier so far this year.



Pheromone Trap Capture SC - 2009

Pheromone Trap Capture SC - 2008



Boll Injury Threshold Research

Because the importance of controlling stink bugs in cotton will continue to be an important concern for producers growing cotton in the southeastern USA, we continued research into refinement of current boll-injury thresholds. A summary of 49 threshold trials conducted from 2005 through 2008 in NC, SC, and GA indicated that stink bugs caused significant reductions in yield when present at moderate-to-high levels. A static threshold of 20% boll injury performed well in these trials in terms of yield and economic return but left some cotton unprotected. Under conditions of lower pressure from stink bugs, the 20% static threshold protected cotton and prevented over treatment for stink bugs in many trials but was not protective enough during a critical period of boll development defined as the 3rd through 5th week of bloom. Although the static 20% threshold resulted in positive economic returns across many of these tests, a dynamic threshold resulted in higher

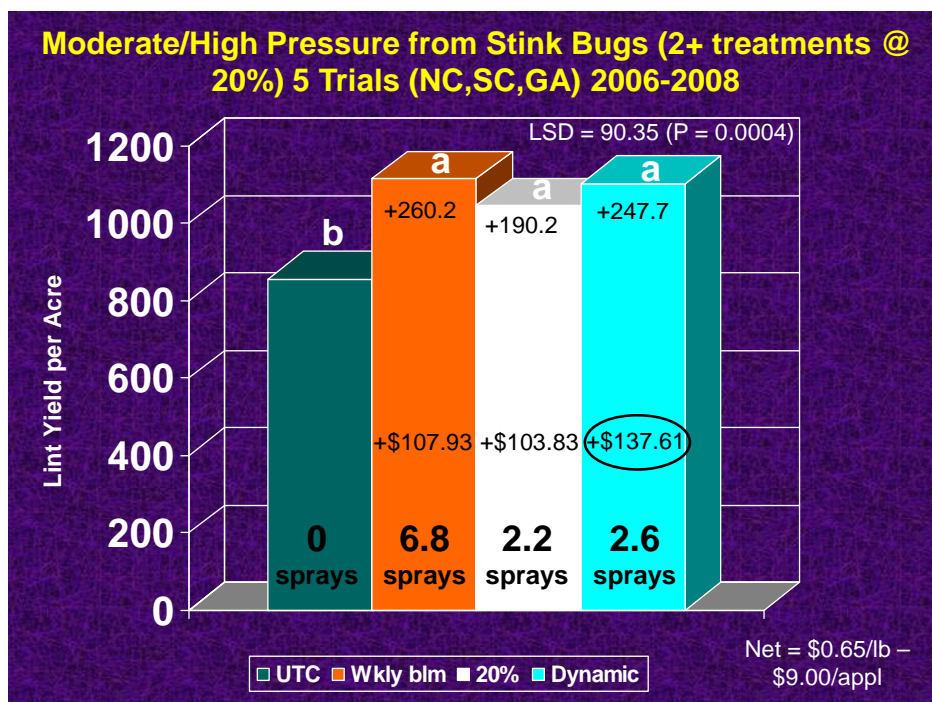
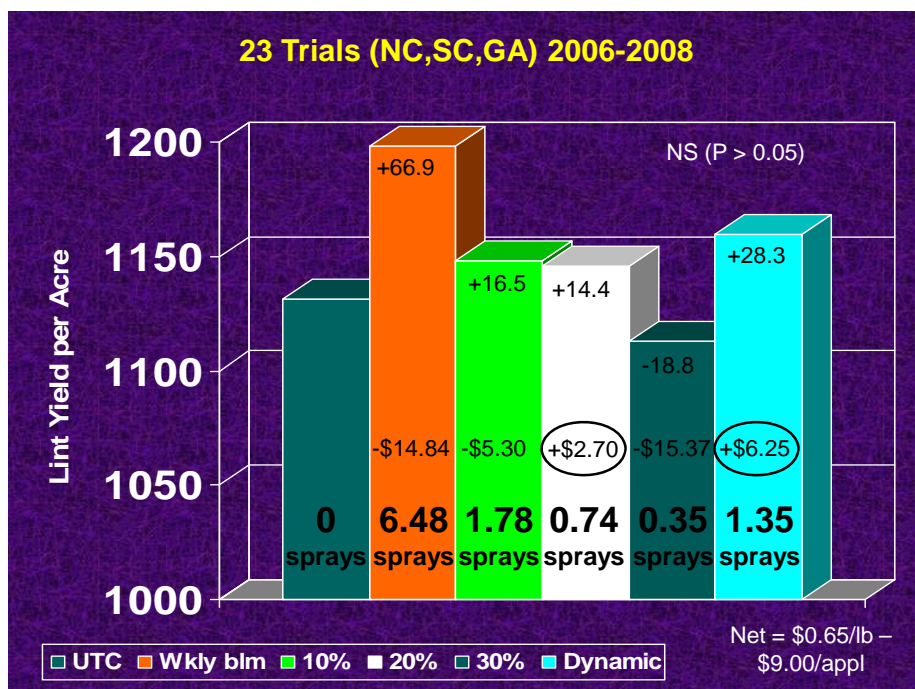
Clemson University offers its programs to all eligible persons, regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Equal Opportunity Employer.

The mention of any commercial product in this publication does not imply its endorsement by Clemson University over other products not named, nor does the omission imply that they are not satisfactory.



profits across all levels of pressure from stink bugs. The dynamic action threshold, based on varying injury levels by week of bloom (8 weeks: 50, 30, 10, 10, 10, 30, 30, and 50%), demonstrated the importance of aggressive protection from stink bugs during weeks 3-5 of bloom.

The static boll-injury threshold (20% or a minor variation) has served as the most reliable threshold for stink bugs for almost a decade, but, after careful review of numerous yield data covering the last 4 years, a modification seems necessary. Our data and complementary research information indicated that when cotton was more aggressively sprayed with insecticide during the 3rd, 4th, and 5th week of bloom, lint yield was protected, and relative economic returns were above that provided by the static threshold. The importance of controlling stink bugs during that critical portion of the blooming period should be stressed. Crop phenology, changing susceptible boll load, population development of stink bugs during weeks of rapid blooming, and timing of insecticide applications are all critical factors that explain why a dynamic threshold should provide increased protection from stink bugs. The most concise reason why a dynamic threshold is effective is that the impact of stink bugs early and late in the season is inherently



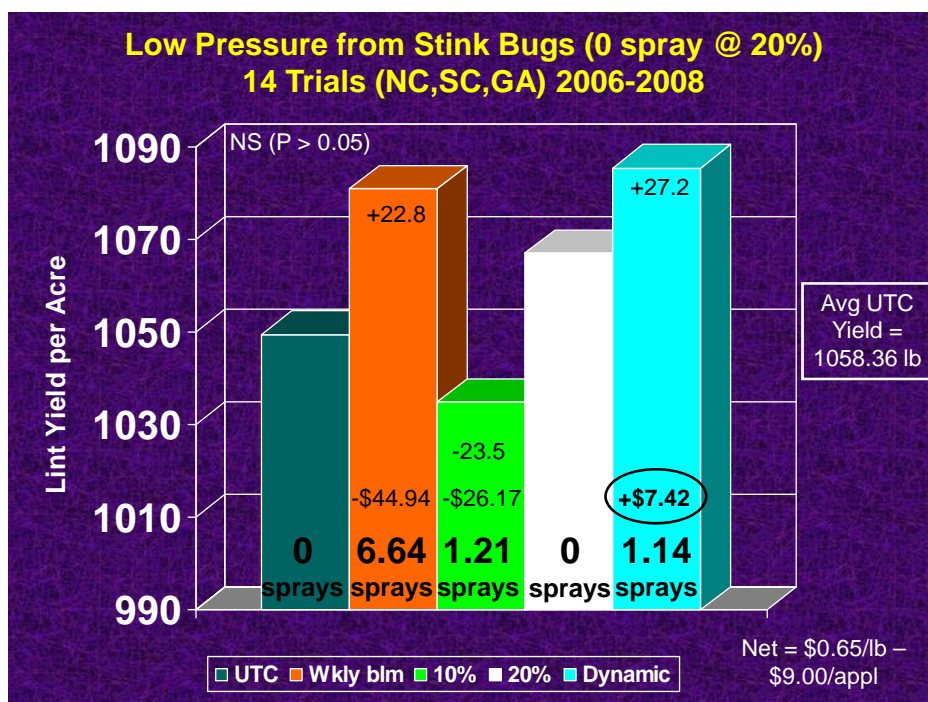
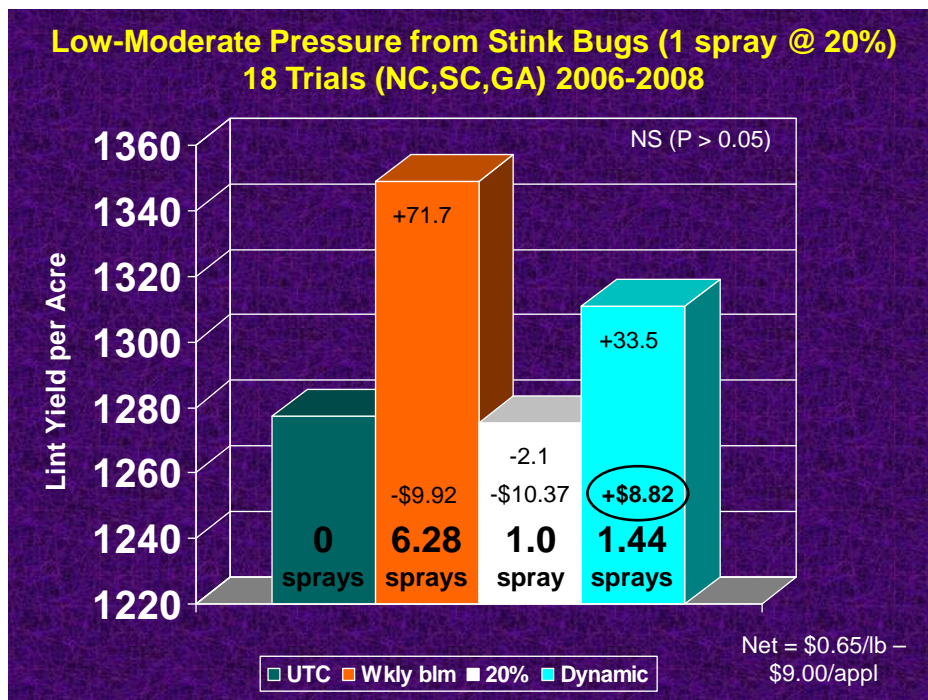
Clemson University offers its programs to all eligible persons, regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Equal Opportunity Employer.

The mention of any commercial product in this publication does not imply its endorsement by Clemson University over other products not named, nor does the omission imply that they are not satisfactory.



reduced. In most fields, the first two weeks of bloom are relatively unimportant in terms of protection from stink bugs because bolls are neither large enough nor available in large quantities and because populations of stink bugs are still low. The last two weeks of bloom (7th and 8th) are also relatively unimportant in most cases primarily because susceptible bolls are declining in number. The 6th week of bloom can be important, depending on the level of pressure from stink bugs, crop status, etc, but the 3rd, 4th, and 5th weeks of bloom are clearly important. As a result of this collaborative research, recommendations concerning control of stink bugs in cotton have been modified or appended to include the importance of protecting cotton during this critical window.

The short version is: be more aggressive in spraying for stink bugs during weeks 3-5 of bloom by using 10-15% boll injury instead of 20%. That does not mean that you need to automatically treat those weeks. It still pays to have a consultant monitor for stink bugs because you might not need to apply insecticides during a given week during that time frame. You might need that spray later during the 6th week of bloom.



Clemson University offers its programs to all eligible persons, regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Equal Opportunity Employer.

The mention of any commercial product in this publication does not imply its endorsement by Clemson University over other products not named, nor does the omission imply that they are not satisfactory.



Need More Information?

Log on to the following webpage to view important recommendations for cotton and soybean insect management, data, and historical cotton insect newsletters:

<http://www.clemson.edu/extension/rowcrops/>

Sincerely,

Jeremy K. Greene, Ph.D.
Associate Professor – Entomologist



Visit our website at:
<http://www.clemson.edu>

Clemson University offers its programs to all eligible persons, regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Equal Opportunity Employer.

The mention of any commercial product in this publication does not imply its endorsement by Clemson University over other products not named, nor does the omission imply that they are not satisfactory.