

CAMDEN CROP NEWS

June 7th, 2018

Stink Bugs in Corn

I have noticed a good number of stink bugs in wheat fields this year, as well as a couple in corn fields. Below are excerpts from two articles written by Dominic Reisig, NC State Extension Entomologist, concerning the management of stink bugs in corn. The urls at the end of each will lead you to the full articles online.

New Stink Bug Thresholds in Corn

A recent NC State University graduate student, Arun Babu, has worked to generate new thresholds for stink bugs in corn. Arun visited corn fields across eastern NC and tested how to more efficiently scout for stink bugs. He then applied our existing thresholds to his findings. Based on his findings, scouting should be more accurate and time-efficient.

To use these thresholds, sample at least 100 plants in the field. Sample at different locations in all fields and more plants in larger fields. Stink bugs tend to be more prevalent in field edges. Use this to your advantage by sampling edges first. If stink bugs are absent, they are unlikely to be in the middle of the field. Conversely, if numbers are high in edges, be sure to sample the field middle. The thresholds in the table below change across the growing season and are specific to certain plant parts for partial plant sampling.

The **partial plant sampling no treat** column represents the number of stink bugs per 100 plants, and below, where you can be confident not to use an insecticide treatment. The **partial plant sampling treat** column represents the number of stink bugs per 100 plants, and above, where you can be confident you should use an insecticide treatment. If you reach this number before 100 plants are sampled, stop sampling and treat. If you get a number

Area for partial plant sample	Area for partial plant sample	Partial plant sampling no treat (stink bugs per 100 plants)	Partial plant sampling fixed threshold	Partial plant sampling treat (per 100 plants)
V1 to V6	Stalk below lowest green leaf	6	9	13
V14 to VT	Stalk at one leaf above & below primary ear	9	13	18
R1 to R4	Stalk at one leaf above & two leaves below primary ear	35	43	52

between the partial plant sample no treat and treat numbers, use the partial plant sampling fixed threshold.

The **partial plant sampling fixed threshold** column can be used as a guide for numbers that fall in between the no treat and treat numbers. Using this threshold, do not treat below this number and treat at, or above, this number. Finally, do not convert these numbers into percentages. Those thresholds are in the next table.

The thresholds in the table below can be used to make treatment decisions and are based on sampling the entire plant. Like the partial plant sampling thresholds above, they change across the growing season.

Growth stage	No treat (% infested plants)	Fixed threshold (% infested plants)	Treat (% infested plants)
V1 to V6	6	8	11
V14 to VT	16	21	26
R1 to R4	30	36	43

The **no treat** column represents the percent infested plants where you can be confident not to use an insecticide treatment. The **treat** column represents the percent infested plants where you can be confident that you should use an insecticide treatment. The **fixed threshold** column can be used as a guide to treat when numbers fall between the no treat and treat numbers. Using this threshold, do not treat below this number and treat at, or above, this number.

Read more at: <https://entomology.ces.ncsu.edu/2018/04/new-stink-bug-thresholds-in-corn/>

At this point you may be thinking why the new thresholds do not show a threshold level for V6-V14 corn. Dr. Reisig explains his position on that in the following:

Should You Tank Mix Herbicide / Nitrogen With Insecticide to Control Stink Bugs in Corn?

To be short and to the point, I couldn't think of a greater waste of time and money. Stink bugs are very mobile and spotty in fields. Unfortunately tank mixing insecticide targeted for an herbicide or nitrogen application is like closing your eyes when aiming at a dart board. You might hit something and you might not. Odds are you won't hit the bulls eye. Our newly published thresholds are based on years of replicated sampling of stink bugs in corn. They will allow you to measure twice and cut once.

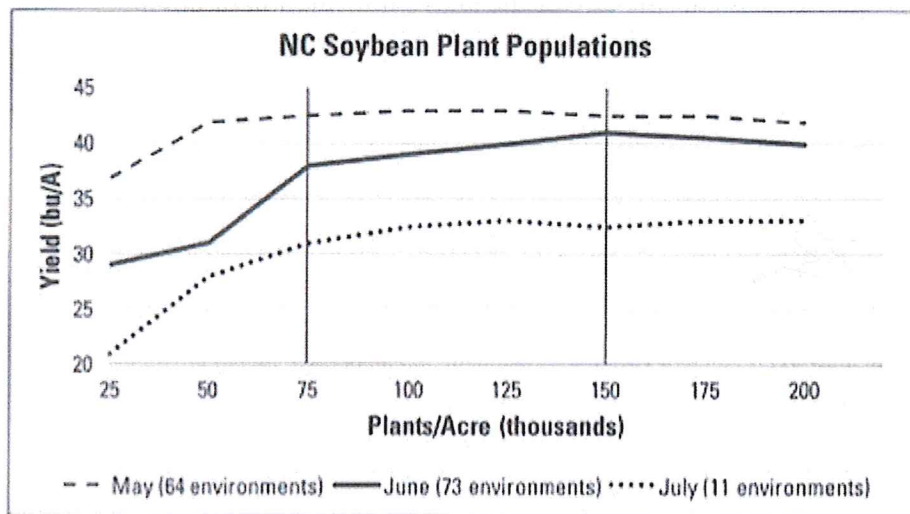
Many have asked why our threshold stops at V6 and picks up at V14. The answer is based on corn physiology. Corn plants have the ability to place an ear at many different nodes, although they determine where the primary ear will be located during V5. Corn plants likely have the ability to replace the position of the primary ear during earlier vegetative stages. Also, stink bugs are spread across corn plants from V6 to V14, feeding at various nodes, not just the one destined to become the primary ear. One to two weeks prior to tasseling, stink bugs congregate on the

node where the primary ear is forming. This leads us to believe that the corn plant is safe from stink bug injury until the primary ear begins to form and to push out of the stalk. **Therefore, there is no need to treat corn for stink bugs from V6 to V14.**

Read more at: <https://entomology.ces.ncsu.edu/2018/05/should-you-tank-mix-herbicide-nitrogen-with-insecticide-to-control-stink-bugs-in-corn/>

Re-Planting Soybeans

I hope that most of you receiving this newsletter obtained a copy of the new North Carolina Soybean Production Guide at a winter meeting in early 2018. The following graph comes directly from the production guide (page 47). If you do not have one, feel free to stop by the extension office and pick up a copy.



The above graph depicts a compilation of 148 replicated trials that were conducted in North Carolina to look at the relationship between soybean yield and plant populations. I am sure that you have heard Dr. Dunphy refer to some of this data on soybean plant populations at one time or another.

Aside from thinking about seeding rates, I think that this data gives a good deal of insight when trying to answer questions of whether to re-plant or spot plant soybean fields. Fortunately, as soybeans have the unique ability to compensate, a wide range of plant populations are acceptable. Please keep in mind that these data are from evenly distributed plants. It would prove beneficial to observe all areas of the field (the strong, the weak, and the average) when putting together the whole picture for decision making. Dr. Dunphy's data suggests that final stands as low as 50,000 plants for May planted beans, 75,000 plants for June beans, and 100,000 plants for July beans can produce reasonable yields if plants are evenly distributed.

Dr. David Holshouser, Virginia Tech Extension Soybean Specialist, recently wrote an article that discussed similar plant population data from Virginia and re-planting soybeans. His recommendation in that article (<http://blogs.ext.vt.edu/ag-pest-advisory/wet-soils-poor-stands-do->

i-replant/) was that only when you get below 50,000 plants/acre can replanting be economically justified. I wanted to share this information with you, however whether to re-plant a crop or not is truly a judgement call for each grower.

Upcoming Events

- * July 26 Northeast Ag Expo Summer Field Day
- * July 31 National Corn Yield Contest Entry Deadline
- * August 7-8 Pesticide School- Elizabeth City

If you have any questions regarding any of the above information or anything farming related, give me a call at the Camden County Cooperative Extension Center: 331-7630. Your questions and comments are important to me.

Sincerely,

A handwritten signature in cursive script that reads "Austin Brown".

Austin Brown
Agriculture Extension Agent,
Camden County