

North Carolina Pest News

Departments of Entomology and Plant Pathology



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CAUTION !

The information and recommendations in this newsletter are applicable to North Carolina and may not apply in other areas.

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FIELD AND FORAGE CROPS

From: Jack Bachelier, Extension Entomologist

Thrips Season Unfolds

Present situation: With cotton planting dates ranging from mid to late April to probably the end of May, we will have a number of different “thrips worlds” out there. Although we replanted our own April 30 thrips tests due to cold wet weather and crusting soils, we still have enough of a stand to take thrips data from these tests. Wednesday, May 22, we had an average of 18 adult and 5 immature thrips per plant in our untreated checks (counting thrips under a microscope after washing the thrips from the seedlings). By way of comparison, we had only 2.5 adults but a whopping 43 immature thrips per plant at this time last year averaged over 3 tests with a similar early (May 1) planting date. So, while our adult numbers may be higher this year, we are well behind last year in the production of immatures at this point. Typically, it’s a combination of high levels of immature thrips on early first and second true leaf growth that negatively impacts yields, particularly under cool conditions. Remember, that cotton seed treatments will usually not last beyond 2.5 to three weeks after planting, irrespective of weather conditions.

Some producers have experienced very good cotton growth and thrips protection with the combination of imidacloprid liquid (Admire Pro 4.6F, Imidacloprid 4F or Wrangler 4F) in furrow along with treated seed. This is the combination we mentioned during our 2012 winter grower meetings that looked good in replicated tests and to date has not needed a follow-up foliar spray for thrips. The below photo shows May 1 planted cotton in Lenoir County on May 22 that has reached the early third true leaf stage and probably will not require a foliar spray for thrips. Last year, more than 90% of our cotton in North Carolina was treated with a follow-up foliar spray after treated seed, our traditional strategy for managing thrips.



May 1 planted cotton using treated seed plus Wrangler in-furrow; note the smooth straight first and second true leaves three weeks after planting. Lenoir County. Image by Dean Nelson.

With much of our cotton planted well into May this year and generally good moisture levels present at this time (with some exceptions), with any luck, many producers should benefit from cotton seedlings outgrowing their thrips-susceptible early true leaf stages more rapidly. Hopefully, this will in turn result in a lower need for foliar treatments for thrips in the coming weeks.

Thrips sampling: In making decisions about the need for foliar treatments, be sure to focus on the bud area with a hand lens, looking for the tiny yellow immature stages. Alternatively, several seedlings can be rapped onto a hard white or dark flat surface to better see the immature thrips. For example, I like to use a 4 x 7-inch piece of Plexiglas sprayed with flat black paint. This picture, taken this morning in Wilson County, shows the optimum time to be sampling for thrips – that is, at the first true leaf stage. The finding of 1 or 2 immature thrips per plant along with a deformed bud and/or a deformed newest leaf often signals the need to treat. Conversely, flat shiny newest true leaves usually indicate that thrips are not a problem at that time. If the timing of a combination herbicide/thrips insecticide application is primarily targeted for weeds and does not take place until cotton reaches the second to third or fourth true leaf stage, most of the thrips damage will have already taken place. In these situations, growers are urged to consider a separate application for thrips.

Finally, the presence of five leaf seedlings signals “all clear” for this growing season – at least for thrips.



First true leaf (on average) cotton seedlings on 4 x 7-inch Plexiglas sampling device. Image by Jack Bacheler.

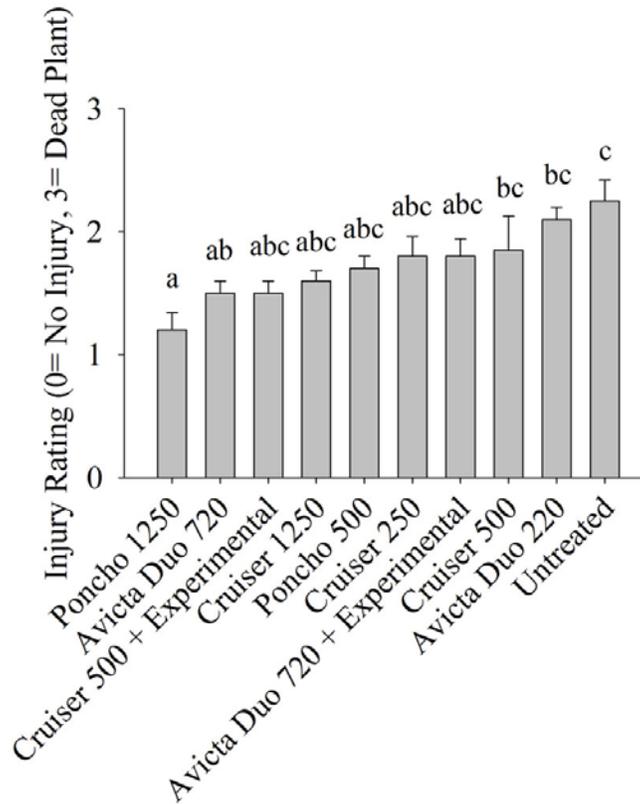
It'll be interesting to find out in the coming week if the adult thrips now present translate into damaging levels of immatures by next week. My guess is that a continuation of moderate to warm weather (with the exception of possible night-time lows in the mid to upper 40's in some areas of the state this weekend (May 25 and 26) will slow down cotton growth considerable – advantage thrips. However, with our predicted warmer temperatures along with good soil moisture may finally result in a thrips year that most of us can live with.

From: Dominic Reisig, Extension Entomologist

Sugarcane Beetle Showing Up in Corn

I've received several reports of sugarcane beetle damaging corn fields across the state, as have some of my colleagues in neighboring states. If you're curious about how to diagnose the injury, I suggest this blog article (<http://www.nccrops.com/2012/05/23/distinguishing-among-insect-injury-types-in-seedling-corn/>). Last year I had the chance to run two trials for this insect. We discovered that high rates of seed treatment were the most effective to control this insect. However, even at the 1250 rate, corn can still be injured. One Mississippi trial last year indicated that bifenthrin in-furrow was more effective. I am currently testing this.

Unfortunately, once you experience the injury from sugarcane beetle, the damage has been done. There is nothing that can undo the situation. However, to minimize your risk in the future, consider using a high rate of seed treatment. This insect seems to be more of a problem in the Piedmont, but I am not sure if this is because it is associated more with no-till, the presence of pastures (where it can develop), or the fact that there are generally lower rates of seed treatments that are used in this part of the state compared to farther east. The incidence of this pest also varies from year to year. Therefore it is **very difficult** to predict whether or not this pest will cause problems in the future.



Plymouth, NC 2012 sugarcane beetle trial information.
 Graph by Dominic Reisig.

ORNAMENTALS AND TURF

From: Steve Frank, Extension Entomologist

Cottony Maple Leaf Scale Eggs

Cottony maple leaf scale is one of several cottony scales in the genus *Pulvinaria*. You can find these now on their most common hosts: maple and dogwood. Stand under a tree and look up and you will see cottony masses about the size of a cotton swab stuck to the bottom of leaves. These are the egg masses. They each contain many hundred eggs that are hatching as we speak. The crawlers will settle and feed on the leaves all summer then migrate back to branches in fall before leaf-drop.



Cottony maple leaf scale ovisacs on a maple leaf.
Photo: S. D. Frank.



Cottony maple leaf scale ovisac that I turned over and pulled apart to show the yellow eggs inside. Photo: S. D. Frank.

Cottony Cushion Scale

Cottony cushion scale is an exotic pest that became a very important pest of citrus. However, it is quite generalist and does affect several ornamental plants such as nandina, euonymus, boxwood, rose and others. Cottony cushion scale is very noticeable when female egg sacs are present. They are present now and most of the time there are several overlapping generations per year. Cottony cushion scale is an example of a relatively successful biological control program in the U.S. The vedalia beetle was captured in its homeland of Australia and released to bring the pest under control. Although cottony cushion scale can still be found and remains a pest it is often kept in check by this wide-spread beetle. These are in a different family (Mararodidae) than other soft scales (Coccidae). However, control measures are similar to those outlined in the soft scale management note:

<http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/note156/note156.html>



Cottony cushion scale on Euonymus stems. Adult ovisac is present behind a darker less cottony juvenile. Photo: S. D. Frank.

Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University, North Carolina A&T State University or North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact an agent of North Carolina Cooperative Extension.
