

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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See current and archived issues of the *North Carolina Pest News* on the Internet at: http://ipm.ncsu.edu/current_ipm/pest_news.html

ANNOUNCEMENTS AND GENERAL INFORMATION

Small Grain Field Days Schedule for North Carolina

The field days are sponsored by the North Carolina Small Grain Growers Association with cooperation from the U.S. Agricultural Research Service and College of Agriculture & Life Sciences, North Carolina State University.

Southern Coastal Plains Field Day: Tuesday, May 7, 2013 at 4:00 p.m.; Stone Farms, U. S. 301, Rowland, NC. The location is 1 mile north of South of the Border on U. S. 301. The research plot is on the left.

Beaufort County Field Day: Thursday, May 9, 2013 at 4:00 p.m.; Impact Agronomics, 2966 Railroad Bed Road, Pantego, NC.

Northeast Small Grains Field Day: Friday, May 10, 2013 at 11:00 a.m.; White Hat Seed Farm, 102 White Hat Road, Hertford, NC. Leader: Lewis Smith (telephone: 252-426-5428); additional information is available at http://www.cals.ncsu.edu/agcomm/writing/Field_Days/ne-small-grains.pdf.

Small Grain Field Day: Tuesday, May 14, 2013 at 3:30 p.m.; Piedmont Research Station, 8350 Sherrill's Ford Road, Salisbury, NC. Leader: Randy Weisz (919-515-5824); additional information is available at <http://harvest.cals.ncsu.edu/site/WebFile/SmallGrainFieldDayPiedmontRS2013flyer.pdf>.

Tri-County Small Grain Field Day (Union County): Thursday, May 16, 2013 at noon; Poplin Farm, 3310 Poplin Road, Monroe, NC. Leader: Andrew Baucom (telephone: 704-283-3739); additional information is [Tri-CountySmallGrainFieldDayMay16.pdf](#).

U.S. Agricultural Research Service Field Day: Tuesday, May 21, 2013 at 2:00 p.m.; Small Grain Research Area, 3512 Mid Pines Road, Raleigh, NC.

FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

Most Cotton Planting on Hold

Most cotton producers are holding off on planting until we get back to warmer sunny conditions and drier soils. In much of our cotton production region, degree days above 60 are just barely in the positive column – tough conditions at best. We like to challenge our thrips tests by planting early. Whether we took things too far this year by planning some of these tests at Rocky Mount on a cool wet April 30 will be reported next week. With a warming trend predicted for next week, let's hope that fields are (or become) dry enough to resume significant planting. Additional rainfall, more often than not a blessing, is something we do not need at this time.

On the bright side, we have at least the next three weeks to plant cotton, as research here has shown that even at our latitude most varieties of cotton can be planted essentially any time in May without a yield loss in most years. Our projected fewer cotton acres in 2013, especially compared to 2011, should translate into a shorter planting window for some once weather conditions improve. Finally, the typically lower negative impact of thrips on faster-growing seedlings in May 15 to 25 planted cotton should help.

Kudzu Bug Levels High in 2013?

David Orr, Extension Entomologist (Biocontrol Specialist) and I sampled 25, 1-meter kudzu terminals in a kudzu patch on the Dorothea Dix property next to the North Carolina State University Centennial Campus yesterday. For kudzu vines just now coming up well, it was startling to find an average of more than 4 egg masses per single 3-foot vine and more than 350 kudzu bugs per 20 sweeps! High levels of overwintering kudzu bugs during the winter months at several locations also indicate that we may be due for a significant jump in homeowner and soybean producer headaches in 2013. The purpose of this and other sampling conducted by Kathy Kidd of the North Carolina Department of Agriculture & Consumer

Services and Dominic Reising, Extension Entomologist, is to determine the variety and abundance of native parasitoids (thought to be very limited) on kudzu bug egg masses in North Carolina (and throughout the Southeast) in preparation for the possible release of an imported egg parasitoid from Asia in 2014.



Initial sprouting of kudzu (one 20-ft. sweep = 268 kudzu bugs). May 3, 2013. Image by J. Bacheler.



Kudzu bug egg mass. May 3, 2013. Image by J. Bacheler.

For homeowner questions about kudzu bugs, please refer to this for additional information (<http://www.ces.ncsu.edu/depts/ent/notes/Urban/kudzubug.htm>). For soybean-related updates about kudzu bug management updates and recommendations, please stay tuned to the *NC Field Crops* (<http://www.nccrops.com/>) blog for regular kudzu bug updates.

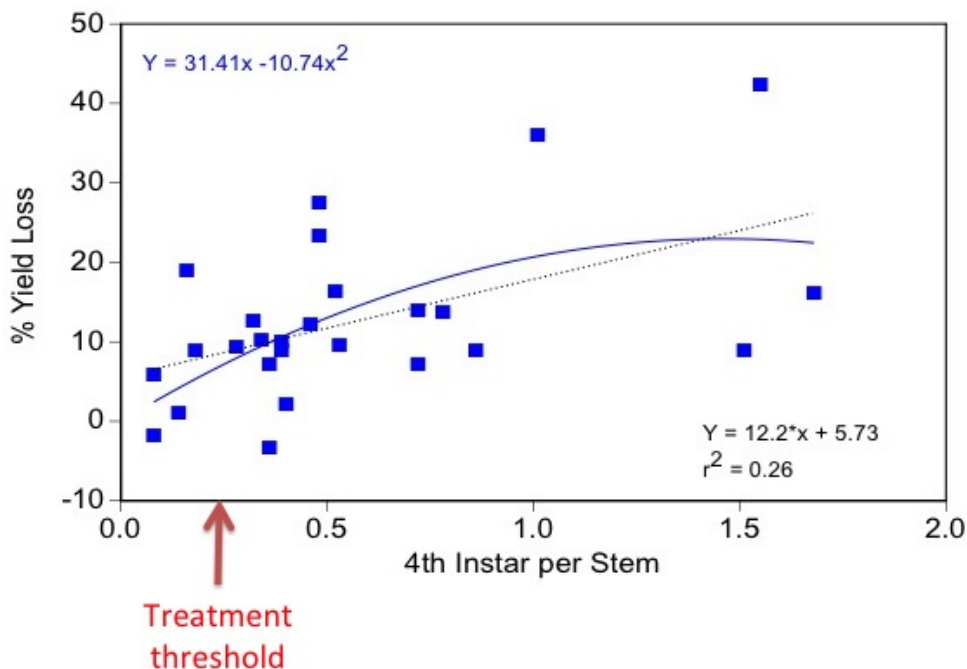
From: Dominic Reisig, Extension Entomologist

Consider a Spray for Cereal Leaf Beetle

Fortunately this has not been a bad year for cereal leaf beetle. Unfortunately, in places where the beetle has been found, it has been developing very slowly. The beetle develops quicker in warmer weather, which means that it will reach its pupal stage quicker, drop in the soil, and will not feed any longer on your wheat. Some consultants have noticed fields that have hung around the 15 larvae per 100 tiller mark for several weeks now, below the recommended treatment threshold of 25 larvae per 100 tillers. These beetles have now reached large size and are feeding on the flag leaf, which provides most of the nutrients needed for filling the grain heads. Therefore, these fields are experiencing some level of loss due to the beetle. The question is how much?

Randy Weisz, Small Grains Specialist, has noted that the wheat is developing very slowly, much slower than normal. This coupled with the slow development of the beetle, could lead to a situation where beetles are stripping leaves and the wheat is not able to outgrow the injury. In general, cooler years tend to favor development of the wheat over the beetle, but this does not appear to be the case this year.

The graph is based on the actual data that our treatment threshold comes from (Ihrig et al. 2001). Each point represents the number of large larva (4th instar) per stem. Note that our treatment threshold is 0.25 larvae per stem (or 25 larvae per 100 tillers). Some of the points below 0.25 larvae per stem represent fields where there were few cereal leaf beetle and lots of yield loss. In one case, yield loss approached 20%. Other cases represented fields where there were few larva and there was actually a yield gain! All this is saying is that **yield loss due to cereal leaf beetle is highly dependent on environmental characteristics, including wheat development.**



Yield loss from cereal leaf beetle. Data from Ihrig et al. 2001 and graph by Randy Weisz.

That being said, with conditions the way they are, you may consider treating for cereal leaf beetle at levels lower than normal, especially if they have been there for several weeks and are feeding on the flag leaves. Remember that average yield loss due to drive down after jointing is 3.3%. Please take this into consideration. Fields with some cereal leaf beetle around (possibly at levels lower than 10 larvae in 100 tillers) probably will not benefit from a treatment.

FRUIT AND VEGETABLES

From: Hannah Burrack, Extension Entomologist

What To Watch For: Broad Spectrum Insecticides Can Flare Spider Mites

Broad spectrum insecticides, including materials like pyrethroids (IRAC Group 3 materials), organophosphates (IRAC Group 1B), and carbamates (IRAC Group 1A) (<http://www.irc-online.org/eClassification/>), have been demonstrated by our laboratory and lots of other entomologists to flare spider mite populations following their use. The reasons each of these classes of insecticides flare mites differ, but the result is the same—more mites following treatment than you start out with.

Unfortunately, many of these materials are also recommended for spotted wing drosophila (SWD) (<http://ncsmallfruitsipm.blogspot.com/search/label/SWD>) management. As I wrote two years ago (<http://ncsmallfruitsipm.blogspot.com/2011/06/what-to-watch-for-when-treating-for-swd.html>), at the beginning of the SWD invasion in North Carolina:

“. . . A good rule of thumb is to observe at least 10 leaves or leaflets per acre or per variety block, if they are smaller than an acre. Spider mites can be observed and counted with a 10x hand lens. If spider mites are present, the planting should be treated with a miticide before beginning organophosphate or pyrethroid (*update: or carbamate*) treatments.

Spider mites may not be the only non target (unintentional) pest made worse by SWD treatments. Organophosphates and pyrethroids are broad spectrum materials, meaning they kill many different types of insects, including beneficial predators. The insects these predators may control could increase in their absence, but we cannot necessarily predict which insects these may be. Growers treating for SWD should be vigilant and scout their fields at least weekly to assess whether any new or unexpected insect or damage is present.”

In our 2012 SWD experiments in strawberries (<http://ncsmallfruitsipm.blogspot.com/2012/03/what-to-watch-for-strawberry-update.html>), we tanked mixed all our initial SWD treatments with a miticide, Acramite. This tank mix was effective against the large spider population present and did not damage plants. I do not have firsthand experience with tank mixing other miticides with insecticides, so I would be cautious. When tank mixing two materials, be sure to test for compatibility [a jar test (<http://www.growingproduce.com/video/c:177/fruit-insect-control/861/>) is one way] and treat a small area first before treating your whole field.

More information

What to watch for: When treating for SWD (*NC Small Fruit & Specialty Crop IPM*):

<http://ncsmallfruitsipm.blogspot.com/2011/06/what-to-watch-for-when-treating-for-swd.html>

What to watch for: strawberry update (*NC Small Fruit & Specialty Crop IPM*):

<http://ncsmallfruitsipm.blogspot.com/2012/03/what-to-watch-for-strawberry-update.html>

All SWD posts (*NC Small Fruit & Specialty Crop IPM*):

<http://ncsmallfruitsipm.blogspot.com/search/label/SWD>

ORNAMENTALS AND TURF

From: Steve Frank, Extension Entomologist

Midge With An Eye on Maples

The ocellate gall midge, *Acericecis ocellaris* causes an ocellate (single-spotted), pale green to yellow, often bright red-margined gall. Galls are 5 to 6 mm in diameter and occur primarily on foliage of red maples but also *A. saccharinum*, *A. spicatum*, and *A. pennsylvanicum*. I found galls this week on trees in central Georgia so if you have not seen the here yet you will soon. Galls typically appear in May and contain a single, translucent midge larva. Larvae exit the gall and drop to the ground to overwinter as pupae. These are actually quite attractive critters that could even improve the appearance of trees. Just think, if someone bred a tree with yellow and red eye-shaped dots it would be all the rage. That said, these midges usually only occur a few at a time and will not harm tree health. Find out more about maple pests in a free e-book:

<http://ecoipm.com/extension/extension-resources/>.



Ocellate galls on a red maple. Photo: S. D. Frank.

Rose Sawflies

I found these sawflies on knockout roses this week in Georgia. I also found some on my roses in Raleigh that were slightly smaller. They are probably the curled rose sawfly, *Allantus cinctus*, but I am waiting on a positive identification. In any case you can look for damage to leaves by these and other sawflies. Small larvae typically skeletonize the leaves. Larger larvae consume entire leaves. Scout to this damage and also for feces which are a sure sign of something feeding on your plants. If infestations are large a contact insecticides such as a pyrethroid or acephate can be applied. Conserve is also labeled for sawflies. Small infestations in home landscapes could be managed with horticultural oil or insecticidal soap.



Sawfly larvae and damage on knockout rose leaves. Photo: S. D. Frank.



Frass on rose leaves. Frass is a good sign of caterpillars and sawflies abundance on all plants. 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.