NC STATE UNIVERSITY COLLEGE OF AGRICULTURE & LIFE SCIENCES

North Carolina Pest News

Departments of Entomology and Plant Pathology

Volume 26, Number 5, May 13, 2011

CAUTION !

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

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ANNOUNCEMENTS AND GENERAL INFORMATION

From: Barbara Shew, Director of the Plant Disease and Insect Clinic and Extension Plant Pathologist

Free Insect Identification!

North Carolina State University's Plant Disease and Insect Clinic continues to offer free insect identification and disease diagnoses for **digital images** at no charge. Keep in mind that not every problem can be identified this way and the quality of the identification depends on the quality of the images. If a follow-up physical sample is needed to make a definitive identification or diagnosis, the usual fees apply.

If you would like to submit a digital image sample, try to submit several images at different angles and locations so we can have an overall look at the setting and host plants, as well as various angles on the insect.

The clinic staff will work with the appropriate Extension specialist to diagnose your sample. Please submit images directly to the clinic whenever possible, and fill out address, host site, etc. on the electronic submission form. Using the sample entry form provides a permanent record of your sample, the diagnosis, and all correspondence about the sample.

Upload your images using the "File Attachments" feature of the database. If you are unfamiliar with this process, go to http://www.ncsu.edu/pdic/ and click on "New Users".

Also, take a few minutes to explore the Plant Disease and Insect Clinic's new website at http://www.cals.ncsu.edu/plantpath/extension/clinic/. For timely updates on clinic activities, check out our blog (http://ncsupdicblog.blogspot.com/) or follow us on *Facebook* (http://www.facebook.com/pages/NCSU-PDIC/104673106277956) or *Twitter* (http://twitter.com/#%21/NCSU_PDIC). The website improvements were supported by grants from USDA-APHIS (http://www.aphis.usda.gov/) and the Southern Plant Diagnostic Network (http://www.sepdn.org/).

FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

Cotton Planting Well Underway

Although some cotton looks “a bit rough” for a variety of reasons, including some low nightly temperatures and difficult emergence conditions, much of our cotton appears to be off to a good start. Producers in a few areas have almost finished planting while other areas are now approaching the 50 to 60% level of completion.

Thrips Arrival on Cotton

Some early cotton is now three weeks or more after planting and showing signs of thrips establishment; that is, with fair number of adults and some immature thrips present. By this time next week, we’ll see mostly immature thrips on this early cotton. With the activity of seed treatments lasting approximately three weeks (Fig. 1), some fields are only a few days away from, or already needing, a foliar insecticide treatment. As a general rule, cotton planted with a seed treatment prior to about May 15 to 20 seldom escapes the need for a foliar spray for thrips in North Carolina. On the positive side, seed treatments appear to be holding off thrips well on cotton that has been planted within the past two weeks.

Although 1/4 pound of active ingredient per acre (4 ounces) of Orthene or acephate has been our foliar standard for thrips control here and has generally served us well, 1/3 pound of active ingredient per acre (or 5.3 ounces) is somewhat more effective and may help reduce the odds of having to treat for thrips a second time. The same is also true with other foliar insecticides for thrips. That is, our thrips high populations often call for at least a moderate insecticide rate to effectively control thrips and avoid a second application. As planting dates approach May 20, tests conducted here show that a spray following seed treatments or a low 3.0 pound rate of Temik 15G (if available) is often not needed due to temperature-related, quicker “grow-off” conditions. This faster growth shortens the time that seedlings spend at the susceptible cotyledon to four true leaf stage. In cotton planted after approximately May 18

or any time after an initial foliar spray for thrips, be sure to check for both crinkling leaves and other plant symptoms of thrips feeding (such as stunted buds) and for the presence of immature thrips before treating.

Fig. 1. Three weeks' thrips protection of a cotton seed treatment (note fully expanded cotyledon leaves), followed by severe damaged to the unprotected subsequent four true leaves. Image by Dan Mott.

Within the next week, we will begin to get some appreciation of the intensity or levels of thrips infestations.

From: Dominic Reisig, Extension Entomologist

Cutworms on Corn

Cutworm activity has been reported as normal in most parts of the state, which is to say spotty. The most common cutworm in North Carolina corn is the black cutworm (*Agrotis ipsilon* Hufnagel, Fig. 2).

In seedling corn, the small larvae will eat leaf tissue, while the larger larvae mainly cut plants near the base and feed on stems. Plants up to about the six-leaf stage are vulnerable to cutting (Fig. 3) and cutworm larvae may bore into larger seedlings (Fig. 3). They are more prevalent in high residue (e.g., reduced- or no-till) situations, although they can also be found in "clean" fields (Fig. 4).

Insecticide treatment may be justified if 10% of the seedlings are cut. To avoid potential problems in the future, manage weeds early (i.e., three weeks prior to planting) and scout beginning at the one leaf stage.

Fig. 2. Black cutworm larvae. Because these insects feed in periods of reduced light or at night, they may be hiding in the soil or underneath residue. Image from Frank Peairs, Colorado State University (www.insectimages.org).

Fig. 3. Cutworm-injured corn in the V5 stage. Hyde Co., May 12, 2011. Image from John Burleson.

Fig. 4. Cutworm injury in larger seedling. Image from Dominic Reisig.

ORNAMENTALS AND TURF

From: Steve Bambara, Extension Entomologist

White Marked Tussock Moths

Last week we had a report of a minor outbreak of white marked tussock moths. This moth is widely distributed throughout eastern North America and rarely causes a major problem. The larvae feed on foliage of a wide variety of trees, both conifers and hardwoods.

This insect overwinters in the egg stage. Eggs hatch in the spring, usually late April to May. Young larvae skeletonize leaves and older larvae consume entire leaves. Pupation is 5 to 6 weeks later and moths emerge about two weeks following.

Larvae are hairy with red head and shield (Fig. 5). The two long black pencils of hairs on the first thorax segment project forward. A single black hair pencil arises from the eighth abdominal segment. The back is mostly yellow, cream, or grayish in color. There are four distinct tufts of white hairs on the first four abdominal segments, and a conspicuous red dot on segments six and seven. Fully grown larvae construct loose tan-gray cocoons on the underside of branches or in bark crevices and pupate.

Fig. 5. White marked tussock moth larvae. Plant Disease and Insect Clinic image submitted by A. Edwards.

The male moth is gray with wavy lines across the front wings, about 25 to 30 mm. Antennae are conspicuously feathery. The female moth is wingless, grayish-white to light brown. Females lay eggs in clumps covered with scales and cocoon material. There are probably two generations and a possible third generation per year.

This caterpillar does not "sting", but the hairs can be irritating to skin or the throat of some animal that takes it for a meal.

Keys to Successful Fire Ant Baiting

- Buy fresh bait and only what you will use up within a short time.
- Do not store bait near other pesticides, fuels or products from which it will absorb odors.
- Do not apply it to wet grass or when rain is expected within 24 hours.
- Do not apply directly on top of a mound. Ants do not forage there.
- Do not disturb the mound. Ants that are rebuilding or defending a nest are not busy foraging.
- Do not apply bait when the temperatures are too hot or too cold. Perform the "potato chip test" before baiting. That is, in mid-morning before baiting, drop one or two potato chips near a mound. If ants are consuming the potato chips within 20 minutes, it is a good time to apply bait.

Magicicada Pictures

Reports of periodical cicada are still coming in. It is nice to see how widespread they are (that is, from the viewpoint of an entomologist). J. Reed of Cary, North Carolina wrote us and supplied images of cicadas located around her home (Figs. 6 and 7). I love her description of the insects and hope she doesn't mind us sharing it.

"They are everywhere; they drop on me from the doors as I leave the house and they especially love the tires on my car. My yard is a landscape of holes. The noise is like listening to heavy traffic from the porch of SpongeBob's pineapple house (underwater). They are starting to creep me out."

Figs. 6 and 7. Periodical cicadas. Images from J. Reed, Cary, North Carolina.