

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 World Wide Web at:
http://ipm.ncsu.edu/current_ipm/pest_news.html

FIELD AND FORAGE CROPS

From: Jack S. Bachelier, Extension Entomologist

Cotton Insect Pests: General Conditions

Although insects are taking a back seat to weed management and fertility decisions with the excessive moisture we have received this past week, plant bugs, spider mites and cotton aphids warrant attention in the coming weeks before stink bugs and bollworms take center stage.

Plant Bugs on Cotton

A few cotton fields in the far eastern counties of North Carolina have been treated this past week for plant bugs, based on both low square retentions and, happily, sweeping. With all of the tropical rainforest-like growth now present in most of our counties due to our recent extended moisture, if we get a week or two of dry, sunny, hot weather, we could be subjected to more plant bugs abandoning wild hosts than has been the case in several years here. Because of our short growing season, we have been recommending a threshold of 8 plant bug nymphs plus adults per 100 sweeps. This threshold is lower than that used by other states after the first two weeks of squaring (most other states recommend 15 plants bugs per 100 sweeps from following the first two weeks of squaring until blooming begins), so our threshold is certainly on the protective side. The good news (at least in past years) is that even with this low live plant bug threshold, we only average about 5 percent of our cotton acreage in the pre-bloom period in a typical year. My guess at this time is that plant bug populations will be high this year by North Carolina standards. Anyone that is not at least checking square retentions weekly may be “missing the boat.”

The above does not suggest “recreational spraying” or unneeded preemptive strikes to be on the safe side by adding an insecticide to Pix or similar product, especially as the bollworm moth flight comes along in about three weeks in the southern part of the state. In a series of replicated tests, on average, an overspray of Orthene to Bollgard cotton just before the major moth flight resulted in boll damage increasing from about 3 to 9 percent compared with the untreated check, and yield penalties of 40 to 80 pounds (i.e., the spray made things worse). So be certain that the plant bug levels justify the spray.

Stink Bugs on Cotton

Remember that, unlike plant bugs, stink bugs do not damage cotton until the bloom period.

Spider Mites on Cotton

It seems that spider mites in a few areas have not read the textbooks, with some fields experiencing light mite outbreaks (so far) in wet cotton fields. Treatment with miticide may be needed where mites are widespread in fields to the point of bottom leaf defoliation. However, I have not yet been made aware of any situations requiring treatment.

Cotton Aphids

As a general rule, we tend to see the buildup of cotton aphids during or following wet weather and rapid cotton growth, although a given cotton aphid population can be more economically damaging if cotton plants are under drought stress. Cotton aphid buildup is also more common following pyrethroid or organophosphate insecticide applications. We often observe the round mummies of the pupal stage of two common parasitic wasps almost any time throughout the growing season when cotton aphid levels are high enough to support these beneficial insects. The even more effective cotton aphid fungus, *Neogygites fresenii*, however, more often appears from about mid July through early August and later in North Carolina. The light brown colored aphid mummies are relatively easy to spot, while a hand lens is helpful in confirming the presence of the fungus. Although the fungus seen by a scout is typically not the primary fungus that is responsible for killing the aphids, the presence of visible fungus indicates that the primary fungus is present and will likely greatly reduce or eliminate the aphid outbreak within a week to 10 days, sometimes over a wide, multi-county area.

Upcoming Cotton Scouting Schools

Wayne, Sampson and Duplin counties: Friday, July 7 from 9:30 to 11:30 a.m. at the Mount Olive College Agri-Business Center, Mount Olive, North Carolina. Contact Kevin Johnson (telephone: 919-731-1520; e-mail: kevin_johnson@ncsu.edu) for details and directions.

Edgecombe County: Thursday, July 13 from 10:00 to 12:00 noon at the Eastern Carolina Agriculture and Education Center, Kingsboro, Exit 478, Highway 64, approximately 6 miles east of Rocky Mount, North Carolina. Contact Art Bradley (telephone: 252-641-7815; e-mail: art_bradley@ncsu.edu) for details.

Nash and Wilson counties: Tuesday, July 18, 4:00 to 6:00 p.m. at the Wilson County Agricultural Center, 1806 S. Goldsboro Street, Wilson, North Carolina. Contact Norman Harrell (telephone: 252-237-0111; e-mail: norman_harrell@ncsu.edu) for details.

Northampton County: Thursday, July 20 from 9:30 to 11:30 a.m. at the County Administration Building, Jackson, North Carolina. Contact Craig Ellison (telephone: 252-534-2711; e-mail: craig_ellison@ncsu.edu) for details.

Halifax County: Thursday, July 20 from 1:30 to 3:30 p.m. at the Agricultural Building, Halifax, North Carolina. Contact Arthur Whitehead (telephone: 252-583-5161; e-mail: arthur_whitehead@ncsu.edu) for details.

Union, Anson, Stanley and Montgomery counties: Tuesday, July 11 from 8:00 a.m. until around 10:00 a.m., beginning with breakfast at the Wayside Restaurant in Oakboro following by field visit. Contact Tom Pegram (telephone: 704-283-3801; e-mail: thomas_pegram@ncsu.edu) for details.

ORNAMENTALS AND TURF

From: Stephen B. Bambara, Extension Entomologist

Chironomids (Midges)

Chironomid midges are the adult stage of a slender, aquatic maggot. These insects are fairly neutral in the environment and can be source of food for fish, but sometimes have mass emergences that can create a big nuisance. They are similar in size and appearance to mosquitoes, but more importantly, these midges don't bite. Tidewater natives sometimes call the adults "fuzzy bills". For people who are new to living near water, these can be quite a surprise when they appear by the possibly millions in the back yard or around the house. They are more common in slow water where there are high amounts of decaying organic matter.

Here is some information about this group of insects.

1. Chironomid larvae live in the water. Larvae spend their time on the bottom substrate eating decaying organic matter such as algae. Pupae float to the top, and then adults emerge to fly around. Eggs are normally laid on water surface because they need to hatch in water.
2. Their life cycle is dependent upon temperature and will vary accordingly. You may be looking at an average between 10 to 14 days. Adults will probably only live one day.
3. They are seasonal, so when the temperature drops so does the population.
4. We generally do not recommend any attempts at chemical control. It would be little relief, if any, and it may even do more harm than good.
5. Lights are attractive to the adults.
6. They are weak flyers.

There is no quick fix. A community wide problem often requires a community wide solution. There are, however, a few things that a homeowner may do to reduce the annoyance factor or, at least, survive with it. For more information, see *Residential, Structural and Community Pests Insect Note Number 15* (<http://www.ces.ncsu.edu/depts/ent/notes/Urban/midges.htm>).

Annual Cicadas Sing Out

Every year the large green cicadas crawl from underground and perform a transformation as dramatic as the change of a caterpillar to a butterfly. Though the life cycle may last several years, the entire population does not emerge in synchrony as do their famous periodical cousins. The

nymphs spend their time sucking juices from the roots of trees. When the time is right, they crawl out of the ground and crawl up the nearest structure to burst out of their shell (Fig. 1) and expand their wings. They don't bite and are not numerous enough to cause damage. Their daytime buzzing adds to the sounds of summer. For more information on cicadas, see *Ornamental and Turf Insect Information Note Number 17* on the web at: <http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/note17/note17.html>.



Fig. 1. Annual cicada. Image from Steve Bambara.

INSECT TRAP DATA

From: Alan A. Harper, Lenoir County

Light Trap Data from Lenoir County

June

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*****
                        Number of Adult Insects
*****
Date           HW      CEW      ECB      AW      AWC      GSB      BSB      TBW
*****
June 7
June 8           0        0        0        0        0        0        0        0
June 9           0        0        1        0        0        0        0        0
June 10          0        0        1        0        0        0        0        0
June 11          0        0        0        0        1        6        1        0
June 12          0        0        1        1        0        0        2        0
June 13          0        1        2        0        0        0        0        0
June 14          0        0        3        0        0        0        0        0
June 15          0        0        1        0        0        0        0        0
June 16          0        0        2        2        0        3        2        0
June 17          0        0        0        0        0        1        0        0
June 18          0        0        0        0        0        2        0        0
June 19          0        0        0        0        1        3        0        0
June 20          1        1        0        0        0        2        0        0
June 21          1        0        0        0        0        1        2        1

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June 22	0	0	0	1	2	0	0	0
June 23	1	0	1	0	0	5	7	1
June 24	0	3	2	0	0	1	1	0
June 25	0	4	1	0	0	2	2	0
June 26	0	5	0	0	1	1	1	1
June 27	1	2	0	0	0	10	0	0
June 28	0	2	0	0	0	2	0	1
June 29	1	1	0	1	0	5	0	3
June 30	0	6	2	0	0	3	1	0

Abbreviations: HW = hornworms; CEW = corn earworms; ECB = European corn borers; AW = true armyworms; AWC = armyworm complex; GSB = green stink bugs; BSB = brown stink bugs; TBW = tobacco budworms

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.

Employment and program opportunities are offered to all people regardless of race, color, national origin, sex, age or disability. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

