

# North Carolina Pest News

Departments of Entomology and Plant Pathology



Volume 24, Number 12,  
July 2, 2009

## In This Week's Issue . . .

### CAUTION !

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

**Stephen J. Toth, Jr.,**  
editor

Dept. of Entomology,  
North Carolina State  
University, Box 7613,  
Raleigh, NC 27695

(919) 513-8189 Phone  
(919) 513-1114 Fax  
Steve\_Toht@ncsu.edu

#### ANNOUNCEMENTS AND GENERAL INFORMATION . . . . . 2

- This Week's *North Carolina Pest News*

#### FIELD AND FORAGE CROPS . . . . . 2

- Plant Bugs on Cotton
- Brown Stink Bugs Coming?
- Spider Mites on Cotton
- Cotton Aphids
- Upcoming Cotton Scouting Schools
- Keep Us Informed of Cotton Insect Problems

#### ORNAMENTALS AND TURF . . . . . 3

- Where is the Brown Marmorated Stink Bug?
- Oak Lace Bugs
- Oak Club Galls
- Maple Mites

#### INSECT TRAP DATA . . . . . 6

- Light Trap Data from Lenoir County
- Light Trap Data from Onslow County

See current and archived issues of the *North Carolina Pest News* on the Internet at: [http://ipm.ncsu.edu/current\\_ipm/pest\\_news.html](http://ipm.ncsu.edu/current_ipm/pest_news.html)

Distributed in furtherance of the acts of Congress of May 8 and June 30, 1914. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

---

## ANNOUNCEMENTS AND GENERAL INFORMATION

### **This Week's North Carolina Pest News**

Due to the university holiday on Friday, July 3, this week's issue of the *North Carolina Pest News* has been published on Thursday. The contributors and editor of the newsletter wish everyone an enjoyable and safe Fourth of July holiday!

## FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

### **Plant Bugs on Cotton**

This week we received a couple reports of square retentions headed down toward 80% associated with sweep net samples in the 5 to 10 range per 100 sweeps – right about at the threshold level for plant bugs. One consultant called to say he had been in some cotton fields on July 1 in the Battleboro area (near the Nash and Edgecombe county line) and found some fields in the 60% square retention range. In the cotton fields that we've checked this week, 90% or above square retention has been the norm. It's hard to say at this point if we'll be treating more than our typical small proportion of fields for plants bugs. On one hand, if this hot dry weather continues, cotton will likely become increasingly unattractive to plant bugs. On the other hand, alternative cultivated plant bug hosts like corn and various weed hosts are now drying down quickly, releasing adult plant bugs into nearby cotton. In any event, this is a particularly good time to check square retention, with follow-up sweepings or ground cloth samplings, if needed to find out if plant bugs are the culprit for low square retention. If a foliar spray is triggered for plant bug levels just above the recommended threshold, chloronicotinoids (like Centric or Trimax Pro) are advised for their milder impact on beneficial arthropods, which in turn might help hold down possible subsequent cotton aphid and spider mite problems.

### **Brown Stink Bugs Coming?**

Presently, hard-to-control brown stink bugs, in various crops such as field corn, appear to present at moderate to high levels and greatly outnumber green stink bugs. Early preemptive sprays for brown stink bugs, which may or may not materialize as economic pests on cotton in the coming weeks, are not advised. Remember that our recommended thresholds for stink bugs are 50% internal boll damage during the first week of bloom and 30% during week two, so the odds of treating during the initial two weeks of bloom are slim. The threshold then drops to 10% for weeks 3 through 5 or 6 of bloom when cotton is the most vulnerable to yield loss from stink bug feeding on medium-sized bolls.

### **Spider Mites on Cotton**

We received several calls about spider mites along field borders and adjacent to mowed areas in the past few days, though so far none at treatable levels. With weather again predicted to be hot and dry for the coming week, spider mites are an ongoing concern for our cotton and peanut acreage, and assessments

---

---

for the initial leaf stippling and reddening should be conducted at least weekly. If these initial evaluations reveal the above symptoms, further confirmation of live mites and the degree of infestation is needed. In cotton, treatment is recommended if mites are found on most plants and some lower leaves have abscised. Hold off on the treatment if significant rainfall is predicted within a day or two.

### **Cotton Aphids**

As far as we know, cotton aphids still appear to be behaving themselves. We have received no reports of treatable infestations.

### **Upcoming Cotton Scouting Schools**

July 21. Northampton County. Meet at 9:00 a.m. at 9495 Highway 305, Jackson, North Carolina. Contact Craig Ellison ([craig\\_ellison@ncsu.edu](mailto:craig_ellison@ncsu.edu)) for details.

July 21. Halifax County. Meet at 2:00 p.m. at the Agricultural Building, Halifax, North Carolina. Contact Arthur Whitehead ([arthur\\_whitehead@ncsu.edu](mailto:arthur_whitehead@ncsu.edu)) for details.

### **Keep Us Informed of Cotton Insect Problems**

Remember that our cotton project works in relatively limited parts of North Carolina each week. Please help keep us and others informed about possible insect buildups in your area.

## **ORNAMENTALS AND TURF**

From: Steve Bambara, Extension Entomologist

### **Where is the Brown Marmorated Stink Bug?**

The introduced brown marmorated stink bug (Fig. 1), *Halyomorpha halys*, was first detected in Allentown, Pennsylvania in 2001. The brown marmorated stink bug is native to Asia. It is now established in many states across the country, including the ones surrounding North Carolina. It would seem odd that we don't have it already. It is an easy traveler in things like motor homes. There is a huge list of hosts, both ornamental and agricultural from maple and birch to pecan, peach, apple and cucumber. Adults emerge from overwintering about April. All instars have deep red eyes. Early nymphs are red, then almost black, and finally brown in color as adults (Fig. 2). They are typical stink bugs in most ways and damage fruit and foliage with their feeding (proboscis) and saliva. There is a single generation in northern states. To add to their annoyance, they congregate for overwintering in protected places such as structures.

Keep your eye out and be the first to report this insect in North Carolina! For more information, see the following *Pest Alert* on the web at [http://www.ncipmc.org/alerts/stinkbug\\_alert.pdf](http://www.ncipmc.org/alerts/stinkbug_alert.pdf). By the way, "marmorated" means "marbled," but "marmorated" is more fun to say than "marbled."

---



Fig. 1. Adult brown marmorated stink bug. Image by David R. Lance (<http://www.bugwood.org>).



Fig. 2. Brown marmorated stink bug nymphs. Image by Gary Bernon (<http://www.forestryimages.org>).

### Oak Lace Bugs

There are about 33 species of lace bugs reported in North Carolina. Most have a limited host list. *Corythucha arcuata* feeds on the foliage of white oak. They produce the same symptoms of tiny chlorotic dots on the upper leaf surface, and black fecal spots on the underside leaf surface that other lace bugs do. Oaks withstand a barrage of insect damage and this isn't a problem that would normally require treatment. One interesting characteristic is the egg collections lined up on end and nicely spaced like a mini-Stonehenge that can be found on the underside of the leaf (Fig. 3). The nymphs in Fig. 4 had been ravaged by a lace wing larva. For more information on lace bugs, see *Ornamentals and Turf Insect Note No. 39* (<http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort039e/ort039e.htm>). For additional information on lacewings, see an article in the June 2, 2006 issue of the *North Carolina Pest News* at [http://ipm.ncsu.edu/current\\_ipm/06PestNews/06News8/pestnews.html#title4](http://ipm.ncsu.edu/current_ipm/06PestNews/06News8/pestnews.html#title4).



Fig. 3. Oak lace bug eggs. Image by Steve Bambara.



Fig. 4. Oak lace bug nymphs. Image by Steve Bambara.

## Oak Club Galls

Many galls occur on oak. Perhaps oddly, they never seem to damage the tree to a noticeable extent. This stem swelling or club gall (Figs. 5 and 6) of white oak, *Quercus alba*, is produced by the tiny cynipid wasp *Callirhytis clavula*. It forms at the stem point where the leaves develop. Numerous attempts at oak gall management have resulted in unsatisfactory results or impractical methods. For some additional information on oak galls, see <http://www.ces.ncsu.edu/depts/ent/notes/O&T/trees/note05/note05.html> for *Ornamentals and Turf Insect Note No. 5*.



Fig. 5. Active oak club gall. Image by Steve Bambara.



Fig. 6. Last season's oak club gall. Image by Steve Bambara.

From: Steve Frank, Extension Entomologist

## Maple Mites

Mid-summer damage to maples is often attributed to the twospotted spider mite. However, I visited several nurseries this week and found the culprit was actually the maple mite, *Oligonychus aceris*. This mite feeds on maples and causes severe damage to maple leaves in midsummer. Leaves are yellow and stippled (Fig. 7) and mite debris is evident on the underside of leaves (Fig. 8). Growers report more damage on "Autumn Blaze" than other maple varieties. However it is common on October Glory and most commonly grown varieties. Management recommendations are the same as for the twospotted spider mite discussed in previous articles in the June 5, 2009 and June 26, 2009 *North Carolina Pest News*. However, to my knowledge no efficacy tests have been conducted on this particular species. Remember that any damage done to the leaves will remain for the rest of the season and will not be corrected by treatments, nor will the debris wash off from treatments or irrigation. Therefore, be sure to determine if live mites are present before repeating a treatment bases on damage or debris.

For additional information, see *Ornamentals and Turf Insect Note No. 25* on twospotted spider mites at <http://www.ces.ncsu.edu/depts/ent/notes/O&T/flowers/note25/note25.html>.



Fig. 7. Maple mite damage. Image by Steve Frank.



Fig. 8. Maple mite damage. Image by Steve Frank.

### INSECT TRAP DATA

From: Alan A. Harper, Lenoir County

#### Light Trap Data from Lenoir County

June

```

*****
                Number of Adult Insects
*****
Date           HW    CEW    ECB    AW    AWC    GSB    BSB    TBW
*****
June 10        1     0     1     0     0     0     0     0
June 11        1     0     0     0     0     3     2     0
June 12        1     0     0     0     0     2     0     0
June 13        1     3     0     0     1    16     2     0
June 14        1     1     0     0     0     8    13     1
June 15        0     3     0     0     5    38     1     0
June 16        1     4     1     0     1     4     0     0
June 17        1     3     0     0     1     3     0     0
June 18        0     2     0     1     0     4     1     0
June 19        0     0     0     0     0    24     4     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

From: Melissa Evans, Agricultural Extension Agent, Onslow County

**Light Trap Data from Onslow County**

```

*****
                        Number of Adult Insects
*****
Date      Bollworms   GSB    BSB   Hornworms
*****
June 24           0        0     0         0
June 26           2       10     0         0
June 29           7        5     0         0
July 1            0        0     0         0
*****

```

GSB = green stinks bugs; BSB = brown stink bugs

Trap Location: Richlands; Cooperator: Richlands Farms  
Insect counts are from a single black light trap  
located approximately 1 mile east of Richlands.

*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.*