

North Carolina Pest News

Departments of Entomology and Plant Pathology



Stephen J. Toth, Jr., editor
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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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http://ipm.ncsu.edu/current_ipm/pest_news.html

FIELD AND FORAGE CROPS

From: Jack S. Bachelier, Extension Entomologist

Cotton Insect Pests: General Conditions

Cotton around the state of North Carolina is showing significant variability in maturity and moisture, with much the crop in need of a good rain shower. But some cotton is still suffering from the aftereffects of earlier excessively wet conditions and in need of difficult nitrogen replacement decisions. Insect levels also vary widely across the state. Reports of cotton aphids and/or plant bugs from one set of farms might sound like they're "from another planet" in another area.

Plant Bugs on Cotton

In most cases, regular assessments of square retention should define cotton fields which are either not presently at risk from plants bugs or to point out fields which are in need of further evaluation for the presence of live plant bugs. In our area, this should work reasonably well until about a week or sometimes two into the bloom period. In a number of widely scattered areas of the state, we appear to have square retention being lowered by either by excessive moisture or by late glyphosate applications to RR cotton. Sweep net sampling is probably a must in situations

like this to find out if plant bugs are the culprit. Once blooming has been underway for about a week or 10 days, monitoring dirty blooms and examination of quarter-sized bolls is advised. Additionally, live plant bugs can be monitored with either a sweep net, a drop cloth, or by visual inspections of plant terminals, including upper blooms. All in all, plant bugs appear to be at higher levels than in recent years, though their levels often drop as the bloom period advances.

Cotton Aphids

As of July 14, widely scattered cotton fields have been treated for cotton aphids, though most cotton fields remain below economic levels. However, low to moderate cotton aphid populations appear to be present in most cotton fields, so aphids still could become a headache for some producers. Be sure fields are checked for the presence of the aphid mummies and/or the parasitic fungus before treatment. Additionally, high aphid populations are more likely to cause yield losses in droughty conditions due to the combination of additive stresses from weather and aphid feeding. As of this July 14, I have received no reports of the aphid fungus, *Neozygites fresenii* (Fig.1). Hopefully this situation will change in the coming week.



Fig. 1. Aphid fungus, *Neozygites fresenii*. Image by Jack Bachelier.

Some spot shortages of Centric, a plant bug and cotton aphid insecticide, have been reported this past week due both to dealer reluctance in having to purchase more product than they may be able to sell, and because of high numbers of mid-South sprays for plant bugs and cotton aphids. Product has been reallocated from California, and I was told that supplies should be adequate by around Tuesday, July 18. If you are trying to obtain this product, your local Syngenta sales representative may be able to direct you to a dealer with inventory.

Spider Mites on Cotton

Spider mites have been “behaving themselves” more than I would have expected. However, we presently have a large number of small populations that could quickly build to high levels with continued hot, dry weather predicted for the upcoming week, and following stink bug treatments. So watch for the fine yellowish speckling and reddish coloration in the mid vein area of leaves.

Stink Bugs on Cotton

In each of the coming insect updates, count on me discussing stink bugs. Whether it's been wheat, tobacco, vegetables, home gardens, an entomology graduate student's assessments, stink bug levels are high. Unlike like bollworm moths, cotton aphids and many other insect pests whose levels may vary greatly during the season and are hard to predict, we have seen enough brown and green stink bugs so far to recommend that the need for regular examinations of quarter sized bolls for internal damage is a "no brainer" in 2006.

Upcoming Cotton Scouting Schools

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.

Gates and Perquimans counties: Wednesday, July 19, beginning at 2:00 p.m. in Perquimans County. Interested persons can call either Paul Smith at 252-357-1400 or Lewis Smith at 252-426-5428. Dr. John Van Duyn, Extension Entomologist, North Carolina State University, will serve as the instructor. There will be 1 hour of re-certification credit for commercial and private applicators.

Chowan County: Wednesday, July 19, beginning at 4:00 p.m. at the Albemarle Center.

From: Rick L. Brandenburg, Extension Entomologist

Potato Leafhoppers on Peanuts

The past few weeks has brought high numbers of potato leafhoppers into a number of peanut fields. As a result, we have seen an above normal number of fields with the distinct yellowing caused by their feeding. Leafhoppers are easily controlled and the use of Lorsban for rootworm control also does a great job of controlling leafhoppers. If you have been "on the fence" about treating for rootworms, then the presence of leafhoppers may help you decide. If you are going to treat for rootworms, don't delay. The timing for optimal control is rapidly coming to an end. Leafhoppers can also be controlled with a number of foliar insecticide sprays (see the *North*

Carolina Agricultural Chemicals Manual at: <http://ipm.ncsu.edu/agchem/5-7.pdf>), but we often hesitate to treat for fear of creating a spider mite problem. Rainfall has been good in most areas and spider mites do not appear to be a threat at this time. In addition, the cooler spring weather has had a negative effect on the buildup of spider mite populations.

ORNAMENTALS AND TURF

From: Stephen B. Bambara, Extension Entomologist

Cicada Killer Wasps

Last week I remarked on the annual cicada population. It is now time to remind you of the cicada killer wasp that uses cicadas to provision its nest. Cicadas are caught and stung by the wasp, then dragged back to the nest. Once in the nest, the female wasp lays her eggs on the cicada. Wasp larvae soon hatch from the eggs and feed upon the cicada. When mature, the wasp larvae pupate and another generation of wasps emerges to carry on the life cycle (<http://websites.quincy.edu/~coelhjo/ck/sphecus.htm>). The cicada killer wasp (<http://ww2.lafayette.edu/%7Ehollidac/fingerperch.html>) is one of the most attractive wasps, and the sight and sound of many wasps swarming in a yard is impressive. Although these wasps appear to be ferocious, I know of no one who has ever been stung by one even though the females have an impressive stinger (males do not sting). Control is usually not nearly as necessary as homeowners think since the wasps represent little danger to humans. Their active period only lasts a few weeks. Because they eat cicadas, these wasps can be regarded as beneficial or neutral. *Ornamentals and Turf Insect Note No. 63* (<http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note63/note63.html>) has additional information on the biology and management of the cicada killer. Soon we'll cover the cow killers that feed on the cicada killers.

Fall Webworms

Fall webworms have hatched their early season brood (Fig. 2). There is a race of fall webworm that develops in mid summer. The web starts at the branch tips and becomes enlarged to encompass fresh, green leaves until the web may become two to three feet long. This is more noticeable with the later season brood. Because fall webworm damage accrues over the summer, they usually cause little long-term health damage to the trees they defoliate. At any one location, the populations of fall webworms wax and wane so that they are conspicuous and damaging for a year or two and then the populations seem to disappear. Fall webworms feed on over 600 types of trees, shrubs and other plants. In North Carolina they seem to prefer pecans (Fig. 3), persimmons, sourwoods and willows. Small trees infested with several broods of caterpillars may be entirely enclosed in webs. After feeding for four or five weeks, the caterpillars crawl down, spin cocoons and pupate in mulch or soil.



Fig. 2. Very young fall webworm caterpillars.
Image from James R. Baker.



Fig. 3. Large pecan tree infested with fall webworms.
Image from James R. Baker.

Fall webworms can be managed by pulling down the webs and destroying the caterpillars if the webs are within reach by a pole. If the webs are within reach of a sprayer, several insecticides can be sprayed for control. Spray adjacent foliage. Insecticides work best when the caterpillars are young, so it is best to treat as soon as the webs are first noticed. A product containing *Bacillus thuringiensis* or carbaryl is appropriate for homeowner use, while commercial applicators can use *B.t.* (e.g., Dipel), Conserve, Talstar or one of several other options. Talstar is not recommended for plants prone to spider mite problems. View a QuickTime movie clip at: <http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/note07/fallwebworm.mov>.

Katydids

Katydids put the buzz into the evening. Katydids are cone-headed grasshoppers (Fig. 4) that “zeep zeep zeep” their way through the early night hours. They are attracted to lights and may turn up around porches. They are generally not numerous enough to do noticeable damage to plants, but if you sleep with your window open and there's one nearby, they can be a little distracting.



Fig. 4. Katydid. Image from Steve Bambara.

INSECT TRAP DATA

From: Richard W. Rhodes, County Extension Director, Bertie County

Light Trap Data From Bertie County

```

*****
                Windsor      Woodard      Hexlena      Roxobel      Colerain
                *****      *****      *****      *****      *****
Date            BW GSB BSB    BW GSB BSB    BW GSB BSB    BW GSB BSB    BW GSB BSB
*****
July 10         0  0  0      -  -  -      -  -  -      1  0  0      -  -  -
July 11         0  2  0      -  -  -      0  0  0      -  -  -      -  -  -
July 12         0  3  0      2  0  0      -  -  -      -  -  -      -  -  -
July 13         0  3  0      -  -  -      0 17  0      3  3  0      5  1  0
*****
    
```

BW = Bollworm moths; GSB = Green stink bugs; BSB = Brown stink bugs

From: Mike Carroll, Agricultural Extension Agent, Craven County

Light Trap Data From Craven County

```

*****
                Number of Adult Insects
                *****
Date            THW   TBW   CEW   GSB   BSB   ECB   FAW   BAW   Looper
*****
July 10         3     1     9     3     1     0     0     0     0
*****
    
```

THW = tobacco hornworms; TBW = tobacco budworms; CEW = corn earworms;
 GSB = green stink bugs; BSB = brown stink bugs; ECB = European corn
 borers; FAW = fall armyworms; BAW = beet armyworms

Location of trap: Cove City

From: Colby S. Lambert, Agricultural Extension Agent, Cumberland County

Light Trap Data From Cumberland County

```

*****
                Number of Adult Insects
                *****
Date            THW   CEW   GSB   BSB
*****
June 30         trap set up
July 3           2     9     22     6
July 5           0     2     15     4
July 7           0     6     3     1
July 10          0     2     7     1
July 12          -     -     -     -
July 14          1     0     31     2
*****
    
```

THW = tobacco hornworms; CEW = corn earworms;
 GSB = green stinks bugs; BSB = brown stink bugs

From: Arthur R. Bradley, Jr., Agricultural Extension Agent, Edgecombe County

Light Trap Data From Edgecombe County

```

*****
                        Number of Adult Insects
*****
                W Edgecombe /a      Coakley /b      Lawrence /c
                *****            *****            *****
Date            CEW    BS    GS    CEW    BS    GS    CEW    BS    GS
*****
July 7          0     0    3     7     0   48     -     -     -
July 10         0     0    0    14    7    1     -     -     -
July 12         0     0   12     3     0   34     -     -     -
July 14         0     0   13     4     0   61     -     -     -
*****
  
```

Abbreviations: CEW = corn earworms;
 BS = brown stink bugs; GS = green stinks bugs

a = trap located 12 miles west of Tarboro; maintained by Tom Porter.
 b = trap located 5 miles east of Tarboro; maintained by Bryan Mayo.
 c = trap located at Lawrence; maintained by Terri Thomas.

From: Keith B. Walters, Agricultural Extension Agent, Hoke County

Light Trap Data From Hoke County

```

*****
                        Boyles Farm
*****
Date            Moths      GSB      BSB
*****
June 28         28         4         0
June 30         72         26        0
July 3          -           -          -
July 5          13         7         0
July 7          41         9         13
July 10         32         7         0
July 12         16         5         1
July 14         17         33        4
*****
  
```

GSB = green stink bugs; BSB = brown stink bugs

Location of trap is Shannon Road, Shannon.
 Trap monitored by Johnny Boyles.

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 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
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

From: Bryant M. Spivey, Agricultural Extension Agent, Onslow County

Light Trap Data from Onslow County

```
*****
                        Number of Adult Insects
*****
Date      Bollworms      GSB      BSB
*****
July 3      15      7      0
July 5      43      17     0
July 7      21      2      0
July 10     18      0      1
July 12     16      4      3
July 14     22      20     0
*****
```

GSB = green stinks bugs; BSB = brown stink bugs

Insect counts are from a single black light trap located approximately 1 mile east of Richlands.

From: Everett Davis, County Extension Director, Robeson County

Light Trap Data From Robeson County

```

*****
                Number of Adult Insects
                *****
Date           BW      GSB      BSB      FAW
*****
July 8-9       7       8       1       4
July 10        4       9       0       0
July 11-12     7      12       1       0
July 13        5       5       0       1
*****

```

BW = bollworms; GSB = green stick bugs; BSB = brown stink bugs; FAW = fall armyworms

Location is Rowland; monitored by Kay McGirt

From: Josh Gaddy, Agricultural Extension Agent, Sampson County

Light Trap Data from Sampson County

```

*****
                Number of Adult Insects
                *****
Date           BW      GSB      BSB      THW
*****
June 30                trap set up
July 3           0       4       0       2
July 5           3       9       0       0
July 7           2       6       0       2
July 10          4       8       0       0
July 12          1      11       1       2
July 14          1       5       0       0
*****

```

BW = cotton bollworms; GSB = green stink bugs; BSB = brown stink bugs; THW = tobacco hornworms

Black trap located 6 miles south of Clinton on US-701S on the farm of Mike and James Hope.

From: David E. Morrison, Agricultural Extension Agent, Scotland County

Light Trap Data From Scotland County

```

*****
                          Number of Adult Insects
*****
          Laurinburg              Gibson              John's
*****              *****              *****
Date      BW  GSB  BSB  FAW      BW  GSB  BSB  FAW      BW  GSB  BSB  FAW
*****
July 7    -   -   -   -        1   1   2   -        2   4   -   -
July 10   11  3   -   -        9   -   -   -        6   7   1   -
July 12   12  17  -   -       9*  2*  -   -        3   3   1   -
July 14   16  38  -   -       21  5   -   -        3  10  -   -
*****

```

BW = bollworms; BSB = brown stink bugs; GSB = green stink bugs

* light unplugged

Trap Location: Gibson, Johns and Laurinburg
 Monitored by: Jim Ellis, David Morrison,
 Percy Rachels, Rusty Muse and T. G. Gibson

From: Kevin Johnson, Agricultural Extension Agent, Wayne County

Light Trap Data from Wayne County

```

*****
                          Number of Adult Insects
*****
          Seven Springs              Goldsboro
*****              *****
Date      GSB  BSB  BW  THW      GSB  BSB  BW  THW
*****
June 26   -   -   -   -        43   3   10  6
June 28   -   -   -   -        81   4   -   -
June 29   -   -   -   -       131  11  4   1
July 3    -   -   -   -        91   9   5   2
July 5    -   -   -   -        63  10  -   -
July 7    -   -   -   -        47   4   2   2
July 10   -   -   -   -        15   0   5   3
*****

```

GSB = green stink bugs; BSB = brown stink bugs;
 BW = budworms; THW = hornworms

Cooperators: D. M. Price (Seven Springs)
 and Willie Howell (Goldsboro)

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.

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