

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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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

ANNOUNCEMENTS AND GENERAL INFORMATION

Final Issue of *North Carolina Pest News* for 2008

This will be the final issue of the *North Carolina Pest News* for 2008. The editor would like to thank all of the Extension specialists and county agents and directors that contributed articles and/or insect trap data for the newsletter this season.

If you have any comments, criticisms or suggestions regarding the content or format of the *North Carolina Pest News*, please forward them to the editor (e-mail: Steve_Toth@ncsu.edu). Your input will help us improve the quality of the newsletter in the future.

Thank you for your interest in the *North Carolina Pest News*. The newsletter will resume in April of 2009. Meanwhile, individual articles on insect and disease pests in North Carolina will be provided as *Pest Alerts* via electronic mail and the Internet at:
http://ipm.ncsu.edu/current_ipm/palert99.html.

FIELD AND FORAGE CROPS

From: Hannah Burrack, Extension Entomologist

Late Tobacco Can Mean Late Insect Pressure

Dry summer weather combined with late summer rains has contributed to immature tobacco in North Carolina fields later than normal this year. Growers I have spoken with anticipate harvesting well into October, providing Tropical Storms/Hurricanes Hanna, Ike, and Josephine do not take their toll on the crop. Greenhouse treatments of neonicotinoid insecticides (Admire (imidacloprid) and Platinum (thiamethoxam) for aphid and flea beetle control have run their

course in many fields, and agents and growers have noted resurgences of these insects throughout the state. Growers faced with weeks remaining before harvest are concerned about treating these populations, particularly as they feed on valuable upper stalk leaves. Because foliar applied neonicotinoid insecticides are among the most effective materials for aphid and flea beetle control, it is tempting to turn to them first. We need to be sure, however, that we use these chemicals in a manner consistent with their labels.

Insecticide modes of action (MOA) have been grouped by the Insecticide Resistance Action Committee (IRAC) to allow users to more easily rotate between MOAs and minimize resistance risk. Neonicotinoid insecticides are in group 4A, of which acetamiprid, clothianidin, imidacloprid, and thiamethoxam are labeled for use in tobacco. The group 4A foliar applied insecticides are Provado (imidacloprid), Assail (acetamiprid), Actara (thiamethoxam), and generic formulations of these active ingredients. If tobacco treated in the greenhouse or at transplant with Admire Pro or Platinum is now harboring economically damaging populations of aphids or flea beetles, there are limitations to the materials that can be used on that same crop. For example, the resistance management section on the Provado 1.6F label states “Foliar applications of PROVADO or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with a long-residual, soil-applied product from the neonicotinoid chemical class.” Wording on the Assail label is a bit more flexible (allowing for its use provided an alternate MOA is use in-between group 4A applications), but I would suggest growers who need to treat for either aphids or flea beetles select a different MOA as their first choice. Because, in most cases, neonicotinoids should not be used for aphids and flea beetles this time of year, Orthene (acephate) is the most compatible material to use for control in the last few weeks of the 2008 season. Bear in mind, however, that it’s wise to keep late season pesticide applications to a minimum regardless of the material used, because chemical residue concerns in tobacco are here to stay. Whichever insecticide is used to treat aphids or flea beetles, good coverage is important. Higher pressure, and possibly higher water volume will increase coverage and improve control.

Aphids prefer younger leaves, and late season aphid populations can be exacerbated by the presence of suckers and re-growth. Aphid treatment thresholds are based on pre-topping levels of 50 aphids per upper leave on 10 percent or greater plants. Late season thresholds do not exist, so pre-topping thresholds can be used but may not be ideal. Aphids are more amenable to control when their numbers are low, and large populations may be hard to manage regardless of the materials used. Similarly for flea beetle management, treatment is recommended when large plants have greater than 60 beetles, or lower leaves appear laced. This threshold is also approximate late in the season. Although North Carolina aphid and flea beetle treatment thresholds were not developed for late season use, it’s still useful to use them as guidelines to determine when to treat this time of year. In combination with thresholds, maintaining good cultural management at the end of the season can also minimize the need to treat.

From: Barbara Shew, Extension Plant Pathologist

Peanut Leaf Spot

For those who began leaf spot sprays in early July, the fifth and usually final calendar spray will be due soon, if it hasn’t been applied already. Since foliar fungicides generally provide about two weeks of protection, a spray in early September should provide protection until mid- to late

September. By that time, night temperatures usually drop into the 50's with low humidity, slowing leaf spot epidemics. Use a broad-spectrum fungicide for the final spray.

An additional foliar fungicide spray sometimes is necessary when digging is delayed and if warm, humid nights persist past mid-month. If Tropical Storm/Hurricane Hanna brings heavy rains, be especially vigilant with NC-V11 and VA 98R since these cultivars are susceptible to web blotch. Perry and Gregory, susceptible to late leaf spot, also could be vulnerable. Wet weather favors both diseases. The best way to determine if a late spray is needed is to watch leaf spot advisories, even if a calendar spray schedule was used throughout the summer. The PHI for leaf spot fungicides generally is 14 days.

From: Steve Koenning, Extension Soybean Pathology Specialist, and Jim Dunphy, Soybean Specialist, Department of Crop Science

Current Status of Soybean Rust in North America – September 2008

Asian Soybean Rust was confirmed August 18 in Tift County, Georgia. This puts rust approximately 300 miles from Charlotte, 530 miles from Elizabeth City, 360 miles from Fayetteville, 255 miles from Murphy, 405 miles from Raleigh, 465 miles from Washington, 370 miles from Wilmington, and 370 miles from Winston-Salem. Prior to today, soybean rust was viable in a few locations along or near the gulf coast and has now been found on soybean in two counties in Georgia. Alabama, Louisiana, and Texas have reported soybean rust in a few counties or parishes.

Soybean rust has not been detected at this time in North Carolina or South Carolina. Brown spot, frogeye leaf spot, and soybean downy mildew have been detected in sentinel plot samples.

Cool and wet weather to the south of us as a result of hurricanes have resulted in conditions ideal for soybean rust development. Even though we have had weather to transport spores, the level of rust to the south has been so low that transport was unlikely. Tropical Storm/Hurricane Hanna, however, will transport few if any spores to North Carolina since its rotation will bring most moisture from the Atlantic Ocean, not Florida.

Need to Apply Fungicides?

The down side of fungicide application is the cost of the fungicide and application. The upside is protection from disease – preventing yield loss and protecting the crop. Much of the soybean crop is currently past the stage where soybean rust is likely to be a problem. Nonetheless, the prospects for warm moist weather over the next several weeks mean that disease pressure, especially on late maturing soybean will be high. Thus it may prove beneficial to spray with a strobilurin fungicide (Headline or Quadris). This is especially true if there is a high yield potential and the variety planted is susceptible to frogeye leaf spot. A combination fungicide such as Stratego or the addition of triazole fungicide to a strobilurin may allow you to sleep better if you are concerned about rust.

Reasons to Apply Fungicides:

1. Presence of disease (Frogeye, Target Spot, and Anthracnose).
2. High yield potential.
3. Premium for seed quality.

Consider how long it will take to get fungicide applied to needed acreage. Take into consideration that with wet conditions you may not be able to apply by ground! Also, consider that application at R5 with a strobilurin or Topsin M can protect seed quality if harvest is delayed.

Reasons not to Apply Fungicides:

1. Cost.
2. Soybean at or beyond growth stage R5.

Fungicide Update

Growers have been advised to spray for rust at this time in Georgia. All sentinel plots in Mississippi are at reproductive stages a late soybean crop has been planted and harvest of the early crop continues. Much of the soybean crop in Mississippi receives an application of strobilurin fungicides (Headline or Quadris) at the R3-R4 reproductive stage. Strobilurin fungicides are good rust preventatives.

ORNAMENTALS AND TURF

From: Steve Bambara, Extension Entomologist

Woolly Bear Caterpillars

The banded woollybear caterpillar (Fig. 1), *Pyrrhactia isabella* (also called the woolly worm), is famous for foretelling the upcoming winter severity based on the width of the middle band. The adult is called the Isabella moth. This insect overwinters either as caterpillar or pupa inside a flimsy cocoon. These caterpillars have some chilling requirement in order to resume proper development next spring. In the spring the remaining caterpillars will pupate and the Isabella moths will emerge and lay eggs. Banded woollybears feed on plantain (a common weed). They are quite active and are a barrel of fun to rear, I'm told (I guess some people find their fun in a barrel). There may be at least two generations per year.



Fig. 1. Banded woolly bear caterpillar. Image by W. Cranshaw (<http://www.bugwood.org>).

I can't ignore their reputation, and I also can't neglect to mention the 31st Annual Woolly Worm Festival this October in Banner Elk (Avery County), North Carolina (for more information on the festival, see <http://www.woollyworm.com/>).

Black Soldier Fly Maggots

Maggots of black soldier flies are fairly impressive. They develop in decaying organic matter with high moisture content. Black soldier flies have only one generation per year (Fig. 2). They spend the winter in the maggot stage. The maggots pupate the following spring or summer so that the adults are present (but usually not in great numbers) throughout the growing season. The pupal stage occurs inside the last larval skin. This type of pupa is called a puparium. Black soldier flies are sometimes attracted to compost piles that are kept too moist. The Department of Horticultural Science at North Carolina State University has some guidelines for proper compost management available on the Internet at <http://www.ces.ncsu.edu/depts/hort/hil/pdf/ag-467.pdf>. Because these flies are harmless to humans and ornamental plants, it is not a good idea to use pesticides to control the maggots. Covering the compost heap whenever heavy rains are forecast should help it to dry out. Once the pile has finished composting, it should be acceptable as a soil amendment for potting plants or use in the landscape. Any maggots in the compost pile this year will emerge sometime during the year. Although black soldier flies (Fig. 3) are completely harmless, they do resemble wasps and occasionally cause some alarm. However, if they were to emerge indoors, the flies would merely alight on nearest window and buzz there harmlessly.

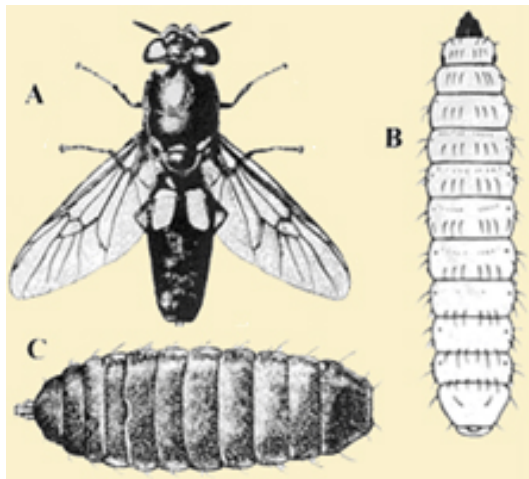


Fig. 2. Black soldier fly. A, Adult female. B, Larva. C, Puparium. Image by James R. Baker.



Fig. 3. Black soldier fly. Image by Steve Bambara.

Looking Forward

We received four reports this week of chinch bugs in turf. They seem to have built up during the summer, so watch for them in turf. See *Ornamentals and Turf Insect Information Note No. 112* on the web at: <http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note112/note112.html>.

We've finally had some rainfall and fire ants have popped up where previously not recognized.

The fall is the time of year for spiders in the landscape, especially the orb weavers (see *Ornamentals and Turf Insect Information Note No. 137* at <http://www.ces.ncsu.edu/depts/ent/notes/Other/note137/note137.html>). There is a tiny White *Micrathena*, *Micrathena mitrata* (Fig. 4), that bit me three times last weekend while I was mowing my lawn, until I pulled it out of my shirt. I suffered no marks or reaction. (Note that no spiders were hurt during the writing of this newsletter; *i.e.*, it was returned to its habitat.)



Fig. 4. White *Micrathena* (*Micrathena mitrata*).
Image by Steve Bambara.

Cool season mites would receive treatment later this fall when the temperatures drop. If you had plants diagnosed with spruce spider mite or southern red mite this summer, look for them to become active in October or November and treat then.

Yellow jackets have been plentiful all summer. Unless heavy rains wipe them out within the next month, they may be the usual problem this fall. We mentioned yellow jackets in an earlier issue, but nest populations are peaking and foraging needs may be turning more toward carbohydrates. Open trash cans, recycling centers and picnic areas may be problems. Remove trash from public bins often, rinse containers before disposing, keep lids on containers, etc. You can find more information about yellow jackets at <http://www.ces.ncsu.edu/depts/ent/notes/Urban/horn-yj.htm>.

From: Rick Iverson, Weed Specialist, North Carolina Department of Agriculture and Consumer Services

Weed Alert: Benghal Dayflower

The North Carolina Department of Agriculture and Consumer Services and North Carolina State University, in cooperation with multiple partners, continue to respond to Benghal dayflower (a.k.a. Tropical spiderwort, *Commelina benghalensis*) in North Carolina. Previous detections on research stations continue to be addressed and significant progress has been made in regards to eradication at these sites. Commissioner Troxler has also established an exterior state quarantine for Benghal dayflower providing a mechanism to respond with minimizing the introduction of this pest from outside the state.

North Carolina growers continue to play a critical role in helping us to identify new detections of this pest at an early stage. We also appreciate the assistance that Cooperative Extension Service personnel have provided in helping us to educate our growers on this weed pest. This remains a critical time of the year for detection of this weed pest. It is expected, if present, this weed would be vigorously growing during this time of year through heavy frost. As such, it is a good time to be alert and report any suspect plant material. We highly encourage you to continue to share this information with growers in your area.

The informational brochure, *Weed Alert! Help stop the spread of Benghal dayflower (a.k.a. tropical spiderwort, Commelina benghalensis L., is included as an attachment (see pages 20 and 21). This brochure provides some very practical ways to determine if you might have a suspect plant or infestation. Should you determine you have a suspect, please clearly mark the site;*

however, do not remove any plants from the site. We encourage you to report any suspects to me by telephone at 919-733-6930 ext. 246, toll-free 1-800-206-9333, or by electronic mail at Rick.Iverson@ncmail.net.

On behalf of North Carolina Department of Agriculture and Consumer Services and each of our partners in this project, we sincerely thank you for your assistance in responding to the serious weed pest.

INSECT TRAP DATA

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

Light Trap Data from Bertie County

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*****
                Windsor      Woodard      Hexlena      Roxobel      Colerain
                *****      *****      *****      *****      *****
Date           Moths  GSB   Moths  GSB   Moths  GSB   Moths  GSB   Moths  GSB
*****
July 16         0    0     11    0     0    0     0    0     0    0
July 17         0    0     7     0     0    0     10   0     0    0
July 18         0    0     4     0     0    0     7    0     0    0
July 19         0    0     7     0     0    0     -    -     0    0
July 20         0    0     4     0     0    0     -    -     0    0
July 21         0    0     2     0     0    0     3    7     0    0
July 22         0    2     6     0     0    0     2    0     0    0
July 23         2    1     4     0     0    0     -    -     32   2
July 24         0    3     8     0     0    2     5    2     57   2
July 25         2    1    13     0     0    0     2    0     62   1
July 26         6    3    15     0     -    -     -    -     -    -
July 27        12    3    18     0     -    -     -    -     -    -
July 28         7    1    17     0     3    3     7    1    160   4
July 29        12    0    49     0     5    0     31   1    370   5
July 30        39    6    30     0     -    -     8    1     -    -
July 31        46    4    18     0    15    0     8    0     92   0
August 1         -    -     1     0    17    0     28   1    192   1
August 2        79    6     0     0     -    -     14   0     -    -
August 3         -    -    18     0     -    -     -    -     -    -
August 4        35    2    48     2    41    0     29   3    730   6
August 5         -    -    38     2     -    -     13   1    360   6
*****

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Moths = Bollworm moths; GSB = Green stink bugs

From: Al Hight, County Extension Director, Brunswick County

Light Trap Data from Brunswick County

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*****
Date           CEW      GSB      ECB      THW
*****
July 28         18       6       -       -
July 29         16       3       -       -

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July 30	14	-	-	-
July 31	light turned off by mistake			
August 1	37	6	-	-
August 2	28	6	-	-
August 3	21	4	-	1
August 4	37	6	-	-
August 5	22	5	1	-
August 6	22	10	-	-
August 7	25	8	1	-
August 8	21	5	-	1
August 10	17	4	2	-
August 12	7	-	1	-
August 13	10	2	-	1

CEW = corn earworm; GSB = green stink bug;
 ECB = European corn borer; THW = tobacco hornworm

From: Mike Williams, County Extension Director, Chowan County

Light Trap Data from Chowan County

Date	Bollworm moths	Stink bugs
July 24	10	-
July 25	15	2
July 26	14	0
July 27	-	-
July 28	66	3
July 29	50	0
July 30	-	-
July 31	228	3
August 1	115	0
August 2	60	0
August 3	21	6
August 4	56	0
August 5	67	16
August 6	55	5
August 7	58	1
August 8	-	-
August 9	122	5
August 10	-	-
August 11	77	0
August 12	13	0
August 13	31	0
August 14	23	0
August 15	35	2
August 16	-	-
August 17	26	2
August 18	17	0
August 19	22	1
August 20	17	-
August 21	13	1
August 22	7	-

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 18      4     0     28     4     1     2     7     -     -
July 21      0     0     6      6     1     5     3     1     1
July 23      3     0     21     1     1     2     4     0     1
July 25      3     1     29     4     0     3     1     1     0
July 28      2     1     82     3     1     3     0     2     3
July 30      5     -     62     3     1     3     6     3     3
August 1     -     -     -      -     -     -     -     -     -
August 4      7     3    227    13     2     5    12     4     4
August 6      4     0    190    14     1     2    17     2     2
August 8      3     0     90     5     2     2    13     2     0
August 11     4     0     97     2     0     2    14     0     2
August 13     2     0     55     1     0     2     3     1     2
August 15     1     0     4      0     0     0     1     0     0
August 18     3     2     43     4     0     0     5     2     1
August 20     1     0     9      1     0     1     2     0     0
August 22     -     -     -      -     -     -     -     -     -
August 25     2     0     17     0     0     1     1     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
Cooperators: R&W McCoy Farms and Cove City Fertilizer

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

Light Trap Data from Cumberland County

```
*****
                        Number of Adult Insects
*****
Date      THW    CEW    GSB    BSB
*****
July 23      1     8     1     0
July 25      2    29     1     0
July 28      6   165    13     0
July 30      2   190     3     0
August 1     0    98     3     0
August 4     0   101     9     0
August 7     0   160    10     0
August 8     -     -     -     -
August 11    2    74     2     0
August 13    2    15     0     0
August 15    1    13     3     0
August 19   11    63     8     0
August 22   12   115     6     0
```

August 25	24	50	8	0
August 28	16	110	5	0

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

Trap located in Godwin at Cumberland/Harnett County Line
 at Lewis Farms off of Highway 301

From: Curtis D. Fountain, Agricultural Extension Agent, Duplin County

Light Trap Data from Duplin County

Number of Adult Insects

Date	BW	GSB	BSB

July 2	0	0	0
July 4	1	4	0
July 7	1	8	0
July 9	0	6	0
July 11	0	12	1
July 14	2	1	0
July 16	1	1	0
July 18	4	0	0
July 21	12	2	2
July 23	21	0	1
July 25	48	5	0
July 28	62	0	1
July 30	-	-	-
August 1	105	3	0
August 4	45	24	4
August 6	68	26	4
August 8	35	2	0
August 11	35	2	1
August 13	15	0	0
August 15	17	0	0
August 18	18	4	0
August 20	16	3	0
August 22	10	1	0
August 25	19	1	0
August 27	10	1	0
August 29	-	-	-

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

Trap location: approximately two miles east of Albertson
 Cooperator: Justin Murphy

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

Light Trap Data from Edgecombe County

```

*****
                        Number of Adult Insects
*****
                Coakley      West Edgecombe      Lawrence
                *****      *****      *****
Date           CEW   BS   GS   CEW   BS   GS   CEW   BS   GS
*****
July 25        27   -   3    -   -   -    -   -   -
July 28        35   -   9    -   -   -    -   -   -
July 30        23   -  15    -   -   -    -   -   -
August 1       47   -   7    -   -   -    2   -  10
August 4       68   -  19   45   -   3   10   -   0
August 6       23   -  12   28   -   4   20   -   6
August 8       49   -   0   30   -   5    8   -   1
*****

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

From: Paul Smith, Agricultural Extension Agent, Gates County

Light Trap Data from Gates County

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*****
                        Bollworm      Stink
Date           moths      bugs
*****
August 7             34             0
August 8             -             -
August 9             67             -
August 10            -             -
August 11            63             0
August 12            17             0
August 13            21             0
August 14            11             0
August 15             7             0
August 16             6             0
August 17             4             0
August 18            14             0
August 19             3             0
August 20            19             0
August 21            12             0
August 22             8             0
August 23            11             0
August 24            15             0
August 25            17             0
August 26            51             0
August 27            30             0
August 28            42             0
August 29            38             0
*****

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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 1    0     2     0     0     0     0     0     0
June 2    0     3     0     0     0     1     0     0
June 3    0     1     0     1     0     3     0     0
June 4    0     1     0     0     0     3     0     0
June 5    0     2     0     0     0     2     0     0
June 6    0     3     0     0     0     0     0     0
June 7    1     1     0     0     0     2     4     0
June 8    1     2     1     1     0     1     1     0
June 9    0     2     0     1     1     4     2     0
June 10   1     2     0     1     1     2     1     0
June 11   1     2     0     1     1     1     1     0
June 12   0     1     0     1     1     0     0     0
June 13   0     2     0     1     1     0     0     0
June 14   0     1     1     0     2     0     0     0
June 15   0     2     2     0     0     2     2     0
June 16   0     3     1     0     0     1     0     1
June 17   0     0     0     0     2     1     0     0
June 18   1     2     0     0     2     1     0     1
June 19   0     0     0     0     1     0     0     0
June 20   0     2     2     0     1     0     0     0
June 21   0     3     0     0     3     0     0     0
June 22   0     6     1     0     0     2     0     0
June 23   1     3     1     0     2     3     0     0
June 24   0     2     0     0     3     0     0     0
June 25   0     4     2     0     3     0     1     0
June 26   1     1     0     0     4     1     0     0
June 27   0     1     1     0     0     0     0     0
June 28   0     2     0     0     0     1     0     0
June 29   0     2     0     1     3     2     0     0
June 30   1     0     0     0     2     0     0     0
*****
```

July

```
*****
                        Number of Adult Insects
*****
Date      HW    CEW    ECB    AW    AWC    GSB    BSB    TBW
*****
July 1    0     4     0     2     5     0     0     1
July 2    1     1     1     0     3     0     0     0
July 3    0     1     2     0     7     0     0     0
July 4    3     1     3     0     4     2     0     0
July 5    1     0     0     0     2     0     0     0
July 6    2     6     4     0     4     1     0     0
July 7    1     4     0     0     3     0     0     0
July 8    3     2     2     0     0     2     0     0
July 9    2     2     3     0     2     0     0     0
*****
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July 10	3	2	1	0	0	0	0	0
July 11	3	2	3	2	1	0	0	0
July 12	4	0	1	2	0	0	0	1
July 13	3	2	1	1	1	0	0	0
July 14	5	1	3	0	2	1	0	0
July 15	5	3	3	0	3	0	0	1
July 16	3	3	1	3	1	1	0	0
July 17	0	2	0	0	0	0	0	0
July 18	0	4	0	0	0	3	0	0
July 19	1	4	0	0	0	0	0	0
July 20	1	7	1	0	0	1	0	0
July 21	1	10	0	0	1	4	0	0
July 22	0	4	1	0	1	1	0	0
July 23	1	16	0	0	0	1	0	0
July 24	1	19	0	0	0	2	0	0
July 25	1	47	1	2	1	0	0	1
July 26	0	52	0	0	0	1	0	0
July 27	0	47	0	1	0	1	0	0
July 28	0	36	0	0	0	0	0	0
July 29	1	61	1	0	1	4	0	1
July 30	0	32	0	1	0	1	0	0
July 31	0	37	1	0	1	1	0	1

August

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
August 1	0	41	0	0	0	1	0	0
August 2	0	55	1	1	0	4	0	3
August 3	0	26	0	0	0	3	0	0
August 4	0	46	1	0	1	1	0	0
August 5	0	66	2	0	0	2	0	1
August 6	0	71	0	0	0	4	0	2
August 7	0	51	0	0	2	10	0	0
August 8	1	28	1	0	2	3	0	1
August 9	1	30	1	0	1	3	0	0
August 10	0	28	2	0	0	4	0	0
August 11	1	4	2	0	0	4	0	0
August 12	0	8	1	0	0	0	0	0
August 13	0	8	1	0	0	0	0	0
August 14	1	6	0	0	2	0	0	0
August 15	0	8	0	0	0	2	0	0
August 16	1	18	1	0	4	4	0	0
August 17	3	18	2	1	3	2	0	0
August 18	2	16	1	0	0	0	0	0
August 19	1	19	0	0	0	2	0	0
August 20	2	18	1	0	2	1	0	0
August 21	0	28	1	0	1	0	0	0
August 22	2	16	2	0	2	0	0	0
August 23	1	18	1	0	1	0	0	0
August 24	0	16	1	0	2	0	0	0
August 25	1	31	0	3	0	1	0	0
August 26	1	27	1	0	0	0	0	0
August 27	0	26	0	0	0	0	0	0
August 28	3	19	0	0	0	1	0	0
August 29	1	27	0	0	0	1	0	0

August 30	1	30	0	3	0	0	0	0
August 31	0	27	0	2	0	0	0	0

September

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
September 1	0	67	1	1	0	1	0	0
September 2	1	35	1	1	4	0	0	0
September 3	1	35	0	1	1	0	0	0
September 4	1	27	1	2	1	0	0	0
September 5	1	51	2	2	3	2	0	0
September 6	1	21	0	0	0	0	0	0
September 7	0	13	0	3	0	0	0	0
September 8	0	18	0	0	2	1	1	0
September 9	0	7	0	0	0	2	0	0
September 10	1	7	0	0	0	0	0	0
September 11	0	12	0	3	0	0	0	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: J. B. Coltrain, County Extension Director, Martin County

Light Trap Data from Martin County

Farm Life Robersonville

Date	BW	GSB	BW	GSB
July 14	4	0	4	1
July 16	2	0	4	0
July 18	2	0	2	0
July 21	4	0	2	2
July 23	4	0	2	0
July 25	6	5	6	0
July 28	11	1	8	1
July 30	13	6	9	1
August 1	20	3	6	0
August 4	17	7	9	0
August 6	14	1	12	3
August 8	18	3	18	1
August 11	20	1	23	0
August 13	8	0	11	0
August 15	5	0	16	0
August 18	4	0	6	0
August 20	3	2	9	2
August 22	3	1	4	0
August 25	8	2	15	0
August 27	10	0	11	1

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August 29      15      6      4      0
September 1   12      2     18     12
September 3    3      0     18      0
*****

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BW = Bollworm moths; GSB = Green stink bugs

From: Charlie Tyson, Agricultural Extension Agent, Nash County

Light Trap Data from Nash County

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*****
Date          BW    GSB   BSB
*****
August 1      8     2     1
August 4      6     2     1
August 6      3     4     2
August 8      6     7     0
August 11     2    10     3
*****

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BW = Bollworms; GSB = Green stink bugs;
 BSB = Brown stink bugs
 Trap location: near Hickory Crossroads

From: Craig Ellison, Agricultural Extension Agent, Northampton County

Light Trap Data from Northampton County

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*****
                        Number of Adult Insects
*****
      Woodland      Conway      Seaboard      Gaston      Jackson
*****
Date   CEW GR BR   CEW GR BR   CEW GR BR   CEW GR BR   CEW GR BR
*****
July 25  1  0  0    -  -  -    -  -  -    -  -  -    2  1  0
July 28  0  5  0    -  -  -    8  0  0    -  -  -   13 21  3
July 30  1  3  0    -  -  -   14  4  2    -  -  -   21 23  0
Aug.  1  2  3  0    -  -  -    8  1  0    -  -  -   58 11  0
Aug.  4  1  1  0    -  -  -   17  0  0    -  -  -   76 11  0
Aug.  6  0  3  0    -  -  -   21  0  0    -  -  -   76 17  1
Aug.  8  5  3  0   12  0  0   28  1  0    -  -  -  165  9  1
Aug. 10  4  4  0   10  0  0   38  0  0    -  -  -   88  0  0
Aug. 13  5  1  0    5  1  0   18  0  0    -  -  -   44  0  0
Aug. 15  2  0  0    4  0  0   36  0  0    -  -  -   55  0  0
Aug. 17  3  0  0    7  0  0   16  0  0    -  -  -   60  0  0
Aug. 20  2  0  0    9  0  0   25  0  0    -  -  -   36  2  0
Aug. 22  2  0  0    2  0  0   12  0  0    -  -  -   29  0  0
*****

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CEW = corn earworms; GR = green stink bugs; BR = brown stink bugs
 Locations: Woodland, Conway, Seaboard, Gaston and Jackson
 Monitored by: L. Culpepper, K. Edwards, T. Flythe,
 D. Grant and B. Bryant

From: Tray Bridgers, Agricultural Extension Agent, Sampson County

Light Trap Data from Sampson County

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*****
                        Number of Adult Insects
                        *****
Date                   BW      GSB      BSB      HW
*****
July 25                 34       4        -        -
July 28                 117      3        -        3
July 30                 102      8        -        -
August 1                 65       4        -        1
August 4                 154     11        -        6
August 6                 71       7        -        5
August 8                  -        -        -        -
August 11                -        -        -        -
August 14                 45       1        -        5
August 15                  5        2        -        1
August 19                 75       5        -       19
*****

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

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*****
                        Number of Adult Insects
                        *****
                        Gibson                John's                Laurinburg
                        *****                *****                *****
Date                   BW  GSB  BSB  FAW      BW  GSB  BSB  FAW      BW  GSB  BSB  FAW
*****
July 16                 -   -   -   -        46  -   1   -        32  1   -   -
July 18                 -   -   -   -        24  2   -   -        36  1   -   -
July 21                 45  4   -   -       121 4   -   -       140 1   -   -
July 23                101  4   1   -       172 4   1   -       309 5   -   -
July 25                112  -   -   -       217 2   -   -       362 4   -   -
July 28                238  5   -   -       517 4   -   -       405 12  -   -
July 30                184  7   -   -       390 4   1   -       386 10  -   -
Aug. 1                 134  4   -   -       182 1   -   -       362 4   -   -
Aug. 4                  54  4   -   -        85  9   2   -       220 2   -   -
Aug. 6                  74  4   1   -       197 3   1   -       226 4   -   -
Aug. 8                  70  -   -   -       185 2   -   -       129 2   -   -
Aug. 11                 81  1   -   -       109 -   1   -       165 0   -   -
Aug. 13                 99  -   -   -        38  -   -   -        34  -   -   -
Aug. 15                 37  -   -   -        36  -   -   -        30  -   -   -
Aug. 17                  -   -   -   -         -   -   -   -       130 -   -   -
*****

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BW = bollworm moth; GSB = green stink bugs;
 BSB = brown stink bugs; FAW = fall armyworms

From: Kevin Johnson, Agricultural Extension Agent, Wayne County

Light Trap Data from Wayne County

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*****
                        Number of Adult Insects
*****
                Seven Springs                Goldsboro
*****                *****
Date           GSB   BSB   CEW   HW           GSB   BSB   CEW   HW
*****
July 9         0     0     0     0           0     1     0     0
July 11        0     0     0     0           0     1     0     0
July 14        0     4     0     2           4     2     2     0
July 16        0     0     0     0           0     1     0     0
July 18        0     0     0     0           3     0     0     0
July 21        0     0     0     0           17    4     0     0
July 23        2     0     1     9           4     0     4     1
July 25        0     0     0     0           1     1    22     1
July 28       10     0    10    30          17     1   119     2
July 30        3     1    11    23           2     9   116     3
August 1       1     0    10    11          12     5    83     3
August 4       0     0     0     0           50    15  135     1
August 6       3     3    22    23          14    16    51     1
August 11      5     0    27    30           1     1    27     3
August 13      0     0     0     0           3     1    19     4
August 15      0     0     0     0           0     0    29     0
August 18      3     0    20    15           1     0    29     2
August 20      1     0    14     9           2     0    20     3
August 26      6     0    25    20           0     0     0     0
August 27      8     0    10     8           0     0     0     0
August 30      6     0    15    10           0     0     0     0
September 1   5     0     9     8           0     0     0     0
September 3   3     1     6     7           0     0     0     0
September 5   1     0     8     6           0     0     0     0
September 8   4     0    10     2           0     0     0     0
September 10  1     0     5     4           0     0     0     0
*****

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GSB = green stink bugs; BSB = brown stink bugs;
 CEW = corn earworms; HW = hornworms

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

From: Norman E. Harrell, Agricultural Extension Agent, Wilson County

Light Trap Data from Wilson County

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*****
                        Number of Adult Insects
*****
                Lucama      Pender's Xrds      Sims      Fountain
*****                *****                *****
Date           CEW   GSB           CEW   GSB           CEW   GSB           CEW   GSB
*****
July 21        -     -             5     0             -     -             3     5
July 23        4     5             7     0             1     1             7     5

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July 25	6	5	2	0	0	0	16	4
July 28	14	10	9	1	3	1	20	5
July 30	12	5	16	1	3	2	22	3
August 1	13	1	14	1	7	1	23	4
August 4	13	5	15	1	7	0	49	4
August 6	20	5	18	1	7	2	32	4
August 8	14	3	10	0	9	1	23	2
August 11	20	0	21	1	11	0	15	1
August 13	19	0	5	2	3	0	8	1
August 15	10	0	11	0	4	0	6	0
August 18	13	2	30	0	2	0	12	0
August 20	-	-	12	0	4	0	8	3
August 22	21	7	8	0	1	0	3	0
August 25	-	-	7	0	2	0	8	2
August 27	15	3	9	0	5	0	7	1
August 29	2	2	4	0	7	0	12	1
September 2	2	2	7	0	3	0	13	15

CEW = corn earworms; GSB = green stink bugs

Locations: Lucama, Pender's Crossroads, Sims and Fountain
 Monitored by: Chris Bass, Adam Gardner, Thad Sharpe and Barbara Smith

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