

# 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](http://ipm.ncsu.edu/current_ipm/pest_news.html)

## FIELD AND FORAGE CROPS

From: Jack S. Bachelier, Extension Entomologist

### **Bollworms on Cotton**

As of August 4, the bollworm moth flight across the state is quite variable, with some light trap counts up and some down since August 2. It looks like the flight in the southern part of the state is finally easing off some, but because it began just under three weeks ago the moth flight in the central and northern counties could go on for an additional two weeks or so. Generally, this is a moderate to big flight in many areas of the state. Please refer to the *Cotton Insect Corner* web site (<http://ipm.ncsu.edu/cotton/insectcorner/blacklight/index.html>) for an easy glance at the flight's progress and status across the state. If you compare this year's flight with last year's, you will see that this flight is about a week to 10 days earlier and much higher than in 2005. So beware.

Our limited conventional cotton acreage has met the egg or bollworm threshold in most cotton fields in all areas of the state. One consultant, who had hoarded some *Agdia* egg kits from last year, found that tobacco budworm eggs constituted approximately 70 percent of the egg lay on several conventional cotton fields in the initial part of the "bollworm" moth flight. In this case, an initial insecticide treatment with Steward contained the potentially damaging budworm population. I have received a few telephone calls about of poor "worm" control on conventional cotton following two well-timed pyrethroid insecticide applications. Odds are these were tobacco budworms. Thankfully, in North Carolina these budworm outbreaks on conventional cotton are not common, and tend to "play out" as the bollworm moth flight progresses.

In Bollgard or in WideStrike cotton that has been already treated with either Bidrin or Orthene alone for stink bugs and or plant bugs, pay attention to the possibility of earlier and possibly higher bollworm establishment. Sound twice per week scouting at this time can head off these potentially high bollworm infestations. In Bollgard II, bollworms have a more difficult time becoming established, but significant economic damage from bollworms can occur in fields in which an organophosphate insecticide was used for bugs within a week or less of a strong bollworm moth flight. Pyrethroid/Bidrin combinations probably make sense where bollworm and stink bug thresholds are being met, especially if brown stink bug are part of the mix. In a Wayne County stink bug threshold test on the morning of August 4, approximately 70 percent of the bug complex were brown stink bugs, while in swept cotton adjacent to a similar test near Rocky Mount revealed 80+ percent green stink bugs. A medium to high rate of a pyrethroid insecticide would have been a good choice for the latter situation, while a pyrethroid plus Bidrin tank mix would have been better for the first situation.

This very hot dry weather has resulted a quick production of bolls, high levels of stuck bloom tags in many cotton fields, and most eggs being deposited down in the plants, especially on pink and dried blooms. Watch for bollworms developing in these favored spots.

### **Fall Armyworms on Cotton?**

I have received a few telephone calls about fall armyworms found in scattered cotton fields, primarily in a few of our far eastern counties. These late-season caterpillars can be very difficult

to control once they are more than about 1/3 of an inch in length. Fall armyworms can become established on conventional and on Bollgard cotton, but rarely on Bollgard II or on Widestrike cotton. Although no insecticides provide good control of fall armyworms, Intrepid is perhaps the most active of the lot. Watch for this pest over the next three weeks. For whatever set of reasons, fall armyworms historically have difficulty becoming established on cotton in North Carolina after about September 1.

### **Bug Damage on Cotton**

It seems like plant bugs have generally “taken a back seat” to stink bugs over much of the state, and damage by all bugs is extremely variable. This marks another year in which good scouting really pays. Last year’s research both here and in Georgia suggested that weeks 3 through 6 of blooming were the cotton plant’s most likely period for stink bug damage to bolls, or at least a period of susceptibility to yield loss, so now would be a good time to respond quickly to threshold levels of bug damage to quarter-sized bolls.

## **ORNAMENTALS AND TURF**

From: Stephen B. Bambara, Extension Entomologist

### **Cars Attacked By Dragonflies!**

Cars attacked by dragonflies! Well, not quite. The wandering glider (*Pantala flavescens*) (Fig. 1) is one of the most widespread dragonflies. This attractive dragonfly is found from late June to September and often fairly far from water. What makes this species interesting is the habit of the females to dive and dip their ovipositor on the painted surface of certain shiny cars. It may be that the cars appear as pools of water from above. One can observe this in many parking lots at this time of year. Several years ago, we had an auto dealership that felt the dragonflies were damaging or at least marring the polished finish they worked so hard to maintain on their cars.



**Fig. 1. Wandering glider. Image by Forrest Mitchell, Digital Dragonfly Museum.**

### **Flat Worms**

About once per year we receive an inquiry about a strange worm that turns up in the garden. The culprit is usually a land planarian called *Bipalium kewense* (Fig. 2). They are suspected to have been introduced and are predatory on earthworms. There is really no way to control these worms

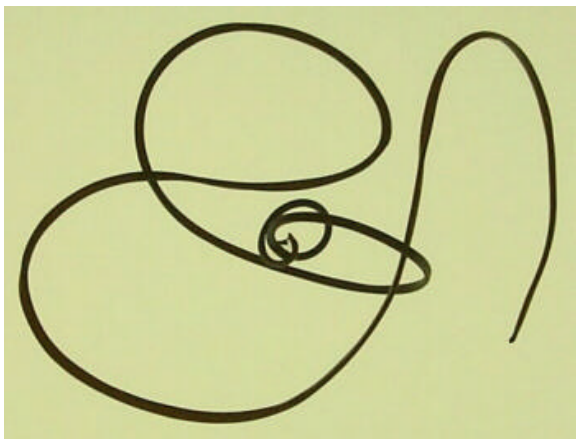
that wouldn't kill the earthworms, also. Some have heads that slightly resemble that of a hammer head shark, hence sometimes people call them hammer head worms. There is usually a distinct dark, median line down.



**Fig 2. Land planarian, *Bipalium kewense*. PDIC photo submission.**

### **Round Worms**

Horsehair worms (Fig. 3) are huge nematodes that are parasitic on grasshoppers and related insects. They are not harmful to humans. Horsehair worms often end up in swimming pools, water troughs, etc. when a parasitized insect dies in or near the water and the horsehair worms emerge. The old folk "wisdom" was that horse hairs, when they fell into the water, transformed into these worms (hence the name). Again, they are not harmful (actually they are beneficial in that they kill grasshoppers and crickets) and can simply be skimmed from the pool.



**Fig. 3. Horsehair worm. Image by Gary Averbeck, University of Minnesota Veterinary Pathobiology.**

### **Orangestriped Oakworms**

I have just seen my first orangestriped oakworm and it was a late instar larva. Trees that were completely defoliated last year look fine this year. The orangestriped oakworm (Fig. 4) is sometimes very abundant on oaks in summer. They occasionally feed on other hardwoods as

well. The moth is brown in color with a white spot and a dark stripe on each forewing. The moths emerge in June and July and deposit their eggs in clusters of several hundred on the underside of oak leaves. They start as tiny, green caterpillars and eventually grow into attractive black caterpillars with yellow or orange stripes running lengthwise along their bodies. These caterpillars have a prominent pair of spines or slender horns sticking up behind the head. Young caterpillars feed in groups whereas older caterpillars tend to be solitary, although there may be thousands of caterpillars on a single tree. Small trees are sometimes defoliated completely by mid summer.



**Fig. 4. Portrait of an oakstriped oakworm.**  
**Image by James R. Baker.**

As the caterpillars mature, they are often seen crawling along sidewalks, driveways and yards. There is usually one generation per year, and the caterpillars overwinter as pupae in the soil. Control is complicated by the size of many of the infested trees. Most people do not have sprayers that can reach very high into shade trees, and by the time the caterpillars descend and crawl about on the soil they are extremely resistant to pesticides. Fortunately, late summer defoliations are much less damaging to the health of trees than early spring defoliations. In most cases it is probably better to rely on birds, diseases and parasites to lower the population next year.

### **Walnut Caterpillars**

Closely related to yellownecked caterpillars and azalea caterpillars, are the walnut caterpillars (*Datana integerrima*) (Fig. 5). Walnut caterpillars feed primarily on walnut, pecans and some kinds of hickory. They have an interesting habit of gathering in clumps on tree trunks when they molt. These overwinter as pupae in the soil. Brown adult moths (Fig. 6) emerge mid-summer and to lay egg masses on the underside of leaves. Eggs hatch a few weeks later and younger larvae feed close together for a while. First instar caterpillars are fairly smooth, but late instars may be quite hairy. For a U. S. Department of Agriculture Forest Service leaflet on walnut caterpillars, see the following web site: <http://www.na.fs.fed.us/spfo/pubs/fidls/Walnutcat/walnutfidl.htm>.



Fig. 5. Full-sized walnut caterpillars in a typical cluster. Image by James R. Baker.



Fig. 6. The walnut caterpillar moth, one of the handmaid moths. Image by James R. Baker.

## INSECT TRAP DATA

From: Thomas G. Pegram, Agricultural Extension Agent, Union County

### Light Trap Data From Anson, Stanly and Union Counties

```

*****
                        Number of Adult Insects
*****
                Anson S      Anson N      Union S      Union N      Stanly
*****      *****      *****      *****      *****
Date         CBW  GR  BR  CBW  GR  BR  CBW  GR  BR  CBW  GR  BR  CBW  GR  BR
*****
July 17      12  78  20   10   0   0   18  17   0   38   4   0    8   0   0
July 19       -   -   -    15   0   0   19  12   0   30   2   0   14   0   0
July 21      18  11   2    28   0   0   81  17   0   40   4   1   15   1   0
July 24      55  48   7   101   1   2  211  13   0   59  26   3   24   0   0
July 26       0   0   0   157   3   0  250   9   0   46  18   1   23   1   0
July 28       0   0   0   133   1   0  185  12   0   44   8   0   27   2   0
July 31       -   -   -   132   5   0  215  14   0   36   9   2   42   3   0
August 2     -   -   -   118   4   1  230  15   0   43   8   0   33   2   0
August 4     -   -   -   102   1   0  245  12   0   57  11   0   10   0   0
*****

```

CBW = cotton bollworm moths; GR = green stink bugs; BR = brown stink bugs

Trap Locations and Cooperators:  
 Anson N: Ansonville area (Fincher Martin)  
 Anson S: Deep Creek area (Richard Melton)  
 Union N: New Salem area (Tom Pegram)  
 Union S: White Store area (Greg Hargett)  
 Stanly: Richfield area (Shannon Braswell)

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
July 14        0  5  0      2 10  0      0  9  0      -  -  -      -  -  -
July 15        -  -  -      -  -  -      -  -  -      -  -  -      -  -  -
July 16        -  -  -      -  -  -      -  -  -      -  -  -      -  -  -
July 17        -  -  -      7 12  0      0 11  0      2 14  0      -  -  -
July 18        1  9  0      -  -  -      0  3  0      1  2  0      -  -  -
July 19        1  6  0     11  7  0      0  2  0      0  3  0      2  7  0
July 20        0  7  0      8  5  0      0  8  0      0 22  0      2  1  0
July 21        7  1  0      5  2  0      1  6  0      -  -  -      -  -  -
July 22        1  6  0      -  -  -      -  -  -      -  -  -      -  -  -
July 23       15  2  0      -  -  -      -  -  -      -  -  -      -  -  -
July 24       18  0  0     14  1  0      5 11  0      -  -  -     15  0  0
July 25       19  6  0     27  0  0      4  2  0      -  -  -     18  0  0
July 26       10  1  0     24  3  0      4  7  0      -  -  -     35  1  0
July 27       35  9  0     24  5  0      2  7  0      9  1  0     15  2  0
July 28       22  2  0      -  -  -      3  7  0     11  0  0     46  0  0
July 29       30  3  0      -  -  -      -  -  -      -  -  -      -  -  -
July 30       55  1  0      -  -  -      -  -  -      -  -  -      -  -  -
July 31      102  0  0      7  1  0     54 31  0     50  6  0     60  4  0
August 1       93  4  0     178  1  0     39  7  0     16  4  0    170  0  0
August 2      215 10  0     87  8  0     53  6  0     19  3  0    236  6  0
August 3      265 12  0     77  1  0     66 12  0      -  -  -    305  3  0
August 4      202  8  0     83  4  0     65  5  0     19  5  0    351  4  0
*****

```

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

From: Mike Williams, County Extension Director, Chowan County

**Light Trap Data From Chowan County**

```

*****
                        Adult Insects
                        *****
Date           CEW      GSB      BSB      ECB
*****
July 18        0        6        0        0
July 19        0        4        0        3
July 20        0        2        0        5
July 21        1        6        -        -
July 22        7        2        -        -
July 23        -        -        -        -
July 24       43        2        -        -
July 25       40        2        -        -
July 26       35        1        -        -

```

July 27	41	13	-	-
July 28	51	27	-	-
July 29	46	4	-	-
July 30	81	68	-	-
July 31	160	8	-	-
August 1	140	7	-	-
August 2	137	19	-	-
August 3	265	20	-	-
August 4	161	21	-	-

\*\*\*\*\*

CEW = Corn earworms (bollworms); GSB = Green stink bugs;  
 BSB = Brown stink bugs; ECB = European corn borers

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
July 12	1	0	5	3	0	0	0	0	0
July 17	4	0	31	16	0	0	0	0	0
July 19	2	0	16	2	0	2	0	0	0
July 21	7	1	23	2	3	0	0	0	0
July 24	4	0	42	3	0	4	2	0	0
July 25	2	0	21	4	1	0	0	0	0
July 26	1	1	36	2	0	0	0	0	0
July 27	2	0	31	1	1	0	0	0	0
July 28	4	0	43	2	0	0	0	0	0
July 31	9	0	318	16	1	0	2	0	0
August 1	0	2	96	3	0	1	3	0	0
August 2	4	0	187	7	3	1	2	0	0
August 3	1	0	153	3	1	0	0	0	0
August 4	4	0	149	6	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
July 17        4         16        29         1
July 19       19         40        23         1
July 21       28        129        10         2
July 24       13        439        10         0
July 26        4        401         0         0
July 28        6        321        15         1
July 31        -         -         -         -
August 2       9        180        46         8
*****
```

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

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

**Light Trap Data From Duplin County**

```
*****
                        Number of Adult Insects
                        *****
Date      BW      GSB      BSB
*****
July 7         3         2         1
July 10        1         2         2
July 12        1         5         1
July 14        0         8         2
July 17        0        21         2
July 19        0        17         3
July 21        0         6         0
July 24       321        15         0
July 26       286         9         0
July 28       161         7         0
July 31       715        32         0
August 2      557         60         1
*****
```

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

Trap location: Albertson  
Cooperator: Justin Murphy

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       -   -   -
July 17     0   0   3       9   0  27       0   0   1
July 19     0   0   2       7   0  24       0   0   0
July 21     0   0   4       6   0  12       0   0   2
July 24     -   -   -      29   1  61       5   0   0
July 26     30  0   2      46   0  11      55   0  11
July 28     45  1   8      46   0  14      11   0   2
July 31    117  1  13      72   0  39       1   0   0
August 2     50  0   8     107   0  14      11   0   5
August 4     58  0  13     190   0  39      70   0   1
*****

```

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: Arthur Whitehead, Jr., Agricultural Extension Agent, Halifax County

**Light Trap Data From Halifax County**

```

*****
                        Scotland      West
                        Neck      Enfield      Weldon
                        *****      *****      *****
Date      CEW  GSB  BSB      CEW  GSB  BSB      CEW  GSB  BSB      CEW  GSB  BSB
*****
July 17     -   1   -       -   -   -       -   -   -       -   -   -
July 19     -   -   -       -   -   -       -   -   -       -   -   -
July 21     -   -   -       -   -   -      10   0   0       5   0   0
July 24     5   2   -       7   4   -       8   -   4      10   3   -
July 26    55  11   -       8   7   -      10   3   -      16   3   -
*****

```

Abbreviations: CEW = corn earworms;  
 GSB = green stinks bugs; BSB = brown stink bugs

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
July 17         12             22            3
July 19         27             27            2
July 21         39             14            3
July 24         23             14            11
July 26        223             9             17
July 28        198             7             7
July 31        327             23            18
August 2       276             32            18
*****
```

GSB = green stink bugs; BSB = brown stink bugs

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

From: Curtis D. Fountain, County Extension Director, Jones County

### Light Trap Data From Jones County

```
*****
                        Number of Adult Insects
                        *****
Date           BW           GSG           BSB           HW
*****
July 21         3             3             1             2
July 24         4             1             0             2
July 26         6             1             7             3
July 28        63             0             0            10
July 31       140             1             6             7
August 2      244             4             1            10
August 4      265             2             4             6
*****
```

Trap Location: Comfort  
Monitored by: Morris and Brett Pike

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

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
*****
```

July

```
*****
                        Number of Adult Insects
*****
Date      HW      CEW      ECB      AW      AWC      GSB      BSB      TBW
*****
July 1      1      12      1      0      0      2      0      0
July 2      1      6      0      0      1      0      0      0
July 3      0      4      0      0      0      2      2      0
July 4      0      3      0      0      0      7      0      0
July 5      0      4      0      1      0      4      1      0
July 6      0      5      0      0      0      4      0      0
July 7      0      8      3      1      2      1      0      1
July 8      0      3      0      0      1      3      0      1
July 9      0      3      0      0      0      0      0      0
July 10     0      2      0      0      0      1      0      0
July 11     0      5      0      0      1      3      0      0
July 12     0      12     0      0      1      6      0      0
July 13     0      5      0      0      1      3      0      0
July 14     0      12     0      0      4      7      0      0
July 15     0      9      0      1      0      2      0      0
*****
```

July 16	0	6	1	0	0	2	0	0
July 17	1	8	4	1	1	4	0	0
July 18	2	14	3	1	2	13	1	0
July 19	0	12	12	1	7	20	1	3
July 20	1	7	9	1	7	2	0	2
July 21	2	12	8	1	5	3	0	1
July 22			light	inadvertently	unplugged			
July 23	1	4	5	1	1	2	0	1
July 24	4	23	2	1	5	0	0	4
July 25	9	59	2	1	1	29	0	5
July 26	6	44	4	1	3	3	0	3
July 27	1	105	9	4	0	17	1	4
July 28	5	99	5	3	4	8	0	7
July 29	2	41	2	1	1	5	0	0
July 30	3	177	7	2	4	8	0	3
July 31	1	158	8	1	3	10	2	6

\*\*\*\*\*

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

Date	Farm Life			Robersonville			Palmyra		
	BW	GSB	BSB	BW	GSB	BSB	BW	GSB	BSB
July 17	8	1	0	3	8	0	1	8	0
July 19	5	0	0	6	10	0	0	0	0
July 21	6	2	0	3	5	0	-	-	-
July 24	23	0	0	40	7	0	1	7	0
July 26	21	3	0	8	6	0	2	3	0
July 28	19	7	0	8	5	0	-	-	-
July 31	46	17	2	20	10	0	2	3	0
August 2	78	8	0	22	8	1	15	15	0
August 4	60	2	0	65	8	1	131	31	0

\*\*\*\*\*

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

From: Craig Ellison, Agricultural Extension Agent, Northampton County

**Light Trap Data From Northampton County**

```

*****
                        Number of Adult Insects
*****
      Woodland      Conway      'Neck      Seaboard      Gaston      Jackson
*****      *****      *****      *****      *****      *****
Date  CEW GR BR  CEW GR BR  CEW GR BR  CEW GR BR  CEW GR BR  CEW GR BR
*****
July 17  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  0 84 6
July 19  -  -  -  -  -  -  -  -  -  4 10 0  -  -  -  0 124 4
July 21  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -
July 24  -  -  -  2 0 0  26 17 0  30 0 0  -  -  -  61 140 3
July 26  1 0 0  10 12 1  29 13 0  40 6 0  -  -  -  83 11 1
July 28  3 4 2  9 8 0  24 19 0  31 1 0  32 0 0  59 72 3
July 31  3 22 2  10 19 4  50 35 0  72 12 0  53 0 0  208 191 2
August 2  1 11 1  9 18 1  53 41 0  57 12 2  22 2 0  103 94 2
August 4  4 13 1  17 9 4  49 58 0  46 8 2  24 0 0  157 135 5
*****

```

CEW = corn earworms; gr = green stink bugs; br = brown stink bugs  
 Locations: Woodland, Conway, 'Neck, Seaboard, Gaston and Jackson  
 Monitored by: L. Culpepper, K. Edwards, B. Johnson, T. Flythe,  
 D. Grant and B. Bryant

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
July 17     93      7      0
July 19     32      7      2
July 21     50      6      0
July 24     156     14     0
July 26     203     12     1
July 28     246     13     2
July 31     345     8      0
August 2    125     6      0
August 4    101     6      2
*****

```

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
July 14                27      12       1       3
July 15-16             62      21       2       2
July 17                 63      19       2       1
July 18                102     25       1       6
July 19                162     21       1       4
July 20                211     27       2       6
July 21                258     22       3       6
July 23-23            349     32       2       7
July 24                312     15       2       9
July 25                315     21       0      16
July 26                481     20       0      23
July 27                387     15       1      19
July 28                457     18       0      21
July 29-30            761     32       3      23
July 31                536     32       2      11
August 1 #             89       6       0       0
August 2              137     18       1       1
August 3              194     23       0       1
*****
```

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

Location is Rowland; monitored by Kay McGirt

# = field was sprayed

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
July 17                 0      23       2       4
*****
```

July 19	1	15	5	9
July 21	11	12	0	18
July 24	20	5	0	15
July 26	105	10	3	6
July 28	127	75	13	16
July 31	150	21	4	6
August 2	101	31	18	6
August 4	158	28	10	8

\*\*\*\*\*

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

\*\*\*\*\*

Date	Gibson				John's				Laurinburg			
	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	-	-
July 17	16	26	1	-	54	23	1	-	24	14	3	-
July 19	24	17	-	-	70	7	-	-	18	10	2	-
July 21	94	5	-	-	138	7	-	-	75	5	-	-
July 24	263	20	-	-	198	1	-	-	190	15	-	-
July 26	352	2	-	-	292	3	-	-	230	5	-	-
July 28	232	17	2	-	145	4	1	-	418	19	-	-
July 31	411	28	-	-	593	5	1	-	408	16	-	-
August 2	124	36	-	-	375	30	2	-	336	7	1	-

\*\*\*\*\*

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

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

\* light unplugged

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
July 12        2    1    -    -           17    3    3    1
July 14        2    -    8    -           29    4    -    -
July 17        15   2   20   -          111   11    2    5
July 19        -    -    -    -           37    4   13    3
July 21        3    -   37    7           17    -   18    2
July 24        1    2   62    3           47    2   78   11
July 26        11   1  100    4           32    -  157    8
July 28        9    -  105   -           66    5  209    3
July 31        10   1  125   10          174   10  264    8
August 2       25   8  235    3          134   12  238    5
August 4       5    6  130    6          174   18  224    3
*****

```

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

```

*****
                        Number of Adult Insects
*****
                Lucama      Pender's Xrds      Sims      Fountain
                *****
Date           CEW  BS  GS      CEW  BS  GS      CEW  BS  GS      CEW  BS  GS
*****
July 14        5   1  16      -   -   -      -   -   -      -   -   -
July 17       13   2   2      -   -   -      -   -   -      9   0  23
July 19        6   0   2      5   0   0      2   0   1      8   0  18
July 21        6   0   0      7   0   1      3   0   2      2   0   3
July 24       30   0   1     11   2   5     14   0   2     17   0   4
July 26       33   0   3     21   0   0     81   0   1     51   0   3
July 28       36   0   0     15   0   2    255   0   0     66   0   0
July 31       60   0   1     66   0   9     84   0   7     61   0  20
August 2      46   0   0     71   0   2     44   0   1     34   0   9
August 4      49   0   0     51   0   3     31   0   0     66   1  24
*****

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

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