

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

FIELD AND FORAGE CROPS

From: Jack S. Bachelier, Extension Entomologist

Cotton Insect Season All But Wrapped Up

With the exception of some temporary relief in the form of a line of thundershowers on Tuesday, August 21 and some widely scattered showers, the continuing very hot dry weather (Fig. 1) has dominated much of the state for so long that cotton has begun to open.

For the most part, cotton insect pests such as bollworms and stink bugs are either at low levels or are not attracted to cotton. Even beet and fall armyworm infestations appear widely scattered.



Fig. 1. “Droughty” cotton. Image taken by Dan Mott, North Carolina State University, on August 23, 2007.

In the rare situations in which cotton is still fruiting well, remember that both bollworm moths and green and brown stink bugs can concentrate in these areas and cause economic damage. However, even in these areas, most bolls are now safe from damage, and internal boll damage thresholds should probably be in the range of 30 to 50 percent for stink bugs and 10 percent or higher for live bollworms.

With little in the way of new reports of spider mite or cotton aphid infestations, the potential for upcoming cotton insect pest damage appears to be limited. As part of assessing cotton fields for defoliation decisions, spot checking of cotton fields which are still fruiting well may be in order (if you have such fields).

Remember that we are now past the last effective bloom date, so any significant rainfall that serves to put on new growth and fruit is in most cases more of a curse than a blessing. However, better moisture conditions would certainly help fill out existing bolls.

Unless some unexpected insect problems arise and persist, my last cotton insect update will be next Friday, August 31.

From: Rick L. Brandenburg, Extension Entomologist

Peanut Insect and Mite Pests

Some nice rain fell across some areas, but others still remain dry and the threat from spider mites and beet armyworms is significant. Do not make the threat from spider mites more severe by applying an unnecessary spray for beet armyworms. Beet armyworms are primarily occurring in weedy fields and most commonly along the field borders. They are not as damaging as corn earworms and in most cases a spray for beet armyworms is not justified. Remember that spraying for beet armyworms will increase the likelihood of a spider mite outbreak. If you have to spray for mites, control will be better if you increase the gallons and spray pressure higher than what is typically used for leafspot applications. Coverage is the key for spider mite control.

From: Jim Dunphy, Extension Crop Science Specialist, and Steve Koenning, Extension Plant Pathologist

Soybean Rust Update

It was announced on August 21 that Asiatic soybean rust has been confirmed on soybeans in a research plot in Tift County, Georgia. The soybeans were at the R4 growth stage (large pods in the top of the plants). Plots where rust was found had heavy vegetative growth and are located in an area that is shaded for long periods, thus extending the dew period to favor development of rust. This puts rust about 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 (North Carolina), 375 miles from Wilmington, and 370 miles from Winston-Salem.

To date, Asiatic soybean rust has been found on soybeans or kudzu in 5 counties in Alabama (2 on soybeans), 4 counties in Arkansas (all on soybeans), 12 counties in Florida (5 on soybeans), 6 counties in Georgia (2 on soybeans), 14 parishes in Louisiana (13 on soybeans), 5 counties in Mississippi (4 on soybeans), 5 counties in Oklahoma (all on soybeans), and 25 counties in Texas (24 on soybeans).

Weather conditions in North Carolina are currently (as of August 21) too hot and dry to consider rust likely to thrive if it does arrive in the state. The same is still true for much of Georgia and South Carolina.

ORNAMENTALS AND TURF

From: Stephen B. Bambara, Extension Entomologist

Southern Chinch Bugs

Reports were received from Columbus County last week of chinch bugs in centipedegrass turf. Chinch bugs are small (about one sixth of an inch in length), slender insects with black and white markings. This bug is a severe pest of St. Augustinegrass in North Carolina. It also attacks centipedegrass. Chinch bugs cause yellowish spots in lawns that rapidly turn into brown, dead areas. Most of the damage is caused by the young, bright red nymphs (Fig. 2).

Chinch bugs seem to be worse in lawns that have a layer of thatch. Good thatch management helps not only by making the lawn less attractive to the bugs, but it also makes it easier for the pesticide to reach the chinch bugs when they are applied. Label directions should be followed for any pesticide used. Scout the lawn before treating. Cyfluthrin, Sevin and imidacloprid are pesticide choices for the homeowner.

For more information on chinch bugs, see *Ornamental and Turf Insect Information Note No. 112* (<http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note112/note112.html>).

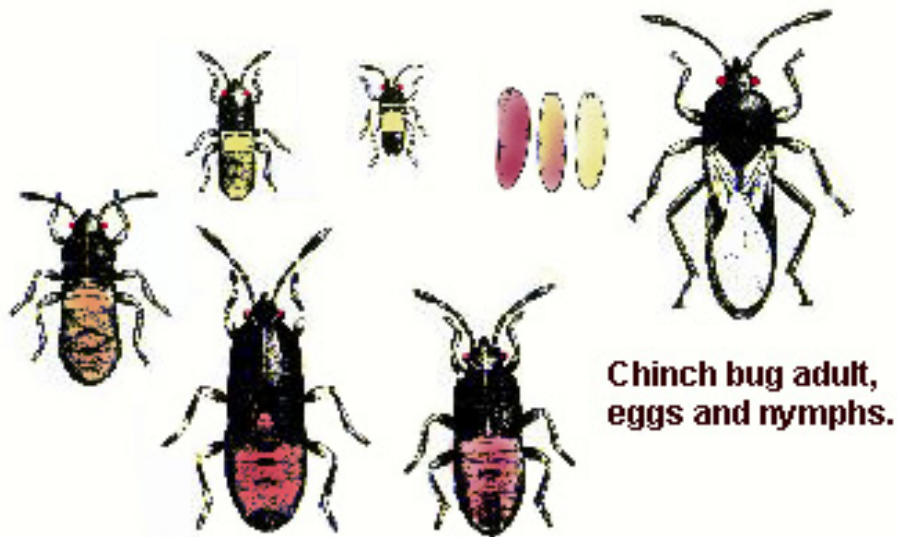


Fig. 2. Chinch bug life cycle. Drawing from North Carolina Cooperative Extension Service Publication AG-268 (<http://ipm.ncsu.edu/AG268/html/contents.html>).

European Corn Borers

No, I'm not talking about Benny Hill or John Cleese. Each year European corn borers are reported tunneling in the stems of garden or fall mums. One borer per pot is enough to ruin the economic value of the entire pot, because the infested stem falls over and spoils the symmetry of the pot. Lenoir County light traps have reported European corn borer adults all month. I'm not sure how the drought conditions will help or hurt the possible movement of European corn borers to ornamentals.

Although best known as a pest of chrysanthemums, the European corn borer, has been found boring into more than 200 different plants, including asters, cosmos, dahlia, daisies, gladioli, hollyhocks, roses, zinnia, and vegetable and field crops. The adult is a yellowish-brown stout moth. Females lay up to 400 eggs in flat masses on the underside of leaves of the host plant. The eggs resemble tiny fish scales in shape and arrangement. The caterpillars hatch and feed on the surface of leaves for a few days. As the borers mature, they bore into the stalk of the host plant to feed (Fig. 3). The larvae push frass from the stem which collects at the opening (Fig. 4). European corn borer caterpillars are cannibalistic, explaining why only one or two borers are found per pot even though the moth laid dozens of eggs. This pest overwinters in the stalk, so destroying the stalks of corn, dahlia, mums and weeds in the area may help to suppress next season's population slightly; however, it is not a guarantee since the moths fly readily.

Treatment options include Conserve (spinosad), pyrethroid insecticides and *B.t.* Pyrethroid insecticides include Talstar, Scimitar GC, Decathlon and Astro or other, every two or three weeks from mid-August on. Organic growers can also use PyGanic, which is (ironically?) made from chrysanthemums and Mycotrol O (*Beauveria*). After the borers are inside the stalk it is essentially too late. Additional information on the biology of the European corn borer is provided in North Carolina Cooperative Extension Service Publication AG-136, *Insect and Related Pests of Flowers* (<http://ipm.ncsu.edu/AG136/>).



Fig. 3. European corn borer inside Shasta daisy stalk. Image by James R. Baker.



Fig. 4. Frass of European corn borer on shasta daisy stalk. Image by James R. Baker

Plant Bugs on the Move

This week I have received two reports from different counties about masses of *Nysius* species plant bugs moving into yards and crawling up houses. This bug is probably the false chinch bug (Fig. 5) or weed bug. It is a grassland insect and perhaps there was a field or grassy area just mown or one that has dried out severely with the drought. It might do damage to vegetable crops if there is anything still green. Sevin is one choice of insecticide for homeowners and should give adequate control of plant bugs. In lieu of spraying Sevin around the entire home and yard, insecticidal soap or even sudsy water would be helpful on the driveway, house and sidewalk. Though these insects feed on flowers, it would be wise not to spray the flowers themselves so as not to kill beneficial pollinators. Apply it late in the day. They're not likely to do much harm, but could be annoying. You could treat them as you would boxelder bugs (see *Ornamental and Turf Insect Information Note No. 40* on the web at: <http://www.ces.ncsu.edu/depts/ent/notes/O&T/houseplants/ort040e/ort040e.htm>).



Fig. 5. False chinch bug. Image by Keith Douce (www.forestpests.org).

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 9      -  -  -    0  0  0    6 36  0    7  4  2   10  0  0
July 11     -  -  -    0  0  0    6 40  0    4  4  0    3  0  0
July 13     -  -  -   10  0  0    7 41  0   10  3  2    4  0  0
July 16     9 53  0   15  -  -    7 19  -    4  7  0   10  0  0
July 18     9 55  0    -  -  -    9 27  -    8  5  1    6  1  0
July 20    12 64  2   19  -  -   26 39  -    7  9  0    6  0  0
July 23    13 58  0   20  -  -  power outage 11  2  0   12  1  0
July 25    12  2  0   22  -  -   37  7  0    7  0  0   13  1  0
July 27    31  4  0   85  -  -   28  3  0   10  1  0   17  0  0
July 30    72 18  1   75  1  -   56 21  -    7  3  1   13  0  0
August 1    29  5  0   67  1  -   32 16  -   19  4  0   18  2  0
August 3    55 23  0   51  1  -  104 18  -   12  1  0   19  1  0
August 6   139 22  1   78  0  0  245 51  0   38  6  1   38  1  0
August 8   142 21  0   60  0  0  270 78  0   52  5  0   30  3  0
August 10  175 21  0   58  3  0  294 67  0  117 14  0   16  0  0
August 13    -  -  -   63  0  0  251 54  0   40 12  0   45  1  0
August 15    -  -  -   light out 143 12  0   54  7  0   13  0  0
August 17    -  -  -   46  0  0  135 25  0   31  2  0   16  1  0
August 20  126 14  0    -  -  -  147 21  0   62 34  0   32  3  0
August 22   57 21  0    -  -  -  125 15  0   27  4  0   14  0  0
August 24   78 21  0    -  -  -   83 12  0   11  3  0   10  2  0
*****
    
```

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

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 19      0  0  0    7  3  0    0  0  0   16  5  0    -  -  -
July 20      5 16  0   24  3  0    0  4  0    -  -  -    -  -  -
July 21      0  0  0    -  -  -    0  0  0   10  3  0    -  -  -
July 22      3  0  0    -  -  -    0  0  0    -  -  -    -  -  -
July 23      0  0  0   14  2  0    0  0  0   16  0  0    0  0  0
July 24      3  4  0    7  0  0    6  0  0   13  1  0   29  0  0
July 25      4  1  0   16  1  0    -  -  -   16  1  0   47  0  0
July 26      5  0  0   26  1  0    3  0  0   12  0  0   30  0  0
July 27      3  0  0   27  1  0    6  0  0   22  2  0   69  0  0
    
```

July 28	3	0	0	-	-	-	-	-	-	-	-	-	-	-	-
July 29	9	1	0	-	-	-	-	-	-	-	-	-	-	-	-
July 30	7	1	0	41	1	0	11	0	0	23	0	0	115	1	0
July 31	4	0	0	10	0	0	14	0	0	14	0	0	40	0	0
August 1	11	0	0	11	1	0	15	0	0	9	0	0	57	0	0
August 2	14	0	0	11	0	0	19	0	0	14	0	0	54	0	0
August 3	26	0	0	15	0	0	26	0	0	5	0	0	62	4	0
August 4	32	2	0	-	-	-	-	-	-	-	-	-	-	-	-
August 5	118	3	0	-	-	-	-	-	-	-	-	-	-	-	-
August 6	48	0	0	82	7	0	168	0	0	24	2	0	258	41	0
August 7	111	3	0	-	-	-	23	0	0	12	3	0	119	9	0
August 8	128	11	0	136	5	0	164	0	0	11	1	0	88	13	0
August 9	88	10	0	43	5	0	82	22	0	24	4	0	82	3	0
August 10	-	-	-	39	4	0	44	0	0	13	3	0	-	-	-
August 11	-	-	-	18	0	0	-	-	-	32	0	0	-	-	-
August 12	60	3	0	-	-	-	-	-	-	-	-	-	-	-	-
August 13	11	0	0	42	0	0	28	0	0	8	1	0	-	-	-
August 14	18	0	0	28	0	0	9	0	0	28	0	0	-	-	-
August 15	22	0	0	25	1	0	7	0	0	14	2	0	11	4	0
August 16	48	3	0	41	3	0	4	0	0	8	1	0	17	4	0
August 17	35	3	0	-	-	-	-	-	-	48	0	0	-	-	-
August 18	-	-	-	18	0	0	-	-	-	-	-	-	-	-	-
August 19	55	3	0	14	0	0	-	-	-	36	0	0	-	-	-
August 20	14	2	0	18	0	0	-	-	-	27	0	0	84	1	0
August 21	-	-	-	8	0	0	-	-	-	27	1	0	11	1	0
August 22	-	-	-	26	3	0	-	-	-	30	0	0	-	-	-
August 23	52	2	0	34	2	0	-	-	-	40	3	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 25	11	-	-	-
July 26	35	-	-	-
July 27	25	-	-	-
July 28	19	1	-	-
July 29	-	-	-	-
July 30	30	2	-	-
July 31	18	0	-	-
August 1	28	0	-	-
August 2	30	1	-	-
August 3	48	4	-	-
August 4	38	1	-	-
August 5	68	2	-	-
August 6	36	12	-	-
August 7	136	4	-	-
August 8	163	4	-	-
August 9	223	10	-	-
August 10	210	8	-	-
August 11	-	-	-	-

August 12	110	0	-	-
August 13	lost	-	-	-
August 14	60	3	-	-
August 15	24	0	-	-
August 16	37	14	-	-
August 17	53	7	-	-
August 18	60	12	-	-
August 19	62	14	-	-
August 20	31	11	-	-
August 21	40	22	-	-
August 22	33	5	-	-

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 6	3	1	11	1	1	-	2	-	-
July 9	5	1	26	2	1	-	1	-	-
July 11	2	-	22	1	1	-	-	-	-
July 13	4	-	28	2	-	-	1	-	-
July 16	4	2	34	2	1	-	3	-	-
July 18	3	-	10	1	-	-	-	-	-
July 19	5	1	23	3	2	-	1	-	-
July 23	7	2	31	2	1	-	2	-	-
July 25	1	-	29	-	-	2	1	-	-
July 27	1	-	33	1	-	-	2	-	-
July 30	-	-	-	-	-	-	-	-	-
August 1	1	-	73	1	-	-	4	-	-
August 3	-	2	141	1	-	3	5	-	-
August 6	5	-	342	8	-	-	6	-	-
August 8	3	-	451	3	-	-	10	-	-
August 10	4	-	375	8	-	-	-	-	-
August 13	8	-	176	6	-	-	1	-	-
August 15	4	-	71	5	-	-	2	-	-
August 17	3	-	56	5	-	-	1	-	-
August 20	3	-	112	8	-	-	2	-	-

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 11   0         3         5         0
July 13   0         2         5         0
July 16   4         33        12        0
July 18   2         66         6         0
July 20   7         160        20        0
July 23  23         214         0         0
July 25  14         150         6         0
July 27  12         202         13        0
July 30   6         197         12        0
August 1  -          -          -          -
August 3  -          -          -          -
August 6  -          -          -          -
August 8   9         442         19         0
August 10 5         271         18         0
August 13 15         283         10         0
August 15  3         463         22         0
August 17  1         207         7          0
August 20  9         311         19         0
August 22  1         193         16         0
August 24  8         251         38         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         1         0
July 4    0         0         0
July 6    0         4         4
July 9    4         8         0
July 11   1         11        0
July 13   4         7         2
July 16   3         6         0
July 18   9         13        0
July 20  21         23        0
July 23  22         3         0
July 25  15         0         0
*****
```


a = trap located 12 miles west of Tarboro; maintained by Tom Porter.
 b = trap located 5 miles east of Tarboro; maintained by Glenn O'Neal.
 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
                Neck
                East
                Enfield
                West
                Enfield
                *****
Date            CEW  GSB  BSB  CEW  GSB  BSB  CEW  GSB  BSB  CEW  GSB  BSB
*****
July 18         2   0   0   -   -   -   -   -   -   6   2   0
July 20         4   4   0   -   -   -   -   -   -   21  10  1
July 23         2   0   0   2   0   0   -   -   -   29   3   3
July 25         7   0   0   4   0   0   12  1   0   13   1   0
July 27        10   3   0   3   0   0   10  1   0   6   2   0
July 30         2   2   0   2   0   0   15  0   0   19   2   0
August 1       16   1   0   1   0   0   10  0   0   26   0   2
August 3        8   1   0   4   0   0   -   -   -   11   2   0
August 6      133  11   0   37  2   0   45  8   0   14   1   1
August 8      113   9   0  141  5   1   75  1   0   5   1   1
August 10       50   8   0   -   -   -   35  0   0   4   0   2
*****
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```
*****
                Glenview
                *****
Date            CEW  GSB  BSB  CEW  GSB  BSB  CEW  GSB  BSB
*****
July 18         -   -   -   -   -   -   -   -   -
July 20         -   -   -   -   -   -   -   -   -
July 23         14  3   0   -   -   -   -   -   -
July 25         1   0   0   18  0   0   1   1   0
July 27        25  0   0   30  1   0   2   0   0
July 30        23  0   0   35  1   0   5   1   0
August 1       16  0   0   26  1   0   5   0   0
August 3       46  0   0   20  0   0   9   0   0
August 6      108 11   0   76  6   0   66  4   0
August 8       82 22   1   60  5   0   86  5   0
August 10       -   -   -   -   -   -   78 12   0
*****
```

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

From: Keith B. Walters, County Extension Director, Hoke County

Light Trap Data from Hoke County

```
*****
Date           Moths           GSB           BSB
*****
July 16         25             2             0
July 18         18             5             0
July 20         49            10            0
July 23         60             5             0
July 25         80             2             1
July 27         95             3             0
July 30        180             6             0
*****
```

GSB = green stink bugs; BSB = brown stink bugs

Location of trap is Chisholm Road, Raeford.
Trap monitored by Earl Hendrix.

From: Franky J. Howard, Agricultural Extension Agent, Jones County

Light Trap Data from Jones County

```
*****
                        Number of Adult Insects
                        *****
Date           BW           BSB           GSB           HW
*****
July 2         0             0             0             0
July 4         0             0             0             0
July 6         1             0             0             1
July 9         7             0             0             0
July 11        0             0             0             1
July 13        0             0             0             0
July 16        0             1             1             15
July 18        0             4             0             18
July 20        0             0             1             7
July 23        1             0             0             4
July 25        5             0             1             10
July 27        23            0             0             2
July 30        27            0             0             0
August 1       49            0             1             2
August 3       34            0             0             5
August 6       41            0             3             11
August 8       12            0             0             0
August 10      48            0             3             10
August 13      23            0             0             18
August 15      1             0             0             4
August 17      4             0             0             14
*****
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Trap Location: Comfort
Monitored by: Morris and Brett Pike

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

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 15   0       5       0       5       2       0       0       0
June 16   0       7       0       1       3       0       0       0
June 17   0       0       0       2       2       2       0       1
June 18   0       1       1       1       4       0       0       0
June 19   0       3       0       0       2       2       4       0
June 20   0       5       1       0       3       0       2       0
June 21   -----no electric power-----
June 22   0       2       0       0       1       0       0       0
June 23   1      10       1       3      14       1       0       1
June 24   0       3       0       1       4       0       0       0
June 25   0       1       1       1       2       1       0       0
June 26   0       0       5       0       6       3       0       0
June 27   0       3       4       1       2       2       0       0
June 28   0       4       1       0       3       1       0       0
June 29   0       4       0       1       2       0       0       0
June 30   0       4       2       1       5       0       0       0
*****

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July

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*****
                        Number of Adult Insects
*****
Date      HW      CEW      ECB      AW      AWC      GSB      BSB      TBW
*****
July 1    -----no electric power-----
July 2    0       3       0       0       3       2       0       0
July 3    0       6       2       0       6       1       0       0
July 4    0       1       0       0       3       0       0       0
July 5    0       2       1       0       5       4       0       0
July 6    0       3       1       0       2       1       0       0
July 7    0       3       1       1       3       4       0       0
July 8    -----no electric power-----
July 9    0       2       2       0       5       3       0       0
July 10   0       2       0       0       0       7       0       0
July 11   0       1       0       0       3       3       0       0
July 12   0       0       0       0       1       1       0       0
July 13   0       2       2       0       5       9       0       0
July 14   0       4       2       0       3       1       0       0
July 15   0       0       3       4       1       4       0       0
July 16   1       2       1       1       4       9       0       0
July 17   0       3       2       1       2       3       0       0
July 18   0       2       0       0       1       1       0       0
July 19   1      12       1       0       3      15       0       0
July 20   0      11       2       0       7       7       2       0
July 21   -----unplugged-----
July 22   0      12       2       0       7       0       0       0
July 23   0       8       4       0       4       1       0       1

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July 24	1	13	0	1	2	0	0	0
July 25	0	22	1	1	2	3	0	0
July 26	0	21	3	1	4	1	0	0
July 27	0	19	1	0	3	3	0	0
July 28	0	27	6	1	3	2	0	2
July 29	0	28	4	1	4	2	0	0
July 30	0	41	0	1	3	2	0	0
July 31	1	31	3	0	3	3	0	0

August

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
August 1	2	37	2	0	8	5	1	0
August 2	0	85	3	0	2	11	0	0
August 3	0	76	4	0	3	6	0	0
August 4	0	84	2	0	1	18	0	0
August 5	0	76	4	1	4	14	0	0
August 6	0	99	1	0	2	16	0	0
August 7	0	55	5	0	0	25	0	0
August 8	1	65	1	0	1	32	0	0
August 9	1	60	3	0	4	13	1	0
August 10	1	30	2	0	0	23	0	1
August 11	1	20	0	2	2	4	0	1
August 12	0	48	2	1	3	9	0	0
August 13	0	41	2	1	2	1	0	0
August 14	1	23	2	1	1	3	0	0
August 15	2	70	2	6	1	7	0	1
August 16	1	14	2	0	0	2	0	0
August 17	1	11	2	0	0	1	0	0
August 18	2	10	1	1	1	2	0	0
August 19	2	30	1	7	0	2	0	0
August 20	0	17	2	2	0	0	0	0
August 21	0	7	4	5	2	1	0	0
August 22	0	17	2	0	1	0	0	0
August 23	1	39	10	2	1	3	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 SB

July 16 7 3 0 8
July 18 4 5 0 5
July 20 1 3 0 7

July 23	7	0	7	0
July 25	11	0	6	1
July 27	9	0	10	0
July 30	17	2	16	2
August 1	16	0	10	1
August 3	22	1	27	1
August 6	32	8	175	4
August 8	39	11	270	7
August 10	57	3	105	4
August 13	39	1	42	5
August 15	39	3	39	2
August 17	47	2	95	5
August 20	52	9	147	16
August 22	39	3	69	7
August 24	61	2	28	1

BW = Bollworm moths; GSB = Green stink bugs; SB = Stink bugs

From: Charlie Tyson, Agricultural Extension Agent, Nash County

Light Trap Data from Nash County

Number of Adult Insects			

Date	CEW	GSB	BSB

July 13	3	-	-
July 16	10	-	-
July 18	5	3	-
July 20	8	10	1
July 23	14	3	0
July 25	1	0	0
July 27	25	0	0
July 30	23	0	0
August 1	16	0	0
August 3	46	0	0
August 6	108	0	0
August 8	82	22	1
August 10	72	17	0
August 13	118	2	0
August 15	41	1	0
August 17	176	4	0
August 20	161	4	0
August 22	134	4	0

CEW = corn earworms; 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

```

*****
                        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 18      - - -      - - -      - - -      3 4 -      - - -      0 12 0
July 20      - - -      - - -      - - -      2 2 0      - - -      12 89 2
July 23      - - -      4 2 0      - - -      6 0 0      - - -      25 2 0
July 25      0 0 0      - - -      - - -      12 4 0      - - -      26 5 0
July 27      0 0 0      5 1 0      - - -      16 2 0      1 0 0      37 3 0
July 30      3 1 0      - - -      - - -      14 2 0      3 0 0      79 7 0
Aug. 1       3 0 0      4 1 0      - - -      12 4 0      7 0 0      59 9 0
Aug. 3       5 0 0      13 3 0      - - -      18 9 0      5 0 0      119 7 0
Aug. 6       10 1 0      12 4 0      - - -      65 21 0      12 0 0      358 19 0
Aug. 8       12 7 0      24 8 2      - - -      115 32 0      19 0 0      331 38 0
Aug. 10      14 9 1      16 4 0      - - -      37 6 0      - - -      249 60 0
Aug. 13      3 1 0      15 4 2      - - -      16 2 0      24 1 0      184 27 0
Aug. 15      - - -      38 5 1      - - -      - - -      - - -      104 5 0
Aug. 17      - - -      18 2 0      - - -      24 3 0      14 2 0      204 5 0
Aug. 20      8 2 0      9 0 0      - - -      114 5 0      1 2 0      351 21 0
Aug. 22      10 3 0      12 6 0      - - -      56 4 0      - - -      174 11 0
Aug. 24      10 3 0      15 6 0      - - -      29 2 0      - - -      297 8 0
*****

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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: Tray Bridgers, Agricultural Extension Agent, Onslow County

Light Trap Data from Onslow County

```

*****
                        Number of Adult Insects
*****
Date      Bollworms      GSB      BSB      Hornworms
*****
July 4           6           3           0           0
July 6           20          7           0           0
July 9           25          19          3           0
July 11          21          10          0           0
July 13          33          10          3           1
July 16          31          10          0           0
July 18          34          3           5           3
July 20          39          18          2           6
July 23          25          5           0           3
July 25          25          0           0           0
July 27          57          4           0           2
July 30          105         7           0           0

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August 1	70	3	0	3
August 3	185	3	0	0
August 6	190	40	0	0
August 8	288	88	0	3
August 10	200	100	0	4
August 13	110	20	0	0
August 15	85	15	0	0
August 17	64	49	0	5
August 20	65	25	0	0
August 22	42	41	0	4
August 24	55	15	0	0

GSB = green stinks bugs; BSB = brown stink bugs

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

From: Kent Wooten, Agricultural Extension Agent, Robeson County

Light Trap Data from Robeson County

Number of Adult Insects

Date	BW	GSB	BSB	FAW
July 6	12	-	-	-
July 7-8	23	-	-	-
July 9	18	-	-	-
July 10	15	-	-	-
July 11	11	-	-	-
July 12	14	-	-	-
July 13-15	47	18	3	-
July 16	18	7	1	2
July 17-18	132	17	4	-
July 19	98	11	1	11
July 20	105	7	1	9
July 21-22	172	5	0	13
July 23	105	2	0	2
July 24	102	3	0	0
July 25	97	5	1	3
July 26	93	4	0	4
July 27-29	165	6	0	3
July 30	58	3	0	4
July 31-1	191	35	1	4
August 2	69	2	1	1
August 3-5	168	18	1	3
August 6	63	7	0	0
August 7	52	6	0	2
August 8	48	6	0	0
August 9	53	5	1	0
August 10-12	131	17	1	2
August 13	56	6	0	2
August 14	43	7	1	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
*****
July 2        ----- trap set up -----
July 5         3        0        1        1
July 6         3        0        0        0
July 9         3        7        0        4
July 11        3        1        1        2
July 13        4        4        0        8
July 16        ----- power failure -----
July 18        12        0        0        12
July 20        57        5        0        8
July 23        132       2        0        17
July 25        50        0        0        4
July 27        93        1        0        3
July 30        118       5        0        3
August 1       124        1        1        2
August 3       130        5        0        1
August 7       178        4        0        9
August 10      215        5        0        20
August 13      57         1        0        45
August 15      72         3        1        38
August 17      30         0        0        10
August 20      52         0        0        29
August 22      14         1        0        10
August 24      45         4        1        13
*****

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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

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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 11         13  14   0   0            22  33   1   0            12  10   1   0
July 13          8  10   0   0            17  25   6   0             3   7   0   0
July 16         16  14   0   0            61  14   0   0            26   5   0   0
July 18         16   5   0   0            74  24   2   0            57   6   0   0
July 20         41   7   0   0           223  41   0   0           156  11   0   0
July 23         26   1   0   0           268   3   0   0            81   1   0   0
July 25         62   3   0   0           138   1   0   0           146   6   0   1
July 27         53   4   0   0           164   4   0   0           110   5   0   0
July 30        133   9   0   0           377   5   0   0           175   5   0   1
Aug.  1          27   2   0   0           274   0   0   0            96   3   0   0
Aug.  3        142  23   0   0           308   1   0   0           323   9   0   0
Aug.  6        195  25   0   0           240  13   0   0           266  44   0   0
Aug.  8        123  19   0   0           132  17   1   0            44   9   1   2
Aug. 10         80  14   0   0            94  27   1   0            40   6   0   2
Aug. 13         43  11   0   0            80   7   1   0            38   2   0   1
Aug. 15         70   4   0   0            64   0   1   0            32   0   0   2
Aug. 17        148  10   0   0              -   -   -   -             9   3   0   0
Aug. 20        160  23   1   0           212   9   0   0            23   0   0   1
Aug. 22         67  14   0   0           270   7   0   0            9   0   0   2
Aug. 24         47   6   0   0           195   1   1  12            12   2   0   2
*****

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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

```

*****
                        Number of Adult Insects
*****
                Seven Springs                Goldsboro
                *****                *****
Date            GSB  BSB  CEW  HW            GSB  BSB  CEW  HW
*****
July 6           -   -   -   -             2   0   1   0
July 9           -   -   -   -            23   6   1   0
July 11          -   -   -   -             1   0   1   0
July 13          1   0   1   2             5   0   3   1
July 16          2   0   6   4              -   -   -   -
July 18          0   0   5   0            10   -  11   2
July 20          4   0   4   3              -   -   -   -
July 23          1   0   8   5             2   0  61   2
July 25          -   -   -   -             1   1  50   3
July 27          2   0   4   3             3   0 120   0

```

July 30	2	1	6	2	7	5	75	0
August 1	5	0	12	2	5	1	51	0
August 3	-	-	-	-	0	2	25	1
August 6	2	2	10	20	1	0	111	5
August 8	4	0	26	2	7	1	101	3
August 10	-	-	-	-	-	-	-	-
August 13	11	0	44	10	0	0	57	4
August 15	12	0	18	6	2	0	82	0
August 17	-	-	-	-	0	0	4	2
August 20	-	-	-	-	4	0	20	3

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

Number of Adult Insects

Date	Lucama			Pender's Xrds			Sims			Fountain		
	CEW	BS	GS	CEW	BS	GS	CEW	BS	GS	CEW	BS	GS
July 16	-	-	-	-	-	-	-	-	-	4	0	9
July 18	-	-	-	14	0	1	0	0	2	4	0	25
July 20	-	-	-	10	0	0	3	0	0	18	0	24
July 23	12	0	0	17	0	1	0	0	0	37	0	3
July 25	2	0	1	25	0	0	1	0	0	13	0	3
July 27	4	0	2	15	0	1	4	0	0	20	0	14
July 30	7	0	2	12	0	1	9	0	0	36	0	26
August 1	4	0	0	12	0	0	0	0	0	26	0	0
August 3	6	0	1	31	0	0	0	0	1	58	0	10
August 6	25	0	6	46	0	2	22	0	3	121	0	60
August 8	25	3	2	28	0	1	11	0	3	94	0	78
August 10	3	1	2	17	0	1	4	0	2	27	0	38
August 13	4	1	0	43	0	0	3	0	0	12	0	11
August 15	38	0	5	62	0	0	1	0	0	29	0	5
August 17	8	0	0	26	0	0	5	0	2	48	0	5
August 20	17	0	0	-	-	-	4	0	2	58	0	10

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

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