

North Carolina Pest News

Departments of Entomology and Plant Pathology



Stephen J. Toth, Jr., editor
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CAUTION !

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

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http://ipm.ncsu.edu/current_ipm/pest_news.html

FIELD AND FORAGE CROPS

From: Jack S. Bachelier, Extension Entomologist

Bollworm Moth Flight Underway

The major bollworm moth flight is now underway in our southernmost counties, with the ever-dependable Robeson County light trap near Rowland being the first one to “jump.” The **single night** trap captures over the past three days were 102, 162 and 211 moths. That makes 211 catch equivalent to our more standard two-night count of 400+ moths. Because the trap captures are still headed upward, the magnitude of this year’s flight in that area will probably not be known before next week. As of the morning of July 21, the moth counts from the three light traps in nearby Scotland County also had jumped significantly, though not as dramatically. So far, this

flight is “right on time” to perhaps a couple of days “late” compared to our long term average, but could turn out to be large. Light trap counts in the next tier of counties, such as Craven, Onslow, Duplin, and Sampson were ranged from 0 to 50 per two nights. Expect the flight to spread over about the southern third to half of the state in the coming week.

To keep up with this year’s bollworm moth flight in North Carolina, refer to the *Cotton Insect Corner* website at: <http://ipm.ncsu.edu/cotton/insectcorner/blacklight/index.html>.

If history is a guide, we often begin observing threshold levels of bollworms in some of the Bollgard cotton approximately 10 days or so after the flights begin in earnest in a given area in the case of moderate to heavy flights. With some our cotton already being treated for plant bugs and stink bugs, threshold levels of bollworms may occur earlier in cotton fields treated with materials such as Bidrin or Orthene. This chemical disruption of beneficial insects will be somewhat less helpful to bollworms “trying to become established ” in Widestrike cotton, and far less noticeable with Bollgard II cotton.

Stink Bugs in Cotton

In cotton fields in which stink bug and plant bug damage to quarter-sized bolls can now be evaluated, the squashing of at least 25 quarter-sized bolls (15/16 inch diameter) (Fig. 1.) per cotton field is recommended. We have already heard of a few cotton fields with internal boll damage in the 40 to 50 percent range. However, bug damage to bolls in the cotton fields that I visited this past week in Edgecombe, Wilson, Halifax, Northampton and Wayne counties was generally in the 2 to 12 percent range. Remember that stink bug and plant bug damage to quarter-sized bolls may be subtle, as the point of sampling bolls of this small size is to increase the odds of finding recent damage and the associated live bugs.



Fig. 1. Quarter-sized cotton boll. Image by Dan Mott.

Look for both internal boll wall warts and for stained lint and count either as a damaged boll. Do not count outer spotting or internal “pin prick”-like dark spots. Pay particular attention to boll damage during the third through sixth week of bloom, as that appears to be the time of greatest yield loss to stink bugs. Use a 10 percent internal damage boll threshold at this time. If approximately 40 percent or more of the stink bugs observed are brown stink bugs, plan on using Bidrin insecticide either alone or as a pyrethroid tank mix in the presence of threshold levels of

bollworms or an ongoing bollworm moth flight. Be aware that Bidrin, Orthene or Vydate sprayed for stink bugs or plant bugs may increase the odds of having to treat for bollworms.

Plant Bugs in Cotton

As is the case with stink bugs, most damage to cotton from plant bugs from here on will be damage to small bolls. Although a 15 percent dirty bloom spray threshold for plant bugs is probably not as accurate as careful drop cloth sampling or sweeping, these bloom counts are quick and will usually put you in the “ballpark” for the possible need to spray. If square retention remains high into the third or fourth week of blooming, plant bugs are probably not an economic issue. (In last year’s stink bug trials, square retention stayed in the low to mid 90 percent range into the fifth week of blooming at most test sites). However, if square retention is less than 80 percent or lower, plant bugs may or may not be the culprit. So far this year, plant bugs are making up a greater portion of the stink bug/plant bug complex than in 2004 or 2005. As the bloom period progresses, stink bugs should account for a greater proportion of the bug damage to bolls.

Cotton Aphids

For the most part, beneficial insects have been more than holding their own with most of our moderate to low levels of cotton aphids, with Asian and convergent lady bird beetles and their larvae contributing most to holding down aphids levels. In the past few years, lady bird beetles and green lacewings and their larvae tend to have been outrun by rapidly increasing cotton aphid colonies. This past week, aphid mummies have also become more prevalent, and the fungus has begun making spotty appearances. Remember that cotton aphids are present in virtually every cotton field, and insecticide treatments for plant bugs, stink bugs or bollworms with organophosphate or pyrethroid insecticides may increase cotton aphids levels unless the aphid fungus is present.

Spider Mites in Cotton

Spider mites still seem to be hanging around at mostly low levels in a number of cotton fields across the state. In general, spider mite levels appear to have dropped off somewhat this past week.

Next Week’s Forecast of Cotton Insect Pests

By next week, the timing and size of this year’s bollworm moth flight will be much more clearly defined. Also, many more cotton fields will have been checked for bug damage to quarter-sized bolls.

From: Stephen B. Bambara, Extension Entomologist

Fall Armyworms in Pastures?

Light trap collections from last week turned up the first fall armyworm moth in Robeson County this season. Watch the light trap data to see when moths arrive with regularity.

Some county Extension agents have noted that Tracer (spinosad) is now labeled in pastures for the control of fall armyworms. This provides an additional choice of insecticides, with Sevin or Lannate. Scouting is important. Spinosad insecticides probably work best when the larvae are smaller in size. For the supplemental label, see: <http://www.cdms.net/ldat/ld0F5011.pdf>.

ORNAMENTALS AND TURF

From: Stephen B. Bambara, Extension Entomologist

Back Porch Bugs

The "back porch" can provide information and enjoyment if you leave the light on at night. Few back porch bugs are pests, but most are interesting (Figs. 2-4). Identifications of the jumping spider and aquatic pyrallid moth were made by David Stephan, Extension Specialist, North Carolina State University.



Fig. 2. Jumping spider, *Phidippus* sp. Image by Steve Bambara.



Fig. 3. Aquatic pyrallid moth *Chrysendeton* sp. prob. *Medicinalis*. Image by Steve Bambara.



Fig. 4. Rosy maple moth aka greenstriped mapleworm (*Dryocampa rubicunda*). Image by Steve Bambara.

From: Michael G. Waldvogel, Extension Entomologist

Velvet Ants

First come the cicadas, then the cicada killers, and then the velvet ants (Fig. 5). County Extension agents may soon receive a telephone call about a large red and black ant observed in the planting bed. What people are seeing are velvet ants, also known as *cow killers*. Whether these insects actually have “bovicidal” tendencies is strictly a matter of folklore. Velvet ants are not actually ants, but wingless wasps in the family Mutillidae. The body of the velvet ant is covered with coppery-red and black hairs that give it a velvety appearance. Male velvet ants have wings, but the wingless females are the ones most often spotted by people in their yards. Most species of velvet ants are parasites of other bees and wasps, including formidable creatures like cicada killers. The female velvet ant is often seen scurrying over open, sandy stretches of soil that are the preferred nesting sites for many ground-dwelling bees and wasps. She lays her eggs on or near developing bees (not on the adults) and her hatching offspring proceed to feed on the helpless host insects.



Fig. 5. Velvet ant. Image by James R. Baker.

Female velvet ants make a squeaking sound if they are picked up. This is closely followed by screaming of the unfortunate person who picked her up and was stung in the process. Most inquiring minds ask about the severity of the stings. We would say that they are about on par with any bee/wasp sting. Naturally, people who are hypersensitive to bee/wasp stings may have a more severe reaction than most of us and should avoid close encounters with this critter. Treatment for a velvet ant sting is the same as for any typical bee/wasp sting.

Velvet ants are not social insects. We're not referring to their nasty dispositions, but to the fact that they are solitary wasps, like cicada killers and mud daubers. They do not live in a colony. So, even if you see several velvet ants, they are all individual females who are roaming about in search of prey. For this reason, dousing the yard with pesticides is not going to be effective because there is no *nest* for you to target. Eliminating yellowjacket and other wasp nests may help to reduce velvet ant activity to some extent by removing their food source. However, the best short-term method of control is quite easy: simply step on the velvet ant with your foot (wearing a shoe, of course). You could also leave it alone and let nature take its course.

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
*****
    
```

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
*****
    
```

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
*****

```

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
*****

```

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

Location of trap: Cove City

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

Light Trap Data From Cumberland County

```

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

```

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

From: 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
*****
```

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    -    -    -
*****
```

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

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

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

Light Trap Data From Hoke County

```
*****
                        Boyles Farm
                        *****
Date           Moths      GSB      BSB
*****
June 28        28         4         0
June 30        72         26        0
July 3          -          -          -
July 5         13          7         0
July 7         41          9         13
July 10        32          7         0
July 12        16          5         1
July 14        17          33        4
July 17        12          22        3
July 19        27          27        2
July 21        39          14        3
*****
```

GSB = green stink bugs; BSB = brown stink bugs

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

From: Alan A. Harper, Lenoir County

Light Trap Data from Lenoir County

June

```
*****
                        Number of Adult Insects
                        *****
Date           HW      CEW      ECB      AW      AWC      GSB      BSB      TBW
*****
June 7                Light trap erected
June 8           0       0       0       0       0       0       0       0
June 9           0       0       1       0       0       0       0       0
June 10          0       0       1       0       0       0       0       0
June 11          0       0       0       0       1       6       1       0
June 12          0       0       1       1       0       0       2       0
June 13          0       1       2       0       0       0       0       0
June 14          0       0       3       0       0       0       0       0
June 15          0       0       1       0       0       0       0       0
June 16          0       0       2       2       0       3       2       0
June 17          0       0       0       0       0       1       0       0
June 18          0       0       0       0       0       2       0       0
June 19          0       0       0       0       1       3       0       0
June 20          1       1       0       0       0       2       0       0
June 21          1       0       0       0       0       1       2       1
June 22          0       0       0       1       2       0       0       0
June 23          1       0       1       0       0       5       7       1
June 24          0       3       2       0       0       1       1       0
June 25          0       4       1       0       0       2       2       0
*****
```

June 26	0	5	0	0	1	1	1	1
June 27	1	2	0	0	0	10	0	0
June 28	0	2	0	0	0	2	0	1
June 29	1	1	0	1	0	5	0	3
June 30	0	6	2	0	0	3	1	0

Abbreviations: HW = hornworms; CEW = corn earworms; ECB = European corn borers; AW = true armyworms; AWC = armyworm complex; GSB = green stink bugs; BSB = brown stink bugs; TBW = tobacco budworms

From: J. B. Coltrain, County Extension Director, Martin County

Light Trap Data From Martin County

	Farm Life			Robersonville			Palmyra		
Date	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	-	-	-

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

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

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
*****
```

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

Location is Rowland; monitored by Kay McGirt

From: Josh Gaddy, Agricultural Extension Agent, Sampson County

Light Trap Data from Sampson County

```
*****
                        Number of Adult Insects
                        *****
Date          BW      GSB      BSB      THW
*****
June 30              trap set up
July 3           0       4       0       2
July 5           3       9       0       0
July 7           2       6       0       2
July 10          4       8       0       0
July 12          1      11      1       2
July 14          1       5       0       0
July 17          0      23      2       4
July 19          1      15      5       9
July 21         11      12      0      18
*****
```

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

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
*****
  
```

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   6   0      7   0   1      3   0   2      2   0   3
*****

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

Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University, North Carolina A&T State University or North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact an agent of North Carolina Cooperative Extension.

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