

North Carolina Pest News

Departments of Entomology and Plant Pathology



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In This Week's Issue . . .

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

FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

Stink Bugs on Cotton

Stink bugs were again our major insects of interest this week (and probably next week), with more 50% of the cotton fields in the state exceeding the 10% internal damage threshold used during weeks 3 through 5 of the bloom period. In most cases, a pyrethroid insecticide plus Bidrin tank mix is being employed because of the presence of brown stink bugs in most cotton fields.

Different approaches are being used to collect and inspect quarter-sized bolls. Some scouts are able to pick bolls and examine them while walking throughout the cotton field. Others prefer to collect the bolls into something like a nail pouch, put them into a Ziploc bag after exiting the field, and postponing their boll inspections until collections have been finished from several fields. Any of these and other boll collection methods will work fine as long as the individual bolls are examined carefully for warts or internal stained lint. A reminder that internal warts and stain may be subtle, as in many cases the stink bug damage has occurred recently if the correct quarter-sized bolls are being inspected. Do not count external damage or the pin prick-like dark spots on the inside of the boll wall. To count as a wart, the damaged area must be raised above the inner boll wall surface.

When a cotton field reaches the beginning of the sixth week of bloom, the threshold can be raised to 20%. The following week, the use of a 30% threshold is appropriate, followed by a 50% threshold beginning at the eight week of bloom. The rise in the internal damage threshold after the fifth week of bloom is because the boll population in cotton fields is increasingly reaching the 3.5 week “stink bug-safe” stage.

The bollworm moth flight appears to be on the moderate-plus side so far this year, with threshold levels of bollworms now possible anywhere in the state. Scouts should be reminded to only count bollworms 1/8 inch or larger. Those caterpillars will have survived the *Bt* toxin and molted to second stage larvae that may well complete their development and damage bolls.

Outside of a few reports of beet and fall armyworms, in general we are apparently experiencing low levels of cotton aphids, spider mites and plant bugs this week.

Soybean Insects

We are beginning to get threshold levels of podworms in some soybean fields in our southern counties. One field in Scotland County was approximately 3-fold the podworm threshold of 1.5 podworms per 15-sweep sample in 14-inch rows with the expected price at \$9.00 per bushel and the cost of control at \$9.00 per acre. With this many variables determining the podworm threshold for a given situation, it makes sense to use the Virginia Tech University Podworm Threshold Calculator based on North Carolina thresholds posted on our *Cotton Insect Corner* web site under “What’s New @ the Corner?” (<http://www.ipm.vt.edu/cew/>). This will let you plug in your sampling device, row spacing, cost of control, and the price of soybeans. The calculator provides you with the threshold level for the set of variables you provide.

So far, this is shaping up to be a more challenging year for worms and stink bugs on soybeans than in the past three or four years.

From: Rick Brandenburg, Extension Entomologist

Peanut Insect Update

Corn earworms and a few fall armyworms are starting to show up in peanuts. August is usually the big month for these two pests. The threshold is still 4 caterpillars per row foot, but goes up to 6 by early September. We often see numbers that exceed that threshold, but check and make certain you have sufficient numbers before treating with insecticide. While we've had good rainfall in many areas, there is still a threat from spider mites due to the hot temperatures. Foliar sprays always run the risk of increasing spider mite populations through a reduction of beneficial insects.

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

Current Status of Soybean Rust in North America – August 2009

Asiatic soybean rust has been confirmed in Alabama, Louisiana, Florida, Georgia, and Texas. Most finds, with the exceptions of Louisiana and Alabama, are on kudzu. Soybean rust has spread very little this year, even with above average rainfall in many soybean growing areas. The most recent model for spore deposition predicts rust spore deposition up to central Georgia and up the Mississippi Valley by the last week in August.

The closest to North Carolina confirmation of rust on soybeans is in Gadsden County, Florida (near Tallahassee). It is approximately 390 miles from Charlotte, 620 miles from Elizabeth City, 450 miles from Fayetteville, 320 miles from Murphy, 495 miles from Raleigh, 565 miles from Washington (North Carolina), 460 miles from Wilmington, and 455 miles from Winston-Salem. We do not consider this find to pose any imminent threat to North Carolina soybeans.

Soybean Disease Summary for North Carolina

Soybean rust currently poses no threat to North Carolina soybeans. Unless a tropical storm or remnants of a storm moves through the southern U.S. to North Carolina, it is unlikely that soybean rust will affect the soybean crop prior to harvest.

Other soybean diseases that are common this year are soybean cyst nematode, *Phytophthora* root and stem rot, and brown spot. *Phytophthora* root rot is most prevalent in low spots in fields. Many varieties are resistant to this disease. If the disease occurs on a resistant variety, identify the source of resistance genes or races that variety is resistant to and do not use a similar type of resistance in the future.

Downy Mildew on Soybeans

Soybean downy mildew is quite common on soybeans. We have never recommended spraying for this disease, and know of no yield losses associated with this disease. Strobilurin fungicides Headline, Stratego, and Quadris may be effective. These were effective on cucurbit downy mildew in the past, but the cucurbit downy mildew fungus is now **resistant** to strobilurin fungicides. Soybean downy mildew is caused by a fungus closely related to cucurbit downy mildew, thus soybean downy mildew, caused by *Peronospora manshurica*, may or may not be susceptible to the strobilurin-type fungicides. Triazole fungicides will not affect this fungus, nor will Topsin M.

Resources for Soybean Rust in 2009

There are more resources containing information on Asiatic soybean rust available this year than in many years in the past. Some sources for more detailed information are listed below:

- Teletip phone number: **1-800-662-7301** (the same number as for the cotton insect update) with a message updated as necessary.
- USDA soybean rust web site (<http://www.sbrusa.net/cgi-bin/sbr/public.cgi>)
- North Carolina Agricultural Chemicals Manual (<http://ipm.ncsu.edu/agchem/6-toc.pdf>)

ORNAMENTALS AND TURF

From: Steve Frank, Extension Entomologist

New Products for Ornamental Greenhouse, Nursery, and Landscape Pests

A new product Kontos is available to manage most sucking pests in greenhouses. It is also labeled for use in nurseries. Kontos from OHP is effective against whiteflies, aphids, mealybugs, thrips, and other insects. Kontos has a unique mode of action (IRAC group 23) that makes it an important tool in resistance management programs. This could be particularly important as a product to rotate with Conserve (spinosad) to kill thrips. It is also soft on beneficial organisms. More information on Kontos can be found at: http://www.ohp.com/PIB/PDF/kontos_490_pib.pdf.

In ornamental landscapes we now have Acelepryn by Dupont. This unique chemical has a very low vertebrate toxicity. So low in fact that it does not require a signal word on the label. It is effective on many landscape pests and can be used as a foliar spray or drench to provide translaminar and systemic plant protection. Acelepryn also is soft on beneficial organisms compared to older products. More information about Acelepryn can be found at http://www2.dupont.com/Professional_Products/en_US/assets/downloads/pdfs/H65676.pdf.

As new products become available it is important to begin incorporating them into insecticide programs. These products are less toxic to vertebrates, pollinators, and beneficial insects than products such as organophosphates and pyrethroids. They can also help reduce development of resistance and prolong the effective life of other products.

INSECT TRAP DATA

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

Light Trap Data from Bertie County

```

*****
                Windsor      Woodard      Hexlena      Roxobel      Colerain
                *****      *****      *****      *****      *****
Date           Moths  GSB   Moths  GSB   Moths  GSB   Moths  GSB   Moths  GSB
*****
July 22              -    -       -    -       -    -       -    -       -    -
July 23              -    -       -    -       0    0       3    2       -    -
July 24              -    -       -    -       -    -       -    -       -    -
July 25             12    0       -    -       -    -       -    -       -    -
July 26             35    0       -    -       -    -       -    -       -    -
July 27            100    0       -    -       8    0      10    0       -    -
July 28             46    0       -    -       6    0       4    0      81    0
July 29            107    0      16    1       4    0       3    0     160    0
July 30             96    0      10    2      16    5      16    0      59    0
July 31             76    2      12    0      11    5      27    0     215    1
August 1              -    -      25    3       7    0       -    -       -    -
August 2              -    -      12    1       -    -       -    -       -    -
August 3            45    0      24    2      30    0     115    1     356    0
August 4            18    0      23    1       6    0      30    1      80    0
August 5            15    0      12    2      11    0      32    1      36    0
August 6            10    0      27    0       8    0      42    0      52    0
*****
    
```

Moths = Bollworm moths; GSB = Green stink bugs

From: Mike Carroll, Agricultural Extension Agent, Craven County

Light Trap Data from Craven County

```

*****
                                Number of Adult Insects
*****
Date           THW    TBW    CEW    GSB    BSB    ECB    FAW    BAW    Looper
*****
July 10              -     2     2     -     -     -     -     -     -
July 13              0     1    15     1     -     -     -     -     -
July 20              8     3    80     3     -     -     -     -     -
July 22              3     1    47     -     -     -     1     -     -
July 24              2     -    37     1     -     7     -     -     -
July 27              2     -    72    10     -     -     8     -     -
July 29              3     -    82     -     -     -     4     -     -
July 31              -     1   134     3     -     -     2     -     -
August 3             1     1   133     1     -     -     2     -     -
August 5             -     1    53     3     -     -     -     -     -
August 7             -     -    53     -     -     -     1     -     -
*****
    
```

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: Cove City Fertilizer

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

Light Trap Data from Duplin County

```

*****
                Number of Adult Insects
                *****
Date           BW           GSB           BSB
*****
July 6         -             -             -
July 8         -             -             -
July 10        -             -             -
July 13        -             -             -
July 15         0             4             0
July 17        10            13            0
July 20        15            32            0
July 22        31             2             0
July 24        22            15            0
July 27        74            37            0
July 29        62             9             1
July 31        37             7             0
August 3       98             4             2
August 5       16             0             3
August 7       18             1             2
*****

```

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

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

From: Arthur R. Bradley, Jr., County Extension Director, Edgecombe County

Light Trap Data from Edgecombe County

```

*****
                Number of Adult Insects
                *****
                Coakley           West Edgecombe           Lawrence
                *****           *****           *****
Date           CEW  BS  GS  CEW  BS  GS  CEW  BS  GS
*****
July 17        15  -  3   -  -  -   -  -  -
July 20        10  -  4   -  -  -   -  -  -
July 22        18  1  3   -  -  -   -  -  -

```

July 24	14	-	4	-	-	-	5	-	20
July 27	45	-	3	-	-	-	30	0	7
July 29	36	-	0	-	-	-	35	-	3
July 31	57	-	2	-	-	-	7	-	2
August 3	33	-	4	-	-	-	11	-	2
August 5	14	1	0	-	-	-	1	-	2
August 7	12	0	0	-	-	-	-	-	-

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

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

Light Trap Data from Hoke County

Date	Moths	GSB	BSB
July 8	5	10	-
July 10	5	4	-
July 13	4	1	-
July 15	4	5	-
July 17	5	4	-
July 20	4	7	-
July 22	3	6	-
July 24	7	6	-
July 27	28	6	-
July 29	100	9	-
July 31	51	1	-
August 3	162	1	-
August 5	20	1	-

GSB = green stink bugs; BSB = brown stink bugs

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

From: Alan A. Harper, Lenoir County

Light Trap Data from Lenoir County

June

Date	Number of Adult Insects							
	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
June 10	1	0	1	0	0	0	0	0
June 11	1	0	0	0	0	3	2	0
June 12	1	0	0	0	0	2	0	0

June 13	1	3	0	0	1	16	2	0
June 14	1	1	0	0	0	8	13	1
June 15	0	3	0	0	5	38	1	0
June 16	1	4	1	0	1	4	0	0
June 17	1	3	0	0	1	3	0	0
June 18	0	2	0	1	0	4	1	0
June 19	0	0	0	0	0	24	4	0
June 20	0	4	0	0	1	14	19	0
June 21	0	7	0	0	3	5	14	1
June 22	0	5	0	1	4	1	5	0
June 23	0	6	0	0	1	1	2	0
June 24	1	3	0	0	3	4	0	0
June 25	0	4	1	0	8	1	1	0
June 26	1	1	0	1	9	16	1	0
June 27	0	1	0	0	4	9	2	0
June 28	0	2	0	1	1	6	1	2
June 29	0	1	0	0	1	7	3	0
June 30	0	1	0	0	1	0	1	0

July

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
July 1	0	1	0	0	1	3	0	0
July 2	1	2	0	0	2	5	1	0
July 3	0	1	0	0	4	1	0	0
July 4	0	2	0	0	5	0	0	0
July 5	0	2	0	0	3	0	0	0
July 6	0	0	0	0	0	1	2	0
July 7	0	1	0	0	1	5	0	0
July 8	0	0	0	0	0	3	0	0
July 9	0	2	0	1	2	5	0	0
July 10	0	2	0	0	1	3	0	0
July 11	0	2	0	0	4	6	0	0
July 12	1	0	0	0	6	2	0	0
July 13	0	0	0	0	3	2	0	0
July 14	0	1	0	0	2	0	0	0
July 15	1	4	0	0	7	6	0	0
July 16	1	8	0	0	4	3	0	0
July 17	0	5	1	0	3	1	0	0
July 18	0	6	1	0	1	2	0	0
July 19	0	26	6	1	6	3	1	0
July 20	1	31	6	0	2	4	0	1
July 21	2	22	0	0	5	4	0	0
July 22	1	70	1	0	2	2	0	0
July 23	0	61	3	0	5	12	1	0
July 24	0	41	2	1	5	1	0	1
July 25	1	62	1	0	5	6	0	0
July 26	0	67	2	0	6	3	0	3
July 27	0	40	0	0	7	4	0	0
July 28	1	80	2	0	1	1	0	1
July 29	0	70	0	0	3	5	0	0
July 30	0	49	2	0	1	0	0	1



July 31 0 31 0 0 2 2 0 0

August

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
August 1	----- unplugged -----							
August 2	0	41	0	0	3	2	0	1
August 3	1	38	1	0	2	3	0	0
August 4	0	29	1	0	5	2	0	0
August 5	0	28	0	0	2	3	0	0
August 6	0	34	2	0	1	4	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

Robersonville		Farm Life		

Date	BW	GSB	BW	GSB

July 20	5	0	3	2
July 22	4	0	6	1
July 24	3	0	5	7
July 27	14	3	8	3
July 29	34	2	14	0
July 31	14	0	19	0
August 3	42	1	126	4
August 5	16	2	26	2
August 7	4	0	7	0

BW = Bollworm moths; GSB = Green stink bugs

From: Craig Ellison, Agricultural Extension Agent, Northampton County

Light Trap Data from Northampton County

```

*****
                        Number of Adult Insects
*****
      Woodland      Conway      Galatia      Seaboard      Gaston      Jackson
      *****      *****      *****      *****      *****      *****
Date   CEW GR BR   CEW GR BR   CEW GR BR   CEW GR BR   CEW GR BR   CEW GR BR
*****
July 24  1  0  0   -  -  -    1  6  0   -  -  -   -  -  -   10  4  0
July 27  1  9  0   -  -  -    6 21  0    9  6  0   -  -  -   87 41  2
July 29  2  2  0   -  -  -    8 16  0   14  0  1   -  -  -  121 11  0
July 31  6  1  0   -  -  -   14 21  0   -  -  -   -  -  -   -  -  -
Aug.  3   7  0  0    9  0  0   71 15  1   16  4  0   -  -  -  392 21  2
Aug.  5   7  1  -   20  2  1   14  2  1   25  0  0   -  -  -   72  7  3
Aug.  7   8  1  0   18  8  0   19  1  0   -  -  -    6  2  0   -  -  -
*****
    
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CEW = corn earworms; GR = green stink bugs; BR = brown stink bugs

Locations: Woodland, Conway, Galatia, Seaboard, Gaston and Jackson
 Monitored by: L. Culpepper, K. Edwards, B. Harris, T. Flythe,
 D. Grant and B. Bryant

From: Melissa Evans, Agricultural Extension Agent, Onslow County

Light Trap Data from Onslow County

```

*****
                        Number of Adult Insects
*****
Date      Bollworms      GSB      BSB      Hornworms
*****
June 24          -          -          -          -
June 26          2          10         0          0
June 29          7          5          0          0
July  1          -          -          -          -
July  3          -          -          -          -
July  6          -          -          -          -
July  8          -          -          -          -
July 10          -          -          -          -
July 13          -          -          -          -
July 15          -          -          -          -
July 17          21         10         -          -
July 20          30         12         -          -
July 22          45          3          -          -
July 24          80          3          -          -
July 27         105          5          -          -
July 29         100          0          -          -
July 31         146          5          -          -
August 3        215         15         -          -
August 5        148          7          -          -
    
```


July 20	23	22	-	-	23	6	-	-	72	2	-	-
July 22	25	9	-	-	49	4	-	-	78	3	-	-
July 24	66	24	-	-	247	18	1	-	153	15	-	-
July 27	176	21	-	-	718	18	4	-	436	9	-	-
July 29	98	19	3	-	338	1	4	-	343	7	-	-
July 31	77	7	-	-	-	-	-	-	101	1	-	-
August 3	72	24	-	-	462	34	2	-	187	2	-	-
August 5	101	8	4	-	117	8	1	-	205	3	-	-
August 7	44	4	-	-	138	9	-	-	201	3	-	-

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

From: Shannon Braswell, Agricultural Extension Agent, Stanly County

Light Trap Data from Stanly County

Adult Insects

 Stanly County
 Richfield

Date	CEW	GSB	BSB
July 30	15	2	0
August 3	10	2	0
August 5	12	0	0
August 7	16	0	0

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

From: Andrew Gardner, Agricultural Extension Agent, Union County

Light Trap Data from Union County

Number of Adult Insects

Date	Union Co. North New Salem			Union Co. South Marshville		
	CEW	GSB	BSB	CEW	GSB	BSB
July 24	6	2	0	76	14	0
July 27	25	3	1	75	10	0
July 29	10	2	0	136	10	0
July 31	30	0	0	51	1	0
August 3	13	1	5	60	3	1
August 5	15	2	2	26	2	0

August 7 21 0 0 22 2 0

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

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 13 - - - - 5 1 0 1
 July 15 - - - - 1 0 4 2
 July 17 - - - - 0 0 2 2
 July 20 - - - - 6 0 4 9
 July 22 - - - - 0 1 13 4
 July 24 - - - - 2 0 20 3
 July 27 - - - - 3 3 90 -
 July 29 - - - - 2 5 87 -
 July 31 - - - - 6 4 26 1
 August 3 - - - - 10 - 73 -
 August 5 - - - - 8 7 35 1

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

 Pender's Xrds Fountain
 ***** *****
 Date CEW GSB CEW GSB

 August 3 6 1 15 9
 August 5 7 0 8 5
 August 7 6 1 12 3

CEW = corn earworms; GSB = green stink bugs

Locations: Pender's Crossroads and Fountain
Monitored by: Adam Gardner 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.