

North Carolina Pest News



Departments of Entomology and Plant Pathology

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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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ANNOUNCEMENTS AND GENERAL INFORMATION

Final Issue of *North Carolina Pest News* for 2014

This will be the final issue of the *North Carolina Pest News* for 2014. The editor would like to thank all of the Extension specialists and county agents and directors that contributed articles and/or insect trap data for the news-

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letter this season. Thank you for your interest in the *North Carolina Pest News*.

FIELD AND FORAGE CROPS

From: Dominic Reisig, Extension Entomologist

Finishing Up Soybean Insects – Stink Bugs and Bean Leaf Beetle

Right now we are witnessing typical end-of-season insect patterns. Multigenerational bean leaf beetle population densities are at their highest now and soybeans, with developing seed, are stink bug magnets. At \$10 beans, many folks are wondering if beans are worth treating. Our “official” threshold for bean leaf beetle is based on defoliation and is 15% in the reproductive stages (all thresholds [here](#)). Our “official” threshold for stink bugs is somewhere around 1 per row foot, or 5 in 15 sweeps. For both pests, we do not recommend treating once you reach R7 (one yellowing pod anywhere in the plant). Seed producers might want to be a little bit more proactive and treat stink bugs past R7.

I think it is worth taking the price of beans into consideration, the yield potential of the beans and possible increase (or lack thereof) you might get from a spray, the price of the insecticide, and potential loss from drive-down over the beans. **My gut feeling is that beans at R6 this year are probably not worth treating for either pest unless they are very far from R7.** The time required to go from R6 to R7 can be several weeks.

It is also good to keep in mind the pod scarring behavior of bean leaf beetle (Figure 1). In 2012, I created a threshold based on some old Midwest information. This was a very rough guide and was for \$16 soybeans. I think that we can probably bump this threshold up a bit. I would think about treating, as a rule of thumb, if there were **30 bean leaf beetles per 15 sweeps with at least 5% injured/clipped pods in R5-R6 soybeans.** Keep in mind this is a **threshold for this year only** that is mostly opinion and is not well supported by research. So use your best judgment.



Figure 1. Pod injury from bean leaf beetle. Photo by Kelly Cook, University of Illinois.

What should you spray for bean leaf beetle and stink bugs? Pyrethroids and organophosphates generally provide good control for bean leaf beetle, but you should rotate chemistry. Bean leaf beetles can quickly build tolerance to one chemical type. So it is a good idea to switch it up if you have been relying on a single class of chemistry for a while.

Pyrethroids are my recommended product for brown marmorated, green, and southern greens stink bugs. You will need to rely on Orthene for brown stink bugs. An 8 oz rate should be used as a minimum if browns are present at anything over 2 per 15 sweeps. Increase the rate when more browns are found in the field.

ORNAMENTALS AND TURF

From: Steve Frank, Extension Entomologist

Two New Insecticides for Ornamentals

Two new insecticides have been released recently for use on ornamental plants. Dow released XXpire, which is a combination of spinetoram and sulfoxaflor from IRAC groups 4c and 5. It can be used for management of aphids, lace bugs, mealybugs, and many leaf feeding beetles, caterpillars, and sawflies. It is labeled for application in greenhouses, nurseries, and non-residential landscapes. The label is <http://www.cdms.net/LDat/lDBTQ000.pdf>.

Syngenta released Mainspring. The active ingredient is cyantraniliprole in IRAC group 28. It is labeled for greenhouse use on chewing and sucking pests, including lace bugs, caterpillars, soft scales, and leaf feeding beetles. The label is <http://www.cdms.net/LDat/lDC01002.pdf>.

INSECT TRAP DATA

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

Light Trap Data from Bertie County

```

*****
                                Hexlana
                                TNT
                                Woodard
                                PBRS
                                *****
Date      Windsor  GSB   CEW  GSB   CEW  GSB   CEW  GSB
*****
July 28      5    6     4  27     -   -     -   -
July 30      2    0     2   3     2   1     -   -
July 31      6    0     -   -     -   -     -   -
August 4      -    -    24  45     -   -     7   0
August 5     14   14     -   -     -   -     -   -
August 6      1    0     -   -     -   -     -   -
August 7      7    0     -   -     -   -     -   -
August 8     15    6     -   -     -   -     -   -
August 11    12    2    17   0     -   -     -   -
*****
    
```

August 12	0	0	-	-	6	1	12	0
August 13	-	-	-	-	9	19	-	-
August 14	5	5	-	-	17	0	-	-
August 15	2	0	-	-	9	1	8	0
August 18	0	2	-	-	19	14	-	-
August 19	0	9	-	-	8	9	-	-
August 20	0	6	-	-	20	9	-	-
August 21	0	2	-	-	24	10	-	-
August 22	3	27	-	-	-	-	-	-
August 23	-	-	-	-	8	6	-	-
August 24	-	-	-	-	5	4	-	-
August 25	3	10	4	5	8	3	-	-
August 26	15	5	-	-	11	0	-	-
August 27	0	1	-	-	21	0	-	-
August 29	0	8	1	1	0	1	-	-
September 3	1	21	-	-	-	-	-	-

Abbreviations: CEW = corn earworms; GSB = green stink bugs

From: Mike Carroll, Agricultural Extension Agent, Craven County

Light Trap Data from Craven County

Number of Adult Insects

Date	BW*	GSB	BSB	AW	HW
July 16	----- Date Initiated -----				
July 18	13	0	0	0	1
July 21	28	0	0	0	2
July 23	30	1	0	0	1
July 25	18	1	0	0	1
July 28	105	1	0	0	2
July 30	76	1	0	0	1
August 1	136	1	0	2	1
August 4	259	1	0	2	2
August 6	80	2	0	0	0
August 8	49	0	0	0	1
August 11	65	0	0	1	1
August 14	18	2	0	1	1
August 17	40	0	0	0	1
August 19	76	3	0	2	3
August 20	32	2	0	2	1
August 25	85	1	0	0	3
August 27	36	2	0	2	2

Abbreviations: BW* = bollworms; GSB = green stink bugs; BSB = brown stink bugs; AW = true armyworms; HW = tobacco hornworms

*Bollworms reflect corn earworm and tobacco budworm counts

Cooperator: Cove City Fertilizer

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

Light Trap Data from Edgecombe County

```

*****
                        Number of Adult Insects
*****
                West Edgecombe          Coakley          Lawrence
                *****          *****          *****
Date            CEW  BSB  GSB          CEW  BSB  GSB          CEW  BSB  GSB
*****
July 11         -   -   -           0   3   6           -   -   -
July 14         0   1   0           1   0   1           -   -   -
July 16         0   0   0           0   0   3           -   -   -
July 18         0   0   0           -   -   -           -   -   -
July 21         0   1   0           -   -   -           -   -   -
July 23         1   0   0           5   0   1           -   -   -
July 25         1   0   1           8   2   6           -   -   -
July 28        14   1   1          15   0   1           -   -   -
July 30         5   0   0           -   -   -           -   -   -
August 1        12   0   0          43   0   1           -   -   -
August 4        20   0   0          84   0   1           -   -   -
August 6         9   0   0          35   0   0           -   -   -
August 8        15   0   1          14   0   3           -   -   -
August 11       14   0   0          12   0   2           -   -   -
August 13        8   1   1           -   -   -           -   -   -
August 15       13   0   0           9   0   1           -   -   -
August 18       37   0   1           -   -   -           -   -   -
August 19        -   -   -          25   0   7           -   -   -
August 20       16   0   0           -   -   -           -   -   -
August 22       10   0   1           8   0   3           -   -   -
August 25        8   0   0           -   -   -           -   -   -
August 27        1   0   0           -   -   -           -   -   -
August 29        1   0   0           -   -   -           -   -   -
September 1     3   0   0           -   -   -           -   -   -
September 3     0   0   0           -   -   -           -   -   -
September 5     0   0   0           -   -   -           -   -   -
September 12    0   0   1           -   -   -           -   -   -
September 19    0   0   1           -   -   -           -   -   -
*****
    
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Abbreviations: CEW = corn earworms;
 BSB = brown stink bugs; GSB = green stinks bugs

From: Arthur Whitehead, Jr., County Extension Director, Halifax County

Light Trap Data from Halifax County

```

*****
                Hobgood                Dawson
                *****                *****
Date            CEW  BSB  ECB  GSB  HW  CEW  BSB  ECB  GSB  HW
*****
July 24         7   -   0   -   0   -   -   -   -   -
July 26        19   -   0   -   0   -   -   -   -   -
August 6        4   0   -   0   -  43   1   -   9   -
*****
    
```

Abbreviations: CEW = corn earworms;
 ECB = European corn borers; 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 3         ----- Put up light trap -----
June 4         0    0    0    0    0    2    1    0
June 5         0    0    0    0    0    0    0    0
June 6         0    0    0    0    0    2    0    0
June 7         0    0    0    0    0    0    0    0
June 8         0    0    0    0    0    0    0    0
June 9         0    0    0    0    0    0    0    0
June 10        0    0    0    0    0    3    0    0
June 11        0    0    0    0    0    1    0    0
June 12        0    0    0    0    0    1    1    0
June 13        0    1    0    0    1    0    0    0
June 14        0    0    0    0    0    0    0    0
June 15        0    1    0    0    1    0    0    0
June 16        0    0    0    0    0    0    0    0
June 17        0    1    0    0    1    0    0    1
June 18        0    0    0    0    0    0    0    0
June 19        0    0    0    0    0    0    0    1
June 20        0    2    0    0    0    0    0    0
June 21        0    2    0    0    1    0    0    0
June 22        0    1    0    0    0    1    0    0
June 23        0    0    0    1    1    0    0    0
June 24        0    1    0    0    0    0    0    1
June 25        0    3    0    2    1    1    0    0
June 26        0    1    0    1    0    1    0    0
June 27        0    1    0    0    0    0    0    0
June 28        0    2    0    1    1    0    0    0
    
```

June 29	0	0	0	0	2	0	0	0
June 30	0	0	0	0	1	0	0	1

July

Number of Adult Insects

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

August

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
August 1	0	36	0	2	0	7	0	1
August 2	0	30	0	1	0	3	1	2
August 3	0	43	0	1	1	3	0	1
August 4	0	46	0	0	0	4	0	1
August 5	0	63	0	1	0	6	0	1
August 6	0	26	0	0	0	5	0	0

August 7	0	33	0	1	0	6	0	2
August 8	0	21	0	0	0	2	1	0
August 9	0	32	0	0	2	5	0	0
August 10	0	15	0	0	1	0	0	0
August 11	0	14	0	0	0	0	0	0
August 12	0	5	0	0	0	3	0	0
August 13	0	15	0	0	0	8	0	0
August 14	0	8	0	0	0	1	0	0
August 15	0	4	2	0	0	0	1	0
August 17	0	11	0	0	0	9	0	0
August 19	0	8	0	0	0	8	1	0
August 21	0	5	0	1	0	3	2	0
August 22	0	3	0	0	0	4	0	0
August 23	0	7	0	0	0	0	0	0
August 24	0	5	0	0	0	3	0	0
August 26	0	6	0	1	0	6	2	0
August 27	0	7	0	0	0	1	1	0
August 28	0	11	0	1	0	9	1	0
August 29	0	8	0	1	0	8	1	0
August 31	0	5	0	0	1	7	0	0

September

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
September 2	0	4	0	0	0	9	0	0
September 3	0	4	1	0	1	2	0	0
September 4	0	7	0	0	1	0	0	0
September 6	0	10	0	0	1	6	0	0
September 7	0	12	0	0	1	1	0	0
September 9	0	4	0	0	4	1	0	0
September 10	0	4	0	0	2	2	0	0
September 12	0	4	0	0	1	4	0	0
September 13	0	0	0	0	0	9	0	0
September 14	0	1	0	1	0	0	0	0
September 15	0	0	0	0	0	0	0	0
September 16	0	2	0	0	2	1	0	0
September 18	0	1	0	0	2	6	0	0
September 19	0	6	0	0	3	0	0	0

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

From: Craig Ellison, Agricultural Extension Agent, Northampton County

Light Trap Data from Northampton County

```

*****
                          Number of Adult Insects
*****
          Galatia          Seaboard          Woodland          Jackson
*****
Date      CEW  GSB  BSB  HW  CEW  GSB  BSB  CEW  GSB  BSB  CEW  GSB  BSB
*****
July 26   -   45   2   2   -   -   -   -   -   -   -   -   -
July 29   7   15   1   -   4   6   0   -   -   -   -   -   -
July 30   0   0   0   -   -   -   -   -   -   -   -   -   -
July 31   0   0   0   -   2   1   0   -   -   -   -   -   -
August 1   0   -   -   -   -   -   -   1   0   0   -   -   -
August 4  49  89   0   -  12   4   0   1  18   0   -   -   -
August 5  23   3   0   -   -   -   -   -   -   -   -   -   -
August 6  10   1   0   -   7   1   0   2   1   0   -   -   -
August 8   -   -   -   -  12   3   0   -   -   -   -   -   -
August 11  -   -   -   -  12   2   0   2   2   0   -   -   -
August 12  -   -   -   -   -   -   -   -   -   -  21   1   0
August 13  2   4   0   -  14   7   0   2   3   0   -   -   -
August 14  3   1   0   -   -   -   -   -   -   -  30 138   0
August 15  -   -   -   -   5   0   0   -   -   -   9   3   0
August 19  5  18   0   -  16   6   0   -   -   -  86 31   1
August 20  4   5   0   -  35   8   0   2   1   0  32 22   0
August 22  -   -   -   -  16  44   0   2   0   0  39 22   0
August 25  7  10   0   -   5   3   0   1   2   0  38 41   1
August 27  -   -   -   -   3   0   0   0   0   0   -   -   -
August 28  -   -   -   -   -   -   -   -   -   -   4   5   0
August 29  -   -   -   -   2   1   0   1   3   0   3  16   1
Sept. 2   1   4   0   -  12   8   0   -   -   -  15 22  22
Sept. 3   -   -   -   -   -   -   -   -   -   -   6  15   0
Sept. 9   7   2   0   -   -   -   -   -   -   -  15 29   0
Sept. 15  -   -   -   -   -   -   -   -   -   -   4   1   0
*****
    
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Abbreviations: CEW = corn earworms;
 GSB = green stink bugs; BSB = brown stink bugs

From: Robeson County

Light Trap Data from Robeson County

```

*****
                          Number of Adult Insects
*****
Date      CEW    ECB    AWC    AW    GSB    BSB
*****
July 29         43     -     1     -     3     0
July 30         24     2     0     1     0     0
August 1        41     0     0     -     1     0
August 7        21     1     0     2     1     2
    
```

August 11	16	2	0	7	0	0
August 21	18	-	4	6	1	0
September 3	9	-	1	10	0	0

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

From: Scotland County Extension Center

Light Trap Data from Scotland County

Number of Adult Insects

Date	Gibson					John's					Laurinburg				
	CEW	ECB	GSB	TBW	BSB	CEW	ECB	GSB	TBW	BSB	CEW	ECB	GSB	TBW	BSB
July 23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
July 25	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-
July 28	4	4	-	288	-	5	0	-	559	-	2	1	-	55	-
July 30	60	-	0	-	0	273	-	1	-	0	-	-	-	-	-
August 1	74	-	1	-	0	98	-	0	-	0	24	-	0	-	0
August 4	108	-	2	-	0	268	-	1	-	0	-	-	-	-	-
August 5	-	-	-	-	-	-	-	-	-	-	56	-	0	-	0
August 6	34	-	5	-	0	84	-	2	-	1	-	-	-	-	-
August 8	-	-	-	-	-	-	-	-	-	-	22	-	0	-	2
August 11	32	-	1	-	0	58	-	1	-	1	39	-	1	-	1
August 12	80	-	5	-	0	-	-	-	-	-	80	-	2	-	0
August 13	-	-	-	-	-	144	-	1	-	1	-	-	-	-	-
August 14	34	-	3	-	0	-	-	-	-	-	19	-	0	-	0
August 18	27	-	5	-	0	162	-	2	-	1	15	-	1	-	0
August 21	17	-	3	-	3	71	-	1	-	2	5	-	0	-	0
August 25	-	-	-	-	-	143	-	5	-	2	13	-	0	-	1
August 27	34	-	5	-	0	-	-	-	-	-	27	-	2	-	0
Sept. 3	44	-	19	-	0	34	-	1	-	0	37	-	2	-	1

Abbreviations: CEW = corn earworms; ECB = European corn borers; GSB = green stink bugs; TBW = tobacco budworms; BSB = brown stink bugs

From: Washington County

Light Trap Data from Washington County

```

*****
                        Number of Adult Insects
                        *****
Date                   CEW      GSB      BSB      TBW
*****
July 15                 1        1        -        -
July 18                 4        2        -        -
July 25                 3        -        -        -
July 30                 5        -        -        -
July 31                 4        -        -        -
August 8                -        1        -        -
August 13               13       12       1        2
August 15                4        1        -        -
August 18               19       3        -        -
August 20               17       15       -        -
August 22               15       7        2        -
August 25               15       4        1        -
September 3             -        27       -        -
September 5            13       14       -        -
September 10           15       1        -        -
*****

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Abbreviations: CEW = corn earworms; GSB = green stink bugs; BSB = brown stink bugs; TBW = tobacco budworms

From: Tyler Whaley, Agricultural Extension Agent, Wayne County

Light Trap Data from Wayne County

```

*****
                        Number of Adult Insects
                        *****
                                Goldsboro
                                *****
Date                   CEW      GSB      BSB      HW
*****
July 7                  -        2        -        -
July 9                  -        1        -        -
July 11                 -        1        -        -
July 14                 -        2        -        -
July 16                 4        6        2        -
July 18                 1        2        1        -
July 21                 5        5        1        2
*****

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

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

Light Trap Data from Wilson County

```

*****
                                  Number of Adult Insects
*****
          Kenly                Fountain                Pender's
*****                *****                *****
Date      CEW  ECB  GSB  BSB  HW  CEW  ECB  GSB  BSB  HW  CEW  ECB  GSB  BSB  HW
*****
July 23   1   -   1   0   -   12  0   -   -   1   -   -   -   -   -
July 25   -   -   -   -   -   20  5   -   -   7   -   -   -   -   -
July 26   3   0   -   -   1   -   -   -   -   -   -   -   -   -   -
July 28   3   0   -   -   3   5   -  29  5   3   -   -   -   -   -
July 30   2   -   0   0   -   -   -   -   -   -   1   -   0   0   -
August 1   3   -   0   0   -   6   -  10  0   -   9   -   0   0   -
August 4  22   -   0   0   -  25   -  16  3   -  31   -   6   2   5
August 6   -   -   -   -   -  18   -  23  6   -  45   -   4   0   1
August 7  11   -   0   0   -   -   -   -   -   -   -   -   -   -   -
August 8   3   -   0   0   -  17   -  19  0   -  18   -   6   0   -
August 11  4   -   1   0   -  35   -  19  0   -  64   -   4   2   -
August 13  4   -   1   0   -  10   -  29  3   -  16   -   2   0   -
August 15  5   -   0   0   -   -   -   -   -   -  24   -   0   0   -
August 16  -   -   -   -   -   6   -   2   0   -   -   -   -   -   -
August 18  6   -   1   0   -  21   -  75  6   -  26   -   5   4   3
August 20  9   -   0   0   -  13   -  35  1   -  76   -   2   0   -
August 22  3   -   2   0   -  13   -  46  3   -  32   -   0   0   6
August 25  8   -   0   0   -   2   -  13  1   -   3   -   0   0   4
August 27  -   -   -   -   -   0   -   0   0   -   3   -   0   0   2
August 28  3   -   0   0   -   -   -   -   -   -   -   -   -   -   -
August 29  1   -   0   0   -   2   -   8   2   -   6   -   0   0   -
August 31  3   -  13   0   -   -   -   -   -   -   6   -   0   0   -
Sept. 2   -   -   -   -   -   8   -  17  0   -   -   -   -   -   -
Sept. 3   3   -   4   0   -   -   -   -   -   -   1   -   0   0   -
Sept. 5   2   -   0   0   -   -   -   -   -   -   0   -   0   0   -
Sept. 6   -   -   -   -   -   3   -  11  0   -   -   -   -   -   -
Sept. 8   -   -   -   -   -   3   -  31  1   -  47   -   0   0   -
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Abbreviations: CEW = corn earworms; ECB = European corn borers;
 GSB = green stink bugs; BSB = brown stink bugs; HW = hornworms

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.