



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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FIELD AND FORAGE CROPS 2

- The Stink Bugs are Here!
- Bollworm Moth Flight
- Fall Armyworms on Soybeans
- Peanut Diseases
- Potato Leafhoppers Coming On Strong
- Fall Armyworms on the Horizon

ORNAMENTALS AND TURF 5

- Spiders in the Garden

INSECT TRAP DATA 6

- Light Trap Data from Craven County
- Light Trap Data from Duplin County
- Light Trap Data from Edgecombe County
- Light Trap Data from Hoke County
- Light Trap Data from Lenoir County
- Light Trap Data from Martin County
- Light Trap Data from Onslow County
- Light Trap Data from Robeson County
- Light Trap Data from Scotland County
- Light Trap Data from Union County
- Light Trap Data from Wayne County

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FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

The Stink Bugs are Here!

Stink bugs are far and away the main topic this week. We are in the middle of a combination of at least moderate levels of stink bugs, good moisture levels in much of the state, and a susceptible boll damage state for much of our cotton crop. In all three of our stink bug threshold tests, the untreated checks are over the present threshold level of 10% internal damage to quarter-sized bolls and some individual plots close to 30% internal damage. As was mentioned last week, stick to this 10% damage threshold levels until the beginning of the sixth week of bloom. At that time, the threshold can be relaxed to 20 to 30%.

Examinations of these relatively small quarter-sized bolls for internal stained lint or warts must be done carefully as some of this damage may be subtle. If the correct one-inch size is examined, most scouts will find probably it easier to squash and examine the bolls than to cut into all locks with a knife. Be sure to inspect the inside boll wall surfaces. More efficient scouting will likely result if all bolls are pulled, put into a nail pouch, and examined after exiting the cotton field. Transferring the bolls into zip lock bags and examining the bolls from a number of fields at the same time may also shorten the process. One final observation: when examining the bolls for internal damage, cut open the bolls with apparent external damage first. This will result in the opening of the bolls with the highest probability of internal damage first, and if the threshold has been met early in the boll sample, the remainder of the bolls will not need to be sampled if the producer or consultant is only seeking a spray vs. no-spray decision. On the other hand, the producer may be interested to find out if the threshold has only barely been reached or if the field is several times the threshold level of damage.

Based on telephone calls and our own observations, a significant proportion of our cotton fields has probably reached or will soon reach the threshold level. Recent research in the Southeast has shown that a timely application based on threshold levels of damage during weeks 3 to 5 or 6 of blooming more that offsets the application cost. Also be aware the a grow may have one field that requires two stink bug treatments while another may not reach threshold, so scouting-based sprays are key.

Generally expect higher boll damage from stink bugs in areas of greater moisture.

Bollworm Moth Flight

As of July 31, the bollworm moth flight was underway throughout the state, though just getting underway in our northern counties. A July 27 count of more than 700 moths in a Scotland County light trap indicates that this flight is may be on the high side this season.

Because we are still getting reports of mostly brown stink bugs and with the flight underway, tank mix combinations of Bidrin plus pyrethroid insecticide are probably appropriate at this time.

With an apparently large corn earworm moth flight either underway or on the way, stink bug levels moderate to high and soybean prices decent, this would not a good year to overlook the possibility of pod damage, so scouting soybean fields should be a high priority this year.

Fall Armyworms on Soybeans

We have a couple of unusual reports of localized damage fall armyworm to soybeans in the far eastern counties, in one case causing defoliation in the 30% range. Fall armyworms can be difficult to control, particularly if they are more than one-half grown (approximately one-half inch). For fall armyworm control, consider Steward, Radiant, Tracer, Intrepid, and Larvin. Let's hope that these infestations are localized.

From Barbara Shew, Extension Plant Pathologist

Peanut Diseases

Most peanut production areas in North Carolina have received frequent rainfall in the past few weeks. Sclerotinia blight started early this year and conditions continue to be very favorable for Sclerotinia. Disease advisories currently show high Sclerotinia hazard at most locations and are recommending sprays. Fields with a history of Sclerotinia blight should be scouted carefully.

Leaf spot advisories have been a little more hit or miss due to some unusual spells of low humidity earlier in the month. Humidity is picking up now and most locations are ready for the second spray of the season, if it has not been applied already.

Now is the time to pay attention to stem rot control. For the next 4 to 6 weeks, most peanut fields in our area will benefit from treatment with fungicides that control stem rot and other soil borne diseases, in addition to continued foliar disease control. To receive daily peanut disease advisories, contact your county Extension agent or Barbara Shew (Barbara.Shew@ncsu.edu).

From: Steve Bambara, Extension Entomologist

Potato Leafhoppers Coming On Strong

Some recently-scouted alfalfa fields had significant populations of potato leafhoppers (Fig. 1). "Hopper burn" (Fig. 2) was evident and building. If fields haven't been scouted for potato leafhoppers (Fig. 3) already, they need to be. Options are early cutting or application with Sevin or an appropriate pyrethroid insecticide. Perhaps an over-simplified threshold is 1 hopper per sweep with plants less than 6 inches tall, and 1.5 hoppers for plants taller than 6 inches. The alfalfa variety and chemical may influence your decision. See http://ipm.ncsu.edu/alfalfa/Scouting_Alfalfa/scouting_for_insects.html on the Internet for scouting procedures.



Fig. 1. Untreated versus treated alfalfa. Image from *Scouting Alfalfa in North Carolina*, Publication AG-516, North Carolina Cooperative Extension Service.



Fig. 2. Close-up of “hopper burn.” Image from *Scouting Alfalfa in North Carolina*, Publication AG-516, North Carolina Cooperative Extension Service.



Fig. 3. Potato leafhopper adult and nymph. Image from Kansas State University.



Fig. 4. Fall armyworm. Image by C. Gorsuch (<http://www.bugwood.org>).

Fall Armyworms on the Horizon

There have been reports of a few fall armyworms (Fig. 4) in a Bermudagrass pasture from Duplin County and an adult moth in a light trap from Craven County. Start checking fields, and look for bird activity. Also, walk out into the field. Populations usually start on field edges and along fences or lighted buildings. There are several good insecticide choices when detected early, but check the product label to make sure they apply to the specific needs and harvest interval of the crop (see page 90 of the *North Carolina Agricultural Chemicals Manual*; <http://ipm.ncsu.edu/agchem/5-toc.pdf>). Also, the Alabama Cooperative Extension has an excellent publication on fall armyworm management in pastures and hayfields (<http://www.aces.edu/pubs/docs/A/ANR-1019/>).

ORNAMENTALS AND TURF

From: Steve Bambara, Extension Entomologist

Spiders in the Garden

Spiders receive little respect for their efforts in the landscape. Below are three pictures sent to us by Van Burnette of Black Mountain, North Carolina (Figs. 5-7). Fig. 5 would be a pleasant surprise to anyone in the potting shed. This is probably the work of *Agelenopsis* sp., one of the grass spiders. Fig. 6 is probably *Dolomedes tenebrosus*, a fishing spider. These can be quite large and are often seen on a vertical surface with head pointed down. Fig. 7 is probably the orb spider, *Neoscona crucifera* [syn.*hentzii*], that produces the classic spider web and is common in the garden or around barns. Fig. 8 is *Argiope aurantia*, from Mariellen Klick. For information on spiders in the landscape, see *Ornamental and Turf Insect Note No. 137* at <http://www.ces.ncsu.edu/depts/ent/notes/Other/note137/note137.html>.



Fig. 5. Spider. Image by Van Burnette.



Fig. 6. Spider. Image by Van Burnette.



Fig. 7. Spider. Image by Van Burnette.

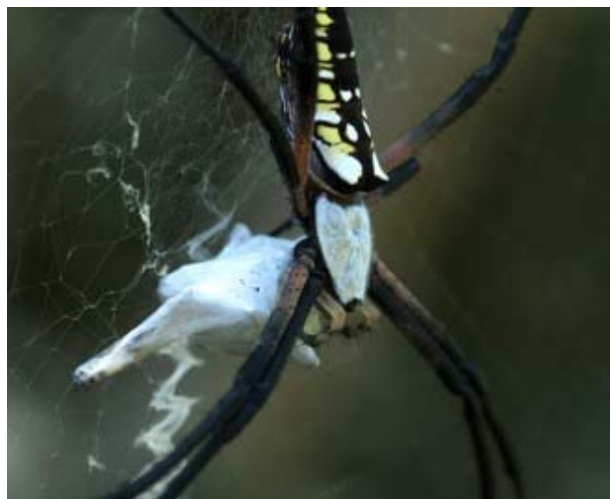


Fig. 8. Spider. Image by Mariellen Klick.

Appreciation is extended to David Stephan, Extension Specialist, Department of Entomology, North Carolina State University, for his spider identifications.

INSECT TRAP DATA

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      -      -
*****

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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
*****

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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
*****

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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

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*****
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       -
*****

```

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

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*****
                        Number of Adult Insects
*****
Date      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
*****

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July

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*****
                        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

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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

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

BW = Bollworm moths; GSB = Green stink bugs

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	-	-

GSB = green stinks bugs; BSB = brown stink bugs

Trap Location: Richlands; Cooperator: Richlands 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 16	9	-	-	-
July 17	13	-	-	-
July 18-19	34	-	-	-
July 20	32	4	-	-
July 21	29	3	-	-
July 22	31	-	-	-
July 23	24	4	-	-
July 24	17	-	-	-
July 25-26	49	-	-	-
July 27	29	-	-	-

BW = bollworms; GSB = green stick bugs;
BSB = brown stink bugs; FAW = fall armyworms
Trap location: Rowland; Cooperator: Kay McGirt

From: David E. Morrison, Agricultural Extension Agent, Scotland County

Light Trap Data from Scotland County

Number of Adult Insects

Date	Gibson				John's				Laurinburg			
	BW	GSB	BSB	FAW	BW	GSB	BSB	FAW	BW	GSB	BSB	FAW
July 10	7	10	0	0	3	3	0	0	5	1	0	0
July 13	27	33	0	0	7	9	1	0	2	0	0	0

July 15	16	11	1	0	35	1	0	0	17	1	0	0
July 17	14	21	0	0	0	0	0	0	17	1	0	0
July 20	23	22	0	0	23	6	0	0	72	2	0	0
July 22	25	9	0	0	49	4	0	0	78	3	0	0
July 24	66	24	0	0	247	18	1	0	153	15	0	0

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

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

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

Date	Seven Springs				Goldsboro			
	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	-

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

Cooperators: D. M. Price (Seven Springs); Willie Howell (Goldsboro)

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.