

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

FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

Stink Bugs and Bollworms

As we have mentioned during the past few weeks, research conducted in the Southeast during the past two years strongly suggests that cotton is most susceptible to economic damage from stink bugs during weeks 3 through 5 or 6 of the bloom period. That means our internal boll damage thresholds are lowest during this period – only 10 percent. Many folks appear to be sampling bolls that are greater than quarter-sized. Although damage is easier to find and tends to be somewhat higher in larger bolls, quarter-sized bolls provide us with the best picture of recent damage. This in turn provides us with a better opportunity to catch stink bugs in the act.

Remember that thresholds for more than one boll damaging pest at the same time tend to be additive, particularly if the same material or tank mix can control the pests in question – in this case stink bugs and bollworms. If a scout finds at or above 50 percent of the stink bug threshold and 50 percent or more of the bollworm threshold, it's time to treat. This situation is more likely to apply this season in Bollgard than in Bollgard II cotton, with Widestrike being intermediate.

Also remember that with all cotton *Bt* technologies, a stink bug spray with an organophosphate insecticide such as Bidrin or Orthene makes a subsequent bollworm spray more likely, assuming that the bollworm moth flight is underway. This does not mean in any way that producers shouldn't respond to threshold levels of stink bugs; only that successful bollworm establishment is more likely and that a follow-up scouting trip within 4 to 7 days is strongly advised. Tank mixes of a pyrethroid plus Bidrin are often advised in situations like this. In Bollgard, Widestrike and Bollgard II cotton, these tank mixes are often effective at the industry rate of the pyrethroid insecticide and the low to medium rate of Bidrin; that is, 4 to 6 ounces of the latter. Again, good scouting often separates the good decisions from the educated, semi-educated and the uneducated guesses.

Although not true for all areas of the state, we have been noticing a higher proportion of brown than green stink bugs so far. Although green stink bugs often become a greater proportion of the stink bug mix as the season progresses, we're presently in crunch time, and pyrethroid insecticides alone sometimes provide less than good control of moderate to high levels of brown stink bugs.

One final observation is that presently levels of stink bug and bollworm moths and their eggs vary greatly throughout the state. As of July 31, two of our four stink bug threshold tests still had damage in the single digits in the untreated checks. In the next 1 to 3 weeks, look for the later-maturing, lusher cotton fields to attract more of the bollworm moths and stink bugs, and be susceptible longer due to less mature bolls.

FRUIT AND VEGETABLES

From: Mark Abney, Extension Entomologist

Rindworms in Watermelons

The presence of rindworm feeding scars on watermelon can cause big problems for growers trying to market their crop. So what are rindworms anyway? The rindworm complex is actually a group of insects that is partially made up of armyworms, corn earworms, loopers, cutworms, and cucumber beetle larvae (a.k.a. corn rootworms). Most of these pests feed preferentially on the stems and leaves of cucurbits, but they cause the most economic damage when they feed on fruit. Fruit feeding by caterpillars typically occurs on the upper surfaces of melons causing shallow and irregular damage (Figs. 1 and 2). Conversely, cucumber beetle larvae live in the soil and often become a problem in melons when soil is moist after heavy or prolonged rainfall. Larvae move to the top of the soil and then feed (often undetected) on the undersides of developing fruit. Unfortunately, there is no effective control for cucumber beetle larvae at this stage of crop development. Pre-plant insecticides can control early season larvae, but later generations will not be affected. Some states recommend controlling adult cucumber beetles to reduce larval populations, but published data are scarce. Preventing damage from other members of the rindworm complex requires careful scouting, accurate pest identification and properly timed insecticide application. Foliage and fruit surfaces should be examined closely for the presence of eggs and young larvae. Low numbers of caterpillars before fruit set are not likely to require control, but even small caterpillar populations can result in significant fruit damage. Because not all insects are equally susceptible to all insecticides, accurate pest identification is critical for effective control. Please refer to the *North Carolina Agricultural Chemicals Handbook* (<http://ipm.ncsu.edu/agchem/5-10.pdf>) for a list of recommended insecticides for use in watermelon. Remember that pollination by bees is vital to proper watermelon fruit set, so insecticide applications should be made in the late afternoon or evening to minimize impact on pollinators.



Fig. 1. Rindworm feeding damage on watermelon. Image from Mark Abney.



Fig. 2. Severe rindworm feeding damage on watermelon. Image from Mark Abney.

ORNAMENTALS AND TURF

From: Mike Benson, Department of Plant Pathology

Learn How to Protect Your Business From Chrysanthemum White Rust!

Spend the best 30 minutes of your business life at a free chrysanthemum white rust educational event! Chrysanthemum white rust is a quarantine-significant pest, so it's particularly important for you to be aware of steps you can take to avoid the disease in your fall chrysanthemum crop.

Two upcoming free online seminars on August 5, 2008 and August 12, 2008 are available, but you must register. Click below to go to the online web site for more information and to register.

http://www.magnetmail.net/actions/email_web_version.cfm?message_id=520262&user_id=SAFlorists

From: Steve Bambara, Extension Entomologist

Goldenrain Tree Bugs

In keeping with the theme of gold and the upcoming Olympics, I mention *Jadera haematoloma* (Fig. 3), one of the scentless plant bugs that feed on rose-of-Sharon and Chinaberry and the seeds of goldenrain trees that fall to the ground. It has no official common name. It also feeds in a minor way on some other plants. This bug is in the same family as the boxelder bug, and like the boxelder bug *Jadera haematoloma* sometimes becomes extraordinarily abundant. These bugs seek sheltered spots to overwinter. During the winter they will probably crawl out on sunny days and retreat during dark, cloudy, cold weather. Populations have been seen at this time in past years. It is questionable whether control is necessary.



Fig. 3. *Jadera haematoloma*. Image by James R. Baker.

Golden Tortoise Beetles

Sometime soon, holes may start appearing in ornamental sweetpotato foliage. One of the causes may be golden tortoise beetles. Tortoise beetles (Figs. 4 and 5) are small, round beetles that are more or less shaped like the body of a . . . tortoise! The most attractive is the golden tortoise beetle that has a wonderful iridescent golden color (Fig. 6) when they are alive. The mottled tortoise beetle and Argus tortoise beetle feed on morningglory, sweetpotato and other related vines. These beetles overwinter as adults under bark or in leaf litter or other dry places. In the spring the beetles emerge and feed on weeds until morningglories or sweetpotatoes leaf out. Females deposit clusters of eggs under the leaves and grubs hatch a week or so later. Several generations occur each year. Hand picking beetles, application of Sevin or other contact insecticide should provide adequate control.



Fig. 4. Tortoise beetle larva. Image by Drees (Texas A&M University).



Fig. 5. Tortoise beetle adult. Image by James R. Baker.



Fig. 6. Golden tortoise beetle adult. Image by Drees (Texas A&M University).

Will Fall Armyworms Attack?

Fall armyworm adults have been showing up in light traps within recent weeks. They have blown up from the Gulf of Mexico states after a brief stop at "South of the Border" on the South Carolina state line for fireworks. Larvae are presumed to be developing at this time. Watch for fall armyworm damage in lawns and pastures. Turf that is the highest risk is the newly-sodded areas or areas that have just been sprigged or seeded. Fall armyworms seem to find these areas first and can really damage the turf. Keep a watch on such areas over the next two months. Infestations often start along one edge and move outward. Infestations may also start near a light source since moths are attracted to lights. If you see a lot of birds present in a turf area, become suspicious of the presence of caterpillars such as fall armyworms. We'll keep you informed.

INSECT TRAP DATA

From: Al Hight, County Extension Director, Brunswick County

Light Trap Data from Brunswick County

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*****
                Corn           Green
                earworm        stink
Date           moths          bugs
*****
July 28                18                6
July 29                16                3
July 30                14                -
July 31                light turned off
August 1               37                6
*****

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From: Mike Williams, County Extension Director, Chowan County

Light Trap Data from Chowan County

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*****
                        Bollworm      Stink
Date                   moths         bugs
*****
July 24                 10            -
July 25                 15            2
July 26                 14            0
July 27                 -            -
July 28                 66            3
July 29                 50            0
July 30                 -            -
July 31                 228           3
*****
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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 18    4    0   28    4    1    2    7    -    -
July 21    0    0    6    6    1    5    3    1    1
July 23    3    0   21    1    1    2    4    0    1
July 25    3    1   29    4    0    3    1    1    0
July 28    2    1   82    3    1    3    0    2    3
July 30    5    -   62    3    1    3    6    3    3
*****
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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: 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 23    1     8     1     0
July 25    2    29     1     0
July 28    6   165    13     0
*****
```

July 30 2 190 3 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	0	0
July 4	1	4	0
July 7	1	8	0
July 9	0	6	0
July 11	0	12	1
July 14	2	1	0
July 16	1	1	0
July 18	4	0	0
July 21	12	2	2
July 23	21	0	1
July 25	48	5	0
July 28	62	0	1
July 30	-	-	-
August 1	105	3	0

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

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

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 1	0	2	0	0	0	0	0	0
June 2	0	3	0	0	0	1	0	0
June 3	0	1	0	1	0	3	0	0
June 4	0	1	0	0	0	3	0	0

June 5	0	2	0	0	0	2	0	0
June 6	0	3	0	0	0	0	0	0
June 7	1	1	0	0	0	2	4	0
June 8	1	2	1	1	0	1	1	0
June 9	0	2	0	1	1	4	2	0
June 10	1	2	0	1	1	2	1	0
June 11	1	2	0	1	1	1	1	0
June 12	0	1	0	1	1	0	0	0
June 13	0	2	0	1	1	0	0	0
June 14	0	1	1	0	2	0	0	0
June 15	0	2	2	0	0	2	2	0
June 16	0	3	1	0	0	1	0	1
June 17	0	0	0	0	2	1	0	0
June 18	1	2	0	0	2	1	0	1
June 19	0	0	0	0	1	0	0	0
June 20	0	2	2	0	1	0	0	0
June 21	0	3	0	0	3	0	0	0
June 22	0	6	1	0	0	2	0	0
June 23	1	3	1	0	2	3	0	0
June 24	0	2	0	0	3	0	0	0
June 25	0	4	2	0	3	0	1	0
June 26	1	1	0	0	4	1	0	0
June 27	0	1	1	0	0	0	0	0
June 28	0	2	0	0	0	1	0	0
June 29	0	2	0	1	3	2	0	0
June 30	1	0	0	0	2	0	0	0

July

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
July 1	0	4	0	2	5	0	0	1
July 2	1	1	1	0	3	0	0	0
July 3	0	1	2	0	7	0	0	0
July 4	3	1	3	0	4	2	0	0
July 5	1	0	0	0	2	0	0	0
July 6	2	6	4	0	4	1	0	0
July 7	1	4	0	0	3	0	0	0
July 8	3	2	2	0	0	2	0	0
July 9	2	2	3	0	2	0	0	0
July 10	3	2	1	0	0	0	0	0
July 11	3	2	3	2	1	0	0	0
July 12	4	0	1	2	0	0	0	1
July 13	3	2	1	1	1	0	0	0
July 14	5	1	3	0	2	1	0	0
July 15	5	3	3	0	3	0	0	1
July 16	3	3	1	3	1	1	0	0
July 17	0	2	0	0	0	0	0	0
July 18	0	4	0	0	0	3	0	0
July 19	1	4	0	0	0	0	0	0
July 20	1	7	1	0	0	1	0	0
July 21	1	10	0	0	1	4	0	0
July 22	0	4	1	0	1	1	0	0
July 23	1	16	0	0	0	1	0	0
July 24	1	19	0	0	0	2	0	0
July 25	1	47	1	2	1	0	0	1

July 26	0	52	0	0	0	1	0	0
July 27	0	47	0	1	0	1	0	0
July 28	0	36	0	0	0	0	0	0
July 29	1	61	1	0	1	4	0	1
July 30	0	32	0	1	0	1	0	0
July 31	0	37	1	0	1	1	0	1

August

Number of Adult Insects

Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
August 1	0	41	0	0	0	1	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: 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 9	-	0	1	0	-	-	-	-
July 11	-	0	1	0	-	-	-	-
July 14	-	4	2	2	-	-	-	-
July 16	-	0	1	0	-	-	-	-
July 18	-	3	0	0	-	-	-	-
July 21	-	17	4	0	-	-	-	-
July 23	2	0	1	9	4	0	4	1
July 25	0	0	0	0	1	1	22	1
July 28	10	0	10	30	17	1	119	2
July 30	3	1	11	23	2	9	116	3
August 1	1	0	10	11	-	-	-	-

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

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*****
                        Number of Adult Insects
*****
          Lucama      Pender's Xrds      Sims      Fountain
*****      *****      *****      *****
Date          CEW  GSB      CEW  GSB      CEW  GSB      CEW  GSB
*****
July 21          -   -          5   0          -   -          3   5
July 23          4   5          7   0          1   1          7   5
July 25          6   5          2   0          0   0          16  4
July 28          14  10         9   1          3   1          20  5
July 30          12  5          16  1          3   2          22  3
August 1         13  1          -   -          7   1          23  4
*****

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CEW = corn earworms; GSB = green stink bugs

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