NC STATE UNIVERSITY College of Agriculture & Life Sciences | NC Cooperative Extension Service

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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See current and archived issues of the *North Carolina Pest News* on the World Wide Web at:
http://ipm.ncsu.edu/current_ipm/pest_news.html

ANNOUNCEMENTS AND GENERAL INFORMATION

From: Stephen J. Toth, Jr., Extension Entomologist

Pest Management/Pesticide Information Available on Web Sites

Several North Carolina State University web sites containing pest management and pesticide information are available for county Extension agents, growers, pesticide applicators, agricultural consultants, pest control operators, landscapers, homeowners and other interested persons. The first site is the College of Agriculture and Life Sciences' *Pesticide Programs and Educational Resources* web page at: http://ipm.ncsu.edu/pesticides. This site is a portal to a variety of programs in the College that address pesticide-related topics ranging from agromedicine to wildlife protection. Also, links are provided to newsletters, fact sheets, manuals, and other pesticide information sources available from the various academic departments in the College of Agriculture and Life Sciences.

The second site is the *North Carolina Pest Management Information Program* web page at: http://ipm.ncsu.edu/ncpmip. This program serves as an information resource on current agricultural and non-agricultural pest management practices, problems and issues in North Carolina and offers timely, science-based pest management and pesticide information to readers. The site provides access to pest management profiles (i.e., *crop profiles*) for agricultural crops and non-agricultural sites in North Carolina.

The third site is the *North Carolina Pesticide Safety Education Program* web page at: http://ipm.ncsu.edu/pesticidesafety. This program promotes the responsible use of pesticides in North Carolina through educational resources and training. Information on pesticide certification, licensing, training, disposal, container recycling, record keeping, etc. is available on the site.

The fourth site is the *Southern Region Integrated Pest Management (IPM) Center* web page at: http://www.sripmc.org. The Southern Region IPM Center, funded by the U. S. Department of Agriculture and managed at North Carolina State University, supports numerous IPM research, educational and regulatory activities and the communication of IPM within the Southern U. S. The site provides considerable information on IPM in a variety of settings, both agricultural and non-agricultural.

Bookmark these web sites on your computer for timely, up-to-date information on pest management and pesticides in North Carolina and the Southern U. S.

FIELD AND FORAGE CROPS

From: Jack S. Bacheler, Extension Entomologist

Cotton Bollworms

Black light trap counts of bollworm moths are sharply down across virtually all of North Carolina compared to a week ago. Unfortunately, black light traps are unattractive to tobacco budworm moths, and budworms this year have remained part of the bollworm/budworm mix far longer than is typically the case here. This is probably part of the reason for the worm control

difficulties experienced by a number of producers in recent weeks. High levels of bollworm moths up to a few days ago and a high proportion of stuck dried bloom tags haven't help matters either. In Rocky Mount on the morning of August 18, several pairs of budworm and bollworm pheromone traps revealed approximately twice as many budworm moths as bollworm moths. Even with these lower overall moth numbers, later maturing, attractive cotton is still in evidence in some areas of the state (particularly where moisture conditions are good), so responding to threshold levels of bollworms is still advised, although these thresholds can probably be raised two to three fold if boll inspections center on blooms tags instead of a random sample of all boll sizes.

Fall Armyworms on Cotton

Reports of fall armyworms have remained about the same this week, with only occasional cotton fields in need to treatment for combinations of bollworms and fall armyworms. This would be a good pest to watch, however, for about the next two weeks. On the positive side, in North Carolina fall armyworms have a difficult time getting beyond the point of "windowpaning" the inner bract surfaces of medium and large bolls after about September 1.

Bug Damage on Cotton

Damage to quarter-sized bolls from stink bugs and plant bugs appear to have decreased sharply the past week over much of the state. Last week, our untreated checks in a Wayne County stink bug test showed 30 percent internal damage from primarily stink bugs. This week internal damage to quarter-sized bolls in the untreated plots was only 5 to 6 percent. In Rocky Mount, damage was also low. However, expect possible stink bug buildups in ranker cotton with good moisture levels. We are still in the period of moderate to high boll susceptibility in cotton that has not begun to "cut out." This would be a good time to increase thresholds to the 20 or 30 percent range in fields that contain mostly large bolls. Be sure to continue to sample only quarter-sized bolls for internal wart or stained lint damage.

ORNAMENTALS AND TURF

From: Stephen B. Bambara, Extension Entomologist

Slime Flux Attractive to Insects

Slime flux (Fig. 1) is a bacterial disease that affects hardwood trees such as oaks. Gas (carbon dioxide) is produced by fermentation by bacteria. The gas produces pressure in the wood. This pressure forces sap from the trunk through cracks in any weak spot in the bark. This oozing of sap is termed fluxing. This would attract many different kinds of insects, such as hornets, wasps, flies, and butterflies. Besides the sweet and fermentation odors (which some have described as resembling that of whiskey) moisture may also be attracting insects during drought. In addition to the sap, some hornets might find it easy pickings to prey upon the other visiting insects.

There is no way to stop the fluxing. Frequent watering might wash off enough sap and reduce the odors, but most people don't want to bother to do it often enough. Sevin dust discourages many visitors, but a pyrethroid-based spray, if applied to the fluxing spot directly, should work to repel

insects for a while. You could also try using some screening over it, or heavy mulching over the spot if it is at the base of the tree. Be sure to remove the mulch after the fluxing stops. The insects themselves are not harming the tree and nothing really needs to be done about it if it doesn't bother you. For more about slime flux, see *Ornamental Disease Note No. 8* at: http://www.ces.ncsu.edu/depts/pp/notes/oldnotes/od8.htm.

Fig. 1. Slime flux. Image from Randy Cyr (forestryimages.org).

North Carolina Pesticides and Kelly Solutions

The North Carolina Department of Agriculture & Consumer Services (NCDA&CS) cooperates with Kelly Solutions to provide a website that lists all pesticides registered in North Carolina. This database is searchable by trade name, active ingredient, pest, or application site. There are many other searchable items among this database. It can tell you if a product registration is current, discontinued or not been renewed. I encourage you to use this resource, which is available at: http://www.kellysolutions.com/nc/.

Stinging Caterpillars

Just a reminder that "'tis the season" and we've already had reports of stinging caterpillars. Some of the stinging caterpillars are called slug caterpillars because their prolegs lack the tiny hooks that most other caterpillars have, and the prolegs are so short that some of the slug caterpillars resemble slugs. Several species of slug caterpillars, saddleback caterpillars (Fig. 2), hag moth caterpillars and stinging rose caterpillars, have stinging hairs that can inflict a quite painful sensation.

Fig. 2. The saddleback caterpillar, one of the stinging caterpillars. Image from James R. Baker.

Some people are sensitive to exposure and may require professional medical treatment. Slug caterpillars overwinter in tough silk cocoons. Moths emerge the following spring and summer and lay flat eggs on leaves of various trees and shrubs. Puss caterpillars (Fig. 3) are one of the stinging caterpillars in the family of flannel moths. They produce a stinging sensation when brushed against due to tiny hollow spines, which are filled with an urticating fluid. Puss caterpillars feed on various deciduous trees and shrubs, especially oak, elm, hackberry, maple, and sycamore trees. The moths are yellow-brown in color and have fluffy, wavy, white hairs. The young larvae sometimes feed in groups on the surface of the leaf. Older larvae devour the entire leaf. The caterpillars finally spin a dense cocoon in which it spends the winter. Puss caterpillars are usually not abundant enough to be noticed, although rare outbreaks may be widespread and may cause noticeable defoliation. Two generations probably occur each year, and the winter is spent in the cocoon spun some place on the host tree. Sevin or one of the *Bacillus thuringiensis* (*B.t.*) pesticides should give adequate control, although *B.t.* is not very effective on older caterpillars. Usually only a few are found and chemical control is not needed. Crush the insects with a stick or rock, if desired. You can also leave it alone. For more information, see the Extension publication *Stinging and Venomous Caterpillars* from the University of Florida at: http://edis.ifas.ufl.edu/IN014.

Fig. 3. Puss caterpillar and adult moth. Image from James R. Baker.

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
July 24	55	48	7	101	1	2	211	13	0	59	26	3	24	0	0
July 26	0	0	0	157	3	0	250	9	0	46	18	1	23	1	0
July 28	0	0	0	133	1	0	185	12	0	44	8	0	27	2	0
July 31	-	-	-	132	5	0	215	14	0	36	9	2	42	3	0
August 2	-	-	-	118	4	1	230	15	0	43	8	0	33	2	0
August 4	-	-	-	102	1	0	245	12	0	57	11	0	10	0	0
August 7	71	158	9	80	1	0	375	9	0	52	4	0	5	1	0
August 9	39	14	0	28	0	0	150	6	0	67	3	0	16	0	0
August 11	42	21	1	38	5	0	145	4	0	61	7	0	17	0	0
August 14	36	6	0	52	0	0	180	5	0	84	1	0	26	0	0
August 16	22	46	1	28	3	0	168	14	0	42	4	0	15	1	0
August 18	11	17	0	27	1	0	152	19	0	28	0	0	24	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
July 21	7	1	0	5	2	0	1	6	0	-	-	-	-	-	-
July 22	1	6	0	-	-	-	-	-	-	-	-	-	-	-	-
July 23	15	2	0	-	-	-	-	-	-	-	-	-	-	-	-
July 24	18	0	0	14	1	0	5	11	0	-	-	-	15	0	0
July 25	19	6	0	27	0	0	4	2	0	-	-	-	18	0	0
July 26	10	1	0	24	3	0	4	7	0	-	-	-	35	1	0
July 27	35	9	0	24	5	0	2	7	0	9	1	0	15	2	0
July 28	22	2	0	-	-	-	3	7	0	11	0	0	46	0	0
July 29	30	3	0	-	-	-	-	-	-	-	-	-	-	-	-
July 30	55	1	0	-	-	-	-	-	-	-	-	-	-	-	-
July 31	102	0	0	7	1	0	54	31	0	50	6	0	60	4	0
August 1	93	4	0	178	1	0	39	7	0	16	4	0	170	0	0
August 2	215	10	0	87	8	0	53	6	0	19	3	0	236	6	0
August 3	265	12	0	77	1	0	66	12	0	-	-	-	305	3	0
August 4	202	8	0	83	4	0	65	5	0	19	5	0	351	4	0
August 5	115	3	0	80	2	0	-	-	-	31	5	0	-	-	-
August 6	34	3	0	56	0	0	-	-	-	-	-	-	-	-	-
August 7	14	0	0	42	3	0	92	0	0	21	2	0	470	0	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
July 21	1	6	-	-
July 22	7	2	-	-
July 23	-	-	-	-
July 24	43	2	-	-
July 25	40	2	-	-
July 26	35	1	-	-
July 27	41	13	-	-
July 28	51	27	-	-
July 29	46	4	-	-
July 30	81	68	-	-
July 31	160	8	-	-
August 1	140	7	-	-
August 2	137	19	-	-
August 3	265	20	-	-
August 4	161	21	-	-
August 5	103	5	-	-
August 6	-	-	-	-
August 7	65	0	-	-
August 8	51	0	-	-
August 9	78	2	-	-
August 10	11	0	-	-

August 11	21	0	-	-
August 12	17	0	-	-
August 13	8	0	-	-
August 14	10	0	-	-
August 15	35	0	-	-
August 16	85	0	-	-
August 17	36	0	-	-
August 18	41	1	-	-

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
July 24	4	0	42	3	0	4	2	0	0
July 25	2	0	21	4	1	0	0	0	0
July 26	1	1	36	2	0	0	0	0	0
July 27	2	0	31	1	1	0	0	0	0
July 28	4	0	43	2	0	0	0	0	0
July 31	9	0	318	16	1	0	2	0	0
August 1	0	2	96	3	0	1	3	0	0
August 2	4	0	187	7	3	1	2	0	0
August 3	1	0	153	3	1	0	0	0	0
August 4	4	0	149	6	1	0	0	0	0
August 7	3	2	179	2	0	0	4	0	0
August 9	0	0	42	0	0	0	2	0	0
August 11	0	0	23	0	1	0	0	0	0
August 14	4	0	24	0	0	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

Date	Number of Adult Insects			
	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
July 17	4	16	29	1
July 19	19	40	23	1
July 21	28	129	10	2
July 24	13	439	10	0
July 26	4	401	0	0
July 28	6	321	15	1
July 31	-	-	-	-
August 2	9	180	46	8
August 4	-	-	-	-
August 7	9	466	67	5
August 9	1	103	20	0
August 11	0	114	24	0
August 14	4	152	14	0
August 16	1	91	24	1
August 18	4	141	50	0

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

Date	Number of Adult Insects		
	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
July 24	321	15	0
July 26	286	9	0
July 28	161	7	0
July 31	715	32	0
August 2	557	60	1

August 4	525	32	2
August 7	152	12	1
August 9	57	13	2
August 11	48	2	1
August 14	13	0	0
August 16	14	0	0
August 18	31	3	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	0	0	2
July 24	-	-	-	29	1	61	5	0	0
July 26	30	0	2	46	0	11	55	0	11
July 28	45	1	8	46	0	14	11	0	2
July 31	117	1	13	72	0	39	1	0	0
August 2	50	0	8	107	0	14	11	0	5
August 4	58	0	13	190	0	39	70	0	1
August 7	30	0	1	79	0	1	22	0	1
August 9	29	1	3	39	0	3	11	0	4
August 11	25	0	4	-	-	-	3	0	1
August 14	-	-	-	35	0	1	1	0	0
August 16	23	0	4	169	0	16	7	0	2
August 18	13	1	2	122	0	2	4	0	0

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: Arthur Whitehead, Jr., Agricultural Extension Agent, Halifax County

Light Trap Data From Halifax County

	Hobgood			Scotland Neck			West Enfield			Weldon		
Date	CEW	GSB	BSB	CEW	GSB	BSB	CEW	GSB	BSB	CEW	GSB	BSB
July 17	-	1	-	-	-	-	-	-	-	-	-	-
July 19	-	-	-	-	-	-	-	-	-	-	-	-
July 21	-	-	-	-	-	-	10	0	0	5	0	0
July 24	5	2	-	7	4	-	8	-	4	10	3	-
July 26	55	-	-	8	7	-	10	3	-	16	3	-
July 28	-	-	-	11	-	-	23	-	-	-	-	-
July 31	1	-	-	16	-	-	27	-	-	16	-	-
August 2	11	-	-	22	-	-	26	-	-	-	-	-
August 4	70	-	-	25	-	-	29	-	-	4	-	-
August 7	22	-	-	32	-	-	28	-	-	10	-	-

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

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
July 24	23	14	11
July 26	223	9	17
July 28	198	7	7
July 31	327	23	18
August 2	276	32	18
August 4	147	11	2
August 7	353	36	8
August 9	78	6	0
August 11	167	7	0
August 14	319	13	0
August 16	64	12	0

August 18	51	13	0

GSB = green stink bugs; BSB = brown stink bugs

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

From: Curtis D. Fountain, County Extension Director, Jones County

Light Trap Data From Jones County

	Number of Adult Insects			
Date	BW	GSG	BSB	HW
July 21	3	3	1	2
July 24	4	1	0	2
July 26	6	1	7	3
July 28	63	0	0	10
July 31	140	1	6	7
August 2	244	4	1	10
August 4	265	2	4	6
August 7	25	1	2	9
August 9	28	1	0	3
August 11	16	0	0	5
August 14	2	0	0	3
August 16	1	0	0	2
August 18	1	0	0	2

Trap Location: Comfort
Monitored by: Morris and Brett Pike

BW = bollworms; GSG = green stink bugs;
BSB = brown stink bugs; 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 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

July

	Number of Adult Insects							
Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
July 1	1	12	1	0	0	2	0	0
July 2	1	6	0	0	1	0	0	0
July 3	0	4	0	0	0	2	2	0
July 4	0	3	0	0	0	7	0	0
July 5	0	4	0	1	0	4	1	0
July 6	0	5	0	0	0	4	0	0
July 7	0	8	3	1	2	1	0	1
July 8	0	3	0	0	1	3	0	1
July 9	0	3	0	0	0	0	0	0
July 10	0	2	0	0	0	1	0	0
July 11	0	5	0	0	1	3	0	0
July 12	0	12	0	0	1	6	0	0
July 13	0	5	0	0	1	3	0	0
July 14	0	12	0	0	4	7	0	0
July 15	0	9	0	1	0	2	0	0
July 16	0	6	1	0	0	2	0	0
July 17	1	8	4	1	1	4	0	0
July 18	2	14	3	1	2	13	1	0
July 19	0	12	12	1	7	20	1	3
July 20	1	7	9	1	7	2	0	2
July 21	2	12	8	1	5	3	0	1
July 22	light inadvertently unplugged							
July 23	1	4	5	1	1	2	0	1
July 24	4	23	2	1	5	0	0	4
July 25	9	59	2	1	1	29	0	5
July 26	6	44	4	1	3	3	0	3
July 27	1	105	9	4	0	17	1	4
July 28	5	99	5	3	4	8	0	7
July 29	2	41	2	1	1	5	0	0
July 30	3	177	7	2	4	8	0	3
July 31	1	158	8	1	3	10	2	6

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	-	-	-
July 24	23	0	0	40	7	0	1	7	0
July 26	21	3	0	8	6	0	2	3	0
July 28	19	7	0	8	5	0	-	-	-
July 31	46	17	2	20	10	0	2	3	0
August 2	78	8	0	22	8	1	15	15	0
August 4	60	2	0	65	8	1	131	31	0
August 7	27	14	2	21	0	0	62	1	0
August 9	53	23	0	34	4	0	51	10	0
August 11	28	6	0	27	3	1	16	33	0
August 14	14	1	0	16	0	0	21	1	0
August 16	7	4	0	21	4	0	23	9	0
August 18	17	5	0	18	1	0	26	1	0

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

From: Craig Ellison, Agricultural Extension Agent, Northampton County

Light Trap Data From Northampton County

	Number of Adult Insects																	
	Woodland			Conway			'Neck			Seaboard			Gaston			Jackson		
Date	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR
July 17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	84	6
July 19	-	-	-	-	-	-	-	-	-	4	10	0	-	-	-	0	124	4
July 21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
July 24	-	-	-	2	0	0	26	17	0	30	0	0	-	-	-	61	140	3
July 26	1	0	0	10	12	1	29	13	0	40	6	0	-	-	-	83	11	1
July 28	3	4	2	9	8	0	24	19	0	31	1	0	32	0	0	59	72	3
July 31	3	22	2	10	19	4	50	35	0	72	12	0	53	0	0	208	191	2
August 2	1	11	1	9	18	1	53	41	0	57	12	2	22	2	0	103	94	2
August 4	4	13	1	17	9	4	49	58	0	46	8	2	24	0	0	157	135	5
August 7	0	0	0	3	4	0	53	8	0	-	-	-	11	0	0	199	20	0
August 9	22	1	0	6	0	0	58	9	0	29	0	0	-	-	-	271	20	0

August 11	13	0	0	4	2	0	49	9	0	7	0	0	-	-	-	227	8	0
August 14	8	0	0	6	0	0	19	2	0	9	0	0	-	-	-	204	1	0
August 16	11	1	0	4	2	0	34	6	0	-	-	-	-	-	-	227	28	0

CEW = corn earworms; gr = green stink bugs; br = brown stink bugs
Locations: Woodland, Conway, 'Neck, Seaboard, Gaston and Jackson
Monitored by: L. Culpepper, K. Edwards, B. Johnson, T. Flythe, D. Grant and B. Bryant

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
July 24	156	14	0
July 26	203	12	1
July 28	246	13	2
July 31	345	8	0
August 2	125	6	0
August 4	101	6	2
August 7	59	3	0
August 9	68	6	0
August 11	20	0	0
August 15	28	8	0
August 18	20	1	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: Lewis Smith, County Extension Director, Perquimans County

Light Trap Data From Perquimans County

	No. of Adult Insects
Date	Bollworms
July 28	1
July 29	9
July 30	29
August 1	80
August 2	96
August 3	77
August 4	87
August 5	48
August 6	21
August 7	11
August 8	22
August 9	14
August 10	6
August 11	6

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
July 21	258	22	3	6
July 23-23	349	32	2	7
July 24	312	15	2	9
July 25	315	21	0	16
July 26	481	20	0	23
July 27	387	15	1	19
July 28	457	18	0	21
July 29-30	761	32	3	23
July 31	536	32	2	11
August 1 #	89	6	0	0
August 2	137	18	1	1
August 3	194	23	0	1
August 4	162	11	0	2

August 5-6	209	12	1	3
August 7	93	8	0	2
August 8	-	-	-	-
August 9-10	219	42	2	3
August 11-13	165	28	1	10
August 14	27	4	0	6

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

Location is Rowland; monitored by Kay McGirt

= field was sprayed

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
July 24	20	5	0	15
July 26	105	10	3	6
July 28	127	75	13	16
July 31	150	21	4	6
August 2	101	31	18	6
August 4	158	28	10	8
August 7	33	60	8	9
August 9	67	11	1	2
August 11	60	30	2	5
August 14	71	5	1	5
August 16	23	5	1	5
August 18	21	12	0	10

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	-	-
July 24	263	20	-	-	198	1	-	-	190	15	-	-
July 26	352	2	-	-	292	3	-	-	230	5	-	-
July 28	232	17	2	-	145	4	1	-	418	19	-	-
July 31	411	28	-	-	593	5	1	-	408	16	-	-
August 2	124	36	-	-	375	30	2	-	336	7	1	-
August 4	212	15	-	-	275	30	1	-	224	10	-	-
August 7	181	14	-	-	94	3	-	-	111	7	-	-
August 9	102	1	-	-	109	2	-	-	129	1	-	-
August 11	194	4	-	-	145	1	-	-	113	5	-	-
August 14	69	2	-	-	78	-	-	-	57	2	-	-
August 16	58	23	-	-	43	3	1	-	37	-	3	-
August 18	19	2	-	-	71	1	-	-	27	-	-	-

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
July 21	3	-	37	7	17	-	18	2
July 24	1	2	62	3	47	2	78	11
July 26	11	1	100	4	32	-	157	8
July 28	9	-	105	-	66	5	209	3
July 31	10	1	125	10	174	10	264	8
August 2	25	8	235	3	134	12	238	5
August 4	5	6	130	6	174	18	224	3
August 7	7	3	250	5	101	9	174	6
August 9	52	3	96	3	14	2	35	1
August 11	-	-	-	-	20	4	30	2
August 14	-	-	-	-	10	1	19	0
August 16	-	-	-	-	32	2	72	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	0	0	7	0	1	3	0	2	2	0	3
July 24	30	0	1	11	2	5	14	0	2	17	0	4
July 26	33	0	3	21	0	0	81	0	1	51	0	3
July 28	36	0	0	15	0	2	255	0	0	66	0	0
July 31	60	0	1	66	0	9	84	0	7	61	0	20
August 2	46	0	0	71	0	2	44	0	1	34	0	9
August 4	49	0	0	51	0	3	31	0	0	66	1	24
August 7	73	0	0	26	0	0	3	0	2	40	0	9
August 9	18	1	1	8	0	0	2	0	0	18	0	8
August 11	26	1	2	17	0	0	0	0	0	27	1	1
August 14	7	0	0	12	0	0	1	0	0	6	0	0
August 16	20	0	0	6	0	2	0	0	2	10	0	14
August 18	21	0	1	26	0	0	3	0	0	15	0	2

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

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