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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.

In This Week's Issue . . .

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

FIELD AND FORAGE CROPS

From: Jack Bacheler, Extension Entomologist

Bollworms and Stink Bugs

The bollworm moth flight appears to be declining somewhat in the southern part of the state, but moth levels remain high enough there and elsewhere to be a potential concern, particularly on non-*Bt* and on Bollgard cotton. On August 4, our pheromone traps in Edgecombe County in central North Carolina caught 600 and 400 tobacco budworms and bollworms, respectively. As is the case with stink bugs, these next two or three weeks would be a good time to scout intensively for threshold levels of bollworms and stink bugs.

As most of you know, at least for now, tobacco budworms do not become established on any of the *Bt* technologies, i.e., Bollgard, Widestrike and Bollgard II cotton varieties. When high numbers of tobacco budworm moths are part of the major bollworm moth flight, however, budworms can become a real headache on non-*Bt* cotton. Sometimes budworms become established ahead of the major bollworm moth flight when we are more attuned to noting bollworm moths in the field and responding to egg thresholds of bollworms. Once established, even as second stage, 1/8-inch caterpillars, tobacco budworms are very difficult to control with pyrethroid insecticides (unlike small bollworms against which a medium to high rate of a pyrethroid usually does a good job). Another confounding factor is that we can only tell the egg stage of bollworms from budworms with egg kits which are no longer being sold. Although insecticides like Tracer and Steward provide good control of budworms when they are small, these products are pricy and are usually less effective against the more common bollworm. Still, if one could just predict if budworms would make up a significant proportion of the budworm/bollworm early establishment on squares, bloom tags and small bolls, Tracer and Steward would be good options on conventional cotton. Whether bollworms or budworms are present on conventional cotton or bollworms is present on *Bt* cotton varieties, do not allow the level of small caterpillars get beyond 2 to 3 percent on squares or small bolls, or under bloom tags.

Remember that most cotton is still in the third to fifth or sixth week of blooming, and a 10 percent internal boll damage threshold is recommended during this period for stink bugs. At this time of the growing season, stink bugs will begin to gravitate towards cotton fields that have better moisture levels and less mature, more susceptible fruit, so damage may be higher in these fields than in cotton fields which have begun to cut out.

We have observed some moderate levels of cotton aphids in several locations during the past week. However, in all cases, some level of the aphid fungus *Neozygites fresenii* was present, so these populations, and most others, are not expected to be an economic concern.

ORNAMENTALS AND TURF

From: Steve Bambara, Extension Entomologist

Emerald Ash Borer in Virginia

The U. S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) confirmed the identification of the emerald ash borer in Fairfax County, Virginia, on July 9, 2008. This emerald ash borer detection is in close proximity to Dulles International Airport. The initial detection was made on July 7, 2008, by an employee from the Virginia Department of Forestry (VDF), who noticed several suspect emerald ash borer exit holes. The VDF informed the Virginia Department of Agriculture and Consumer Services (VDACS) who, in turn, notified APHIS of the suspect emerald ash borer find.

On July 8, 2008, APHIS and VDACS personnel visited the suspect emerald ash borer site in Fairfax, Virginia. One partially emerged adult and two dead adult beetles were recovered and sent to an APHIS Identifier in Michigan, who confirmed their identity as emerald ash borer. In response to this detection, APHIS is working closely with the State of Virginia to carry out delimiting surveys around the initial detection site. Further, it is necessary for APHIS to quarantine this infested area in order to prevent the further spread of emerald ash borer. Accordingly, effective immediately, all interstate movement of emerald ash borer regulated articles from Fairfax County must be done in accordance with the Federal Order. Specifically, the interstate movement of emerald ash borer-host wood and wood products from Fairfax County is regulated, including firewood of all hardwoods species, nursery stock, green lumber, waste, compost, and chips of ash species. The Federal Order allows Virginia 30 days from July 11, 2008, to place an equivalent parallel quarantine in place for emerald ash borer, otherwise it will be necessary to quarantine the entire State as an emerald ash borer quarantine area.

Fig. 1. Emerald ash borer. Image from the U. S. Forest Service.

Emerald ash borer (Fig. 1) is present in some parts of the United States. Currently, the entire States of Ohio, Indiana, and Illinois are quarantined for emerald ash borer, together with portions of Michigan's Upper Peninsula, the entirety of Michigan's Lower Peninsula, and Prince George's County in Maryland. Four counties in western Pennsylvania are also under quarantine and emerald ash borer was detected last year in one county in West Virginia. Emerald ash borer is an invasive wood boring beetle that is native to China and eastern Asia. Emerald ash borer probably arrived in North America hidden in wood packing materials commonly used to ship consumer and other goods. It was first detected in the United States in southeastern Michigan. Since then, emerald ash borer has been responsible for the death and decline of more that 25 million ash trees in the United States. The interstate movement of firewood from quarantined areas is an especially high risk pathway for spreading emerald ash borer, and APHIS is working with State cooperators and foresters to raise awareness about this threat among the public.

Under IPPC standards, the emerald ash borer is considered to be a pest that is **present, only in some areas and subject to official control** in the United States.

For more information on the emerald ash borer, visit the national emerald ash borer website at: http://www.emeraldashborer.info/index.cfm.

Beech Blight Aphid Boogie-Woogies

This week I received these Raleigh images of the beech blight aphid (Figs. 2 and 3). This woolly aphid is a honeydew producer and is found in concentrations on *Fagus*. Ants are often associated with this aphid. It is not reported often. It probably does minimal damage to a large plant. Mechanical controls or spot treatment would probably be sufficient if any measures were even needed.

Fig. 2. Beech blight aphid. Image by Jean Carter.

Fig. 3. Beech blight aphid close up. Image by Jean Carter.

Robert Childs from UMass states, "Another reported characteristic of this aphid is that it will raise the posterior end of its body and sway when it is disturbed. This action produces a dance-like effect that occurs throughout the colony. This phenomenon has led some to refer to this species as the 'Boogie-Woogie Aphid.' It is a unique experience to see hundreds, if not thousands, of these perform this defensive, yet highly entertaining, behavior."

For more information on the beech blight aphid, you can visit a UMass Extension insect note on the web at http://www.umassgreeninfo.org/fact_sheets/piercing_sucking/beech_blight_aphid.pdf.

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 16	0	0	11	0	0	0	0	0	0	0
July 17	0	0	7	0	0	0	10	0	0	0
July 18	0	0	4	0	0	0	7	0	0	0
July 19	0	0	7	0	0	0	-	-	0	0
July 20	0	0	4	0	0	0	-	-	0	0
July 21	0	0	2	0	0	0	3	7	0	0
July 22	0	2	6	0	0	0	2	0	0	0
July 23	2	1	4	0	0	0	-	-	32	2
July 24	0	3	8	0	0	2	5	2	57	2
July 25	2	1	13	0	0	0	2	0	62	1
July 26	6	3	15	0	-	-	-	-	-	-
July 27	12	3	18	0	-	-	-	-	-	-
July 28	7	1	17	0	3	3	7	1	160	4
July 29	12	0	49	0	5	0	31	1	370	5
July 30	39	6	30	0	-	-	8	1	-	-
July 31	46	4	18	0	15	0	8	0	92	0
August 1	-	-	1	0	17	0	28	1	192	1
August 2	79	6	0	0	-	-	14	0	-	-
August 3	-	-	18	0	-	-	-	-	-	-
August 4	35	2	48	2	41	0	29	3	730	6
August 5	-	-	38	2	-	-	13	1	360	6

Moths = Bollworm moths; GSB = Green stink bugs

From: Al Hight, County Extension Director, Brunswick County

Light Trap Data from Brunswick County

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

From: Mike Williams, County Extension Director, Chowan County

Light Trap Data from Chowan County

Date	Bollworm moths	Stink 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
August 1	115	0
August 2	60	0
August 3	21	6
August 4	56	0
August 5	67	16
August 6	55	5
August 7	58	1

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
August 1	-	-	-	-	-	-	-	-	-
August 4	7	3	227	13	2	5	12	4	4
August 6	4	0	190	14	1	2	17	2	2

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

Date	Number of Adult Insects			
	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
August 1	0	98	3	0
August 4	0	101	9	0
August 7	0	160	10	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

Date	Number of Adult Insects		
	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
August 4	45	24	4
August 6	68	26	4
August 8	35	2	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
August 2	0	55	1	1	0	4	0	3
August 3	0	26	0	0	0	3	0	0
August 4	0	46	1	0	1	1	0	0
August 5	0	66	2	0	0	2	0	1
August 6	0	71	0	0	0	4	0	2
August 7	0	51	0	0	2	10	0	0
August 8	1	28	1	0	2	3	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

	Farm Life		Robersonville	
Date	BW	GSB	BW	GSB
July 14	4	0	4	1
July 16	2	0	4	0
July 18	2	0	2	0

July 21	4	0	2	2
July 23	4	0	2	0
July 25	6	5	6	0
July 28	11	1	8	1
July 30	13	6	9	1
August 1	20	3	8	1
August 4	17	7	6	0
August 6	14	1	2	0

BW = Bollworm moths; GSB = Green stink bugs

From: Charlie Tyson, Agricultural Extension Agent, Nash County

Light Trap Data from Nash County

Date	Bollworms	Stink bugs
August 1	16	0
August 4	46	0

BW = bollworms; SB = stink bugs

Trap location: near Hickory Crossroads

From: Craig Ellison, Agricultural Extension Agent, Northampton County

Light Trap Data from Northampton County

	Number of Adult Insects														
	Woodland			Conway			Seaboard			Gaston			Jackson		
Date	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR
July 25	1	0	0	-	-	-	-	-	-	-	-	-	2	1	0
July 28	0	5	0	-	-	-	8	0	0	-	-	-	13	21	3
July 30	1	3	0	-	-	-	14	4	2	-	-	-	21	23	0
Aug. 1	2	3	0	-	-	-	8	1	0	-	-	-	58	11	0
Aug. 4	1	1	0	-	-	-	17	0	0	-	-	-	76	11	0
Aug. 6	0	3	0	-	-	-	21	0	0	-	-	-	76	17	1
Aug. 8	5	-	-	12	0	0	28	1	0	-	-	-	165	9	1

CEW = corn earworms; GR = green stink bugs; BR = brown stink bugs
Locations: Woodland, Conway, Seaboard, Gaston and Jackson
Monitored by: L. Culpepper, K. Edwards, T. Flythe,
D. Grant and B. Bryant

From: Tray Bridgers, Agricultural Extension Agent, Sampson County

Light Trap Data from Sampson County

	Number of Adult Insects			
Date	BW	GSB	BSB	THW
July 25	34	4	-	-
July 28	117	3	-	3
July 30	102	8	-	-
August 1	65	4	-	1
August 4	154	11	-	6
August 6	71	7	-	5

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 16	-	-	-	-	46	-	1	-	32	1	-	-
July 18	-	-	-	-	24	2	-	-	36	1	-	-
July 21	45	4	-	-	121	4	-	-	140	1	-	-
July 23	101	4	1	-	172	4	1	-	309	5	-	-
July 25	112	-	-	-	217	2	-	-	362	4	-	-
July 28	238	5	-	-	517	4	-	-	405	12	-	-
July 30	184	7	-	-	390	4	1	-	386	10	-	-
Aug. 1	134	4	-	-	182	1	-	-	362	4	-	-
Aug. 4	54	4	-	-	85	9	2	-	220	2	-	-

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

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 9	0	0	0	0	0	1	0	0
July 11	0	0	0	0	0	1	0	0
July 14	0	4	0	2	4	2	2	0
July 16	0	0	0	0	0	1	0	0
July 18	0	0	0	0	3	0	0	0
July 21	0	0	0	0	17	4	0	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	12	5	83	3
August 4	0	0	0	0	50	15	135	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							
	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	14	1	7	1	23	4
August 4	13	5	15	1	7	0	49	4
August 6	20	5	18	1	7	2	32	4
August 8	14	3	10	0	9	1	23	2

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.