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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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(Mike Waldvogel, substituting this week)

In This Week's Issue . . .

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

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ANNOUNCEMENTS AND GENERAL INFORMATION

Final Issue of *North Carolina Pest News* for 2011

This will be the final issue of the *North Carolina Pest News* for 2011. 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 newsletter this season.

Thank you for your interest in the *North Carolina Pest News*. The newsletter will resume in April of 2012. Meanwhile, individual articles on insect and disease pests in North Carolina will be provided as *Pest Alerts* via electronic mail and the Internet at http://ipm.ncsu.edu/current_ipm/palert99.html.

FIELD AND FORAGE CROPS

From: Dominic Reisig, Extension Entomologist

Will Stink Bugs Appear in Soybeans

So far, 2011 has proved a difficult year for most field crops, especially in the east. The upside is that it has been a relatively good year for insect pest management, with most insect pests at relatively low densities. Stink bugs of all species are not as abundant as last year and there have been more green stink bugs in the system relative to brown stink bugs. Since brown stink bugs are more tolerant to pyrethroids, this has made management easier.

However, as the field crop season winds down, we may see stink bug populations developing in soybeans. Other crops are less attractive hosts and, with soybeans left in the fields, these become the crop in which the second main generation of stink bugs for the year is produced. From a yield loss perspective, soybeans are very sensitive to yield loss from pod feeders at R4 and R5. In general, soybeans should be safe from insects by R8, but I visited an R8 field today where a corn earworm had its entire head stuck in a pod feeding. This was an isolated find and the earworm was likely close to pupating, but it's still worth your while to scout soybean for insects up to the R8 growth stage.

Right now, the most stink bugs can be found in full-season soybeans that are mature. These fields may have a mixed population structure of both nymphs and adults. Expect these adults to move into soybeans that are not a mature as harvest time approaches. Remember to use thresholds (visit www.nccrops.com, click "Field Crop Entomology Webpage", click "Soybean", then click "Thresholds") before making a treatment decision and consider the maturity of the soybean, as well as the structure of the population (i.e., are there more nymphs or adults present?).

Late Season Corn Earworms Picking Up

Corn earworm densities have held steady in eastern North Carolina soybeans since Hurricane Irene. Prior to Irene, pheromone trap and light trap catches decreased. After the hurricane, I expected that population densities would crash due to wind and rain. This did not happen, but I still expected most

caterpillars to cycle through soybean, pupate and fizzle out. Again, this has not proven to be the case, as I observed that both pheromone and light trap catches held steady in the week following the hurricane. Lewis Smith, Perquimans County Extension Director and Pasquotank Interim County Extension Director, has also confirmed this.

Ames Herbert, Extension Entomologist with Virginia Tech, posted an advisory for late-season corn earworm. Over the past week and especially over the past couple nights, trap catches have picked up in Virginia and North Carolina. Scout soybeans that may be susceptible (up to R7-R8), especially those which were planted late. An economic threshold that varies with the application cost, sampling method and soybean price can be found by visiting www.nccrops.com (click on "Field Crop Entomology Webpage", click "Soybean", click "Soybean Insect Pests", click "Corn Earworm…", then click "CEW Threshold Calculator…"). When using this threshold for soybeans in the mid-reproductive stages (R4-R6), please enter the price of soybean at $10.00 per bushel, since soybeans can compensate for loss above this level.

From: Barbara Shew, Extension Plant Pathologist

Peanut Disease Control Following Hurricane Irene

Sclerotinia blight

Heavy rain from Hurricane Irene, wet vines, and the recent cool nights make ideal conditions for Sclerotinia blight. On August 31, all reporting weather stations in North Carolina are advising sprays and indicating high to very risk of Sclerotinia blight. Conditions will remain highly favorable for Sclerotinia blight for *at least* the next 5 to 7 days.

Make sure that fields with a history of Sclerotinia blight are protected. The last effective spray date for Wednesday, August 31 is August 10. This accounts for three weeks of protection following a fungicide application. Fields that have not been sprayed since August 10 are not protected.

It is very important to catch Sclerotinia outbreaks when they first occur – this is the time when fungicides are most effective at controlling the disease. Scout carefully if you are in doubt about your field history or control efforts to date.

Even in fairly advanced cases, Sclerotinia blight can be hard to see unless you check plants thoroughly. Scout by checking 50 feet of row in several locations across a field. Part the rows and check inside the canopy for the fluffy growth of the Sclerotinia blight fungus on stems (Fig. 1), leaves, and pegs. Infections may be present on leaves and stems that are not touching the ground, particularly after a heavy rain. Other signs and symptoms include bleached and shredded stems (Fig. 2) and black fungus structures (sclerotia) that look like mouse or insect droppings. Sclerotia often are found on or inside stems and pods.

We are currently are working on yield loss models for Sclerotinia blight. While we have not finished our analysis, we have a rough idea of what to expect. Assuming a Sclerotinia-free yield of 4,600 pounds per acre, yield decreases about 50 pounds per acre for every 1% incidence (plants diseased) of Sclerotinia

blight at 110 days after planting. This suggests that a reasonable treatment threshold at this point in the season is between 2 to 3% of plants diseased. If you expect a delayed harvest, I would definitely lean to the low end of this range (or even lower) so that you can maintain good control through the next several weeks.

Fig. 1. Early development of Sclerotinia on stem. Image from Barbara Shew.

Fig. 2. Stem shredding by Sclerotinia. Image by Bridget Lassiter.

Leaf spots and web blotch

Late leaf spot thrives when leaves are wet and night temperatures drop a bit. Late leaf spot is more difficult to control than early leaf spot. It will be very important to stay on top of late leaf spot control for the next couple of weeks, or longer, if you expect a delayed harvest. Be particularly watchful on highly susceptible cultivars like Gregory and Perry.

We have seen little to no web blotch in the past several years, but outbreaks sometimes follow a tropical storm. Web blotch is recognized as large (one-half inch) dark patches or blotches with faint or irregular margins (Fig. 3). They are found only on the upper surface of the leaf at first. Young lesions have a grayish cast but later the blotches turn light brown. NC-V11 and VA 98R are highly susceptible to web blotch and most prone to outbreaks. A good leaf spot control program usually will control web blotch.

Headline will give excellent protection against late leaf spot and web blotch at 9 to12 ounces per acre. Most other foliar fungicides also perform well against these diseases. Avoid using tebuconazole since it is very weak against late leaf spot. Use a multi-site fungicide such as Bravo (chlorothalonil) for the last spray of the season. This will help to reduce the risk of developing pathogen populations that are resistant to other fungicides.

Rust

Peanut rust is rare in North Carolina, but sometimes shows up after a storm. Peanut rust is **not** the same rust that infects soybeans, but in some ways it is similar. Like soybean rust, peanut rust does not survive our winters. It is a sporadic problem in the southern-most peanut production areas of the U.S. and is common in Central American and Caribbean countries. As with soybean rust, spores of peanut rust can

be transported over long distances by hurricanes and other storms. Considering the path that Hurricane Irene took, it is possible that we will see scattered outbreaks of peanut rust.

Fig. 3. Web blotch. Image from Barbara Shew.

Fig. 4. Rust. Image from Barbara Shew.

Peanut rust produces numerous small reddish-brown pustules on the undersurface of the leaf (Fig. 4). The pustules erupt to release millions of rust-red spores. These spores will stain a white cloth or paper that is swiped on the underside of a rusted leaf. Rust epidemics start in hot spots and spread quickly. Fungicides that are effective against rust include Bravo, Abound, and tebuconazole. Tilt (propiconazole) is not effective.

From: Barbara Shew and Emma Lookabaugh, Extension Plant Pathology

Corn Smut: Friend or Foe?

On summer days, farmer's markets are bursting with sweet corn. Shoppers buy ears by the dozens for good eating now and to stock their freezers for the winter. Corn – both field and sweet – is a relatively healthy crop and diseases usually do not trouble the home gardener. An exception is corn smut – it's both common and easily recognized by its grotesque tumor-like galls and masses of dark sooty spores.

Recently, Dr. Mike Benson, a professor in our Department, brought in some smutted ears of sweet corn for class. The infected super sweet corn was his second planting during the first week of June. He noted that the fungus didn't start showing up until the ears starting filling in during the first week of August and estimated that about 15% of his plants were infected in mid-August. The corn smut fungus, 'Ustilago maydis', attacks corn (or maize; Zea mays) and its wild relatives (Zea spp.). It can infect all actively growing corn tissues, but the most obvious symptoms are tumor-like galls on the ears. Young galls are white and firm and are covered with a semi-glossy periderm, which eventually ruptures, exposing masses of sooty teliospores.

The teliospores serve as overwintering inoculum for future corn crops. In the spring, teliospores are windblown or rain-splashed to nearby corn plants. The teliospores germinate to form sexual spores called basidiospores or sporidia. The sporidia can also be dispersed in wind or rain. Later, two sporidia fuse and give rise to the infective stage of the fungus.

Any above-ground plant part can be infected, including ears, tassels, silks, stalks, nodal shoots and leaf midribs. Distorted tissue may be noticeable within days after infection. Typically, galls form within a week and continue enlarging for up to three additional weeks. Initially, galls are composed primarily of host tissue undergoing tumor-like growth. As the galls age, their fleshy interior becomes streaked with black as dark sooty teliospores begin to replace the white host tissue. Eventually the gall becomes a mass of spores, dehydrates, and ruptures, releasing the teliospores. Individual developing kernels are infected through the silks. Kernels are not susceptible to infection once pollination occurs, so any condition that reduces pollination favors smut infections. Drought stress (when pollen dies or tassels stop producing pollen) or extremely wet, humid weather (causing poor or no pollen production) opens up the window for infection. University of Illinois Professor Emeritus Jerald Pataky says that “wimpy males,” that is, plants that don’t produce pollen in adverse conditions or males (tassels) that are not ready when the females (ears) are ready for pollination, are more susceptible to smut.

Smut usually makes sweet corn unmarketable due to cosmetic damage, but in parts of Mexico, it is actually prized. Traditional farmers gather young galls after natural infection and market them as Cuitlacoche (or Huitlacoche), a delicacy in Mexican cuisine. Often called the “Mexican truffle” or a “food of the gods,” it has been served up in Mexico since Aztec times. Nowadays, there is great interest in developing techniques for inoculating ears with smut and marketing the galls as gourmet fungi to upscale restaurants. It is a favorite ingredient in many soups, appetizers, and entrees because of its unique combination of earthy and corn flavors. Even here in Raleigh, North Carolina, you can order up cuitlacoche and get a taste of this traditional Mexican delicacy.

In case you “don't” want smut in your corn, control options are limited. Rotation is somewhat helpful and it may help to remove and destroy (or eat!) smutted ears before the galls erupt. “Resistant” varieties are commonly recommended for control, but performance can be erratic since most are not truly resistant but instead escape infection. Choose varieties that are known to perform well in your region. Make several plantings during the spring. If all goes well, this will keep you in a steady supply of sweet corn for the summer. This also increases the chances that some of your plantings will escape major problems with poor pollination and smut.

This article along with pictures can be viewed on the blog:
http://ncsupdicblog.blogspot.com/2011/08/corn-smut-friend-or-foe.html.

From: Amanda Hatcher, Extension Agent, Duplin County Center

Fall Armyworms Active

Amanda Hatcher, Extension Agent in Duplin County reports that fall armyworms are being spotted in bermudgrass hayfields farmers in her county. One grower reported seeing some adults, but mostly larvae. Most of the growers she had talked to are just scouting fields but two in the Faison area (northern Duplin County) reported finding fall armyworms at threshold levels.

ORNAMENTALS AND TURF

From: Michael J. Munster, Plant Disease and Insect Clinic

Collecting and Shipping Samples to the PDIC

In order to improve the quality of landscape samples we receive at the Plant Disease and Insect Clinic, please remember that we have short videos on sample collection and shipping available on our web site, at http://www.ncsu.edu/pdic/video/.

RESIDENTIAL AND COMMUNITY PESTS

From: Mike Waldvogel, Extension Entomology

Have We Mentioned Mosquitoes?

As expected, mosquito populations are rising in the hurricane soaked areas of eastern North Carolina. At the other end of the state in Henderson County, health officials confirmed that the brother of an eight-year old girl who died last week has tested positive for LaCrosse Encephalitis. Tests on the girl were inconclusive and so samples were sent to the Centers for Disease Control for further testing.

Some counties (such as Dare) have initiated mosquito control programs. Other counties/municipalities are in various stages of planning (or consideration of the need to treat). As I mentioned previously, the best source for information in your area is likely to be county/municipal agencies such as the county health office or municipal department of public works. If there are plans for aerial applications in your area, it would be a good opportunity for you to reach out to some key commodity groups to make sure they are aware of any plans: aquaculture farms, organic producers, and beekeepers in particular can be significantly impacted by aerial pesticide applications. Many natural disasters do not afford us with the lead time to make those contacts and even with advanced warning of approaching hurricanes we are often preoccupied with more immediate concerns. So, for those of you who are not in areas heavily impacted by Hurricane Irene, this is a good opportunity for you to establish or refine your network of communications with these groups.

As I mentioned previously, regardless of the level of mosquito activity in your area, the "SOP" still starts with personal protection and using repellents carefully (particularly on children). Many people may resort to treating their yards which will certain kill adult mosquitoes but I can't stress enough the need to eliminate those temporary water sources that will keep on cranking out mosquitoes until cooler weather prevails. Also, if there is still a lot of clean-up in and around the house, I'm not sure dousing the grass where people may be stacking/sorting belongings or their kids playing is a great idea.

INSECT TRAP DATA

From: Richard Melton, County Extension Director, Union County

Light Trap Data from Anson, Stanly and Union Counties

	Number of Adult Insects											
	Anson			Union S			Union N			Stanly		
Date	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR
July 16	-	-	-	15	-	-	-	-	-	-	-	-
July 20	-	-	-	43	-	-	-	-	-	-	-	-
July 22	-	-	-	126	-	-	-	-	-	1	2	2
July 25	-	-	-	75	9	-	-	-	-	2	1	2
July 27	43	14	-	68	12	-	-	-	-	1	-	-

CEW = corn earworm moths; GR = green stink bugs; BR = brown stink bugs
Union County South – Marshville; Union County North - Unionville

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

Light Trap Data from Bertie County

	Windsor		Woodard		Hexlena		Colerain	
Date	Moths	GSB	Moths	GSB	Moths	GSB	Moths	GSB
July 20	4	4	15	3	0	1	-	-
July 21	4	0	25	1	-	-	-	-
July 22	10	1	12	2	9	5	-	-
July 23	37	0	-	-	-	-	-	-
July 24	-	-	-	-	-	-	-	-
July 25	70	1	19	2	19	4	-	-
July 26	15	0	7	0	12	0	25	0
July 27	20	2	19	1	17	0	-	-
July 28	39	0	34	4	15	1	-	-
July 29	36	6	27	4	10	2	-	-
July 30	41	0	-	-	-	-	-	-
July 31	-	-	-	-	-	-	-	-
August 1	65	0	42	2	-	-	33	-
August 2	18	2	32	7	6	2	18	-
August 3	19	4	32	5	3	10	13	0
August 4	12	0	23	7	1	5	25	0
August 5	10	3	24	1	5	0	-	-
August 6	-	-	-	-	-	-	-	-
August 7	-	-	-	-	-	-	-	-
August 8	42	8	37	19	20	0	-	-
August 9	12	3	32	6	3	1	-	-

August 10	6	2	14	10	5	1	12	0
August 11	-	-	4	1	-	-	5	1
August 12	4	0	-	-	-	-	-	-
August 13	-	-	-	-	-	-	5	-
August 14	2	0	-	-	-	-	13	-
August 15	0	0	-	-	-	-	20	-
August 16	-	-	-	-	-	-	11	0
August 17	-	-	13	3	-	-	22	0
August 18	3	0	-	-	-	-	5	0
August 19	-	-	-	-	-	-	5	0
August 20	-	-	-	-	-	-	7	0
August 21	8	1	-	-	-	-	5	0
August 22	5	0	-	-	-	-	10	0
August 23	11	1	-	-	-	-	129	0

Moths = Bollworm moths; GSB = Green stink bugs

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	LOOP
July 5	1	1	-	2	-	-	-	-	-
July 11	-	-	3	3	1	-	-	-	-
July 18	-	-	23	-	-	4	-	-	-
July 22	-	-	38	1	1	-	-	-	-
July 25	-	-	75	-	-	-	-	-	-
July 29	2	-	91	1	1	-	-	-	-
August 2	-	-	85	-	1	-	-	-	-
August 5	1	-	62	-	1	-	-	-	-
August 8	1	2	47	3	1	-	-	-	-
August 10	-	-	34	6	-	3	-	-	-
August 12	-	-	14	1	-	18	-	-	-
August 15	-	-	10	-	-	-	-	-	-
August 17	-	-	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; LOOP = Looper

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 7	-------- trap set up ---------			
July 9	0	1	3	0
July 11	0	6	8	1
July 13	0	4	26	3
July 15	0	4	1	0
July 18	0	5	6	0
July 20	0	16	16	0
July 22	0	24	12	1
July 25	0	37	7	0
July 29	0	127	22	0
August 1	0	91	11	0
August 3	0	35	3	0
August 8	0	21	1	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: 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	BS	GS	CEW	BS	GS	CEW	BS	GS
July 8	-	-	-	0	0	0	-	-	-
July 11	0	0	0	0	1	3	-	-	-
July 13	0	0	0	0	1	1	4	0	6
July 15	0	0	0	0	0	0	0	0	4
July 18	0	0	0	3	0	0	0	0	0
July 20	0	0	0	3	0	2	2	0	4
July 22	0	0	2	4	0	0	1	0	2
July 25	1	0	7	14	0	0	0	0	4
July 27	5	0	5	22	0	0	0	0	1
July 29	4	0	1	26	0	1	0	0	1
August 1	10	0	3	41	0	2	1	0	1
August 3	6	0	3	19	0	2	0	0	0

August 5	10	0	2	28	0	0	1	0	2
August 8	4	1	0	19	0	1	0	1	5
August 10	1	0	0	9	0	0	0	0	1
August 12	0	0	0	5	0	0	0	0	1
August 15	0	0	0	4	0	1	1	0	4

Abbreviations: CEW = corn earworms; BS = brown stink bugs; GS = green stinks bugs

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

Light Trap Data from Halifax County

	Hobgood			East Enfield			Weldon		
Date	CEW	BSB	GSB	CEW	BSB	GSB	CEW	BSB	GSB
July 11	0	0	0	-	-	-	-	-	-
July 13	4	0	6	-	-	-	-	-	-
July 15	0	0	0	-	-	-	-	-	-
July 18	0	0	0	12	0	0	3	0	0
July 20	2	0	4	0	0	0	6	0	0
July 22	2	0	1	15	0	2	4	0	0
July 25	0	0	4	9	0	0	7	0	1
July 27	1	0	1	14	0	0	10	0	1
July 29	-	-	-	-	-	-	-	-	-
August 1	1	0	1	0	0	10	10	0	1
August 3	0	0	0	12	2	0	2	0	0
August 5	1	0	2	8	0	0	1	0	3

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

From: Alan A. Harper, Lenoir County

Light Trap Data from Lenoir County

	Number of Adult Insects							
Date	HW	CEW	ECB	AW	AWC	GSB	BSB	TBW
July 18	0	9	0	0	1	0	0	0
July 19	0	1	2	0	0	1	0	0
July 20	0	5	0	0	0	2	0	0
July 21	0	20	1	0	2	2	0	1
July 22	0	15	0	0	0	4	0	0
July 23	0	8	0	0	3	1	0	0
July 24	0	4	0	0	0	0	0	0

July 25	0	8	0	0	1	0	0	0
July 26	0	11	0	0	2	0	0	0
July 27	0	16	0	0	0	0	0	1
July 28	0	24	0	0	1	2	0	2
July 29	0	13	0	0	3	1	0	0
July 30	0	34	0	1	2	2	0	0
July 31	0	29	0	1	2	2	0	0
August 1	1	36	1	0	3	1	0	0
August 2	0	17	0	1	2	4	0	0
August 3	0	23	1	0	2	0	0	0
August 4	0	20	0	1	3	0	0	0
August 5	0	25	0	3	3	3	0	0
August 6	0	39	0	0	1	1	0	0
August 7	0	25	0	1	3	0	0	0
August 8	0	5	0	1	2	0	0	0
August 9	0	5	0	2	1	2	0	0
August 10	0	20	0	3	2	0	0	0
August 11	0	15	1	3	5	0	0	0
August 12	0	10	1	1	1	1	0	0
August 13	0	15	1	1	0	2	0	0
August 14	1	7	0	0	0	1	0	0
August 15	2	7	0	0	3	0	0	1
August 16	0	7	0	1	1	2	0	0
August 17	0	5	0	1	1	0	0	0
August 18	----------light trap unplugged----------							
August 19	0	9	1	0	0	2	0	0
August 20	0	5	0	2	0	1	0	0
August 21	0	19	0	0	0	1	0	0
August 22	2	2	0	0	4	0	0	0
August 23	0	38	0	0	1	2	0	0
August 24	2	41	0	2	7	1	0	0
August 25	0	49	0	0	2	1	0	0
August 26	2	46	0	1	2	3	0	1
August 27	----------Hurricane Irene----------							
August 28	----------Electricity off 7 days----------							
August 29	X	X	X	X	X	X	X	X
August 30	X	X	X	X	X	X	X	X
August 31	X	X	X	X	X	X	X	X
September 1	X	X	X	X	X	X	X	X
September 2	X	X	X	X	X	X	X	X
September 3	5	111	0	4	4	1	0	4
September 4	0	62	0	2	0	2	0	0
September 5	0	61	0	3	1	5		
September 6	0	87	0	4	2	5		
September 7	0	64	0	1	2	5	0	0
September 8	2	19	0	2	2	2	0	0
September 9	0	13	0	2	0	5	0	0

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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: Al Cochran, County Extension Director, Martin County

Light Trap Data from Martin County

	Robersonville		Farm Life	
Date	BW	GSB	BW	GSB
July 8	8	3	2	6,1*
July 13	3	1	3	0
July 15	3	0	0	3
July 18	5	0	2	0
July 20	5	1	3	1
July 22	9	1	12	0
July 25	12	1	7	1
July 27	17	0	8	4
July 29	17	0	24	0,6*
August 1	21	2	29	7
August 3	18	1	25	5,5*
August 5	13	1	11	3,1*
August 8	14	1	24	1
August 10	12	0	20	0
August 12	7	0	-	-
August 15	6	0	-	-
August 17	6	0	6	1
August 19	16	0	6	0

BW = Bollworm moths; GSB = Green stink bugs
* brown stink bugs

From: Craig Ellison, Agricultural Extension Agent, Northampton County

Light Trap Data from Northampton County

	Number of Adult Insects																				
	Woodland			Conway			Galatia			Seaboard			Gaston			W. Gaston			Jackson		
Date	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR	CEW	GR	BR
July 11	-	-	-	21	0	0	-	-	-	-	-	-	-	-	-	-	-	-	6	15	0
July 13	-	-	-	13	2	0	-	-	-	0	0	0	-	-	-	-	-	-	21	11	0
July 15	-	-	-	0	0	0	-	-	-	0	0	0	-	-	-	-	-	-	7	0	0
July 18	-	-	-	1	0	0	2	0	0	2	0	0	2	0	0	-	-	-	0	0	0
July 20	0	1	1	2	12	0	2	0	0	4	0	0	8	0	0	-	-	-	19	6	0
July 22	0	1	0	0	0	2	7	0	0	1	3	0	13	0	0	-	-	-	17	5	0
July 25	0	1	0	0	16	0	7	7	0	8	25	0	6	0	0	-	-	-	35	29	0
July 27	3	0	0	7	26	0	23	11	0	1	7	0	8	1	0	-	-	-	17	17	1
July 29	0	4	2	14	5	1	22	2	1	0	0	0	12	4	0	-	-	-	28	15	1
August 1	0	1	0	15	5	0	49	5	0	4	3	0	-	-	-	-	-	-	63	25	5

August 3	0	2	0	8	5	0	25	2	0	6	18	0	-	-	-	-	-	-	26	12	2
August 5	4	0	1	8	3	2	25	0	1	4	8	0	-	-	-	-	-	-	35	5	1
August 8	1	0	0	12	2	0	18	0	0	8	2	0	-	-	-	-	-	-	58	6	1
August 10	0	0	0	8	2	0	6	0	0	6	2	0	-	-	-	-	-	-	61	2	0
August 12	2	0	0	2	0	0	-	-	-	2	0	0	-	-	-	-	-	-	36	0	0
August 15	0	1	0	4	0	0	6	1	0	4	1	0	-	-	-	-	-	-	36	3	0
August 17	2	0	0	1	0	0	-	-	-	2	0	0	-	-	-	-	-	-	18	2	0
August 19	2	0	0	-	-	-	4	0	0	-	-	-	-	-	-	-	-	-	17	0	0

CEW = corn earworms; GR = green stink bugs; BR = brown stink bugs

Locations: Woodland, Conway, Galatia, Seaboard, Gaston, West Gaston and Jackson
Monitored by: L. Culpepper, K. Edwards, Ben Harris, T. Flythe, D. Grant, Tim Phelps and B. Bryant

From: Melissa E. Huffman, Agricultural Extension Agent, Onslow County

Light Trap Data from Onslow County

	Number of Adult Insects			
Date	Bollworms	GSB	BSB	Hornworms
July 22	30	1	-	-
July 25	30	1	-	-
July 27	80	2	-	-
July 29	115	7	-	-
August 1	155	3	-	-
August 3	105	5	-	-
August 5	58	0	-	-
August 8	-	-	-	-

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: Keith Kettner, Agricultural Extension Agent, Sampson County

Light Trap Data from Sampson County

	Number of Adult Insects		
Date	GSB	BSB	BW
July 26	8	-	85
July 29	6	2	92

August 1	10	4	105
August 5	25	5	76
August 8	9	4	180
August 12	18	6	292
August 15	11	3	219
August 19	14	2	326

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

Black trap located 6 miles south of Clinton on
US-701S on the farm of Mike and James Hope.

From: Dominic Reisig, Extension Entomologist

Light Trap Data from Tidewater Research Station (Washington County)

	Number of Adult Insects							
Date	CEW	TBW	ECB	AW	SBL	BSB	GSB	BaSB	DSB
June 22	9	0	0	0	0	0	1	0	0
June 24	5	0	0	0	0	2	2	0	0
June 27	4	0	0	0	0	17	0	0	0
June 29	3	0	0	0	0	13	0	0	0
July 1	3	0	0	0	0	6	0	0	0
July 4	3	0	0	0	0	2	0	0	0
July 6	0	0	0	0	0	2	1	0	0
July 8	2	0	0	0	0	1	3	5	0
July 11	1	0	0	0	0	0	0	0	0
July 13	1	0	0	0	0	5	2	0	1
July 15	0	0	0	0	0	2	1	0	0
July 18	0	0	0	0	0	0	0	0	0
July 20	0	0	0	0	0	0	0	0	0
July 22	0	0	0	0	0	0	0	0	0
July 25	6	0	0	0	0	0	0	1	0
July 27	14	0	0	0	0	1	1	2	0
July 29	11	0	0	0	0	2	4	0	0
August 1	6	0	0	0	0	2	6	3	0
August 3	2	0	0	0	0	0	0	0	0
August 5	5	0	0	0	0	3	2	0	0
August 8	7	0	0	0	0	6	0	0	0
August 10	13	0	0	0	0	1	0	0	0
August 12	8	0	0	0	0	0	0	0	0
August 14	3	0	0	1	0	0	0	0	0
August 17	3	0	0	0	0	0	0	0	0
August 19	0	0	0	0	0	0	0	0	0

Abbreviations: CEW = corn earworms; TBW = tobacco budworms;
ECB = European corn borers; AW = armyworms; SBL = soybean

loopers; BSB = brown stink bugs; GSB = green stink bugs;
Banasa stink bugs; dusky stink bugs

Pheromone Trap Data from Tidewater Research Station, Tyrrell County and Upper Coastal Plains Research Station

	Tidewater		Tyrrell Co.		UCPRS	
Date	CEW	TBW	CEW	TBW	CEW	TBW
June 9	-	-	11	2	6	7
June 15	0	4	1	5	0	0
June 22	-	9	7	6	7	2
June 30	-	-	9	16	11	15
July 8	-	5	16	4	3	16
July 11	-	-	36	0	-	-
July 12	2	4	-	-	-	-
July 13	-	-	-	-	17	0
July 18	-	-	6	0	-	-
July 19	13	0	-	-	-	-
July 20	-	-	-	-	15	0
July 25	-	-	47	1	-	-
July 26	18	-	-	-	-	-
July 27	-	-	-	-	24	0
August 1	40	4	324	4	62	-
August 10	16	0	295	5	34	0
August 17	438	0	72	1	13	3
August 21	-	-	27	2	25	1

Abbreviations: CEW = corn earworms; TBW = tobacco budworms

From: Kevin Johnson, County Extension Director, Wayne County

Light Trap Data from Wayne County

	Number of Adult Insects			
	Goldsboro			
Date	GSB	BSB	CEW	HW
July 6	0	2	0	0
July 8	2	1	-	-
July 11	-	3	3	3
July 13	1	8	4	1
July 15	-	1	1	-
July 18	-	-	2	-
July 20	2	-	4	-
July 22	1	3	29	-

July 25	9	3	50	-
July 27	3	3	85	2
July 29	10	3	45	1
August 1	10	-	61	-
August 3	6	2	68	-
August 5	6	3	30	-
August 8	2	1	26	1
August 10	3	-	12	-
August 12	-	-	4	-
August 15	-	-	4	1
August 17	-	-	5	-
August 19	-	-	34	1
August 22	-	1	62	-
August 24	-	-	72	-
August 26	1	2	76	4

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

Cooperator: Willie Howell (Goldsboro)

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	GSB	CEW	GSB	CEW	GSB
July 13	-	-	1	9	-	-
July 15	2	0	1	2	-	-
July 18	3	0	2	1	-	-
July 20	0	3	2	2	-	-
July 22	3	1	0	7	-	-
July 25	2	2	7	5	-	-
July 27	7	1	9	5	-	-
July 29	19	2	8	9	-	-
August 1	30	5	9	4	-	-
August 3	15	2	7	3	-	-
August 5	50	1	13	5	-	-
August 8	25	2	17	8	3	2
August 10	8	0	13	6	5	0
August 12	10	0	3	0	2	0
August 15	5	1	9	0	3	0
August 17	9	0	8	0	4	0
August 19	3	1	5	2	1	0
August 22	7	1	6	1	0	2
August 24	12	0	8	0	1	0

CEW = corn earworms; GSB = green stink bugs

Locations: Kenly, Fountain and Pender's Cross Roads
Monitored by: Norman Harrell, Barbara Smith and Adam Gardner