UGA extension

Integrated Pest Management Newsletter

August 2014 | Vol. I
Dr. Ashfaq Sial Ahmad, IPM Coordinator

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STORED GRAIN UPDATE

UPDATE ON STORED GRAIN PROTECTANTS

Michael D. Toews

Department of Entomology, University of Georgia, Tifton, GA

I am receiving lots of questions on stored grain protectants. Here is a quick update:

Grain protectants, insecticides labeled for application to raw grain, are intended to prevent stored grain insect infestations as opposed to treating existing infestations. These products should not be applied before sending grain through the drier or immediately after coming out of the drier as the high heat would quickly degrade the insecticide. Grain protectants should only be applied to cool grain that is of proper storage moisture with minimal dockage and fines. It is best to apply protectants at the bottom of the auger so the insecticide can thoroughly coat the kernels as they are conveyed up the auger. The secret to using protectants it to get good coverage on as many kernels as possible! If an infestation is present, fumigation is the only method of preventing further damage.

Grain protectants are covered under the heading "stored product insect management" (pp. 529-531) in the 2014 commercial edition of the Georgia Pest Management Handbook. Protectants that are listed and currently available for use on stored corn include Actellic 5E, Centynal and Diacon II. Sensat and Execute will not be available this year and neither Tracer nor Tempo SC is labelled for use on stored grain.

Actellic 5E (9.2-12.3 oz per 1000 bu) is expensive, but a top performer in our tests. This product gives good protection from weevils and is widely available at distributors. Using the higher rate gives longer residual.

Centynal (8.53 oz per 1000 bu) is less expensive than Actellic, but we don't much efficacy data to compare. It looks good in preliminary tests and data from other states. Georgia customers can order by calling the Degesch America Inc. at 804-231-1000. Their website is http://www.bugfreegrains.com/.

Diacon II (1.75 to 14 oz per 1000 bu) is also relatively inexpensive, but it will not control maize weevils or lesser grain borers. Diacon II at 7 oz is a good tankmix partner with Centynal to give excellent control of all stored product moths and beetles. Georgia customers can order by calling Degesch America Inc. at 804-231-1000.

Finally, appropriate use of aeration to cool the grain is an important part of any stored grain management program. Cool grain will greatly increase the generation time of stored grain insects, while increasing the residual activity of the grain protectant.

INVASIVE SPECIES UPDATE

TAWNY CRAZY ANT

Daniel R. Suiter

Department of Entomology, University of Georgia, Griffin, GA

Description. In August 2013 James Morgan (ANR agent in Albany, GA) was the first to find the tawny crazy ant (TCA), *Nylanderia fulva*, in Georgia. Until Morgan's find, the TCA was known from sporadic counties in Mississippi and Louisiana, but was widely-distributed in Texas and Florida. Formerly known as the Raspberry crazy ant (after a pest control operator, Mr. Tom Raspberry, the discoverer of *N fulva* in Texas,); the hairy crazy ant (under a microscope the ant appears hairy); and the Caribbean crazy ant (given its FL distribution), the TCA is an invasive ant species from South America with widespread distribution in Texas and Florida. The TCA's biology and general, visual appearance, to the untrained eye, is similar to that of another South American invasive ant species common in Georgia, the Argentine ant (*Linepithema humile*) (known to Georgians as "sugar ants"). While the TCA was detected in Georgia in 2013, the Argentine ant has been established in Georgia for more than 100 years. Neither are native to Georgia.

Trends. In August 2014 three additional TCA sites were brought to our attention by a pest control operator, in conjunction with Don Gardner, ANR agent. Two sites were found at I-95, exit 26 (Waverly, GA). Neither site was more than a quarter mile

from the interstate (one east and one west of I-95). Both sites are in Camden county. We suspect ants were transported from Florida. A fourth site was found just 3 miles north on I-95, at a gas station (exit 29). This site is in Glynn county.

We suggest that ANR agents on Georgia's coast, in southeast Georgia, and in the southern half of Georgia should be on alert for the existence of this major nuisance ant pest. In areas of Texas where the TCA has appeared, it has become a tremendous nuisance. Although unseen, and perhaps less appreciated by homeowners, invasive species, including ants, can be highly disruptive to native habitats. Invasive ants commonly drive native ant species to extinction, and can disrupt the "balance" of native ecosystems, resulting in a cascade of detrimental impacts on a system's ecology.

Control. Control of the TCA is similar to control of the Argentine ant, and includes (primarily) the direct application (strictly by label) of fipronil, pyrethroid, or other labeled sprays to trailing ants and nest sites (concentrations of workers, brood, and queens) around structures; secondarily, baits can be utilized, but due to colony size and distribution, baits are less effective than perimeter sprays at alleviating this pest's nuisance status.

The movement of TCAs into un-infested areas is aided by human beings (potted plants and other personal belongings). TCAs reproduce by budding. They do not have nuptial flights, so cannot move long distances unless their movement is aided by humans. Because the TCA is commonly found nesting in and amongst human debris and trash, it is important, in conjunction with chemical treatments, to maintain a tidy property. If this entails maintaining and cleaning-up the outside environment in an area where the TCA already exists, it is critically important to not exacerbate the problem by moving the ant to an un-infested site in infested debris in an attempt to tidy the property.

Report Findings of the TCA. Should ANR agents find what they think to be a TCA infestation, it is important to send a physical sample for confirmation of their identification. Send physical samples to Dr. Dan Suiter, UGA Griffin Campus, Department of Entomology, 1109 Experiment Street, Griffin, GA 30223. Call Dr. Suiter at 770-233-6114 or email him at dsuiter@uga.edu.

Reference.

http://mississippientomologicalmuseum.org.msstate.edu//Researchtaxapages/Formicidaepages/genericpages/Nylanderia_fulva.htm#.U9HBMWPB3C8

MANAGING THE FLATHEADED BORERS IN BLUEBERRIES

Ash Sial[1] and James Jacobs[2]

[1] Department of Entomology, University of Georgia
[2] UGA Cooperative Extension, Pierce County

Over the past few weeks, we have received several reports of flatheaded borer infestation in blueberry orchards. The flatheaded borers are a complex of over 600 species of beetles in the United States. The adult flatheaded borers (Fig. 1) are metallic wood boring beetles which are perhaps the most serious pests attacking a wide range of bush and tree species. The adult flatheaded borers are beautifully marked, metallic-colored beetles, approximately 1/2 inch long, have short antennae, large conspicuous eyes, and a noticeable tooth on the forelegs. The adult is blunt at the head and tapers to a rounded point at the back end. An adult female lays about 100 eggs, singly, that hatch in 15-20 days. Eggs are firmly attached under bark scales or in bark crevices on the main stem or larger branches. The eggs are pale yellow, wrinkled, flat, and about 1/20 inch in diameter.

The larvae (Fig. 2) are legless and when full-grown can be approximately 1 1/4 inch long. They are usually light colored (whitish-yellow) but may appear to be golden or a paler. Larvae are legless, with prominent flat enlargement just behind the head. These segments are actually part of the insect's thorax, but appear to be a large flat head, thus the common name. They are commonly found curved like a horseshoe, sluggish and inactive except in very warm weather. The fully developed larvae bore radially deeper into the sapwood or heartwood, and excavate pupal chamber where it overwinters. They pupate for 1-2 weeks the following spring and emerge, when conditions permit, to start the cycle again.

The flatheaded borers are occasional pests of blueberries. The most significant damage results from the larval stage of the flatheaded borers as they bore into the canes. They create galleries which may eventually completely girdle the canes. This type of feeding severs water- and nutrient-conducting vascular tissues which weakens the cane, resulting in stunted growth or death of the cane. Adult beetles are attracted to stressed or damaged blueberry canes, particularly areas with pruning scars or sunburn. Adult female beetles lay eggs on the injured area, and larvae excavate tunnels just beneath the bark and bore through the cane. Excavations are usually filled with tightly packed,

finely powdered sawdust. Later, these areas may crack and expose the mines.

The best defense against flatheaded borers is to keep the blueberry bushes healthy and vigorous. Prevention of mechanical damage, wounds, sunscald, or drought stress can significantly reduce the flatheaded borer infestations. Once detected, flatheaded borers can be managed by pruning the bushes. Make sure to: 1) remove old canes that exhibit borer damage and train new canes to take their place; 2) prune at a time of year and in a manner that prevents sunburn of canes to reduce borer damage; and 3) after pruning, chip or remove prunings from the field before immature stages of the borer can complete their development. If high levels of infestation are observed during pruning, make a soil application of an imidacloprid-containing insecticide, such as Admire® 2F or Admire Pro® 4.6F.

Figure 1. Flatheaded Borer Adult (Image by: Ken Gray – OSU)

Figure 2. Flatheaded Borer Larva (Image by: Ken Gray – OSU)

UPCOMING EVENTS

September 9-10

2014 IR-4 FOOD USE AND BIOPESTICIDE WORKSHOPS

The annual IR-4 Food Use Program priority-setting workshop (FUW) is being held Sept. 9-10 this year at the J.W. Marriott Atlanta Buckhead, 3300 Lenox Road NE, Atlanta, Georgia, 30326. The actual project prioritization process at the workshop is expected to proceed much as it has in recent years, by discussing only those projects that receive at least one stakeholder “A” nomination via the on-line project nomination process. The nomination process will be open this year from Aug. 15 thru Aug. 27. There won’t be any quota of "A" priorities per discipline or per crop group or per crop; instead, projects will be selected as “A” priorities for 2015 research based on the most critical needs of specialty crop growers. Be prepared to provide justification to support your priority projects. Any adjustments to the priority-setting processes will be communicated over the coming months.

In addition to the traditional Food Use priority setting focus of this meeting, this year we are incorporating a new Biopesticide and Organic Support Program priority-setting workshop, commencing immediately after completion of the FUW. Our hope is to make the conventional program stakeholders more aware of biopesticides, a suggestion that came out very strongly in comments provided by respondents to the IR-4 2014-2019 Strategic Planning survey. IR-4 is encouraging Biopesticide Workshop participants to attend the FUW, and Food Use participants to stay for the Biopesticide Workshop.

This Biopesticide Workshop is an important part in the changes to IR-4’s Biopesticide grant program. The meeting will consist of presentations of research successes, exploration of needs and potential tools to fit the needs. These will fit within the context of the overall strategy of integration of biopesticides into conventional agriculture, resistance management, utilization of biopesticides for residue mitigation of convention pesticides to avoid trade barriers, organic agriculture and biotechnology opportunities. The scope of crops will include all specialty crops such as fruits and vegetables, ornamentals, honey bees and also include public health biopesticides.

September 11

2014 ANTIBIOTICS/BACTERIAL CHALLENGES MINI-SUMMIT

On September 11, 2014 at the J.W. Marriott Atlanta Buckhead, 3300 Lenox Road NE, Atlanta, Georgia, 30326, IR-4 will also be hosting the first Bacterial Challenges Mini Summit entitled "Understanding the ABCs (Awareness of Bacterial Challenges) with Antibiotics in Crops". This Mini-Summit will provide an opportunity for attendees including growers, university personnel, industry, and government bodies to come together to discuss a number of issues that are occurring with bacterial diseases on crops including HLB and Citrus Canker on citrus crops, Zebra Chip on potato and other diseases/crops. We will also discuss options for control and the regulatory review processes that are involved with registering these compounds.

September 15-17

2014 SOUTHEASTERN PROFESSIONAL FRUIT WORKERS CONFERENCE

2014 Southeastern Professional Fruit Workers Conference is being held September 15-17 at Clemson University Campus in Clemson, SC.

September 19

University of Georgia Horticulture Presents:

IPM Vegetable Troubleshooting Workshop for Small Growers

This program will cover integrated pest management ideas for identifying and controlling problems encountered in the small commercial vegetable garden. Disease, insect and cultural issues will be discussed. Both organic and non-organic practices and solutions will be covered. Participants will learn how to correctly identify common problems in the vegetable garden and how to select the best control measure. While designed for small market vegetable growers, this program will also appeal to home gardeners and Master Gardeners alike.

Dr. Kris Braman, UGA Entomologist, Bob Westerfield, UGA Horticulturist and Dr. Elizabeth Little, UGA Plant Pathology Extension Specialist, are coordinating the program.
Wade Hutcheson, UGA Spalding County Extension Coordinator, Dr. Frank Hale, University of Tennessee Entomologist and Dr. Ayanava Majumdar, Alabama Extension Entomologist, will also be program speakers.

Five hours of commercial pesticide credit in Category 21 and one hour of private pesticide credit will be offered.

Date: Friday, September 19, 2014
Time: 8:00 a.m. – 3:00 p.m.
Location: UGA Griffin Student Learning Center room 104
1109 Experiment Street
Griffin, GA 30223
Cost: $20.00 – Lunch, refreshments and workshop supplies included

Registration: Pre-registration required. To register with cash or check, please return the registration form to the address listed on the form. To register online with a credit card, please visit: http://tinyurl.com/veggietroubleshooting. For more information, please speak with Beth Horne at **770-228-7214** or by e-mail bhorne@uga.edu.

IPM Vegetable Troubleshooting Workshop for Small Growers

Registration Form

Name:	
Company Name:	
Addess:	
City, State, ZIP	
Phone:	
E-mail Address:	

I would like to attend the following session:

□ Friday, September 19, 2014

UGA Griffin Student Learning Center
Room 104, 1109 Experiment Street, Griffin, GA 30223

□ $20 per person
Cost includes all printed materials, lunch and break refreshments

Pleased make your check to "University of Georgia" & mail your completed registration form & check to:

Center for Urban Agriculture
Attn: Beth Horne
1109 Experiment Street BAE #109
Griffin, GA 30223

Office use only: Date Paid: _____ Check #: _____ Amount: _____

COORDINATOR'S CORNER

2014 NATIONAL IPM COORDINATION COMMITTEE MEETING

2014 National IPM Coordination Committee Meeting is being held September 23-24 in Washington DC. This is an important meeting where issues concerning IPM at the national level are discussed. These discussions help federal agencies shape up IPM policy and set priorities and mechanisms to provide funding for IPM programs. As IPM Coordinator, I have planned to attend this meeting and the agenda items include several hot topics related to IPM such as the use of neonicotinoids and their impact on honey bees, recent changes in IPM funding, etc. So, please let me know if you have specific points that I should highlight during discussions at this meeting.

Dear Readers:
UGA Integrated Pest Management Newsletter is a monthly journal for Researchers, Extension agents, Extension specialists, and others interested in pest management. It provides most updated information on legislation, regulations, and other issues concerning pest management in Georgia.

Do not regard the information in this newsletter as pest management recommendations. Consult the Georgia Pest Management Handbook and other Extension publications, or appropriate specialists for additional information.

Your input in this newsletter is encouraged. If you wish to be added to the mailing list, just call us at 706-542-1320.
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