Integrated Pest Management Program
Monthly Newsletter

SEPTEMBER 2018 VOLUME 4 | ISSUE 8

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SPECIALIST SPOTLIGHT

Get to know the specialists stationed throughout the state of Georgia that make up the IPM Program.

Phillip Roberts

CAES Tifton Campus
120 Cedar Street | Tifton, GA

Phillip Roberts is a native of Georgia. He earned his B.S. in Agricultural Economics and his Ph.D. in Entomology from the University of Georgia. His graduate research focused on risk assessment of seedling pests in production systems using reduced tillage and winter cover crops. Upon graduation he served as Extension Entomologists at the University of Tennessee for 3½ years prior to accepting his current position as Extension Entomologist in Tifton in 1996.

Current responsibilities include developing and implementing comprehensive extension education programs in integrated pest management (IPM) for cotton and soybean production systems. Additionally, applied research and on-farm demonstrations are conducted to advance the state of the art for IPM systems.

Current Extension and applied research projects include efforts to optimize management of thrips, stink bugs, corn earworm, and silverleaf whiteflies. Specifically, his efforts involve the study of insect pest biology and ecology (understanding risk associated with cultural practices), threshold development and verification, and insecticide and plant trait susceptibility.

Cotton IPM programs in Georgia have become more biologically based due in large part to the elimination of the boll weevil as an economic pest and the widespread adoption of Bt transgenic cottons. Utilization of natural processes to their fullest extent through conservation of natural controls is the foundation of cotton IPM programs in Georgia.

Roberts feels that we are fortunate in Georgia that insecticide needs are less than some other cotton producing states. However, the insect pest management decisions we make are not necessarily easier. IPM will always be management intensive and the more knowledge we possess about an insect the better decisions we will make.

Roberts has three daughters and enjoys the outdoors in his spare time. ■

UGA IPM INFORMATION

Time to get social! Follow us on social media!

@UGAIPM

The submission deadline for the October newsletter is **September 28, 2018**. Please submit all articles prior to the deadline. If you would like an article written about an upcoming event or project, please email ipm@uga.edu.

IN THIS ISSUE

UNIVERSITY OF GEORGIA
EXTENSION
Integrated Pest Management Program

IPM PROGRAM LOCATION:
CAES Athens Campus
463 Biological Sciences Building
Athens, GA 30602

UPCOMING EVENTS

Sep 5 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 6 - Produce Safety Alliance Grower Training (Provided by UGA Extension in Partnership with GDA) | 8:00AM | Macon, GA

Sep 10 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 10 - What's New at UGA - A Virtual Tour of the UGA Gardens | 6:00PM | Jonesboro, GA

Sep 12 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 14 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 18 - Barrow County Master Naturalist | 9:30AM | Winder, GA

Sep 19 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 21 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 24 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

Sep 26 - Peanut Maturity Clinic | 8:30AM | McRae-Helena, GA

For more events, please visit the UGA Extension

FEATURED CREATURE

Webworm

(Lepidoptera, Pyralidae)
(Hellula, rogatalis) – Cabbage webworm
(Hellula, unadalis) – Oriental cabbage webworm

Description:

Immature stages – The eggs are flattened, 0.3 mm wide by 0.5 mm long, and are laid singly or in small groups on terminal leaves. The mature larvae are yellowish gray with five brownish-purplish bands running down the length of the larva. Late instar larvae are typically associated with webbing of the leaves

Adult stages – The moderately sized adults (18-21 mm wingspan) have yellowish brown wings marked with white bands and a dark, kidney shaped spot about two thirds way down the forewing. Both of the above species match this description.

Biology:

Life Cycle – The duration from egg to adult is approximately one month under warm conditions (30°C) with the development time of larvae, the damaging stages, at two weeks. The fifth instar larva forms a webbed cocoon in the soil, pupates and then the adult emerges about six days later.

Seasonal Distribution – In Georgia, we have observed damaging levels of this pest only in the summer and fall growing seasons.

Damage to Crop:

Early instars begin feeding in mines in the terminal leaves, in cabbage the center whorl where the head will develop, and by the later instars, causes extensive foliar damage and webbing of leaves. Since the damage is directed at the growing point of the Cole crop, damage to the apical meristem can cause unmarketable, multiple heads in cabbage. Thus, early season damage can be equivalent to a lost plant for each plant infested.

Management:

As with other Lepidoptera larval pests in Cole crops, no greater than 0.1-0.3 larvae per plant should be tolerated. However, specifically for webworm because of their unique damage to the growing point, the threshold could be lowered to presence of larvae per plant if a large influx of this pest occurs in cabbage early in the growing season. If webworm appear before the five-leaf stage in cabbage, then a spray treatment is warranted. Usually, standard scouting and control practices for the other Lepidoptera result in satisfactory control of this pest.

David Riley and Alton Sparks, Professors, University of Georgia, 2018 ■

Cabbage webworm on collard

Cabbag webworm on collard

Webworm damage

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FROM THE FIELD

Articles and news stories pertaining to IPM field work written by IPM specialists.

Biology and management of Glassy-winged sharpshooter, *Homalodisca vitripennis* (Germar), in blueberries

by Craig Roubus and Ash Sial, Entomologists, University of Georgia – Athens Campus

The glassy-winged sharpshooter is a species of leafhopper native to the southeastern United States and is present throughout Georgia. Like all leafhoppers, glassy-winged sharpshooter has piercing-sucking mouthparts, which is used so feed on plant sap. The adult glassy-winged sharpshooter is 12 mm (1/2 inch) long, mostly brown colored, with yellow-orange dots on the head and thorax and yellow-orange legs. Wings are translucent (hence the name "glassy-winged"), smoky-brown, and have reddish veins. Females may have a white spot on each forewing, which is a powdery substance that the female accumulates after mating then scrapes off and covers her eggs with in the process of egg-laying. The spots are not always present.

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https://bugguide.net/node/view/848516/bgimage

Glassy-winged sharpshooter feeds on more than 100 plant species including blueberry, peach and grape. It is a pest because it vectors the bacterium Xylella fastidiosa, which causes a variety of plant diseases including Pierce's disease of grape, phony peach disease of peach and bacterial leaf scorch of blueberry. Glassing-winged sharpshooter acquires the bacterium when it feeds on an infected plant then transmits it when feeds on an uninfected plant. Bacterial leaf scorch is a known problem in southern highbush blueberries but appears to be a minor issue in rabbiteye blueberries. The initial symptom of the disease is marginal leaf scorch, which could be confused with symptoms of drought, fertilizer salt burn, or root rots. Eventually, the leaves drop, and the stems and twigs may turn yellow. Plant death can be rapid, but in general death occurs a year or more after plants first show symptoms.

There are no chemical controls that act directly on Xylella fastidiosa, so managing glassy-winged sharpshooter is key for breaking the disease cycle. There are several insecticides active against leafhoppers and registered for use on blueberry. Most of these have systemic activity and are applied to the soil. Biological control of glassy-winged sharpshooter includes parasitoid wasps that attack the egg stage and fungal pathogens. Cultural control includes selection of resistant varieties and removal of other host plants that serve as reservoirs for Xylella fastidiosa. For more specific information on sharpshooters (also known as leafhoppers) chemical control, please see Blueberry Integrated Management Guide.

References

Brannen, P.M., G. Krewer, B. Boland, D. Horton, and C.J. Chang. 2016. Bacterial leaf scorch of blueberry. UGA Extension Circular 922.

Conklin, T. and R.F. Mizell, III. 2013. Glassy-winged sharpshooter, *Homalodisca vitripennis* (=*coagulate*) (Germar) (Insecta: Hemiptera: Cicadellidae: Cicadellinae). UF/IFAS Extension. EENY-274/IN552. http://edis.ifas.ufl.edu/in552.

Tipping, C. and R.F. Mizell, III. 2009. Sharpshooters, leafhoppers, Cicadellidae (Insecta: Hemiptera: Auchenorrhyncha: Cicadellidae). UF/IFAS Extension. EENY-334/IN611. http://edis.ifas.ufl.edu/in611.

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AGENT ADVOCATE

Structural Pest Management Program series to aid Extension Agents

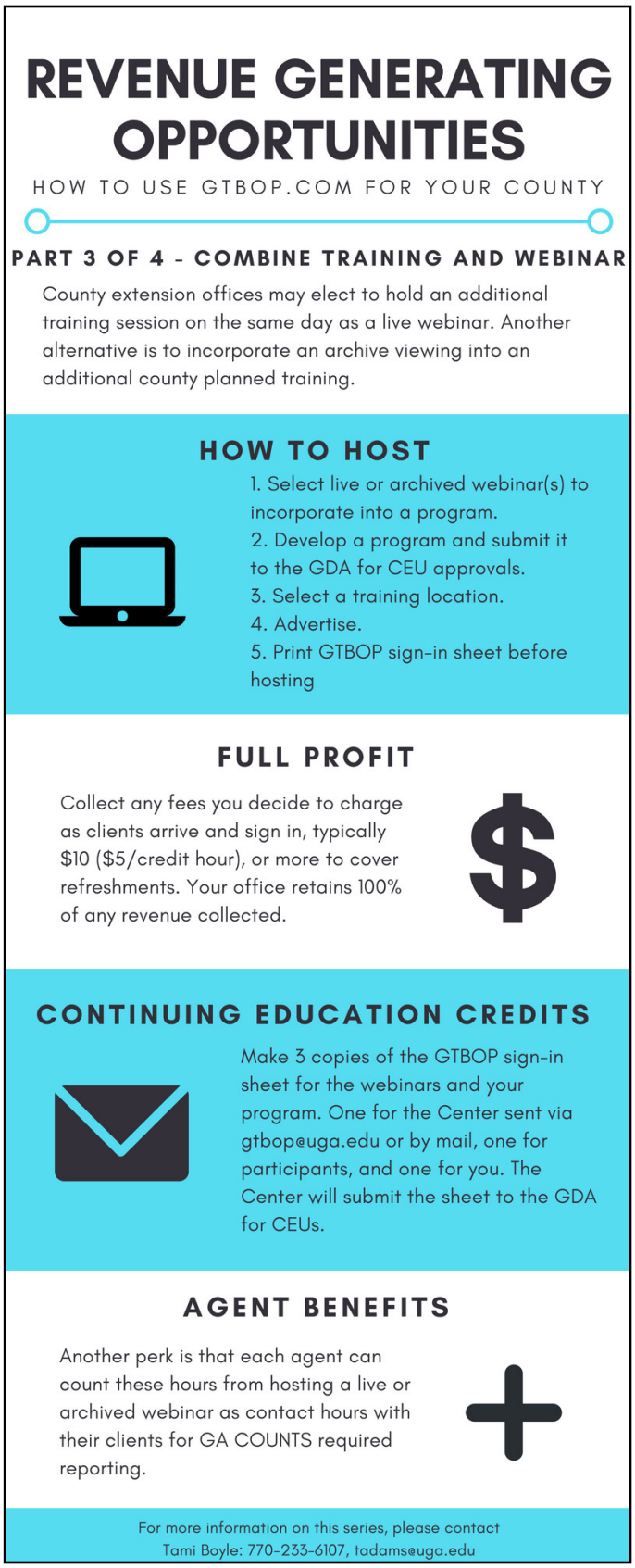
Need help generating a little extra revenue for your local Georgia County Extension Office? We have discovered it! The Center for Urban Agriculture (The Center) offers four opportunities for Georgia County Extension offices to generate revenue. In the next four issues of the IPM Program Monthly Newsletter, we will reveal the details for all four opportunities.

The Getting the Best of Pests (GTBOP) is a live webinar series that reaches out to the Georgia Green Industry offering CEU Category Credits from the privacy and luxury of a home or office environment. This GTBOP Green series saves companies time, travel and expenses and provides extension agents user-friendly, useful information and an opportunity to generate a little revenue right from their county office.

The GTBOP Green Webinars are offered on the 3rd Wednesday of every ODD-numbered month. (January, March, May, July, September and November.) These live webinars are accessed online, utilizing the web-based software, Go-To-Webinar, and are aired from 8:15 am to 10:45 am. For more information on the GTBOP Green Webinar Series or other programs that The Center offers, contact the Bodie Pennisi at bpennisi@uga.edu.

For more information on the workshops and other programs from the Structural Pest Management Program, please visit http://www.gabugs.uga.edu. ■

In the next issue, we will discuss how you can receive checks just by advertising...



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MEDIA MENTIONS

Articles and news stories pertaining to IPM field work written by outside sources.

Row crop field day in Midville highlights UGA large scale trials

by Cristina deRevere

University of Georgia College of Agricultural and Environmental Sciences (CAES) specialists and UGA Cooperative Extension agents hosted a Row Crop Field Day on Aug. 15, 2018, at the Southeast Georgia Research and Education Center in Midville, Georgia. The field day highlighted the facility's research on Georgia row crops such as cotton, peanuts, corn and soybeans.

"This facility was 'moth-balled' from 2004 through 2007 with the intention of closing it permanently at some point," said Anthony Black, superintendent of the Midville center. "A field day was organized in summer of 2007 to showcase Extension agents work and other research that was still going on. It highlighted the importance of the center and helped build the case for reopening. The center reopened to full capacity in January 2008. Myself, along with local Extension agents, have continued to hold the field day annually to continue to build support."

This year's field day consisted of presentations from UGA agronomists, entomologists, plant pathologists, commodity specialists, research professionals, engineers and Extension agents on a variety of row crop research topics, such as commodity updates, diseases, early insect detection, variety testing and irrigation management. A drone was also demonstrated. Research trials at the center are conducted on a large-scale to replicate field day attendees' farms.

"Producers really value upscale trials," said Peyton Sapp, UGA Extension coordinator in Burke County. "This research center provides variety trial crops double the size of other stations and the research is done in an efficient way."

Field days, like this one, "serve as a direct conduit between growers, agents and scientists," says Mark McCann, assistant dean for University of Georgia Cooperative Extension. Field days also allow UGA specialists to share their research and farmers to gain knowledge, all with the benefit of improving Georgia agriculture.

Almost 150 growers, agents and specialists attended the event. Attendees received two hours of Commercial and Private Pesticide Credits.

"These field days serve as a direct conduit between the growers, agents and scientists," said Mark McCann, assistant dean for UGA Extension. "This station is a hub for specialists to conduct research, agents to receive credibility, and farmers to gain knowledge, all with the benefit of improving crops in Georgia."

The field day concluded with a presentation from Georgia Rep. Rick Allen.

In addition to the annual feed day, the Midville center hosts trainings and workshops throughout the year for cotton, peanuts, corn and soybean growers.

For more information about the Southeast Georgia Research and Education Center, visit t.uga.edu/4oT. To find out about upcoming UGA Extension field days and events, visit extension.uga.edu/calendar. ■

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MEDIA MENTIONS

Articles and news stories pertaining to IPM field work written by outside sources.

Some Georgia farmers harvesting corn later this year

by Clint Thompson

Tainy conditions this spring forced some Georgia corn farmers to plant their crop late this year, according to Reagan Noland, University of Georgia Cooperative Extension corn and small grains agronomist. This late planting, combined with a very wet growing season, meant farmers harvested some corn crops a few weeks late.

"There was a time frame of good planting conditions during the early spring, and many acres were planted on time. If you didn't get your crop planted then, you likely got in a little late," Noland said. "We had a few big rain events in mid-April. I would say if growers didn't plant by mid-April, they probably didn't get in (the fields) until the beginning of May."

In late May, Georgia experienced two straight weeks of rainy weather. Limited sunlight slowed the growth of corn at a time when yield components were determined.

"Cloudy weather at different points during the life cycle of corn influences different aspects of yield," Noland said. "During tassel and pollen shed, bad weather can lead to issues with pollination and poor establishment of the kernels."

Symptoms of nitrogen deficiency were also common where the soil was saturated. This year, considerable nitrogen was likely lost due to leaching and runoff in fields that were overrun with moisture.

"When the soils are saturated and conditions are cloudy, the plant isn't transpiring and taking up water as quickly. I visited a field in Laurens County, (Georgia), where a farmer had to terminate his crop because over 80 percent of the field was stunted beyond recovery. It was too wet, and the roots were rotting a couple of inches deep," Noland said. "It was a good bottomland site that usually yields well because it holds moisture well. This ended up hurting in a year when it was too wet."

Dublin, Georgia, in Laurens County received 7.9 inches of rain in May, surpassing previous years' totals with 17 rainy days, according to the UGA Weather Network at www.GeorgiaWeather.net.

Along with Laurens County, reports from Georgia's Washington, Jefferson, Burke and Bulloch counties also indicated that farmers were adversely affected by too much rain, Noland said. In the southwestern part of the state, conditions were more favorable for growing corn.

"I talked with (Extension agent) Seth McAllister over in Terrell County, (Georgia), and he has a good representation of the western part of south Georgia. From what he said, the irrigated farms are looking good. It's not record-breaking, but they are generally harvesting a good crop this year," Noland said. "Dryland yields are normal. One bright side to wet weather is that dryland yields will often do better than normal. Some early estimates in Terrell County indicated dryland yields around 90 bushels, which is all right for the area. Another report from Dooly County, (Georgia), indicated a grower harvesting well over 200 bushels dryland, which is outstanding."

Along with Laurens County, reports from Georgia's Washington, Jefferson, Burke and Bulloch counties also indicated that farmers were adversely affected by too much rain, according to Reagan Noland, UGA Extension corn and small grains agronomist

Noland's research on the UGA Tifton campus was also not immune to the rainy summer's impact.

"Current yield projections for (one of our) fields is around 230 or 240 bushels, which is good. Most growers will be happy to see that average across a field, but it's not as high as we hoped to see in a research plot," Noland said.

Corn is typically harvested throughout August and September. It is a high-value row crop for Georgia growers. Corn generated more than $277.2 million in Georgia, according to the 2016 Georgia Farm Gate Value Report, produced by the UGA Center for Agribusiness and Economic Development. ■

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MEDIA MENTIONS

Articles and news stories pertaining to IPM field work written by outside sources.

Scientists share findings at UGA Turfgrass Research Field Day

by Cristina deRevere

The University of Georgia Turfgrass Research Field Day, held Aug. 9 on the UGA Griffin campus, attracted 800 attendees from Georgia, Alabama, Florida, North Carolina, South Carolina and Tennessee.

The field day provided research-based information about the production and management of turfgrass from UGA entomologists, plant pathologists, soil microbiologists, plant breeders, geneticists, genomics specialists and environmental turfgrass scientists.

"The University of Georgia, the Griffin campus and the turf program try to do things that have never been done," said Sam Pardue, dean and director of the UGA College of Agricultural and Environmental Sciences, during the field day welcome. "It is our commitment to you and the future to continue to provide the research, outreach and education that will benefit you, your organizations and your companies."

The field day began with guided tours and pest-identification presentations about insects, weeds and diseases and how to control them using herbicides, fungicides and management practices. There were also presentations on new technology and research, like the use of unmanned aerial vehicles (UAVs) in normalized difference vegetation index (NDVI) digital analysis and the use of automatic rain shelters for drought studies.

Vendors were also on site to share information through displays and demonstrations of the latest turfgrass equipment. Participants received individualized tips and information specific to their needs through afternoon self-guided presentations.

Patrick McCullough, UGA Extension weed specialist, was among the scientists who shared their findings at the UGA Turfgrass Research Field Day held on Thursday, Aug. 9, 2018. McCullough is shown telling visitors the results of his study on bluegrass control in Bermuda grass.

All attendees received Georgia pesticide credits: six credits for Category 24, two credits for Category 10, and six credits for Categories 21, 27 and 32. Pesticide recertification credits were also offered for Alabama, Florida, North Carolina, South Carolina and Tennessee.

The Turfgrass Research Field Day is offered biennially and will occur again in 2020. For more information on upcoming turfgrass events, please visit www.GeorgiaTurf.com. ■

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MEDIA MENTIONS

Articles and news stories pertaining to IPM field work written by outside sources.

Millipedes and centipedes are often mistaken for worms

by Michael Abney

They have a thousand legs and are often considered to be among the most disliked insects. But millipedes and centipedes aren't even insects. In fact, millipedes are more closely related to lobsters, crayfish and shrimp.

I have recently received calls concerning "a small, worm-like insect." These worm-like pests can be seen crawling around on carports, the sides of homes and around the edges of structures by the hundreds. You may also occasionally find them dead inside your home.

These callers are actually referring to millipedes or centipedes. Millipedes are often called "thousand-legged worms." Their counterpart, the centipede, is often known as the "hundred-legged worm." Neither the millipede nor the centipede carries diseases that affect people, animals or plants. They are most active at night, when the house centipede searches for cockroaches and other insects.

Millipedes are often called "thousand-legged worms." They don't carry diseases that affect people, animals or plants, but some species are capable of secreting chemicals that can irritate the skin and eyes and cause allergic reactions.

Millipedes aren't poisonous, but some species are capable of secreting chemicals that can irritate the skin and eyes and cause allergic reactions. It is not advisable to handle these pests with your bare hands. Some millipedes have a defensive spray that contains hydrochloric acid, which can burn the skin. Centipedes seldom bite, and their jaws contain poison glands.

Millipede species vary in length from less than 1 inch to 2 or more inches and range in color from light brown to black. Depending on the species, centipedes vary in length from 1 to 12 or more inches, but the most common species found in Georgia is less than 5 inches long. Centipedes vary in color from light yellow to dark and reddish brown.

Both the millipede and the centipede like similar cool, dark, moist environments, like under stones and logs, in the soil, wood piles, leaf litter and debris, and rotting materials.

University of Georgia Cooperative Extension recommends control of these pests through habitat removal (wood piles, leaf litter and piles of trash). Moving mulch at least 3 feet away from the sides of buildings will reduce millipede breeding. Next, physically prevent them from entering your home. Make sure that doors and windows fit tightly and ensure there are no cracks or crevices available as entry points. Pesticides can also be applied. If you spray insecticides on wood piles, do not burn the wood for at least two weeks following application.

For more information about millipedes or centipedes, see the UGA Extension publication "Millipedes and Centipedes" at www.extension.uga.edu/publications. ■

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FUNDING OPPORTUNITIES

Southeastern Peanut Research Initiative

The proposal deadline is September 26, 2018

The Southeastern Peanut Research Initiative Committee was formed and charged to develop the research proposal for submission to the National Peanut Board. The three state check-off executives are members of this committee (Alabama- Caleb Bristow, Florida- Ken Barton, Georgia- Don Koehler). The three Land Grant College Deans selected individuals to represent their respective state on this committee. In regards to Georgia, because funding also goes to Abraham Baldwin Agricultural College and Georgia Tech, it was decided to have one of the positions come from outside the University of Georgia to provide fair consideration to those researchers.

Final proposals will be submitted to the National Peanut Board through the state check-off organizations by their November/December 2018 deadline. The committee has developed a multi-year regional strategy plan as their charge. This same research initiative and strategic plan will continue for this coming year. The committee welcomes input and pre-proposals from all interested individuals and groups from the Southeast United States. For Georgia, please contact: Stanley Fletcher, smf@abac.edu or Eric Prostko, eprostko@uga.edu. ■

Georgia Agricultural Commodity Commission for Beef

The proposal deadline is October 5, 2018

The Georgia Agricultural Commodity Commission for Beef is pleased to announce the call for new research proposals. The Commission is also requesting that if a researcher has a project underway that is currently funded, that the commission receive a report updating on progress or results of the research. The proposals will be pre-screened, and selected proposals may be asked to make a presentation in November (date and time TBA) with approved projects being awarded in November. Please contact the Grants and Contracts office (agcg@uga.edu) if you plan to submit a proposal. Notifying the Office does not commit you to following through with an actual application, but alerts them to the possibility. For more contact information, please visit their website. ■

Georgia Agricultural Commodity Commission for Peaches

The proposal deadline is November 16, 2018

The Georgia Agricultural Commodity Commission for Peaches has issued their call for proposals to be considered for FY19 funding. The Commission seeks to provide funding for research focused on all aspects of the Georgia peach industry. Please contact the Grants and Contracts office (agcg@uga.edu) if you plan to submit a proposal. Notifying the Office does not commit you to following through with an actual application, but alerts them to the possibility. For more contact information, please visit their website. ■

IPM Enhancement Grant Program – Request for Applications (RFA)

The submission deadline is November 16, 2018

The IPM Enhancement Grants Program (IPMEP) is a foundational mechanism used by SIPMC to address important issues affecting the region that has produced many significant outputs and favorable outcomes addressing Global Food Security challenges including invasive species, endangered species, pest resistance, and impacts resulting from regulatory actions. We use a competitive process each year to solicit and select projects for funding.

Any IPM setting is applicable to the IPM Enhancement Grant program, including agriculture, urban and school, forestry and recreation. The funding covers a one-year project, so please keep that in mind when considering your proposal. See below for project types that this grant funds. We have adopted an outcome-based approach for our funded projects, and you will notice that when you read through the RFA. Each component of the proposal is explained in detail; please take the time to read through the RFA carefully.

If you are familiar with this grant program from previous years, this year's RFA does NOT cover proposals for IPM Documents. IPM Documents is now included in a separate RFA.

To get to the RFA and required forms, please go to our introduction page. ■

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UNIVERSITY OF GEORGIA
EXTENSION
Integrated Pest Management Program

FUNDING OPPORTUNITIES

Southern Region IPM Center – Critical Needs and Emerging Issues

The submission deadline is December 31, 2018

This Request for Applications will fund projects that address a critical or emerging IPM issue of regional or national significance. The Center has a small amount of funding to help facilitate timely responses to critical issues, as an early regional response can lead to more timely and effective solutions. Our purpose is to provide a small source of funds that can be used to start work on new and critical issues, and to support projects that offer new and innovative solutions to emerging IPM challenges. For more information, please visit their website. ■

Southern Region IPM Center – IPM Documents

The submission deadline is December 31, 2018

This Request for Applications will fund projects that address the need for documents that accurately reflect the current state of Integrated pest management on a regional or national basis. IPM Documents may address crops or other (noncrop) settings for a single state or combination of states. Funding provided by the center are intended to help facilitate authoring of these documents including travel, meeting, and survey expenses associated with information gathering. Currently, 3 types of documents are recognized: Crop profiles (CP), Pest Management Strategic Plans (PMSP), and IPM Priorities. For more information, please visit their website. ■

We value your feedback. Please complete our survey.

To be added to the mailing list, please call us at 706-542-1320 or email us at ipm@uga.edu.

The UGA Integrated Pest Management Newsletter is a monthly journal for researchers, Extension agents, Extension specialists and others interested in pest management. It provides the 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, extension publications or appropriate specialists for additional information.

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