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FUNDING OPPORTUNITIES

- **2015 GRADUATE STUDENT GRANTS IN SUSTAINABLE AGRICULTURE**

The Southern Region USDA Program on Sustainable Agriculture Research and Education (SARE) is requesting proposals for Graduate Student research projects that address issues of sustainable agriculture of current and potential importance to the Southern region and the nation. The Southern SARE Graduate Student Grants in Sustainable Agriculture grants a one-time project maximum of \$11,000. Projects may last up to three years. A candidate may receive only one Southern SARE Graduate Student Grant during his or her graduate student career. The Southern SARE program will only consider proposals submitted, and to be conducted, by graduate students (Master's and PhD) enrolled at an accredited college or university in the Southern region. The graduate student must be considered full-time (according to his or her institution's requirements) at the time of proposal submission. **PROPOSAL DEADLINE IS 11:59 PM Eastern time May 4, 2015.**

A graduate student may only submit one proposal to the SSARE Graduate Student Grant Program in one grant cycle. Further, if awarded, a SSARE Graduate Student Grant can only be used for the graduate student who submitted the proposal. If, for any reason, the graduate student does not complete his or her project and/or is no longer enrolled, the grant cannot be transferred to another graduate student without prior approval from SSARE.

- **EURASIA FOUNDATION LAUNCHES US-RUSSIA UNIVERSITY PARTNERSHIP FUNDING INITIATIVE**

Eurasia Foundation invites accredited higher education institutions from Russia and the United States to submit joint proposals for creating new bilateral partnerships as part of the US-Russia University Partnership Program (UPP). The two-stage competition offers modest "contact" funding to support the design of partnership project proposals and more substantial "linkage" funding for the implementation of partnership projects. Proposals must include at least one Russian and one US institution. All application materials for Contact project funding are due on **March 2nd, 2015**. Application materials for Linkage project funding are due on **May 18th, 2015**. In order to access the application materials, higher education institutions must register with the UPP database (<http://usrussiaupp.org/en/disclaimer>). For more information about partnership funding opportunities, please visit the UPP website at www.usrussiaupp.org or contact UPP staff at atupp@eurasia.org.

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- **USDA AFRI FOOD SECURITY CHALLENGE AREA**

The USDA-AFRI Food Security Challenge Area RFA for FY 2015 has been released. The deadlines are **April 2 for Letters of Intent** (strongly encouraged but not mandatory) and **June 4 for full proposals**.

For FY 2015, it is anticipated that approximately \$16.8 million will be made available to support new awards within the Food Security Challenge Area of AFRI. In FY 2015, application are sought to support agricultural production research, education, and extension to develop more sustainable, productive, and economically viable plant and animal production systems. Proposed projects should focus on improving food systems through research on developing sustainable crop, livestock, or integrated crop and livestock systems; develop regionally adapted crop cultivars and livestock/breeds that contribute to rural economic development and prosperity while enhancing food security and a meta-analysis to result in a national strategy for sustainable crop and livestock production. Project types supported by AFRI within this Challenge Area will propose multi-function Integrated Research, Education, and/or Extension Projects, Food and Agricultural Science Enhancement (FASE) Grants, and conferences and/or workshops.

Specifically, applications are sought in three more or less broad areas: **(1) Agricultural Production Systems** (integrated CAP projects, up to \$1 million per year for 4 years, NIFA anticipates 6-7 awards); **(2) Breeding and Genomics of Crops and Livestock** (standard integrated projects, up to \$3 million total for 3-4, NIFA anticipates funding 2-3 awards); and **(3) National Strategy for Sustainable Crop and Livestock Production in the United States** (standard research projects, up to \$500,000 total for up to 2 years). Conference grants are also possible for the three areas. For more information and RFA, visit <http://www.csrees.usda.gov/fo/foodsecurityafri.cfm>

This is an excellent funding opportunity, and the CAES grants support team, consisting of the Grants Coordinator, the respective Assistant Deans, and the CAES Sponsored Programs Office are ready to assist with all aspects of proposal development. Please contact us at grants@uga.edu if we can be of help.

- **USDA CONSERVATION INNOVATION GRANTS**

Applications are being accepted by USDA for up to \$20 million in grants to facilitate the creation of new, innovative markets for carbon credits, providing additional revenue sources for producers to use to address natural resource conservation challenges. These grants are part of the Conservation Innovation Grant (CIG) program, authorized through the 2014 Farm Bill. For 2015, approximately half of the \$20 million is available for environmental markets and conservation finance projects that engage agricultural producers. In past years, CIG has helped fund the development of the basic infrastructure of these markets. This year, USDA, through the Natural Resources Conservation Service (NRCS) is seeking applications for projects that will build on these efforts by maturing and scaling markets and accelerating efforts to leverage private capital and investment in private lands conservation. Improved quantification tools, multi-resource crediting, and projects that substantively engage corporate or financial partners are the types of activities NRCS is pursuing.

USDA is also soliciting proposals for projects to stimulate natural resource improvements, including, but not limited to, improvements in water quantity, soil health, and wildlife

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habitat. Applications from this funding pool may also emphasize expected benefits to historically underserved producers, veterans, and organic producers. Applications in the fields of economics and sociology as they relate to natural resources are also being welcomed. Under CIG, Environmental Quality Incentives Program funds are used to award competitive grants to non-Federal governmental or nongovernmental organizations, Tribes, or individuals. The 2014 Farm Bill also included language that has led to some changes in this year's CIG funding announcement. One change eliminates the requirement that half the applicant's match be in cash. Another expands eligibility for the 10 percent set-aside provision for historically underserved producers.

As in prior years, NRCS will accept pre-proposals for initial review before inviting entities to submit full proposals. **Pre-proposals are due Tuesday, February 24, 2015.** To apply electronically, visit <http://www.grants.gov> or contact a [local NRCS office](#).

- **THE GEORGIA AGRICULTURAL COMMODITY COMMISSION FOR PECANS (GACCP) HAS ISSUED THEIR CALL FOR PROPOSALS TO BE CONSIDERED FOR FY16 FUNDING (JULY 1, 2015 - JUNE 30, 2016).**

Listed below are the Commission's Guidelines for New Proposals. To meet the Commission's **March 4** deadline, proposals should be forwarded to Debra Rucker for review no later than **Wednesday, February 25, 2015**. Please include a signed proposal cover sheet (<http://ovpr.uga.edu/docs/forms/osp/pdf/Proposal-Cover-Sheet.pdf>), and also enter the proposal into UGA's eResearch Portal for Grants and Awards (<http://ovpr.uga.edu/osp/proposal/submit-proposal>), which will generate the necessary internal transmittal process. The Commission's Research Committee will review and make recommendations at their next meeting.

The Georgia Pecan Commission is pleased to announce the call for proposals for research for the FY 16 period (July 1, 2015 through June 30, 2016). Since limited funds are available, the following priorities have been established. However, all projects will be considered on their individual merit and potential success:

- Scab (High Priority)
- Health benefits of Pecans
- Glomarella/Anthracnose Control
- Agricultural base land value improved by enhancement of horticulture
- More information on chicken litter fertilizer
- Amount of fertilizer to apply to newly planted and young trees
- New spray materials for insects and mites
- Irrigation-drip and solid set amounts in groves and nurseries
- Fertilization-effectiveness as related to production
- Phytophthora-how and when to control
- Insecticides to control black and yellow aphids, stink bugs and nutcase bearer
- Decline in quality in late part of season
- Miticide to control mites
- Effects on herbicides used in strips(round-up)
- Pecan marketing exports; China, India, etc.
- Weevil research directed toward eradication
- Controlling nematodes
- Fertility-minor elements, sulfur

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- Problems with Stuart variety opening slowly
- Evaluation of new cultivars
- Hedging of Pecan Trees
- Application of Fertilizer by Banding
- Fertigation

NOTE: Several research projects are ongoing projects continuing from last year and previous years. The Commission would like to see a continuance of these projects.

Proposals should be limited to three (3) pages and include:

- Title and investigator(s) names
- Need for research in Georgia
- Potential benefit (how do you propose to evaluate cost/benefit?)
- Objectives
- Procedures and location(s) of research
- Budget: Include request of funds for personnel services and operating costs.

Copies of proposals must be received in the commission office by March 4, 2015. Proposals received after the close of business on this day will not be considered. Faxed copies will not be accepted. Email to gapecancommission@gmail.com

• THE PUBLIC SERVICE AND OUTREACH FELLOWSHIP PROGRAM

The Public Service and Outreach (PSO) Fellowship Program offers a semester-long opportunity for tenure-track or tenured faculty members to partner directly with a University of Georgia PSO unit to enhance their teaching, research, and engagement work. Since 2011, my office has supported 13 faculty with \$195,000 to participate in the program. UGA's PSO units include:

Archway Partnership
 Carl Vinson Institute of Government
 J. W. Fanning Institute for Leadership Development
 The University of Georgia Center for Continuing Education
 Georgia Sea Grant
 Marine Extension Service
 Office of Service-Learning
 Small Business Development Center
 State Botanical Garden of Georgia

The deadline for submission of proposals for the Fall semester Public Service and Outreach (PSO) Fellowship program is **March 27, 2015**.

The program's purpose is for Fellows to enhance their academic courses, conduct research (e.g., applied, community-based, policy, program, evaluation) and apply their academic expertise to outreach initiatives. An anticipated outcome of the Fellowship experience is sustained involvement with scholarly activities related to outreach once Fellows return to

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their academic departments. Guidelines may be found at <http://outreach.uga.edu/programs/psa-fellowship-program/>.

Questions and proposals should be directed to Paul Brooks, Associate Vice President for Public Service and Outreach, at pjbrooks@uga.edu or 706-542-6167.

FROM THE FIELD

Bt Corn Products for 2015

*By David Buntin,
Grain Crop Entomologist, University of Georgia*

Selection of a corn hybrid has become more complicated in recent years due to the large number of products with various transgenic traits for control of insects. Corn hybrids also are available with resistance genes for glyphosate and glufosinate herbicides. Currently all transgenic insect control traits are various proteins derived from the bacterium called *Bacillus thuringiensis* (Bt). Bt corn traits can be divided into two categories, traits that target above ground caterpillar (lepidopteran) pests such as corn borers, fall armyworm and corn earworm, and traits that target below ground or soil inhabiting corn rootworms. We normally do not need the rootworm traits in Georgia with the exception of animal operations in the northern half of the state that grow continuous corn.

Keep in mind that Bt traits do not increase the yield potential of a hybrid; instead they protect the yield potential inherent in a hybrid. Select hybrids based on the agronomic traits and yield potential in your area. Many of the hybrids with new elite genetics also often contain Bt traits. Even hybrids within the same family that are genetically similar may not have the same yield potential because while they are similar they are not genetically identical. Bt traits will not overcome poor yield potential of a hybrid that is not well adapted to your area and production system. Bt traits also may not always provide a positive return especially when insect pests are not present or are present in low numbers. Nevertheless, Bt traits help manage the risk of pest damage, which in Georgia the risk increases with later planting dates.

A table posted on the UGA Corn grain page lists Bt corn products that will be available in the Southeast for 2015.

<http://www.caes.uga.edu/commodities/fieldcrops/gagrains/corn.html> Click on the 2015 Southeast Bt corn trait table.

For each product the table lists the specific Bt protein(s) and event(s), herbicide tolerance traits, and relative efficacy of the Bt product for controlling specific target insect pests. It also lists the percentage of requirement for a structured non-Bt corn refuge. Most Bt corn products have 2 or more Bt traits now and have a requirement for a 20% structured non-Bt refuge in Georgia. Bt corn products with refuge-in-the-bag (RIB) if available also still require a 20% structured refuge in the cotton-growing areas including all of Georgia.

The seed bag tag has details about product insecticide resistance management (IRM) requirements, refuge amount and refuge placement options. The National Corn Grower's Association also has a very good web site that will provide refuge planting options for Bt

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products at:

<http://ncga.com/irm-calculator> OR <http://refuge.irmcalculator.com/web/main.php>

Please contact Dr. Buntin at gbuntin@uga.edu if you have questions about Bt traits and IRM requirements for Bt corn in Georgia.

MANAGEMENT OF STINKBUGS IN COTTON

Brian Little

Department of Entomology, University of Georgia

Stink bugs (Hemiptera: Pentatomidae) are a pest in row crop and vegetable production in the southeastern United States. Stink bugs are a known agricultural pest of corn, beans, and cotton. Phytophagous stink bugs have piercing-sucking mouthparts that are inserted into plant tissues, typically seeds, to extract the nutrients within (Fig. 1A). Feeding on bolls can lead to the development of boll rot due to pathogens entering the boll. Pathogens cause lint discoloration (Fig. 1B) and which can lead to boll abortion. Insect feeding damage causes a decrease in both lint quality and yield.

Broad-spectrum insecticides, primarily organophosphates and pyrethroids, are used to provide effective control of stink bugs. However, these chemistries are very disruptive to natural enemies, and may flair secondary pest outbreaks (cotton aphids, whiteflies or spider mites). Products within the neonicotinoid insecticide class generally exhibit similar efficacy to organophosphate and carbamates insecticides, but are less toxic to non-target organisms including. Research is needed to better understand how these products can replace older chemistries for managing emerging insect pests. Trials were conducted on stink bugs in cotton. Efficacy of clothianidin was compared with the following insecticides; dicotophos, bifenthrin as well as a reduced rate tankmix of clothianidin and bifenthrin.



Figure 1. Stink bug feeding symptoms on (A) developing cotton boll with internal warts on the carpal wall with stained lint and (B) open boll with stained lint.

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Bifenthrin (5.1 oz per acre) provided the fastest time to knock down in brown stink bugs adults (Fig. 2A). Brown stink bugs are tolerant to many pyrethroids. Bifenthrin can be applied at higher rates than other pyrethroids and thus is still effective at managing populations. Dicrotophos (5.3 oz per acre) performed similarly to bifenthrin in brown stink bug adults. There was also no recovery observed in dicrotophos treatments. Clothianidin (4.0 oz per acre) required the longest time to knock down in both brown and southern green stink bugs. Clothianidin (3.0 oz per acre) + bifenthrin (4.0 oz per acre) provided the fastest time to knock down in southern green stink bug adults (Fig. 2B).

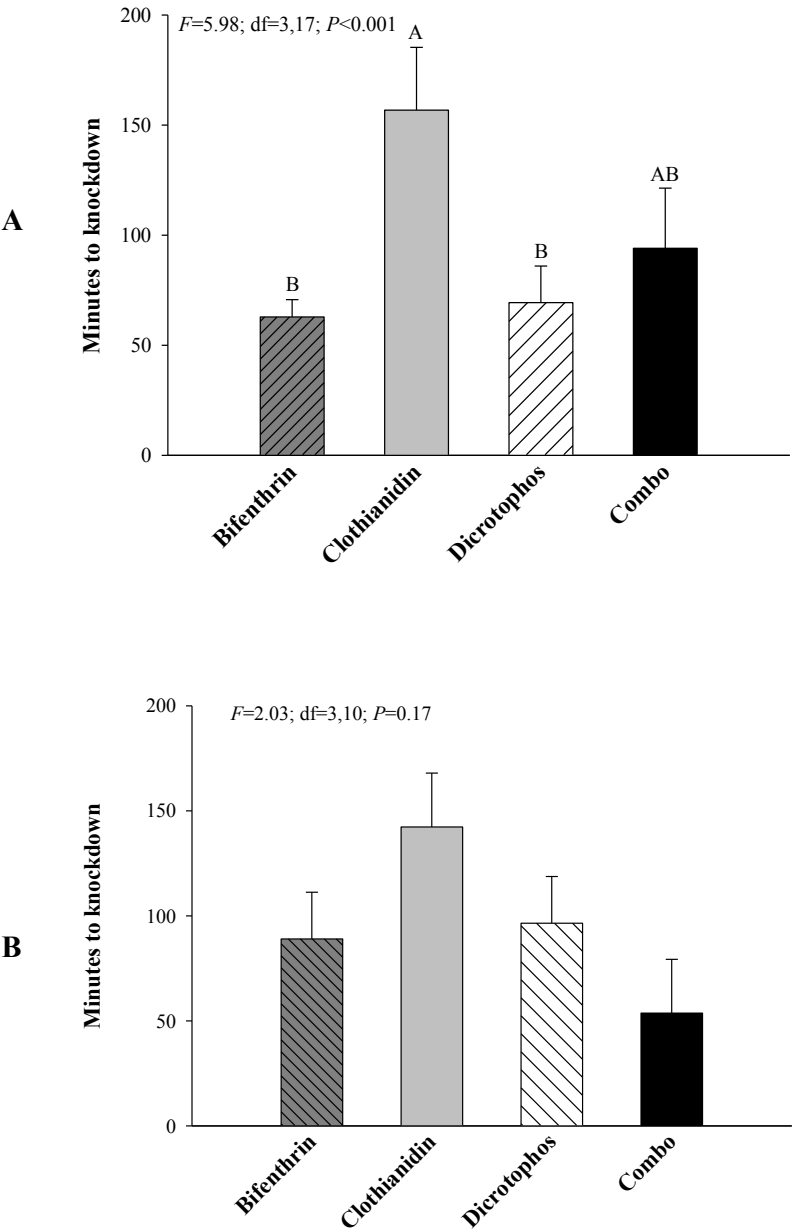


Figure 2. Minutes required to reach knockdown in treated leaf bioassays with brown stink bug adults (A) and southern green stink bug adults (B).

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Dicrotophos applications are required for effective management of brown stink bugs in cotton. The reduced rate tankmix of clothianidin and bifenthrin may be a good strategy for management of the southern green stink bug, but not the brown stink bug. Variability was evident in the susceptibility to insecticides among the species, thus illustrating the importance of correct species identification and composition within the field. These two crucial elements should drive insecticide selection in the field.

NASS ORGANIC PRODUCER SURVEY

NASS has mailed its 2014 Organic Producer Survey to organic producers nationwide. Please help us to publicize it. Participation is mandatory, and the data is crucial to developing agriculture-related programs that directly affect the life and communities of growers. Responses are due by mail by February 13, 2015 or online by April 3, 2015. NASS has a variety of easy-to-use publicity materials at http://www.agcensus.usda.gov/Publications/Organic_Survey/.

GETTING THE BEST OF PESTS: 2015 WEBINAR SERIES

Getting the Best of Pests **2015 Webinar Schedule**

UGA-CAES Announces 2015 Webinar Schedule

The University of Georgia CAES Extension, in cooperation with the DI Group @ Georgia College, announces the 2015 *Getting the Best of Pests* webinar series schedule. Register at www.gabugs.uga.edu. Webinars are 8:00 to 10:00 AM U.S. east coast time and to-date provide continuing education credit in GA, FL, AL, SC, NC, and TN. This year's speaker line-up represents some of the greatest minds working in the area of urban pest management research and consulting.

February 18, 2015-Termites

Dr. Brian Forschler is a Research Professor of Urban Entomology at the University of Georgia. His research specialty is subterranean termite biology and management---the topic he'll address during his webinar. **Dr. Rudi Scheffrahn** is a research Professor of Urban Entomology at the University of Florida, where he works on drywood termites. Both of these researchers are widely-regarded as authorities on the biology and management of subterranean (Forschler) and drywood (Scheffrahn) termites.

April 15, 2015-Bed Bugs

Dr. Stephen Kells is a Research Professor of Urban Entomology at the University of Minnesota. His research specialty is the biology of bed bugs (bedbugs.umn.edu). **Dr. Changlu Wang** is also a Research Professor of Urban Entomology, and specializes on bed bug monitoring and control. Both are highly productive researchers and are considered authorities on the biology and management of bed bugs. During this webinar, they will both discuss their current research on bed bugs.

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June 17, 2015-Rodents

Dr. Robert Corrigan, RMC Consulting, has been studying the biology, behavior, and management of rodents for decades. He is author of *Rodent Control: A Practical Guide for Pest Management Professionals*. **Dr. Claudia Riegel** is the Director of the New Orleans Mosquito, Termite and Rodent Control Board, a City of New Orleans-funded group whose goal is to protect the city from these pests. Both will talk about rodent biology, behavior, and management, with special emphasis on management in commercial environments.

August 19, 2015-Insecticide Resistance; Biology and Management of Fleas

Dr. Michael Scharf a Research Professor at Purdue University where he holds the O. W. Rollins/Orkin Endowed Chair in Urban Entomology. Dr. Scharf is an insect toxicologist, and in this unique webinar will present a talk on various means by which insects evolve resistance to insecticides. **Dr. Nancy Hinkle** is an Extension Professor of Veterinary and Urban Entomology at the University of Georgia. Among her many qualifications, she is an authority on the biology and management of parasites of pets---including fleas. In her webinar she will discuss the resurgence of cat flea problems and provide insight into their biology and management.

October 21, 2015-Insecticide Mode of Action; Pesticide Safety

Dr. Scharf returns to present a one hour webinar on insecticide mode of action---a topic that every pest management professional should be aware of. **Dr. Phil Koehler** is an Extension & Research Professor of Urban Entomology at the University of Florida where he holds the Margie & Dempsey Sapp Endowed Professorship of Structural Pest Control/FPMA Endowed Professor of Urban Entomology. Dr. Koehler will highlight the safe use of pesticides.

December 9, 2015-Ants

Dr. Robert K. Vander Meer is a senior research scientist and Research Leader of the Imported Fire Ant and Household Insects unit at the USDA-Agricultural Research Service's Center for Medical, Agricultural and Veterinary Entomology in Gainesville, FL. He is a world class expert on ant communication, particularly the study of pheromones. His presentation will be "Chemical Communication in Ants". **Dr. Chow Yang Lee** is a Professor of Urban Entomology in the School of Biological Sciences at the Universiti Sains Malaysia, in Penang, Malaysia. He's an authority on the biology and management of pest ants, termites, and German cockroaches. He will talk about ant baiting and principles of baiting.

To learn more about the webinar series, contact **Dr. Daniel R. Suiter** at the University of Georgia (USA) at 770-233-6114 or email him at dsuiter@uga.edu. For registration please visit: gabugs.uga.edu

UPCOMING EVENTS

Feb 9 BURKE COUNTY PEANUT PRODUCTION MEETING

Scott Monfort, Extension Peanut Agronomist, will give an update on peanut production and Eric Prostko, Extension Agronomist-Weed Science, will bring us up-to-date on weed control in peanuts. Supper will be served. The meeting will be held at the Burke Co. Office Park 715 West 6th St. Waynesboro, GA 30830, Auditorium

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Building. The meeting starts at 6:00 pm and ends at 8:00 pm. Please let them know by Friday, February 6, if you plan to attend. For more information contact Peyton Sapp or Louise McClain at 706-554-2119 or email uge3033@uga.edu

Feb 10 Randolph County Disease & Fertility Meeting

Dr. Bob Kemerait, UGA Extension Plant Pathologist & Dr. Glen Harris, UGA Extension Fertility Specialist will present the latest information. Commercial & private pesticide credit will be available. The meeting will be held at the Ag/Ed Building in Cuthbert, GA. The meeting will start at 12:00 pm and end at 2:00 pm. For more information contact Kris Peavy at 229-732-2311 or email uge4243@uga.edu.

Feb 12 TURNER COUNTY EXTENSION COTTON PRODUCTION MEETING

Turner County Extension will hold its annual Cotton Production Meeting on Thursday, February 12, 2015 at the Turner County Civic Center. Lunch will be served beginning at 12:00 noon. You will receive 1 hour of Private or Commercial Pesticide credits. Please call 229-567-3448 to reserve a spot by Feb.6. For more information contact any Staff Member at 229-567-3448.

Feb 17 Green Industry Update

Join UGA Specialists for the most up to date information related to the Green Industry! Tuesday, February 17, 2015 9:00a.m. – 3:00 p.m. Columbus Consolidate Government Annex Conference Room 420 10th Street Columbus, GA 31901 Please register to attend this exciting and educational session with our Green Team experts! Printed materials, lunch & break refreshments are provided. Cost is \$45 a person. Pesticide Applicator Recertification and ISA Arborist credits have been applied for! Space is limited so register early! Deadline to register is Wednesday, Feb. 11! To register, please visit Columbus Green Team. More information – please contact Beth Horne at 770-228-7214 or by e-mail bhorne@uga.edu.

Feb 27 University of Georgia Horticulture Presents: Pruning Workshop

This program will cover the A-Z of proper pruning techniques for all of your ornamentals and will briefly cover pruning fruit trees. Equipment selection and care will be addressed in detail. We will also cover the when, where, and how's to prune certain plants and different techniques for creating a professional looking landscape. We will also spend some time addressing pest prevention through proper pruning procedures. The class will consist of both indoor lectures and outside hands-on demonstrations. Please dress warmly for the outside portion. Refreshments and lunch are included in program. Pre-registration required. Bob Westerfield and Bodie Pennisi, UGA Horticulturists, will be the program speakers.

******This has been a popular program so we are offering it on two separate dates to accommodate a larger number of participants.***

Date: February 27 or March 6, 2015 Time: 9:00 a.m. - 3:00 p.m.
Location: UGA Griffin Campus, Student Learning Center room 105
1109 Experiment Street Griffin, GA 30223.
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Cost: \$59.00 – printed materials, lunch and refreshment breaks included
Registration: Preregistration 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://www.caes.uga.edu/extension/choke/doc/Pruning2015Workshop-Griffin.pdf>. For more information please call Beth Horne 770-228-7214, or by email at bhorne@uga.edu.

Mar 23-26 8th INTERNATIONAL INTEGRATED PEST MANAGEMENT SYMPOSIUM

The 8th International Integrated Pest Management Symposium will be held March 23-26 at Salt Palace Convention Center, Salt Lake City, UT 84101. The theme for this year's symposium is "IPM: Solutions for a Changing World" and program includes sessions on diversity of topics surrounding IPM. Earlybird registration ends February 23, 2015. For further information contact symposium coordinator at 217-333-2880.

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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 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 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. Or write us:

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