

**IN THIS ISSUE:** Funding Opportunities | From the Field | Friends of Southern IPM Awards | Stink Bug ID Guides | Upcoming Events

## FUNDING OPPORTUNITIES

- **SOUTHERN SARE PRODUCER GRANTS**

The Call for Proposals for the 2014 Producer Grants, intended for farmers/ranchers and farmer/rancher organizations throughout the Southern region, is now available from the Southern Sustainable Agriculture Research & Education (SSARE) program.

Producer Grants are used to conduct sustainable agriculture research projects that solve agricultural production challenges farmers face and to develop information on what works and what doesn't so that other farmers and ranchers facing those same challenges can benefit from the results of the funded project. Southern SARE Producer Grants are research grants, designed to take some of the financial risk away from trying a solution to an agricultural production issue.

Projects may be funded for up to two years for a project maximum of \$10,000 for an individual producer or \$15,000 for a producer organization. Producer organizations should be comprised primarily of farmers/ranchers and must have a majority farmer representation on their governing board.

Proposal submission deadline is **11:59 p.m. EST on Nov. 17, 2014**. Announcement of funded grants will take place in late February 2015.

Further information on how to apply for a Producer Grant is available at [http://www.southernsare.org/content/download/2911/25703/2014\\_Producer\\_Grant\\_CFP.doc?inlinedownload=1?inlinedownload=1](http://www.southernsare.org/content/download/2911/25703/2014_Producer_Grant_CFP.doc?inlinedownload=1?inlinedownload=1)

- **SOUTHERN SARE ON-FARM RESEARCH GRANTS**

The Call for Proposals for the 2014 On-Farm Research Grants, intended for agricultural professionals throughout the Southern region, have been released by the Southern Region Sustainable Agriculture Research & Education (SSARE) program.

Agriculture professionals in Cooperative Extension, Natural Resources Conservation Service, universities, NGOs, and government and non-government organizations who regularly work with farmers/ranchers are invited to apply for a grant that affords them the opportunity to conduct on-farm research in sustainable agriculture.

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Applicants must work with at least one farmer/rancher on the project to conduct on-farm research in sustainable agriculture. On-Farm Research Grants may be funded up to two years for a project maximum of \$15,000.

Proposal submission deadline is **11:59 p.m. EST on Nov. 17, 2014**. Announcement of funded grants will take place in late February 2015.

Further information on how to apply for an On-Farm Research Grant is available at [http://www.southernsare.org/content/download/2912/25707/2014\\_OnFarm\\_Research\\_Grant\\_CFP.doc?inlinedownload=1?inlinedownload=1](http://www.southernsare.org/content/download/2912/25707/2014_OnFarm_Research_Grant_CFP.doc?inlinedownload=1?inlinedownload=1)

- **JEFFERSON SCIENCE FELLOWSHIP**

The National Academies is pleased to announce a call for nominations and applications for the 2015 Jefferson Science Fellows program. Initiated by the Secretary of State in 2003, this fellowship program engages the American academic science, technology, engineering and medical communities in the design and implementation of U.S. foreign policy.

Jefferson Science Fellows (JSF) spend one year at the U.S. Department of State or the U.S. Agency for International Development (USAID) for an on-site assignment in Washington, D.C. that may also involve extended stays at U.S. foreign embassies and/or missions.

The fellowship is open to tenured, or similarly ranked, academic scientists, engineers and physicians from U.S. institutions of higher learning. Nominees/applicants must hold U.S. citizenship and will be required to obtain a security clearance.

The deadline for 2015-2016 program year applications/nominations is **January 12, 2015**. To learn more about the Jefferson Science Fellowship and to apply, visit the JSF website at: <http://sites.nationalacademies.org/pga/jefferson/index.htm>

## **FROM THE FIELD**

### **WINTER WHEAT VARIETIES AND HESSIAN FLY RESISTANCE**

G. David Buntin, Ph.D.

Grain Crop Entomologist, Department of Entomology, University of Georgia

It is time to plant winter wheat. The Hessian fly, *Mayetiola destructor*, can cause severe damage to wheat production throughout the southern United States. Wheat is the primary host of the Hessian fly, but the insect also will damage triticale. There were serious

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infestations and damage in some varieties in southern Georgia last season. Several factors that increase the risk of damaging infestations in winter wheat are:

- planting wheat following wheat for grain, forage or as a cover crop,
- planting early before the recommended planting date,
- reduced and no-tillage,
- planting a susceptible variety.

The most effective way to prevent losses due to Hessian fly is to plant a resistant variety. Each season I evaluate all of the wheat varieties and experimental lines in the Georgia statewide wheat variety trials. The evaluations are done at UGA farms near Griffin, Plains and Tifton, Georgia. The ratings are published each year in the front section of the Georgia 2014 Small Grain Performance Tests - Annual Publication 100-6, July 2014; <http://www.caes.uga.edu/commodities/swvt/small.html>.

The following table is a summary list of varieties rated as good (resistant) fair, or poor (susceptible) to Hessian fly in Georgia. If a specific brand does not list a variety in a category then none of their varieties are rated fair or good resistance. Also some varieties may not be recommended for planting in Georgia for agronomic reasons. Please see the Performance Test bulletin for a list of currently recommended varieties.

<b>Poor (Susceptible)</b>	<b>Fair</b>	<b>Good</b>
<b>AGS 2031, 2020, 2038, 2040, CL7</b>	<b>AGS 2000, 2035, 2038</b>	<b>AGS 2026*, 2027, 2060</b>
<b>CropLan 8302</b>		
<b>Dyna-Gro 9053, 9171, Dominion, McIntosh, Tribute</b>	<b>DynaGro Baldwin</b>	<b>Dyna-Gro Oglethorpe*</b>
<b>PioneerBrand 26R15, 26R22, 26R53, 26R87</b>	<b>PioneerBrand 26R31</b>	<b>PioneerBrand 26R10, 26R20, 26R38, 26R41, 26R61*</b>
<b>Progeny 117, 125, 185, 308, 357, 870</b>	<b>Progeny 122, 166</b>	<b>Progeny</b>
<b>Public: Roberts, Cape Fear, Chesapeake, NC-Yadkin</b>	<b>Public: Fleming, Jamestown</b>	<b>Public: Roane</b>
<b>SS 520, 560, 5205, 8340, 8404, 8412</b>	<b>SS 8308, 8641</b>	<b>SS 8415</b>
<b>Syngenta AgriPro Panola, Gore, Magnolia, Arcadia</b>	<b>Syngenta AgriPro/Coker 9152</b>	<b>Syngenta AgriPro/Coker</b>
<b>Syngenta-Coker 9553, 9700, 9804</b>		
<b>Terral LA821, LA841, LA842, TV8525, TV8535, TV8626</b>	<b>Terral TV8861</b>	<b>Terral TV8589, TV8848, LA754</b>
<b>USG 3153, 3201, 3244, 3251, 3404, 3438, 3555, 3694, 3933</b>	<b>USG 3209, 3592, 3665, 3833</b>	<b>USG 3120</b>

The Hessian fly has developed a number of virulent biotypes (strains) that can overcome several older sources of resistance, specifically H3, H5 H6 and H7H8. Indeed Hessian fly populations in most of the eastern U.S. are almost entirely biotype L which is the most virulent type. But Biotype L has not become dominant in southern Georgia yet, so we still have a number of varieties with good levels of resistance. Several newer varieties marked with \* in the table have a new resistance gene, H13, and more varieties with newer resistance genes are in development as part of the UGA small grain breeding program.

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**For susceptible varieties**, systemic seed treatments, such as imidacloprid (Gaucho 600, Attendant, Axxess, others), thiamethoxam (Cruiser 5FS), or clothianidin (NipsIt Inside), when applied at the highest labeled rate will suppress fall infestations. But insecticide seed treatments will not prevent Hessian fly infestation in late winter or spring. Please Small grain section of the Georgia Pest Management Handbook, commercial edition for details of insecticide recommendations.

Please contact me ([gbuntin@uga.edu](mailto:gbuntin@uga.edu)) if you have questions.

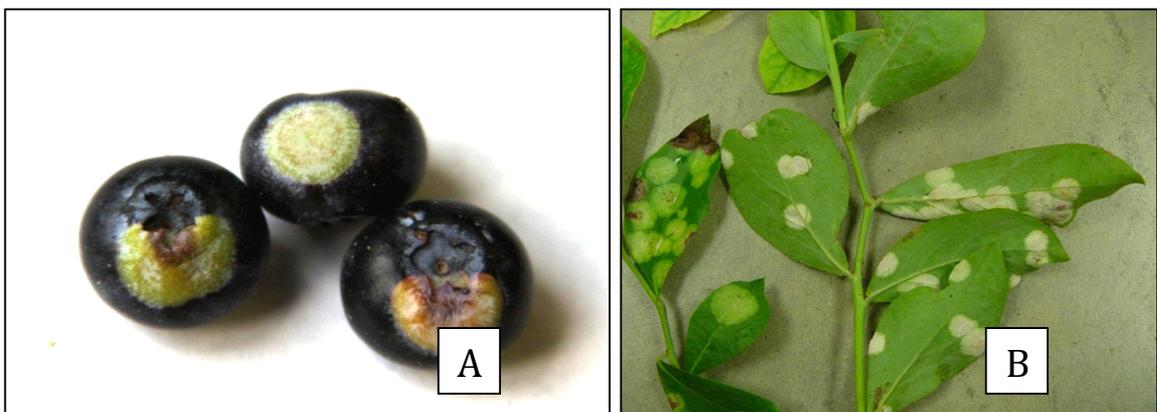
## EVALUATION OF LIME SULFUR AND SULFORIX FOR CONTROL OF EXOBASIDIUM LEAF AND FRUIT SPOT DISEASE OF BLUEBERRY

Phil Brannen<sup>1</sup>, Shane Curry<sup>2</sup>, Charlie Drury<sup>1</sup>, Phillip Edwards<sup>1</sup>, Leigh Ann Fall<sup>1</sup>, Renee Holland<sup>2</sup>, James Jacobs<sup>2</sup>, Josh Neuman<sup>1</sup>, Drew Payton<sup>1</sup>, Ben Shirley<sup>2</sup>, Jeremy Taylor<sup>2</sup>, and Tim Varnedore<sup>2</sup>

<sup>1</sup> Department of Plant Pathology, University of Georgia

<sup>2</sup> University of Georgia Cooperative Extension

Exobasidium fruit and leaf spot, caused by the fungus *Exobasidium maculosum*, is an emerging disease affecting both southern highbush and rabbiteye blueberries. Fruit symptoms include circular lesions which may be sunken and tinged with red color, diseased fruit tissue which is generally green and unripe, and sparse white fungal growth on spots. Leaf spots are light green on the upper side of the leaf and white on the underside, due to a thin layer of fungal growth (Fig. 1); leaf spots become necrotic (dried and brown) with age. Fruit lesions compromise the aesthetic qualities of the fruit, as well as the taste, rendering berries unmarketable. As a result, packing lines have to slow down to allow human sorters time to remove fruit with lesions, thereby increasing production costs. Even with this added effort, affected fruit are still able to make it into the package – increasing customer complaints.



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**Figure 1.** Symptoms of *Exobasidium* fruit (A) and leaf spot (B). Fruit symptoms are green, firm spots and blotches that do not mature with the rest of the berry. Leaf symptoms are light green spots on the upper leaf surface which are white or lighter green on the lower surface.

In 2014, fungicides were evaluated for control of *Exobasidium* on the rabbiteye cultivar ‘Premier’ in the south Georgia counties of Appling, Bacon (3 locations), Clinch, Irwin, and Jeff Davis. Treatments included lime sulfur (5 gal/A), Sulforix (2 gal/A) or Captan 4L (2.5 qt/A; Bacon County locations only) applied at a late-dormant phenology (plant growth stage) with an airblast sprayer (~70 gallons/A total solution); no additional fungicides were applied. At least four replications of each treatment and the untreated control were applied to a randomized complete block design, with each plot consisting of ten plants; the outer two plants in each plot were considered to be buffers and were not utilized for treatment evaluation. All cultural practices were in keeping with rabbiteye blueberry production methods commonly observed in the Southeast. Leaf disease incidence was recorded from 13 May to 16 May with ~ 200 leaves per plot. Mature fruit were collected from 30 May to 10 June, and disease incidence was assessed on ~300 fruit per plot.

Rainfall was more than adequate for disease development, with an average of 15% of the leaves and 16% of the fruit showing symptoms in the untreated control. The single late-dormant application of either lime sulfur or Sulforix provided substantial and statistically equivalent management of *Exobasidium*, whereas Captan was not effective. The epidemiology of *E. maculosum* has not been elucidated, but the high level of disease control afforded with both Sulforix and lime sulfur may indicate that overwintering inoculum and/or early-season infections are of primary importance to disease development. The difference in efficacy between lime sulfur and Sulforix was diminutive, but Sulforix consistently outperformed lime sulfur with the exception of fruit spot incidence in Clinch County.

Based on the results obtained this year, we recommend that Sulforix be utilized for a late-dormant application as a component in a comprehensive management program for suppression of *Exobasidium*. Lime sulfur is still the product of choice for organic production, since Sulforix is not an organic product. As a result of this successful research project, we expect yields/pack-out to increase and consumer complaints to decrease in 2015. We will discuss a full-management program for *Exobasidium* in the winter blueberry meetings. In the interim, please contact your local county agent if you have pressing questions relative management of this disease.

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**Table 1.** Exobasidium leaf and fruit spot incidence following treatment with lime sulfur, Sulforix or Captan.

Leaf spot incidence <sup>y</sup>							
Treatment and rate/A <sup>z</sup>	Appling County	Bacon County Site 1	Bacon County Site 2	Bacon County Site 3	Clinch County	Irwin County	Jeff Davis County
Untreated control	2.6 a	25.0 a	20.7 a	9.7 a	16.0 a	20.1 a	5.7 a
Lime Sulfur (5 gal)	0.7 ab	4.1 b	4.2 b	2.5 b	0.9 b	2.2 b	0.2 b
Sulforix (2 gal)	0.4 b	3.3 b	4.0 b	2.1 b	0.5 b	1.6 b	0.1 b
Captan 4L (2.5 qt)	N/A	27.42 a	16.52 a	6.62 a	N/A	N/A	N/A
LSD ( $\alpha=0.05$ )	1.9	5.7	4.2	3.6	9.3	13.5	2.5

Fruit spot incidence <sup>x</sup>							
Treatment and Rate/A	Appling County	Bacon County Site 1	Bacon County Site 2	Bacon County Site 3	Clinch County	Irwin County	Jeff Davis County
Untreated Control	2.3 a	14.3 a	15.4 a	13.3 a	8.1 a	27.3 a	31.8 a
Lime Sulfur (5 gal)	1.6 a	1.6 b	2.1 b	1.8 c	0.5 b	3.0 b	0.5 b
Sulforix (2 gal)	1.3 a	1.0 b	1.1 b	0.7 c	0.7 b	2.1 b	0.3 b
Captan 4L (2.5 qt)	N/A	13.8 a	13.4 a	7.2 b	N/A	N/A	N/A
LSD ( $\alpha=0.05$ )	1.5	4.0	5.0	3.2	2.5	7.4	14.3

<sup>z</sup>Treatments were single late-dormant applications between Jan 17 and Feb 15, depending on location.

<sup>y</sup>Recorded for 20 shoots per plot with ~10 leaves per shoot on average. Means followed by the same letter are not significantly different when using Fisher's protected LSD test ( $P \leq 0.05$ ).

<sup>x</sup>Recorded for ~300 fruit per plot on average. Means followed by the same letter are not significantly different when using Fisher's protected LSD test ( $P \leq 0.05$ ).

## FRIENDS OF SOUTHERN IPM AWARDS

The Friends of Southern IPM Awards program recognizes extraordinary achievement in research, Extension and implementation of Integrated Pest Management (IPM) in the southern region of the United States. Winners are chosen by a two separate award panels, one for the regular awards, and one for the graduate student awards.

**Call for Nominations is OPEN. Deadline for nominations is Friday, December 12, 2014.**

Nominate a graduate student (Masters or Ph.D.) or a colleague for one of our friends of IPM Awards. Award categories consist of the following:

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## Graduate Student awards:

**Masters or Ph.D.** student. Each department may nominate one candidate for masters and one for Ph.D. Masters award is \$2,000 and Ph.D. award is \$3,000, in addition to a presentation in a venue of the winner's choice.

## Professional awards:

- **Bright Idea:** Innovative technology or research project
- **IPM Educator:** Excellence in teaching or Extension education, also can be involved in public school system.
- **IPM Implementer:** "Boots on the ground" person who implements IPM.
- **Future Leader:** Promising faculty member early in his or her career.
- **Pulling together:** Team award.
- **Lifetime Achievement:** Faculty member or any individual from a category above who is nearing the end of a career.

Nomination needs to include the following: a nomination form and 2-page max essay about the nominee's qualifications for the award. Further information is available at Southern IPM Center website (<http://www.sripmc.org/friendsofipm/>). If you have specific questions about the Friends of IPM Award or the nomination, contact Rosemary Hallberg at 919-513-8182 or Henry Fadamiro at 334-844-5098.

## STINK BUG ID GUIDES

The second edition of the *Field Guide to Stink Bugs of Agricultural Importance in the United States* is available for purchase online. Led by Dr. D. Ames Herbert at Virginia Tech, this updated version of the "Field Guide to Stink Bugs" contains identification photos and descriptions of most stink bug species currently in the U.S., in addition to photos of beneficial species, stink bug-like species, and feeding injury. The guide includes photos of the brown marmorated stink bug as well. You can preview the copy of the guide at the following web page: <http://sripmc.org/StinkBugGuide/>

Please go to <http://sripmc.org/StinkBugGuide/> and fill out the order form **by November 7, 2014**. Be sure to include the number of copies. To pay for your copies, please send a check made out to North Carolina State University. Instructions for sending the check are included on the order web page. Checks are not needed by November 7; however, your order cannot be shipped until your check has been received. Booklets cost \$1.75 a piece, in addition to the following shipping costs:

If you have specific questions, please contact Rosemary Hallberg at [rhallberg@sripmc.org](mailto:rhallberg@sripmc.org) or 919-513-8182.

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## UPCOMING EVENTS

**Nov 7            ALL BUGS GOOD AND BAD WEBINAR SERIES - WHERE HAVE ALL THE HONEY BEES GONE? HOPE FOR THE FUTURE**

Athens-Clarke County Extension is hosting a free live telecast of the webinar "Where Have All the Honey Bees Gone?" Why do we have fewer honeybees these days? What caused the decline, and what can we do to help? These questions and more will be answered in this webinar presented by Dr. John Skinner, a professor in the Department of Entomology and Plant Pathology at the University of Tennessee. This webinar is scheduled to be held **November 7, 2014 2:00 pm - 3:00 pm**. Part of the All Bugs Good and Bad Webinar Series, the webinar is brought to you by the following eXtension Communities of Practice: Imported Fire Ants, Urban IPM, Bee Health, Invasive Species and Gardens and Landscapes, and by the Alabama Cooperative Extension System. For more information, please visit: <http://www.ugaextension.com/clarke/anr> or call 706-613-3640.

**Nov 16-19       ANNUAL MEETING OF ENTOMOLOGICAL SOCIETY OF AMERICA**

The Entomological Society of America's 62<sup>nd</sup> Annual Meeting is taking place November 16-19, 2014 in Portland, OR.

If the entomological sciences are your passion, plan to join more than **3,200** researchers, professors, graduate and undergraduate students, extension service personnel, administrators, research technicians, consultants, and others from around the globe for **four days of science, networking and fun**. This is the most important annual conference anywhere in the world for the science of entomology.

Further information about the ESA Meeting is available at <http://www.entsoc.org/entomology2014>

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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 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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