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EXTENSION SERVICE**

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Mississippi

Vaccinium Journal

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Promising Times Ahead

So far it looks as if the weather is going to cooperate for blueberries this year, although perhaps it is too early to say anything like that — there is always the chance for freak weather at any time of year. But, after last years' problems it would be great to have a bountiful year. Of course we need to be concerned with all the new pest issues (SWD) and we cover another in this issue. Although Kudzu bug doesn't look like it is going to be a big concern for blueberry growers it is important to be able to identify the insect. Growers in North Carolina and other states report seeing it on their plants but doing no noticeable damage. The pest needs a lot of kudzu to build up populations, so since kudzu is not as much a problem here as in other states, let's hope the populations stay low. In this issue are also links to all the presentations given at the 2014 blueberry workshop that was held in Hattiesburg in February. There was some great discussion on mechanized harvest for the fresh market from Dr. Fumi Takeda as well as a few other topics. All in all this spring looks promising for blueberry production — let's hope it stays that way.

Blueberry DVDs Still Available

Eric T. Stafne, Fruit Extension Specialist, MSU-ES

The Gulf South Blueberry Growers Association still has DVDs available for purchase. One package is called "Establishment and Maintenance of Blueberries" and is a good introduction or refresher for all future and current blueberry growers. The other package is called "Educational Seminars". These disks (4 total in each package) go in-depth on a variety of topics including: Rabbiteye cultivars, blueberry crop insurance, insect pest control, fungicides, and market trends and challenges.

See page 8 for more information on topics and speakers. If you are interested, please send a check for \$15 (each DVD package) made out to Gulf South Blueberry Growers Association. The address is P.O. Box 308, Poplarville, MS 39470. This is a great deal!

Chill Hours Report for 2013-2014

Eric T. Stafne—Fruit Extension Specialist, MSU-ES

One of the last things one might consider when choosing a blueberry cultivar is chilling requirement. A chill hour can vary depending on the model used, but the most common model in this region defines it as the number of hours below 45 °F. This is a requirement for the plant to satisfy its dormancy and thus to grow and fruit normally the following year. In regions where cold temperatures are more common, plants can remain in a quiescent (waiting for a warm up) phase even after their chill hour requirement has been met. However, in warmer climates this may not be the case, so early flowering is a problem in low-chill cultivars. Five locations in the state kept chill hour measurements for the 2013-2014 fall/winter season: Wayne Co., George, Co., Jones Co., Copiah, Co., and Lee Co.

There are some tweaks we could make to further refine the model here in Mississippi, but I think the numbers we obtained this year are fairly representative of the chill hours received. Some of the limitations are: reporting is not all done on the same day or even regularly (for some sites), and there are no designated begin and end dates.

| <u>Location</u> | <u>End Number of Chill Hours Recorded</u> | <u>Last date recorded</u> |
|-----------------|---|---------------------------|
| Copiah Co. | 1505 | March 18 |
| George Co. | 1104 | March 25 |
| Jones Co. | 1380 | March 26 |
| Lee Co. | 2078 | April 2 |
| Wayne Co. | 1552 | April 2 |

This year had a significant increase in chill hours when compared to last year. Having 2000+ hours in Lee Co. is a very high number. Fortunately, it looks as if the high chilling accumulation won't negatively impact most of us, as we are moving out of the frost/freeze danger.

As I said last year, we need to figure out a way to get this information to you on a more regular basis. Mississippi does not have a climate center like other states do. Southeastern U.S. states (including Alabama) have an online system that delivers that information with a click of the mouse. I can at least post it on my blog site (msfruitextension.wordpress.com) and perhaps we can get it on the Gulf South Blueberry Growers' Association site. If you have any suggestions, please let me know.

Agenda for the 2014 Blueberry Workshop

Eric T. Stafne, MSU

1:00-1:30 PM

Dr. John Adamczyk

Update on the Blueberry Research Program at the Thad Cochran Southern Horticultural Laboratory

Dr. Adamczyk is the Research Leader at the USDA-ARS Thad Cochran Southern Horticultural Laboratory in Poplarville, MS.

1:30-2:00 PM

Dr. Eric Stafne

Potential Micronutrient Deficiencies in Blueberry

Dr. Stafne is an Associate Extension Professor – Fruit Crops associated with the MSU Coastal Research and Extension Center in Poplarville, MS.

2:00-2:30 PM

Dr. Blair Sampson

Update on Identification, trapping, and monitoring of the Spotted Wing Drosophila in Mississippi

Dr. Sampson is a Research Entomologist at the USDA-ARS Thad Cochran Southern Horticultural Laboratory in Poplarville, MS.

2:30-2:45 PM **Break**

2:45-3:15 PM

Dr. Juan Silva, Dr. Frank Matta*, and Amanda Pegg

Post-Harvest Handling and Characteristics of Blueberries

*Presenter: Dr. Matta is a Professor in Plant and Soil Sciences at Mississippi State University in Starkville, MS.

3:15-3:45

Dr. Barakat Mahmoud

The Food Safety Modernization Act (FSMA); The Proposed Rule on Standards for Produce Safety

Dr. Mahmoud is an Assistant Professor and Food Safety Extension Specialist associated with the MSU Coastal Research and Extension Center in Pascagoula, MS

3:45-4:45 PM

Dr. Fumiomi (Fumi) Takeda

Horticultural and engineering research to improve machine harvest efficiency and to better understand fruit bruising during harvesting

Dr. Takeda is a Research Horticulturist at the USDA-ARS Appalachian Fruit Research Laboratory in Kearneysville, WV.

4:45-5:00 PM **Question, Answer, and Discussion Section**

Presentations from 2014 Blueberry Workshop

Eric T. Stafne, MSU

Click on the Slide Image below to link to the presentations



John J. Adamczyk, Jr.
Research Leader
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 USDA, ARS, Poplarville, MS

- University of Wisconsin-Madison, B.S.
- Clemson University, M.S.
- Louisiana State University, PhD

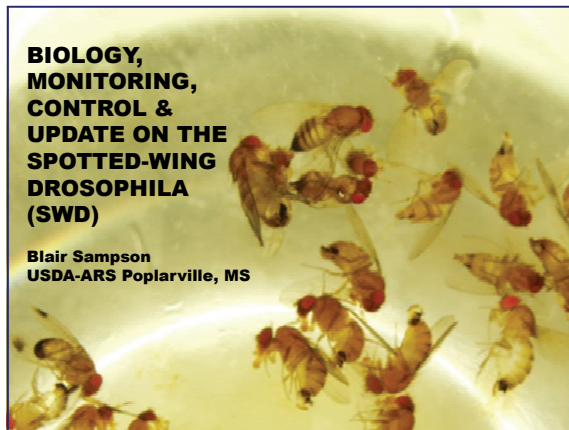
Field-Crop Entomologist

- Ecologist
- IPM - Toxicology

- 1999 – 2005: USDA, ARS, Stoneville, MS
- 2005-2011: USDA, ARS, Weslaco, TX
- Oct 2011– Present, USDA, ARS, Poplarville, MS

POTENTIAL MICRONUTRIENT DEFICIENCIES IN BLUEBERRY

Eric T. Stafne
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 Mississippi State University
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BIOLOGY, MONITORING, CONTROL & UPDATE ON THE SPOTTED-WING DROSOPHILA (SWD)

Blair Sampson
 USDA-ARS Poplarville, MS

Post-Harvest Handling and Characteristics of Blueberries

Juan L. Silva, Frank B. Matta*, and Amanda Pegg



MISSISSIPPI STATE UNIVERSITY

The Food Safety Modernization Act (FSMA); The Proposed Rule on Standards for Produce Safety

Barakat S. Mahmoud, Ph.D.
 Assistant Professor & Food Safety Extension Specialist
 CREC/FSNHP

Blueberry Growers Educational Workshop
 February 13, 2014



MACHINE HARVESTING BLUEBERRIES FOR FRESH MARKET

Fumiomi Takeda, USDA-ARS, Kearneysville, WV
 Gerard Krewer °
 Changying Li "

° Horticulture (retired), University of Georgia, Tifton, GA
 " College of Engineering, University of Georgia, Athens, GA

Is Kudzu (Bug) Going to Get You?

John Adamczyk, Blair Sampson, and Chris Werle , USDA-ARS, TCSHL, Poplarville, MS

In 2009, Atlanta homeowners and Georgia farmers started to notice a small, strange and unusual insect that resembled a stink bug or tortoise bug. Often present in high numbers and clustering in large groups, this pest was quickly identified by entomologists as the exotic and invasive "bean plataspid" from Asia. Later, this pest was given a general name "kudzu bug".

As the name implies, this pest prefers kudzu as a host. Great you may say, finally we have something that can biologically control kudzu! But not so fast - this insect is actually a pest for two main reasons: 1) It can cause significant economic damage to legumes, especially soybeans and wisteria, and 2) it can overwinter in large numbers inside homes. In addition, if crushed kudzu bugs exude a yellowish substance that can be slightly caustic and quite smelly! Basically, it can be quite a nuisance as well! There are many sources of on-line information concerning this pest, so just type in "Kudzu Bug" and surf away (hint: try and concentrate your efforts on the various University cooperative extension programs in the Southeast).

Here are a few good links:

http://www.clemson.edu/cafls/departments/esps/factsheets/household_structural/kudzu_bugs_hs50.html

http://www.caes.uga.edu/Publications/pubDetail.cfm?pk_id=7891

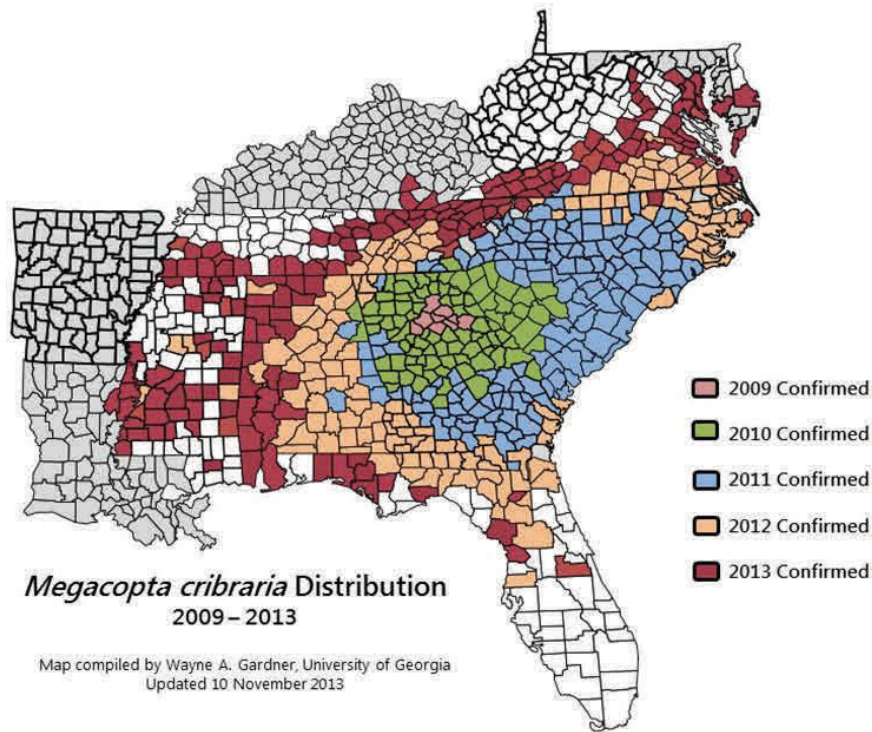
<http://www.ces.ncsu.edu/depts/ent/notes/Urban/kudzubug.htm>

<http://www.eddmaps.org/pests/kudzubug.cfm>



-continued on page 7-

Kudzu Bug, cont.



So how far has the pest travelled since first found in Georgia? Well, it has been found in Mississippi last year, so we know it is indeed on the move.

The big question fruit growers in Mississippi probably have is, "will kudzu bugs damage blueberries and other small fruits?". Well, we don't believe so because kudzu bugs are strictly stem feeders. But, when they emerge from overwintering, they have been observed in the Southeast in very high numbers on figs and blueberries. The verdict is still out on why kudzu bugs are so attracted to these small fruits but do not cause economic damage. Some good news is that the kudzu bug does not appear to reproduce on small fruits as well.

After attending a recent a scientific exchange meeting, we learned that incredibly high numbers of kudzu bugs are highly correlated with the present of kudzu (so the more kudzu you have, the more kudzu bugs there are!). So perhaps we won't see the incredible numbers of this pest, since we don't come close to having the amount of kudzu in our area compared to our neighboring states in the Southeast. Check out these impressive videos!
<http://www.kudzubug.org/video.html>

So now you are ready to be on the lookout for yet another new bug coming to a field or house near you!

MISSISSIPPI VACCINIUM JOURNAL EARNS AWARD

Eric T. Stafne, MSU

At the 2014 [American Society for Horticultural Science, Southern Region](#) meeting held in Dallas, TX the Mississippi Vaccinium Journal was given a Blue Ribbon Extension Communication Award (see below). This is a great honor as the chosen communications must show a high degree of quality. While I have received this award in the past, this is the first time I have gotten one for work I've done at Mississippi State University. The MSVJ is a newsletter written for blueberry growers. It is published quarterly and it goes out as a pdf file via email to: all MSU extension personnel, direct subscribers, and all Gulf South Blueberry Growers Association members. If you are interested in receiving the MSVJ there are a few ways to do that: **one** is to email me and ask to have me send it to you directly, **two** is to be a member of the GSBGA or work for MSU Extension, **three** is to access current and past issues from MSUcares at this link (<http://msucares.com/newsletters/vaccinium/index.html>), and **four** is to get it from the Mississippi Fruit and Nut blog at (<http://msfruitextension.wordpress.com>) where all new issues are uploaded. I am pleased to have received the award and I look forward to editing and writing it for as long as it continues to be read. Special thanks goes to all the readers of the MSVJ, the [USDA-ARS researchers in Poplarville](#) who contribute content, and to Mike Neff, [ASHS](#), for sending the image of me accepting the award. See images below about the award.



Dr. Eric Stafne accepting the award from ASHS-SR president Dr. Curt Rom



Blue Ribbon Communication Award to the Mississippi Vaccinium Journal



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vaccinium/index.html](http://msucare.com/newsletters/vaccinium/index.html)

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DVD Educational Seminars Topics

Eric T. Stafne, Fruit Extension Specialist MSU-ES

Disc 1— Blueberry Varieties

Speakers: Dr. Jim Ballington (North Carolina State University), Dr. John Braswell (Mississippi State University), Dr. Donna Marshall (USDA-ARS, Poplarville), and Dr. Steve Stringer (USDA-ARS, Poplarville)

Disc 2 — Government Aid and Cultural Practices

Speakers: Evert Gonzalez, Dr. Kim Morgan (Mississippi State University), Larry McMaster (USDA), Arnold Caylor (Auburn University), and Dr. Jeff Williamson (University of Florida)

Disc 3 — Insect Pest Control and Fungicide Management

Speakers: Dr. Blair Sampson (USDA-ARS, Poplarville), and Dr. David Ingram (Mississippi State University),

Disc 4 — Industry Outlook

Speakers: Loman Brown (Loman Brown, Inc.), Brian Bocock (Naturipe, Inc.), and Mark Villata (United States Highbush Blueberry Council)