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Mississippi *Vaccinium* Journal

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January-March 2020

Pollen Nation

I can usually depend on my sinuses going haywire around February first. This year it was earlier than that. The sneezing, wheezing, and general blah feeling is typical with my allergies. It's rotten, but only lasts a couple weeks and some years are worse than others so I just live with it. Of course we have to live with it otherwise the plants around us wouldn't survive. Pollen is so important to plant productivity, but also our survival as humans. Without pollen there wouldn't be much to eat. It is also important to insects. We live in a tangled web of needs interconnected by such small pieces of gametic tissue. So, while pollen can be a nuisance, it is a welcome one on most levels. In this issue we also recap the blueberry education workshop, point out some publications, surveys, workshops, and field days too. Enjoy the spring and the swirling pollen around us that leads to life abundant.

Update on Chill Hour Accumulation

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

It looks as if we have plenty of chill hours this year. In comparing to last year we are just a few behind, but very similar. Therefore we should expect no issues related to lack of chill this year. As of this writing (January 29) in Poplarville we have accumulated 517 hours between 45F and 32 F and 594 hours below 45F total.

For those that have forgotten, the MSU chill hour app is available at https://webapps.msucare.com/chill_hours/

This year we have also added a Growing Degree Days model to the app. It is still in "beta" mode so there may be bugs. Let us know if you use it and find something that doesn't work right.

New Publication from University of Florida

Eric T. Stafne, MSU-ES

There is a new publication available from the University of Florida entitled “Nutrition and Fertilization Practices for Southern Highbush Blueberry in Florida”. It was written by Doug Phillips and Jeff Williamson. While we are not in Florida, of course, there is a wealth of valuable information in this publication. Below is the introductory paragraph.

“Blueberry plants evolved under acidic, low-nutrient conditions. However, research and field experience have demonstrated that fertilization is necessary to achieve proper growth and high yields in cultivated production. Specific fertilization practices can vary due to differences in soil/media type, cultivar, irrigation practices, weed control, and more. In addition, the uptake of essential nutrients may be limited in certain situations (e.g., high soil pH) that must be addressed to ensure proper growth and good yields. This publication provides guidance and management suggestions to Florida growers of southern highbush blueberry (SHB) for monitoring, supplying, and maintaining proper plant nutrition in commercial production operations.”

Also covered are the macronutrients: Nitrogen, Phosphorous, Potassium, Magnesium, and Calcium along with micronutrients: Iron, Manganese, Zinc, Copper, and Boron. Sections on soil testing and fertilizer practices are discussed as well.

There are several photos that show what deficiency symptoms look like and this could be very valuable as a resource in some situations. Iron is a common deficiency especially when soil pH gets too high.

You may find the publication online at this link: <https://edis.ifas.ufl.edu/pdffiles/HS/HSI35600.pdf>

2020 Mississippi Blueberry Education Workshop

Eric T. Stafne, MSU-ES

On January 23 in Hattiesburg the annual Mississippi Blueberry Education Workshop was held. Several topics were covered in relation to blueberry production and other areas of interest. First up was Don Vandewerken, president of the Gulf South Blueberry Growers' Association to give a warm welcome to the audience. He also spoke on the state of the blueberry industry in Mississippi as well as national and international interests.



This was followed by a presentation by Dr. Stephen Stringer on the upcoming blueberry releases and new advances in breeding at the USDA-ARS Thad Cochran Southern Horticultural Laboratory in Poplarville.

-Continued-

Workshop, cont.

Eric T. Stafne, MSU-ES

We had two guest speakers this year, but not to talk about blueberries. Rather, they talked about wine and the wine industry in North Carolina and Arkansas. First up during lunch was Sam Troy who gave us an interesting perspective on the burgeoning North Carolina wine industry.



In the afternoon, Dr. Renee Threlfall from the University of Arkansas, a food scientist and enologist, goes over the basics of winemaking. If you would like a copy of her presentation, let me know and I can send it to you.



-Continued-

Workshop, cont.

The workshop finished up with a wine-tasting of local products from Mississippi and surrounding areas. Most of them contained blueberries, but not all. Some were of grapes and muscadines.



Other topics covered during the workshop were overhead sprinklers for frost protection and market planning,

Next year we will have another workshop, so plan to attend! If you have suggestions for topics or speakers please let me know and I will see what I can do to make it happen.

Survey Opportunity

A group of researchers at Cornell University, the University of California, and the University of Rochester are working on a project to understand and model trade-offs between food safety and conservation practices used on fresh produce farms.

The aim of the project is to help farmers develop management plans that minimize costs and optimize food safety and conservation outcomes.

To ensure our models accurately reflect grower practices, costs, and needs, we are conducting a survey among fruit and vegetable growers in the Northeast, Mid-Atlantic, and Southeast. If you are a grower in those areas, and are willing to spend 20 to 30 minutes to take our survey, we would really appreciate your insights.

The survey is 100% anonymous and the first 300 participants will receive a \$15 e-gift card. If you are interested in participating please go to <https://bit.ly/2t6EQsO> or use the QR code below.

Sincerely and Thanks,

Dr. Daniel Weller, University of Rochester



Food Safety Program

Produce Safety Alliance

Grower Training & GAPs Course & Training

Dates: March 5, 2020 (March 6 for harvest/packing)

Time: 8:30 am – 5:00 pm, 8:00-12:00 pm

Forrest Co. Ext. Office

952 Sullivan Drive, Hattiesburg , MS 39401

Host: Mississippi State University & Gulf South Blueberry Growers Association

This effort is supported in part by the Mississippi Department of Agriculture and Commerce through a FDA CAP grant under agreement #14-SCBGP-MS-0028 and by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2015-70020-24397, and by Mississippi State University and the Mississippi State Extension Service, and the MS Sweet Potato Council.

Who Should Attend?

Growers, packers, Extension agents, educators, industry suppliers and others interested in learning the requirements of the Food Safety Modernization Act (FSMA) Produce Safety Rule and certification. One way to satisfy § 112.22(c) which requires that at least one supervisor or responsible party from a farm subject to the FSMA Produce Safety Rule must have successfully completed food safety training at least equivalent to that received under standardized curriculum recognized as adequate by the Food and Drug Administration. This is such a curriculum.

What to Expect at the PSA Grower Training Course?

The trainers will spend approximately eight hours of instruction time covering content contained in seven modules. You must be present and participate during the whole course to be eligible for the materials and the certificate. The course will present some parts/examples related to pecans growing, harvesting and handling. However, it is intended for other producers and handlers as well.

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Food Safety Program, cont.

Time	<u>March 5 (Grower- All course)</u>	<u>March 6 (8:15-12:00 pm)</u>
8:15 AM	Registration and Refreshments	Overview
8:35 AM	Welcome and Introductions, Pre-test and Survey	Personnel hygiene
9:00 AM	Module 1: Introduction to Produce Safety	Identifying health symptoms
10:00 AM	Module 2: Worker Health, Hygiene, and Training	Training tools
11:00 AM	Break	Harvest activities to beware
11:15 AM	Module 3: Soil Amendments	Sanitation harvest tools
12:00 PM	Module 4: Wildlife, Dom. Animals, and Land Use	Packing flow
12:45 PM	Lunch	Cleaning and sanitation basics
1:30 PM	Module 5: Agri Water – Part I: Production Water	Monitoring and records
2:15 PM	Module 5: AgriWater – Part 2: Postharvest Water	Discussion
3:15 PM	Break	
3:30 PM	Module 6: Postharvest Handling and Sanitation	
4:00 PM	Module 7: How to Develop a Farm Food Safety Plan	
4:20 PM	GAPs program and certification	
5:00 PM	Final Questions and Evaluations & Post-test	

In addition to learning about produce safety best practices, key parts of the FSMA Produce Safety Rule requirements are outlined within each module. There will be time for questions and discussion, so participants should come prepared to share their experiences and produce safety questions.

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Food Safety Program, cont.

Day 2 additional training and discussion for Harvest and Packing activities

The US FDA and the MDAC have identified certain activities and practices that need special attention. This workshop will be for those associated (supervisors, etc.) with these activities and will cover additional material like basic hygienic practices for employees, harvest practices, basics of cleaning and sanitation of harvest tools and packinghouse, sanitation basics, and other relevant activities.

This training satisfies the training requirement towards requirements for MS USDA GAPs certification.

Benefits of Attending the Course

The course will provide a foundation of Good Agricultural Practices (GAPs) and co-management information, FSMA Produce Safety Rule requirements, and details on how to develop a farm food safety plan. Individuals who participate in this course are expected to gain a basic understanding of:

Microorganisms relevant to produce safety and where they may be found on the farm

How to identify microbial risks, practices that reduce risks, and how to begin implementing produce safety practices on the farm

Parts of a farm food safety plan and how to begin writing one

Requirements in the FSMA Produce Safety Rule and how to meet them.

After attending the entire course, participants will be eligible to receive a certificate from the Association of Food and Drug Officials (AFDO) that verifies they have completed the training course. To receive an AFDO certificate, a participant must be present for the entire training and submit the appropriate paperwork to their trainer at the end of the course.

The participants will receive the course, materials and other information as a result of attending and participating in the complete course. This is estimated value at over \$250 per person.

Costs to Attend

A donation of \$25 per person is needed in order to cover costs not covered by the grants (food, breaks).

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Food Safety Program, cont.

Directions to the training site <https://goo.gl/maps/pIEmwpk9cfmsKgIF8>

Contact Dr Eric Stafne for information and Ms. Tawnya Holliman 601-545-6083 for directions.

Additional questions about this course contact:

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List of Instructors

Dr. Juan L. Silva. Professor, FNH Dept., Mississippi State University. PSA Lead Trainer

Dr. Joy F. Anderson, Extension Agent IV, DeSoto County, PSA Lead Trainer

Dr. Eric Stafne, Extension/Res. Fruit Specialist, CREC-MSU, eric.stafne@msstate.edu, PSA Trainer

Dr. Christine Cocker, Assoc. Res/Extension Specialist, CREC, MSSTATE

Ms. Angelica Abdallah-Ruiz, Food Technologist, Department of FSNHP, PSA Trainer

Ms. Donna H. Beliech, Area Horticulturist, MSU Extension, PSA Trainer

Ms. Rebecca Bates, Extension agent IV, Lincoln Co., PSA Trainer

Dr. Bill Evans, Director of Horticulture, Up in Farms, PSA Trainer

Roger Davis, Director MDOC Foodservice/AG Enterprise, PSA Trainer

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Food Safety Program, cont.

PRE-REGISTRATION FORM

Produce Safety Rule & GAPs Training –

Send form by March 1, 2020

Meals and Breaks donation of \$25 at the door

Name: _____

Farm/Company: _____

Address: _____

City: _____

State: _____ Zip: _____

Crops/Products: _____

Phone: _____

Fax: _____

Email: _____

E-Mail completed pre-registration (payment in cash or check at the door) form by March 1, 2020 to:

Juan L. Silva at jls46@msstate.edu



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Mississippi Vaccinium Journal

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Save the Date! Blueberry Field Day!

Eric T. Stafne, MSU-ES

Please mark your calendars for May 14, 2020. This will be our second annual Blueberry Field Day held at the USDA-ARS Thad Cochran Southern Horticultural Laboratory in Poplarville, Mississippi. Again this year attendees will have the opportunity to walk through the field of new selections from the USDA-ARS breeders. Also, there will be talks on various aspects of blueberry production (and maybe a couple surprises thrown in). This year marks the 50th anniversary of blueberry research on the station, so Dr. Jim Spiers and Dr. Arlen Draper, key personnel in getting things rolling will be honored. It is also the 100th anniversary of Mississippi State University on the research station, so that too will be honored. Look for more information on it to come out soon. If you are receiving this newsletter I will send out the link to register for the event. Hope to see you there!

