

Quarterly FSHS Newsletter

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A Letter from our Chairman

By Gene McAvoy, FSHS Chairman of the Board

Dear FSHS Members,

I hope this finds you well.

Due to the continuing COVID-19 pandemic, it's associated risks for large in-person gatherings, and imposed travel restrictions, the Board has voted to move our annual meeting to a virtual platform. We also voted to shorten the length of the meeting to two days: October 19 – 20th.

New registration fees for the virtual meeting are:

Professional Registration — \$150 Student Registration — \$90

Note: There are no early or late fees.

Cancellation Policy

- On or before September 4 = Full refund less a \$20 processing fee
- September 5 through September 18 = 75% refund less a \$20 processing fee
- September 19 through October 9 = 50% refund less a \$20 processing fee
- On or After October 10 = No refund

Because of the virtual format, registration will close at 5 pm on October 15, so be sure to register early.

To register, go to <u>https://ashs.org/</u> events/register.aspx?id=1334350

Note - Members who have already registered for the meeting will be refunded completely and must reregister at the lower fee.

The meeting will be conducted using Microsoft Teams. If you have a UF email account, please use that as your email address. After registering, you will receive a confirmation with a link to attend the meeting.

Continued prayers for the safety of you and your families and of our nation.

Thank you for your understanding and for your continued support for FSHS!

Stay safe and all the best.

Gene McAvoy Chairman of the Board Florida State Horticultural Society

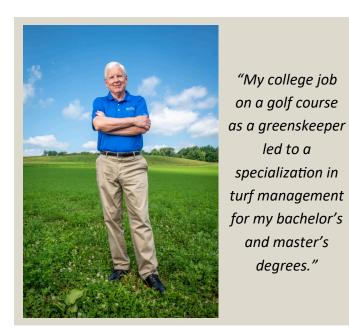
A Hort "Angle" on New UF/IFAS Leader

By J. Scott Angle

Dr. J. Scott Angle jangle@ufl.edu @IFAS VP

One of the first things I've noticed since <u>becoming</u> <u>leader</u> of <u>UF/IFAS</u> in July is the level of professionalism among our faculty and staff. Part of the mark of a professional is involvement in associations such as the Florida State Horticultural Society.

I have always encouraged the people who work with me to take on state and national leadership roles in professional associations. We have many faculty and staff who are leaders in their disciplines, and as such they have an obligation to lead others within their profession. Many UF/IFAS faculty already serve on the FSHS board, and that's good for the Society and for UF/IFAS.



While I'm not a horticulturalist myself, I'm familiar with your discipline. My college job on a golf course as a greenskeeper led to a specialization in turf management for my bachelor's and master's degrees. As dean at the University of Georgia's College of Agricultural and Environmental Sciences, I oversaw a large and accomplished Department of Horticulture.

Stakeholders also recognized my commitment and I was inducted into the Vidalia Onion Hall of Fame. I was also recognized for a careerlong commitment to horticulture by the Georgia Green Industry Association.

Of course, horticulture is an area of high interest at the USDA <u>National Institute of Food and Agriculture</u>, where I was director before coming to UF/IFAS. NI-FA's Specialty Crop Research Initiative <u>horticultural</u> <u>program areas</u> include sustainable production and postproduction of fruits, nut, vegetables, flowers and landscape crops. It also includes environmentally sensitive management of landscapes and horticultural impacts on human health and well-being.

I look forward to working with you in coming years. My immediate goal is to listen and learn from you, and my vision is likely to include advances in using artificial intelligence in agriculture, and expanding opportunities for all undergraduates to participate in experiential learning. I also continue to support facilities improvements and recently toured construction on campus of an 8-pack greenhouse complex projected to be finished at about Thanksgiving that will primarily be for Horticultural Sciences faculty.

As an administrator, I don't do any teaching, research or Extension. I support the people who do. Please let me know how I can support you in your work or in your service to the FSHS.

Scott Angle is the University of Florida's Vice President for Agriculture and Natural Resources and leader of the UF Institute of Food and Agricultural Sciences (UF/IFAS).



Editor's Report



By Mary Lamberts

Thank you for submitting your abstract(s) for the upcoming meeting of the Florida State Horticultural Society. I would also like to thank those of you who

submitted your Author Agreements and to remind those of you who have not yet submitted your agreement(s) to please do so ASAP.

Submitting your paper(s):

A few people have asked when your papers are due. Traditionally, they are due at the time of the conference, but in the past the deadline has been extended until the end of the month in which the conference is held. At our most recent Board meeting, I proposed the end of October for this year (October 31, which happens to be a Saturday) and the Board agreed on that date. If your paper has already been written, please send it to me at editors@fshs.org as soon as possible. Since the Program is still a work in progress, I do not have paper numbers at this point, but I will email you with your paper number as soon as the Program has been finalized. As an incentive, one of the authors has already submitted three papers while another has a paper "in the works" with HortScience.

Abstracts:

If you have made significant revisions to your abstract, please email it to me ASAP and copy your sectional VP. Please **rename** your abstract to be: SectionLastname. If I were to submit an abstract to the Vegetable Section, I would name the file: VegetableLamberts. For second and third papers, simply add the appropriate number (2, 3, etc.) at the end of the name.

Mary Lamberts, Ph.D FSHS Editor

From the Handling & Processing Section

High-resolution melting assay for detection of virulent Escherichia coli O26 and O111 strains

Prashant Singh, Ph.D.

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The strains of Shiga toxin-producing *Escherichia coli* (STEC) are a group of major foodborne pathogens that cause bloody diarrhea, and these strains are considered an adulterant in non-intact meat. Strains of STEC are frequently associated with meat and fresh produce outbreaks. Often food samples are contaminated with avirulent STEC serogroups which lack ability to cause human disease and results in unnecessary product holdup. All currently available commercial assays for the detection of STEC uses combination of primers for the detection of the potentially virulent strains of STEC.

The goal of this study was to develop novel detection assays for specific detection of potentially virulent strains of *E. coli* O26 and *E. coli* O111. The assays target single nucleotide polymorphisms/mutations in the bacterial genome which has been previously associated with potentially virulent strains of the STEC serogroup. By identifying these specific mutations, the developed assay facilitates identification of potentially virulent strains of a specific serogroup.

The two assays standardized in our study were validated using 87 pure culture bacterial strains comprising of potentially virulent, avirulent strains and bacterial strains from other genera. The serogroup specific O26 and O111 primers showed 100% specificity. The results from the assay showed distinct melting curve patters for potentially virulent and avirulent strains. The melting curve patters of potentially virulent strains clustered together and avirulent strains clustered separately.

The O26 assay showed 75% specificity and 100% sensitivity, and the O111 assay showed 100% specificity and 100% sensitivity for the identification of their respective potentially virulent strains. Both assays were further validated by using inoculated beef and spinach samples, and these assays were able to detect the virulent strains after a 15-hour enrichment period.

The two assays developed for this study can be used to improve food safety and reduce response time during a foodborne outbreak caused by presence of avirulent strains in the food samples.

Florida State Horticultural Society



Extension in the Time of COVID-19

By Tia Silvasy UF/IFAS Extension Orange County

The COVID-19 pandemic created an unprecedented world event and seemingly overnight sent billions of people home. Life as we knew it ended, and a new virtual reality emerged. Fears of the virus caused people to stock up on toilet paper, water, dry beans and rice, wiping out store shelves. Many were concerned about their food security and were ordered to stay at home at a time that coincided with the peak of the Florida spring vegetable gardening season. To respond to these situations, University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Extension agents switched to virtual learning and launched programs and a new website on Sustainable Home Food Production that provided easy access to vegetable gardening tips, online classes, raising backyard chickens, beekeeping and more (visit https://gardeningsolutions.ifas.ufl.edu/getarowina/).

Online, Facebook gardening groups experienced an explosion of new members. My Garden Florida! Facebook page <u>https://www.facebook.com/</u><u>GardenFlorida/</u> reached 100,000 more contacts in the three months following the onset of stay-at-home orders as compared to the first quarter of the year. Videos became the best way to deliver engaging messages to people, providing social connection and live interaction.

I was working from home, too, and finally had time to start my spring garden. I assembled a tripod by taping my iPhone selfie stick to my camera tripod for filming videos of the simple tasks I was doing in my garden. From the period of March 20 to June 20, I recorded an average of 3 videos per week showing basic gardening tips such as seed planting, plant propagation, and composting. These videos were broadcast via Facebook live or pre-recorded and posted. The videos were very popular, gaining 1,000 views in a single day. Zoom was the other major platform used during the pandemic. Instead of teaching a gardening class to 20 people in person, I was now able to reach unlimited people online. I taught a Butterfly Gardening Design class hosted by The Florida-Friendly LandscapingTM program that had 250 participants.



Video set up for Facebook live broadcast

Victory Garden 2020 is a free program that the Columbia and Marion County Extension Offices for UF/ IFAS launched to teach people about vegetable gardening. Participants received free seeds while supplies lasted (5,000 packs of seeds were sent) and had access to online educational modules; a private Facebook group where they could post pictures, ask for advice, and share successes and failures; and a book club where they could meet virtually and discuss horticultural topics. As they did during World War II, Victory Gardens gave Americans a sense of purpose while providing food. Many have faced unemployment and are relying on their garden's bounty to get them through this uncertain time.

Extension in the Time of COVID-19...continued from page 4

Growing food is one small thing we can do to regain control and help ourselves by getting outside for some fresh air and exercise, calming our minds, and creating a sense of fellowship among gardeners. Is this the year you grow your first vegetable garden? Join our program! <u>https://bit.ly/V2020G</u>



Victory Garden private Facebook page

Through a team of 11 agents using nontraditional methods, we reached over 2,300 participants across the globe. Agents from three counties produced 22 live Zoom classes with more than 1,000 attendees. A private Facebook group with 1,400 members with over 50,000 reached and achieved 4,000+ engagements monthly. We are collecting data pounds of produce harvested for economic impact, social impacts (health, stress, connection to people), knowledge gain, and behavioral changes.

I say that "Everything I do is new." This summer I taught a plant propagation class by Zoom to a 4-H STEM Camp where we mailed the kids soil and plant parts. Although there are negative aspects to social distancing, there are also exciting new opportunities for us as extension agents to reach our clientele. Along with continuing Zoom classes and Facebook videos, I am also organizing virtual tours of UF/IFAS Orange County Extension Center and UF/IFAS Mid-Florida Research and Education Center to be presented at the American Society of Horticultural Sciences conference that was supposed to be held in Orlando, FL this year. It is hard to plan too far into the future with all this uncertainty, but we do our best to do our part and make the world a better place. After all, we are all in this together.

Protecting Farmworkers from COVID-19

By Dr. Nick Place Blog Post Aug 20, 2020

Over the next month, thousands of migrant and seasonal farmworkers will be returning to Florida, harvesting and packing the fall produce critical to our food supply. It's critically important that when these workers arrive, they are met with safe working environments and the education they need to reduce the spread of COVID-19 and stay healthy.

Migrant and seasonal farmworkers are at heightened risk of contracting and transmitting the novel coronavirus for a number of reasons. They often work closely together in the field, rely on buses, vans or trucks for transportation, and often live in crowded temporary housing. Long hours of fieldwork make face coverings uncomfortable and frequent handwashing difficult. In addition, very few farm workers have access to health insurance or paid sick leave, so if they are symptomatic for COVID-19 or other illnesses, they may be reluctant to miss work. Undocumented workers may be especially hesitant to seek medical attention, for fear they may be detained or deported. Because a disproportionate number of farm workers are non-English speakers, there are language barriers to receiving health safety education.

An increase in cases of COVID-19 among farmworkers has the potential to shut down the fall harvest, and that has Florida's agricultural producers concerned for their workers' health and in need of clear guidelines, updated resources and comprehensive training.

In response, a working group consisting of the Southeastern Coastal Center for Agricultural Health and Safety (SCCAHS), UF/IFAS Extension, and Florida's major producers and commodity groups has convened to address the educational needs of agricultural producers regarding COVID-19.

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The focus of the working group has been on three main areas:

- Making rapid testing available for agricultural areas
- Tracking transportation of farmworker populations
- Coordinating safer shelter and work environments for seasonal agricultural workers

As part of this effort, UF/IFAS Extension is providing resources and training to agricultural producers in CDC guidelines to limit the spread of COVID-19 among farm workers.

Resources

Grower and Worker Education Resources are located on the Extension Administration website at <u>https://</u> <u>extadmin.ifas.ufl.edu/resources/grower-and-worker-</u> <u>education/</u>

For Extension agents, the SCCAHS has developed a PowerPoint presentation to share with ag producers and farm managers. The slides—in English and Spanish—explain Coronavirus risk factors for workers and discuss how to follow CDC guidelines on social distancing, PPE, handwashing, transportation and signage in an agricultural workplace. The presentations are included in the SCCAHS' COVID-19 Training Toolkit for Extension, <u>http://</u> <u>www.sccahs.org/wp-content/uploads/2020/08/COVID</u> <u>-19 ExtentionToolkit.pdf</u> which includes recorded Powerpoint presentations, videos, factsheets and signage—all of which are translated into Spanish, and in some cases Haitian Creole–to inform agricultural owners and workers about best practices to prevent COVID-19 in the field.

Also on the website is a new training presentation from the UF/IFAS Farm Labor Supervisor Training Program that agents can use to share what we know about COVID-19, stories from agricultural workers who have experienced—and in some cases, died from–the disease, and practical steps that supervisors and crew leaders can take to limit its spread in the workplace.

http://blogs.ifas.ufl.edu/nickplace/2020/08/20/ protecting-farmworkers-from-covid-19/

Dr. Nick Place began his appointment as the Dean and Director of University of Florida/IFAS Extension in September 2012.

FSHS Board of Directors

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