



# Quarterly FSHS Newsletter

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## Greetings From the Editor

### Did You Miss the Annual Meeting?

By *Tatiana Sanchez*



Dr. Tatiana Sanchez  
Commercial Hort. Agent

I will share with you a couple of experiences I had at this year's meeting. One of my favorite parts was the presentation by Dr. Matt Sowcik. He is an outstanding speaker; his energy and motivation kept the audience completely engaged throughout his talk about Personal and Professional Development. There was a lot of laughing but more importantly, all of us walked out of the meeting room feeling excited and inspired to invest the deserved energy to improve ourselves personally and professionally.

The second experience I want to share is the increased involvement of students in FSHS. It is exciting to see more students attending and actively participating in our annual meetings. Their participation empowers and strengthens FSHS and it is critical for the society to endure.

If you could not attend the meeting, make plans to attend next year with a poster, a presentation, a paper or simply come to be updated and network. In the meantime, enjoy a collection of pictures from the meeting at the end of this issue.



Dr. Sowcik and happy audience



Dr. Eric Simonne

# President's Corner

## Life and science etiquette *Mistakes FSHS member should avoid*

One of the strengths of the FSHS membership is its diversity: diversity in scientific interests (production, postharvest, breeding), diversity in commodity interests (vegetables, citrus, post-harvest products, ornamentals, tropicals, natural resources, and other crops), diversity in length of membership in the society (students, post-docs, early career professionals, and accomplished professionals). This is a reflection that FSHS has something to offer to every horticulturist. For instance, last year's meeting attendance list shows that students, extension agents, and regular members represented 25%, 25% and 50% of the attendance, respectively.

With all my fond FSHS experiences in mind, I found an unexpected relevance in an online article I recently read which titled was "Etiquette Mistakes You Need to Stop Making by Age 30". Under or

### Mistake

### FSHS Translation

**Taking forever to RSVP**

Missing the abstract submission deadline. Oh oh.....

**Being late**

Getting ready to deliver your FSHS presentation without prior loading the slides.

**Arriving to a party or event empty-handed**

Not having any idea of who will be at the meeting, who to discuss with – and who to become acquainted with. Look at the annual meeting as a powerful networking event!

**Not knowing how to greet someone**

Bonjour! My name is Eric; I am a faculty member in the Horticultural Sciences Department. How are you? This is not difficult, is it?

**Checking your phone while with others**

Too late to read those nagging reminders; you now have to face a real person!

## Mistake

## FSHS Translation

### Avoiding eye contact

Horticulturists look at one another when we communicate. Eye contact is a nice way to enhance verbal and listening skills.

### Not saying “please” or “thank you”

FSHS is a volunteer-run organization. All those who step up like a little encouragement from those they serve. Those three little words can go a long way....

### Gossiping

Don't feed the great vine. Oh, stop it! (though it is so much fun to gossip!).

### Talking exclusively about yourself

Talking exclusively about your research. We as researchers can be so self-absorbed by our own views, understandings, and hypotheses that we sometimes lose open-mindedness. Have famous scientists been wrong in the past?

### Not sending thank you notes

Not sending your manuscript to the FSHS editor on-time after the annual meeting (actually, on-time is AT the meeting!).

### Posting your entire life online

Publishing a review article that has everything you have ever accomplished professionally (also called a “book”).

### Not returning calls or responding to emails

Translation is not needed. This is clear enough!

### Ghosting

Radio silence is not a good means of communication. If you are not going to follow through, will miss the next meeting, or need more time to complete your assignment, then let your colleagues know – the same way you would like to know if you were in their place.

### Chewing with your mouth open

Thinking and eating at the same time may be achieved with an open mind and a closed mouth.

### Talking with your mouth full

When attending the FSHS receptions, recognize eating and speaking as two separate activities.

### Not knowing which dining utensils are yours

You could not recognize your own lab equipment at a yard sale.

### Ah! One more: don't plagiarize

So, this list was repurposed and adapted from “Etiquette Mistakes You Need to Stop Making by Age 30’ at <https://bit.ly/2xWySc9>

# FSHS Proceedings Editors' Report



Dr. Mary Lamberts

*By Mary Lamberts*

Status of papers received as of 9-24-18, which includes papers received after the 9-14-18 Board meeting:

Section	Total in Program	Received by Editor to date	For ASHS Journal send/total	Not yet submitted	Notes
Citrus	26	1	4/13	11	1 to a non-ASHS/FSHS journal
H + P	15	2	1/4	8	1 already published in a non-ASHS/FSHS journal
Krome	18	12	0	2	2 withdrawn before Conf.; 2 to a non-ASHS/FSHS journal; 1 to submit in 2019
Nat. Res.	9	6	0/1	0	2 "guest", not submitting
OGL	15	13	0	1	1 withdrawn before Conf.
Veg	28	13	1/4	6	1 withdrawn before Conf.; 1 transfer to Poster; 3 will not submit, 2 will submit in 2019
Poster	6	0	0/0	7	1 transfer from Veg

Additional instructions for authors who have already submitted a paper to an ASHS journal and for those who intend to do so.

1. Your paper, **if accepted** for publication in an ASHS journal, will also be reprinted in the Proceedings for the year in which it was presented, provided it was originally submitted to ASHS in a timely manner. If it is submitted to ASHS late, it will be published in the following year's Proceedings.
2. You as the corresponding author **must** keep the Editor ([editors@fshs.org](mailto:editors@fshs.org)) informed of the progress of your paper through the ASHS system **especially if it is either accepted or declined** for publication in an ASHS journal.
3. If a paper, which was presented at the FSHS meeting, is **declined** for publication in an ASHS journal, it must be sent to the Editor ([editors@fshs.org](mailto:editors@fshs.org)) **no later than NOVEMBER 1** if you would like to have it included in the current year's Proceedings.

## Meet Dr. Agehara's Lab

Shinsuke Agehara is an Assistant Professor of the Horticultural Sciences Department at the University of Florida. His lab is housed at the UF/IFAS Gulf Coast Research and Education Center located in Wimauma, Florida.

Dr. Agehara's work is often in the spotlight as he and his team are working on several specialty crops for Florida including artichoke, hops, pomegranate, among others. His research studies plant adaptation and responses to stress. Findings are used to develop integrated production strategies that maximize crop efficiency.

During the last FSHS meeting, two of his lab team members won student awards (**Congratulations!**). Meet these students and enjoy their featured articles below.



Dr. Shinsuke Agehara

## Stripes are back in style Using metalized-striped plastic mulch to improve early strawberry yields



Stephen Deschamps  
MSc. Student, Horticultural Sciences Dept.  
University of Florida

*By Stephen Deschamps and Shinsuke Agehara*

University of Florida's Gulf Coast Research and Education Center

For nearly 60 years, Florida's strawberry growers have relied on black plastic mulch to provide wintertime soil warming and healthy fruit yields. However, growers have recently begun to plant as early as September, during which time black plastic mulch can cause excessive root-zone heating that actually inhibits early fruit development. With the goal of helping growers overcome this challenge and improve early fruit yields, Dr. Shinsuke Agehara and I worked with Imaflex, Inc., a Canadian based plastic mulch manufacturer, to develop and test a new plastic mulch design that is metalized in the center and black on the shoulders.

Metalized-striped mulch, which features a 20" wide aluminum center stripe, reflects more than 60% of incoming sunlight. As a result, metalized-striped mulch keeps establishment period soil temperatures cooler than black mulch, which absorbs 90% of incoming sunlight.

*(Continued on page 6)*

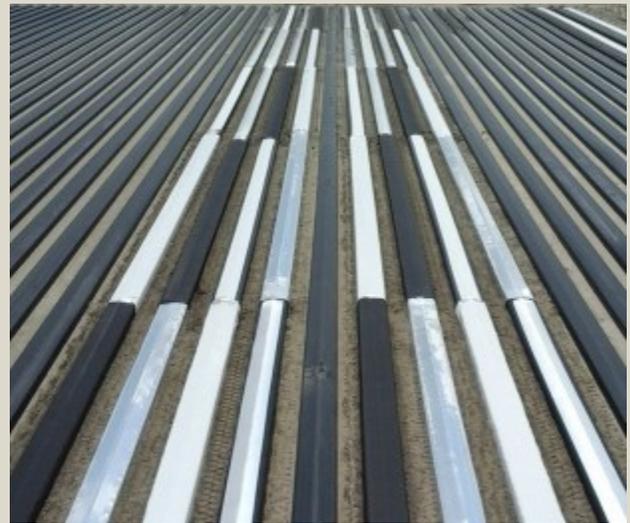
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During the winter, when plant canopies cover the bed center and cool temperatures descend upon west central Florida, the black shoulders remain exposed to absorb sunlight and heat root-zone temperatures to an acceptable degree. In fact, three seasons of trials have demonstrated that there is no difference in root-zone warming between black mulch and metalized-striped mulch throughout much of the winter.

Metalized-striped mulch has led to consistent early (Nov. – Jan.) yield increases compared to black mulch, ranging anywhere from 30% to 50%, when tested with ‘Florida Radiance’ and ‘Florida Beauty’ strawberry cultivars. These yield increases could represent a significant boost to grower profits since early season strawberries can fetch nearly double the market value of their February successors. Equally important, metalized-striped mulch does not reduce late season fruit yields.

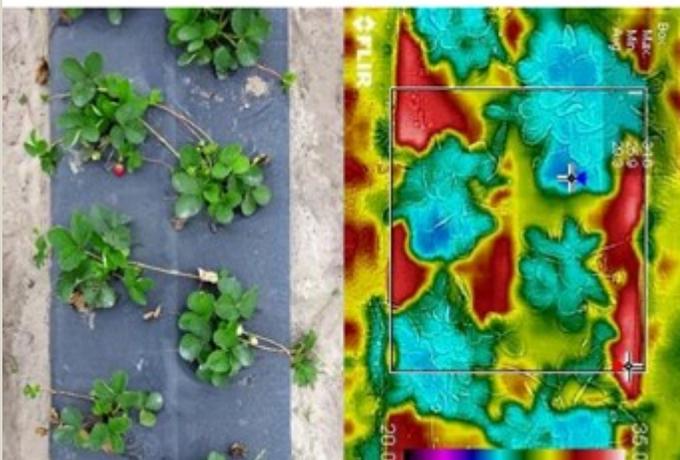
Excited to share our findings with growers and other researchers, we have presented our work at numerous forums, including the 2018 AgriTech strawberry grower meeting and the 2018 FSHS and ASHS annual meetings. So far, growers have been receptive to this new mulch

design. In the 2017–18 growing season, metalized-striped plastic mulch was adopted by six growers on more than 215 acres across west central Florida. More growers are expected to implement the new mulch for the 2018–19 season. Meanwhile, I expect to graduate from Dr. Agehara’s research program with my master’s in Horticultural Sciences at the end of 2018. Shinsuke will continue to test the effects of metalized-striped plastic mulch for improving early strawberry yields.

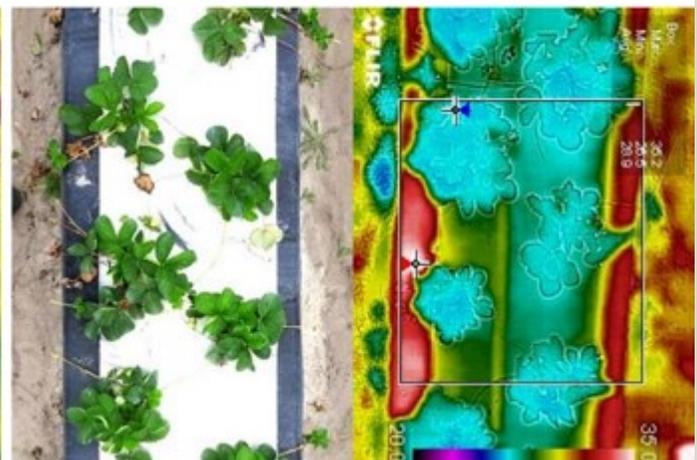


An overhead photo of Dr. Agehara and Stephen’s experimental site with five mulch types tested: black mulch, fully white mulch, white-striped mulch, fully metalized mulch, and metalized-striped mulch.

Black mulch



Metalized-striped mulch



Thermographic images show the cooling effect of adding a metalized center stripe to black plastic mulch. The bed surface and underlying soil stay much cooler when a metalized stripe is utilized.

# Give Sleeping Beauty a kiss

## Awakening blackberry from winter dormancy by exogenous gibberellic acid



Syuan-You Lin  
PhD. Student, Horticultural Sciences Dept.  
University of Florida

*Syuan-You Lin and Shinsuke Agehara*

UF/IFAS Gulf Coast Research and Education Center

Using an artificial awakening method from winter dormancy, Florida, a sunshine state, may have potential of producing blackberries that are super rich in antioxidants.

Blackberry originates from several temperate regions. Like most temperate fruit crops, it has evolutionarily developed an adaption strategy, the chilling requirement, to stay dormant during cold winter and wake up in the warm springtime. To wake up from dormancy at the optimum timing, blackberry plants have to sense certain amount of accumulated chill followed by elevated temperatures, so they can ensure that winter has gone and it's time to break bud dormancy and flower safely.

The lack of this awakening signal is a major challenge in producing blackberries in Florida.

Typically, current blackberry cultivars demand 300 to 900 chill hours to satisfy their chilling requirements; however, the average chill hours in the central Florida are only 250 hours.

Developing low-chill cultivars is difficult to achieve in a short amount of time. Thus, formulating bud-breaking strategies will improve blackberry production practically and efficiently.

How can growers wake up blackberry buds in Florida? Our strategy is to use a natural plant hormone called **gibberellic acid** (GA), which acts as an internal signal to trigger dormancy release in many crops.

We have been testing foliar application of GA for three commercial blackberry cultivars, 'Natchez', 'Navaho' and 'Ouachita', at Gulf Coast Research and Education Center since 2015. Our results have shown that GA can significantly improve bud break, fruit earliness, and yield, especially for those with higher chilling requirements,

*(Continued on page 8)*

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without affecting fruit quality (Fig. 1). However, we also found that the effectiveness of GA depends on many factors, including cultivars, different dormancy stages at the time of application, and post-dormancy flower development.

We are currently investigating dormancy and flowering physiology mediated by gibberellic acid, in view of candidate gene expression and plant hormone crosstalk. This information will help us optimize the GA application protocol, such as the application timing and rate.

As a PhD student of Dr. Shinsuke Agehara, I hope I can transfer my research results into industries by coordinating the knowledge of plant science, practice managements, and industry participation, which in turn, will help growers increase productivity and profits, and expand blackberry production competitively in Florida.



Fig. 1. 'Natchez' blackberries produced at Gulf Coast Research and Education Center.

## Upcoming 2019 FSHS Board of Directors

**Board Chair:** Eric Simonne  
**President:** Gene McAvoy  
**President Elect:** Jeff Williamson  
**Secretary/Treasurer:** Jamie Burrow  
**Board Member-at-Large:** Eric Waldo  
**Board Member-at-Large:** Adrian Hunsberger



## FSHS Sectional Vice Presidents

**Citrus:**

Vice President: Jawwad Qureshi

**Ornamentals, Garden & Landscape:**

Vice President: Wayne Hobbs

**Handling & Processing:**

Vice-President: Yu Wang

**Krome Memorial:**

Vice President: Alan Chambers

**Vegetable:**

Vice-President: Shinsuke Agehara

**Natural Resources:**

Vice President: Zack Brym

# FSHS Meeting Faces



Some poster stars



FSHS Bites



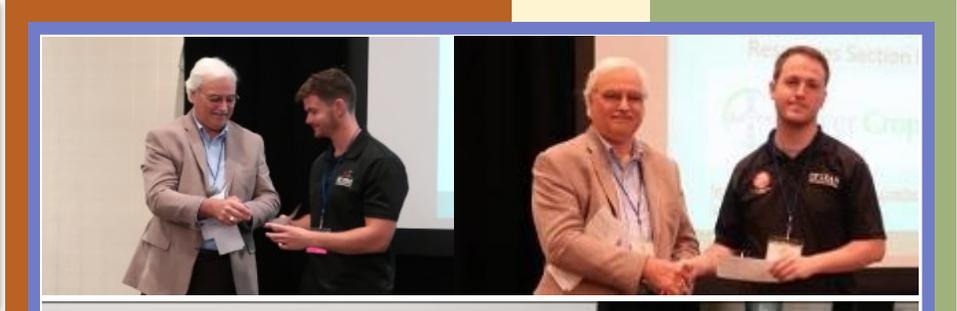
Smiley

Faces





# FSHS Meeting Faces Recipients Wall



And here, some of our student awardees  
**Congratulations!**

# FSHS Award Winners

## 2017 Best Paper Sectional Awards

<b>Citrus</b>	Ute Albrecht
<b>Vegetable</b>	Tanumoy Bera
<b>Krome Memorial Institute</b>	James Orrock
<b>Handling and Processing</b>	Paula Ferraira
<b>Ornamental, Garden and Landscape</b>	Juanita Popenoe
<b>Natural Resources</b>	Ken Gioeli

## 2017 Best Paper Sectional Awards

<b>First Place</b>	Qiang Zhu
<b>Second Place</b>	Jing Gou
<b>Third Place</b>	Syuan-You Lin

## 2018 Student Best Presentation Awards

<b>First Place</b>	Sasha-Kay V. Clarke
<b>Second Place</b>	Stephen Deschamps
<b>Third Place</b>	James Orrock

## 2018 Student Scholarships

Biwek Gairhe  
 Faisal Shahzad  
 Carlos Zambrano-Vaca  
 Catherine Belisle  
 Gustavo Femando Kreutz  
 James Orrock  
 Jianjian Xu  
 Lan-Yen Chang  
 Lillian Pride  
 Lushan Ghimire  
 Mohammad A. Razzak  
 Rafia Akhtar Khan  
 Raymond Odeh  
 Robyn Adair  
 Stephen Deschamps  
 Syuan-You Lin  
 Thais Tamashiro  
 Xiangju Fu  
 Xinjie Yu

## Other Awards

<b>Honorary Member</b>	Steve Sargent
<b>2018 Presidential Gold Medal</b>	David Liu
<b>2018 Outstanding Commercial Horticulturist Award</b>	Erin Harlow
<b>Tomato Research Award</b>	Sai Xu
<b>2018 President's Industry Award</b>	Noris Ledesma Richard Campbell