

**UF** UNIVERSITY of  
**FLORIDA**  
IFAS Extension

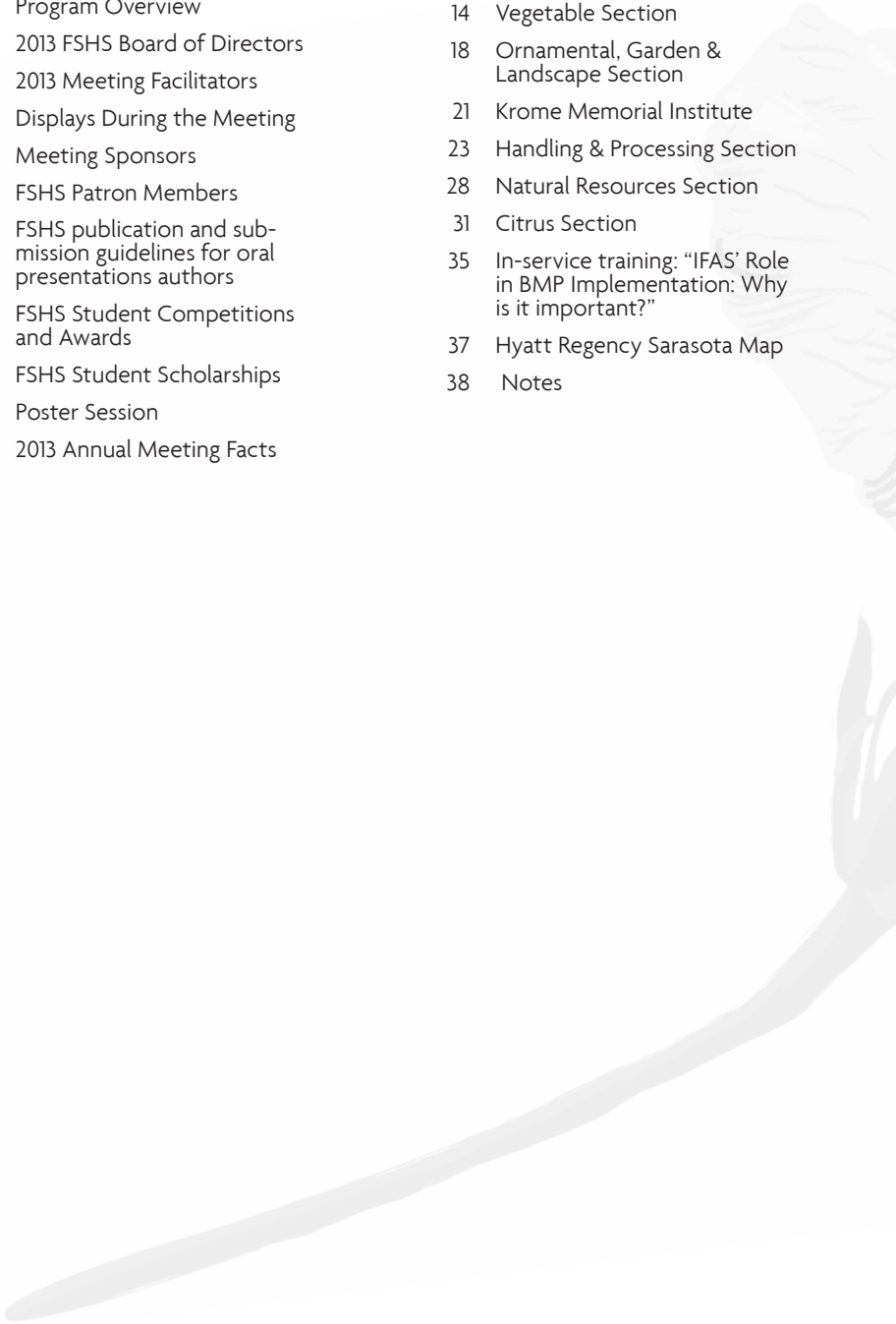


**2013**

*126<sup>th</sup> Annual Meeting of the*

**FLORIDA STATE  
HORTICULTURE SOCIETY**

# 2013 Program Contents

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# Program Overview

## Registration Desk Hours—Convention Center Registration Desk

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Sunday June 2	2:00 PM - 6:30 PM
Monday June 3	7:00 AM - 6:00 PM
Tuesday June 4	7:00 AM – 12:00 PM

## Sunday Afternoon

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2:00-4:00	FSHS Board of Directors Meeting	Boardroom
3:00-4:30	Posters Set up, <b>Erin Harlow</b>	Prefunction North & South
4:30-6:00	Opening Ceremony, <b>Juanita Popenoe</b>	Sarasota EF
4:45-5:30	Opening Session Speaker: <b>Jono Miller</b> , Former Director of the Environmental Studies Program, New College of Florida. <b>“Welcome to Sarasota’s Green World, Greetings from New College, and a Cry for Help with Cabbage Palms.”</b>	
5:30-6:00	Awards	
6:00-7:00	Welcome Reception (Included in paid conference registration)	Poolside

## Monday Morning

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7:00-8:00	Continental Breakfast (Included in paid conference registration)	Sarasota EF
7:30-8:15	Poster Session, <b>Erin Harlow</b> (See list of posters on p. 12)	Prefunction North & South
8:30-9:45	General Session	Sarasota EF
8:30	Introduction and Welcome	
8:40	Presidential Address: <b>Nancy Roe</b> , FSHS President	
9:00	General Session Keynote Speaker: <b>Kent Shoemaker</b> , CEO Lipman Produce <b>“Access to the Acre and the value of Vertical Integration in Production Agriculture”</b> Questions and Answers	

9:45 End of General Session

### Concurrent Morning Sessions:

10:00-12:00	Citrus ( <i>p.31</i> )	Sarasota EF
10:30-11:45	Natural Resources ( <i>p.28</i> )	Sarasota D
10:00-12:00	Ornamental, Garden & Landscape ( <i>p.18</i> )	Sarasota A
10:00-12:30	Handling & Processing ( <i>p.23</i> )	Sarasota C
10:00-12:00	Vegetable ( <i>p.14</i> )	Sarasota G

### Monday Lunch

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11:45-1:20	Lunch ( <i>on your own</i> ) – at Currents Restaurant or Hurricane Hut
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### Monday Afternoon

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#### Concurrent Afternoon Sessions:

1:30-4:30	Citrus	Sarasota EF
1:30-4:15	Krome Memorial Institute	Sarasota B
1:30-4:30	Natural Resources	Sarasota D
1:30-4:30	Ornamental, Garden & Landscape	Sarasota A
1:45-4:45	Handling & Processing	Sarasota C
1:30-5:15	Vegetable	Sarasota G

### Monday Evening

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6:00-7:00	Industry Reception ( <i>Included in paid conference registration</i> )	Boathouse
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## Tuesday Morning

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7:00-8:15	Horticultural Crops Breakfast (Event ticket required) Invited Speaker: <b>Eva and Chris Worden,</b> Owners and Operators, Worden Farms <b>“Organic Vegetable Farming in Florida”</b>	Sarasota H
8:30-9:45	FSHS Annual Business Meeting:  Student Competition Awards, <b>Carlene Chase</b>	Sarasota EF

### Concurrent Morning Sessions:

10:00-11:45	Citrus	Sarasota EF
10:00-12:00	Handling & Processing	Sarasota C
10:00-11:00	Vegetable	Sarasota G
12:00	All posters are taken down	Prefunction North & South

## Tuesday Lunch

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12:00-1:15	Extension Luncheon (Event ticket required) Invited speaker: <b>Dr. Tom Obreza,</b> UF/IFAS Interim Associate Dean and Assistant Director for Extension, Gainesville, FL. <b>“How do we tackle water quality problems? Rules or tools.”</b>	Sarasota H
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## Tuesday Afternoon

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1:30-5:00	In-Service Training and Producer Workshop: <b>“IFAS’ Role in BMP Implementation: Why is it important?”</b> Co-sponsored by FSHS and UF/IFAS Cooperative Extension Service	Sarasota EF
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## Wednesday Morning

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8:00-12:00	In-Service Training and Producer Workshop: <b>“IFAS’ Role in BMP Implementation: Why is it important?”</b>	Salon AB
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End of 2013 Annual meeting.  
Have a safe trip home, and see you next year!

## *Volunteers Needed!*

**FSHS is a volunteer-run organization. Make a difference, and volunteer your time, leadership, service and talents!**

**Visit [fshs.org](http://fshs.org) and step up!**

## **Don't Forget to Thank Our Student Section Assistants!**

**Citrus:**

**Jiaqi Yan**  
([yanj@ufl.edu](mailto:yanj@ufl.edu);  
Dr. Ritenour)

**Handling & Processing:**

**Francisco Loayza**  
([Francisco.Loayza@ufl.edu](mailto:Francisco.Loayza@ufl.edu);  
Dr. Brecht)

**Krome Memorial Institute:**

**Lidwine Hyppolite**  
([lhagroind15@ufl.edu](mailto:lhagroind15@ufl.edu);  
Dr. Roka)

**Natural Resources**

**Evelyn "Prissy" Fletcher**  
([treehugger@ufl.edu](mailto:treehugger@ufl.edu);  
Dr. Nkedi-Kizza)

**Ornamental, Garden & Landscape:**

**Zilfina Rubio-Ames**  
([zrubioames@ufl.edu](mailto:zrubioames@ufl.edu);  
Dr. Olmstead)

**Vegetable:**

**Wei Chieh Lee**  
([weivickylee@ufl.edu](mailto:weivickylee@ufl.edu);  
Dr. Liu)

# Florida State Horticultural Society 2012-2013 Board of Directors

Chairman of the Board	Juanita Popenoe
President	Nancy Roe
President-elect	Ed Etxeberria
Sectional Vice-presidents:	
Citrus	Tim Gaver
Krome Memorial Institute	Mercy Olmstead
Natural Resources	Richard Tyson
Ornamental, Garden and Landscape	Alex Bolques
Handling & Processing	Cecilia Nunes
Vegetable	Crystal Snodgrass
Secretary and Treasurer	Chris Oswalt
Proceedings Editor	Jan Narciso
Marketing Coordinator/ Webmaster	Mark Ritenour
Members At-large	Jeffrey Brecht Ed Stover
Program Coordinator	Aparna Gazula

## 2013 Meeting Facilitators

Meeting Coordinator	Tracy Shawn
Local Arrangements Coordinators	Michael Williams Rob Kluson
Sponsorship Coordinator	Gene Albrigo
Student Competitions Coordinator	Carlene Chase
CEU Coordinator	Barton Wilder
Poster Session Coordinator	Erin Harlow
FSHS Newsletter Team	Kathy Schneider Ed Etxeberria Jim Syvertsen

# Welcome 2013 FSHS Sectional Vice-Presidents!

<b>Citrus:</b>	<b>Tim Gaver</b> , UF/IFAS Extension St. Lucie County, Ft. Pierce, FL. ( <a href="mailto:tgaver@ufl.edu">tgaver@ufl.edu</a> )
<b>Handling &amp; Processing:</b>	<b>Cecilia Nunes</b> , University of South Florida Tampa, FL. ( <a href="mailto:mariacecilia@usf.edu">mariacecilia@usf.edu</a> )
<b>Krome Memorial Institute:</b>	<b>Mercy Olmstead</b> , UF/IFAS Extension, Gainesville, FL. ( <a href="mailto:mercy1@ufl.edu">mercy1@ufl.edu</a> )
<b>Ornamental, Garden, &amp; Landscape:</b>	<b>Alex Bolques</b> , UF/IFAS Extension Gadsden County, Quincy, FL. ( <a href="mailto:abol@ufl.edu">abol@ufl.edu</a> )
<b>Natural Resources:</b>	<b>Richard Tyson</b> , UF/IFAS Extension Orange County, Orlando, FL. ( <a href="mailto:rvt@ufl.edu">rvt@ufl.edu</a> )
<b>Vegetables:</b>	<b>Crystal Snodgrass</b> , UF/IFAS Palm Beach Co. Extension, West Palm Beach, FL. ( <a href="mailto:crys21@ufl.edu">crys21@ufl.edu</a> )

## Displays During the Meeting

*(Prefunction North & South)*

**2013 Florida Small Farms and Alternative Enterprise Conference. Robert Hochmuth and Sean McCoy**, UF/IFAS Suwannee Valley Ag. Ext. Ctr., Live Oak, FL.

**The UF/IFAS Small Farms Academy. Robert Hochmuth and Sean McCoy**, UF/IFAS Suwannee Valley Ag. Ext. Ctr., Live Oak, FL.

**Citrus Greening and Citrus Health Management Areas. Jamie Yates**, UF/IFAS Citrus Res. and Edu. Ctr., Lake Alfred, FL.

**UF/IFAS Citrus Mechanical Harvesting and Abscission Program. Fritz Roka and Barbara Hyman**, UF/IFAS SW Florida Res. & Edu. Ctr., Immokalee, FL.

**FL Native Plant Nursery: Promoting Natural FL Gardens and Landscapes. Annie Schiller**, Sarasota FL.

**Historic Spanish Point. Nan Summers**, Outreach and Special Programs Coordinator, Osprey, FL.

**Marie Selby Botanical Gardens. Annemarie Post**, UF/IFAS Ext. Sarasota Cty., Sarasota, FL.



# 2013 Meeting Sponsors

## Platinum Level Sponsor

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### **Citrus Research and Development Foundation**

*(Sponsor of Citrus Section Best Paper Award)*

### **Yara North America**

*(Sponsor of Krome Memorial Institute Section Best Paper Award)*

### **Plant Food Systems**

*(Sponsor of Ornamental, Garden and Landscape Section Best Paper Award)*

## Gold Level Sponsor

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### **Bayer Crop Sciences**

*(Sponsor of Vegetable Section Best Paper Award)*

### **Valent Bio Sciences Corporation**

*(Sponsor of Handling and Processing Section Best Paper Award)*

### **Helena Chemicals**

*(Sponsor of Citrus Section Best Paper Award)*

### **Novoenzymes BioAG**

*(Sponsor of Natural Resources Section Best Paper Award)*

## Silver Level Sponsor

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### **Chemical Dynamics**

## Bronze Level Sponsor

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### **KeyPlex**

### **Syngenta**

### **BASF Corporation**

### **Chemtura AgroSolutions**

### **Triangle Chemical Company**

### **JBT Corporation (Food Tech Division)**

# 2013 FSHS Patron Members

**Ed Etxeberria**

## *Attention FSHS Authors!*

- FSHS welcomes and encourages color pictures and color figures in Proceedings articles.
- Did you know that videos can also be linked to Proceedings articles?
- Color pictures and figures, and videos are included FREE of CHARGE in the on-line Proceedings.
- Take advantage of this possibility and pass the word around!

# FSHS Presentation, Publication and Submission Guidelines

- Full payment of page charges from past years (<http://shop.ashs.org/home.php?cat=270>) is required before presentations and submissions can be accepted in current year.
- The SENIOR AUTHOR must be a member of the Society, and the PRESENTING AUTHOR of the paper must be registered at the annual meeting (except for invited papers) for papers to be accepted for the Proceedings. Papers not presented at the meeting will not be published.
- Electronic submissions are highly encouraged and preferred. Manuscripts should be delivered in FINAL electronic form (1) at the time of meeting to the appropriate section VP or (2) no later than two weeks after the meeting at [fshsproc@ashs.org](mailto:fshsproc@ashs.org).
- Manuscripts to be considered as “refereed” MUST be submitted electronically at the time of the meeting.
- For all submissions, see complete Manuscript Preparation Guide for the Proceedings of the Florida State Horticultural Society at: [http://www.fshs.org/instructions\\_ref\\_sub.shtml](http://www.fshs.org/instructions_ref_sub.shtml).

## FSHS Paper Submissions:

Remember to e-mail full-length manuscripts at  
[Fshsproc@Ashs.Org](mailto:Fshsproc@Ashs.Org) by **June 4, 2013**  
with copy to the sectional VP:

### Citrus:

**Barrett Gruber,**  
[bgruber@ufl.edu](mailto:bgruber@ufl.edu)

### Handling & Processing:

**Cecilia Nunes,**  
[mariacecilia@usf.edu](mailto:mariacecilia@usf.edu)

### Krome Memorial Institute:

**Mercy Olmstead,**  
[mercy1@ufl.edu](mailto:mercy1@ufl.edu)

### Natural Resources:

**Richard Tyson,**  
[rvt@ufl.edu](mailto:rvt@ufl.edu)

### Ornamental, Garden, and Landscape:

**Alex Bolques,**  
[abol@ufl.edu](mailto:abol@ufl.edu)

### Vegetable:

**Crystal Snodgrass,**  
[crys21@ufl.edu](mailto:crys21@ufl.edu)

# FSHS Student Scholarships

## *Attention Students:*

Did you know that FSHS awards ten, \$200 scholarships to students attending the Annual Meeting?

To apply, submit a less-than-100-word statement describing the importance of attending the FSHS Annual Meeting to the achievement of your personal and professional goals and aspirations at [fshs@crec.ifas.ufl.edu](mailto:fshs@crec.ifas.ufl.edu) by **May 20, 2013**. The FSHS Board of Directors judges submissions and verifies that the awardees are eligible registered students who have registered for the Annual Meeting. Scholarship checks will be awarded during the annual business meeting; awardees must be registered and present to receive their scholarship check.

# FSHS Student Competitions

FSHS offers two competitions for students: Student Best Oral Presentation (SBOPC) and Student Best Paper (SBPC). Awards for the SBOPC will be presented during the Annual Business Meeting at the 2013 FSHS annual meeting in Sarasota. The SBPC awards will be announced at the 2014 FSHS annual meeting. Awardees will receive cash prizes and will be recognized in the Proceedings of FSHS. Students may participate in either or both competitions.

### **Student Best Oral Presentation Competition (SBOPC):**

Entries in the SBOPC are marked in blue in the conference program. The number of entries in the SBOPC is limited to 15 and must be submitted to the sectional VP. Acceptance in the competition is on a first-come, first-serve basis. Participants are judged on importance of the subject to Florida horticulture, scientific merit, organization, awareness of current literature, fluency, clarity of presentation, effective use of figures and tables, report of conclusions, completeness, timing, and response to questions. For more information on the SBOPC competition, contact **Carlene Chase** at [cachase@ufl.edu](mailto:cachase@ufl.edu).

### **Student Best Paper Competition (SBPC):**

To participate in the SBPC, students must submit a manuscript (use author guidelines for the Proceedings of the FSHS) by email with the subject "Student Best Paper Competition" to [fshsproc@ashs.org](mailto:fshsproc@ashs.org) by **June 5, 2013**. Student papers will be published in the Proceedings of FSHS. Entries will be judged on relevance to Florida horticulture, scientific merit, experimental design rigor, literature review, completeness, and clarity. For more information on the SBPC competition, **Carlene Chase** at [cachase@ufl.edu](mailto:cachase@ufl.edu)

# Technical Program Schedule

## *(Prefunction North & South)*

### **Poster Session:**

Erin Harlow,  
Coordinator  
([erine@coj.net](mailto:erine@coj.net))

## Monday Morning Session

*(Authors at posters 7:30 – 8:15 am)*

**Disease Management Programs for Basil Downy Mildew.** Eugene McAvoy, UF/IFAS Hendry County Extension, LaBelle, FL., C. Miller, UF/IFAS Palm Beach County Extension, West Palm Beach, FL and R.N. Raid, UF/IFAS, Everglades Research & Education Center, Belle Glade, FL. ([gmcavoy@ufl.edu](mailto:gmcavoy@ufl.edu)) [P-1-V]

**Evaluation of Eight Table Beet Varieties for Stand, Disease Resistance, and Cultural Characteristics.** Eugene McAvoy, UF/IFAS Hendry County Extension, LaBelle, FL., C. Miller, UF/IFAS Palm Beach County Extension, West Palm Beach, FL. and R.N. Raid, UF/IFAS, Everglades Research & Education Center, Belle Glade, FL. ([gmcavoy@ufl.edu](mailto:gmcavoy@ufl.edu)) [P-2-V]

**Evaluation of Triazole and Strobilurin Fungicides, Alone and In Combination, for Control of *Exserohilum turcicum* on Sweet Corn.** Christian Miller, UF/IFAS Palm Beach County Extension, West Palm Beach, FL, E. McAvoy, UF/IFAS Hendry County Extension, LaBelle, FL and R. N. Raid, University of Florida, IFAS, Everglades Research & Education Center, Belle Glade, FL. ([cfmiller@ufl.edu](mailto:cfmiller@ufl.edu)) [P-3-V]

**Marketing Food Check-out Week® in Volusia County.** Karen Stauderman, K. Bryant, and J. Taufer, UF/IFAS, Volusia County Extension. ([kstauderman@ufl.edu](mailto:kstauderman@ufl.edu)) [P-4-V]

**2012 Pest, Disease and Nutrient Workshop.** Crystal Snodgrass, UF/IFAS Manatee County Extension, Palmetto, FL, A. Whidden, UF/IFAS Hillsborough County Extension Service, Seffner, FL, G. McAvoy, UF/IFAS Hendry County Extension Service, Dallas B Townsend Agricultural Center, Labelle, FL, H. Smith, G. Vallad and B. Santos, UF/IFAS, Gulf Coast Research and Education Center, Wimauma, FL. ([crys21@ufl.edu](mailto:crys21@ufl.edu)) [P-5-V]

**Growing Mushrooms for Fun and Profit.** Aparna Gazula UF/IFAS Alachua County Extension, Gainesville, FL, C. Saft, UF/IFAS Suwannee County Extension, Live Oak, FL, C. Olson, UF/IFAS Taylor County Extension, Perry, FL, S. McCoy, UF/IFAS Extension Suwannee Valley Agricultural Extension Center, Live Oak, FL, S. White, Suwannee Valley Agricultural Extension Center, Live Oak, FL. ([csaft@ufl.edu](mailto:csaft@ufl.edu)) [P-6-V]

**Urban Farming Program Demonstrates Sustainable Practices for Increasing Local Food Production.** Richard Tyson, UF/IFAS Extension Orange County, Orlando, FL. (rvt@ufl.edu) [P-7-V]

**Educating Urban Youth on Horticulture as a Profession or Hobby through Fair Participation.** Bobbi J. Jarvis and J. Hink, UF/IFAS, Pasco County Extension. (bjarvis@pascocountyfl.net) [P-8-OGL]

**Hillsborough County Youth Learn by Doing-Producing Wholesale Plants.** Shawn Steed, UF/IFAS, Hillsborough County Extension Service. (ststeed@ufl.edu) [P-9-OGL]

**Meeting the Need for CEUs Using Videos by Appointment.** Mary Beth Henry, UF/IFAS, Polk County Extension, Bartow. (mbhenry@ufl.edu) [P-10-OGL]

**Florida-Friendly Landscaping™ Program Follow Up Survey in Northeast Florida.** Terry DelValle, Duval County Extension, A.R. Lamborn, Baker County Extension, J.T. DeValerio, Bradford County Extension, D.N. Demorest, Columbia County Extension, R.L. Jordi, Nassau County Extension, K.D. Fuller, St. Johns County Extension, C.S. Saft, Columbia County Extension, W.L. Wilber, Alachua County Extension. (delvalle@coj.net) [P-11-OGL]

### ***2013 FSHS Annual Meeting Facts***

Oral Invited Presentations	4
Poster Presentations	11
Oral Contributed Presentations	113
Citrus	18
Handling and Processing	28
Krome Memorial institute	10
Natural Resources	15
Ornamental, Garden & Landscape	18
Vegetables	24
In-service Training Presentations	8
Total Meeting Presentations	136

## Vegetable Section:

**Crystal Snodgrass,**  
Presiding  
(crys21@ufl.edu)

**Wei Chieh Lee,**  
Student Section Assistant  
(weivickylee@ufl.edu)

# Monday Morning Session

**(10:00 – 12:00 pm) Sarasota G**

9:50 Welcome and Introductions: **Crystal Snodgrass.**

## A-Production and Cultural Practices

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- 10:00 Using Digital Image Analysis for Evaluating Gypsum Effects on Salt-stressed Tomato Canopy Growth.** Derly J. Silva, J.K. Khoury Jr., B.A. Hogue, and G.D. Liu, Department of Horticultural Sciences, University of Florida, Gainesville, FL. (derlyufv@gmail.com) [V-1]
- 10:15 Systemic Resistance and Plant Growth Promotion Inducers in Commercial Potato Production.** Ben Hogue, G.D. Liu, S. Lands, and S. Sargent, Department of Horticultural Sciences, University of Florida, Gainesville, FL. (bahumbug@ufl.edu) [V-2]
- 10:30 Potato Cultivar Trials under Organic Production on Small Farms in Southcentral Florida.** Robert Kluson, Sarasota County Extension Service, University of Florida, Sarasota, FL. (rkluson@scgov.net) [V-3]
- 10:45 Field Evaluation of Ethnic Vegetable Crops of Asian and Hispanic Origin in South Florida.** Xiaohui Fan, S. Zhang, X. Mo, Y. Fu and Z. Liu, Tropical Research and Education Center, University of Florida, Homestead, FL. (xiaohfan@ufl.edu) [V-4]
- 11:00 Effects of Planting Dates and Densities on the Performance of Strawberry Cultivars.** Bielinski M. Santos, V.M. Whitaker, Gulf Coast Research and Education Center, Balm. FL, and A. J. Whidden, Hillsborough County Extension Service, University of Florida, Seffner, FL. (bmsantos@ufl.edu) [V-5]
- 11:15 Evaluation of Several Bell Pepper (*Capsicum annuum*) Cultivars Grown under an Open Shaded Structure.** Robert C. Hochmuth, W. L. Laughlin, and S. R. McCoy Suwannee Valley Agricultural Extension Center, UF; A. Gazula, Alachua County Extension, UF; and D. K. Fenneman, Madison County Extension. (bobhoch@ufl.edu) [V-6]
- 11:30 Economic Analysis Of Fresh Green Bell Pepper Production Under Shade Structures** S.R. McCoy, R.C. Hochmuth, W. Laughlin, Suwannee Valley Agricultural Extension Center, (UF), A. Gazula, Alachua County

Extension, (UF), and D. Fenneman, Madison County Extension, (UF). (srmccoy@ufl.edu) [V-7]

**11:45 Growing and Marketing Garlic Chives at Local Green Markets in Southeast Florida., 2011-2013.** Kenneth D. Shuler, and D.G. Shuler, Stephen's Produce LLC., 12657 158th St. N, Jupiter, FL. (skshuler@aol.com) [V-8]

**12:00 End of morning session/Lunch on your own** (at *Currents Restaurant* or *Hurricane Hut*)

## Monday Afternoon Session

**(1:30 – 5:15 pm)**

**1:20 Welcome and Introductions:** Crystal Snodgrass.

**1:30 Squash Grown in Protected Structures and Marketed as Specialty Produce.** Steven Lands, M. Warren, A. Beyer and D. Cantliffe. (lands4210@ufl.edu) [V-9]

### B-Pest Management

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**1:45 Response of Diamondback Moth and its Host Plant to Biological and Chemical Insecticides.** Dakshina R. Seal, and C.M. Sabines, Tropical Research and Education Center, University of Florida, Homestead, FL. (dseal3@ufl.edu) [V-10]

**2:00 Evaluation of Site-specific Management Tactics for Control of Twospotted Spider Mites, *Tetranychus urticae* (Koch) in Strawberries.** Oscar E. Liburd, Ruohan Liu and Teresia Nyoike, Entomology and Nematology Department, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. (oeliburd@ufl.edu) [V-11]

**2:15 Reduction of Nutsedge (*Cyperus* spp.) in Bell Pepper (*Capsicum annuum*) using Fallow Period Weed Management and Fumigation.** Michael R. Miller, Gainesville, UF, Peter J. Dittmar, Gainesville, UF, and Gary E. Vallad, Gulf Coast Research and Extension Center, UF. (pdittmar@ufl.edu) [V-12]

**2:30 Uptake of the pharmaceutical Triclosan in vegetables fertilized with a Triclosan-containing biosolids.** Submitted by: George H. Snyder, Distinguished Professor Emeritus, University of Florida, Lake Worth, FL. (ghsnyder@ufl.edu) [V-13]

**2:45 Vegetable Section Business Meeting, Guodong (David) Liu**

**3:00 Break**

## C-Student Best Oral Presentation Competition

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- 3:30 Effects of Plugging Methods on Strawberry Growth and Yield.** Emmanuel A. Torres-Quezada and B.M. Santos, Gulf Coast Research and Education Center, Balm. FL. (etorres1618@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-14]
- 3:45 Nitrogen Release from Controlled-Release Fertilizers in Seepage-Irrigated Tomato Production in South Florida.** Luther Carson, M. Ozores-Hampton, and K. Morgan, Southwest Florida Research and Education Center, Immokalee, FL. (lutherca@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-15]
- 4:00 The Effect of Nitrogen on Population Dynamics of the Chilli Thrips, *Scirtothrips dorsalis* (Thysanoptera: Thripidae), on Hydroponically Grown Jalapeño Pepper (*Capiscum annum*).** Daniel C. Diaz, D.R. Seal, O. E. Liburd, C. Mannion, and C. Waddill, Tropical Research and Education Center, University of Florida, Homestead, FL. (ddiaz18@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-16]
- 4:15 Comparison of Foliar and Root-dip Crop Protectants for Strawberry Establishment.** Ixchel M. Hernandez-Ochoa and Bielinski M. Santos, Gulf Coast Research and Education Center, Balm. FL. (bmsantos@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-17]
- 4:30 Assessing the Efficiency of a Mechanical Harvesting Aid Machine for Pepper Production.** Carlos A. Zambrano-Vaca, C.J. Mendez-Urbaz, and B.M. Santos, Gulf Coast Research and Education Center, Balm. FL. (bmsantos@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-18]
- 4:45 Improving Metam Potassium Lateral Movement with Integrate on Fumigated Beds.** Bielinski M. Santos and Tyler P. Jacoby, Gulf Coast Research and Education Center, Balm. FL. (tjacoby3@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-19]
- 5:00 Evaluation of Phosphorus Use Efficiency of Potato Cultivars.** Wei Chieh Lee and G.D. Liu, Department of Horticultural Sciences, University of Florida, Gainesville, FL. (weivickylee@ufl.edu) (Student Best Oral Presentation Competition Entry) [V-20]
- 5:15 End of afternoon session**
- 6:00 Industry Reception** (Boathouse; Included in paid conference registration)



# Tuesday Morning Session

**(10:00 – 11:00 a.m.)**

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9:50 Welcome and Introductions, David Liu

## D-Nutrition and Water Management

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- 10:00 **Using Controlled Release Fertilizer to Increase N Use Efficiency for Commercial Snap Bean Production under Center Pivot Irrigation in North Florida.** Ben Hogue, G.D. Liu, R. Hochmuth, and C. Vann, Department of Horticultural Sciences, University of Florida, Gainesville, FL. (bahumbug@ufl.edu) [V-21]
- 10:15 **Effect of the Application of Integrate and Irrigation Programs on Tomato Production.** Bielinski M. Santos and Teresa P. Salame-Donoso, Gulf Coast Research and Education Center, Balm. FL. (bmsantos@ufl.edu) [V-22]
- 10:30 **Effects of Early Season Nitrogen and Phosphorus Application on Strawberry Cultivars.** Bielinski M. Santos, Gulf Coast Research and Education Center, Balm. FL. (bmsantos@ufl.edu) [V-23]
- 10:45 **Weed and Root-Knot Nematode Management in an Organic High Tunnel.** F. Tabay Zamboni<sup>1</sup>, Carlene A. Chase<sup>2</sup>, and X. Zhao<sup>2</sup>; <sup>1</sup>“Luiz de Queiroz” College of Agriculture, Piracicaba-SP, Brazil, <sup>2</sup>University of Florida, Gainesville, FL. (cachase@ufl.edu) [V-24]
- 11:00 End of program
- 12:00 **Extension Luncheon** (*Sarasota H; Event ticket required*)

## Vegetable Section Posters:

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- Disease Management Programs for Basil Downy Mildew. [P-1-V]
- Evaluation of Eight Table Beet Varieties for Stand, Disease Resistance, and Cultural Characteristics. [P-2-V]
- Evaluation of Triazole and Strobilurin Fungicides, Alone and In Combination, for Control of *Exserohilum turcicum* on Sweet Corn. [P-3-V]
- Marketing Food Check-out Week® in Volusia County. [P-4-V]
- 2012 Pest, Disease and Nutrient Workshop. [P-5-V]
- Growing Mushrooms for Fun and Profit. [P-6-V]
- Urban Farming Program Demonstrates Sustainable Practices for Increasing Local Food Production. [P-7-V]

## Ornamental, Garden and Landscape Section:

Alex Bolques,  
Presiding  
([abol@ufl.edu](mailto:abol@ufl.edu))

Zilfina Rubio-Ames,  
Student Section Assistant  
([zrubioames@ufl.edu](mailto:zrubioames@ufl.edu))

# Monday Morning Session

(10:00 – 12:00 p.m.) Sarasota A

9:50 Welcome and Introductions, Alex Bolques

## A-Landscape Maintenance

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- 10:00 **Weed Control and Crop Safety Using Indaziflam Around Established Landscape Shrubs.** Robert H. Stamps and A.L. Chandler, Mid-Florida Research and Education Center, UF/IFAS. ([rstamps@ufl.edu](mailto:rstamps@ufl.edu)) [OGL-1]
- 10:15 **Developing a Continuing Education Program for the Limited Certification for Urban Landscape Commercial Fertilizer Applicators.** Susan Haddock, Hillsborough County Extension, UF/IFAS. ([szcrmchz@ufl.edu](mailto:szcrmchz@ufl.edu)) [OGL-2]
- 10:30 **Using Skype to Expand the Diagnostic Help Desk.** Jane Morse, Pinellas County Extension Service, UF/IFAS. ([jmorse@co.pinellas.fl.us](mailto:jmorse@co.pinellas.fl.us)) [OGL-3]
- 10:45 **Engaging Commercial Horticulture Professionals to Understand Why Landscapes Fail.** Susan Haddock, Hillsborough County Extension, UF/IFAS. ([szcrmchz@ufl.edu](mailto:szcrmchz@ufl.edu)) [OGL-4]

## B-Plant Growth and Genetics

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- 11:00 **Performance of Vinca (*Catharanthus roseus* L.) Grown in Binary Mixtures of Sugarcane Filter Press Mud and Vermiculite.** Nicholas Larsen, EREC, UF/IFAS, K. Moore, FLREC, UF/IFAS ([larsnick@ufl.edu](mailto:larsnick@ufl.edu)) [OGL-5]
- 11:15 **Cellulosic Water and Media Surfactant Reduce Time to Wilt for Potted Spathiphyllum.** Robert. H. Stamps and H. M. Savage, Mid-Florida Research and Education Center, UF/IFAS. ([rstamps@ufl.edu](mailto:rstamps@ufl.edu)) [OGL-6]
- 11:30 **Vapor Gard cold protection for Phalaenopsis orchid flowers in cold storage.** Robert T. McMillan, Jr., Kerry's Nursery, Homestead, FL, and J. Ford, Miller Chemical & Fertilizer Corporation, Hanover, PA. ([mcmillanroberttj@bellsouth.net](mailto:mcmillanroberttj@bellsouth.net)) [OGL-7]
- 11:45 **An Exotic Orchid, *Eulophia graminea*, Invades Charlotte County.** Ralph E. Mitchell, Charlotte County Extension, UF/IFAS. ([18](mailto:ralph.mitchell@charlot-</a></p></div><div data-bbox=)

tefl.com) [OGL-8]

**12:00 End of Morning Session/Lunch on your own** (at Currents Restaurant or Hurricane Hut)

## Monday Afternoon Session

(1:30 – 4:30 p.m.)

**1:20 Welcome and Introductions, Alex Bolques**

### C-Student Competitions, Plant Growth and Genetics

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- 1:30 A Comparison of Suspected “Maggie” Roses Utilizing Randomly Amplified Polymorphic DNA (RAPD) Analysis.** Ashley Wilson and N. Morvillo, Florida Southern College, Lakeland, FL (anw\_07@hotmail.com) (Student Best Oral Presentation Competition Entry) [OGL-9]
- 1:45 Management of Rugose Spiraling Whitefly (*Aleurodicus rugioperculatus*) in south Florida Landscape.** Siavash Taravati and C. Mannion, TREC, UF/IFAS. (siavashtaravati@ufl.edu) (Student Best Oral Presentation Competition Entry) [OGL-10]
- 2:00 Estimating Individual Customer and Utility-Wide Residential Irrigation Demand in southwest Florida.** Mackenzie Boyer and M. Dukes, and Biological Engineering Department, UF/IFAS. (mjboyer@ufl.edu) (Student Best Oral Presentation Competition Entry) [OGL-11]
- 2:15 Genetic Analysis of ‘Pink Pet’ and Putative Parent Species via RAPD PCR.** Mitch Varnum, M. Manners and N. Morvillo, Florida Southern College, Lakeland, FL. (mvarnum@mocs.flsouthern.edu) (Student Best Paper Presentation Competition Entry) [OGL-12]

### D-Residential and Youth Horticulture

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- 2:30 Consumers and Their Florida Yard: Perceptions, Practices and Closing the Gap.** Liz Felter, Orange County Extension, UF/IFAS, P. Monaghan, Department of Agricultural Education & Communications, Gainesville, UF/IFAS. (lfelter@ufl.edu) [OGL-13]
- 2:45 Scan And Learn: QR Codes In The Florida Botanical Gardens.** Theresa Badurek, Pinellas County Extension, UF/IFAS (tbadurek@co.pinellas.fl.us) [OGL-14]
- 3:00 Ornamental, Garden, and Landscape Section Business Meeting: Karen Stauderman**

**3:15 Break**

**3:30 You Be Jammin' 4-H Day Camp.** Matthew Orwat, J. Dillard and J. Corbus, Washington County Extension, UF/IFAS. (mJORWAT@ufl.edu) [OGL-15]

**3:45 Gardening for Grades Workshop in Duval County.** Terry DelValle. Duval County Extension, UF/IFAS, L.B. Gaskalla, Executive Director Florida Ag in the Classroom, Gainesville, FL, J.B. Kyle, Regional Representative Nutrients for Life Foundation, Orlando, FL, and A.E.Toelle, Duval County Extension, UF/IFAS (DELVALLE@coj.net) [OGL-16]

**4:00 Garden Talk Talk Talk Talk Talk.** Lynn Barber, Hillsborough County Extension, UF/IFAS (labarber@ufl.edu) [OGL-17]

**4:15 Teaching tree management programs to the Miami Downtown Development Authority's (DDA) - Downtown Enhancement Team (DET), a successful approach!** Henry Mayer, Miami-Dade Extension, UF/IFAS, and J. Rodero, Miami Downtown Development Authority (DDA), Miami, FL. (hmayer@ufl.edu) [OGL-18]

**4:30 End of afternoon session**

**6:00 Industry Reception** (*Boathouse; Included in paid conference registration*)

## **Ornamental, Garden, and Landscape Section Posters:**

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Educating Urban Youth on Horticulture as a Profession or Hobby through Fair Participation. [P-8-OGL]

Hillsborough County Youth Learn by Doing-Producing Wholesale Plants. [P-9-OGL]

Meeting the Need for CEUs Using Videos by Appointment. [P-10-OGL]

Florida-Friendly Landscaping™ Program Follow Up Survey in Northeast Florida. [P-11-OGL]

**Krome Memorial Institute:** Mercy Olmstead,  
Presiding  
([mercyi@ufl.edu](mailto:mercyi@ufl.edu))

Lidwine Hyppolite,  
Student Section Assistant  
([lhagroind15@ufl.edu](mailto:lhagroind15@ufl.edu))

# Monday Afternoon Session

(1:30 – 4:15 p.m.) Sarasota B

## A-Pest and Disease Advances in Fruit Crops

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- 1:20 Welcome and Introductions, Mercy Olmstead**
- 1:30 Downy Mildew Disease Resistance in F1 of C351-1 x ‘Chardonnay’.** X. Xu, J. Lu, Z. Ren, and F. Bradley, Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee, FL. ([xia.xu@fam.u.edu](mailto:xia.xu@fam.u.edu)) [K-1]
- 1:45 Development of Pierce’s Disease (PD) Tolerant Table Grapes for the Florida Viticulture Industry.** Z. Ren, J. Lu, X. Xia, and F. Bradley, Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee, FL. ([zxren@hotmail.com](mailto:zxren@hotmail.com)) [K-2]
- 2:00 Evaluation of Site-specific Management Tactics for Control of Twospotted Spider Mites, *Tetranychus urticae* (Koch) in strawberries.** O. Liburd, R. Liu, and T. Nyoike, Entomology and Nematology Department, University of Florida, Gainesville, FL. ([oeliburd@ufl.edu](mailto:oeliburd@ufl.edu)) [K-3]

## B-Fruit Crop Development

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- 2:15 Molecular and Biochemical Analysis of Water Stress-induced Responses in Grape.** R. Katam and J. Suarez, Department of Biological Sciences, College of Science and Technology, Florida A&M University, Tallahassee, FL. ([ramesh.katam@gmail.com](mailto:ramesh.katam@gmail.com)) [K-4]
- 2:30 Flowering Time and Overlapping of Selected Avocado (*Persea americana*) Cultivars in Homestead, FL.** P. Antione, R. Timarco, J. Crane, and W. Montsás, Department of Horticultural Sciences, Tropical Research and Education Center, University of Florida, Homestead, FL. ([jhcr@ufl.edu](mailto:jhcr@ufl.edu)) [K-5]
- 2:45 Physiochemical Evaluation of Casturi Mango.** T. Ayala-Silva, National Germplasm Repository System, Miami, FL, H. Gubbuk, Akdeniz University, Turkey, and C. Urbina, Florida International University, Miami, FL. ([Tomas.Ayala-Silva@ARS.USDA.GOV](mailto:Tomas.Ayala-Silva@ARS.USDA.GOV)) [K-6]
- 3:00 Characterization of the Current Haitian Mango Industry.** L. Hyppolite

and F. Roka, Department of Agricultural and Biological Engineering, Southwest Research and Extension Center, Immokalee, FL. (ludmire@yahoo.fr) (Student Best Oral Presentation Competition Entry) [K-7]

**3:15 Break**

**3:30 Krome Memorial Institute Business Meeting: Peter Dittmar**

**3:45 Purple-Fruited Pitanga (*Eugenia uniflora* L.): Crop Development and Commercialization.** John L. Griffis, Jr.<sup>1</sup>, Malcolm M. Manners<sup>2</sup>, Carl E. Sams<sup>3</sup>, Ty G. McDonald<sup>4</sup>, and Theodore J. Radovich<sup>4</sup>. <sup>1</sup>Marine and Ecological Sciences Department, Florida Gulf Coast University, Fort Myers, FL, <sup>2</sup>Horticulture Department, Florida Southern College, Lakeland, FL, <sup>3</sup>Department of Plant Sciences, University of Tennessee, Knoxville, TN, and <sup>4</sup>Tropical Plant and Soil Sciences Department, University of Hawai'i – Manoa, Honolulu, HI. (jgriffis@fgcu.edu) [K-8]

**4:00 Peach Orchard Establishment and Production Budgets for Florida.** Kim Morgan, Department of Agricultural Economics, Mississippi State University, Mississippi State, MS, and M. Olmstead, Horticultural Sciences Department, UF/IFAS, Gainesville, FL. (mercyl@ufl.edu) [K-9]

**4:00 Evaluation of Freeze Forecasts During a Two Year Period.** G.K. England, Lake County Extension, UF/IFAS, Tavares, FL. (gke@ufl.edu) [K-10]

**4:15 End of afternoon session/End of program**

**6:00 Industry Reception** (*Boathouse; Included in paid conference registration*)

**Handling & Processing Section:** Cecilia Nunes,  
Presiding  
([mariacecilia@usf.edu](mailto:mariacecilia@usf.edu))

Francisco Loayza,  
Student Section Assistant  
([francisco.loayza@ufl.edu](mailto:francisco.loayza@ufl.edu))

# Monday Morning Session

(10:00 – 12:30 p.m.) Sarasota C

9:50 Welcome and Introductions, Cecilia Nunes

## A-Student Competitions

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- 10:00 Enzyme Based Method for Rapid Detection of *E. coli* K12 during Lag Phase or Early Exponential Phase.** Zhou Yang, M.D. Danyluk, and J.I. Reyes-De-Corcuera, UF/IFAS Citrus Research & Education Center, Lake Alfred, FL. ([ymmzyz@ufl.edu](mailto:yymmzyz@ufl.edu)) (Student Best Oral Presentation Competition Entry) [HP-1]
- 10:15 The Fate of Indicator Microorganisms on Oranges Following the Application of Contaminated Foliar Sprays.** Gabriel K. Mootian, L.M. Friedrich, T.M. Spann, D.W. Schaffner, and M.D. Danyluk\*, UF/IFAS Citrus Research & Education Center, Lake Alfred, FL. ([gmootian@eden.rutgers.edu](mailto:gmootian@eden.rutgers.edu)) (Student Best Oral Presentation Competition Entry) [HP-2]
- 10:30 *Salmonella* Survival in Florida Tomato Field Soils Under Different Simulated Environmental Conditions.** Angela M. Valadez and M.D. Danyluk, UF/IFAS Citrus Research & Education Center, Lake Alfred, FL. ([valadeza@ufl.edu](mailto:valadeza@ufl.edu)) (Student Best Oral Presentation Competition Entry) [HP-3]
- 10:45 A Microbial Comparison of Ready-To-Eat (RTE) Conventional and Organic Spinach and Arugula.** Jessica Lepper, K. Schneider, and R.M. Goodrich, Food Science and Human Nutrition Department, University of Florida, Gainesville, FL. ([jal20xox@ufl.edu](mailto:jal20xox@ufl.edu)) (Student Best Oral Presentation Competition Entry) [HP-4]
- 11:00 Effect of Date of Harvest on the Soluble Solids Content and Sugar Profiles of Commercial Strawberry Cultivars and Advanced Selections from the University of Florida Breeding Program.** Yanina D. Perez Cayo and V.M. Whitaker, University of Florida Gulf Coast Research and Education Center, Horticultural Sciences, Wimauma, FL., and M.C.N. Nunes, Department of Cell Biology, Microbiology and Molecular Biology, University of South Florida, Tampa, FL. ([yperez82@ufl.edu](mailto:yperez82@ufl.edu)) (Student Best Oral Presentation Competition Entry) [HP-5]
- 11:15 Postharvest Quality of Table Stock Potatoes in Response to Drip**

**Irrigation and Harvest Time.** Mildred Makani, S. Sargent, L. Zotarelli, D. Huber, C. Sims, and J. Reyes-Cabrera, University of Florida, Department of Horticultural Sciences/IFAS, Gainesville, FL. (mmakani@ufl.edu) (Student Best Oral Presentation Competition Entry) [HP-6]

**11:30 Uniformity of Color Development of Mature-Green Tomatoes Treated with Hot-Water.** Francisco E. Loayza, Horticultural Science Department, University of Florida, Gainesville, FL; A.H. Simonne, Family, Youth & Consumer Science Department, University of Florida, Gainesville, FL; E.A. Baldwin, USDA-ARS U.S. Horticultural Research Laboratory, Fort Pierce, FL, and J.K. Brecht, Horticultural Science Department, University of Florida, Gainesville, FL. (francisco.loayza@ufl.edu) (Student Best Oral Presentation Competition Entry) [HP-7]

**11:45 Plant Physiological Response of Strawberry Fruit to ClO<sub>2</sub> Gas Treatment during Postharvest Storage.** Zhe Wang, J. Narciso, A. Biotteau, A. Plotto, E. Baldwin, and J. Bai, USDA, ARS, USHRL, Ft. Pierce, FL. (Liz.Baldwin@ARS.USDA.GOV) (Student Best Oral Presentation Competition Entry) [HP-8]

**12:00 Influence of Clamshell Position and Size on Strawberry Cooling Rate Using Forced-Air Cooling.** Marcelo Carnelossi, S. Sargent, and A. Berry. University of Florida, Department of Horticultural Sciences/IFAS, Gainesville, FL. (carnelossi@ufl.edu) (Student Best Oral Presentation) [HP-9]

**12:15 Low Temperature Storage of Papaya Fruit (*Carica papaya* L.) and Effect on Postharvest Quality.** Vanessa C. Caron, G.M Chitolina, and A.P. Jacomino, University of São Paulo, Escola Superior de Agricultura Luiz de Queiroz, Department of Plant Science, São Paulo, Brazil. (vanessaccaron@gmail.com) (Student Best Oral Presentation Competition Entry) [HP-10]

**12:30 End of Morning Session/Lunch on your own** (at Currents Restaurant or Hurricane Hut)

## Monday Afternoon Session

(1:45 – 4:30 pm)

**1:35 Welcome and Introductions, Cecilia Nunes**

### B-Postharvest Technology

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**1:45 Impact Evaluation during Sorting and Classification in Fresh Market Tomatoes.** Marcos D. Ferreira, L. Gustavo, P.C. Poliana, and C. Spricigo. CNPDIA, Embrapa Instrumentação, São Carlos, Brazil. (marcosferreira@cnpdia.embrapa.br) [HP-11]

**2:00 Thermal Behavior of a Pallet of Fresh Produce During Distribution.** J.P.



Emond and M. Germain, Electro-Optical Systems Laboratory, Georgia Tech Research Institute, Atlanta, GA. (jeanpierre.emond@gtri.gatech.edu) [HP-12]

- 2:15 The Counteractive Effect of the Sensor Housing on Unit Sensitivity Across a Dynamic Temperature Profiles.** Ricardo Badia-Melis, T. Jiménez-Ariza, and P. Barreiro, Laboratorio de Propiedades Físicas y Tecnologías Avanzadas en Agroalimentación, Universidad Politécnica de Madrid, Madrid, Spain, J. Garcia-Hierro and J.I.R. Villalba, Sensors Technology Laboratory, Centro Nacional de Investigaciones Metalúrgicas, Madrid Spain, and L. Ruiz-Garcia, Departamento de Ingeniería Rural, ETSI Agrónomos, Universidad Politécnica de Madrid, Spain. (ricardobadia@live.com) [HP-13]

## C-Postharvest Quality

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- 2:30 Secondary Metabolites in *Poncirus trifoliata* and Some Citrus Hybrids.** S. Deterre, G. McCollum, C. Leclair, J. Bai, J. Manthey, S. Raithore, E. Baldwin, and A. Plotto, USDA-ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL. (Anne.Plotto@ARS.USDA.GOV) [HP-14]
- 2:45 Volatile Profile Comparison of USDA Sweet-Orange-Like Hybrids and Standard Sweet Oranges.** Jinhe Bai, E. Baldwin, R. Driggers, J. Hearn, and E. Stover. ARS-USDA-U.S. Horticultural Research Laboratory, Fort Pierce, FL. (Liz.Baldwin@ARS.USDA.GOV) [HP-15]
- 3:00 Handling & processing Section Business Meeting: Cecilia Nunes**
- 3:15 Break**
- 3:30 The HPLC-Fluorescence Detection of Coumarins in ‘Hamlin’ Sweet Orange and ‘Marsh’ Grapefruit Leaf Cankers.** John A. Manthey and J.A. Narciso, U.S. Department of Agriculture, Agricultural Research Service, U.S. Horticultural Research Laboratory, Ft. Pierce, FL. (John.Manthey@ARS.USDA.GOV) [HP-16]
- 3:45 The Color-Add Process as Applied in Florida.** David J. Hall. (djhalla@iag.net) [HP-17]
- 4:00 Orange Juice and Hesperidin Promote Differential Innate Immune Response on Macrophages Ex Vivo.** G.K.Z.S. Dourado, L.C.A. Ribeiro, I.Z. Carlos, and T.B. Cesar, Faculty of Pharmaceutical Sciences, Sao Paulo State University, Araraquara, SP, Brazil. (tcesar@fcfar.unesp.br) [HP-18]
- 4:15 Postharvest Quality of Citrus Related to Impacts Incidence to Manual and Aided Harvest in Brazil.** Poliana Cristina Spricigo, M. Miranda, M.D. Ferreira, CNPDIA, Embrapa Instrumentação, São Carlos, Brazil. (poliana-spricigo@yahoo.com.br) [HP-19]
- 4:30 Fresh Orange Juice and Commercially Pasteurized: Is There Any**

**Difference in the Metabolism of the Flavonoid Compounds?** Thais Cesar, J.Q.D. Silveira\*, Faculty of Pharmaceutical Sciences, Sao Paulo State University, Araraquara, SP, Brazil, and J. Manthey, ARS-USDA-U.S. Horticultural Research Laboratory, Fort Pierce, FL. (tcesar@fcfar.unesp.br) [HP-20]

**4:45 End of afternoon session**

**6:00 Industry Reception** (Boathouse; Included in paid conference registration)

## Tuesday Morning Session

**(10:00 – 12:00 p.m.)**

**9:50 Welcome and Introductions, Cecilia Nunes**

### C – Postharvest Quality

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**10:00 Influence of Harvest Time on Quality of Valencia Orange and Juice – the 2<sup>nd</sup> Season Results.** Elizabeth Baldwin, J. Bai, G. McCollum, J. Manthey, W. Widmer, G. Luzio, R. Cameron, A. Plotto, and J. Narciso. ARS-USDA-U.S. Horticultural Research Laboratory, Fort Pierce, FL. (Liz.Baldwin@ARS.USDA.GOV) [HP-21]

**10:15 Effect of Chemical Compounds on Electronic Tongue Response to Citrus Juices.** Smita Raithore, J. Bai, A. Plotto, and E. Baldwin. (Liz.Baldwin@ARS.USDA.GOV) [HP-22]

**10:30 Influence of Field Temperatures on the Moisture and Sugar Contents of Sweetcorn.** Astrid Delgado, Department of Cell Biology, Microbiology and Molecular Biology, University of South Florida, Tampa, FL., Y. Yagiz, Food Science and Human Nutrition Department, University of Florida, Gainesville, FL., J.P. Emond, Georgia Institute of Technology, Electro-Optical Systems Laboratory, Atlanta, GA, and M.C.N. Nunes, Department of Cell Biology, Microbiology and Molecular Biology, University of South Florida, Tampa, FL. (mariacecilia@usf.edu) [HP-23]

**10:45 Update on Sensory Evaluation of University of Florida Strawberry Selections.** Anne Plotto, ARS-USDA-U.S. Horticultural Research Laboratory, Fort Pierce, FL., V. Withaker, and C. Chandler, University of Florida Gulf Coast Research and Education Center, Horticultural Sciences, Wimauma, FL. (Anne.Plotto@ARS.USDA.GOV) [HP-24]

## D – Microbiology

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- 11:00 Method to Detect Microbial Contamination of Produce by Concentrating Wash Water.** Sonia Magaña, S. Schlemmer, S. Leskinen, E. Kearns, and D. Lim. Department of Cell Biology, Microbiology and Molecular Biology, University of South Florida, Tampa, FL. (lim@usf.edu) [HP-25]
- 11:15 Early Reactions of Fresh Citrus Packers to the Presence of Citrus Black Spot in Florida.** Mark A. Ritenour, Indian River Research and Education Center, UF/IFAS, Fort Pierce, R. Muraro, Citrus Research and Education Center, UF/IFAS, Lake Alfred, and C. Hu, Indian River Research and Education Center, UF/IFAS, Fort Pierce. (ritenour@ufl.edu) [HP-26]
- 11:30 Dissociation of Orange Juice Pectins with Sodium Dodecyl Sulfate for Determination of Molecular Size and Degree of Esterification.** Gary Luzio, A. Galant, and R. Cameron, ARS-USDA-U.S. Horticultural Research Laboratory, Fort Pierce, FL. (Gary.Luzio@ARS.USDA.GOV) [HP-27]
- 11:45 Ability of Harvesters to Identify and Exclude Grapefruit with Symptoms of Citrus Canker.** Mark Ritenour, University of Florida, Indian River Research and Education Center, Fort Pierce, FL. (ritenour@ufl.edu) [HP-28]
- 12:00 End of program**
- 12:00 Extension Luncheon** (*Sarasota H; Event ticket required*)

**Natural Resources Section:** Richard Tyson,  
Presiding  
(rvt@ufl.edu)

Prissy Fletcher,  
Student Section Assistant  
(treehugger@ufl.edu)

# Monday Morning Session

(10:30 – 11:45 am) Sarasota D

10:20 Welcome and Introductions, Richard Tyson

## A-Horticulture and Environment

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- 10:30 In vitro growth of *Jatropha curcas* cell cultures in microgravity.** Alba Myers<sup>1</sup>, Ania Pinares<sup>1</sup>, Wagner A. Vendrame<sup>1</sup>. <sup>1</sup>Environmental Horticulture Department, University of Florida, Tropical Research and Education Center, 18905 SW 280th St, Homestead, FL 33031- 3314. (a0811@ufl.edu) [NR-1]
- 10:45 Differential gene expression in *Jatropha curcas* in vitro cultures exposed to microgravity.** Ania Pinares<sup>1</sup>, Wagner A. Vendrame<sup>1</sup>. <sup>1</sup>Environmental Horticulture Department, University of Florida, Tropical Research and Education Center, 18905 SW 280th St, Homestead, FL 33031- 3314. (apinares@ufl.edu) [NR-2]
- 11:00 Farm-Level Phosphorus-Reduction Best Management Practices in the Everglades Agricultural Area.** R.W. Rice<sup>1</sup>, T.A. Lang<sup>2</sup>, S. Daroub<sup>2</sup>, L.E. Baucum<sup>3</sup>. <sup>1</sup>UF/IFAS Extension Palm Beach County, West Palm Beach, FL, <sup>2</sup>Everglades Research and Education Center, Belle Glade, FL, <sup>3</sup>UF/IFAS Extension Hendry County, Labelle, FL. (rwr@ufl.edu) [NR-3]
- 11:15 Environmental and Economic Incentives and Consumers' Preferences for Ornamental Plants.** H. Khachatryan. Mid-Florida Research and Education Center, Apopka, FL. (hayk@ufl.edu) [NR-4]
- 11:30 Perceptions of Soil Testing Among Horticultural Farmers In The United States.** C.M. Hanlon, M. E. Swisher, R.L. Koenig, and M.W. Clark. Interdisciplinary Ecology, University of Florida, Gainesville, FL. (chanlon789@gmail.com) [NR-5]
- 11:45 End of Morning Session/Lunch on your own (at Currents Restaurant or Hurricane Hut)**

# Monday Afternoon Session

(1:30 – 5:00 pm)

- 1:20     **Welcome and Introductions, Richard Tyson**
- 1:30     **Good Bug, Bad Bug Identification Using Team Teaching and Live Video Demonstration.** M.E. Henry<sup>1</sup>, L. Osborne<sup>2</sup>, H. Smith<sup>3</sup>. <sup>1</sup>UF/IFAS Extension Polk County, Bartow, FL, <sup>2</sup>Mid Florida Research and Education Center, Apopka, FL, <sup>3</sup>Gulf Coast Research and Education Center, Wimauma, FL. (mbhenry@ufl.edu) [NR-6]

## B-Producing Wetland Plants and Invasive Species Control

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- 1:45     **Growth of Duckweed (*Lemna* sp.) in Different Sources of Water.** K.A. Moore, L.A. Gettys, L.E. Fisher, and W. Orozco Obando, Fort Lauderdale Research and Education Center, Ft. Lauderdale, FL. (klock@ufl.edu) [NR-7]
- 2:00     **Effect of Sediment Type and Fertility Level on Growth of Swamp Rosemallow (*Hibiscus grandiflorus* Michx.)** L.A. Gettys, K.A. Moore, and W. Orozco Obando, Fort Lauderdale Research and Education Center, Ft. Lauderdale, FL. (lgettys@ufl.edu) [NR-8]
- 2:15     **CISMA – Resource Networking to Control Invasive Plants and Animals.** M. Lollar<sup>1</sup>, G. Milch<sup>1</sup>, and D. Mudge<sup>2</sup>. <sup>1</sup>UF/IFAS Extension Seminole County, Sanford, FL, <sup>2</sup>UF/IFAS Extension Orange County, Orlando, FL. (mlollar@ufl.edu) [NR-9]
- 2:30     **Optimizing Sprinkler Irrigation Cold Protection in Strawberries: Two Years of Field Results.** M.I. Zamora<sup>1</sup>, M.D. Dukes<sup>1</sup>, C.D. Stanley<sup>2</sup>. <sup>1</sup>Agricultural and Biological Engineering Department, University of Florida, Gainesville, FL 32611, <sup>2</sup>Gulf Coast Research and Education Center, University of Florida, IFAS, Wimauma, FL 33598. (mzamora@gmail.com) (Student Best Oral Presentation Competition Entry) [NR-10]
- 2:45     **Experimental Research Informs Control of Mexican Petunia (*Ruellia simplex*) in Natural Areas and Home Gardens.** Christine Wiese, C.R. Adams, and A.M. Smith, Department of Environmental Horticulture, University of Florida, Gainesville, UF. (hibiscus@ufl.edu) [NR-11]
- 3:00     **Natural Resources Section Business Meeting: Barton Wilder**
- 3:15     **Break**

## C-Local Food Systems

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- 3:30 Local Food Systems in Florida: Consumer Characteristics and Economic Impacts.** Alan W. Hodges and T.J. Stevens, Food and Resource Economics Department, University of Florida, Gainesville, FL. (awhodges@ufl.edu) [NR-12]
- 3:45 Agri-tourism and Local Foods at Long & Scott Farms.** H. Scott, R. Ryan, H. Veilleux. Long & Scott Farms, Mt. Dora, FL. (hank@longandscottfarms.com) [NR-13]
- 4:00 Developing Regional Food Hubs in Central Florida.** J. Rife<sup>1</sup>, B. O'connor<sup>2</sup>. <sup>1</sup>East End Market, Orlando, FL, <sup>2</sup>Environmental Growth Management, Rollins College, Winter Park, FL. (john@eastendmkt.com) [NR-14]
- 4:15 Local Food Systems Panel Discussion.** Alan Hodges, H. Scott, and J. Rife. [NR-15]
- 4:30 End of afternoon session**
- 6:00 Industry Reception** (*Boathouse; Included in paid conference registration*)

## Citrus Section:

**Tim Gaver,**  
Presiding  
([timgaver49@aol.com](mailto:timgaver49@aol.com))

**Jiaqi Yan,**  
Student Section Assistant  
([yanj@ufl.edu](mailto:yanj@ufl.edu))

# Monday Morning Session

*(10:00 – 12:00 p.m.) Sarasota EF*

**9:50 Welcome and Introductions, Tim Gaver**

## A-Physiology and Nutrition

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- 10:00 Cool Temperature and Water Deficit Interact During Floral Induction in Citrus.** E.J. Chica and L. Gene Albrigo, UF/ IFAS- CREC, Lake Alfred, FL. ([albrigo@ufl.edu](mailto:albrigo@ufl.edu)) [C-1]
- 10:15 Citrus Tree Decline and Preharvest Drop in Florida: Historical Versus HLB Induced.** L. Gene Albrigo, UF/IFAS - CREC, Lake Alfred, FL. ([albrigo@ufl.edu](mailto:albrigo@ufl.edu)) [C-2]
- 10:30 Rehabilitation Of HLB Infected Citrus Trees Using Severe Pruning And Nutritional Sprays.** Robert Rouse, UF/IFAS - SWFREC, Immokalee, FL. ([rrouse@ufl.edu](mailto:rrouse@ufl.edu)) [C-3]
- 10:45 Maintaining Health and Fruit Production of HLB infected Citrus Trees with Nutritional Therapy.** Robert Rouse, UF/IFAS - SWFREC, Immokalee, FL. ([rrouse@ufl.edu](mailto:rrouse@ufl.edu)) [C-4]
- 11:00 CMNP Induced Oxidative Changes in Valencia: I Flavedo Tissue.** Naveen Kumar and R.C. Ebel, UF/IFAS - SWFREC, Immokalee, FL. ([naveenkumar@ufl.edu](mailto:naveenkumar@ufl.edu)) [C-5]
- 11:15 CMNP Induced Oxidative Changes in Valencia: II Abscission Zone.** Naveen Kumar and R.C. Ebel, UF/IFAS - SWFREC, Immokalee, FL. ([naveenkumar@ufl.edu](mailto:naveenkumar@ufl.edu)) [C-6]
- 11:30 Collection and Display of Site-specific Weather Data in Support of the Florida Citrus Industry.** K. Morgan, UF/IFAS - SWFREC, Immokalee, FL and William R. Lusher, UF/IFAS - IFAS Information Technology, Gainesville, FL. ([rlusher@ufl.edu](mailto:rlusher@ufl.edu)) [C-7]
- 11:45 Water and Nutrient Uptake in Citrus Open Hydroponic Systems.** Davie

M. Kadyampakeni, K. T. Morgan, UF/IFAS – SWFREC, Immokalee, FL. and A. W. Schumann, UF/IFAS – CREC, Lake Alfred, FL. (dkadyampakeni@ufl.edu) [C-8]

**12:00** **End of Morning Session/Lunch on your own** (at Currents Restaurant or Hurricane Hut)

## Monday Afternoon Session

(1:30 – 5:15pm)

**1:20** **Welcome and Introductions, Tim Gaver**

**1:30** **Future Prospects of Advanced Citrus Production and Harvesting Equipment Systems for Higher Density Grove Architectures.** Tom Burks, N. Aldisory, UF/IFAS - Gainesville, FL, W.S. Castle, UF/IFAS - CREC, Lake Alfred, FL and L. Jones, Gardinier Florida Citrus, Inc, Indiantown, FL (tburks@ufl.edu) [C-9]

### B-Pest Management

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**1:45** **Effects of Microbial and Synthetic Insecticidal Sprays On Asian Citrus Psyllid And Citrus Leafminer In Mature Orange Trees.** Jawwad A. Qureshi, B. Kostyk and P.A. Stansly, UF/IFAS - SWFREC, Immokalee, FL. (jawwadq@ufl.edu) [C-10]

**2:00** **Extension Model To Improve Asian Citrus Psyllid Control In Citrus Health Management Areas (CHMAs).** Moneen M. Jones and P.A. Stansly UF/IFAS - SWFREC, Immokalee, FL. (mmjones2@ufl.edu) [C-11]

**2:15** **Water Holding Capacity Of WashGard Spray And Effect On Efficacy Of Copper Hydroxide Treatments.** Wilbur Widmer, C. Narciso, and J. Narciso, USDA/ARS – USHRL, Ft. Pierce, FL. (Wilbur.Widmer@ars.usda.gov) [C-12]

**2:30** **Canker Control Using Commercially Available Chemical Compounds.** Naveen Kumar and R.C. Ebel, UF/IFAS - SWFREC, Immokalee, FL. (naveenkumar@ufl.edu) [C-13]

### C-HLB Management

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**2:45** **Using citrus leaf starch content to predict Huanglongbing disease with and without a gold standard.** Douglas Whitaker, P. Gonzalez, P. Roberts, K. Hendricks, F. Roman, M. Giurcanu, L. Young and E. Etxeberria, UF/IFAS - CREC, Lake Alfred, FL. (whitaker@ufl.edu) [C-14]

**3:00** **Citrus Section Business Meeting, Barrett Gruber**



**3:15 Break**

**3:30 Transgenic Expression of Vitis MybA1 in Citrus Results in Variable Anthocyanin Expression and is Not Suitable as a Selectable Marker.**

Ed Stover, USDA/ARS - USHRL, Ft. Pierce, FL, Y. Avila, UF/IFAS - IRREC, Ft. Pierce, FL, J.T. Li and D. Gray, UF/IFAS - MFREC, Apopka, FL. (Ed.Stover@ars.usda.gov) [C-15]

**3:45 Evaluation of Spanish-language Component For Citrus GlobalGAP Training Performed By UF/IFAS Indian River Citrus Extension Working Group.**

Christine A. Kelly-Begazo, UF/IFAS - Indian River County Extension, Vero Beach, FL, K. Lenfesty, T. Gaver, UF/IFAS - St. Lucie County Extension, Ft. Pierce, FL and M. Ritenour, UF/IFAS - IRREC, Ft. Pierce, FL. (ckellybe@ufl.edu) [C-16]

**4:00 Analysis of Demographic Information Offered By Citrus Packinghouse and Field Workers In The Indian River Citrus Area.**

Christine A. Kelly-Begazo, UF/IFAS - Indian River County Extension, Vero Beach, FL, K. Lenfesty, T. Gaver, UF/IFAS - St. Lucie County Extension, Ft. Pierce, FL and M. Ritenour, UF/IFAS - IRREC, Ft. Pierce, FL. (ckellybe@ufl.edu) [C-17]

**4:15 Consequential Interaction of Plant Nutrients with HLB Disease of Citrus.**

Arnold Schumann, UF/IFAS - CREC, K. Mann, The Mosaic Company, Plymouth, MN, R. Brlansky, L. Waldo, UF/IFAS-CREC and T. Spann, California Avocado Commission, Irvine, CA. (schumaw@ufl.edu) [C-18]

**4:30 End of afternoon session**

**6:00 Industry Reception** (*Boathouse; Included in paid conference registration*)

## **Tuesday Morning Session**

**(10:00 – 11:45 a.m.)**

### ***D-Panel Discussion***

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**9:50 Welcome and Introductions,** Barrett Gruber VP-elect (bgruber@ufl.edu)

**10:00 Advanced Production Systems: Current Practices & Future Directions.**

Barrett Gruber, UF/IFAS – IRREC, Ft. Pierce, FL, Kelly Morgan, UF/IFAS – SWFREC, Immokalee, FL, Arnold Schumann and Bill Castle, UF/IFAS – CREC, Lake Alfred, FL.

**11:45 End of program**

**12:00 Extension Luncheon** (*Sarasota H; Event ticket required*)

## *Extension Luncheon Speakers*

**Dr. Daniel Cantliffe, 2012**

**Mr. Ted Campbell, 2011**

**Mr. Kevin Morgan, 2010**

**Dr. Jim Horne, 2009**

**Mr. Armando Campos, 2008**

**Mr. Ted Winsberg, 2007**

**Mr. Chuck Obern, 2006**

**Dr. Larry Arrington, 2005**

# In-Service Training

## Tuesday Afternoon Session

### *Sarasota EF*

**IFAS' Role in BMP Implementation: Why is it important?:** Brian Boman,  
Co-organizers (*bmsantos@ufl.edu*)

### **Perspective: Past, Present, and Future**

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- 1:30**    **Message from IFAS Administration: Accurate irrigation water use data.**  
Joan Dusky/Nick Place
- 1:45**    **History of BMP/TMDL FL Watershed Restoration Act.** Darrell Smith
- 2:00**    **EPA Numeric Criteria: Where we stand now.** Mark Clark
- 2:20**    **FDEP: What is expected from Florida Agriculture Concerning TMDLs, BMAPs, and BMPs.** Drew Bartlett
- 2:40**    **FDACS: Statewide Staff, Adoption Goals, Cost Share, OAWP - IFAS collaboration, water assessment.** Rich Budell
- 3:00**    **Break**

### **What Needs to be Done**

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- 3:15**    **Grower Group Perspectives on What Needs to be Done: Panel Discussion**  
FFVA - Kerry Kates  
Cattlemen Association - Jim Handly  
Florida Farm Bureau - Charlie Shinn
- 4:00**    **How can IFAS interact with WMDs on BMP Implementation?: Panel Discussion**  
SWFWMD - Carol Estes  
SRWMD - Kevin Wright  
SJRWMD - Vince Singleton  
SFWMD - Jeff Sumner
- 4:45**    **Introduction to Basin Area Teams.** Joan Dusky
- 5:00**    **Adjourn for the day.**

# Wednesday Morning Session

## *Salon AB*

### IFAS Plan for Future

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- 8:00 Basin Area Teams: Composition, Function, Charge.** Joan Dusky, DEDs
- 8:30 BMP Manuals and Quality Assurance Programs.** Jessica Stempien
- 8:45 Tracking BMP Enrollment & Accessing Data.** Holly Stone

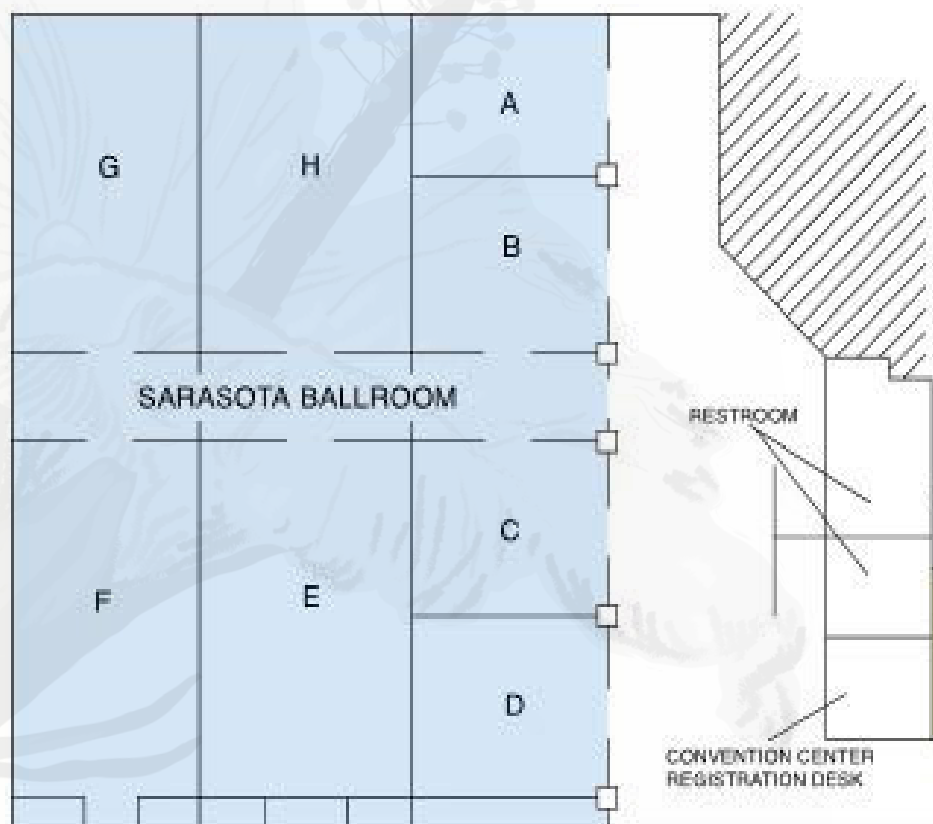
### Tools for Implementation

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- 9:15 Success Stories: Discussion Panel with Agents**  
**Meeting with Policy Makers, BMAP Development.** Gene McAvoy  
**FAWN, Irrigation Scheduling Models, Soil Moisture Sensors.** Mace Bauer  
**Conducting Fertilizer Rate Demos, Nutrient movement in Soils, Sap tests, Dye tests.** Bob Hochmuth  
**Nursery Weigh Cradles/Overhead/Drip/Aquamat Demo.** Ed Skavarch  
**Pasture Soil & Leaf Testing, Equine BMP Demonstrations.** Crista Kirby/  
Bridget Carlisle Milam
- 10:15 Break**
- 10:30 Tool Discussion Breakout Session for Agents and Specialists by Basin Area Teams.** Basin Area Team Leaders
- 11:00 Tools & Funding Needed: Group Discussion.** Tom Obreza, Moderator
- 11:30 Wrap-up and Concluding Remarks.** Joan Dusky

# Hyatt Regency Sarasota Map

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# Notes



# Notes



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