

Welcome to the **2012**
125th Annual Meeting of the

FLORIDA STATE HORTICULTURAL SOCIETY

with Featured Speakers & Technical Session Workshops on

**“Protected Agriculture in Florida: Enhancing
the Value and Opportunities for Vegetable
and Fruit Production”**



June 3rd-5th, 2012

Delray Beach Marriott - Beach Resort,
10 North Ocean Boulevard
Delray Beach, Florida 33483

2012 Program Contents

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Mark Your Calendars!
June 2-4, 2013
2013 FSHS Annual Meeting:
Sarasota Hyatt Regency
Sarasota, FL 34236



Program Overview

Registration Desk Hours—Lobby Foyer

Sunday June 3 2:00 PM – 6:30 PM

Monday June 4 7:00 AM – 6:00 PM

Tuesday June 5 7:30 AM – 11:30 AM

Sunday Afternoon

2:00 – 4:00	FSHS Board of Directors Meeting	Seacrest A
3:00 – 4:30	Posters Set up, Brad Burbaugh	Seacrest Foyer
4:30 – 6:00	Opening Ceremony, Richard Tyson	Seacrest D
4:45 – 5:30	Historical Perspectives - Opening Session Speakers: Dr. Daniel Cantliffe , St. Johns County Extension Director UF/IFAS St. Johns County Extension, St. Augustine, FL. Ted Winsberg , Green Cay Farms, Boynton Beach, FL	
5:30 – 6:00	Awards	
6:00 – 7:00	Welcome Reception <i>(Included in paid conference registration)</i>	Seacrest EF

Monday Morning

7:00 – 8:00	Continental Breakfast <i>(Included in paid conference registration)</i>	Seacrest D
7:15-7:45	David F. Muir V , Totuit: Mobile Application Architects, Gainesville, FL. “Modernizing Information Flow In The Mobile Age”	Seacrest D
7:30 – 8:15	Poster Session, Brad Burbaugh <i>(See list of posters on p. 12)</i>	Seacrest Foyer
8:30 – 9:45	General Session	Seacrest D
8:30	Introduction and Welcome	
8:40	Presidential Address: Juanita Popenoe , FSHS President	

9:00	General Session Keynote Speaker: Katy Moss , Warner, President Emerita, American Horticultural Society, FL “Beautiful Landscapes – the Key to Healthy Communities” Questions and Answers
9:45	End of General Session

Concurrent Morning Sessions:

9:50 – 12:00	Citrus (p.31)	Seacrest D
10:20 – 12:00	Natural Resources (p.29)	Coral Reef 2
9:50 – 12:00	Ornamental, Garden & Landscape (p.19)	Seacrest A
9:50-11:30	Handling & Processing (p.25)	Seacrest C
9:50 – 12:00	Vegetable (p.14)	Coral Reef 1

Monday Lunch

11:45 – 1:20	Lunch <i>(on your own)</i> – at O’Grady’s or Seacrest Grill
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Monday Afternoon

Concurrent Afternoon Sessions:

1:20 – 5:15	Citrus	Seacrest D
1:20 – 4:15	Krome Memorial Institute	Seacrest B
1:20 – 3:15	Natural Resources	Coral Reef 2
1:20 – 4:30	Ornamental, Garden & Landscape	Seacrest A
1:20 – 4:30	Handling & Processing	Seacrest C
1:20 – 5:30	Vegetable	Coral Reef 1

Monday Evening

6:00 – 7:00	Industry Reception <i>(Included in paid conference registration)</i>	Seacrest EF
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Tuesday Morning

7:00 – 8:15	Horticultural Breakfast <i>(Event ticket required)</i>	Seacrest F
	Invited Speaker: Patrick Griffith , Director Montgomery Botanical Center (MBC), Coral Gables, FL. “21st Century Botanical Gardens: New Challenges and Opportunities”	
8:30 – 9:45	FSHS Annual Business Meeting: Student Competition Awards, Carlene Chase	Seacrest D
Concurrent Morning Sessions:		
10:00 – 11:45	Citrus	Seacrest D
10:00 – 11:45	Handling & Processing	Seacrest C
9:50 – 11:45	Ornamental, Garden & Landscape	Seacrest A
9:50 – 12:00	Vegetable	Coral Reef 1
12:00	All posters are taken down	Seacrest Foyer

Tuesday Lunch

12:00 – 1:15	Extension Luncheon <i>(Event ticket required)</i>	Seacrest F
	Invited speaker: Daniel Cantliffe , County Extension Director, UF/IFAS St. Johns County, St. Augustine, FL. “Transition from field to protected cultivation of vegetables”	

Tuesday Afternoon

1:30 – 5:00	In-Service Training and Producer Workshop <i>(Registration to UF-IFAS IST #30478 required)</i> “Protected Agriculture in Florida: Enhancing the Value and Opportunities for Vegetable and Fruit Production” Co-sponsored by: Fruit & Vegetable Crops, Small Farms & Alternative Enterprises, Efficient & Effective Water Use, and The Protected Agriculture Information Network (PAINet)	Seacrest D
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End of 2012 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 and step up!

Don't Forget to Thank Our Student Section Assistants!

Handling & Processing:

Francisco Loayza
(Francisco.Loayza@ufl.edu;
Dr. Brecht)

Natural Resources:

Reginald Toussaint
(treginald@ufl.edu;
Dr. Wilkie)

Ornamental, Garden & Landscape:

Wenjing Guan,
(wguan@ufl.edu;
Dr. Zhao)

Vegetable:

Wei Chieh Lee (Vicky),
(weivickylee@ufl.edu;
Dr. Liu)

Florida State Horticultural Society 2011-2012 Board of Directors

Chairman of the Board	Richard Tyson
President	Juanita Popenoe
President-elect	Nancy Roe
Sectional Vice-presidents: Citrus Krome Memorial Institute Natural Resources Ornamental, Garden and Landscape Handling & Processing Vegetable	Fritz Roka Gary England Thomas Obreza Jane Morse Greg McCollum Crystal Snodgrass
Secretary and Treasurer	Chris Oswalt
Proceedings Editor	Jan Narciso
Marketing Coordinator/Webmaster	Mark Ritenour
Members At-large	Jeffrey K Brecht Ed Etxeberria
Program Coordinator	Aparna Gazula

2012 Meeting Facilitators

Meeting Coordinator	Tracy Shawn
Local Arrangements Coordinators	Bill Shall Ron Rice
Sponsorship Coordinator	Gene Albrigo
Student Competitions Coordinator	Carlene Chase
CEU Coordinator	Barton Wilder
Poster Session Coordinator	Bradley Burbaugh
FSHS Newsletter Team	Kathy Schneider Ed Etxeberria Jim Syvertsen

Welcome 2012 FSHS Sectional Vice-presidents!

Citrus:	Fritz Roka , UF/IFAS SWFRC, Immokalee, FL. (<i>fmroka@ufl.edu</i>)
Handling & Processing:	Greg McCollum , USDA/ARS Horticultural Research Laboratory, Ft. Pierce, FL. (<i>gmccollum@ushrl.ars.usda.gov</i>)
Krome Memorial Institute:	Gary England , UF/IFAS Lake County Extension, Tavares, FL (<i>gke@ufl.edu</i>)
Ornamental, Garden, & Landscape:	Jane Morse , UF/IFAS Pinellas County Extension, Largo, FL. (<i>jmorse@co.pinellas.fl.us</i>)
Natural Resources:	Tom Obreza , UF/IFAS Extension, Gainesville, FL. (<i>obreza@ufl.edu</i>)
Vegetables:	Crystal Snodgrass , UF/IFAS Manatee County Extension, Palmetto, FL. (<i>crys21@ufl.edu</i>)

Displays During the Meeting (Seacrest Foyer)

2013 FSHS Meeting in Sarasota, FL

Juanita Popenoe, UF/IFAS Lake County Extension, Orlando, FL

2012 Florida Small Farms and Alternative Enterprise Conference

Robert Hochmuth, UF/IFAS Suwannee Valley Agricultural Extension Center,
Live Oak, FL

The UF/IFAS Small Farms Academy

Robert Hochmuth, UF/IFAS Suwannee Valley Agricultural Extension Center,
Live Oak, FL

Citrus Diseases

Jamie Burrow, UF/IFAS Citrus Research & Education Center, Lake Alfred, FL

Citrus Health Management Areas

Brandon Page, UF/IFAS Citrus Research & Education Center, Lake Alfred, FL

UF/IFAS Palm Beach County Extension Programs

Bill Schall and Ron Rice, UF/IFAS Palm Beach County Extension,
West Palm Beach, FL

2012 Meeting Sponsors

Platinum Level Sponsor (above \$2,000)

Citrus Research and Development Foundation
Yara North America

Gold Level Sponsor (\$1,000–1,999)

Natural Industries

Bayer Crop Sciences

(Sponsor of Vegetable Section Best Paper Award)

Helena

(Sponsor of Citrus Section Best Paper Award)

Valent BioSciences Corporation

(Sponsor of Krome Memorial Institute Section Best Paper Award)

Silver Level Sponsor (\$500–\$999)

Triangle Chemical Company
Provide Commerce (ProFlowers)
Keyplex

Bronze Level Sponsor (under \$500)

Chemical Dynamics
Plant Food Systems
McLean Ag Chemicals
Chemtura AgroSolutions

Syngenta
BASF Crop Protection
AgraQuest
Uncle Matt's Fresh, Inc.

2012 FSHS Patron Members

Ed Etxeberria • Mary Lamberts • David J. Hall
Jim Syvertsen • Craig Campbell • Albert Hendry

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.
- 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.

FSHS Paper Authors:

Remember to e-mail full-length manuscripts at fshsproc@ashs.org by **June 5, 2012** for refereed papers, and by **July 5, 2012** for non-refereed papers with a copy to the sectional VPs:

Citrus:

Fritz Roka,
fmroka@ufl.edu

Handling & Processing:

Greg McCollum,
gmcollum@ushrl.ars.usda.gov

Krome Memorial Institute:

Gary England,
gke@ufl.edu

Natural Resources:

Tom Obreza,
obreza@ufl.edu

Ornamental, Garden, and Landscape:

Jane Morse,
jmorse@co.pinellas.fl.us

Vegetable:

Crystal Snodgrass,
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@fshs.org by **May 23, 2012**. 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 2012 FSHS annual meeting in Delray Beach. The SBPC awards will be announced at the 2013 FSHS annual meeting in Sarasota. 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 generally 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 the 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.

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 by June 5, 2012. 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.

Technical Program Schedule

Poster Session:

Bradley Burbaugh,
Coordinator
(brad784@ufl.edu)

Monday Morning Session

(Authors at posters 7:30 – 8:15 am) Seacrest Foyer

Field Observations of Machine-Harvest Inefficiencies and Suggested Corrective Measures for a Commercial ‘Noble’ Muscadine Grape Block Trained to a Single Cordon. ¹UF/IFAS Columbia County Extension, Lake City, FL and ²UF/IFAS Putnam County Extension, Palatka, FL. (civilday@ufl.edu) [P-1-K]

Volunteer Mobile Irrigation Lab: Improving Irrigation Efficiency. D.D. Dilger-Jacobson, UF/IFAS Highlands County Extension, Sebring, FL. (dddilger@ufl.edu) [P-2-OGL]

2011 Vegetable and Small Fruit Nutrition Management Workshop. C. Snodgrass¹, A. Whidden², B. Santos³, and T. Salame-Donoso³. ¹UF/IFAS Manatee County Extension, Palmetto, FL; ²UF/IFAS Hillsborough County Extension, Seffner, FL; ³UF/IFAS, Gulf Coast Research and Education Center, Wimauma, FL. (crys21@ufl.edu) [P-3-V]

Using Social Media as an Outreach Tool for Extension Horticulture Programs. A. Hunsberger¹, M. Lamberts¹, D. Culbert², A. Neal³, K. Gable⁴, and L. Sanagorski⁵. ¹UF/IFAS Miami-Dade County Extension, Homestead, FL; ²UF/IFAS Okeechobee County Extension, Okeechobee, FL; ³UF/IFAS St. Lucie County Extension, Ft. Pierce, FL; ⁴UF/IFAS Monroe County Extension, Key West, FL; ⁵UF/IFAS Palm Beach County Extension, West Palm Beach, FL. (aghu@ufl.edu) [P-4-OGL]

Fruit & Vegetable Bingo as a Tool to Teach Kids about Locally Grown Produce. M. Lamberts, UF/IFAS Miami-Dade County Extension, Homestead, FL. (lamberts@ufl.edu) [P-5-V]

Capitalizing on Resources of the Small Farms Academy. C. Saft¹, T. DelValle², J. Devalerio³, D. Fenneman⁴, B. Hochmuth⁵, A. Lamborn⁶, N. Demorest⁷, W. Wilber⁸. ¹UF/IFAS Suwannee County Extension, Live Oak, FL; ²UF/IFAS Duval County Extension, Jacksonville, FL; ³UF/IFAS Bradford County Extension, Starke, FL; ⁴UF/IFAS Madison County Extension, Madison, FL; ⁵Suwannee Valley Agricultural Extension Center, Live Oak, FL; ⁶UF/IFAS Baker County Extension, McClenney, FL; ⁷UF/IFAS Columbia County Extension, Lake City, FL; ⁸UF/IFAS Alachua County Extension, Gainesville, FL. (csaft@ufl.edu) [P-6-V]

Using a Hands-on Approach to Teach Vegetable Gardening and to Encourage Healthy Eating Among Adults. L. Seals, E. Shephard, J. Fletcher, and S. Scalera. UF/IFAS Brevard County Extension, Cocoa, FL. (lseals@ufl.edu) [P-7-UGL]

Introducing Pomegranates to the Dooryard. K.M. Stauderman¹ and W. Castle². ¹UF/IFAS Volusia County Extension, DeLand, FL; ²UF/IFAS Citrus Research and Education Center, Lake Alfred, FL. (kstauderman@ufl.edu) [P-8-UGL]

Web Based Online CEU Program Improves Access to Pesticide Education. S. Steed, UF/IFAS Hillsborough County Extension, Seffner, FL. (ststeed@ufl.edu) [P-9-UGL]

The Fresh Citrus Traveling Road Show. T. Gaver¹, J. Burrow², D. Cole³, C. Kelly-Begazo⁴, K. Lenfesty², M. Ritenour⁴. ¹UF/IFAS Citrus County Extension, Lecanto, FL; ²UF/IFAS St. Lucie County Extension, Ft. Pierce, FL; ³UF/IFAS Citrus Research and Education Center, Lake Alfred, FL; ⁴UF/IFAS Indian River Research and Education Center, Ft. Pierce, FL; UF/IFAS, Indian River County Extension, Vero Beach, FL. (Tgaver.49@ufl.edu) [P-10-C]

Vegetable Section:

Crystal Snodgrass,
Presiding
(crys21@ufl.edu)

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

Monday Morning Session

(9:50 – 12:00 pm) Coral Reef 1

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

A-Cultural Practices

- 10:00 Field Performance of Lettuce Cultivars Used in Southern Florida.** H. Lu, Everglades Research and Education Center, University of Florida/Institute of Food and Agricultural Sciences, Belle Glade, FL, and D. Sui, Commercial Vegetable & Tropical Fruit, UF/IFAS - Palm Beach County Cooperative Extension, West Palm Beach, FL. (hjlu@ufl.edu) [V-1]
- 10:15 Evaluation of Several Lettuce (*Lactuca sativa* L.) Cultivars Grown Inside a Greenhouse Using Nutrient Film Technique.** R.C. Hochmuth, and W.L. Laughlin, Suwannee Valley Agricultural Extension Center, University of Florida, A. Gazula, Alachua County Extension, Gainesville, FL. (bobhoch@ufl.edu) [V-2]
- 10:30 Growing Ginger in a High Tunnel – A Niche Crop with Market Potential.** R. Rafie, Ph.D., C. Mullins, and T.J. Nartea, School of Agriculture, Virginia State University, Petersburg, VA. (arafie@vsu.edu) [V-3]
- 10:45 Evaluation of Vertical and Horizontal Soilless Production Systems for Strawberry.** T. Salame-Donoso, and B.M. Santos, Gulf Coast Research and Education Center, University of Florida, 14625 CR 672, Wimauma, FL. (tsalame@ufl.edu) [V-4]
- 11:00 Using Low-Volume Irrigation Programs and Crop Protectants to Establish Strawberry Transplants.** I. Hernandez-Ochoa, B.M. Santos, C. Stanley, and P. Huang, Gulf Coast Research and Education Center, IFAS, University of Florida, 14625 CR 672, Wimauma, FL. (bmsantos@ufl.edu) [V-6]
- 11:15 Improving Water Management for Tomato Production with Soil Surfactants.** E.A. Torres-Quezada, and B.M. Santos, Gulf Coast Research and Education Center, IFAS, University of Florida, 14625 CR 672, Wimauma, FL. (bmsantos@ufl.edu) [V-7]
- 11:30 Comparison of Potassium Sources and Rates for Tomato Production in Florida.** B.M. Santos, Gulf Coast Research and Education Center, IFAS, University of Florida, 14625 CR 672, Wimauma, FL. (bmsantos@ufl.edu) [V-8]

- 11:45 **Optimizing Phosphorus Rate for Enhancing Sustainability of Commercial Snap Bean Production in South Florida.** G. Liu, Horticultural Sciences Department, University of Florida, 1117 Fifield Hall, Gainesville, FL 32611-0690, D. Sui, Palm Beach County Cooperative Extension, University of Florida, 559 N. Military Trail, West Palm Beach, FL 33415-1311, and Y. Li., Tropical Research and Education Center, Soil and Water Science Department, University of Florida, Homestead, FL 33031. (guodong@ufl.edu) [V-9]
- 12:00 **End of morning session/Lunch on your own (at O'Gradys or Seacrest Grill)**

Monday Afternoon Session

(1:20 – 5:30 pm)

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

B-Cultural Practices and Vegetable Pest Management

- 1:30 **Antioxidant Capacity and Isoflavone Content in Seeds of Five Edamame, Vegetable Soybean Glycine max (Merrill) Cultivars Grown in Eastern Virginia.** L.C. Carson, University of Florida, IFAS/SWFREC, 2685 SR29 N, Immokalee, FL, J.H. Freeman, Virginia Polytechnic Institute and State University, Eastern Shore Agricultural Research and Extension Center, 33446 Research Drive, Painter, VA, K. Zhou, Department of Nutrition and Food Science, Wayne State University, Detroit, MI, and G. Welbaum, Virginia Polytechnic Institute and State University, Department of Horticulture Sciences, 301 Saunders Hall, Blacksburg, VA. (ozores@ufl.edu) [V-12]
- 1:45 **Growing and Marketing Edible Amaranth (Red and Green Calaloo) and Chrysanthemum Greens at Local Green Markets in Southeast Florida, 2002-2003.** K.D. Shuler, P.N. Shuler, and S.J. Shuler Nie, Stephen's Produce LLC., 12657 158th St N, Jupiter, FL. (skshuler@aol.com) [V-13]
- 2:00 **Evaluating benefits from a summer legume to a Sunflower-Camelina Rotation.** D.O. Chellemi, USDA, ARS, US Horticultural Research Laboratory, Fort Pierce, FL. (dan.chellemi@ars.usda.gov) [V-14]
- 2:15 **Methods for Sampling Soil Surface Arthropods in Bush Beans: Which One Is the Best Method?** H.K. Gill, Citrus Research and Education Center, University of Florida, and R. McSorley, Department of Entomology and Nematology, University of Florida, Gainesville, FL. (harsimrangill.pau@gmail.com) [V-15]
- 2:30 **Combating melon thrips, Thrips palmi Karny (Thysanoptera: Thripidae) on vegetable crops in South Florida.** D.R. Seal and C.M. Sabines. University of Florida, Tropical Research and Education Center, Homestead, FL. (dseal3@ufl.edu) [V-16]

- 2:45 Assessment of Sting Nematode Management Using Indirect Measures of Strawberry Yield Potential.** J.W. Noling, A.W. Schumann, and M. Cody, University of Florida, Citrus Research and Education Center, Lake Alfred, FL. (jnoling@ufl.edu) [V-17]
- 3:00 Vegetable Section Business Meeting, Crystal Snodgrass**
- 3:15 Break**
- 4:00 Weed Population Dynamics after Summer Solarization.** R. Seman-Varner and R. McSorley, Department of Entomology and Nematology, University of Florida, Gainesville, FL. (rmcs@ifas.ufl.edu) [V-18]
- 4:15 Performance of Florida-produced Containerized Strawberry transplants.** P. Huang, B.M. Santos, V.M. Whitaker, C.D. Stanley, Gulf Coast Research and Education Center, University of Florida, 14625 CR 672, Wimauma, FL, and S.A. Sargent, Department of Horticultural Sciences, University of Florida, Gainesville, FL. (bmsantos@ufl.edu) [V-5] (Student Best Oral Presentation Competition Entry)
- 4:30 Identification of Phosphorous Efficient Genotypes from Potato Germplasm Banks.** W.C. Lee and G. Liu, Horticulture Sciences Department, University of Florida, 1117 Fifield Hall, Gainesville, FL. (weivickylee@ufl.edu) [V-10] (Student Best Oral Presentation Competition Entry)
- 4:45 Effect of Controlled-Release Fertilizer on Tomatoes Grown with Seepage Irrigation in Florida Sandy Soils.** L.C. Carson, and M. Ozores-Hampton, University of Florida/Southwest Florida Research and Education Center, 2685 State Rd. 29 North Immokalee, FL. (ozores@ufl.edu) [V-11] (Student Best Oral Presentation Competition Entry)
- 5:00 Can Two-Year Old Synthetic Mulch Affect Marketable Yield, Arthropod Populations, Weeds and Diseases on Field-Grown Strawberries?** T.W. Nyoike, and O.E. Liburd. Entomology and Nematology Department, University of Florida, P.O. Box 110620, Bldg. 970 Natural Area Drive, Gainesville, FL. (nyoiket@ufl.edu) [V-20] (Student Best Oral Presentation Competition Entry)
- 5:15 Evaluation of silicic acid on suppression of bacterial spot of tomato.** X. Mo, Y. Fu, X. Fan, and S. Zhang, University of Florida Tropical Research and Education Center, University of Florida, IFAS, Homestead, FL. (luckymo1982@ufl.edu) [V-22] (Student Best Oral Presentation Competition Entry)
- 5:30 End of afternoon session**
- 6:00 Industry Reception** (*Seacrest EF; Included in paid conference registration*)

Tuesday Morning Session

(9:50 – 12:00 pm)

- 9:50 **Welcome and Introductions, Crystal Snodgrass, VP/VP-elect** (*crys21@ufl.edu*)
- 10:00 **Sweet Corn Tolerance and Weed Control of S-metolachlor Applied Preemergence Followed by Various Postemergence Herbicides.** P.J. Dittmar, Horticultural Sciences Department, University of Florida, Gainesville, FL. (*pdittmar@ufl.edu*) [V-19]
- 10:15 **Feasibility Analysis of Using Grafting for Field Tomato Production as an Alternative to Soil Fumigation.** X. Zhao, Horticultural Sciences Department, University of Florida, Gainesville, FL, Z. Gao, Food and Resource Economics Department, University of Florida, Gainesville, FL, and R.C. Hochmuth, Suwannee Valley Agricultural Extension Center, Live Oak, FL. (*zxin@ufl.edu*) [V-21]
- 10:30 **Growth and Yield of Basil (*Ocimum* spp.) Varieties as Affected by the Downy Mildew (*Peronospora belbahrii*) Under Greenhouse and Field Conditions of South Florida.** Z. Mersha, and S. Zhang, Tropical Research and Education Center, Homestead, FL. (*mershaz@ufl.edu*) [V-23]
- 10:45 **Reducing Fusarium Spp. Inoculum in Irrigation Systems: A Sanitation Case Study in Greenhouse-grown Tomatoes.** E. Toro, Suwannee County Extension, FL, R.C. Hochmuth, Suwannee Valley Agricultural Extension Center, UF, C.L. Harmon, Extension Plant Disease Clinic and Department of Plant Pathology, and E. Belibasis, Beli Farms, Wellborn, FL. (*etoro@ufl.edu*) [V-24]
- 11:00 **Potential Spread of *Phytophthora cactorum* from Tailwater Ponds and Irrigation Sources in Commercial Strawberry Fields.** M.S. Oliveira, T.E. Seijo, and N.A. Peres, Gulf Coast Research and Education Center, University of Florida, 14625 CR 672, Wimauma, FL. (*nperes@ufl.edu*) [V-25]
- 11:15 **Management of Lettuce Downy Mildew with Fungicides.** R.N. Raid, and D. Sui, University of Florida, Everglades Research and Education Center, Belle Glade, FL. (*rnraid@ufl.edu*) [V-26]
- 11:30 **Management of Celery Early Blight Using Conventional and Low-risk Chemistries.** R.N. Raid and D. Sui, University of Florida, IFAS, Everglades Research and Education Center, Belle Glade, FL. (*rnraid@ufl.edu*) [V-27]
- 11:45 **Evaluation of natural extract products for control of powdery mildew on squash.** S. Zhang, Tropical Research and Education Center, University of Florida, IFAS, Homestead, FL. (*szhang0007@ufl.edu*) [V-28]
- 12:00 **End of program.**
- 12:00 **Extension Luncheon** (*Seacrest F; Event ticket required*)

Vegetable Section Posters:

2011 Vegetable and Small Fruit Nutrition Management Workshop. [P-3-V]

Fruit & Vegetable Bingo as a Tool to Teach Kids about Locally Grown Produce [P-5-V]

Capitalizing on Resources of the Small Farms Academy [P-6-V]

2012 FSHS Annual Meeting Facts

Oral Invited Presentations	6
Poster Presentations	10
Oral Contributed Presentations	116
Citrus	26
Handling and Processing	21
Krome Memorial institute	8
Natural Resources	10
Ornamental, Gardening & Landscape	23
Vegetables	28
In-service Training Presentations	3
 Total Meeting Presentations	 135

Ornamental, Garden and Landscape Section:

Jane Morse,
Presiding
(eamk@ufl.edu)

Wenjing Guan,
Student Section Assistant
(wguan@ufl.edu)

Monday Morning Session

(9:50 – 12:00 pm) *Seacrest A*

9:50 Welcome and Introductions, Jane Morse

A-Production

- 10:00 Growth of Ornamentals in Containers Shaped like a Star.** K. Moore, N.C. Ripak, L. Fisher, University of Florida, Fort Lauderdale Research and Education Center, 3205 College Ave, Fort Lauderdale FL 333314. (klock@ufl.edu) [OGL-1]
- 10:15 Root Manipulation Strategies for Improving the Quality of Container Stock and Tree Sustainability in the Landscape.** M. Orfanedes, Broward County Extension Education, UF. (morfanedes@broward.org) [OGL-2]
- 10:30 Sources and Survival of *Colletotrichum acutatum* Spores and Their Significance for Fern Anthracnose Management.** D.J. Norman and J.O. Strandberg. (djn@ufl.edu) [OGL-3]
- 10:45 Fancy-leaved *Caladium* Varieties Recently Introduced by the UF/IFAS *Caladium* Breeding Program.** Z. Deng, University of Florida, IFAS, Environmental Horticulture, Gulf Coast Research and Education Center, 14625 County Road 672, Wimauma, FL. (zdeng@ufl.edu) [OGL-4]
- 11:00 Scheduling of Flowering and Fruiting of Southern Highbush Blueberry as a Container Ornamental Plant.** J.E. Lopez and P.R. Fisher, UF/IFAS Department of Environmental Horticulture, Gainesville, FL. (pfisher@ufl.edu) [OGL-5]
- 11:15 Effects of Preemergence Herbicides on Perennial Peanut Establishment.** R.H. Stamps, UF/IFAS, Dept. of Environmental Horticulture, Mid-Florida Research and Education Center, Apopka, FL. (rhs@ifas.ufl.edu) [OGL-6]
- 11:30 Use of Petrifilms to Quantify Aerobic Bacteria in Irrigation Water.** D.P. Meador and P.R. Fisher, UF/IFAS Department of Environmental Horticulture, M.Teplitski, UF/IFAS Department of Soil and Water Sciences, Gainesville, FL. (dmeador@ufl.edu) [OGL-13] (Student Best Oral Presentation Competition Entry)

11:45 **New and Improved Potting Soils for Ornamental Crops of Florida.** R.T. McMillan, Jr., Kerry's Nursery, Inc. B. Jacobson, Berger Peat Moss Ltd., Québec, Canada. [OGL-7]

12:00 **End of morning session/Lunch on your own** (at O'Grady's or Seacrest Grill)

Monday Afternoon Session

(1:20 – 4:30 pm)

1:20 **Welcome and Introductions, Jane Morse**

B-Water Quality and Quantity Issues

- 1:30 **Sustainable Production Resources for Container Plant Nurseries.** A. Bolques¹, G. Knox², L. Landrum³, and M. Chappell⁴. ¹Florida A&M University/ Cooperative Extension, Gadsden County Extension, Quincy, FL ²UF/IFAS, North Florida Research Education Center, Quincy, FL, ³UF/IFAS North Florida Research and Education Center, Live Oak, FL, ⁴University of Georgia, Athens, GA. (abol@ufl.edu) [OGL-8]
- 1:45 **Florida's Green Industries Best Management Practices Education Program.** L.E. Trenholm, Environmental Horticulture Dept., UF, D.P. Rainey, Florida-Friendly Landscaping™ Program, UF. (letr@ufl.edu) [OGL-9]
- 2:00 **FAWN Interactive Landscape Irrigation Tool.** W.R. Lusher, and K.W. Miglaccio. (rlusher@ufl.edu) [OGL-10]
- 2:15 **Social Marketing Promotes Adoption of Green Industry Best Management Practices.** S. Haddock. Hillsborough County Extension Service, UF. (szcrmchz@ufl.edu) [OGL-11]
- 2:30 **The Difficulties Of Watering Your Lawn While Conserving Water.** L. Felter, Orange County Extension, UF, P.F. Monaghan, Dept. of Agricultural Education & Communications, UF. (lfelter@ufl.edu) [OGL-12]
- 2:45 **Effectiveness of Rain Garden/Bioretenion to Mitigate Nutrient and Zinc Contaminants in Surface Runoff in an Urban and an Agricultural Setting.** A. Bolques ^{1,2}, J. Cherrier², and M. Abazinge², ¹Gadsden County Extension, ²School of the Environment, Florida A&M University, Tallahassee, FL. (abol@ufl.edu) [OGL-14]
- 3:00 **OGL Sectional Business Meeting, Alex Bolques**
- 3:15 **Break**

C-Residential Issues

- 3:30 Soil Profile Variability in an Established Residential Community.** D.P. Rainey University of Florida/IFAS Extension Agent II, Sarasota, FL. A.L. Shober and G. Shurberg, Soil & Water Science Department University of Florida/IFAS Gulf Coast REC, Wimauma, FL. (drainey@ufl.edu) [OGL-15]
- 3:45 Introducing Pomegranates to the Dooryard.** K. Stauderman, UF/IFAS Volusia County Extension, DeLand, FL and W. Castle, UF/IFAS Citrus Research and Education Center, Lake Alfred, FL. (kstauderman@co.volusia.fl.us) [OGL-16]
- 4:00 Backyard Composting.** L. Barber, Hillsborough County and UF IFAS Extension. (labarber@ufl.edu) [OGL-17]
- 4:15 Creating a Teaching Garden with Florida-Friendly Landscaping™ Principles.** L. Barber, Hillsborough County Extension. (labarber@ufl.edu) [OGL-18]
- 4:30 End of afternoon session**
- 6:00 Industry Reception** (*Seacrest EF; Included in paid conference registration*)

Tuesday Morning Session

(9:50 – 11:00 am)

- 9:50 Welcome and Introductions, Alex Bolques, VP-elect** (abol@ufl.edu)

D-New Pests and Pest Management

- 10:00 Bismarck Palms Failing in Southwest Florida.** R.E. Mitchell, Charlotte County, UF. (ralph.mitchell@charlottefl.com) [OGL-19]
- 10:15 Rugose Spiraling Whitefly: A sticky situation in the Florida Keys.** K.E. Gabel, University of Florida, Monroe County Extension Service, 1100 Simonton Street, Suite 2-260, Key West, FL. (gabel-kim@monroecounty-fl.gov) [OGL-20]
- 10:30 Colletotrichum sansevieriae Causing Anthracnose of Sansevieria trifasciata ‘Laurentii’ and ‘Moonshine’ in South Florida.** E.V. Campoverde, UF/IFAS Miami-Dade County Extension. 18710 SW 288th Street. Homestead, FL 33030 and A.J Palmateer, UF/IFAS Tropical Research and Education Center.18905 SW 280th Street Homestead, FL 33030. (evcampoverde@ufl.edu) [OGL-21]

- 10:45** **Invasion of new insect pests in southwest florida: Four new Ficus pests; is this the end of a previously invincible landscape plant? Plus a new species of plant bug damages florida privet.** D.L. Caldwell, Collier County Extension Service, Institute of Food and Agricultural Sciences, University of Florida, 14700 Immokalee Road, Naples, FL 34120. (dougbug@ufl.edu) [OGL-22]
- 11:00** **Google Survey Tool – Free and Easy.** L. Barber, Hillsborough County Extension. (lbarber@ufl.edu) [OGL-23]
- 11:15** **End of program/Extension Luncheon** (*Seacrest F; Event ticket required*)

Ornamental, Garden, and Landscape Section Posters:


- Volunteer Mobile Irrigation Lab: Improving Irrigation Efficiency. [P-2-OGL]
- Using Social Media as an Outreach Tool for Extension Horticulture Programs. [P-4-OGL]
- Using a Hands-on Approach to Teach Vegetable Gardening and to Encourage Healthy Eating Among Adults. [P-7-OGL]
- Introducing Pomegranates to the Dooryard. [P-8-OGL]
- Web Based Online CEU Program Improves Access to Pesticide Education. [P-9-OGL]

Krome Memorial Institute: Gary England,
Presiding
(gke@ufl.edu)

Monday Afternoon Session

(1:20 – 4:15 pm) Seacrest B

- 1:20 Welcome and Introductions, Gary K. England**
- 1:30 Effectiveness of Flumioxazin Pre-emergence Control of Parthenium (Parthenium hysterophorus) Under Grove Conditions in Homestead, Florida.** M. Barbier, J. Crane, and J. Castillo. University of Florida, IFAS, Tropical Research and Education Center, Homestead, FL. (jhcr@ufl.edu) [K1]
- 1:45 Field Observations of Machine-Harvest Inefficiencies and Suggested Corrective Measures for a Commercial ‘Noble’ Muscadine Grape Block Trained to a Single Cordon.** J. Breman and P. Laubacker. UF/IFAS Columbia County Extension, Lake City, FL. (civilday@ufl.edu) [K2]
- 2:00 Weed control of flumioxazin and simazine tank mixed with post-emergence herbicides in peach.** P.J. Dittmar. Horticultural Sciences Department, UF, Gainesville, FL. (pdittmar@ufl.edu) [K3]
- 2:15 Performance of Jatropha (Jatropha curcas L.) Accessions under Different Microclimate Conditions in Florida.** W.A. Vendrame¹, K. Moore², A. C. Wilkie³, J. H. Crane¹, A. P. Costa¹, W. Montas¹, ¹Tropical Research and Education Center, UF, Homestead, FL, ²Fort Lauderdale Research and Education Center, UF, Ft. Lauderdale, FL, ³Soil and Water Science Department, UF, Gainesville, FL. (vendrame@ufl.edu) [K4]
- 2:30 Evaluation of beneficial arthropods for control of thrips in blueberry.** Oscar E. Liburd¹ and Teresia W. Nyoike², ¹Professor and ²Graduate Student Entomology and Nematology Department, UF, Gainesville, FL. (oeliburd@ufl.edu) [K5]
- 2:45 Krome Memorial Institute Business Meeting**
- 3:00 Break**
- 3:15 Using an Ethylene Inhibitor to Increase Fruit Size, Firmness, and Storage Quality in Florida Peach Production.** M. Olmstead, Department of Horticultural Sciences, Gainesville, FL, S. Futch, Citrus Research and Education Center, Lake Alfred, FL. (mercy1@ufl.edu) [K-6]

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- 3:30 The influence of below average winter chilling and severe late winter freezes on statewide blueberry production in Florida.** J. Williamson, Horticultural Sciences Department, IFAS, University of Florida, Gainesville, FL, G. England, Lake County Cooperative Extension, Tavares, FL, and B. Braswell, Grower and Florida Blueberry Growers' Association President, Bartow, FL. (jgrw@ufl.edu) [K7]
- 3:45 Observations of the February 2012 Freeze and Effect on Commercial Blueberry Plantings.** G.K. England. UF/IFAS Lake County Extension, Tavares, FL. (gke@ufl.edu) [K8]
- 4:00 Discussion**
- 4:15 End of afternoon session/End of program**
- 6:00 Industry Reception** (*Seacrest EF; Included in paid conference registration*)

Krome Memorial Section Poster:

Field Observations of Machine-Harvest Inefficiencies and Suggested Corrective Measures for a Commercial 'Noble' Muscadine Grape Block Trained to a Single Cordon. [P-1-K]

Handling & Processing Section: **Greg McCollum**,
Presiding
(Greg.McCollum@ARS.USDA.GOV)

Francisco Loayza,
Student Section Assistant
(francisco.loayza@ufl.edu)

Monday Morning Session

(9:50 - 11:30 am) Seacrest C

- 9:50 Welcome and Introductions, Greg McCollum**
- 10:00 HPLC-Fluorescence Analysis of Phytochemicals in Healthy and HLB Symptomatic Hamlin and Valencia Orange Leaves.** J.A. Manthey, USDA-ARS-U.S. Horticultural Research Laboratory, Ft. Pierce, FL., F.M. Hijaz, J.R. Reyes-De-Corcuera, S.Y. Folimonova, C.L. Davis, S.E. Jones, Citrus Research and Education Center, Lake Alfred, UF. (John.Manthey@ARS.USDA.GOV) [HP-1]
- 10:15 Reference gene selection, primer design and amplification interference of quantitative real-time PCR in tomato and orange subjected to environmental and disease stress.** J. Bai, E. Baldwin, USDA, ARS, US Horticultural Research Laboratory, Ft. Pierce, H. Liao, I. Kostenyuk, J. Burns, Lake Alfred Citrus Research and Education Center, and M. Irey, US Sugar Corp., Clewiston, FL. (Jinhe.Bai@ARS.USDA.GOV) [HP-2]
- 10:30 The Effect of Nutritional Spray Regimes on Orange Juice Quality in Relation to Juice Las DNA Detection.** E. Baldwin, J. Bai, A. Plotto, S. Dea, J. Narciso, USDA, ARS, US Horticultural Research Laboratory, Ft. Pierce, and M. Irey, US Sugar Corp., Clewiston, FL. (Liz.Baldwin@ARS.USDA.GOV) [HP-3]
- 10:45 Citrus Black Spot Detection Using Hyperspectral Imaging.** D.Q. Kim, T.F. Burks Gainesville, UF, and M. A. Ritenour, Ft. Pierce Indian River Research and Education Center, UF. (TFBurks@ifas.ufl.edu) [HP-4]
- 11:00 Comparative Effects of Postharvest Fungicides for Diplodia Stem-end Rot Control of Florida Citrus.** J. Zhang, Florida Department of Citrus, Lake Alfred, FL. (Jzhang@citrus.state.fl.us) [HP-5]
- 11:15 Continuing the Search for an Effective Preharvest Fungicide with Residual Postharvest Diseases Control for Florida Fresh Citrus.** M.A. Ritenour, C. Hu, Indian River Research and Education Center, Fort Pierce, UF, and J. Narciso, USDA, ARS, Horticultural Research Laboratory, Fort Pierce, FL. (ritenour@ufl.edu) [HP-6]
- 11:30 End of morning session/Lunch on your own (at O'Grady's or Seacrest Grill)**

Monday Afternoon Session

(1:20 – 4:30 pm)

- 1:20 **Welcome and Introductions, Greg McCollum**
- 1:30 **Interaction of Temperature and Ethylene Treatment in the Ripening of Stony Hard x Melting Flesh and Stony Hard x Nonmelting Flesh Peach Selections.** O.A. Menocal-Barberena, Tropical Research and Education Center, UF; J.X. Chaparro, and J.K. Brecht, Horticultural Sciences Department, UF, Gainesville FL. (omenocal@ufl.edu) [HP-20] (Student Best Oral Presentation Competition Entry)
- 1:45 **Mycotoxins in Fruit and Fruit Products.** D.C. Lewis, R. Goodrich-Schneider, Food Science and Human Nutrition Department, UF. (truth8@ufl.edu) [HP-7] (Student Best Oral Presentation Competition Entry)
- 2:00 **Thermal Inactivation of Stationary Phase, Acid and Non Acid Adapted Salmonella Gaminara in Single-Strength Orange Juice.** Z. Topalcengiz and M.D. Danyluk, Lake Alfred Citrus Research and Education Center, UF. (zeynal84@ufl.edu) [HP-8] (Student Best Oral Presentation Competition Entry)
- 2:15 **Fate of Escherichia coli O157:H7 and Salmonella on Full Ripe and Three-quarter Ripe Strawberries.** T. Nguyen, and M. Danyluk, Lake Alfred Citrus Research and Education Center, UF. (thaonguyen4@ufl.edu) [HP-17] (Student Best Oral Presentation Competition Entry)
- 2:30 **Colour and Pigment Development of Mature-green Tomatoes Treated with Hot-water.** F.E. Loayza, J.K. Brecht and A.H. Simonne, Horticultural Sciences Dept., Gainesville, UF. (francisco.loayza@ufl.edu) [HP-18] (Student Best Oral Presentation Competition Entry)
- 2:45 **Adoption of Plastic Field Crates to Reduce Mechanical Injuries in Postharvest Handling of Haitian Mango.** A.J. Bonicet, S.A. Sargent and A. Teixeira, Gainesville, UF. (abonicet@ufl.edu) [HP-13] (Student Best Oral Presentation Competition Entry)
- 3:00 **Handling & Processing Section Business Meeting: Cecilia Nunes**
- 3:15 **Break**
- 3:30 **Gas chromatography - olfactometry analyses of volatiles produced by Fallglo and US Early Pride mandarins.** C. Leclair, A. Biotteau, G. McCollum, J. Bai, E. Baldwin, C. Chervin, and A. Plotto, USDA, ARS, US Horticultural Research Laboratory, Fort Pierce, FL. (Clotilde.Leclair@ARS.USDA.GOV) [HP-14] (Student Best Oral Presentation Competition Entry)
- 3:45 **A Comparative Study of Fallglo Tangerine and Its Seedless Mutation: Sensory Evaluation.** A. Biotteau, ENSAT/ENFAT, Toulouse, France, C. Leclair, G. McCollum, and A. Plotto, USDA, ARS, US Horticultural Research Laboratory, Fort Pierce, FL. (Anne.Plotto@ARS.USDA.GOV) [HP-15]

- 4:00 **Effect of Abscission Agent on Citrus Juice Quality, Year 2.** M.D. Danyluk, L.M. Friedrich, and T.M. Spann, Lake Alfred Citrus Research and Education Center, UF. (mddanyluk@ufl.edu) [HP-9]
- 4:15 **Discussion**
- 4:30 **End of afternoon session/End of program**
- 6:00 **Industry Reception** (*Seacrest EF; Included in paid conference registration*)

Tuesday Morning Session

(10:00 – 11:45 pm)

- 10:00 **Welcome and Introductions, Cecilia Nunes**
- 10:15 **Prevention of Cold Storage Damage in Apple and Pear Fruits by Low Oxygen Atmosphere or 1-MCP Pretreatment.** E. Pesis, Department of Postharvest Science, The Volcani Center, Bet Dagan 50250, ISRAEL. (epesis@volcani.agri.gov.il) [HP-16]
- 10:30 **Development of Botrytis Rot in Stored Strawberries as Affected by Ripeness, Temperature and Atmosphere.** M.C.N. Nunes, Food Quality Laboratory, University of South Florida Polytechnic, A.M.M.B. Morais, Escola Superior de Biotecnologia, Universidade Católica Portuguesa, Portugal, J. K. Brecht and S.A. Sargent, Horticultural Sciences Department, UF, J.A. Bartz, Plant Pathology Department, UF, R.A. Allen, J.H. Lee, D.M. Pires and J. Pittet-Moore, Food Science & Human Nutrition Department, UF. (mariacecilia@poly.usf.edu) [HP-19]
- 10:45 **Impacts of Alternative Cropping Systems on Fruit Quality: Opportunities for Collaborative Research.** G. McCollum, E.N. Roskopf, N. Kokalis-Burelle, and M.G. Bausher, USDA, ARS, US Horticultural Research Laboratory, Ft. Pierce, FL. (Greg.McCollum@ARS.USDA.GOV) [HP-21]
- 11:00 **Active packaging for control of post harvest disease.** J. Narciso, J. Bai, A. Plotto, and E. Baldwin, USDA/ARS US Horticultural Research Lab, Ft. Pierce, FL. (Jan.Narciso@ARS.USDA.GOV) [HP-12]
- 11:15 **Chronic Consumption of Red Orange Juice Significantly Decreased Blood Pressure and Improved the Serum Lipid Profile in Adults.** C. G. Lima, L. G. Basile, J. Q. Silveira, T. B. César. Faculty of Pharmaceutical Sciences, São Paulo State University, Araraquara, São Paulo, Brasil, Paulista University (UNIP), São José do Rio Preto, São Paulo, Brazil. [HP-10]

11:30 The Effect of Orange Juice on Nutritional Status, Inflammation and Oxidative Status of Patients with Chronic Hepatitis. C. T.B. Cesar, D.A. Manjate, A.L.M. Nasser, P.I. Costa, São Paulo State University (UNESP), Faculty of Pharmaceutical Sciences, Araraquara, SP, Brazil, A.A. Costa, W.M. Figueiredo, University of Sao Paulo (USP), School of Public Health, Araraquara Special Health Service (SESA). [HP-11]

11:45 End of Program

12:00 Extension Luncheon (*Seacrest F; Event ticket required*)



Natural Resources Section: Tom Obreza,
Presiding
(obreza@ufl.edu)

Reginald Toussaint,
Student Section Assistant
(treginald@ufl.edu)

Monday Morning Session

(10:20 – 12:00 pm) Coral Reef 2

10:20 Welcome and Introductions, Tom Obreza

A-Soils, Crops, and Environmental Quality

- 10:30 **Utilization of Anaerobic Digester Effluent as a Fertilizer Source.** R. Toussaint, School of Natural Resources and Environment, and A.C. Wilkie, Soil and Water Science Dept., UF/IFAS. (acwilkie@ufl.edu) [NR-1]
- 10:45 **Determining the Agronomic and Physiological Characteristics of the Castor Plant (*Ricinus communis* L.): Developing a Sustainable Cropping System for Florida.** D. Campbell, D. Rowland, R. Schnell, and J. Ferrell, Agronomy Dept., and A.C. Wilkie, Soil and Water Science Dept., UF/IFAS. (dlrowland@ufl.edu) [NR-2]
- 11:00 **Biochar Applications in Agriculture for Resource Conservation.** S.I. Friedman, and D.D. Treadwell, Horticultural Sciences Dept., A.C. Wilkie, Soil and Water Science Dept., A.R. Zimmerman, Dept. of Geological Sciences, and B. Rathinasabapathi, Horticultural Sciences Dept., UF/IFAS. (ddtreadw@ufl.edu) [NR-3]
- 11:15 **Can Lotus (*Nelumbo* spp.) be used to Remove Heavy Metals from Contaminated Florida Soils?** W.O. Obando, FLREC, UF/IFAS, F.M. Woods, and K.M. Tilt, Auburn Univ., D. Tian, Shanghai Chenshan Plant Science Research Center, J.R. Kessler, F. Dane, W.G. Foshee, J.L. Sibley, A. Caylor, J. Olive, D. Fields, J.A. Chappell, and D. Cline, Auburn Univ., and L.A. Gettys and K. Moore, FLREC, UF/IFAS. (orozcow@gmail.com) [NR-4]

B-Wildlife

- 11:30 **Use of Barn Owls for Sustainable Rodent Control in Agricultural Areas.** R.N. Raid, University of Florida, Everglades Research and Education Center, Belle Glade, FL, and W.T. Haller, Agronomy Dept., UF/IFAS. (rnraid@ufl.edu) [NR-5]
- 11:45 **Feral Hog Management Practices Inventory.** K.T. Gioeli, St Lucie Co. Extension, UF/IFAS, E. Underwood, Wrensong Science & Environmental Education, and J. Huffman, Florida Master Naturalist Program, UF/IFAS. (ktgioeli@ufl.edu) [NR-6]

12:00 End of morning session/Lunch on your own (at O'Grady's or Seacrest Grill)

Monday Afternoon Session

(1:20 – 3:15 pm)

1:20 Welcome and Introductions, Tom Obreza

C-Water Quantity and Quality

1:30 **Evaluating Master Planned Communities Design Impacts on Water Quality with the Watershed Assessment Model: The Restoration Project Case Study.** F. Hazan, School of Natural Resources and Environment, UF/IFAS, P. Jones, Program for Resource Efficient Communities, UF/IFAS, D. Bottcher, Soil and Water Engineering Technology, and B. Larson, Program for Resource Efficient Communities, UF/IFAS. (jimj@ufl.edu) [NR-7]

1:45 **Community Associations' Impact on Water Quality and Water Use.** A. Post, Sarasota County Extension, UF/IFAS. (post@scgov.net) [NR-8]

2:00 **Aquaponics – Sustainable Vegetable and Fish Co-Production.** R.V. Tyson, Orange Co. Extension, E.H. Simonne, Office of District Extension Directors, and D.D. Treadwell, Horticultural Sciences Dept., UF/IFAS. (rvt@uf.edu) [NR-9]

2:15 **Greenhouse Culture of Submersed Aquatic Vegetation “Sod”.** L.A. Gettys, FLREC, and W.T. Haller, Agronomy Dept., UF/IFAS. (gettys@uf.edu) [NR-10]

3:00 Natural Resources Section Business Meeting, Tom Obreza

3:15 End of afternoon session

6:00 Industry Reception (Seacrest EF)

Monday Morning Session

(9:50 – 12:00 pm) Seacrest D

9:50 Welcome and Introductions, Fritz Roka

A-Student Competitions, Genetics and New Development

- 10:00 The Economics of the Control Strategies of HLB in Florida Citrus.** A.W. Salifu, K. Grogan, T. Spreen, UF/IFAS – FRE, Gainesville, FL, and F. Roka, UF/IFAS – SWFREC, Immokalee, FL. (wahab242001@yahoo.com) [C-1] (Student Best Oral Presentation Competition Entry)
- 10:15 Production of Nitrous Oxide by the Abscission Agent CMNP and its Impact on Citrus Fruit Loosening.** S. Sharma, R.C. Ebel, and N. Kumar, UF/IFAS – SWFREC, Immokalee, FL. (rdebel@ufl.edu) [C-2] (Student Best Oral Presentation Competition Entry)
- 10:30 Geographical Distribution of Strobilurin Resistance Of *Alternaria alternata*, Causal Agent Of *Alternaria* Brown Spot In Florida Citrus Groves.** B. Vega, and M.M. Dewdney, UF/IFAS – CREC, Lake Alfred, FL. (bryon.vega@ufl.edu) [C-3] (Student Best Oral Presentation Competition Entry)
- 10:45 Influence of Soil-Applied Fertilizer on Greening Development in New Growth Flushes of Sweet Orange.** U. Handique, R.C. Ebel, and K.M. Morgan, UF/IFAS – SWFREC, Immokalee, FL. (rdebel@ufl.edu) [C-4] (Student Best Oral Presentation Competition Entry)
- 11:00 Under Severe Citrus Canker and HLB Pressure, Triumph and Jackson are More Productive than Flame and Marsh Grapefruit.** E. Stover, G. McCollum, J. Chaparro, USHRL, USDA/ARS, Ft. Pierce, FL, and M. Ritenour, UF/IFAS – IRREC, Ft. Pierce, FL. (Ed.Stover@ars.usda.gov) [C-5]
- 11:15 Susceptibility of common rootstocks and scions to citrus canker under Florida conditions.** S.H. Futch, and J.H. Graham. UF/IFAS – CREC, Lake Alfred, FL. (shf@ufl.edu) [C-6]
- 11:30 Salinity Tolerance of Promising Tetraploid Citrus Rootstock Candidates.** J.W. Grosser, J.A. Gmitter, J.P. Syvertsen, UF/IFAS – CREC, Lake Alfred, FL, and A.A. Omar, Zagazig University, College of Agriculture, Biochemistry Department, Zagazig, Egypt. (jgrosser@ufl.edu) [C-7]

- 11:45 **Salinity Tolerance Of ‘Hamlin’ Orange Trees On The Hybrid Rootstocks Us-897 And X639 Is Greater Than Of Trees On Cleopatra Mandarin.** J.P. Syvertsen, and W. Bandaranayake, UF/IFAS – CREC, Lake Alfred, FL. (jmsn@ufl.edu) [C-8]
- 12:00 **End of morning session/Lunch on your own** (at O’Grady’s or Sreacrest Grill)

Monday Afternoon Session

(1:20 – 5:15 pm)

- 1:20 **Welcome and Introductions, Fritz Roka**

B-Citrus Nutrition

- 1:30 **Production in a southwest Florida grove using the Boyd Nutrient/SAR Foliar Spray.** R.E. Rouse, UF/IFAS – SWFREC, Immokalee, FL, M.S. Irey, U.S. Sugar Corporation, Clewiston, FL, M.M. Boyd and, T.D. Willis, McKinnon Corporation, Felda, FL. (rrouse@ufl.edu) [C-9]
- 1:45 **Characteristics of Foliar Nutritional Spray Tank Mixes applied to Citrus in the Indian River Area.** T. Gaver, UF/IFAS – St. Lucie County Extension, Ft. Pierce, FL. (tgaver.49@ufl.edu) [C-10]
- 2:00 **Phloem Anatomy of Citrus Trees: Healthy versus Greening.** E. Etxeberria, and C. Narciso, UF/IFAS – CREC, Lake Alfred, FL. (eetxeber@ufl.edu) [C-11]
- 2:15 **Rehabilitation of HLB Infected Citrus Trees using Severe Pruning and Nutritional Sprays.** R. Rouse, UF/IFAS – SWFREC, Immokalee, FL. (rrouse@ufl.edu) [C-12]
- 2:30 **Effect of high temperature on different genotypes of citrus.** N. Kumar, and R.C. Ebel, UF/IFAS – SWFREC, Immokalee, FL. (naveenkumar@ufl.edu) [C-13]
- 2:45 **GC-MS analysis of secondary metabolites in leaves from orange trees infected with huanglongbing: A 9-month time series study.** S.E. Jones, S.Y. Folimonova, C.L. Davis, F.M. Hijaz, and J.R. Reyes-De-Corcuera, UF/IFAS – CREC, Lake Alfred, FL, and J.A. Manthey, USHRL, USDA/ARS, Ft. Pierce, FL. (jireyes@ufl.edu) [C-14]
- 3:00 **Citrus Section Business Meeting, Tim Gaver**
- 3:15 **Break**

- 3:30 HPLC-MS analysis of secondary metabolites in leaves from orange trees infected with huanglongbing: A 9-month time series study.** F.M. Hijaz, J.S.Y. Folimonova, C.L. Davis, S.E. Jones, J.R. Reyes-De-Corcuera, UF/IFAS – CREC, Lake Alfred, FL, and J.A. Manthey, USHRL, USDA/ARS, Ft. Pierce, FL. (jireyes@ufl.edu) [C-15]
- 3:45 Registered and Experimental Insecticides for Control of Asian Citrus Psyllid and Citrus Leafminer on Mature Orange Trees.** J.A. Qureshi, B. Kostyk, and P.A. Stansly, UF/IFAS – SWFREC, Immokalee, FL. (jawwadq@ufl.edu) [C-16]
- 4:00 Control of the Asian Citrus Psyllid with *Isaria fumosorosea* (Hypocreales: Cordycipitaceae).** K. Stauderman, UF/IFAS – Volusia County Extension, DeLand, FL, and S. Arthurs, UF/IFAS - MFREC, Apopka, FL. (kstauderman@co.volusia.fl.us) [C-17]
- 4:15 Aerial Application of Insecticides for Control of Citrus Leafminer, *Phyllocnistis citrella* Stainton, in Oranges.** M.M. Jones and P.A. Stansly., UF/IFAS – SWFREC, Immokalee, FL. (mmjones2@ufl.edu) [C-18]
- 4:30 Evaluation of fungicides to control Citrus Black Spot on Valencia caused by *Guignardia citricarpa* in south Florida.** P.D. Roberts, K.E.M. Hendricks, UF/IFAS - SWFREC, Immokalee, FL, C. Brooks, and H. Yonce. KAC Agricultural Research, Inc., Deland, FL. (pdr@ufl.edu) [C-19]
- 4:45 Responses of *Citrus medica* var. *sarcodactylis* during *Xanthomonas citri* pv. *citri* Infection.** N. Kumar, R.C. Ebel, and P.D. Roberts, UF/IFAS – SWFREC, Immokalee, FL. (naveenkumar@ufl.edu) [C-20]
- 5:00 Discussion**
- 5:15 End of afternoon session**
- 6:00 Industry Reception (*Seacrest EF*)**

Tuesday Morning Session

(10:00 – 11:45 am)

- 10:00 Welcome and Introductions, *Tim Gaver VP-elect* (tgaver.49@ufl.edu)**

C-Pests, Bees, and Marketing

- 10:15 Water Holding Capacity of WashGard Spray and Effect on Efficacy of Copper Hydroxide Treatments.** W. Widmer, C. Narciso, and J. Narciso, USHRL, USDA-ARS, Fort Pierce, FL. (Wilbur.Widmer@ars.usda.gov) [C-21]
- 10:30 Some Citrus Flower Characteristics and Honey Bee Preference.** L.G. Albrigo, R. Rouseff, R.A. Bazemore, UF/IFAS, CREC, Lake Alfred, FL, and R.V. Russ, Aparies, Tyner Rd., Haines City, FL. (albrigo@ufl.edu) [C-22]

- 10:45 The Citrus Industry of China.** T.H. Spreen, Z. Gao, UF/IFAS – FRE Gainesville, FL, F. Gmitter, UF/IFAS – CREC Lake Alfred, FL, and R. Norberg, FDOC, Bartow, FL. (tspreen@ufl.edu) [C-23]
- 11:00 Long-run Supply and Demand Forecasts for Processed Oranges.** M. Salois, FDOC, Gainesville, FL. (msalois@ufl.edu) [C-24]
- 11:15 Evolution of Citrus Disease Management Programs and Their Economic Implications.** R.P. Muraro, UF/IFAS – CREC, Lake Alfred, FL. (rpm@ufl.edu) [C-25]
- 11:30 Worker Productivity of Gleaners, Implied Piece Rates, and Implications for Mechanical Harvesting.** F.M. Roka, UF/IFAS – SWFREC, Immokalee, FL. (fmroka@ufl.edu) [C-26]
- 11:45 End of program**
- 12:00 Extension Luncheon** (*Seacrest F; Event ticket required*)

Extension Luncheon Speakers

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 and Producer Workshop

Seacrest D

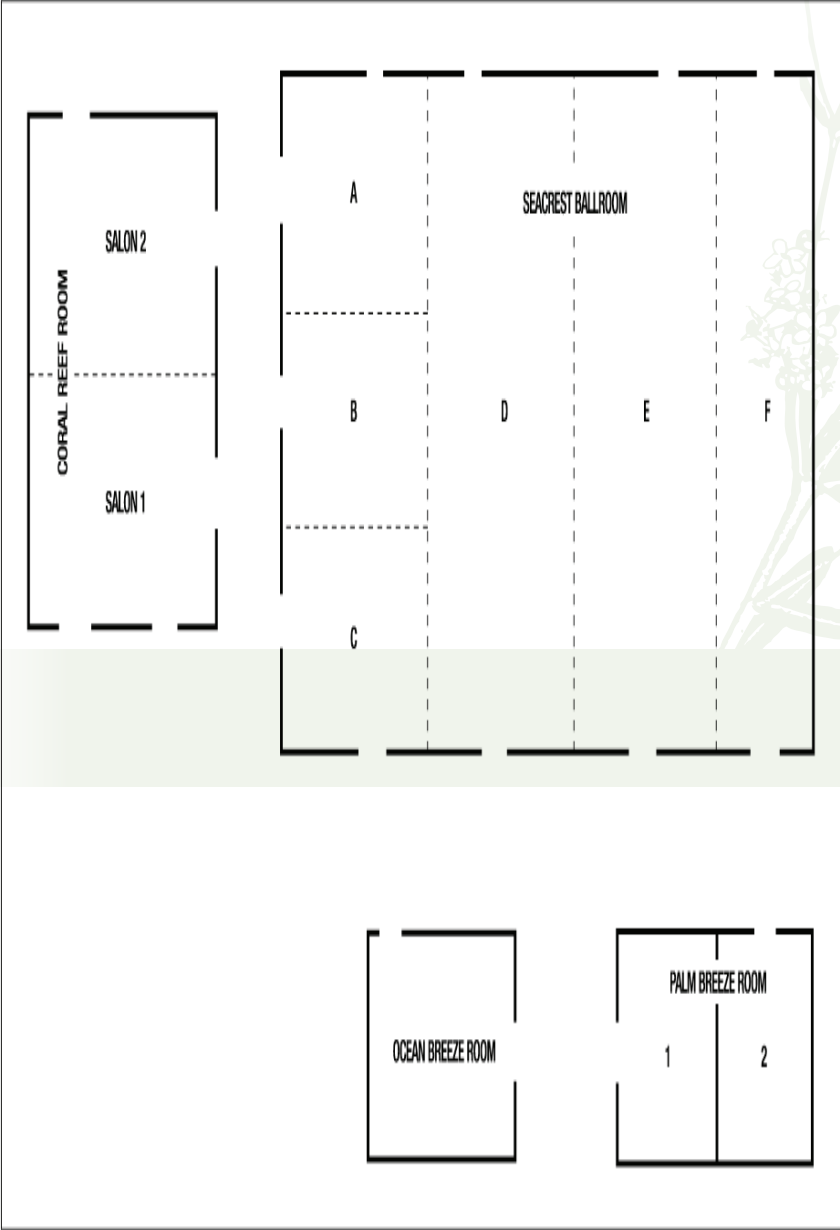
Protected Agriculture in Florida: Enhancing the Value and Opportunities for Vegetable and Fruit Production: Bielinski Santos and Steve Sargent, Co-organizers (*bmsantos@ufl.edu*)

- 1:30 Welcome and Introductions: Bielinski Santos, Asst. Professor of Horticulture, UF/IFAS, Wimauma, FL. (*bmsantos@ufl.edu*)
- 1:35 Pre-training test
- 1:45 General aspects of protected structures around the world: Types, soil and soilless culture, and crops. Dr. Bielinski M. Santos, Gulf Coast REC, IFAS, University of Florida.
- 2:30 Experiences on protected culture for vegetables in the northeast US and east Africa. Dr. Matthew Kleinhenz, OARDC, Ohio State University.
- 3:15 Break
- 3:30 Experiences on strawberry production under high tunnels in Spain. Dr. Juan J. Medina-Minguez, IFAPA, Junta de Andalucia, Spain.
- 4:30 Questions and answer session
- 4:45 Post-training test and adjourn

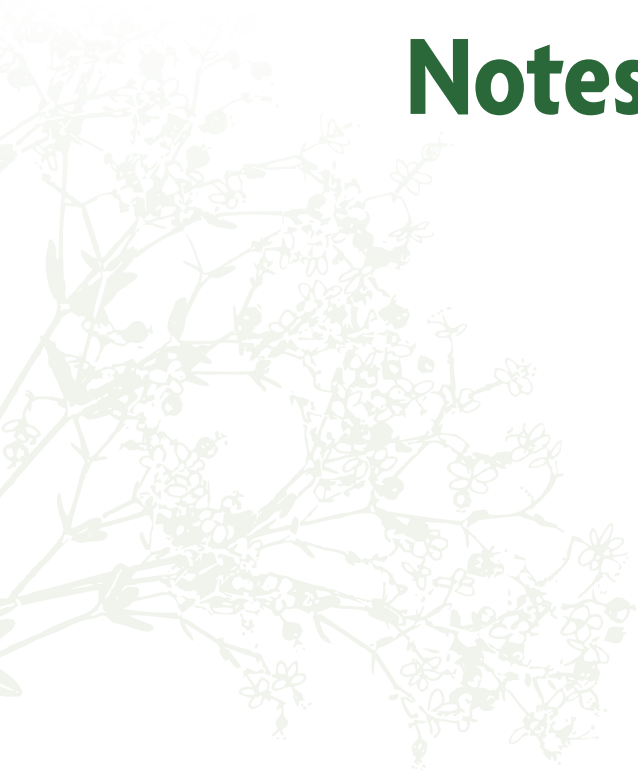
Wednesday Morning, June 6

- 8:00 Field trip and visits to protected agriculture facilities and operations in the area.
- 12:00 Adjourn. Have a safe trip home!

Delray Beach Marriott Map



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