

In-Service Training ([IST#: 30932](#))/CEU Roundup ([FDACS Program # 18465](#))

New Technology for Commercial and Fruit Vegetable Production (III)

Conference ID: 7834030

Polycom from 1306 Fifield Hall, Gainesville, Florida to 15 off-campus host sites statewide
Wednesday, February 25, 2015



Dr. Steve Phillips

4R Nutrient Stewardship for Florida Agriculture

Vegetable Grafting, an Emerging Practice for American Vegetable Growers



Dr. Sanjun Gu



Dr. Joseph Noling

New Technologies to study the Biology and Management of Plant Parasitic Nematodes

Improved Plastic Mulch Technology and New Fumigant Chemistries for Soil-Borne Pest Management



Dr. Joshua Freeman



Dr. Steve Sargent

Postharvest Handling for Quality and Freshness

All of the materials plus related EDIS publications are listed at
<http://hos.ufl.edu/faculty/gdliu/service-training>

Instructions for local Hosts:

1. Have all of your participants registered
2. Complete the pre-test before the presentations
3. Complete the post test after the presentations
4. Complete the Survey
5. Scan all of the above papers including **sign-in sheet, pre-test, post-test, survey** and email the scanned papers to me at guodong@ufl.edu if you have a scanner or
6. Mail the papers to **David Liu at PO Box 110690, 1253 Fifield Hall, Gainesville, FL 32608** if you don't have a scanner
7. Collect and email the questions from your participants to me and I will send the answers back to you
8. Disseminate the CEU attendance forms

Conference information

Conference ID: 7834030

Sip connections: [7834030@128.227.8.45](tel:7834030@128.227.8.45)

IT Professional: Mr. Dennis Brown

Cell phone: (352)317-1701

If you need any help please call Dennis.

All sites except Cornell University and Fifield Hall are on the list to be automatically connected at 11 am Eastern Time but if for some reason they aren't connected, they can manually dial the conference ID to get connected.

New Technology for Commercial Vegetable and Fruit Production (III)

Agenda

IST ID: 30932

CEU program ID: 18465

The Conference ID: 7834030

Statewide available via Polycom based at 1306 Fifield Hall

Our IT Professional, Mr. Dennis Brown's Cell phone: (352)317-1701

Wednesday, February 25, 2015

12:00 – 12:10 PM: Gather, Refreshments, Welcome, Introductions, and Pre-test

12:10 – 1:00 PM: Dr. Joshua Freeman, **Improved Plastic Mulch Technology and New Fumigant Chemistries for Soil-Borne Pest Management**

1:00 – 1:50 PM: Dr. Joseph Noling, **New Technologies to study the Biology and Management of Plant Parasitic Nematodes**

1:50 – 2:40 PM: Dr. Steve Phillips (International Plant Nutrition Institute), **4R Nutrient Stewardship for Florida Agriculture**

2:40 – 2:50 PM: Break

2:50 – 3:40 PM: Dr. Sanjun Gu (North Carolina A&T State University), **Vegetable Grafting, an Emerging Practice for American Vegetable Growers**

3:40 – 4:30 PM: Dr. Steven Sargent, **Postharvest Handling for Quality and Freshness**

4:30 – 4:50 PM: Post-test, Survey, and Adjourn

Proposers:

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Available CEUs

Private Applicator and Ag Pest Control	4
Ag Row Crop Pest Control	4
Demonstration and Research	4
Soil and Greenhouse Fumigation	3
Ag Tree Crop Pest Control	2
Total	Up to 4

CONTENTS

- 1 Frond Matter
- 2 The Spine of the Book
- 3 **SIGN-IN SHEET**
- 4 **Agenda**
- 5 Pre-test
- 6 2015 IST/CEU Roundup
- 7 **Improved Plastic Mulch Technology and New Fumigant Chemistries for Soil-Borne Pest Management**
- 8 **New Technologies to study the Biology and Management of Plant Parasitic Nematodes**
- 9 **4R Nutrient Stewardship for Florida Agriculture**
- 10 Break
- 11 **Vegetable Grafting, an Emerging Practice for American Vegetable Growers**
- 12 **Postharvest Handling for Quality and Freshness**
- 13 Post-test
- 14 Survey
- Related EDIS publications (17):**
- 15 The Four Rs of Fertilizer Management (<http://edis.ifas.ufl.edu/ss624>)
- 16 [Sting Nematode: A Reoccurring Problem in Florida Strawberry and a New Understanding of Why?](#)
- 17 [Alternatives to Methyl Bromide Soil Fumigation for Florida Vegetable Production](#)
(<http://edis.ifas.ufl.edu/cv290>)
- 18 [Maximizing the Efficacy of Soil Fumigant Applications for Raised-Bed Plasticulture Systems of Florida](#) (<http://edis.ifas.ufl.edu/hs1169>)
- 19 [Nematode Management in Beans and Peas \(Bush Beans, Pole Beans, Lima Beans, Southern Peas, English Peas, Chinese or Snow Peas\)](#) (<http://edis.ifas.ufl.edu/ng020>)
- 20 [Nematode Management in Potatoes \(Irish or White\)](#) (<http://edis.ifas.ufl.edu/ng029>)
- 21 [Nematode Management in Crucifers \(Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbages, Collards, Mustards, Radishes, Rutabagas and Turnips\)](#) (<http://edis.ifas.ufl.edu/ng024>)
- 22 [Healing Chamber for Grafted Vegetable Seedlings in Florida](#) (<http://edis.ifas.ufl.edu/hs1232>)
- 23 [Description of Commercial Cucurbit Rootstocks as of February 5, 2015](#)
- 24 [Description of Commercial Eggplant Rootstocks as of February 5, 2015](#)
- 25 [Description of Commercial Tomato Rootstocks as of February 5, 2015](#)
- 26 [How to Calculate Fertigation Injection Rates for Commercial Blueberry Production](#)
(<http://edis.ifas.ufl.edu/hs1197>)
- 27 [How to Convert Liquid Fertilizer into Dry Fertilizer in Fertigation for Commercial Vegetable and Fruit Crop Production](#) (<http://edis.ifas.ufl.edu/hs1200>)
- 28 [How to Reduce Clogging Problems in Fertigation](#) (<http://edis.ifas.ufl.edu/hs1202>)
- 29 [Chlorine Use In Produce Packing Lines](#) (<http://edis.ifas.ufl.edu/ch160>)
- 30 [Identification of Early Citrus Black Spot Symptoms \(Identificación de los Síntomas Iniciales de la Mancha Negra de los Cítricos\)](#) (<http://edis.ifas.ufl.edu/pp285>)
- 31 [Nematode Management in Organic Agriculture](#) (<http://edis.ifas.ufl.edu/ng047>)
- 32 Speakers' Presentation Description and Bio-Sketch
- 33 Approved CEUs
- 34 Host contact list

Speakers' Presentation Description and Bio-Sketch

Title: 4R Nutrient Stewardship for Florida Agriculture

Specialist: Steven B. Phillips (International Plant Nutrition Institute)

Presentation Description:

Agricultural production strategies that best combine the economic, social, and environmental expectations of various stakeholder groups can be called “best management practices” (BMPs). Fertilizer use BMPs can be aptly described as the application of “4R Nutrient Stewardship”, which is applying the right fertilizer source at the right rate, right time, and in the right place. These four “rights” comprehensively convey how fertilizer applications are managed. Determining what is “right”, however, depends on site-specific factors including soil, climate, crop, management system, and logistics. The objective of this presentation is to discuss the application of scientific principles to the development and adaptation of the 4Rs to suit local conditions at the practical level while remaining focused on sustainability goals. The application of the 4R strategy to production systems in Florida will be discussed.

Speaker's Bio-sketch:

Dr. Steve Phillips is a North American Program Director for the International Plant Nutrition Institute (IPNI). IPNI is a not-for-profit, science-based organization dedicated to the responsible management of plant nutrients for the benefit of the human family with a focus on improving global food security. Dr. Phillips' responsibilities include developing research and educational materials that address crop production issues and chairing the international workgroup on precision agriculture. Dr. Phillips obtained his M.S. and Ph.D. degrees from Oklahoma State University.

Title: Vegetable Grafting, an Emerging Practice for American Vegetable Growers

Specialist: Sanjun Gu (North Carolina A&T State University)

Presentation Description:

Vegetable grafting greatly enhances disease resistance, cold hardiness, and yield for extended production in greenhouses and high tunnels. It has been a standard practice in some Asian and European countries. The practice of vegetable grafting is emerging in the United States. With the decline in disease-free soil due to the phase-out of fumigant methyl bromide, vegetable grafting provides a good option for protection from soil-borne pathogens. This presentation will briefly cover the history of grafting, grafting methods, grafting research updates in the United States, and the resources for vegetable grafting.

Speaker's Bio-sketch:

Dr. Sanjun Gu is the Extension Horticulture Specialist at the North Carolina A&T State University. Gu comes from Missouri where he served as the state horticulture specialist and as an assistant professor. His areas of expertise and interest include general horticulture, organic and conventional vegetable production, vegetable grafting, small fruit production, and season extension with high tunnels. Gu's research goal is to increase on-farm efficiency and profitability while maintaining environmental sustainability for the target audience- the small, limited-resource farmers in North Carolina. With his audience in mind, Gu's current focus is on vegetable grafting and season extension techniques -- both organic and conventional -- for vegetable and small fruit production. He also conducts applied research on cultivar evaluations such as for heirloom tomato, bell pepper and salad greens. Gu is a member of the American Society for Horticultural Sciences and the International Society for Horticultural Sciences, and he serves as the state co-coordinator for Sustainable Agriculture Research and Education (SARE) program.

Title: New Technologies to study the Biology and Management of Plant Parasitic Nematodes

Specialist: Dr. Joseph Noling (UF-IFAS)

Presentation Description:

This presentation I will 1) summarize the current regulatory situation and requirements governing use and application of soil fumigants in Florida; 2) discuss the research conducted to economically evaluate differences in pest control efficacy and crop yield of a diversity of soil fumigants in large, commercial scale, field demonstration trials and their recommendations for use in a variety of crops; 3) describe new fumigant application, flow metering / distribution systems, and plastic mulch installation methodologies required for low rate fumigant applications; and finally I will 4) document the importance of traffic pans (soil compacted zones) as impediments to downward movement of soil fumigants and as a contributing cause to pest control inconsistencies.

Speaker's Bio-sketch:

Dr. Joseph W. Noling, Professor, Citrus Research & Education Center, Institute of Food and Agricultural Sciences, University of Florida, 700 Experiment Station Road, Lake Alfred, Florida, USA. 33850. Phone: (863) 956-1151. Fax: (863) 956-4631. email (jnoling@ufl.edu). As a research nematologist and extension specialist, Dr. Noling is nationally and internationally recognized for his expertise in the diagnosis and management of economically important nematode problems of fruit and vegetable crops.

He has authored or coauthored over 150 publications, delivered over 200 presentations, and received many awards for his contributions to pest management research and extension programs. In 1991, Dr. Noling received a 'Special Recognition' award from the Florida Watermelon Growers Association for his contributions to nematode management. In 2000, Dr. Noling received the "Researcher of the Year" award from the Florida Fruit and Vegetable Growers Association and "Public Service Award" from the Florida Strawberry Growers Association in 2005. In 2009, Dr. Noling received the "Ozone Protection Award" from the U.S. EPA for his role in the development and reduced rate use of alternatives fumigants. Since 1994, Dr. Noling has maintained a primary leadership role in the statewide coordination of Florida field research efforts to identify, evaluate, and implement alternatives to methyl bromide soil fumigation, identify causes of inconsistency, and to disseminate these research findings on an annual basis to local, state, national, and international agencies and grower organizations.

Title: Improved Plastic Mulch Technology and New Fumigant Chemistries for Soil-Borne Pest Management

Specialist: Dr. Joshua Freeman (UF-IFAS)

Presentation Description:

New mulch film technology, totally impermeable film (TIF), has been developed that contains multiple polymer layers that change film permeability. TIF is more retentive which maintains increased fumigant concentration in the soil environment. This increases the effective dose and protects bystanders from offsite fumigant movement. This has allowed for significant reductions in soil fumigant use rates while maintaining pest control efficacy. There are also two new fumigant chemistries, Paladin (dimethyl disulfide) and Dominus (allyl isothiocyanate), that have recently been registered. Each of these brings different strengths and weaknesses to a fumigant program but adds significantly to the tools available to producers.

Speaker's Bio-sketch:

Dr. Josh Freeman, Assistant professor of Horticultural Sciences at the University of Florida. Dr. Freeman received his B.S. degree from Clemson University in Entomology and his Ph.D. from the University of Florida in Horticultural Sciences. Dr. Freeman was an assistant professor and extension specialist at Virginia Tech University before coming to the University of Florida. His program has been primarily focused on soil fumigants and soil borne pest management for the last seven years. He has presented multiple papers at the International Conference on Methyl Bromide Alternatives and Emissions Reductions and has significant experience in this field.

Title: Maximizing Fruit and Vegetable Quality from Harvest through Handling

Specialist: Steven A. Sargent (UF-IFAS)

Presentation Description:

Fruit and vegetable growers and handlers can experience significant losses during harvest and handling operations – often unnecessarily. These losses can be outright unmarketable, but more often and more subtly, they can be losses in grade – still marketable, but fetching a lower price. This presentation will cover the principles behind practical methods for maintaining highest quality produce. Topics will include: quality parameters, harvest maturity, field and consumer containers and cooling.

Speaker's Bio-sketch:

Dr. Steve Sargent is a native of Michigan and studied at Michigan State University, completing his undergraduate and M.S. studies in the Horticulture Department, and doctoral studies in the Agricultural Engineering Department in 1984. Since his arrival at the University of Florida in 1987 he has developed an integrated extension, research and teaching program designed to develop pertinent information to reduce losses in postharvest quality during harvest, handling and shipping operations. Focal areas include study of high-value, promising crops such as tropical fruits, temperate fruits grown in subtropical climates, greenhouse-grown vegetables and herbs and fresh-cut produce. This interdisciplinary program evaluates the relevance of new technologies and methods, including handling methods, cooling methods, packaging and food safety. Training of graduate students and visiting scientists compose a significant part of this program. Each spring he conducts the Postharvest Horticulture Industry Tour in Florida. From 2006 to 2012 he served as Assistant Chair and Graduate Coordinator in his department, and from 2012-2013 as interim chair. He is currently President of the Florida State Horticulture Society.



Adam H. Putnam
Commissioner

Florida Department of Agriculture and Consumer Services

Division of Agricultural Environmental Services

Program Detail Report

Friday, November 14 2014

Program Information

Program ID Program Title

18465 NEW TECHNOLOGY FOR COMMERCIAL VEGETABLE AND FRUIT PRODUCTION (III)

Description

THIS PROGRAM WILL ORIGINATE FROM THE UF CAMPUS VIA POLYCOM TO REMOTE LOCATIONS. THOSE WISHING TO TAKE PART SHOULD CONTACT THEIR LOCAL UF/IFAS COUNTY EXTENSION OFFICE TO CHECK PROGRAM AVAILABILITY. THE FOCUS IS TO PRESENT MANAGEMENT TECHNOLOGY THAT CAN ASSIST IN CONTROLLING PESTS AND WILL BE USEFUL T

Sponsor

UF HORTICULTURAL SCIENCES DEPT

Provider

GUODONG LIU

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Submit To Section

PESTICIDE CERTIFICATION (BCM)

Date Received

10/21/2014

Date Approved

11/14/2014

Date Expired

11/14/2015

Status

APPROVED AND NOTIFIED

Approved By

REISS, ERIC

Notified By

REISS, ERIC

Website

Comments

Administrator Notes

Attachments

RESUME - 18465_20141114_ID18465_20141021_AGENDA.PDF

AGENDA - 18465_20141021_AGENDA.PDF

RESUME - 18465_20141021_BIO-SKETCHES.DOCX

Co- Provider Information

FISHEL, FRED

CEU Categories Information

<u>Category</u>	<u>Requested</u>	<u>Approved</u>
AG ROW CROP PEST CONTROL	4.0	4.0
AG TREE CROP PEST CONTROL	2.0	2.0
DEMONSTRATION AND RESEARCH	4.0	4.0
PRIVATE APPLICATOR AG PEST CONTROL	4.0	4.0
SOIL AND GREENHOUSE FUMIGATION	3.0	3.0
	<u>Max Requested CEUs</u>	<u>Max Approved CEUs</u>
	4.0	4.0

IFAS IST/CEU Day – February 25, 2015

New Technology for Commercial Vegetable and Fruit Production (III) (IST#: 30932/FDACS Program ID: 18465)

#	Host Site	Location	IP Address	Contact	Email address	Phone #
1	Main Campus	1306 Fifield Hall	Polycom Base	Guodong Liu	guodong@ufl.edu	352-273-4814
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3	Duval Co. Ext.	1010 N. McDuff Ave., Jacksonville 32254	10.230.140.201 ext. 7920003	Terra Freeman	terraf@ufl.edu	904-255-7450
4	Flagler and Putnam County Extension	150 Sawgrass Rd, Bunnell, FL 32110-9503	71.43.215.11	Sharon Treen	streen@ufl.edu	386- 437-7464
5	GCREC	14625 County Road 672, Wimauma, FL 33598	128.227.161.211	Crystal Snodgrass	crys21@ufl.edu	941-722-4524, Ext. 229
6	MREC	2725 Binion Rd., Apopka, FL 32703	Dial in	Katherine S Houben (Katherine)	kshouben@ufl.edu	407-814-6162
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13	Sumter & Pasco Counties	7620 SR 471, Suite 2 Bushnell, FL 33513	67.79.177.187	Camille “Cami” E. Esmel McAvoy	camil3@ufl.edu	352-569-6872
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