

**PROGRAM OF THE 96th ANNUAL MEETING OF THE
FLORIDA ENTOMOLOGICAL SOCIETY
July 14 – 17, 2013**

SUNDAY, JULY 14th, 2013

3:00PM-8:00PM- Registration -	Mtg. Plan. Office
3:00PM-6:00PM Office- Presentation collection - slide preview.....	Sea Grape
3:00PM-6:00PM Poster Display Session 1 set-up.....	Orchid 2
7:00PM-8:00PM Executive Board Meeting.....	Sea Grape

MONDAY MORNING, JULY 15th

8:00AM-12:00PM Registration (contd.).....	Mtg. Plan. Office
8:00AM-8:10AM Welcoming remarks...Clark Lovelady.....	Orchid 3-4
8:10AM-8:30AM Presidential address...Clark Lovelady	Orchid 3-4
8:30AM-9:20AM Pioneer lecture.....	Orchid 3-4

Pioneer Lecture 2013 Pioneer Lecturer: John A. Mulrennan, Jr.

Honoree: John A. Mulrennan, Sr., Title - John A. Mulrennan, Sr.: An Entomology Pioneer of Florida

9:20AM-10:00 AM Business Meeting.....	Orchid 3-4
10:00AM-10:20 AM Coffee Break.....	Orchid Foyer
10:00AM-12:00PM Office/slide Preview.....	Sea Grape
10:00AM-6:00PM Poster Display Session 1.....	Orchid 2
10:00AM-12:00PM Workshop: Removing Honey Bees from Structures.....	Orchid 1
10:10AM-11:51AM Student paper competition Masters.....	Orchid 3-4
12:15PM-1:15PM Luncheon - Graduate students.....	Acacia 4-6
12:00PM-1:00PM Lunch on Own	

MONDAY AFTERNOON, JULY 15th

1:30PM-5:00PM Registration (contd.).....	Mtg. Plan. Office
1:00PM-5:00PM Office/slide Preview.....	Sea Grape
1:30PM-5:00PM Symposium - Exotic Whitefly	Orchid 3-4
2:55PM-3:15PM Coffee break.....	Orchid Foyer
3:15PM-4:56PM Student paper competition Ph.D.....	Orchid 1
6:30PM-8:30PM Reception/Mixer	Sunset Deck

TUESDAY MORNING, JULY 16th

7:00AM-8:00AM Past presidents' breakfast.....	Aura Restaurant
8:00AM-12:00PM Registration (contd.).....	Mtg. Plan. Office
8:00AM-12:00PM Office/slide Preview.....	Sea Grape
8:00AM-10:00AM Display Session 2 set-up.....	Orchid 2
8:30AM-11:30AM Submitted Paper Session 1.....	Orchid 3-4
8:30AM-11:45AM Symposium: Thrips - small players with big damages.....	Orchid 1
10:00AM-6:00PM Poster Display Session 2.....	Orchid 2
9:55AM-10:15AM Coffee break.....	Orchid Foyer
12:00PM-2:30PM Awards luncheon.....	Vista Ballroom

TUESDAY AFTERNOON, JULY 16th

2:30PM-5:00PM Registration (contd.).....	Mtg. Plan. Office
2:30PM-5:00PM Office/slide Preview.....	Sea Grape
2:30PM-5:20 PM Symposium: New developments in insect and mite control products.....	Orchid 1
2:30PM-5:30PM Submitted Papers Session 2.....	Orchid 3-4

3:50PM-4:10PM Coffee break.....	Orchid Foyer
WEDNESDAY MORNING, JULY 17th	
8:00AM-10:00AM Registration (contd.).....	Mtg. Plan. Office
8:00AM-9:30AM Office/slide Preview.....	Sea Grape
8:00AM-11:20AM Symposium-Center for Systematic-Dale Habeck.....	Orchid 3-4
8:30AM-11:00AM Submitted Papers Session 3.....	Orchid 1
9:20AM-9:40AM Coffee break.....	Orchid Foyer
11:30AM Adjourned	

Sunday Afternoon, July 14

3:00 – 8:00 PM REGISTRATION

Meeting Planner Office

3:00 – 6:00 PM – Sea Grape

OFFICE/PRESENTATION PREVIEW - Collection of Presentations

3:00 – 6:00 PM - Poster Session 1 Setup – Orchid 2

7:00 – 8:00 PM – Sea Grape - Executive Board Meeting -

Monday Morning, July 15

8:00 AM – 5:00 PM

REGISTRATION

Meeting Planner Office

8:00 – 9:20 AM Orchid 3-4

General Session

8:00 AM

Welcoming remarks: Clark Lovelady, President, Florida Entomological Society

8:10 AM

President's Address: Going Forward with the FES. Clark Lovelady. Syngenta Crop Protection, 7145 58th Ave., Vero Beach, FL 32967

8:30 – 9:20 AM

FES Pioneer Lecture Honoring Dr. John A. Mulrennan, Sr.: Dr. John A. Mulrennan, Sr.: An Entomology Pioneer of Florida. John A. Mulrennan, Jr. 8523 Goldeneye Lane Jacksonville, FL 32217. mulrennan9@comcast.net

**Monday, 9:20 – 10:00 AM – Orchid 3-4
Business Meeting**

10:00 – 10:20 AM - Orchid Foyer

Coffee Break

10:00 AM – 5:00 PM – Sea Grape

OFFICE/PRESENTATION PREVIEW - Collection of Presentations

Monday, 10:00 AM – 6:00 PM – Orchid 2

Posters Session 1 - Authors present from 2:00 to 3:00 PM - Posters Down by 6:00 PM

[DSP 1] **The Citrus greening bibliographical database.** P. Vanaclocha and P. A. Stansly. South West Florida Research and Education Center, 2685 State Road 29 North, Immokalee, Florida 34142. pvanaclocha@ad.ufl.edu

[DSP 2] **Foiling the yellow dragon.** Scott Croxton and Phil A. Stansly. South West Florida Research and Education Center, 2685 State Road 29 North, Immokalee, Florida 34142. croxtd@ufl.edu

[DSP 3] **Plant resistance within the Rutaceae to Asian citrus psyllid.** David G. Hall, Ed Stover and Matthew Richardson. USDA-ARS, 2001 S. Rock Road, Fort Pierce, FL 34945. David.Hall@ars.usda.gov

[DSP 4] **Control of *Brevipalpus phoenicis* (Acari: Tenuipalpidae) with hot water treatments.** Katia Santos, I. Baez, M. Hennessey and J. E. Peña. Tropical Research and Education Center, 18905 SW 280th Street, Homestead, FL 33031. katiasantos@ufl.edu

[DSP 5] **Attraction of a native Florida leafminer, *Phyllocnistis insignis*, to pheromone of an invasive citrus leafminer, *P. citrella*.** Craig P. Keathley, Lukasz L. Stelinski, and Stephen L. Lapointe. USDA-ARS-U.S. Horticultural Research Laboratory, 2001 South Rock Road, Fort Pierce, FL 34945-3030. craig.keathley@ars.usda.gov

[DSP 6] **Preliminary surveys in east Africa for natural enemies of the invasive Cogongrass, *Imperata cylindrica* (Poaceae).** James P. Cuda, William A. Overholt, and Bruno P. Le Ru. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. jcuda@ufl.edu

Monday, 10:00 AM – 12:00 PM – Orchid 1

Workshop: Removing Honey Bees from Structures

Instructor: William H. Kern, Jr. Ft. Lauderdale Research and Education Center, IFAS, University of Florida, 3205 College Ave., Davie, FL 33314. whk@ufl.edu

Monday, 10:10 – 11:51 AM – Orchid 3-4

Master's Student Competition

Dan Hahn, Student Activities Committee Chair, Department of Entomology and Nematology, College of Agriculture and Life Sciences. dahahn@ufl.edu.

10:10 Introduction

10:15

[1] **Influence of varietal planting on the abundance and distribution of *Frankliniella bispinosa* in southern highbush blueberries in Florida.** Tamika Garrick and Oscar E. Liburd. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. tgarrick09@ufl.edu

10:27

[2] **Effect of soil temperature on survival and wood-consumption rate of four subterranean termite species (Isoptera: Rhinotermitidae).** Runxin Cao and Nan-Yao Su. Ft. Lauderdale Research and Education Center, University of Florida, 3205 College Ave, Davie, FL33314. caorunxin@ufl.edu

10:39

[3] **Purification and characterization of acetylcholinesterase from *Drosophila suzukii*.** Valeria S. M. Valbuena, Katherine M. Walstrom, and Elzie McCord, Jr. New College of Florida, 5800 Bay Shore Rd, Sarasota, FL 34243. valeria.valbuena@ncf.edu

10:51

[4] **Evaluation of baits and trap designs for monitoring spotted wing drosophila, *Drosophila suzukii* (Matsumura) in Florida blueberries.** Lindsay E. Iglesias and Oscar E. Liburd. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. liglesias@ufl.edu

11:03

[5] **Evaluation of trap types and attractants for large scale monitoring of bark and ambrosia beetles (Curculionidea: Scolytinae & Platypodinae).** Sedonia Steininger, Andrea

Lucky and Jiri Hulcr. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. m.sedonia@ufl.edu

11:15

[6] **Control twospotted spider mites with your smartphone.** [Ruohan Liu](#), Menghan Wang and Oscar Liburd. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. ruohan@ufl.edu

11:27

[7] **The Influence of diet on egg formation in *Tamarixia radiata* (Waterston) (Hymenoptera: Eulophidae), a parasitoid of *Diaphorina citri* (Kuwayama) (Hemiptera: Psyllidae).** [Xulin Chen](#) and Phil Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. xulin527@ufl.edu

11:39

[8] (cancelled)

11:51 - End of Master's Competition

Monday, 12:15 – 1:15 PM – Acacia 4-6

Graduate student Luncheon –with Pioneer Lecturer, John A. Mulrennan, Jr.

Monday, 12:00 - 1:00 PM

Lunch on Your Own

Monday Afternoon, July 15

1:30 – 5:00 PM – Orchid 3-4

Symposium: Exotic Whitefly

Organizer: Cindy McKenzie, US Horticultural Research Laboratory, ARS-USDA, 2001 South Rock Road, Fort Pierce, FL 34945.

1:30 Introduction

1:35

[9] **Past, present and possible future: The history of whiteflies in Florida as a taste of things to come?** Ian Stocks. Division of Plant Industry, Florida Dept. Agriculture & Consumer Services, 1911 SW 34th St., Gainesville, Florida 32608. ian.stocks@freshfromflorida.com

1:55

[10] **Whitefly outreach-updates from collaborative efforts.** Amanda Hodges. Department of Entomology and Nematology, University of Florida, IFAS, Steinmetz Building., 970 Natural Area Drive, P.O. Box 110620, Gainesville, FL 32611. achodges@ufl.edu

2:15

[11] **Responding to an invasive species at the community level.** Lance S. Osborne and the Palm Beach Whitefly Task Force. Mid-Florida Research and Education Center, University of Florida, 2725 Binion Road, Apopka, FL 32703-8504. lsosborn@ufl.edu

2:35

[12] **Biology and population dynamics of ficus whitefly, *Singiella simplex*.** Catharine Mannion and Holly Glenn. Tropical Research and Education Center, University of Florida, 18905 SW 280th Street, Homestead, FL 33031. cmannion@ufl.edu

Break 2:55 - 3:15 – Orchid Foyer

Symposium: Exotic Whitefly (continue)

3:15

[13] **Collaborative efforts to develop a biological control program for the rugose spiraling whitefly.** A. Francis, K. Hibbard, and T. Smith. Florida Dept. of Agriculture and Consumer Services – Division of Plant Industry, 45 Virginia Park Blvd, Fort Pierce, FL 34947. Antonio.Francis@FreshFromFlorida.com

3:35

[14] **Host plant preference and oviposition characteristics of the rugose spiraling whitefly (*Aleurodicus rugioperculatus*).** Siavash Taravati and Catharine Mannion, Tropical Research and Education Center, University of Florida, 18905 SW 280th st., Homestead, FL 33031. siavashtaravati@ufl.edu

3:55

[15] **Rugose spiraling whitefly and prospects for biological control by parasitoids.** Anthony Boughton, Siavash Taravati, Catharine Mannion and Lance Osborne. Tropical Research and

Education Center, University of Florida, 18905 SW 280th st., Homestead, FL 33031.
aboughton@ufl.edu

4:15

[16] **Giant whitefly (*Aleurodicus dugesii*) as a surrogate for evaluating the parasitoid wasp (*Encarsiella noysei*) for potential biological control of Rugose Spiraling Whitefly (*Aleurodicus rugioperculatus*).** Yingfang Xiao, Lance Osborne, Cindy McKenzie, Vivek Kumar, Junjian Chen, and Siavash Taravati. Mid-Florida Research and Education Center, University of Florida, 2725 Binion Road, Apopka, FL 32703-8504. yfxiao@ufl.edu

4:35 –Discussion

5:00 – End of Symposium

Monday, 3:15 – 4:56 PM – Orchid 1

Ph.D. Student Competition

Dan Hahn, Student Activities Committee Chair, Department of Entomology and Nematology, College of Agriculture and Life Sciences. dahahn@ufl.edu

3:15 Introduction

3:20

[17] **Asian citrus psyllid seasonal movement and spatial distribution patterns.** Scott Croxton and Phil Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. croxtsd@ufl.edu

3:32

[18] **Morphometric analysis of the Asian citrus psyllid, *Diaphorina citri* in Alachua and Collier counties.** Thomson M. Paris, Scott D. Croxton, Philip A. Stansly and Sandra A. Allan. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. thomsonparis@ufl.edu

3:44

[19] **Termite molting: a spatial and temporal assessment.** Garima Kakkar, Thomas Chouvenec and Nan-Yao Su. Ft. Lauderdale Research and Education Center, IFAS, University of Florida, 3205 College Avenue, Davie, FL 33314. garimaiari@ufl.edu

3:56

[20] **Regulation of relative humidity through evaporative water loss in termites.** John Zukowski and Nan-Yao Su. Ft. Lauderdale Research and Education Center, IFAS, University of Florida, 3205 College Avenue, Davie, FL 33314. jzukows2@ufl.edu

4:08

[21] **Effect of cultural practices on *Blissus insularis* densities in St. Augustinegrass.** Navneet Kaur and Eileen A. Buss. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. nkaur8@ufl.edu

4:20

[22] **Insecticide bioassays against corn-infesting Ulidiidae.** David Owens, Gregg Nuessly, and Nick Larsen. Everglades Research and Education Center, University of Florida, 3200 E. Palm Beach Rd, Belle Glade, FL 33430. owensd119@ufl.edu

4:32

[23] **Susceptibility of tropical sod webworm (Lepidoptera: Crambidae) to entomopathogenic nematodes (Rhabditida: Steinernematidae and Heterorhabditidae): Effect of nematode species and larval size.** Nastaran Tofangsazi, Ron Cherry and Steven Arthurs. Mid Florida Research and Education Center, University of Florida, Apopka, FL 32703. ntsazi@ufl.edu

4:44

[24] **Evaluation of OMRI approved insecticides for control of silverleaf whitefly and conservation of beneficial insects in organic squash.** Janine Razze and Oscar E. Liburd. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. jrazze@ufl.edu

4:56 - End of Ph.D. Student Competition

Monday, 6:30 – 8:30 PM

Mixer – Sunset Deck

Tuesday Morning, July 16

7:00 AM: Past Presidents' Breakfast – Aura Restaurant

8:00 AM– 12:00 PM

REGISTRATION – *Meeting Planner Office*

8:00 – 5:00 – Sea Grape

OFFICE/PRESENTATION PREVIEW - Collection of Presentations –

Tuesday, 8:30 – 11:30 AM – Orchid 3-4

Submitted Papers Session 1

8:30 Introduction

8:35

[25] **A vector-focused method for evaluating weeds as hosts of tomato yellow leaf curl virus.** Hugh A. Smith, Gary E. Vallad, and Keri L. Druffel. Gulf Coast Research and Education Center, University of Florida 14625 CR 672, Wimauma, FL, 33598. hughasmith@ufl.edu

8:47

[26] **Growth and development of *Metamasius callizona* on different host Bromeliads.** Teresa M. Cooper, Ronald D. Cave and J. Howard Frank. Indian River Research and Education Center, University of Florida, 2199 South Rock Rd., Ft. Pierce, Florida 34945. tmcooper@ufl.edu

8:59

[27] **Risk Assessment of the egg parasitoid *Trissolcus halyomorphae* (Scelionidae) for biocontrol of the brown marmorated stink bug, *Halyomorpha halys* (Pentatomidae) in the USA.** Julio Medal, Trevor Smith, Andrew Santa Cruz, Kim Hoelmer, Christine Dieckoff, Katherine Tatman, and Jones Walker. Florida Department of Agriculture and Consumer Services, Division of Plant Industry. 1911 SW 34th St. Gainesville, FL 32614. Julio.Medal@freshfromflorida.com

9:11

[28] **Monitoring blueberry gall midge (*Dasineura oxycoccana* Johnson) and mapping the distribution of the midge and its parasitoids in rabbiteye blueberries.** Elena M. Rhodes and Oscar E. Liburd. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. erhodes@ufl.edu

9:23

[29] **Mass rearing and release of *Lilioceris cheni* (Coleoptera: Chrysomelidae), biological control agent of air potato, *Dioscorea bulbifera*, in Florida.** Eric Rohrig, Trevor Smith, Ken Hibbard and Min Rayamajhi. Florida Department of Agriculture and Consumer Services,

Division of Plant Industry. 1911 SW 34th Street, Gainesville, Florida 32608.
Eric.Rohrig@freshfromflorida.com

9:35

[30] **Is *Litchi chinensis* a potential host for redbay ambrosia beetle, *Xyleborus glabratus*?** Jerome Niogret, Paul E. Kendra, Randy C. Ploetz, Wayne S. Montgomery, Jorge E. Peña, Gurpreet S. Brar and Nancy D. Epsky. USDA-ARS, 13601 Old Cutler Rd., Miami, FL 33158-1857. jerome.niogret@ars.usda.gov

9:47 - 10:10 - Break – Orchid Foyer

10:10

[31] **Evaluation of insect repellents to manage the redbay ambrosia beetle, vector of laurel wilt, a lethal disease affecting avocados in Florida.** D. Carrillo, P.E. Kendra, R. E. Duncan, W.S. Montgomery and J.E. Peña. Tropical Research and Education Center, University of Florida, 18905 SW 280th Street, Homestead, FL 33031. ritad@ufl.edu

10:22

[32] **Forest entomology for the new century: bark and ambrosia beetles in research, education, and citizen engagement in Florida.** Jiri Hulcr, Sedonia Steininger, Caroline Storer and Andrea Lucky. School of Forest Resources and Conservation, University of Florida, PO Box 110410, Gainesville, FL 32611. hulcr@ufl.edu

10:34

[33] **Resource opportunities from the nest of a dying subterranean termite colony: a laboratory case of ecological succession.** Thomas Chouvenec, Paul Bardunias and Nan-Yao Su. Ft. Lauderdale Research and Education Center, University of Florida, Institute of Food and Agricultural Sciences, 3205 College Avenue, Ft. Lauderdale, Florida 33314. tomchouv@ufl.edu

10:46

[34] **Preliminary investigations into soldier mandibular asymmetry in the Isoptera.** A. J. Mullins, P. M. Bardunias and N.-Y. Su. Ft. Lauderdale Research and Education Center, University of Florida, Institute of Food and Agricultural Sciences, 3205 College Avenue, Ft. Lauderdale, Florida 33314. amull81@ufl.edu

10:58

[35] **The School of Ants: using citizen scientist data to map urban biodiversity patterns in Florida.** Andrea Lucky, Lauren M. Nichols, Amy M. Savage, Cristina Castracani, Leonora Shell and Rob R. Dunn. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. alucky@ufl.edu

11:10

[36] **Update on use of ProFume[®] (sulfuryl fluoride) as a post-harvest fumigant in the United States.** Ellen Thoms. Dow AgroSciences, 7257 NW 4th Blvd, #20, Gainesville, FL 32607. emthoms@dow.com

11:22 – Discussion

11:30 – End of Submitted Papers Session 1

Tuesday, 8:30 – 11:45 AM – Orchid 1

Symposium: Thrips – small players with big damages

Organizers: Vivek Kumar (Mid-Florida Research and Education Center, IFAS-UF), and Garima Kakkar (Ft. Lauderdale Research & Education Center, IFAS-UF)

8:30 Introduction

8:35

[37] **Prey preference of phytoseiid mites, *Amblyseius swirskii* (Athias-Henriot) and *A. cucumeris* (Oudemans) on two important thrips pest of field cucumber in south Florida.** Garima Kakkar, Dakshina R. Seal and Vivek Kumar. Mid-Florida Research and Education Center, University of Florida, IFAS, 2725 Binion Road, Apopka, FL 32703. vivekuf@gmail.com

8:53

[38] ***Frankliniella occidentalis* (Pergande) integrated pest management programs for fruiting vegetables in Florida.** Joe Funderburk. North Florida Research and Education Center, University of Florida, 155 Research Road, Quincy, FL 32351. jef@ufl.edu

9:11

[39] **Current status of thrips in tomato and onions fields of Georgia.** David G. Riley. Department of Entomology, University of Georgia, 122 S. Entomology Dr., Tifton, GA 31793. dgr@uga.edu

9:29

[40] **Haplotype analysis of global chilli thrips (*Scirtothrips dorsalis*) populations using the metazoan barcode.** Cindy L. McKenzie, Aaron Dickey, Lance S. Osborne, Vivek Kumar and

Robert G. Shatters Jr. USDA-ARS, U.S. Horticultural Research Laboratory, 2001 South Rock Rd, Ft Pierce, FL 34945. cindy.mckenzie@ars.usda.gov.

9:47

[41] **Next generation DNA sequencing of the globally invasive plant pest, *Scirtothrips dorsalis*.** Aaron M. Dickey, J. Kent Morgan, Cindy L. McKenzie, Robert G. Shatters, Jr. and Lance S. Osborne. Mid-Florida Research and Education Center, University of Florida, 2725 Binion Road, Apopka, FL 32703. aaron.dickey@ars.usda.gov

10:05 - 10:20 - Break – Orchid Foyer

10:20

[42] **Management strategies for *Frankliniella schultzei* on tomato: a principal vector of Groundnut Ring Spot Virus.** D. R. Seal, V. Kumar and G. Kakkar. Tropical Research and Education Center, University of Florida, 18905 SW 280th St., Homestead, FL 33031. dseal3@ufl.edu

10:38

[43] **Using IPM tactics to manage flower thrips in southern highbush blueberries.** Oscar E. Liburd, Elena M. Rhodes and Hector A. Arévalo. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 32611. oeliburd@ufl.edu

10:56

[44] **Lessons learned from a distant land: Onion thrips and their management in the Pacific Northwest.** Stuart Reitz. Department of Crop and Soil Sciences, Oregon State University, 710 SW 5th Ave., Ontario, OR 97914. stuart.reitz@oregonstate.edu

11:14

[45] **A novel biocontrol strategy for managing thrips and other key pests in pepper crops.** Lance S. Osborne, Cindy L. McKenzie, Steven Arthurs, Yingfang Xiao, Vivek Kumar, Christian Miller and Jianjun Chen. Mid-Florida Research and Education Center, University of Florida, 2725 Binion Road, Apopka, FL 32703. lsosborn@ufl.edu

11:32 – Discussion

11:45 – End of symposium

Tuesday, 10:00 AM - 12:00 PM, 2:30 -6:00 PM – Orchid 2

Poster Session 2 - Authors present from 2:30 to 3:30 PM - Posters Down by 6:00 PM

[DSP 7] **Smart aerial release machine for sterile insect technique under the chilled adult method.** Cano Rene, Leal Ruben and Angulo Roberto. Servicios Aereos Biologicos y Forestales Mubarqui, Enrique Cardenas 1356 fraccionamiento los Arcos Ciudad Victoria Tamaulipas Mexico. rlmubarqui@yahoo.com.mx

[DSP 8] **Use of chlorine dioxide gas to control bed bug (Hemiptera: Cimicidae).** Christopher Tipping. Delaware Valley College, 700 E. Butler Ave, Doylestown, PA 18901. Christopher.tipping@delval.edu

[DSP 9] (moved to #55)

[DSP 10] **Cubeb oil identified as an improved attractant for redbay ambrosia beetle, *Xyleborus glabratus* (Coleoptera: Curculionidae: Scolytinae).** Paul E. Kendra, Wayne S. Montgomery, Jerome Niogret, Elena Q. Schnell, Mark A. Deyrup, and Nancy D. Epsky. USDA-ARS, 13601 Old Cutler Rd., Miami, FL 33158-1857. paul.kendra@ars.usda.gov

[DSP 11] **An integrated pest management scheme to protect nest cavities from invasive Africanized honey bees.** Caroline Efstathion, Paul M. Bardunias, and William H. Kern. Ft. Lauderdale Research and Education Center, IFAS, University of Florida, 3205, College Avenue, Davie, FL 33314. whk@ufl.edu

[DSP 12] **Attractancy of lovebugs (diptera: bibionidae) to visual and olfactory stimuli.** Steven Arthurs, Nastaran Tofangsazi and Ron Cherry. Mid Florida Research and Education Center, University of Florida, Apopka, FL 32703. ntsazi@ufl.edu

Tuesday, 12:00 - 2:30 PM – Vista Ballroom

Awards Luncheon

2:30 - 5:20 PM – Orchid 1

Symposium: New Developments in Insect and Mite Control Products

Organizers: Joe Eger (Dow AgroSciences, Tampa, FL) and Scott Ferguson (Atlantic Turf and Ornamental Consulting, Vero Beach, FL)

2:30 Introduction

2:35

[46] **New uses for PFR-97 20 % WDG from Certis USA to control insect pests of vegetables and fruit in the US.** H. Brett Highland, Certis USA, 1069 Eisenhower Dr, Nokomis, FL 34275. bhighland@certisusa.com

2:53

[47] **Venerate™, a new bacterial species of *Burkholderia*, a new bio-pesticide tool for citrus and vegetables.** Tim Johnson, [Guy Wilson](#), Steven Whitesides and Luis Solari. Marrone Bio Innovations, 1721 NE 49th Avenue, Ocala, FL 34470. gwilson@marronebio.com

3:11

[48] **Triple Crown™: 3-way turf pest control.** [Brian Mount](#) and Dina Richman, FMC Corp, 1735 Market Street, 18th Floor, Philadelphia, PA 19103. brian.mount@fmc.com

3:29

[49] **Verifi bed bug detection: New data from the field.** [Dina Richman](#), FMC Corp, 1735 Market Street, 18th Floor, Philadelphia, PA 19103. dina.richman@fmc.com

3:47 - 4:15 Break – Orchid Foyer

4:15

[50] **DuPont™ Exirel™ and Verimark™ insect control: Novel insecticides for crop protection and optimizing yield on vegetables in the Southeast.** [James “Shine” Taylor](#), Stanley S. Royal, Glenn Hammes, Robert W. Williams, Hector E. Portillo, I. Billy Annan and Juan M. Alvarez. DuPont Crop Protection, 510 25th Ave. North, St. Petersburg, FL. james.e.taylor-1@dupont.com

4:33

[51] **Sulfoxaflor (Closer™ SC): a new chemical class for the control of sap-feeding insects in citrus and vegetables.** [Alejandro A. Calixto](#), Dow AgroSciences, 33245 Mandrake Rd., Wesley Chapel, FL 33543. aacalixto@dow.com

4:51

[52] **Harmonix Insect Spray: Bayer’s first botanical product for PMPs, is definitely worth the wait.** [John Paige III](#), Bayer Environmental Science, 328 Indian Lilac Road, Vero Beach, FL 32963. John.Paige@Bayer.com

5:09 - Discussion

5:20 - End of Symposium

Tuesday, 2:30 - 5:30 PM – Orchid 3-4

Submitted Papers Session 2

2:30 Introduction

2:35

[53] **South Florida landscapes under attack! How the public deals with whiteflies on ornamentals.** Adrian G.B. Hunsberger. Miami-Dade Extension, University of Florida, IFAS, 18710 SW 288th Street, Homestead, FL 33030. aghu@ufl.edu

2:47

[54] **Pre shipping dip treatments using soap, natural oils, and *Isaria fumosorosea*: potential biopesticides for mitigating the spread of whitefly *Bemisia tabaci* (Hemiptera: Aleyrodidae) invasive insects on ornamental plants.** Luis F. Aristizábal, Pasco B. Avery, Vivek Kumar, Jean H. Caldwell, and Lance S. Osborne. Mid-Florida Research and Education Center, University of Florida, IFAS, 2725 Binion Road, Apopka, FL 32703. larist@ufl.edu

2:59

[55] **Update on bait stations for Tephritid fruit fly control.** Nancy D. Epsky, Micah A. Gill, and Jonathan Crane. USDA-ARS, 13601 Old Cutler Rd., Miami, FL 33158-1857. nancy.epsky@ars.usda.gov

3:11

[56] **Management of spotted wing drosophila (*Drosophila suzukii*) in southern highbush blueberries.** Nyoike, T. W. and O. E. Liburd. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 3261. nyoiket@ufl.edu

3:23

[57] **Mechanisms for making macho males: antioxidants boost the sexual performance of sterile male caribflies and improve the efficacy of the sterile insect technique.** Giancarlo Lopez-Martinez and Daniel A. Hahn. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 3261. dahahn@ufl.edu

3:35

[58] **Low-oxygen hormesis improves survival and rescues sterility during phytosanitary treatments in the cabbage looper, *Trichoplusia ni*.** Giancarlo Lopez-Martinez, Woodward D. Bailey and Daniel A. Hahn. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 3261. gc.lopez@ufl.edu

3:47 - 4:10 - Break - Gallery

4:10

[59] **Thrips integrated pest management in snap beans.** Nicholas A. Larsen and Gregg S. Nuessly. Everglades Research and Education Center, University of Florida, IFAS, 3200 E. Palm Beach Rd., Belle Glade, FL 33430. larsnick@ufl.edu

4:22

[60] **Woody host plants of the sugarcane root weevil (Coleoptera: Curculionidae) in Florida sugarcane.** D. Otero, R. Cherry, A. Wright, H. Sandhu and Y. Luo. Everglades Research and Education Center, University of Florida, 3200 East Palm Beach Road, Belle Glade, FL 33430. rcherry@ufl.edu

4:34

[61] **Boric acid sugar baits mixed with pyriproxyfen sprayed on plants against adult and larval *Aedes albopictus* (Diptera: Culicidae).** Rui-De Xue, Jodi M. Scott, Ali Fulcher and Whitney A. Qualls. Anastasia Mosquito Control District, 500 Old Beach Road, St. Augustine, FL 32080. xueamcd@gmail.com

4:46

[62] **Non-target insecticide impacts on green lacewings, *Chrysoperla rufilabris*.** Steven Arthurs, Luis Aristizabal and Norm Leppla. Mid Florida Research and Education Center, University of Florida, Apopka, FL 32703. spa@ufl.edu

4:58

[63] **Habitat manipulation for augmentation of ecosystem services.** Russell F. Mizell, III. North Florida Research and Education Center, University of Florida, 155 Research Rd, Quincy, FL 32351. rfmizell@ufl.edu

5:10 – Discussion

5:30 - End of Submitted Papers Session 2

Wednesday, July 17

8:00 – 9:30 AM – Sea Grape

OFFICE/PRESENTATION PREVIEW - Collection of Presentations

8:00 – 10:00 AM – Meeting Planner Office

REGISTRATION

Registration Desk

Wednesday, 8:00 – 11:20 AM

Symposium: Dale Habeck – Orchid 3-4

Organizer: Howard Frank, Center for Systematic Entomology

8:00 Introduction and memories of Dale Habeck

8:05

[64] **How did Alexander von Humboldt survive? The inconveniences of modern travel to tropical America.** Rudolph H. Scheffrahn. Fort Lauderdale Research and Education Center, University of Florida, 3205 College Avenue, Davie, Florida 33314. rhsc@ufl.edu

8:25

[65] **What can we learn from Lepidoptera larvae?** Andrei Sourakov. McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Powell Hall, University of Florida, 32611. asourakov@flmnh.ufl.edu

8:45

[66] **Collaborative Biological Control Efforts in Florida.** Trevor Smith. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, 1911 SW 34th Street, Gainesville, FL 32608. trevor.smith@freshfromflorida.com

9: 05

[67] **Temporal changes in the scale and whitefly fauna in Florida and the role of biological control programs.** Ian C. Stocks. Division of Plant Industry, Florida Department of Agriculture and Consumer Services, 1911 SW 34th Street, PO Box 147100, Gainesville, Florida 32614-7100. Ian.Stocks@FreshFromFlorida.com

9:25- 9:40 - Break – Orchid Foyer

9:40

[68] **Remembering a great entomologist and personal mentor: Dale Habeck as a weed biocontrol pioneer.** Julio Medal. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, 1911 SW 34th Street, Gainesville, FL 32608. Julio Medal. Julio.Medal@freshfromflorida.com

10:00

[69] **Beneficial connections: Dale Habeck, flowers, and bugs.** Eric Rohrig. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, 1911 SW 34th Street, Gainesville, FL 32608. Eric.Rohrig@freshfromflorida.com

10:20

[70] **Brazilian pepper biological control research; The contributions of Dale Habeck and where they led.** Gregory Wheeler. USDA/ARS Invasive Plant Research Lab, 3225 College Ave, Ft Lauderdale, FL 33314. Greg.wheeler@ars.usda.gov

10:40

[71] **Metamorphosis in Lepidoptera.** James L. Nation. Department of Entomology and Nematology, University of Florida, Bldg. 970 Natural Area Drive, Gainesville, FL 3261. JLN@ufl.edu

11:00 – Discussion

11:20 – End of Symposium

Wednesday, 8:30 – 11:00 AM – Orchid 1

Submitted Papers Session 3

8:30 – Introduction

8:35

[72] **Ultrastructure of integument wax and wax-producing structures in the melaleuca psyllid *Boreioglycaspis melaleucae* (Hemiptera: Psyllidae).** El-Desouky Ammar, Rocco Alessandro, David G. Hall and Robert G. Shatters. USDA-ARS, USHRL, 2001 S. Rock Rd., Fort Pierce, FL 34945. eldammar@hotmail.com

8:47

[73] **Antennal response of Asian citrus psyllid, *Diaphorina citri*, to degradation products of citrus volatiles.** Stephen L. Lapointe and Paul S. Robbins, USDA-ARS, U.S. Horticultural Research Laboratory, 2001 South Rock Road, Fort Pierce, FL 34945. Stephen.lapointe@ars.usda.gov

8:59

[74] **Performance of predatory beetle *Cryptolaemus montrouzieri* on diets of Asian citrus psyllid *Diaphorina citri*, citrus mealybug *Planococcus citri*, green citrus aphid *Aphis spiraecola*, corn leaf aphid *Rhopalosiphum maidis* and flour moth *Ephesia kuehniella*.** Jawwad A. Qureshi and Philip A. Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. jawwadq@ufl.edu

9:11

[75] **Replication of *Candidatus Liberibacter asiaticus* in its psyllid vector *Diaphorina citri* (Hemiptera: Psyllidae).** El-Desouky Ammar, Robert G. Shatters and David G. Hall. USDA-ARS, USHRL, 2001 S. Rock Rd., Fort Pierce, FL 34945. eldammar@hotmail.com

9:23- 9:40 - Break – Orchid Foyer

9:40

[76] **Transcriptome analysis of RNAi induced Asian citrus psyllid using quantitative real-time PCR and next generation sequencing.** John Ramos, Robert Shatters, Charles Powell, Dov Borovsky and Ritesh Jain. USDA-ARS 2001 S. Rock Road Fort Pierce, FL 34945. john.ramos@ars.usda.gov

9:52

[77] **Response of Asian citrus psylla, *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) to selected organic insecticides.** Jawwad A. Qureshi, Azhar A. Khan and Philip A. Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. jawwadq@ufl.edu

10: 04

[78] **The latest buzz on Asian citrus psyllid vibration traps.** R. W. Mankin, S. McNeill and T. Paris. USDA-ARS-CMAVE, 1700 SW 23rd Dr., Gainesville, FL 32608. Richard.Mankin@ars.usda.gov

10: 16

[79] **Extension model to improve Asian citrus psyllid control in Citrus Health Management Areas (CHMAs).** Moneen M. Jones and Philip A. Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. mmjones2@ufl.edu

10:28

[80] **Economic Injury Level model for Asian citrus psyllid control in citrus groves with high incidence of HLB.** Monzó, C. and P. A. Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. cmonzo@ufl.edu

10:40 - Discussion

11:00 - End of Submitted Paper Section 3

We thank our Sustaining and Corporate Members

Sustaining Members 2013

Bayer CropScience
John Paige

Dow AgroScience
Joe Eger

E. O. Printing Company
Dick Johnson

Nichino America Inc
Botond Balogh

Mark B Sivic
Ned French

Corporate Members 2013

BASF Corp
Paul Neese

Crompton Uniroyal Corp
Keith Griffith

Dow AgroScience
Ellen Thoms

Syngenta
Clay Scherer

DuChene & Reid

End of 2013 Florida Entomological Society Meeting

Thanks for your participation!