Board of Directors for 2016 .......................................................... ii
Presidential Address: Chris Oswalt ........................................... vii
Awards of the Society ................................................................. ix
Honorary Members: 1988 to Present ........................................... xiii
Outstanding Growers or Commercial Horticulturists .............. xiv
List of Presidents, 1988 to Present ............................................. xiv
Host Cities ................................................................................ xv
Keynote Speaker: George K. Rogers—“The Earliest Days of Florida Horticulture” .................................................. xvi
Keynote Speaker: William A. Messina, Jr.—“Is it Possible to Examine the Economics of Cuban Horticulture?” .......... xxii
By-laws .................................................................................... 309
Minutes of the Board of Directors Meetings ....................... 314
Minutes, 2016 Annual Meeting .............................................. 324
2016 Membership List ............................................................. 327
Author Index ........................................................................... 330
Conference Memories ............................................................ 334

Published Papers
KROME MEMORIAL INSTITUTE (TROPICALS)
Laurel Wilt—An Update on the Disease’s Impact on South Florida’s Avocado Industry ...................................................... 1
JEFF WASIELEWSKI, JONATHAN H. CRANE, AND DANIEL CARRILLO
Current Management Recommendations for Laurel Wilt of Avocados ........................................................................... 4
JONATHAN CRANE, RANDY PLOETZ, DANIEL CARRILLO, EDWARD EVANS, JEFF WASIELEWSKI, AND DON PYRAS
The Oriental Fruit Fly Eradication Program in Miami-Dade County—Why it Worked .......................................................... 11
JEFF WASIELEWSKI, JONATHAN CRANE, AND DANIEL CARRILLO
Training and Pruning a Mango Orchard to Improve Blooming and Yield in South Florida .................................................. 14
NORIS LEDESMA, RICHARD J. CAMPBELL, AND JEFF WASIELEWSKI
Finding a Suitable Interstock for Three Mangifera Species from Tropical Asia ................................................................. 17
RICHARD J. CAMPBELL, NORIS LEDESMA, AND GARY ZILL
Ground Covers for Organic Mango Production in South Florida.... 19
NORIS LEDESMA, RICHARD J. CAMPBELL, AND JEFF WASIELEWSKI
Propagation of Papaya (Carica papaya L.) with Large-sized Cuttings ................................................................. 22
WANDA MONTÁS, PAMELA MOON, AND JONATHAN H. CRANE
Mites Associated with Carica papaya in Florida ........................... 25
DANIEL CARRILLO, SARVAN FARIS HONEY, LEONARDO ALVAREZ RIOS, RITA E. DUNCAN, AND JORGE E. PEña
Responses of Papaya Plants in a Potting Medium to Flooding and Solid Oxygen Fertilization ............................................ 27
QASIM A. THANI, ANA I. VARGAS, BRUCE SCHAFFER, GUODONG LIU, AND JONATHAN H. CRANE
Saving the Grimal Grove, Restoring a Legendary Tropical Fruit Collection and Establishing Grimal Grove as the Southernmost Tropical Fruit Park .......................... 35
PATRICK B. GARVEY
The Art of the Sale—An Early History of Marketing Tropical Fruit in South Florida ........................................................ 37
ADRIAN G.B. HUNSBERGER
A Survey of the Beneficial Organisms in the Sustainable Mango Orchard ........................................................................ 39
THIAGO B. CAMPBELL AND RICHARD J. CAMPBELL
Irrigation Strategies for Florida Subtropical Peach Production ...... 42
CARLOS ZAMBRANO-VACA, MERCY A. OLMSTEAD, AND LINCOLN ZOTARELLI
‘O32-18-3’, A Potential Muscadine Seedless Grape .................. 46
Z. REN, J. LU, AND V. COLOVA

Citrus Section
Further Observations of Parson Brown and Other “Surviving” Citrus .................................................................................. 48
GARY K. ENGLAND
Mitigation of Huanglongbing Effects on Grapefruit Trees Using Enhanced Nutritional Programs ........................................... 51
DIEGO RAMIREZ, JOSE CHAPARRO, ALAN WRIGHT, BRIAN ROMAN, BARRET GRUBER, MARK A. RITENOUR, AND SILVIA MARINO
The Current State of Satsuma Production in Georgia ................ 56
JAKE PRICE
Exploring Mechanisms of Citrus Rootstock Tolerance to HLB ...... 59
UTE ALBRECHT AND KIM D. BOWMAN
Citrus Fertilization and Irrigation Practices for Managing HLB in Florida ........................................................................ 64
DAVE M. KADYAMPAKENI, KELLY T. MORGAN, AND ARNOLD W. SCHUMANN
Seasonal Variation in Preharvest Fruit Drop of Florida Oranges in Relationship to Weather and Other Factors ................... 69
L. GENE ALBRIGO AND T.A. EBERT
Importance of Early Season Copper Sprays for Protection of Hamlin Orange Fruit Against Citrus Canker Infection and Premature Fruit Drop ............................................. 74
JAMES H. GRAHAM, CAROL BROOKS, AND HENRY D. YONCE
The Occurrence of Non-protein Amino Acids in the Phloem Sap of Different Citrus Varieties ........................................79

**Nabil Killiny and Faraj Hijaz**

Movement of HLB Genetic Signal Within Citrus Trees:
More Questions Than Answers ..................................83

**Ed Etxeberria, Pedro Gonzalez, and Craig Brodersen**

Citrus Canker and Greening: A Grower Perspective ..........87

**Thomas Stopyra**

Recommendations Based on the Florida Citrus Rootstock
Selection Guide Using a Web-server Application of Artificial Intelligence ........................................90

**Steven Rogers, William S. Castle, Stephen H. Futch, and Andrew S. Persaud**

Early Diagnosis of Huanglongbing Disease in Citrus Seedlings.....95

**Alireza Pourreza, Won Suk Lee, Justice Diamond, Eva Czarnecka, Lance Verney, and William Gubler**

Apparent Tolerance to Huanglongbing in Citrus and Citrus-Related Germplasm ..................................................99

**Godfrey P. Miles, Ed Stover, Chandrika Ramadugu, Manjunath L. Keremane, and Richard F. Lee**

Hydrogen Cyanamide on Citrus: Preliminary Data on Phytotoxicity and Influence on Flush in Potted and Field Trees ..........108

**Ed Stover, Youhan Lin, Xiao YANG, and Tripti Vashishth**

Determining the Size Exclusion for Nanoparticles in Citrus Leaves .........................................................................115

**Ed Etxeberria, Pedro Gonzalez, Priyanka Bhattacharya, Parvesh Sharma, and Pu Chun Ke**

Fate of E. coli Populations on Citrus Trees Following Foliar Application of Agricultural Water Containing Copper Hydroxide ........................................................................121


**VEGETABLE SECTION**

Challenges Faced by Miami-Dade County Vegetable Growers in 2015 ................................................................122

**Qingren Wang**

The Use of Smart Phone Application (SmartIrrigation Vegetable) for Irrigation Scheduling in Tomato (Solanum lycopersicon) Production ................................................................................125

**Ibukun T. Ayankojo and Kelly T. Morgan**

Fruit Quality of Seedless Watermelon Cultivars Grafted onto an Interspecific Hybrid Squash Rootstock ................................130

**Quanru Liu, Xin Zhao, Zack Black, Jeffrey K. Brecht, and Charles A. Sims**

Season Extension and Overwintering of Scotch Bonnet Hot Pepper in North Florida .............................................134

**Alex Bolques, Gilbert Queeley, Fanny OsPina, and Vonda Richardson**

Optimization of Growth-stage Specific Nitrogen Fertilization Improves Strawberry Growth and Yield ........................137

**Bhagatveer Sangha and ShinSuke Agehara**

Effects of Potassium Rates on Yield and Postharvest Qualities of Winter Fresh Tomato Grown on a Calcareous Soil ........140

**Qiang ZHOU, Monica Ouzeres-Hampton, Yuncong LI, and Kelly Morgan**

Utilizing Manure to Energy Co-products as Fertilizer in Tomato Production Systems ..........................................145

**Mark S. Reiter and Jane Corson-Lassiter**

Alleviating Transplant Stress by Inhibiting Ethylene Signaling Improves Growth and Yield of Tomato ..........................149

**Shinsuke Agehara**

Optimizing Nitrogen Rates for Seedless Watermelon [Citrullus lanatus (Thunb.) Matsum. & Nakai] Production with Fertigation in North Florida: A One-year Case Study ......................151

**Tanumoy Bera, Yuqi Cui, Moshe Doron, and Guodong Liu**

Updating Nitrogen Fertility Recommendations for Mid-Atlantic Vegetable Crops ..................................................153

**Mark S. Reiter, Cathy Fleming-Wimer, Joshua H. Freeman, and Dan E. Brann**

Optimum Nitrogen Rate and Application Timing for Chipping Potato under Different Irrigation Systems ..................158

**Andre Luis B.R. da Silva, Lincoln Zottarelli, Shinske Agehara, Heraldo T. Hashiguti, Michael D. Dukes, and Senthold Asseng**

Preemergence Herbicides for Purple Nutsedge (Cyperus rotundus L.) Control in Strawberry (Fragaria xanassa Duchesne) .................................................................165

**Nathan S. Boyd and Tom Reed**

Pepper Weevil (PW), Anthonomus eugenii Cano (Col: Curculionidae), Abundance in ‘Jalapeno’ Pepper under Various Management Regimes .........................................................167

**Dakshina R. Seal, Mohammad Razzak, Rafa A. Khan, and Catherine M. Sabines**

Seed Piece Spacing for Spring Chipping Potato Cultivars in Florida ............................................................................172

**Fernanda Souza Krupek, Christian T. Christensen, Charles E. Barrett, and Lincoln Zottarelli**

**HANDLING & PROCESSING SECTION**

Sugar Composition Analysis of Commercial Citrus Juice Products ..............................................................................178

**Jiuxi Zhang and Mark A. Ritenour**

An HPLC-MS Analysis of Phenolic Antioxidants in Banana Peel ...................................................................................181

**John A. Manthey and Somkit Jaithong**

A Comparison of Physical and Chemical Attributes of Strawberry Cultivars and Advanced Breeding Selections from the University of Florida ...................................................185

**Katrina Kelly, Cecilia do Nascimento Nunes, and Vance M. Whitaker**

Postharvest Storage Temperature and Coating Effects on Fruit Quality of Red-fleshed Pitaya (Hylocereus costarricenses) ........190

**Nur Azlin Razali, Ana Clara Nascimento Antunes, Adrian D. Berry, and Steven A. Sargent**
Isolation of Salmonella and Detection of Generic E. coli from South Florida Surface Waters ........................................... 195
Travis K. Chapin and Michelle D. Danyluk

Effect of Packingline Processing on the Reduction of Escherichia coli (a Surrogate for Salmonella) Populations on Inoculated Grapefruit .............................................................................................. 196
Jiexiu Zhang, Lorettia Friedrich, Michelle D. Danyluk, and Mark A. Riteno ur

HLB-associated Preharvest Fruit Abscission Is Mediated by Jasmonate/Ethylene Signaling Triggered by Secondary Fungal Infection ..................................................................................................... 198
Wei Zhao, Elizabeth Baldwin, Jinhie Bai, Anne Plo to, and Mike Irey

The Effect of Controlled-release Chlorine Dioxide on the Preservation of Grapefruit ................................................... 203
Xiuxu Sun, Elizabeth Baldwin, Chris Ference, Jan Narciso, Anne Plo to, Mark Riteno ur, Ken Harrison, Dave Gangemi, and Jinhie Bai

The Effects of Postharvest Hot Water and Fungicide Treatments on Guignardia citricarpa Growth and the Development of Citrus Black Spot Symptoms on ‘Valencia’ Orange Fruit ................................................................. 208
Jiaqi Yan, Megan M. Dewiney, Pamela D. Roberts, and Mark A. Riteno ur

Volatile and Nonvolatile Flavor Chemical Evaluation of USDA Orange–Mandarin Hybrids for Comparison to Sweet Orange and Mandarin Fruit .......................................................................................................... 214
Jinhie Bai, Elizabeth Baldwin, Jack Hearn, Randy Driggers, and Ed Stover

Anthocyanins and In Vitro Antioxidant Capacity of Strawberries from Different Disease Control Treatments ................................................................. 226
Marvin Abountholas and M. Cecilia do Nascimento Nunes

**ORNAMENTAL, GARDEN & LANDSCAPE SECTION**

Optimal Photoperiod Treatment for Flowering of Bougainvillea xbutiana ‘Afterglow’ ................................................................................................................................. 231
Mun Wee Ching and Kimberly A. Moore

Determination of Ploidy Levels and Breeding of Ruellia ........... 234
Victor A. Zayas, Allison V. Conner, Steve Montalvo, and Rosanna Freyre

Observation of Potential Pests of Hops (Humulus lupulus) Grown in the Southeastern United States ................................. 239
Richard M. Smith, Brian J. Pearson, Steven Arthurs, and Amanda C. Morgan

Postemergence Control of Pilea microphylla (Artillery Weed) ..... 243
Chris Marble, Annette Chandler, and Debhalia Saha

Systemic Insecticides Reduce Staining Caused by Caterpillar Frass and Eriophyid Mite Galls of Oxhorn Bucida (“Black-Olive”) Trees ........................................................................................................ 246
Douglas L. Caldwell, and A.D. Ali

Rose Variety Testing for Chilli Thrips and Developing a Sample Plan for Container Roses .................................................. 249
Steven Arthurs, Moh Leng Kok-Yokomi, Luis Aristizabal, Matt Osowat, Wayne Myers and Brian J. Pearson

A New Disease Caused by a Cercospora sp. on the Florida Native Tetrazygia bicolor ........................................................................ 253
Robert T. McMillan, Jr.

Hillsborough County Container Nursery Irrigation Characteristics ......................................................................................... 255
Shawn T. Steed, Tom Yeager, and Jimmy Hinton

Nutrient Leaching from Bananas Grown in Sphagnum Peat and Sugarcane Filter Press Mud Based Growing Media During Acclimation ........................................................................................................... 257
Nicholas Larsen, Kimberly Moore, Tim Broschat, Samara Daroub, and Ann Wilkie

Irrigation App for Container Nurseries ........................................... 263
Tom Yeager and Jeff Million

Evaluating Fungicides in Production for Long-term Management of Impatiens Downy Mildew in the Landscape ............................................................. 266
Stephanie N. Suarez, Patricia Lopez, A.R. Chase, and Aaron J. Palmafeer

Growing Plants and Volunteers: A Master Gardener Nursery Project .................................................................................. 269
Sheila Dunning and Larry Williams

Nitrogen Retention by Coated Turfgrass Fertilizers ............................................. 271
George H. Snyder, Tracey K. Wasylik, and Raymond H. Snyder

Components of a Pollinator Garden ............................................................................................................................ 275
Lynn Barber and Nicole Pinson

Leading the Charge! Volusia County Leaders in the State BMP Enrollment .................................................................................... 277
Karen Staufferman

A High Incidence of Pythium and Phytophthora Diseases Related to Record-breaking Rainfall in South Florida ...................................................................................... 280
E. Vanessa Campoverde, Georgina Sanahuja, and Aaron J. Palmateer

School Garden Summer Camp ........................................................................ 286
Theresa Badurek

Your Florida Vegetable Garden ........................................................................... 287
Theresa Badurek and Jane Morse

**NATURAL RESOURCES SECTION**

AmeriCorps Master Naturalists Improve Youth Environmental Education .................................................................................. 288
Sheila Dunning

Opportunities and Challenges for Marketing Leafy Salad Crops in the Farm-to-School Program ................................................................. 291
Richard V. Tyson, Caitlyn Glattin, and Jamila I. Adams

The Everglades Invasive Reptile and Amphibian Monitoring (EIRAMP) Citizen Science Program ........................................................................... 294
Kenneth Gioeli, Frank Mazzotti, Edward Metzger, Michael Rochford, and Amanda Thompson
POSTER SECTION

Teaching Tree Management Programs to the Medellin Botanical Garden and City of Medellin Ground Maintenance Personnel, a Successful Approach! ................................................................. 297
HENRIQUE MAYER, L. SOLANO, M. ARROYAVE, AND D. BENITEZ

Expanding Community Outreach through Master Gardener-funded Demonstration Garden Grants: Pilot Program Results ........... 298
YVETTE GOODSEL

Master Gardener Project Expo ............................................................... 299
THERESA BARUREK

Plant This, Not That! ........................................................................... 300
LLOYD SINGLETON AND BROOKE MOFFIS

Five Years in Review: Partnering with Local Garden Centers to Offer Produce Production, Canning, and Cooking Classes ............ 301
MATTHEW ORWAT AND JUDY CORBUS

Breaking New Ground: 2016 First Coast Specialty Crop Conference ....................................................................................... 302
DAVID NISTLER, JIM DeVALERIO, TERRA FREEMAN, BONNIE WELLS, MARY BETH HENRY, DANIELLE TREADWELL, AND J. PEREZ

Supporting Agricultural Awareness through Farm Tours in Palm Beach County ............................................................... 303
CHRISTIAN MILLER, MATTHEW VANWEELDEN, JONATHAN MAYER, AND RONALD RICE

Exploring Careers in Agriculture through Green & Growing Youth Field Day ........................................................................ 304
MARTHA GLENN, CRYSTAL SNOODGRASS, DIANA SMITH, NATHAN BOYD, ZHANAO DENG, HUGH SMITH, VANCE WHITAKER, JOZER MANGANDI, AND GARY VALLAD

Sugar cane in the Panhandle ............................................................... 305
ZADREYAL WIGGINS

Advanced Irrigation Management on North Florida Farms ......... 306
MACE BAUER

Growing for Profit: Agribusiness Development Series.............. 307
TERRA L. FREEMAN

Youth Peach Tree Project Turns Out Peachy Keen ................. 308
CAMILLE MACAVOY AND KALAN TAYLOR