

FSHS

Florida State
Horticultural Society



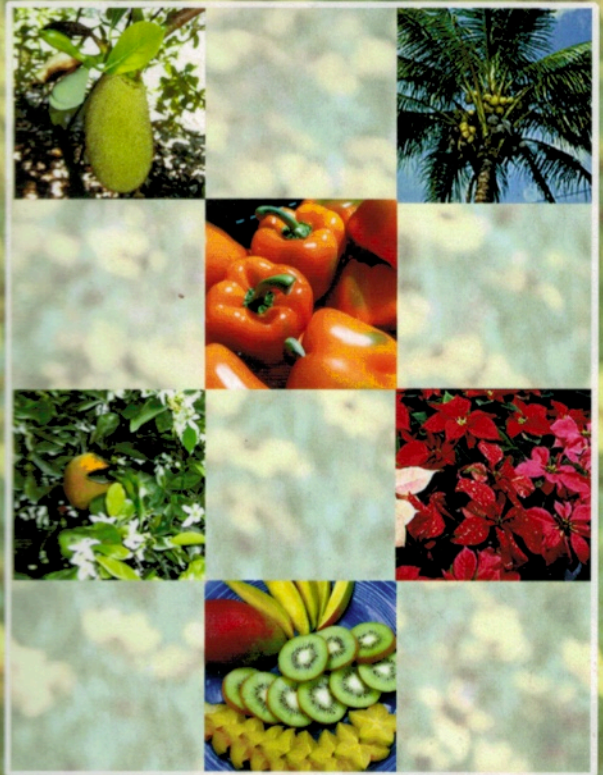
FSHS

Florida State Horticultural Society

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Visit our website at:
<http://www.fshs.org>



June 8-10, 2003

**Sheraton World Resort
Orlando, Florida**

2003 AGENDA



**WELCOME TO THE
ONE HUNDRED AND SIXTEENTH
ANNUAL MEETING OF THE
FLORIDA STATE
HORTICULTURAL SOCIETY**

Sheraton World Resort

**10100 International Drive
Orlando, Florida**

407-352-1100

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-Syngenta Crop Protection
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The Society also acknowledges the significant contributions in advertising space provided by:

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-Citrus & Vegetable Magazine
-Florida Grower
-Ornamental Outlook

The Society also thanks the donations of plant materials and efforts of the following companies and individuals for:

1) Meeting Room Displays:

- Driftwood Gardens, Apopka
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- Dr. Carlos Balerdi, Miami-Dade County Extension Office, Homestead
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Exhibits at the FSHS Meeting

Tampa Bay Pre-function Area (2nd Floor)

Association of Florida Native Nurseries/Florida Native Plant Society

Florida Citrus Mutual

Florida Grape Growers Association

Florida Nurserymen and Growers Association

Florida Organic Growers Association

UF/IFAS Bookstore

UF/IFAS Master Gardener Program

UF/IFAS Master Naturalist Program

Florida Bay Lobby

Florida Department of Citrus

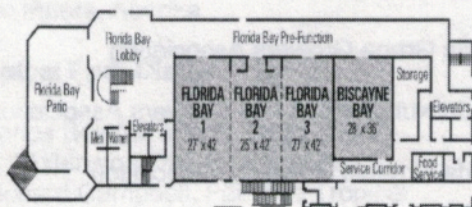
Florida Bay Patio

Tropical Fruit Display

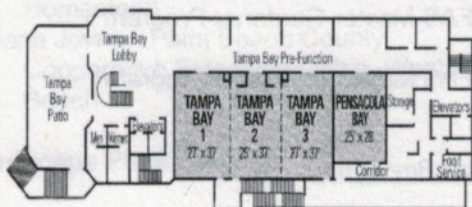
Landscape Plant Display

**SHERATON WORLD RESORT
Site Map**

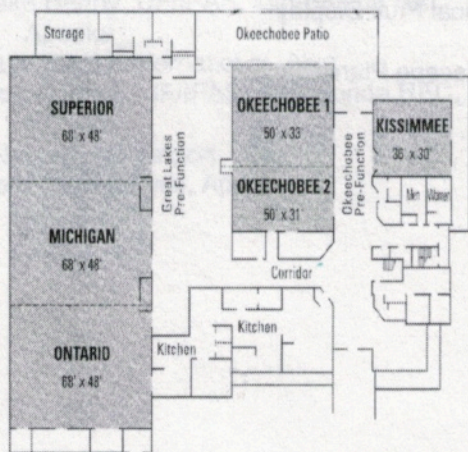
**Tower Conference Center
GROUND FLOOR**



2ND FLOOR



East Conference Center



PROGRAM & GENERAL SESSIONS

Registration Desk Hours

Florida Bay Lobby

Sunday June 8 10:00 AM – 7:00 PM
Monday June 9 7:00 AM – 6:00 PM
Tuesday June 10 7:00 AM – noon

Sunday Afternoon

2:00-4:00 Board of Directors Meeting Biscayne Bay
5:00 Awards Ceremony Florida Bay 1 & 2
6:00-7:00 Welcome Reception Tampa Bay Patio
Special Comments:
Mr. Ben Bolusky, Executive Vice President,
Florida Nurserymen and Growers Association

Monday Morning

7:00-8:00 Continental Breakfast Florida Bay Lobby
8:30-9:45 General Session Florida Bay 1 & 2
8:30 Introduction and Welcome
8:40 Presidential Address,
Jonathan Crane, President FSHS
9:00 Principal Address Speaker:
"Insuring the Viable Future for Florida's Rural
'Lands"
Mr. Craig Evans, President of Stewardship
America, Inc.
10:00-noon Concurrent Morning Sessions

Special Programs

8:00-noon CEU Day Program Florida Bay 3
9:00-noon Master Gardener Program Biscayne Bay

Monday Afternoon

1:30-3:00 Concurrent Afternoon Sessions
3:00 Sectional Business Meetings
3:30-5:00 Concurrent Afternoon Sessions
6:00-7:00 Industry Reception Okeechobee Patio

Tuesday Morning

7:00-8:00 Horticultural Breakfast Okeechobee 1
Invited Speaker:
"Rural Lands - Agriculture and Development,
How Collier County Met the Challenge"
Mr. Michael Taylor, Vice President, Collier
Enterprises.
8:30-9:45 Annual Business Meeting Florida Bay 1 & 2
10:00-noon Concurrent Morning Sessions

End of Meeting

Special Programs - Monday Morning

CEU DAY PROGRAM Richard Tyson, Presiding

8:00 AM - 12:00 noon Florida Bay 3
CEUs: 4.0

8:00 **Integrated Pest Management**
Lance Osborne, Mid-Florida Research & Education Center, Apopka

Two CEUs in Multiple Categories: Ornamental & Turf, Private Applicator Ag, Ag Row Crop, Commercial Lawn & Ornamental, Ag Tree Crop, Limited Lawn & Ornamental, Limited Commercial Landscape Maintenance, Demonstration & Research, Forestry, Right of Way

10:00 **General Standards/Core – Safety and Laws and Regulations**
Tom Dean, Food Science & Human Department, UF, Gainesville

Two CEU's in the GS/Core Category

12:00 Adjourn

MASTER GARDENER PROGRAM Tom Wichman, Presiding

9:00 AM - 12:00 noon Biscayne Bay

9:00 **IT for MG's**
Richard Ferdig, University of Florida

9:40 **Ornamental Grasses**
Robert Bowden, Harry P. Leu Gardens

10:20 Break

10:40 **Citrus Canker Update**
Holly L. Chamberlain, University of Florida

11:20 **Wildflowers for Florida**
Jeff Norcini, North Florida Research & Education Center, University of Florida, Quincy

12:00 Adjourn

Concurrent Sectional Program

Times followed by * represent papers entered in the Best Student Paper Award

CITRUS SECTION Ed Stover, Presiding Papers 1-30

June 9
Monday Morning Session
10:00 a.m. - 12:00 noon Tampa Bay 1

CEUs: 0.5 Water Mgmt, 0.5 Pest Mgmt, 0.5 Crop Mgmt;
RUP CEUs: 0.5 Ag Tree, D & R, Private Ag

1. 10:00* Distribution of Flavonoid Glycosides, Polyphenolics and Antioxidant Potentials in Different Tissues of Citrus X paradisi, Citrus pumello and Citrus sinensis. Ufuk Koca, Bala Rathinasabapathi and Gloria A. Moore, Horticultural Sciences Dept., UF, Gainesville
2. 10:15* Valuing Catastrophic Losses for Annual and Perennial Agricultural Crops. Damian C. Adams, Richard L. Kilmer, Charles B. Moss and Andrew Schmitz, Food and Resource Economics Dept., UF, Gainesville
3. 10:30 History of Bedding Citrus Groves in the Indian River District to Improve Drainage. Paul J. Driscoll, Grove Manager, Ft. Pierce (SW CCA CEU)
4. 10:45 Irrigation of Young Flatwoods Citrus Trees. Brian J. Boman, IRREC, UF, Ft. Pierce (SW CCA CEU)
5. 11:00 Survey and Control of Brazil Pusley (*Richardia brasiliensis*) in Florida Citrus. R. S. Chandran, West Virginia U., Morgantown, West Virginia, and M. Singh, CREC, UF, Lake Alfred (PM CCA CEU)
6. 11:15 The Costs Associated with Florida Citrus Groves Exposed to Citrus Canker. T. H. Spreen, M. L. Zansler, Food and Resource Economics Dept., UF, Gainesville, and R.P. Muraro, CREC, UF, Lake Alfred (PM CCA CEU)

7. 11:30 Canopy Hedging, Topping, and Skirting Effects on Yield and Fruit Quality of Valencia Oranges. J. D. Whitney, T. A. Wheaton, W. S. Castle, and D.P.H. Tucker, CREC, UF, Lake Alfred (CM CCA CEU)

8. 11:45 Factors Reducing Fresh Grapefruit Packouts in Florida: Can Packouts be Improved? Mark A. Ritenour and Ed Stover, IRREC, UF, Ft. Pierce (CM CCA CEU)

LUNCH BREAK

Monday Afternoon Session

1:30 p.m. - 3:00 p.m.

Tampa Bay 1

CEUs: 1.0 Pest Mgmt, 0.5 Crop Mgmt; RUP CEUs: 1.0 Ag Tree, D & R, Private Ag

9. 1:30 Pre-Emergence Herbicide Azafenidin for Weed Management in Citrus Groves. S. D. Sharma, CCS Haryana Agriculture University, Regional Research Station, Karnal, Haryana, India, and M. Singh, CREC, UF, Lake Alfred (PM CCA CEU)

10. 1:45 Biological Control of the Citrus Leafminer with *Ageniaspis citricola* in Louisiana. Seth J. Johnson, Donald C. Henne, Dept. of Entomology, LSU AgCenter, Baton Rouge, Louisiana, and Wayne J. Bourgeois, Citrus Research Station, LSU AgCenter, Port Sulphur, Louisiana (PM CCA CEU)

11. 2:00 Unusual Infestation of California Red Scale (Homoptera: Diaspididae) in Southern Florida: Apparent Interactions with Pesticides and Weather. Philip A. Stansly, SFREC, UF, Immokalee (PM CCA CEU)

12. 2:15 Sprayer Air Energy Demand for Satisfactory Spray Coverage. M. Salyani, CREC, UF, Lake Alfred (PM CCA CEU)

13. 2:30 Trunk Shaker and Abscission Chemical Effects on Yields, Fruit Removal, and Growth of Orange Trees. J. D. Whitney, CREC, UF, Lake Alfred (CM CCA CEU)

14. 2:45 Tree Skirting Effects on Yield and Quality of Valencia Oranges. J. D. Whitney, T. A. Wheaton, W. S. Castle, and D.P.H. Tucker, CREC, UF, Lake Alfred (CM CCA CEU)

3:00 Sectional Business Meeting

3:15 Break

Monday Afternoon Session

3:30 p.m. - 5:00 p.m.

Tampa Bay 1

CEUs: 1.0 Pest Mgmt, 0.5 Water Mgmt; RUP CEUs: 1.0 Ag Tree, D & R, Private Ag

15. 3:30 Pest Status of Leaf-Footed Bugs on Citrus in Louisiana. Seth J. Johnson, Donald C. Henne, Dept. of Entomology, LSU AgCenter, Baton Rouge, Louisiana, and Wayne J. Bourgeois, Citrus Research Station, LSU AgCenter, Port Sulphur, Louisiana (PM CCA CEU)

16. 3:45 Spatial Soil-Tree-Diaprepes Variability in Biological Zones at the Field Scale. Hong Li, Jim Syvertsen, Arnold Schumann, Clay McCoy and Robin Stuart, CREC, UF, Lake Alfred (PM CCA CEU)

17. 4:00 Listening to the Larvae: Acoustic Detection of *D. abbreviatus*. R.W. Mankin, Center for Medical, Agricultural, and Veterinary Entomology, USDA-ARS, Gainesville, and S. L. Lapointe, U. S. Horticultural Research Laboratory, USDA-ARS, Ft. Pierce (PM CCA CEU)

18. 4:15 Young Tree Performance in a Grapefruit Rootstock Trial with Diaprepes Weevil and Phytophthora Diseases in Flatwoods Soil. K. D. Bowman, U. S. Horticultural Research Laboratory, USDA-ARS, Ft. Pierce, J. H. Graham, CREC, UF, Lake Alfred, and R. C. Adair, Jr., Kerr Center for Sustainable Agriculture, Vero Beach (PM CCA CEU)

19. 4:30 Gene Expression of *Poncirus trifoliata* to Low Temperature Using Differential Display. C. Zhang, P. Lang, F. Dane, R. C. Ebel, W. A. Dozier, Dept. of Horticulture, Auburn University, Alabama, N. K. Singh and B. Locy, Dept. of Biological Sciences, Auburn University, Alabama

20. 4:45 Interaction Between Flooding and Diaprepes Root Weevil Feeding on Two Citrus Rootstocks. Hong Li, Jim Syvertsen, Clay McCoy and Arnold Schumann, CREC, UF, Lake Alfred (SW CCA CEU)

21. 5:00 Response of 'Hamlin' Orange to Fertilizer Source, Rate and Irrigated Area. A. Schumann, CREC, UF, Lake Alfred, A. Fares, University of Hawaii, Manoa, Hawaii, A.K. Alva, USDA-ARS, Vegetable and Forage Crops Research Unit, Prosser, Washington, and S. Paramasivam, Savannah State University, Savannah, Georgia (SW CCA CEU)

22. 5:15 End of Session

**June 10
Tuesday Morning Session
10:00 a.m. - 12:00 noon**

Tampa Bay 1

CCA CEUs: 1.0 Crop Mgmt.; 0.5 Pest Mgmt.; **RUP CEUs:** 0.5 Ag Tree, D & R, Private Ag

23. 10:00 Ecolabeling for Florida Citrus. J. J. Ferguson, Horticultural Sciences Dept., UF, Gainesville
24. 10:15 The Measurement of the Food Consumption of an Individual Caribbean Fruit Fly. H. N. Nigg, R. A. Schumann, E. J. Etxeberria, CREC, UF, Lake Alfred, S. E. Simpson, Florida Dept. of Agriculture, Div. of Plant Industry, Winter Haven, S. Fraser and E. D. Burns, Florida Dept. of Agriculture, Div. of Plant Industry, Gainesville (PM CCA CEU)
25. 10:30 Development of "Tetrazyg" Rootstocks Tolerant of the Diaprepes / Phytophthora Complex under Greenhouse Conditions. J.W. Grosser, J.H. Graham, C.W. McCoy, A. Hoyte, H.M. Rubio, and J.L. Chandler, CREC, UF, Lake Alfred (PM CCA CEU)
26. 10:45 Comparison of Rohde Red and Standard Valencia Juice Color and Maturity. Robert E. Rouse, SFREC, UF, Immokalee, and Renee M. Goodrich, CREC, UF, Lake Alfred
27. 11:00 Effects of Nine Rootstocks on Yield and Fruit Quality of 'Parent Washington Navel' Trees. Ali Al-Jaleel, Najran Hort. Development Research Center, Najran, Saudi Arabia, and Mongi Zekri, Hendry County Extension, UF, LaBelle (CM CCA CEU)
28. 11:15 Evaluation of Year to Year Yield Variability of Orange Trees in Florida. L.G. Albrigo, J.I. Valiente, CREC, UF, Lake Alfred, B. Albritton and J. Albritton, Albritton Companies Inc., Wachula (CM CCA CEU)

29. 11:30 Fruit Quality Sampling of 'Valencia' Orange Trees. F. S. Davies and G. R. Zalman, Horticultural Science Dept., UF, IFAS, Gainesville (CM CCA CEU)

30. 11:45 Late-Summer Topping Increases Fruit Size in Indian River 'Murcott'. Ed Stover and Scott Ciliento, IRREC, UF, Fort Pierce (CM CCA CEU)

12:00 Adjourn

HANDLING AND PROCESSING SECTION

Huating Dou, Presiding
Papers 31-56

**June 9
Monday Morning Session
10:00 a.m. - 12:00 noon**

Pensacola Bay

CEUs: 1.0 Pest Mgmt.; RUP CEUs: 0.5 Ag Row, 0.5 Ag Tree, 1.0 D & R, Private Ag

31. 10:00 Agro Processing Development (St. Kitts and Nevis). M. T. Talbot, Agricultural and Biological Engineering Dept., and R. P. Bates, Food Sciences and Human Nutrition Dept., IFAS, UF, Gainesville
32. 10:15 Stability and Change: A Look at Long-Distance Motor Carriage of Florida Produce and Ornamentals over the Past Twenty Years. R. Beilock, Food and Resource Economics Dept., UF, Gainesville and J. Del Ciello, USDA
33. 10:30 Assessing the Eating Quality of Muskmelon Types and Varieties Using Sensory Evaluation. A. Simonne, E. Simonne, B. Hochmuth, K. Kouri, S. Cazaux, S. Stapleton, D. Studstill, M. Taylor, and W. Davis, Horticultural Sciences Dept., UF, Gainesville
34. 10:45* Sweetcorn Tolerance to Reduced O2 With or Without Elevated CO2 and Effects of Controlled Atmosphere Storage on Quality. G. S. Riad, and J. K. Brecht, Horticultural Sciences Dept., UF, Gainesville
35. 11:00* Sensitivity of Beit Alpha Cucumbers (*Cucumis sativus*) to Low-temperature Storage. A. M. Villalta, A. D. Berry, S. A. Sargentt, and D. J. Huber, Horticultural Sciences Dept., UF, Gainesville (PM CCA CEU)

36. 11:15 *Effect of Pretreatment of Intact 'Kent' Mango with Ethanol Vapor, Heat or 1-Methylcyclopropene on Quality and Shelf Life of Fresh-cut Slices.* A. Plotto, J. Bai, E. A. Baldwin, USDA/ARS, Citrus and Subtropical Products Lab., Winter Haven, FL, and J. K. Brecht, Horticultural Science Dept., UF, Gainesville (PM CCA CEU)
37. 11:30 *Effect of 1-MCP pretreatment, CA storage and subsequent marketing temperature on volatile profile of 'Gala' apple.* J. Bai, and E. A. Baldwin, USDA/ARS Citrus & Subtropical Products Lab., Winter Haven, FL (PM CCA CEU)
38. 11:45 *The Use of Ozone for Preserving Fruits During Storage.* M. S. Griffith, DECCO Cerexagri Inc., Ft. Pierce (PM CCA CEU)

LUNCH BREAK

Monday Afternoon Sessions

1:30- 3:00 Pensacola Bay

39. 1:30 *Cooperative postharvest and processing citrus research.* J. Ahrens, FDOC, Lake Alfred
40. 1:45 *Twentieth Century Developments in Handling Florida's Fresh Citrus Fruit - An Overview.* D. J. Hall, Agri-Chem Consulting, Clermont
41. 2:15 *Practical Challenges of Implementing Good Agricultural and Handling Practices in the Fresh Citrus Packing Industry.* J. M. Siddle, FMC Technologies, Inc., Lakeland
42. 2:30 *Environmental and tree condition effects on sheeponing in grapefruit.* J. P. Syvertsen¹, L. G. Albrigo¹, M. A. Ritenour², J. M. Dunlop¹, R. R. Pelosi², and M. S. Burton², ¹CREC, UF, Lake Alfred and ²IRREC, UF, Ft. Pierce
43. 2:45 *Alternative Degreening of Early Season Citrus Growth in Florida.* H. Dou, S. Jones, and M. A. Ritenour, Florida Dept. of Citrus, CREC, Lake Alfred

3:00 Sectional Business Meeting

3:15 Break

Monday Afternoon Session

3:30-5:00 Pensacola Bay

CEUs: 0.5 PM, RUP CEUs: 0.5 Ag Tree, D & R, Private Ag

44. 3:30 *Heat treatment for green mold control on Florida citrus.* J. Zhang, and P. Swingle, Florida Dept. of Citrus, CREC, Lake Alfred (PM CCA CEU)

45. 3:45 *Response of Florida Grapefruit to Short Duration Heat Treatments Using Vapor Heat or Hot Water Dips.* M. A. Ritenour¹, T. G. McCollum², J. K. Brecht³, K-J. John¹, R. R. Pelosi¹, M. S. Burton¹, and E. A. Baldwin⁴, ¹IRREC, UF, Fort Pierce, ²USDA ARS US Horticultural Research Lab., Fort Pierce, ³Horticultural Sciences Dept., UF, Gainesville, ⁴USDA ARS US Horticultural Research Lab., Winter Haven (PM CCA CEU)
46. 4:00 *Optimizing the Use of Hydrolytic Enzymes to Facilitate Peeling of Citrus Fruit.* M. A. Ismail, and H. Chen, Scientific Research, Florida Dept. of Citrus, Lake Alfred
47. 4:15 *Changes in Enzyme -Assisted Peeling Efficiency and Quality of Fresh 'Valencia' Orange and of Stored 'Valencia' Orange and 'Ruby Red' Grapefruit.* M. A. Ismail, and H. Chen, Scientific Research, Florida Dept. of Citrus, Lake Alfred

48. 4:30 *LC-MS Analysis of Methoxylated Flavanones in Orange Oil Residue.* J. A. Manthey, and B. S. Buslig, U.S. Citrus and Subtropical Products Lab., ARS, SAA, USDA, Winter Haven

49. 4:45 *Separation and Detection of Oligogalacturonides.* R. G. Cameron, K. Grohmann (Retired), USDA, ARS SAA, USDA, Winter Haven. and A. T. Hotchkiss, USDA, ARS, North Atlantic Area, Eastern Regional Research Center, Wyndmoor, PA

5:00 Discussion/End of Session

June 10

Tuesday Morning Session

10:00 - 12:00 Pensacola Bay

50. 10:00 *Measurement of internal gas concentrations of citrus fruit to determine peel diffusivity and other affects of coatings on fruit quality.* R. Hagenmaier, USDA/ARS Citrus and Subtropical Products Lab., SAA, USDA, Winter Haven

51. 10:15 *Decrease in Florida Citrus Acidity over the Last Fifty Years.* P. F. Cancelon, FDOC, Lake Alfred, FL

52. 10:30 *GC/MS Determination of 1-p-menthen-8-thiol in Grapefruit Juice.* K. L. Goodner and C. A. Margaria, USDA, ARS, SAA, Citrus & Subtropical Products Lab., Winter Haven

53. 10:45 *The effect of block deesterification on the pseudoplastic properties of pectin solutions for pulp stabilization.* G. A. Luzio, USDA/ARS Citrus & Subtropical Products Lab., Winter Haven
54. 11:00 *Microflorae of Orange Surfaces and Juice from Fruit in Processing Facilities and the Effect of Grading.* R. M. Goodrich and M.E. Parish, CREC, UF, Lake Alfred
55. 11:15 *Grapefruit Juice: FDOC's Schools Kid Flavor Evaluation Project.* S.M Barros, W.S. Stinson, and T. Flannery, Florida Dept. of Citrus, Lake Alfred
56. 11:30 *A Study of the Orange Juice Color Score Measured by ColorFlex Citrus Color Meter.* H. Dou, J. Lee, and M. G. Brown, Florida Dept. of Citrus
- 11:45 Discussion
- 12:00 Adjourn

KROME MEMORIAL SECTION
Jiang Lu, Presiding
Papers 57-77

June 9

Monday Morning Session

10:00 - 12:00

Tampa Bay 2

CEUs: 0.5 Nutrient Mgmt, 1.0 Pest Mgmt; RUP CEUs: 1.0 Ag Tree, D & R, Private Ag

57. 10:00 *Papaya Variety Development in Florida.* Michael J. Davis, Thomas L. White, Jonathan H. Crane, TREC, UF, Homestead (PM CCA CEU)
58. 10:15 *Development of Three Sac Spiders Occurring on Lime Orchards at Homestead, Florida.* D. M. Amalin and J. E. Peña, TREC, UF, and R. McSorley, Entomology and Nematology Dept., UF, Gainesville (PM CCA CEU)
59. 10:30 *Dieback Caused By Verticillium dahliae on Blighia sapida.* R.T McMillan, Jr., W. R. Graves and T.F. Wood, TREC, UF, Homestead and R. M. Leahy, Plant Pathology, USDA, Div. Plant Industry, Gainesville (PM CCA CEU)
60. 10:45 *Muscadine Vine Dieback: Emerging Problems and Possible Control Measures.* Zhongbo Ren and J. Lu, Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee (CM CCA CEU)

61. 11:00 *Roles of Mineral Nutrients for Pierce's Disease Development of Grapevines.* Xia Xu¹, J. Lu¹, and M. F. French², ¹Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee; ²Division of Food Safety, Florida Dept. of Agriculture and Consumer Services (PM CCA CEU)
62. 11:15 *Lychee Anthracnose Inoculum Sources.* Michael J. Davis, TREC, UF, Homestead (PM CCA CEU)
63. 11:30 *Evaluation of Chelated Iron Fertilizers Used for Lychee Trees Grown on A Calcareous Soil.* Y.C. Li, R. Rao and J. Crane, TREC, UF, Homstead (NM CCA CEU)
64. 11:45 *Water Conservation Survey of Miami Dade-County Agricultural and Golf/Landscape Commercial Water Users.* R. Muñoz-Carpena and J.H. Crane, TREC, UF/IFAS, C. Yurgalevitch, Miami-Dade Cooperative Extension Service, G.D. Israel, Agricultural Education and Communication Dept., UF, Gainesville (NM CCA CEU)

LUNCH BREAK

Monday Afternoon Session

1:30- 3:00

Tampa Bay 2

CEUs: 0.5 PM, 1.0 CM; RUP CEUs: 0.5 Ag Tree, D & R, Private Ag

65. 1:30 *Pollination and Fruit Set in Southern Highbush Blueberries in Florida.* P.M. Lyrene and J.G. Williamson, Horticultural Sciences Dept., UF, Gainesville (CM CCA CEU)
66. 1:45 *Early Fall Defoliation Reduces Flower bud Initiation and Inhibits Their Development in Southern Highbush Blueberry.* J.G. Williamson, P.M. Lyrene and E.P. Miller, Horticultural Sciences Dept., UF, Gainesville (CM CCA CEU)
67. 2:00 *Comparative Growth and Yield of 'Stover' Grapes Grafted on 23 Different Rootstocks.* John A. Mortensen and James W. Harries, CFREC, UF, Apopka (CM CCA CEU)
68. 2:15 *Glassy-Winged Sharp Shooter Population, Grapevine Resistance and Pierce's Disease Development.* Jiang Lu, Z. Ren, X. Zhang, and X. Xu, Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee (PM CCA CEU)

69. 2:30 Production of Papaya Transplants Is Affected By Substrates and Micronutrient Fertilization. J. P. Morales-Payan and W. M. Stall. Horticultural Sciences Dept., UF, Gainesville

70. 2:45 Papaya (*Carica Papaya*) Response to Foliar Treatments with Organic Short-Chain Peptide and Amino Acid Complexes. J. P. Morales-Payan and W. M. Stall. Horticultural Sciences Dept., UF, Gainesville

3:00 Sectional Business Meeting

3:15 Break

Monday Afternoon Session

3:30-5:00 Tampa Bay 2

CEUs: 0.5 Pest Mgmt; RUP CEUs: 0.5 Ag Tree, D & R, Private Ag

71. 3:30 Evaluation of Grape Germplasm for Resistance to Pierce's Disease (PD) and Glassy-winged Sharpshooter (GWSS). Elvis E. Clarke*, Zhongbo Ren, and Jiang Lu. Center for Viticulture and Small Fruit Research, Florida A&M University (PM CCA CEU)

72. 3:45 Genetic Analysis of Grapevine Resistance to Pierce's Disease and Anthracnose through Screening the F1 Progeny of N18-6 X Cabernet Sauvignon. J.L. Bourne*, J. Lu and Zhongbo Ren. Center for Viticulture and Small Fruit Research, Florida A&M University (PM CCA CEU)

73. 4:00 Developmental Changes in Berry Composition of Anthracnose Susceptible and Tolerant Grape Genotypes. Alfred P Mbele*, Tashhara Fletcher, Sheikh M Basha and Hifza Mazhar, Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee

74. 4:15 Variations in phenolic and non-phenolic compounds of the muscadine and Florida bunch hybrid grapes. Dawn E Lewis* and Sheikh M Basha, Center for Viticulture and Small Fruit Research, Florida A&M University, Tallahassee

75. 4:30 Methods of Monitoring Soil Water Content for Irrigation Scheduling in a Carambola (*Averrhoa carambola* L.) Orchard in Limestone Soil in South Florida. Rashid Al-Yahyai*, Bruce Schaffer, TREC, UF, Homestead and Frederick S. Davies, Horticultural Sciences Dept., UF, Gainesville

4:45 Discussion

5:00 End of Session

June 10

Tuesday Morning Session

10:00-11:30

Tampa Bay 2

CEUs: 0.5 CM

76. 10:00 Performance of Low-Chill Peach Cultivars in South Coastal California. D.A. Hagillih, South Coast Research and Extension Center, University of California (UC), Irvine, California, D.R. Hodel and R.A. Surls, Cooperative Extension, UC, Los Angeles, California, G.S. Bender and V.F. Lazaneo, Cooperative Extension, UC, San Diego, California (CM CCA CEU)

77. 10:15 Effective Chilling Temperatures for Low-Chill Subtropical Peaches. Robert E. Rouse, SFREC, UF, Immokalee and Wayne B. Sherman, Horticultural Sciences Dept., UF, Gainesville (CM CCA CEU)

10:30 Discussion

10:45 Adjourn

GARDEN & LANDSCAPE SECTION

Anita Neal, Presiding

Papers 78-93

June 9

Monday Afternoon Session

1:30- 3:00

Florida Bay 3

CEUs: 0.5 Water Mgmt, 0.5 Crop Mgmt.

78. 1:30 An Historical Perspective of the Environmental Horticulture Industry in Manatee County and it's Impact on Statewide Development. F. M. Melton, Manatee County Extension Service, UF, Palmetto and W. E. Waters, UF

79. 1:45 Demonstration Gardens of Different Geographical Areas of Manatee County. J.V. Morse, Manatee County Extension Service, UF, Palmetto (CM CCA CEU)

80. 2:00* Effect of Fertilizer Source on Nitrate Leaching and Turfgrass Quality. S.K. Saha, L.E. Trenholm, J.B. Unruh, Environmental Horticulture Dept., UF, Gainesville (SW CCA CEU)

81. 2:15* Evaluating Methods of Predicting Irrigation Needs of Warm-Season Turfgrasses. J.H. Lee, L.E. Trenholm, Environmental Horticulture Dept., UF, Gainesville (SW CCA CEU)
82. 2:30 Experimental Establishment of *Paspalum varinatum* O. Swartz for Potential use by St. Lucie County Recreational Facilities. E.A. Skvarch, St. Lucie County Extension Service, UF, Ft. Pierce (CM CCA CEU)
83. 2:45 Grow it Locally, Buy it Locally – A Culinary Competition to Promote Local Produce. E. A. Skvarch, St. Lucie County Extension Service, UF, E.M. Lamb, IRREC, UF
- 3:00 Sectional Business Meeting
- 3:15 Break
- Monday Afternoon Session**
3:30-5:00 Tampa Bay 2
84. 3:30 Growing and Marketing Spinach at Local Green Markets in Palm Beach County, Florida. K.D. Shuler, S.J. Nie, P-A.N. Shuler, Stephen's Produce (CM CCA CEU)
85. 3:45 Growing and Marketing Swiss Chard at Local Green Markets in Palm Beach County, Florida. K.D. Shuler, S.J. Nie, P-A.N. Shuler, Stephen's Produce (CM CCA CEU)
86. 4:00 The Miami-Dade Adopt-a-Tree Program. A.G.B. Hunsberger, J.F. Garofalo, C.F. Balerdi, D.W. Pybas, Miami-Dade County Extension Service, UF, Homestead (CM CCA CEU)
87. 4:15 Economic Considerations of Perennial Peanut as a Ground Cover in Urban Landscapes. F.Roka, R. Rouse, SFREC, UF, E. Miavitz-Brown, Collier County Extension Service, UF, Naples (CM CCA CEU)
88. 4:30 Interpretative Educational Signs for Stormwater Ponds. P.Brown, V. Bryant, D. Armstrong, C. Claus, A. Wilson, J. Murphy, T. Murphy, L. Claudio, Pinellas County Extension, UF, Largo, Florida Botanical Gardens
- 4:45 Discussion
- 5:00 End of Session

June 10
Tuesday Morning Session
10:00-11:30

Tampa Bay 2

- CEUs:** 1.0 Pest Mgmt; RUP CEUs: 1.0 O & T, Private Ag, D & R, Comm L & O, Limited L & O, Limited Landscape
89. 10:00 Host Suitability of *Cladium* Varieties to Root-knot Nematode *Meloidogyne incognita*. R.McSorley, K.H. Wang, J.J. Frederick, Entomology and Nematology Dept., UF, Gainesville (PM CCA CEU)
90. 10:15 New Insect Pests of south Florida. A.G.B. Hunsberger, Miami-Dade County Extension Service, UF, Homestead (PM CCA CEU)
91. 10:30 Survival of the Cycad *Aulacaspis* Cycad Scale (*Aulacaspis yasumatsui*) in Northern Florida During Sub-freezing Weather. E.R. Duke, A.B. Lorenzo, Florida A&M University, Tallahassee, F.W. Howard, FLREC, UF, Ft. Lauderdale (PM CCA CEU)
92. 10:45 Assessing the Effects of alternative Landscape Design and Management on Insect Diversity in Tallahassee-Leon County, Florida. A.B. Lorenzo, J.J. Muchovej, E.R. Duke, M. Pescador, Florida A&M University, Tallahassee, J. Legaspi, I. Baez, USDA/ARS Center for Biological Control, Florida A&M University, Tallahassee (PM CCA CEU)
93. 11:00 The White Malady Strikes! Management Approaches to Cycad *Aulacaspis* Scale and Pesticide Trial Updates. D.L. Caldwell, Collier County Extension Service, UF, Naples (PM CCA CEU)
- 11:15 Discussion
- 11:30 Adjourn

ORNAMENTALS SECTION
Van Donnan, Presiding
Papers 94-105

June 9
Monday Afternoon Session
1:30- 3:00

Biscayne Bay

94. 1:30 *Sclerotium rolfsii* Southern Blight On *Oncidium/Brassia* Hybrid Orchid. T. B. Pratt, R. T. McMillan Jr. and W. R. Graves. TREC, UF, Homestead

95. 1:45 Management of *Diaprepes Root Weevil*, *Diaprepes abbreviatus* (Coleoptera: Curculionidae) in Ornamentals. C. Mannion and H. Glenn. TREC, UF, Homestead
96. 2:00* Comparison of 7 slow release N fertilizers and ammonium sulfate on perennial ryegrass. S. Dickerson and J. B. Sartain. Soil and Water Science Dept., UF, Gainesville
97. 2:15 Fumigant Alternatives to Methyl Bromide for Filled Cut Flowers. R. McSorley, K. H. Wang. Entomology and Nematology Dept., UF, Gainesville and G. Church, USDA-ARS, Ft Pierce
98. 2:30 Effects of Controlled-release Fertilizer and Supplemental Magnesium on Leatherleaf Fern Frond Color, Chlorophyll and Elemental Content, Fresh Weight and Vaselife. R. H. Stamps and A. L. Chandler. MFREC, UF, Apopka
99. 2:45 The Importance of Testing Reclaimed Water Used in Nurseries. F. M. Melton. Manatee County Extension Service, UF, Palmetto
- 3:00 Sectional Business Meeting
- 3:15 Break
- Monday Afternoon Session**
3:30-5:00 Biscayne Bay
100. 3:30 The Morphology of Sunflower (*Helianthus annuus*) 'Sunbright' Grown as Cut Flowers Changes with Pruning Date and Frost/freeze Events. E. R. Emino and B. Hamilton. Environmental Horticulture Dept., UF, Gainesville
101. 3:45 *Dianthus* 'Bouquet Purple' as a Potential Cut Flower for Florida is Influenced by Compost Amended Media as to Time of Harvest, Growth, Yield and Quality. E. R. Emino and B. Hamilton. Environmental Horticulture Dept., UF, Gainesville
102. 4:00 The Use of Mineral Wool in Horticulture. V. Donnan, Verlite Company. Tampa, FL
103. 4:15 Plant Evaluation Observations of *Coleus* (*Solenostemon scutellarioides*). R. Bowden. Harry P. Leu Gardens, Orlando

104. 4:30 Uncovering the Horticultural Roots of the Community of Gotha, Florida: the Importance of Henry Nehrling. N. M. Decker, Department of Foreign Languages, Rollins College, Winter Park
105. 4:45 Fort Lauderdale Winter Trial Garden. Kimberly K. Moore. FLREC, UF, Ft. Lauderdale
- 5:00 Discussion/Adjourn

SPECIAL VEGETABLE SECTION
Teresa Olczyk, Presiding
Papers 106-113

- June 9**
Monday Morning Session
10:00-11:30 Florida Bay 1 & 2
- CEUs:** 0.5 CM, 1.5 PM; RUP CEUs: 1.5 Ag Row, D & R, Private Ag
106. 10:00 Hydroponic production of fresh ginger root (*Zingiber officinale*) as an alternative method for South Florida. Ray Rafie, Teresa Olczyk, Miami-Dade County Cooperative Extension Service, UF and Waldo Guerrero, Shenandoah Growers, Homestead (CM CCA CEU)
107. 10:15 Effect of Interplanting Secondary Crops on Strawberry Yield. J. R. Duval and E. A. Golden. GCREC, UF, Dover (CM CCA CEU)
108. 10:30 Effectiveness of Various Insecticides in Controlling Diamondback Moth, *Plutessa sylostella* (Lepidoptera: Plutellidae) D. R. Seal, TREC, UF, Homestead (PM CCA CEU)
109. 10:45 Hydroponically Produced Mini-Cucumber with Improved Powdery Mildew Resistance. Nicole L. Shaw and Daniel J. Cantliffe, Horticultural Sciences Dept., UF, Gainesville (PM CCA CEU)
110. 11:00 Oberon™: a new tool for arthropod management in Florida. Marco A. Toapanta, Bayer CropScience, Tampa, Lamar Buckelew¹, Roy Morris, Bayer CropScience, Lakeland, Robert Steffens¹ and Richard Rudolph¹, Bayer CropScience, Research Triangle Park, North Carolina (PM CCA CEU)

111. 11:15* Fruit Yield and Quality, Susceptibility to Powdery Mildew (*Sphaerotheca macularis*), and Aphid (*Aphis gossypii*) Infestation Trends For Seven Strawberry Cultivars Grown without Pesticides in a Passive-ventilated Greenhouse Using Pinebark as Soilless Substrate. Ashwin V. Paranjpe¹, Daniel J. Cantliffe¹, Silvia Rondon¹, Craig K. Chandler², Jeffrey K. Brecht¹, Elliot J. Brecht¹, and Kim Cordasco¹, ¹Horticultural Sciences Dept., UF, Gainesville; ²GCREC, UF, Dover (PM CCA CEU)

112. 11:30 Initial Weed-free Period and Subsequent Yellow Nutsedge (*Cyperus esculentus*) Population Density Affect Yield and Grade of Tomato (*Lycopersicon esculentum*). J. P. Morales-Payan, W. M. Stall, Horticultural Sciences Dept., UF, Gainesville, D. G. Shilling, MFREC, UF, Apopka, J. A. Dusky, Extension Admin., UF, Gainesville, T. A. Bewick, USDA/CSREES, Washington, DC, and R. Charudattan, Plant Pathology Dept., UF, Gainesville (PM CCA CEU)

113. 11:45 Density and Time of Emergence of Purple Nutsedge (*Cyperus rotundus*) Effects on Bell Pepper (*Capsicum annuum*). J. Pablo Morales-Payan and William M. Stall, Horticultural Sciences Dept., UF, Gainesville (PM CCA CEU)

12:00 Adjourn

VEGETABLE SECTION
Mary Lamberts, Presiding
Papers 114-140

June 9
Monday Morning Session
10:00-11:30

Tampa Bay 3

Workshop on "High Risk" Pests

CCAs: 2.0 Pest Mgmt

114. 10:00 Southern Plant Diagnostic Network (SPDN) Mission. Gail Wisler, Plant Pathology Dept., UF, Gainesville

115. 10:20 "High Risk" Plant Pathogens: Monitoring and Diagnosis. Tim Momol, NFREC, UF, Quincy

116. 10:40 "High Risk" Nematodes: Monitoring and Diagnosis. Billy Crow, Entomology & Nematology Dept., UF, Gainesville

117. 10:55 "High Risk" Insect Pests: Monitoring and Diagnosis. Catharine Mannion, TREC, UF, Homestead

118. 11:10 "High Risk" Weed Pests: Monitoring and Diagnosis. Greg MacDonald, Agronomy Department, UF, Gainesville

119. 11:25 Regulating "High Risk" Pests: Lessons from Citrus Canker. Tim Schubert, Division of Plant Industry, FDACS, Gainesville

120. 11:40 Working with Clientele Groups in a Monitoring Program. Curt Turner and Madeline Mellinger, Glades Crop Care, Jupiter

12:00 **LUNCH BREAK**

Monday Afternoon Session

1:30- 3:00

Tampa Bay 3

CCAs: 0.5 Water Mgmt, 1.0 Nutrient Mgmt

121. 1:30 Advanced Irrigation Techniques for Improving Competitiveness of Tomato Production in Today's Demanding Market. R. Muñoz-Carpena, H. Bryan, W. Klassen, TREC, UF, Homestead, M. Dukes, Agricultural and Biological Engineering Dept., UF, Gainesville

122. 1:45 Assessing Length of Irrigation and Soil Humidity as Basis for Delivering Fumigants through Drip Lines in Florida Spodosols. Bielinski M. Santos, James P. Gilreath and Timothy N. Motis, GCREC, UF, Bradenton

123. 2:00 Visualization of Water Movement in Mulched Beds with Injections of Dye with Drip Irrigation. Eric Simonne¹, Robert Hochmuth², David Studstill¹, Gene McAvoy³, Michael Dukes¹ and Scott Kerr⁴, ¹Horticultural Sciences Dept., UF Gainesville, ²NFREC, UF, Live Oak, ³Hendry County Extension Service, UF, Labelle, ⁴Agricultural and Biological Engineering Dept., UF, Gainesville

124. 2:15 The University of Florida IFAS Livestock Waste Testing Laboratory. Justin Jones and George Hochmuth, NFREC, UF, Live Oak

125. 12:30 Response of 'Florida 47' Tomato to Soil- and Foliar-applied Biostimulants and N and K Rates. Alexander A. Csizinszky, GCREC, UF, Bradenton

126. 2:45 *Effect of Reduced Phosphorus Fertilizer Rates on Yield and Quality of Sweet Corn Grown on Calcareous Soil in Miami-Dade County.* Teresa Olczyk, Miami-Dade County Extension Service, UF, Homestead, Yuncong Li, TREC, UF, Homestead, Eric Simonne, Horticultural Sciences Dept., UF, Gainesville and Rao Mylavarapu, Soil and Water Science Dept., UF, Gainesville

3:00 Sectional Business Meeting

3:15 Break

Monday Afternoon Session

3:30-5:00 Tampa Bay 3

CCAs: 1.5 Crop Mgmt

127. 3:30 *Winter Strawberry Production in Greenhouses Using Soilless Substrates: An Alternative to Methyl Bromide.* Ashwin V. Paranjpe, Daniel J. Cantliffe, Horticultural Sciences Dept., UF, Gainesville, Elizabeth M. Lamb, Peter J. Stoffella and Charles Powell, IRREC, UF, Ft. Pierce

128. 3:45 *Strawberry Daughter Plantlet Size Affects Transplant Growth and Development.* Eric B. Bish, Daniel J. Cantliffe, Horticultural Sciences Dept., UF, Gainesville and Craig K. Chandler, GCREC, UF, Dover

129. 4:00 *Performance of Bell Pepper Varieties over Two Seasons in Southeast Florida, 2000-2002.* K. D. Shuler, Palm Beach County Extension Service, UF, West Palm Beach

130. 4:15 *Red-Skinned Potato (*Solanum tuberosum* L.) Variety Evaluation in a Sub-Tropical Climate.* Chad M. Hutchinson and Doug M. Gergela, Horticultural Sciences Dept., UF, Gainesville, Teresa Olczyk, Miami-Dade County Extension Service, UF, Homestead, Gene McAvoy, Hendry County Extension Service, UF, Labelle, James M. White, MFREC, UF, Apopka

131. 4:30 *Watermelon Yield and Size when Grown on Four Plastic Mulch Colors.* James M. White, MFREC, UF, Apopka

132. 4:45 *Influence of Summer Cover Crops on Tomato Production in South Florida.* Qingren Wang, Waldemar Klassen, Herbert Bryan, Yuncong Li, TREC, UF, Homestead, Aref Abdul-Baki and Zafar Handoo ARS-USDA, Maryland

5:00 End of Session

June 10
Tuesday Morning Session
10:00-11:30

Tampa Bay 3

CCAs: 2.0 Pest Mgmt

133. 10:00 *History and Agricultural Contributions of the Hastings Research and Education Center, 1923 to 2002.* D. P. Weingartner, Plant Pathology Dept., UF, Gainesville

134. 10:15 *Evaluation of Various Chemical Treatments as Potential Replacements of Methyl Bromide for Control of Soilborne Pests in Polyethylene-Mulched Tomato (*Lycopersicon esculentum*).* J.P. Gilreath, T.N. Motis, J.P. Jones, B.M. Santos, GCREC, UF, Bradenton, J.W. Noling, CREC, UF, Lake Alfred, E.N. Roskopf, US Horticultural Research Lab, USDA-ARS

135. 10:30 *Herbicide and Mulch Evaluations for Weed Management in West Central Florida Strawberries.* James P. Gilreath, Bielinski M. Santos and Timothy N. Motis, GCREC, UF, Bradenton

136. 10:45 *Integrated Management of Thrips and Tomato Spotted Wilt in Field-Grown Fresh Market Tomatoes.* J. L. Mayfield, Gadsden County Extension Service, UF Quincy, and J. Hudgins, Decatur County Extension Service, Univ. of Georgia, Bainbridge, Georgia

137. 11:00 *Effect of 1,3 Dichloropropene and Chloropicrin on Purple Nutsedge (*Cyperus rotundus* L.) Under Two Mulches & Two Application Methods During the Spring of 2002.* R. C. Hochmuth, W. E. Davis, NFREC, UF, Live Oak, E. H. Simonne, W. M. Stall, Horticultural Sciences Dept., UF, Gainesville, Jerry Nance, Dow AgroSciences, Winter Haven, Anthony W. Weiss, Dow AgroSciences, Cary, NC, and John Mirusso, Mirusso Fumigation, Boynton Beach

138. 11:15 *New Miticides and Programs of Application for Control of Twospotted Spider Mite (*Tetranychus urticae* Koch (Acari: Tetranychidae) on Strawberry.* J. F. Price¹, E. McCord², and C. N. Nagle¹, ¹GCREC, UF, Bradenton, ²Natural Sciences Division, New College of Florida

139. 11:30 *The Effect of Methyl Iodide on Rhizoctonia solani, Meloidogyne incognita and Yield in Florida 47 Tomato.*
R. T. McMillan, Jr, H. H. Bryan, TREC, UF, Homestead and J. J. Sims
140. 11:45 *An Improved Management Program for Controlling Pepper Weevil, Anthomus eugenii Cano (Coleoptera: Curculionidae).* *D. R. Seal, TREC, UF, Homestead*
- 12:00 *Adjourn*
