

Proceedings
of the
FLORIDA STATE
Horticultural Society
1992

Volume CV

Printed May 1993

CONTENTS

Officers for 1992	II
Officers for 1993	III
List of Honorary Members	IV
Presidential Address, Daniel J. Cantliffe	IX
Principal Address, Carl Loop	XI
Award of Honorary Membership	XIII
Presidential Gold Medal Award	XIV
Awards for Outstanding Papers	XIV
Council Memorial Tomato Research Award	XIV
President's Industry Award	XIV
U.S.-Metric Conversion Table	XVI
Editorial Policy	XVI

CITRUS SECTION

Fluometralin - A Promising and Environmentally Friendly Herbicide for Use in Non-Bearing Citrus, Merrill Wilcox and John B. Taylor	1
Occurrence of Aldicarb Metabolites in Citrus Blossom Nectar, R. C. Bullock and K. G. Townsend	3
Protection of Young Citrus Trees from Damage by Subterranean Termites, Philip A. Stansly, Robert E. Rouse and Sally B. Davenport	7
Horticultural Spray Oil Has Little Effect on Citrus Fruit Quality, Leaf Drop and Leaf Freeze Hardiness, L. W. Lee and J. L. Knapp	10
Drift Losses From Citrus Spray Applications, Masoud Salyani and Richard P. Cromwell	13
Results from a Thirteen Year Study to Correlate Effective Spray Timing with Greasy Spot (<i>Mycosphaerella citri</i>) Spore Populations on East Coast and Ridge Area Groves, L. W. Russo and F. W. Bistline	19
The Infectious Nature of Citrus Blight, L. W. Timmer, R. F. Lee, R. H. Brlansky, J. H. Graham, L. G. Albrigo, K. S. Derrick, and D. P. H. Tucker	21
Detection of Citrus Blight by Serological Assays, K. S. Derrick, G. A. Barthe, B. G. Hewitt, R. F. Lee, and L. G. Albrigo	26
Comparing Rio Grande Gummosis and Citrus Blight Incidence on Grapefruit on Swingle Citrumello Rootstock, R. M. Sonoda, R. R. Pelosi, and J. W. Hebb	28
Development of a Serological Assay for Citrus Variegated Chlorosis—A New Disease of Citrus in Brazil, R. F. Lee, M. J. G. Beretta, K. S. Derrick, and Mary E. Hooker	32

Tolerance of Gou Tou Rootstock to Severe Exotic Isolates of Citrus Tristeza Virus (CTV), Stephen M. Garnsey	35
Survey of Young Citrus in the Immokalee Budwood Foundation Grove for Foot Rot Susceptibility, Sally B. Davenport and Robert E. Rouse	38
Sampling Citrus Red Mites and Texas Citrus Mites in Young Orange Trees, David G. Hall	42
Resistance of Carrizo Citrange Seedlings to Biotypes of the Burying Nematode (<i>Radopholus citrophilus</i>): Impact on Management of Spreading Decline in Florida, David T. Kaplan	47
Current Inventory and the Role of New Citrus Scion Cultivars in Florida in 1992, C. J. Hearn	50
Callus Induction from <i>Citrus</i> Relatives: An Alternative Source of Protoplasts for Somatic Hybridization Experiments, Francisco A. A. Mourao Fo and Jude W. Grosser	52
Rootstocks Similar to Sour Orange for Florida Citrus Trees, W. S. Castle, R. R. Pelosi, C. O. Youtsey, F. G. Gmitter, Jr., R. F. Lee, C. A. Powell, and X. Hu	56
The Performance of 'Valencia' Orange Trees on 21 Rootstocks in the Florida Flatwoods, D. J. Hutchison, C. J. Hearn, and F. W. Bistline	60
Determination of Evapotranspiration Rates in Citrus Groves with Electronic Soil Moisture Probes, K. T. Morgan	63
Effects of Soil Moisture Depletion Levels on Navel Orange on Microirrigated Flatwoods, Brian J. Boman	66
Foliar Application of Various Sources of Iron, Manganese, and Zinc to Citrus, A. K. Alva and D. P. H. Tucker	70
Variation in Extractable Mineral Elements in the Soil Under Three Citrus Rootstock Tests, Heinz K. Wutscher	74
Salinity Increases Nitrogen Leaching Losses from Citrus in Sandy Soils, John D. Lea-Cox and James P. Syvertsen	76
Rootstock and Interstock Effects on the Growth of Young 'Minneola' Tangelo Trees, William S. Castle	82
Energy Requirements for Florida Citrus Production, Richard C. Fluck, C. Direlle Baird, and Balwinder S. Panesar	84
Water Chemistry Effects on the Crystallization Temperature of Liquid Fertilizer, T. A. Obreza, E. O. Ontermaa, and B. J. Boman	88
1 Cold Protection Mechanisms, J. David Martsolf	91

HANDLING AND PROCESSING SECTION

Heating and Cooling Rates of Sweet Potatoes During Postharvest Thermal Treatments as Influenced by Commodity Size and Chamber Temperatures, James D. Hansen and Jennifer L. Sharp	95
Irradiation Plus Modified Atmosphere for Storage of Strawberries, J. K. Brecht, S. A. Sargent, J. A. Bartz, K. V. Chau and J.-P. Emond	97
Alternative Bulk Film Wrapping Methods for Weight Loss Control of Fresh Grapefruit, L. Gene Albrigo and W. M. Miller	101
Individual Shrink Film Wrapping of Mangos, T. Gregory McCollum, Salvatore D'Aquino, William R. Miller, and Roy E. McDonald	103
Limonin Content of Florida Packed Grapefruit Juice, S. M. Barros ..	105
26 A Microwave System for Continuous Pasteurization of Orange Juice, Seifollah Nikdel and Donald G. MacKellar	108
28 Analysis of Orange Juice Volatiles: Comparison of Extraction with Freon 113 and Ethyl Acetate, M. Klim and S. Nagy	110
32 Condition and Quality of Florida Grapefruit Imported into the Netherlands during 1991-92 Season, L. A. Risse, A. J. Bongers, V. G. Bus, and W. R. Miller	112

Condition of Preharvest GA-Treated Grapefruit After Cold Treatment and Storage, William R. Miller and Roy E. McDonald ...	116	Seasonal Occurrence and Management of Landscape and Ornamental Pests in North Florida and South Georgia, Dr. Russell F. Mizell, III and Dr. Donald E. Short	204
Effect of Tomato Grade on Incidence of Decay During Simulated Shipping, Renar J. Bender, Steven A. Sargent, Jeffrey K. Brecht, and Jerry A. Bartz	119	Abnormal Stomata in Vitrified Plants Formed <i>In Vitro</i> , Y. Mohamed-Yasseen, T. L. Davenport, W. E. Splittstoesser and R. E. Litz	210
Development of a Standardized Pepper Container, Michael T. Talbot, Steven A. Sargent, C. Dirlle Baird, and Jeffrey K. Brecht .	122	Effect of Culture Vessel Type on <i>In Vitro</i> Multiplication of <i>Pontederia cordata</i> L., M. E. Kane and N. L. Philman	213
Grade Lowering Defects and Grading Practices for Indian River Grapefruit, William M. Miller and J. K. Burns	129	A Laboratory Exercise for Teaching Tissue Culture Technique Using <i>Cyperus alternifolius</i> as a Source of Explants, Y. Mohamed-Yasseen, T. L. Davenport, W. E. Splittstoesser and R. E. Litz .	215
Evaluation of Iprodione and Fosetyl-al and Other Fungicides for Postharvest Citrus Decay Control, G. Eldon Brown	131	Establishing a Countywide I.P.M. Program, Michael J. Holsinger .	217
Status of Hot Air as a Quarantine Treatment to Control Pests, Jennifer L. Sharp	134	Copper Hydroxide Controls Root Circling in Container-Grown West Indies Mahogany and Carpentaria Palm, Sven E. Svenson and Timothy K. Broschat	219
Methods to Limit Ellagic Acid Precipitation in Muscadine Juice and Wine, Charles A. Sims, Victor M. Garrido and Robert P. Bates	135	N-P-K Fertilization for Potted Pickerelweed Production, B. K. Harbaugh, M. E. Kane and D. B. McConnell	221
Changing Technology in Citrus Processing, Kenneth I. Fox, José H. Flores, and Alan R. Conklin	139	Natural Organic Slow-Release N Sources for Turfgrasses, Jerry B. Sartain	224
Microbially Produced Off-Flavors in Orange Juice, Harold K. Teller, Mickey E. Parish, and Robert J. Braddock	144		
Effects of Temperature on Wax Yields and Composition During Winterization of Commercial Cold-Pressed Oil, D. L. Hendrix, S. Nagy, M. O. Balaban, and P. G. Crandall	146	GARDEN AND LANDSCAPE SECTION	
Interferences with Naringin and Neohesperidin Analysis by High Performance Liquid Chromatography, Wilbur W. Widmer and Shirley F. Martin	149	St. Augustinegrasses, Alice M. Rosenberger and Philip Busey	227
Measurement of Orange Juice Color with a 0/45° Portable Colorimeter, Béla S. Buslig	153	Overseeding Trials on Fairway and Putting Green Bermudagrasses, A. E. Dudeck and S. F. Anderson	230
Solvent Extraction Procedure for the Recovery of Volatile Constituents from Orange Juice, R. F. Matthews and P. F. West ...	156	Influence of Daylength and Fertility on Growth of Bermudagrass Cultivars, F. J. Marousky, A. E. Dudeck, L. B. McCarty and S. F. Anderson	236
Comparison of Oligosaccharides Generated During Sucrose Inversion and Citrus Juice Fermentation, Paul F. Cancalon	160	Growth Regulators and Storage Temperature Govern the Germination of Coreopsis Seed, William J. Carpenter and Eric R. Ostmark	238
Anticarcinogenic Activity of Phytochemicals in Citrus Fruit and Their Juice Products, Steven Nagy and John A. Attaway	162	Bedding Plant Trials for South-East Florida, L. B. Hodyss	242
Effect of Gibberellic Acid and Postharvest Storage on Quality of Florida Navel Oranges, Mohamed A. Ismail and Diana L. Wilhite	168	Evaluation of Petunia Cultivars for the Landscape in West-Central Florida, T. K. Howe and W. E. Waters	246
		The Candlenut Tree, Handsome and Wind-Resistant, is a Neglected Ornamental in Florida, Julia F. Morton	251
		Dieffenbachias to Know and Grow, R. W. Henley	256
		Delay of Fertilization Affects Fruiting Response of Strawberry, E. E. Albregts, C. M. Howard and C. K. Chandler	261
		Organic Soil Amendments for Florida Vegetable Gardens, James M. Stephens and Stephen R. Kostewicz	263
		Snap Bean, Sweet Corn, Muskmelon and Cucumber Variety Evaluations in Organic Garden Culture, S. R. Kostewicz	267
		KROME MEMORIAL SECTION	
		Tissue Culture of Some Arboreal Leguminous Plants, Y. Mohamed-Yasseen, T. L. Davenport and W. E. Splittstoesser .	271
		Production of Fresh Market Herbs in West-Central Florida, A. A. Csizinszky	273
		Propagation of the Mamey Sapote, C. W. Campbell and S. P. Lara .	276
		The 'Ruby' Mango, Richard J. Campbell and Carl W. Campbell ..	278
		Characters Needed for Commercially Successful Passion Fruit, Robert J. Knight, Jr.	280
		Rejuvenation of a Mature, Non-productive 'Lula' and 'Booth 8' Avocado Grove by Topping and Tree Removal, J. H. Crane, B. Schaffer, T. L. Davenport and C. Balardi	282
		Chemical Control of Avocado and Lime Pests, J. E. Pena	286
		A New Disease of Mango in Costa Rica Caused by an <i>Erwinia</i> -Like Bacteria, R. T. McMillan, Jr. and Amy Wang	288
ORNAMENTAL SECTION			
Comparative Effects of Rate, Spray Volume and Application Number of Growth Regulators on Potted Chrysanthemums, Gary J. Wilfret	174		
Paclotrazol and Indoor Light Intensity Influence Water Use of Some Foliage Plants, R. T. Poole and C. A. Conover	178		
Notching Affects Bud Break of <i>Dracaena fragrans</i> 'Massangeana' Cane, D. B. McConnell and Maria Costa Smith	180		
Efficacy of Thiophanate Methyl Fungicides for Diseases of Florida Ornamentals, A. R. Chase	182		
Medium Leachate Characteristics and Plant Growth Responses to Four Controlled-Release Fertilizer Formulations, C. A. Conover and R. T. Poole	187		
Water Use and Runoff Comparisons of Greenhouse Irrigation Systems, Catherine A. Neal and Richard W. Henley	191		
Ectomycorrhizae Influence Drought Acclimation and Growth of Loblolly Pine Seedlings from a Mesic Provenance, Sven E. Svenson and Fred T. Davies, Jr.	194		
Nematode Host Study of <i>Gordonia lasianthus</i> (Loblolly Bay), R. C. Beeson, Jr. and H. L. Rhoades	198		
Preemergent Control of <i>Phyllanthus</i> Species, Jeffrey G. Norcini and James H. Aldrich	200		
Response of Container Grown Sea Oats to Selected Preemergence Herbicides, James P. Gilreath	202		

Spatial Dispersion and Sampling of Lime Pests in Florida, J. E. Pena and R. M. Baranowski	289	Screening for Resistance to Fusarium Crown Rot of Tomato, John Paul Jones, S. S. Woltz and J. W. Scott	345
Trend Analysis of Wine and Wine Cooler Consumption in Florida, Stephen Leong and David Jones	294	Performance of 'Oso Grande', FL 85-4925, and FL 87-236 Strawberry During the 1991-1992 Season, Craig K. Chandler, James C. Sumler, Jr. and Earl E. Albregts	348
Blueberry Gall Midge: A Pest on Rabbit-eye Blueberry in Florida, Paul M. Lyrene and Jerry A. Payne	297	Inheritance of Spider Track Incidence, a Tomato Fruit Disorder, J. W. Scott and J. H. M. Barten	349
Effect of Chelated Calcium on the Shelf-Life and Quality of Blueberry Fruits (<i>Vaccinium ashei</i> Reade), Fouad M. Basiouny and Floyd M. Woods	300	Micropropagation as a Means of Rapidly Propagating Triploid and Tetraploid Watermelon, Michael E. Compton and D. J. Gray ..	352
Pollen Production and Cross Compatibility in Low-Chill Japanese-Type Plum, G. D. Richards, G. W. Porter, J. Rodriguez-A. and W. B. Sherman	302	Flowering Habit, Yield, and Fruit Shape of Calabaza Cultigens, D. N. Maynard, G. W. Elmstrom, Linda Wessel-Beaver and T. G. McCollum	355
Evaluation of Low-Chill, Non-Melting Flesh Peaches for Fresh Market Potential, G. W. Porter, G. D. Richards, J. Rodriguez-A. and W. B. Sherman	304	Development and Breeding of Herbicide Tolerant Lettuce, R. T. Nagata, J. A. Dusky, A. C. Torres, D. J. Cantliffe, R. J. Ferl and T. A. Bewick	358
Assessment of Greenhouses and Nurseries for Chemical Toxicity, R. H. Biggs	307	Effect of Mixed Infection and Irrigation Method on Colonization of Tomato Roots by <i>Trichoderma harzianum</i> and <i>Glomus intraradix</i> , R. J. McGovern, L. E. Datnoff and L. Tripp	361
VEGETABLE SECTION			
Reservoirs of the Sweetpotato Whitefly for Tomatoes in West-Central Florida, D. J. Schuster, J. E. Polston and J. F. Price	311	Effect of Composted Organic Amendments on the Incidence of Bacterial Wilt of Tomato, D. O. Chellemi, D. J. Mitchell and A. W. Barkdoll	364
Effectiveness of Different Insecticides for the Control of Melon Thrips, <i>Thrips palmi</i> Karny (Thysanoptera, Thripidae) Affecting Vegetables in South Florida, Dakshina R. Seal and Richard M. Baranowski	315	Phytotoxicity of Foliar Applications of Lactofen to Tomato as Influenced by Placement, J. P. Gilreath and P. R. Gilreath	367
Smooth Amaranth Interference in Muskmelon, E. R. Terry, Jr. and W. M. Stall	319	Evaluation of Methylene Urea for Fresh-Market Tomato, with Seepage Irrigation, A. A. Csizinszky, G. A. Clark and C. D. Stanley	370
Screening Cabbage Varieties for Nematode Resistance, James M. White and Harlan L. Rhoades	321	Florida Mexico Competition in the Winter Fresh Vegetable Industry, John J. VanSickle and Daniel J. Cantliffe	373
Nitrogen and Potassium Source and N-Rate for Drip-Irrigated Pepper, Salvatore J. Locascio and Michael R. Allgood	323	WORKSHOP SESSION	
Sweet Corn Weed Control Evaluations on Mineral and Organic Soils, G. S. Crnko, W. M. Stall and J. M. White	326	NAFTA and GATT—What do they mean for Florida Agriculture?, Dalton Yancey	381
The Energy Required in the Production of Vegetables in Florida, Richard C. Fluck, C. Direlle Baird and Balwinder S. Panesar ..	330	NAFTA and Florida's Future, Richard T. Gaskalla	384
Effect of Water Quantity on Fall Tomato Production in North Florida, S. M. Olson and F. M. Rhoads	334	Some Advice to Young People Entering the Fruit Business, Norman Todd	386
Use of Compost as Mulch on Bell Peppers, Nancy E. Roe, Herb H. Bryan, Peter J. Stoffella and Ted W. Winsberg	336	-----	
Evaluation of Cultural Practices, Nitrogen Rates, and Cultivar Selection for Sweet Onion Production in Northeast Florida, D. R. Hensel and J. R. Shumaker	338	Sponsored Student Program	387
Performance of Crisphead Lettuce Cultivars on Polyethylene-Mulched, Drip-Irrigated Sandy Soils in Florida, Daniel J. Cantliffe and Zvi Karchi	340	Constitution	391
Yield of Super Sweet Corn as Affected by N Application Timing, Plant Density, Tiller Removal, and Insecticides, H. Y. Hanna and R. N. Story	343	By-Laws	391
		Report of the Executive Committee	393
		Membership List	395
		Index	406
		Available Proceedings	417