

Proceedings
of the
FLORIDA STATE
Horticultural Society
1970

VOLUME LXXXIII

PRINTED MAY 21, 1971

CONTENTS

Officers for 1970	IV
Officers for 1971	V
Constitution and By-Laws	VI
Awards of the Society	XVI
Awards for Outstanding Papers	XVI
List of Presidents	XVII
Honorary Members	XVIII
Award of Honorary Memberships	XIX
President's Annual Address, Frank E. Gardner, Orlando	XXII
The Now Regulators—Light and Chemicals, Henry M. Cathey, Beltsville, Maryland ..	XXVI

CITRUS SECTION

Comparison of Different Iron Formulations for Effectiveness in Correcting Iron Chlorosis in Citrus, F. M. Basiouny, C. D. Leonard and R. H. Biggs	1
Comparison of Four Varieties of Young- and Old-Budline Oranges Grown in Sand-cultures with Three Potassium Levels, Paul F. Smith, G. K. Scudder, Jr. and Gustave Hrnciar	6
Response of 'Temple' Oranges to Varying Rates of Nitrogen, Potassium, and Magnesium, David V. Calvert	10
Arsenate Sprays on 'Temple' Oranges: Rates, Timing, and Residues, R. L. Reese	15
A Comparison of Herbicide, Mechanical Tree Hoe, and Flaming Treatments in a 2-Year Weed Control Experiment, J. D. Whitney, R. L. Phillips and D. P. H. Tucker	20
Milkweedvine Control in Florida Citrus Groves, R. L. Phillips and D. P. H. Tucker ..	26

Increasing Yields of the 'Minneola,' 'Robinson' and 'Osceola' Varieties with Gibberellic Acid Sprays and Girdling, A. H. Krezdorn and H. D. Brown	29
Some Effects of Air-Borne Fluorine on Growth and Yield of Six Citrus Varieties, C. D. Leonard and H. B. Graves, Jr.	34
Mineral Composition of Leaves from Citrus Trees Affected with Declines of Unknown Etiology, C. A. Anderson and D. V. Calvert	41
Young Tree Decline from a Grower Viewpoint, John C. Norris	46
Seasonal Variation in Magnitude of Foliage Growth in Florida Citrus Groves, William A. Simanton	49
Effect of Flush, Age of Leaf, and Date of Sampling on Chemical Composition of Citrus Leaves in Polk County in 1969, W. V. Chandler	54
Disease Control in Florida Citrus with Difolatan Fungicide, E. A. Moherek	59
Viruses in Florida's 'Meyer' Lemon Trees and Their Effects on Other Citrus, S. M. Garnsey	66
Renovating Old Citrus Groves in Indian River Area, R. C. J. Koo and Paul J. Driscoll	71
Irrigation at the Grove Level, L. W. Ziegler	75
Rangpur Lime as a Citrus Rootstock in Florida, Mortimer Cohen	78
Problems in Using 'Milam' Rootstock as a Biological Barrier, Harry W. Ford.	84
Nematode Status of 'Carrizo' Citrange, Harry W. Ford	87
Ethylene Production by the Valencia Orange Tree as Related to the Use of Abscission Chemicals, W. C. Cooper, W. H. Henry and C. J. Hearn	89
Testing Foliar Sprays for Frost Protection of Young Citrus, R. M. Burns	92
Cold Hardiness of Selected Citrus Varieties as Determined by Freezing Detached Leaves, C. E. Hutcheson and W. J. Wiltbank	95
Basic Principles of Freeze Occurrence and the Prevention of Freeze Damage to Crops, V. J. Valli	98
The Influence of Rootstocks on Tree Growth, Fruiting and Fruit Quality of 'Orlando' Tangelos, A. H. Krezdorn and W. J. Phillips	110

VEGETABLE SECTION

Mulches Reduce Soil Temperatures Under Tomato and Tobacco Plants in Florida, D. R. Davis, R. R. Kincaid and R. M. Rhodes	117
Comparison of Tomato Varieties and F ₁ Hybrids for Yield and Uniformity, Pat Crill and D. S. Burgis	120
Concentrating Tomato Maturity with Growth Regulators, H. H. Bryan	123
Evaluation of Fruit-Pedicle Separation of Fresh Market Tomato Varieties for Mechanical Harvest, Ben Villalon and Herbert H. Bryan	127
Recent Advances in Mechanization of Fresh Market Tomato Harvesting in Florida, W. W. Deen, Jr., N. C. Hayslip, H. H. Bryan and P. H. Everett	131

Fruit Chilling and Ripening Studies for Evaluation of Breeding Lines of Fresh Market Tomatoes, D. S. Burgis	135
Weed Problem Changes Affecting Central Florida Vegetable Production, W. T. Scudder	138
The Effect of Fertility and Plant Populations on the Yield of Okra, Paul Sutton and E. E. Albrechts	141
Pattern of Fertilization for Watermelons: I. Influence on Plant Growth and Fruit Yield, S. J. Locascio, J. G. A. Fiskell and H. W. Lundy	144
Patterns of Fertilization for Watermelons: II. Influence on Nutrient Distribution in Soil and Plant Uptake, J. G. A. Fiskell, S. J. Locascio, and F. G. Martin	149
Nematode Control on Potatoes by Soil Fumigants, Band and In-Furrow Applications of Contact Nematicides, D. P. Weingartner and D. W. Dickson	154
Some Insect-Weed Inter-Relationships that the Grower Should Know, W. G. Genung and J. R. Orsenigo	161
Cabbage Looper Control at Hastings and Sanford Florida During 1970, R. B. Workman and G. L. Greene	166
Insecticides for Budworm Control in Central and South Florida, G. L. Greene and M. J. Janes	168
Disease and Insect Control for Direct Seeded Cabbage in Florida, J. O. Strandberg and G. L. Greene	170
Effects of Twenty Natural Amino Acids on Pathogenesis of Homestead 24 Tomato by <i>Fusarium oxysporum</i> F. Sp. <i>Lycopersici</i> Races 1 and 2, S. S. Woltz and John Paul Jones	175
Differential Graywall Development in Tomato Stocks Infiltrated with Bacteria, C. B. Hall, R. E. Stall and J. W. Strobel	179
Response of Grower-Available Sebago Potato Seed Stocks to Different Seed Piece Treatments, J. R. Shumaker and D. P. Weingartner	183
Cucumber Mosaic and Western Celery Mosaic—Two Aphid-Transmitted Virus Diseases of Florida Celery, T. A. Zitter	188
An Improved, Portable Automatic Sampling Spore Trap, T. W. Casselman and R. D. Berger	191
Effect of Plot Size and Layout on Ground and Aerial Application of Fungicides to Vegetable Crops, C. H. Blazquez, H. S. Potter, G. A. Brandes and D. W. Lander	196
Interaction of Cultivars, Nematodes, and Fumigants on Development of <i>Verticillium</i> Wilt on Tomatoes, A. J. Overman, J. P. Jones and C. M. Geraldson	203
Epiphytology of Celery Late Blight, R. D. Berger	208
Effect of Various Foliar Sprays on the Maturity of Tomato, W. J. Southam and V. F. Nettles	212

HANDLING AND PROCESSING SECTION

Effects of Washing Sequence on the Degreening Response and Decay of Some Citrus Fruits, Otto L. Jahn, Randall H. Cubbedge and John J. Smoot	217
---	-----

Grove Application of Benlate for Control of Postharvest Citrus Decay, G. Eldon Brown and L. Gene Albrigo	222
Decay Control of Florida Citrus Fruits with Packinghouse Applications of Thiabendazole, John J. Smoot and C. F. Melvin	225
Status of Postharvest Fungicides for Citrus Fruit, A. A. McCornack	229
Storage Life of Prepared Grapefruit Halves, W. F. Wardowski, G. Eldon Brown and Paul J. Fellers	232
Sauerkraut Fermentation of Some Florida Cabbage Cultivars, Richard F. Matthews and R. P. Bates	236
Celery Acceptability in Tomato-Celery Juice Blends, R. P. Bates and C. W. Wilson, III	240
Acidification of Lye Peeled Tomatoes and Sodium Level of the Canned Tomatoes, Richard F. Matthews	244
Detachment Characteristics of Snap Bean Pods and Pedicels, R. K. Showalter	248
Harvesting Processing Oranges with the Use of Cyclohexamide, James R. Buttram	253
Hormonal Regulation of Citrus Fruit and Leaf Abscission, M. A. Ismail	256
Effect of Budwood Selection and Rootstock on the Peel Oil Content of 'Valencia' Oranges, R. Hendrickson, J. W. Kesterson and Mortimer Cohen	259
Peel and Internal Quality of Oranges as Influenced by Grove Applications of Pinalene and Benlate, L. Gene Albrigo, G. Eldon Brown and P. J. Fellers	263
Peel Injury of Florida Navel Oranges, A. A. McCornack	267
Limonin in Florida Citrus Fruits, W. Clifford Scott	270
Color Standardization of Pigmented Grapefruit Juices, R. L. Huggart and S. V. Ting	277
Evaluation of Pectins from Florida Lemons Harvested from Young Trees, A. H. Rouse and L. C. Knorr	281
Respiration, Ethylene Evolution, and Enzymatic Changes of Florida Peaches and Nectarines as Affected by Storage Temperature, N. Vakis, J. Soule, E. M. Ahmed and W. Grierson	285
Biochemical Changes in Grapefruit During Anaerobic Metabolism, Joseph H. Bruemmer and Bongwoo Roe	290
Relation of Ethanol Content of Citrus Fruits to Maturity and to Storage Conditions, Paul L. Davis	294
The Effects of Post-Bloom Chemical Sprays on Grapefruit, B. S. Buslig, R. D. Carter, G. E. Good and J. A. Attaway	299
Biochemical Changes in Grapefruit and 'Murcott' Citrus Fruits as Related to Storage Temperature, N. Vakis, J. Soule, R. H. Biggs and W. Grierson	304
Effect of Temperature on Centrifugal Separation of Cold-Pressed Orange Oil, Robert E. Berry and Pedro Cassals	310
Effect of Cellulase, Lipase, Pectinase, Protease and Ribonuclease on the Cloud of Citrus Juice, R. H. Biggs and J. E. Pollard	314

KROME MEMORIAL SECTION

Hawaiian Macadamia Nut Cultivars, R. A. Hamilton and E. T. Fukunaga	319
Lychee Cultivars in Hawaii, R. A. Hamilton and W. Yee	322
Pineapple Cultivars 1970, George Samuels	325
Low Chilling Temperate Zone Fruits in Israel, R. J. Ticho	332
Citrus Cultivars for the Tropics, A. H. Krezdorn	336
A Survey of Major Banana Cultivars, K. Shepherd	341
The Present Status and Perspectives for Cacao Cultivars in Latin America, Jorge Soria V.	345
Minor Tropical Fruit Cultivars in Florida, Carl W. Campbell	353
Mango and Avocado Cultivars Present Status and Future Developments, Simon E. Malo	357
Some Climatic Effects on Flowering and Fruiting of 'Brewster' Lychees in Florida, T. W. Young	362
Controlling Purple Nutsedge in the Wet Tropics by Burning and Shading, M. H. Gasgaskins and C. M. Colberg	367
Effects of an Oil Emulsion on Absorption of Carbon Dioxide by Heliconia, J. M. Riedhart	370
The Iron-Chlorophyll Relationship in Young Hass Avocado Leaves, E. F. Wallihan and R. G. Sharpless	372
Seed Development in the Pineapple Orange, Margaret J. Mustard and S. John Lynch	375
Irrigation Experiments with Tahiti Lime in Dade County, Wm. H. Krome, R. C. J. Koo and T. W. Young	380
Evaluation of Cold-Hardy Avocados in Florida, A. H. Krezdorn	382
Effectiveness of Copper When Combined with Nu Flm 17 for Control of Avocado Scab, R. T. McMillan, Jr.	386
Response of "Stover" Grape to Soil Applications of Magnesium, C. F. Balerdi	388
Frost Protection is Practical for Peaches, J. F. Gerber and D. W. Buchanan	391
Fruit Thinning of 'Early Amber' Peaches with Ethrel (1) and Nia 10637 (4), H. D. Stiles, D. W. Buchanan and R. H. Biggs	396
Influence of Alar on Central Florida Peaches, C. E. Arnold and D. W. Buchanan	399
Storage of Lula Avocados in Controlled Atmosphere 1970 Test, W. F. Reeder and T. T. Hatton, Jr.	403
Prospects for Cashew Advancement in Colombia and Venezuela, Julia F. Morton	405

ORNAMENTAL SECTION

Problems in Marketing Woody Ornamentals Through Mass Market Outlets, Cecil N. Smith and Stephen M. Raleigh, Jr.	411
Effects of 8-10 Day 5° C Storage and Floral Preservatives on Snapdragon Cut Flowers, J. C. Raulston and F. J. Marousky	415

Influence of Controlled Atmospheres During Corm Storage on Subsequent Flowering of <i>Gladiolus</i> , F. J. Marousky, R. H. Cubbedge and R. O. Magie	419
A Critical Evaluation of the Commercial <i>Gladiolus</i> Cultivars Grown in Florida, G. J. Wilfret	423
Poultry Manure as a Soil Amendment for Container-Grown <i>Ligustrum Japonicum</i> and <i>Podocarpus Macrophylla</i> Maki, E. W. McElwee	427
Southern Blight of <i>Schefflera</i> , S. A. Alfieri, Jr. and J. F. Knauss	432
Bacterial Leaf Spot of Some Commelinaceae Caused by the Carnation Leaf Spot Pathogen, <i>Pseudomonas woodsii</i> , J. W. Miller	435
Rough-Bark of <i>Pittosporum tobira</i> Ait. in Florida, S. A. Alfieri, Jr. and C. P. Seymour	438
Dactylaria Leaf Spot, a New Disease of <i>Philodendron oxycardium</i> Schott., J. F. Knauss and S. A. Alfieri, Jr.	441
Interaction of Flower Preservative Components and Light on Fresh Weight and Longevity of Snapdragon Cut Flowers, F. J. Marousky and J. C. Raulston	445
Relationship of Snapdragon Response Groups to Cultivar Performance in Florida Field Production, J. C. Raulston	449
Botrytic-Like Diseases of Rose, Chrysanthemum, Carnation, Snapdragon and King Aster Caused by <i>Alternaria</i> and <i>Helminthosporium</i> , Arthur W. Englehard	455
Phytotoxic Responses of <i>Euphorbia pulcherrima</i> to Light, Temperature and Cycocel Levels, Charles A. Conover	457
Chemical Pruning and Disbudding of <i>Chrysanthemum morifolium</i> , Jasper N. Joiner and George D. Pickhardt	461
Effects of Levels of Phosphorus and Potassium on Growth, Composition and Incidence of Leaf-Tip Die-Back in <i>Cattleya</i> Orchids, H. A. Poole and T. J. Sheehan	465
Evaluations of Pesticides for Phytotoxicity on Chrysanthemum Flowers, S. L. Poe	469
Slow Release Fertilizer Effects on Growth of <i>Nandina domestica</i> in Containers, S. E. McFadden and C. A. Conover	472
Calcium Deficiency and its Effects on Growth and Quality of Container Grown <i>Viburnum Suspensum</i> Lindl., R. D. Dickey	475
The Chemical, Physical and Salinity Characteristics of Twenty-Seven Soil Media, W. E. Waters, William Llewellyn and James NeSmith	482
Nematode Problems of Turfgrasses in Florida and Their Control, V. G. Perry, G. C. Smart, Jr. and G. C. Horn	489
Effects of Pesticide Combinations on Rose Flower Yields, H. N. Miller, S. E. McFadden and L. C. Kuitert	493
Influence of Growth Regulators on Stem Elongation and Rooting Response of Foliage Plants, R. T. Poole	497
Effects of Media and Container Type on Herbicidal Activity in Container-Grown Woody Ornamentals, Stanley G. Dean, Carl E. Whitcomb and Charles A. Conover	502

ANNUAL REPORTS

Report of Executive Committee	508
Annual Business Meeting	509
Resolutions	509
Report of Membership Committee	510
Report of Treasurer	511
List of Members	512
Index	527
Available Proceedings	540