

material of almost anything on the station, for the paper work on such a plant distribution is very little and the labor no problem at all. Cienfuegos may be reached in a matter of hours from Miami by air, and we are only 20 minutes from the airport by good road. Despite rumors to the contrary, we do not operate a guest house on the grounds, having only two double bedrooms for the use of visiting scholars approved by the University in advance and for guests invited by the Garden because of their relationship to some particular phase of the Garden's work. Cienfuegos has two fairly good hotels where other visitors may stay and from which sufficiently hardy and adventurous visitors may reach the Garden gate by country bus. Less sturdy souls can use the taxis in which Cuba abounds.

So much for direct connections with the Garden. I would like now to consider the more general ways in which we try to serve Florida horticulture. At this time, operating under the policy which I have just outlined, we maintain plant exchange with the following Florida institutions: Chapman Field Plant Introduction Garden of the U.S.D.A., the Dade County Parks, the Fairchild Tropical Garden, the Uni-

versity of Miami, and the University of Florida and its experiment stations. Those in charge of these institutions know what we have and are supplied with lists of available material from time to time. We hope that by working through these places, those things which we have which are of potential value to Florida horticulture will eventually get into the hands of those individual growers who want them.

I think we can all agree that the men in this state responsible for plant introduction have an exceptionally good idea of what is wanted here. What is more, they have the facilities and the staff to make the introductions efficient. I know too that good quarantine practises will always be observed and proper care given whatever we may send them. In sum, I am leaving the decisions on new plants for Florida to the experts. It is to them you should turn, rather than to us. We hope and expect that they will continue to draw on our collections for the benefit of all of you. We hope even more that the time will eventually come when an adequate income for this part of the Garden's work will permit us to re-establish direct exchange with Florida growers.

ORNAMENTAL TREES, SHRUBS AND VINES FOR SOUTH FLORIDA HOMES

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Coral Gables

Each day's news tends to emphasize the ever increasingly tense times in which we live. We are at present recuperating from war, fighting a war, preparing for war, and trying to prevent a war! Conservationists tell us that with the "Garrison State" we are well nigh exhausting our natural resources (petroleum, minerals, forests, fisheries, wildlife, etc.) so it would seem that nationally we are destined to ruin from within, if not from without. And then we have inflation!

Is landscaping, under such conditions, not perhaps a case of fiddling while Rome burns? The answer is "No." This is because the more tension and the more trying the times, the more need there is for an antidote; and what could be a more effective one than pleasant

home surroundings, the foundation for that so-needed poise, balance and serenity?

The basic need in South Florida landscaping, is not more plants and more collecting of species; but more order, composition and design expressed in their uses. Our opinion would not rate very high of an architect who designs a one-room house without partition walls and just places kitchen, bathroom, bedroom and living-room fixtures and appliances promiscuously about its interior! Yet this is the very thing many people do in the treatment of the grounds about their homes. Too often, because of their love of the individual plants ("structural units" in a good composition) all regard is forgotten for the composition, or the effect of the integrated scheme or plan. A good plan usually divides the home grounds into 3 separate divisions, which like church and state, should be separated by a barrier (shrub border, trellis, hedge, etc.)

12 BESTS FOR SOUTH FLORIDA (ORNAMENTAL TREES, PALMS, SHRUBS, VINES, HEDGE PLANTS)

(a) Trees	(b) Palms	(c) Shrubs		(d) Vines	(e) Hedge Plants
		Standards (4'-8')	Facers (1'-4')		
For framing, background, shade, beauty, etc.		For borders, enclosures, groups, blooms, etc.		For softening harsh surfaces, variety, blooms.	For foundation planting
Black Olive (<i>Bucida buceras</i>)	Coconut P. (<i>Cocos nucifera</i>)	Hibiscus (<i>Hibiscus rosa sinensis</i>)	Wax Jasmin (<i>Jasminum simplicifolium</i>)	Flame Vine (<i>Bignonia venusta</i>)	Australian Pine (<i>Casuarina equisetifolia</i>)
Live Oak (<i>Quercus virginiana</i>)	Royal P. (<i>Roystonea regia</i>)	Orange Jasmin (<i>Chalcas exotica</i>)	Limeberry (<i>Triphasia trifoliata</i>)	Blue Sky V. (<i>Thunbergia grandiflora</i>)	Vitex (<i>Vitex negundo</i>)
Weeping Rubber (<i>Ficus benjamina</i>)	Queen P. (<i>Cocos plumosa</i>)	Star Jasmin (<i>Jasminum gracillimum</i>)	Plumbago (<i>Plumbago capensis</i>)	Allamanda V. (<i>Allamanda hendersoni</i>)	Privet (<i>Ligustrum chinensis</i>)
Cuban Laurel Rubber (<i>Ficus nitida</i>)	Canary Is. Date P. (<i>Phoenix canariensis</i>)	Aralia (<i>Aralia guilfoylei</i>)	Singapore Holly (<i>Malpighia coccigera</i>)	Bougainvilleas V. (<i>Bougainvillea glabra sanderiana</i>)	Ardisia (<i>Ardisia crenulata</i>)
Mahogany (<i>Swietenia mahogany</i>)	Pigmy Date P. (<i>Phoenix roebelenii</i>)	Ardisia (<i>Ardisia crenulata</i>)	Snow Bush (<i>Phyllanthus nivosus</i>)	Combretum V. (<i>Combretum sp.</i>)	Surinam Cherry (<i>Eugenia uniflora</i>)
Royal Poincianna (<i>Delonix regia</i>)	Alexander P. (<i>Archontophoenix alexandre</i>)	Surinam Cherry (<i>Eugenia uniflora</i>)	Canary Flower (<i>Thryallis glauca</i>)	Rangoon Creeper V. (<i>Quisqualis indica</i>)	Ixora (<i>Ixora coccigera</i>)
Sapodilla (<i>Achras sapota</i>)	Fish Tail P. (<i>Caryota mitis</i>)	Poinsettia (<i>Euphorbia pulcherrima</i>)	Severinia (<i>Severinia buxifolia</i>)	Congea V. (<i>Congea tomentosum</i>)	Orange Jasmin (<i>Chalcas exotica</i>)
Cajaput (<i>Melaleuca leucadendrom</i>)	Areca P. (<i>Areca latescens</i>)	Ixora (<i>Ixora coccigera</i>)	Barleria (<i>Barleria ciistata</i>)	Queens Wreath V. (<i>Petrea volubilis</i>)	Limeberry (<i>Triphasia trifoliata</i>)
Pongam (<i>Pongamia pinnata</i>)	Lady P. (<i>Rhapis flabelliformis</i>)	Mandarins Cap. (<i>Holmskoldia Sanguinea</i>)	Bush Thunbergia (<i>Thunbergia erecta</i>)	Christmas V. (<i>Porana paniculata</i>)	Gov. Plum (<i>Flacourtia ramonchii</i>)
Tamarind (<i>Tamarindus indica</i>)	Chinese Fan P. (<i>Livistonia chinensis</i>)	Golden Dew Drop (<i>Durantia plumeri</i>)	Blue Sage (<i>Daedalicanthus nervosus</i>)	Paradise V. (<i>Solanum wendlandi</i>)	Henna (<i>Lawsonia inermis</i>)
Orchid Tree (<i>Bauhinia sp.</i>)	Martinezia P. (<i>Martinezia caryotaefolia</i>)	Wax Privet (<i>Ligustrum lucidum</i>)	Shrimp Plant (<i>Belleperone nemorosa</i>)	Herald's Trumpet (<i>Beaumontis grandiflora</i>)	Yew (<i>Podocarpus sp.</i>)
Australian Silk Oak (<i>Grevillea robusta</i>)	Washingtonia P. (<i>Washingtonia filifera</i>)	Oleander (<i>Nerium oleander</i>)	Firecracker Pl. (<i>Ruellia juncea</i>)	Climbing Fig (<i>Ficus repens</i>)	Phillipine Tea (<i>Ehretia microphylla</i>)

All These Plants and Many More Can Be Seen at the Gifford Arboretum, Main Campus.
University of Miami

1. Public Area
2. Service Area
3. Private Area

1. The public area comprising the land between house and street (minimum distance often proscribed by city ordinance) is best given over to conservative treatment merely to help frame-in facade (front view) of residence.

2. The service area, usually as small as possible, is to one side of residence (and part of rear, if a utility garden is desired) usually on the same side as the garage and or the kitchen. This permits services and deliveries without violating privacy of the private area.

3. The private area or "Outdoor Living Room" uses the largest space mostly to the rear and preferably connected to the living room of house by a terrace or patio, and contains the garden feature or features (such as garden-house, pergola, pool, bird bath, statue, seats, fountain, barbecue, etc.) for gracious outdoor living. In this mild climate with a maximum of warm sunny days, and especially in lieu of the tendency to build our homes ever smaller and smaller, the "outdoor living-room" should become more and more a fixed minimum requirement for modern living and entertaining.

It of course should be given complete privacy from neighbors by generous border plant-

ings or other barriers which incidentally provide the best background for features or flower beds if desired. It goes without saying that the central area or lawn should be kept open to serve as background and liason for the complete setting.

The following merely outlines the various considerations which should determine the selection of plant materials (trees, shrubs, vines) for South Florida gardens.

The appended list of recommended species (12 bests) is tentative only, as many local and circumstantial factors may affect a final choice.

ORNAMENTAL TREES, SHRUBS & VINES FOR SOUTH FLORIDA GARDENS

1. Landscape uses on Private Properties in Composition for:
 - (a) Framing, Background, Skyline
 - (b) Shade, Shadows, Borders, Screening, etc.
 - (c) Utility, Flowers, Fruit.
 - (d) Beauty of (Tree, Shrub or Vine itself)
2. Woody Plants for Home Plantings. Selected for:
 - (a) Scale
 - (b) Hardiness
 - (c) Adaptability to Soil
 - (d) Long-lived
 - (e) Disease & Pest Free
 - (f) Wind storm resistant
 - (g) Beauty
 - (h) Effect in Flower or Fruit
3. Planting Recommendations
 - (a) Get nursery-grown stock (not dug from wild)
 - (b) Transplant when dormant or in Rainy Season
 - (c) Prune top to balance root reduction
 - (d) Prepare adequate hole
 - (e) Tamp and soak down
 - (f) Do not plant too deeply
 - (g) Wrap trunk from sun and mech. injuries.
 - (h) Guy or brace with stakes or wire
 - (i) After care (watering, feeding, mulching, etc.)

Krome Memorial Section

SOME STUDIES OF MINERAL DEFICIENCY SYMPTOMS IN MANGO

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The foliar symptoms of nutrient deficiencies in mango have not been clearly understood. Even experienced growers are unable to recognize distinctive symptoms of short supply of most of the mineral nutrients required for growth. This condition has persisted for many years in Florida despite the fact that mango

trees are frequently grown on very light, infertile soil or on calcareous soils on which other plants usually show deficiencies of several elements. Until 1947 the only description of a deficiency symptom was for zinc (4), although the general yellowing of foliage undersupplied with nitrogen has been recognized for a long time.

The present study was started with the objective of producing foliar-deficiency patterns for a possible eleven mineral elements, with the view that such information would be of value in mango culture. Sand culture studies