fect gladiolus would have a better color and a more beautiful floret than comparable existing varieties; it would grow vigorously with average culture and be adaptable to short or long days and to hot or cool weather. The spike would have a strong straight stem and be able to open all of its florets from tight buds, after being harvested. The size and color of florets opened from tight bud would compare favorably with the field-opened florets.

Spikes harvested in tight bud would be capable of holding enough florets open to make a symmetrical flower head and a beautiful showing. The flower would be able to withstand rough handling in transit and in packaging. These attributes of the perfect gladiolus for commercial growing in Florida could apply to large or small-flowered varieties with florets of various shapes and colors.

THE BEAUTIES OF NATURE IN THE FAIRCHILD TROPICAL GARDEN

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Coconut Grove

How fortunate we are, in that nature is so full of beauty! Do you recall that little passage in Edna Ferber's novel, "So Big," where the city girl is being driven in a buckboard through the country for the first time? She asks the driver what the plants are, growing in a field they are passing; he tells her they are cabbages, and she exclaims: "How beautiful they are!" The old countryman throws back his head, laughing heartily, and tells everyone he meets: "She says cabbages is beautiful!"

It has been said that beauty is in the eye of the beholder. I wonder, though, how we would feel if we looked up at the sky, or out across the water, and instead of a soft restful blue we saw muddy brown? What if all leaves of all the trees were dark red, and flowers, instead of the exquisite forms and colors we know so well, were formless masses of dirty gray? Would our eyes, unaccustomed to anything else, find them beautiful? Somehow, I feel that they would not, and that our lives would surely be greatly impoverished.

On the other hand, the educated eye is able to see and appreciate much that the casual observer might never notice. As our knowledge grows, we can see differences of form, texture, color; we marvel at nature's clever devices for the reproduction of certain plants; we look with more appreciation at an endless pageant; no lifetime will begin to be long enough for us to know and enjoy it all.

Take, for example, the Cannon-ball tree, (Couroupita guianensis). In the first place, it does not produce its flowers at the ends of the branches, as most plants do; separate flower stems strike out from the trunk itself, growing longer each year, with new buds constantly appearing, and new flowers opening every morning. The blossom, like a large single rose, combines shades of gold, pink, white and lavender in subtle fashion, and gives off a delicate perfume. More unusual, it has two kinds of pollen, carried on two different types of anthers. Then come the odd fruits, looking much like old, rusty cannon balls, from which comes the tree's common name. A close study of this plant uncovers many other interesting features.

In the Fairchild Tropical Garden there are numbers of plants of equal interest. Our Garden has as its purpose the bringing from far-flung warm areas of the world the choicest plants, of the greatest ornamental value. These are carefully planted, either set out on our eighty-three acres or placed in the greenhouses, brought to maturity, and displayed for the pleasure and education of our visitors. Now that it has passed its thirteenth year, many new and beautiful plants are blooming and fruiting in the Garden, some, perhaps, for the very first time in North America.

Our landscape architects have had the unusual experience of planning an artistic garden from the very beginning. As I study the voluminous records of the early days I am much impressed with the amount of serious thought which was given to deciding what the objectives of the Garden would be, and how those objectives could best be carried out. Here is a short resume of the problems and their solution:

"It was decided that this should be a garden for the display and study of truly tropical
flora, with the exception of native material, which was already available at Matheson Park, next door.

The next problem was how to restrict this truly tropical flora to the small area of 83 acres. In Mr. Phillips’ preliminary study of the question, he points out that there are various reasons for establishing botanical gardens, such as:

1. To make an exposition of systematic plant relationships.
2. To exhibit conveniently the flora of a region, with or without ecological relationships.
3. To exhibit new species having economic or ornamental value, such as is done by a plant introduction garden.
4. To demonstrate the garden or park-making values of familiar or unfamiliar plants.
5. To display with the greatest possible completeness certain groups of plants.
6. To make a collection of oddities and rarities, without much regard for their scientific significance or usefulness.
7. To demonstrate a dominantly esthetic motivation.

He sums it all up in a concluding paragraph: My point is that, somewhere in such a list of distinguishable purposes, a purpose or combination of purposes could be identified which would be practical, feasible, useful, and distinguishing for the Fairchild Tropical Garden to pursue, and that a program of acquisition could be based on such a statement of that purpose.

After a study of the above possibilities, it was decided that at first the emphasis should be placed on acquiring as complete a collection as possible of the palms and their relatives, the cycads and pandans. These would be placed in the Montgomery Palmetum, while the County area would contain family groups
of trees and shrubs. With this in mind, the ground was laid out in plots, with a family assigned to each, such as the Liliaceae, Leguminosae, etc. These sections were separated by walks, open areas and vistas, all carefully worked out so as to give variety and distant views, and avoid monotony. Quoting Mr. Phillips once more:

We have to recognize, in the first place, that the relatively limited area available for the Garden is forcing us into the creation of a fairly continuous mass—that is to say, a covering of trees containing few and limited voids, with such voids as there are having the character of lanes or allees rather than of broad or rounded openings. This is, however, reasonable and proper for a botanical collection, since that layout must provide substantially what the art museum provides: a great deal of wall space; and if we cannot have a museum consisting entirely of large salons, we must necessarily put up with corridors and long galleries. At the same time, we can probably afford, as most museums do a few large rooms in which large and particularly fine pieces can be viewed from a distance.

That this layout was well and cleverly done is demonstrated by the fact that visitors to the Garden usually do not notice the relation of masses to voids, but when it is pointed out to them they take great pleasure in noticing how naturally it is worked out.” (1)

There is no good house without a good foundation; this may be said equally, I believe, of gardens. Once the tedious, expensive and difficult groundwork is done, good results may reasonably be expected. Results at Fairchild Garden have been excellent, if public reaction is any indication. Many a visitor has remarked sincerely: “It does me so much good to come down here; it is so peaceful and lovely.” A professional man in Miami, desolated by the loss of loved ones, slipped away from home very early, morning after morning, to walk in our Garden, where he found solace. One of our valued members stood recently, looking out across the lawn toward the towering palms, and quoted Boker’s lines:

“So fair and fresh the landscape stands,
So vital, so beyond decay,
It looks as though God’s shaping hands
Had just been raised and drawn away.”

1.—Fairchild Tropical Garden—The First Ten Years, pp. 26-28.

It makes us happy to have our new members come to us and say that they have joined the Garden because they can come there and see mature specimens of the plants they are placing on their own grounds, and know better how they will look when full-grown. In our palmetum there is proof that those unique plants, the serene and dignified palms, are among the jewels of Florida landscaping, and that, properly used, they produce the most outstanding displays. As I look with the deepest sense of pleasure at a full-grown Latania loddigesii, with the enormous grey-green fan leaves and perfect proportions, I remember David Fairchild’s wonderful paragraph in “Garden Islands of the Great East,” in which he says that one should look at a palm as one would at a fine piece of statuary, for its stately grace and the precise relation of each leaf to the others, all as carefully wrought as the most perfect art.

Among the three-hundred-odd vines on and near the pergola one always finds some choice and colorful specimen in bloom; the gorgeous scarlet Combretum grandiflorum from the Gambia river in West Africa, with leaves at the ends of the blooming sprays which turn the same bright scarlet as the flowers. Or the charming Stigmaphyllum periplocifolium, more easily called Brazilian Gold, with closely packed sprays of rich yellow. There is the Rangoon Creeper, Quisqualis indica, the flowers opening in the morning white or pale pink, and growing darker and darker until they become deep wine color. And the Derris scandens, which deserted the pergola to climb all over a large oak, on summer nights throwing a filmy veil of scented white over it.

Down on the edge of one of the lakes, our Barringtonia is blooming and fruiting for the first time, producing its remarkable four-sided fruits.

The list is endless, if one has the true love of beautiful plants. There must be an end, so I shall close with Henry Van Dyke’s SALUTE TO THE TREES

Many a tree is found in the wood
And every tree for its use is good;
Some for the strength of the gnarled root,
Some for the sweetness of flower or fruit:
Some for shelter against the storm,
And some to keep the hearthstone warm;
Some for the roof and some for the beam,
And some for a boat to breast the stream—
In the wealth of the wood since the world began
The trees have offered their gifts to man...
But the glory of trees is more than their gifts:
'Tis a beautiful wonder of life that lifts,
From a wrinkled seed in an earth-bound clod,
A column, an arch in the temple of God,
A pillar of power, a dome of delight,
A shrine of song, and joy of sight!
Their roots are the nurses of rivers in birth;
Their leaves are alive with the breath of the earth;
They shelter the dwellings of man; and they bend
O'er his grave with a look of a loving friend.

I have camped in the whispering forest of pines,
I have slept in the shadow of olives and vines;
In the knees of an oak, at the foot of a palm
I have found good rest and slumber's balm.
And now, when the morning gilds the boughs
Of the vaulted elm at the door of my house,
I open the window and make salute;
"God bless thy branches and feed thy root!
Thou hast lived before, live after me,
Thou ancient, friendly, faithful tree."

ROSE CULTURE IN FLORIDA

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An important consideration in successful rose culture is that of the location of the garden. Adequate sunlight is necessary and avoid places where roots from large trees and shrubs will invade the area and rob the soil of moisture and plant food. The soil should be prepared several weeks prior to planting if possible. It has been found to be a good practice to apply liberal amounts of superphosphate and potash prior to working up the soil. This eliminates the necessity of supplying these materials during the growing season. A good supply of organic materials such as decomposing oak leaves or other vegetative materials, or animal fertilizers should be spread out over the garden. An application of 0-14-10 will be adequate for the season, when applied broadcast at the rate of about 20 pounds to each 100 square feet of garden. The garden should then be spaded to a depth of six to eight inches so as to thoroughly incorporate the organic material and fertilizer with the soil.

Soil fumigants have proven beneficial when used judiciously in growing roses. Dowfume —W40 and DD are both satisfactory chemicals to use but they should be applied at least two weeks prior to setting the bushes. Generally, about three cc per square foot is recommended, but this may be increased slightly if necessary. Fumigation of the soil will reduce the nematode population in the soil and will also be beneficial in some other way. They have been used successfully in a private garden at Gainesville for several years with improvement in plant growth. However, the chemicals have not been applied to rose soils very extensively in Florida, and it is suggested that growers proceed with caution in the use of fumigants at the present time.

While sunlight is an important factor in rose culture, some partial shading of the plants during the summer months will prove beneficial. This can be provided with slats or with cloth, such as cheesecloth and burlap stretched over wires above the garden. By handling in this manner the covering can be removed when necessary.

It is not absolutely necessary to remove the soil to a depth of 18 inches or more and replace with clay to insure satisfactory growth of roses. The only exception to this general statement would be in the case of a garden on extremely light sand, then one could replace the top eight or ten inches with a mixture of loamy soil and organic materials; clay is not necessary, but can be added if desired. Soils that give best results are those that contain adequate amounts of organic materials that have decomposed to a point where it can be mixed satisfactorily with the soil in making up the bed. Animal fertilizers are always good to use in the rose garden and will be greatly beneficial in maintaining a nutritional condition that will produce satisfactory growth and bloom production. On a good loamy soil it will not be necessary to do more than spade in the fertilizer and thoroughly mix it with the surface six or eight inches of soil.

The plants can be set any time during the dormant season, but generally best results will be obtained by planting during November and December, using a handful of bone meal mixed with the soil in each hole. The soil is then made firm and watered. After the planting has been completed, it is advisable to flood the entire garden with water so as to settle the soil thoroughly about the roots. In setting, the roots of the plants should be at about the same depth as when the plants were growing in the nursery. The entire garden should be covered to a depth of six or eight inches with an organic mulch such as oak leaves or some