

that choice cultivars could be selected and maintained from seedling populations.

In regards to a cultivar, 1 plant is outstanding among the group of 17 which were originally planted. It is a full, vigorous, dark green shrub, (Fig. 1). We have decided to name it in honor of the Wray Foundation, its name being *P. ferrugineum* 'Floyd L. Wray.'

### Conclusion

This species of *Pittosporum*, we believe, is a desirable addition to landscape plants for south

and central (and possibly north) Florida, and we recommend trial planting wherever a quick growing, attractive medium sized, pest resistant shrub is desired. We especially recommend plants grown from cuttings of the variety 'Floyd L. Wray' for their rich green color and full appearance. Cuttings and/or seeds will soon be available from the ARC, Fort Lauderdale.

### Literature Cited

1. Bailey, L. H. 1949. Manual of Cultivated Plants. The Macmillan Co., Toronto, 1116 p.
2. Watkins, J. V. 1969. Florida Landscape Plants. University of Florida Press, Gainesville. 368 p.

## OLEANDER CULTIVARS AT THE FAIRCHILD TROPICAL GARDEN

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*Abstract.* More than 30 named cultivars of oleander (*Nerium oleander*) have been introduced to the Fairchild Tropical Garden during the last few years. These are named, briefly described and evaluated, and some cultural information is given. The oleander is widely adapted and grown in nearly all regions of Florida. As it is a poisonous plant it should only be grown where children will not play with it.

Oleanders were introduced into Florida by the earliest Spanish settlers at St. Augustine. We do not know whether they brought cuttings or seeds but it was likely cuttings since oleanders are very easily propagated by this means. I have found no records of cultivar (cv.) names and apparently oleanders were just identified by characters such as single, double, white, pink, or red.

This system of identifying oleanders by flower color and form has continued up until the present time and still most nurseries cannot identify their oleanders in any other way. A few superior cultivars have now come into the trade, however, and since they are identified by name, it seems only a matter of time until most nurseries will sell oleanders by cultivar names.

In order to learn more about oleander cvs and establish which are the best ones for cultiva-

tion in South Florida, the Fairchild Tropical Garden undertook a plant introduction program with this species in 1972. Actually, there may be two species involved, *Nerium indicum* and *Nerium oleander* with some of the cvs being of hybrid origin. *Nerium indicum* is the fragrant oleander and supposedly the source of fragrance in the cultivars. Our material of *Nerium indicum* appears to be just a fragrant or sweet-scented oleander with rose-pink flowers. Perhaps most of the fragrant cvs would fall into this species.

Cuttings from a number of cvs were obtained in March, 1972. The largest number of cvs came from Mrs. Gaido in Galveston, Texas. She had been president of the National Oleander Society which is most active in that area. Another group of cuttings came from the Huntington Botanical Gardens in San Marino, California. These cuttings rooted within a few weeks and most of them were planted in the field in August of that year. The first one flowered in September.

The following cvs were planted and their vigor of growth and flower color, if they have bloomed, is listed after each name:

Alleen Allen, weak  
Albert Manning, deep pink, vigorous  
Apple Blossom, shell pink, vigorous  
Dawn, vigorous  
Ed Barr, white, vigorous  
Eugenia Fowler, light pink, moderately vigorous  
General Pershing, dark pink, vigorous  
Lane Taylor Sealy, salmon pink, weak  
Madame Jannock, red vigorous

Martha Hanna Henslee, dead  
 Mathilda Ferrier, yellow, weak  
 Miss Agnes Campbell, salmon cream, vigorous  
 Mrs. H. L. Runge, pink, vigorous  
 Mrs. H. M. Truehart, pink, vigorous  
 Mrs. Isador Dyer, pink, vigorous  
 Mrs. J. E. Thompson, deep red, vigorous  
 Mrs. John Hann, moderately vigorous  
 Mrs. Lucile Hutchings, salmon pink, weak  
 Mrs. Magnolia Willis Sealy, white, vigorous  
 Mrs. Sue Hawley Oakes, yellow, weak  
 Pauline Adone, vigorous  
 Petite Pink, weak  
 Petite Salmon, moderately vigorous  
 Rose pink single, vigorous  
 Sealy Pink, vigorous  
 Single cerise, vigorous  
 Single hardy cerise, vigorous  
 Single pink, vigorous  
 Single salmon, pink, vigorous  
 Sister Agnes, white, vigorous  
 Variegata, pink, vigorous

Flowering has been poor with many of these cvs. For example, 'Miss Sue Hawley Oakes' and 'Mathilda Ferrier' are yellow flowered varieties and under our conditions produce very few flowers. Furthermore, the yellow color is very pale and they are very weak growers. Developing a vigorous free flowering yellow variety would be a highly desirable objective for any breeding program.

Several noteworthy varieties have turned up in this project. The two most interesting are 'Petite Salmon' and 'Petite Pink'. These two cvs were introduced from Kenya by the Los Angeles State and County Arboretum and then sent to us. They were originally called 'Dwarf Salmon' and 'Dwarf Pink' but the Dwarf has since been changed to 'Petite'. The 'Petite Salmon' is only about 4 feet tall under our conditions and is very free flowering. It is already available in some Florida nurseries and should become popular. 'Petite Pink' is more dwarf under our conditions and is still only about 18 inches high after 3 and a half years. It also blooms very freely, but its slow growth will make it undesirable to nursery-men.

The cultivar 'Variegata' received from the Huntington Botanical Gardens appears to be identical to 'Mrs. H. L. Runge' received from Galveston. This variety is free blooming and should be satisfactory where a variegated oleander is desired. No doubt it is available from some nursery in Florida.

Two other good varieties are 'Sealy Pink' and 'Ed Barr', a white variety with a yellow center.

Because many cvs are very similar, it is difficult to identify them in the field and one cultivar may be known by several names as with 'Variegata.' Two cvs that have become popular recently in Florida are 'Hawaii' with salmon pink petals and yellow throat and 'Calypso' which is a deep pink. Both of these are free blooming, vigorous cvs which are highly recommended for cultivation in our area. Unfortunately, we do not have them yet at the Fairchild Tropical Garden for comparison with the other cvs.

To determine the variation in oleanders grown from seed, open pollinated seeds were planted of the 'Petite Salmon' cultivar and an unnamed dark red cv. Some 20 seedlings were grown out of each and some flowering occurred in less than a year. Nearly half of the seedlings were very similar to the parents with small variations in color, flower size and vigor occurring in the other half. The seedlings of 'Petite Salmon' all seemed to be a little taller growing than the parent. Because of the similarity of seedlings to parents, cv identification is much more difficult.

At the Fairchild Tropical Garden, oleanders are subject to a number of pests. The principal problem however, is with a diurnal moth *Composia fidelissima vagrans*. This red, white and blue moth lays its eggs on the oleanders and in a remarkably short time caterpillars have devoured all the leaves on the plants. The caterpillars can be controlled easily enough with Sevin or Cygon or other insecticides, but they come back again quickly. One must be always on the watch for them. Several scale insects, including *Phenacospis cockerelli*, the oleander scale, have attacked the plants and older plants growing in the neighborhood of the Garden have been susceptible to a "Witches Broom" disease. The "Witches Broom" is thought by Ridings and Marlott (1) to be caused by the fungus *Sphaeropsis tumefaciens*. They suggest control by pruning out the galls, being sure to dip the pruning shears in a 10% Chlorox solution before each cut. They also suggest that a fungicide such as Maneb may be a preventative. Scab, *Sphaceloma oleanderi* has also been reported as a pest on oleanders in Florida.

Anyone working with or growing oleanders should be cautioned that the plants are poisonous if ingested. Even smoke from burning oleanders is said to be poisonous. Oleander plantings are recommended for causeways and other places where children will not pick the leaves or flowers.

## Literature Cited

1. Ridings, W. H. and R. B. Marlott. 1975. Sphaeropteris gall of bottlebrush. *Florida Department of Plant Industry, Plant Path Circ No. 150.*

## WOODY VEGETATION FOR COASTAL DUNE AREAS

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*Abstract.* Plants adapted for use on coastal dunes were determined in a detailed study made throughout Florida. Included in the study was a determination of trees and shrubs that have ornamental values. Consideration was given to both native and naturalized species that can tolerate direct exposure to the Atlantic Ocean or Gulf of Mexico. Information is given on these plants such as common and scientific name, growth form, climatic and soil adaptation, maintenance needed, ornamental value and other pertinent facts. Consideration is given only to those trees and shrubs actually observed during the study.

The coasts of Florida are the most extensive in the United States except for Alaska. The outer shorelines along both the Atlantic Ocean and Gulf of Mexico coasts are 1,226 miles long. This coastal area is one of Florida's most valuable assets, especially the beaches and dunes that have become prime areas for recreation and urban development.

It has been reported (4) that at least 200 miles of Florida's coastline have serious erosion problems due to construction, inadequate vegetative cover on the dunes and structures that have altered the offshore currents. The problem of inadequate vegetative cover on the coastal dunes is recognized by the United States Department of Agriculture, Soil Conservation Service (SCS). The SCS Long Range Plant Materials Program for Florida (1) gives the highest priority to the solution of this problem. A field study was started in 1973 and completed in 1974 to determine the plant species that are naturally adapted for use in vegetating coastal dunes.

The results indicate that several plants have a high potential for use in dune stabilization work.

These plants are primarily grasses and vines and are discussed in detail by Craig (4). Woody plants have a lower potential for use in dune stabilization but many of them can be used for beautification and landscaping.

### Materials and Methods

Every reasonably accessible coastal dune location in Florida was visited. One hundred forty-two sites were selected for detailed study. It was felt that these adequately represented the type and extent of dune characteristics and vegetation in the state.

Information was obtained at each site on soil conditions, type and size of dune area, extent of use by people, dominant and minor vegetation and other pertinent information. The area studied was from the first vegetation above the water inland to the scrub-zone. Unknown plants were identified by University of Florida Herbarium personnel.

All observations and determinations were made visually and were estimated. It was decided that a general survey of a wide magnitude would yield more applicable information than a smaller number of more detailed studies.

The individual studies were then reviewed to determine the useful woody plant species in relation to their climatic adaptation, beautification and landscape features, and occurrence on specific soil conditions, and dune types.

### Results and Discussion

Trees, shrubs and other woody plants are relatively uncommon on the frontal coastal dunes. The most common vegetation in this area are grasses, sedges and herbs. Woody vegetation is abundant further inland in the shrub and forest zones. However, a few woody plant species are adapted to the frontal dune environment and can become dominant plants where the wind and salt spray are moderate. Mostly they are affected by the wind and salt spray to the extent that they are smaller in size than normal and wind sheared.