PART I. Operating Divisions

ARBORETUM DEVELOPMENT

The Entranceway Forecourt area, under development since 1960, is the major improvement at the Arboretum during the past two years. The area between the Gateway and Bauer Pool has been re-graded, drains installed and permanent hybrid Bermuda lawns are now well established.

The area immediately north and west of the Bauer Pool has been graded and lawns established. An automatic sprinkler system was installed thus reducing the Gardener's watering time.

By far, the greatest single improvement has been the mature tree moving program initiated a year and a half ago. This program was made possible by constructing an "A-frame" and fitting it to an existing five-ton truck equipped with a winch. During 1963-64 twenty-six large trees were moved from elsewhere on the grounds to the Entranceway Forecourt. Included in this group were: Acacia pendula, Ficus rubiginosa, Tabebuia eximia, Araucaria bidwillii, Chorisia speciosa (2), Pittosporum phyllyraeoides (2), Erythrina poianthes, Populus alba (3), Podocarpus falcata, Jacaranda acutifolia, Melaleuca linariifolia (2), and Prunus blireiana. In addition to the foregoing trees, the Arboretum also was able to acquire a Podocarpus gracilior in a five-foot box, a thirty-year old Erythrina crista-galli and three large Juniperus chinensis cv. 'Torulosa'.

Timely construction of the "A-frame" also allowed the Arboretum to accept a fine collection of five different species of Magnolia and seven large Camellia plants all, approximately fifteen to twenty years old.

During 1964-65 the following trees (46) were moved from various areas on the grounds and planted in the Entranceway areas:

Acacia pendula (2)
Chorisia insignis (2)
Erythrina falcata (1)
Erythrina coralloides (3)
Cassia leptophylla (1)
Cassia multijuga (1)
Cassia excelsa (1)
Quercus robur (1)
Bischofia trifoliata (1)
Bauhinia blakeana (1)
Cornus macrophylla (1)
Olea europaea (1)
Ficus sycomorus (1)
Ficus rubiginosa (1)
Aesculus carnea (1)
Lagerstroemia indica (1)
Melaleuca linariifolia (2)
Tabebuia chrysotricha (2)
Metrosideros kermadecensis (1)
Caesalpinia peltophoroides (1)
Ficus fairchildiana (1)
Ficus macrophylla (1)
Quercus laurina (1)
Lagerstroemia indica (11)
Lagerstroemia fauriei (4)
Chorisia insignis (1)
Chorisia speciosa (1)

Oak trees (34) of various sizes and species were moved from their former location on Tallac Knoll to just south of the native stand of Engelmann oaks to create an "oak forest" and to have the oak collection all in one area.

Future plans for the Entranceway include replanting of additional tree specimens as well as installation and expansion of existing automatic sprinkler systems.

NURSERY

The primary function of the Nursery is the growing of introduced plant material in various sized containers from the time they leave the Propagating Unit until they are ready to be field planted. The Nursery Unit also is responsible for selecting and transporting plants to field locations and for maintaining an adequate supply of plants for replacement purposes.

This unit also is responsible for providing container grown specimens for the following areas: Home Demonstration Gardens greenhouse, Seminar Room patio, Gatehouse planter, "Queen Anne Cottage" and Carriage House. It also has supplied plants for decorative uses during special events at the Los Angeles County Museum as required.

Specimens are grown for various occasions and much knowledge has been gained in the production of particular container plants such as dahlias, delphiniums, tree chrysanthemums, dimorphotheca, osteospermum, ranunculus, sweetpeas, pansies, Iceland poppies, etc. which are not normally grown in containers.

Other projects during the past two years are:

1. New soil mixes have been formulated, tested and implemented resulting in advantages in handling and caring for plants in the nursery as well as at field planting time. Less maintenance per plant is required now to produce quality plants.
2. Trials have been in progress for over a year to determine the advantages and values of "long-term" fertilizers in soil mixes. Results to date have been favorable. If further trials verify these results, the use of long-term fertilizers in soil mixes will reduce the time required to fertilize container grown plants.
3. "B-995", a chemical growth retardant, was tested on a limited scale. Results indicate that this chemical used on marguerites and chrysanthemums will reduce the amount of hand labor necessary to produce quality specimens.
4. A year and one-half ago a project was initiated to determine methods of rooting cuttings of Calothamnus validus (native of Australia) for introduction as this plant is an erratic seed producer. Initial results were variable but by December, 1964 there was a sufficient quantity of plants available to allow introduction. In the latest trials 100% of cuttings have rooted in less than three weeks. Results of this project will be published.

PLANT PROPAGATION

The Plant Propagating Unit has been consolidated into a more compact entity to provide for greater efficiency in the handling of plant introductions, maintenance, operation of greenhouses, and special projects.

During the past two years the Arboretum received 3,160 accession of seed, plants, cuttings, etc. compared to 2,062 for the previous term.

Besides maintenance and operation of the two large propagating houses, this unit also is responsible for the maintenance and operation of other growing houses such as the Begonia, Plant Pathology, Plant Quarantine, and the Hibiscus House.

Construction and installation of a new mist propagating bench has enabled this unit to produce a larger quantity of rooted cutting material in a shorter amount of time than previously. The first mist propagating bench was such a success that a second mist bench was installed and a third bench will be added as soon as funds are available.

Success of the new mist benches has allowed initiation of a program to study means of rooting cuttings of plants that: (1) do not readily root by ordinary methods; (2) do not produce seed; (3) produce seed but do not germinate; or, (4) produce seedlings which have large amounts of variation. To date, preliminary results indicate that cuttings of Cassia splendida, Kunzea sericea, Viburnum macrocephalum, and a number of species of Grevillea can be successfully rooted.

Since 1963, the following plants were introduced by the Arboretum to the nursery trade:

Cassia leptophylla
Cassia excelsa
Cassia surattensis var. suffruticosa
Calothamnus validus
Tabebuia chrysotricha
Agapanthus 'Queen Anne'