

Arboretum Progress

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This quarterly report will by design lack a central theme and thereby acquaint the reader with a number of developments at the Arboretum.

Admission to the Arboretum

The hours and days during which the Arboretum is open to the public have been changed recently from those in effect since 1972. All of the public facilities of the Arboretum are now open from 8:00 a.m. until 5:30 p.m. daily throughout the year except for Christmas Day. All public facilities are closed on that one day of the year. This is an increase of one hour each day and opens the Arboretum to the public on five holidays previously observed by the staff. These changes bring the Arboretum's hours of public visitation into conformity with those of all other Arizona State Parks which have programs which are predominantly interpretive.

In a move entirely unrelated to the above, admission fees were increased to \$1.00 per adult visitor. Children under 17 years of age who visit the park under adult supervision are admitted free. It is hoped that the still nominal fee of \$1.00 will significantly increase our revenue from that source and give some relief from our rising costs of operation.

Parking Lot

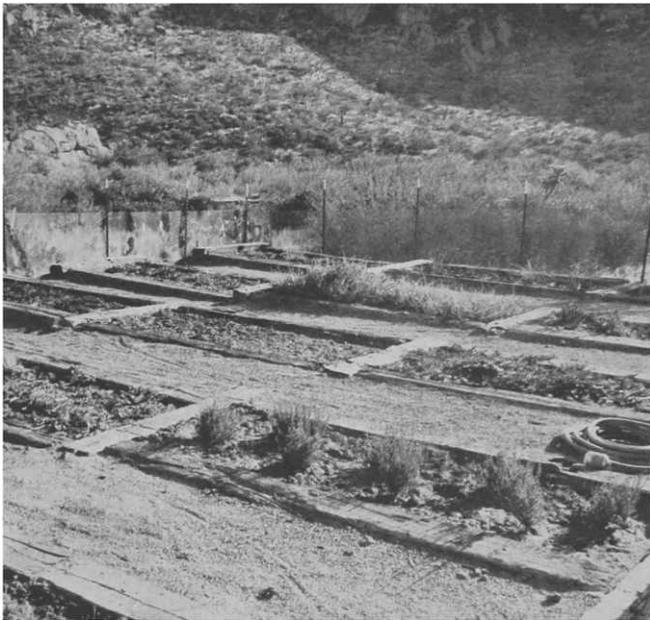
Desert Plants 2(3):182 described the need for improved parking facilities and the master plan solution. The master plan proposes to replace three somewhat separated parking lots with one large one. The new parking lot would be located just inside the highway gate. A new foot trail would provide the visitor with a more beautiful and much less confusing approach to the visitor center and thence to the gardens.

At the September Advisory Committee meeting in 1980 the Boyce Thompson Southwestern Arboretum Board agreed to fund the engineering design for the parking lot. The Arboretum Board has hired an engineer, soil testing has been accomplished, and a finished design should have been delivered by the time this is published. Cost estimates at that time will determine what future action will be taken.

Research

Comments on the Arboretum's 1979-80 annual report appearing in *Desert Plants* 2(3):181 touched upon the **ground cover study** now under way at the Arboretum **under the direction of Dr. Charles Sacamano**, Extension Specialist and Horticulturist in the Department of Plant Sciences of the University of Arizona. Presented here is a brief but more detailed account of this most interesting and potentially productive study by Dr. Sacamano.

In the spring of 1980 a ground cover evaluation project was established at the Arboretum. Our interest in this group of plants is based on several important characteristics. Ground covers prevent soil erosion by wind and water in both traditional and arid landscapes. They also provide vegetative cover in rocky terrain and on steep, difficult to mow sites. Aesthetically, ground covers unify other design



View of an experimental plot at the Arboretum in which Dr. Charles Sacamano and Leverett Clark of the Department of Plant Sciences, University of Arizona, are conducting research on ground covers.



Some of the promising ground covers being tested at the Arboretum.

elements and introduce texture, color and scale in the ground surface treatment.

Despite an ever-growing demand for adapted and attractive ground covers, only a limited number of species and cultivars are available commercially in Arizona. Our project at the Arboretum is designed to screen promising ground cover candidates for growth rate, density, erosion control characteristics, heat and cold tolerance, insect and disease resistance, irrigation requirements and year-round appearance. To date, fifteen 3-ft × 8-ft plots have been established in the new Arboretum research area. All plots are now planted with test species provided by various western arboreta, Arizona nurserymen and the University of Arizona.

Ground covers that prove adapted and useful in southern Arizona will be publicized and recommended to nurserymen, landscape architects, and when supplies permit, to the home gardening public. A progress report on the performance of the first series of ground cover trials is planned for Fall, 1981.

A new study to collect, characterize and establish **arid land legumes** at the Arboretum has been authorized with initial funding provided by the Arboretum Board. Dr. Lemoyne Hogan, Professor of Plant Sciences and Research Scientist in Horticulture, University of Arizona, will direct this study. He described the study in the following paragraphs.

The Sonoran Desert has many advantages over more temperate, humid areas of the world, including more sunshine, less rainfall and warmer winters which are

the primary factors contributing to the area's rapid population growth. However, these same desirable factors are responsible for our greatest problems, including 1) a deficiency of water for conventional irrigated agriculture, 2) the rapid migration of people from colder climates into the area with corresponding competition for scarce water resources.

New crops for agricultural use and for desirable environmental modification, as well as for revegetation purposes on disturbed land must be developed. Only the grasses are more important to man than the legumes. Members of the Leguminosae family are extensive and the arid members of this family have been greatly under-exploited. There are thousands of little-known arid legume species that should be collected and established for research and study. They have much promise for producing very large increases in food proteins, forage for domestic animals and water conservation under arid urban environments. We in Arizona are in the position to take the lead in the development and utilization of desert legumes. The objectives of this proposal are enumerated below.

- 1) To assemble seed or other propagules of arid land legumes which are little known in Arizona, but which offer considerable potential for becoming important renewable natural resources in the arid Southwest.
- 2) To compile information on each introduction as to its requirements, uses and potential.
- 3) To establish at the Arboretum either in the research area or public areas those species with the most potential.