

urine in the garden instead of flushing it down the drain with the six or seven gallons of water it takes to empty the bowl.

Diluted with five times its volume in water it makes an excellent fertilizer. In fact, one adult can provide enough nitrogen in this way to fertilize seven acres of corn a year!

The idea may take some bit of emotional adjustment to be acceptable to everyone, but the pathogens that cause disease are found in solid waste, which must not be used. Urine is pure. It seems that in a time when we are short of so many resources, including water and fertilizer, that this may be worthy of some consideration.

1978 Biennial Meeting

Plans are forming for the 1978 Biennial Meeting of The Palm Society in Southern California. The main meeting will be in San Diego, followed by tours of the Los Angeles and Santa Barbara areas. Nine or more talks by palm authorities are planned, as well as a post-convention trip to Costa Rica. A tentative schedule follows:

July 9: board and business meetings, principal talks, banquet

July 10: tour of public collections in San Diego

July 11: free day or tour of private collections, San Diego

July 12: tour of private gardens in Los Angeles

July 13: tour of Huntington Botanical Gardens and of private gardens in Los Angeles

July 14: tour of gardens in Ventura and Santa Barbara

July 15: departure for Costa Rica (optional)

Further details will be available later in the year and registration forms will

be mailed to all members early in 1978. Start planning now to attend!

PALM BRIEFS

A New Palm Arboretum

For thousands and thousands of years there have been natural palm canyons in what we now call San Diego County, in California. Today, these palm canyons still thrive in their beautiful wild mode, populated with the indigenous palm which we call *Washingtonia filifera*. But *Washingtonia filifera* doesn't like the moist air which prevails close to the Pacific Ocean, for which reason all the native palm canyons of southern California are inland, beside springs and creeks along the eastern slopes of the Coastal Range, bordering on the desert. As a result, in the past, San Diegans have had to travel maybe 100 miles to see a really spectacular palm canyon.

But no more! Very soon, San Diego will have its own palm canyon, right in town! San Diego's palm canyon will be even more spectacular than the natural ones way out there in the hot desert. And what is more, it will not have just one species of palm; rather it will boast a great variety of palm species and palm genera, collected from all over the world.

The site of the new palm arboretum is near the geographic center of Balboa Park, immediately west of the Organ Pavilion, in the canyon. The "first phase" of the project just now is being completed; this phase includes preliminary plantings, paved walkways, an irrigation and drainage system, benches, an overhead walkway, and a massive rustic staircase.

But first, let's go back to the beginning of it all. Bob Nelson, general park supervisor for the city of San Diego, and himself a palm enthusiast, indicates that it all began way back in 1913. That

is when San Diego was preparing Balboa Park as the site for the 1915-1916 Panama-Pacific Exposition, which celebrated the opening of the Panama Canal. At that time a large number of *Washingtonia robusta* palms were planted in the canyon. Many of them, now more than 65 years old, still are alive and growing, and they are taller than any of the *Washingtonia filifera*s which grow in any of the palm canyons of the desert area. The tops of these palms now reach well above the level of the mesas which border the canyon; they "soar"; they really are the foundation and the basis for the present "palm arboretum" project.

A couple of decades after those original palms were planted, Balboa Park was the setting for an even greater event: The California Pacific International Exposition of 1935-1936. That fair celebrated an attraction even more sensational than the opening of the Panama Canal; that attraction was Sally Rand, the fan dancer, in person! Sally, with her fans and bubbles, danced on a ramp which was centered in a shallow "lake" which was located slightly north of the Organ Pavilion. To beautify the surroundings for her act, many palms, including *Butia capitata*, *Phoenix canariensis*, and *Trachycarpus fortunei* were planted in the area. Some of those palms, now over 45 year old, remain immediately to the northeast of the 1913 plantings.

In 1970 the Parks Department of the City of San Diego decided, as recommended in the Bartholomew Master Plan for Balboa Park, to develop a "palm arboretum," using the old exposition palms as a base. Since then, well over \$100,000 has been expended in basic physical development of the site, including the walkways, the staircase, the bridgework, and the benches mentioned previously. Separately and additionally, the Parks Department since then has



1. These seven beautiful *Washingtonia robusta* palms are among the many which still survive from the 1915-16 Panama-Pacific Exposition. These 65-year-old palms will be the top tier of San Diego's new palm arboretum.

been deliberately and systematically acquiring—by purchases from exotic nurseries and by donations from members of The Palm Society—seeds and seedlings of many many palm species. Utilizing hothouse procedures, it has grown these seeds and seedlings into nursery stock of size such that it is ready to be planted out this summer (1977) in the now-prepared site. An inventory of the potted plants on hand indicates that 25 different palm genera are included, with the number of species and of individual specimens proportionately greater. Container sizes range all the way from gallons to huge tubs. Also waiting to be planted out as companion plants to the palms are, most notably, semitropical members of the genera *Acalypha* and *Brassia*.

This new palm arboretum in San

Diego will be just one of the many interesting gardens which will be "on tour" for the next Biennial Meeting of The Palm Society. That meeting is scheduled to convene in San Diego on July 9, 1978, and to terminate in Santa Barbara

5 days later, with an optional post-meeting trip to Costa Rica. Put those dates on your calendar now, and make your plans now to attend.

BILL GUNTHER



2. This rustic staircase, and the elevated walkway which traverses the background, are new components of the "palm arboretum" which is now being developed in San Diego's Balboa Park. Large palms, the heritage from two different World's Fairs, are scattered through the entire area. During the summer of this year, many hundreds of young palms of many species will have been added to this landscape. As a consequence, by the time this garden is viewed by those who attend the 1978 Biennial Meeting of The Palm Society, the presently stark character of the vista will be greatly softened. In another decade the staircase and the walkway will be out of sight, submerged in a palm jungle.

PALM LITERATURE

DIVAKARAN PILLAI, M., E. V. V. BHASKARA RAO, AND C. P. MAMOO KOYA. 1976. Annotated bibliography of coconut in India (1936-1976). Central Plantation Crops Research Institute, Kasaragod 670-124, Kerala, India. 270 pp. \$2.00 outside India.

This bibliography, compiled for the Diamond Jubilee of coconut research in

India, covers contributions made by scientists in India during the past 40 years and supplements *A Bibliography of the Literature on Coconut Palm, Cocos nucifera* L. by W. V. D. Pieris (1935). Entries are grouped under the following categories—agronomy, botany and breeding, chemistry and physiology, diseases, pests, statistics, economics and marketing, technology, general, and