seeds. Mr. Ray Vernon and Mr. Adolph Jordahn of the Jennings estate have for years been gathering the palm fruits and delivering them to Fairchild Garden, where they are added to those obtained from trees grown at the Garden under the care of its director, Mr. Nixon Smiley, and superintendent, Mr. Stanley Kiem. There the tedious work of cleaning the seeds is done before they are sent to correspondents in many parts of the world. Some of them are passed on to Mr. De Leon for The Palm Society Seed Bank.

We are grateful to Mrs. Alvin R. Jennings and all the above-mentioned gentlemen for their help.

LUCITA H. WAIT

California News

For those planning to travel in Mex-

ico, the California group is preparing a list of species of palms and their localities derived from reports of members who have visited there. Members are invited to send such information as they have to the California secretary. Those wishing to obtain the list upon its completion may do so by sending the secretary a stamped, self-addressed envelope.

California members viewed The Palm Society's collection of slides Sunday, March 27th, at the Arboretum in Arcadia. All California members wishing to be notified of future local activities should send several self-addressed postal cards to the secretary.

Mrs. G. F. HERMAN 701 Tigertail Road Los Angeles 49

Oregon Trachycarpus and the Weather

ROBERT L. BISHOP

The three palms in the accompanying photographs have been tentatively identified as *Trachycarpus Fortunei*. They are located in Portland and nearby Oregon City. These three palms have endured winter temperature extremes far beyond anything experienced by most "palmateers" of southern California or Florida. In fact they have survived severities of cold that have felled many a plant of sturdier reputation.

Figure 35 shows my 11-year-old daughter Barbara depicting the relative comparative size of this palm. This photograph was made in January 1957 on the morning after the coldest night

of the year. The mercury fell to 6°F. and was 12°F. when this picture was made at 10 a.m. the following morning. According to Mrs. Alvin Miller who, with her husband, manages the apartment building, the age of the palm can only be guessed at something less than the age of the building, probably 35 to 40 years.

The palm in figure 36 is also about 35 years of age, and it is the surviving specimen of two planted by the late Dr. F. H. Dammasch of Portland. Mrs. Dammasch was most informative and related how her husband had purchased two small potted palms from a florist



35. The author's daughter shivers under Trachy carpus Fortunei in 12° temperature.

shop. When they became too large to handle easily they were set out of doors. Though he carefully covered them during cold spells, one of the pair succumbed to freezing temperatures. I was also shown photographs made about ten vears ago, when this palm presented a more thrifty appearance than it does now. At that time the crown of leaves was still below the eave gutters of the house, the leaves on the lower stalks touching the ground much in the manner as the palm in figure 37. This has led me to believe that perhaps the windmill palm should be protected from the wind as much as possible in order to insure a luxuriant appearance.

The palm in figure 37 is the most healthy appearing of the trio, possibly because of its sheltered position situated in nearly perpetual shade. This palm is in historic Oregon City, 400 feet above the great falls of the Willamette River

and lying in nearly line of sight view of the rugged Cascade Range 40 miles to the east. It too was purchased as a small potted palm 20 years ago by Mrs. J. Maddax while on a visit to Sacramento, Cal. She kept it on the porch of her home, taking it indoors in winter until becoming of such size that it was finally planted in the yard, without too much hope for its survival. It is not nearly as tall as the others, about ten to twelve feet.

In November of 1955 occurred one of the most severe freezes on record here in Oregon, not that temperatures were extremely low by past comparisons of cold. Temperatures dropped suddenly from the mild fifties of November to 15 and 20 degrees Fahrenheit and remained continuously below the freezing mark for an entire week. The resulting damage to plant life was catastrophic. Mrs. Maddax's palm was completely defoliated and the remaining end of the trunk became a soft mushy pulp. A similar sized Trachycarpus a few blocks away was considered lost by its owner and promptly cut down (probably the only other palm in Oregon City).

This same freeze did many thousands of dollars damage to the commercial walnut and filbert orchards, completely destroying some. Ornamental evergreens also suffered heavy damage, including a few native species of trees. In spite of dire predictions by the local press, most plants did recover, the most remarkable being the *Trachycarpus* palms. Today, three years later, Mrs. Maddax's palm (figure 37) is a striking specimen, showing not the slightest sign of frost damage.

Aside from sudden heavy freezes such as the one just described, the lowest possible temperature that may occur in a



36. Trachycarpus Fortunei about 35 years old in Portland, Oregon.

particular region is generally the factor that determines a palm's hardiness. Checking back through the U.S. Weather Bureau records for the extreme low temperature reading of each year, I found that the lowest temperature ever recorded by the Portland office was in 1950. The mercury fell that year to a -3°F. This was the record all time low since the station began its operation 86 years ago. The only other below zero reading was made in 1888, when it was -2°F.

It soon became apparent that not only has winter weather been typical during the lifespan of these three palms, but the most severe has also occurred. The greatest single snowfall happened on a January night in 1937 when 16 inches fell so unexpectedly that it virtually paralyzed the city the following morn-

ing. Two of the palms were only about ten years of age at this time.

The average winter in Portland produces two or three light snowfalls, seldom over six inches in depth at one time, and always melting completely within two or three days. Temperatures usually range from 15 to 20 degrees Fahrenheit during the course of these snows. When it becomes extremely cold in Portland it is always in company with clear skies and a complete absence of precipitation, though the soil may be well saturated by previous rain.

The Trachycarpus Fortunei or windmill palm is seldom seen on the Pacific coast north of Redding, California. It is a palm which deserves to be more widely planted, especially in those regions where palms are grown and liable to severe injury by freak frosts.



37. Sheltered and shaded *Trachycarpus Fortunei* thrives in Oregon City, Oregon.



38. Trachycarpus in Beacon Hill Park, Victoria, British Columbia, Canada. There are two of these, the smaller not pictured here. The two specimens were planted over 25 years ago. The local weather station, which has been in existence 60 years, advised me that the 60-year absolute minimum temperature occurred in January 1950, when 6.4° F. was recorded. (It has been colder than this in the state of Florida!) The two palms are the northernmost cultivated specimens in the Western Hemisphere—or else a reasonable facsimile thereof. There are no palms at Butchart Gardens north of Victoria. Photograph and notes by Dent Smith.