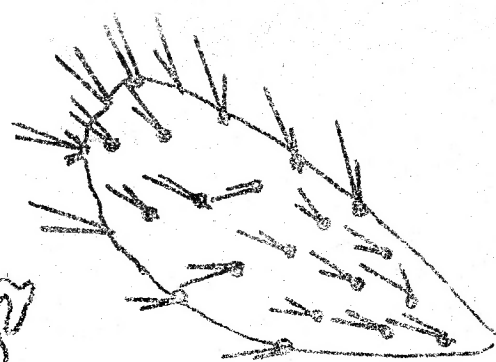


# CACTOS

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# SUCULENTOS



OFFICIAL PUBLICATION OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY

August, 1965

Vol. 1, No. 1

## JOSEPH JOHNSON LECTURES

### SOCIETY WINS RECORD MONEY

The Society entered four floricultural exhibits at the 1965 San Diego County Fair, and brought home record prize money of \$525.

First place ribbons were given to the Rock Garden (\$150) and Succulent Display (\$150), a second place ribbon to the Cactus (\$125), and a fourth place to hanging baskets (\$100).

Display chairmen were Mr. and Mrs. Kim Arnold, Rock Garden; Mr. and Mrs. William Nelson Succulents; Mr. and Mrs. Jack Ward, Cactus and Baskets.

Others who contributed plants and/or labor were Mr. and Mrs. Robert Taylor, Mr. and Mrs. Bud Crane, Mr. and Mrs. Joe Echavarria, Mr. and Mrs. Troy Shipman, Mr. and Mrs. William Hoffman, Mr. and Mrs. Joseph Werner, Mrs. A. A. Lewis, Mr. Bud Clouette, Mrs. Coranna Flynn, Mrs. Helen Lyon, Mrs. Lydia Bailey, Mr. N. P. Stevenson, and Mr. Cleaves Hardin.

FIRST ISSUE OF SOCIETY PUBLICATION  
YOURS BY COURTESY OF THE WARDS

Mr. and Mrs. Jack Ward have taken the liberty of initiating a publication for the Society in the hope that the Society will consider it valuable enough to continue.

### MEMBER OF NOTED NURSERY FAMILY

Mr. Joseph H. Johnson, Jr., general office manager of Johnson Cactus Gardens, Paramount, California, will present a program and plant sale at today's meeting.

Johnson's nursery, established in 1876, is nationwide and world famous for the great variety of cacti and succulents. Their beautifully illustrated catalog plays no small part in helping them to retain their position of retail leadership.

Harry Johnson, President, and Ethan Johnson, in charge of retail shipping and wholesaling, aid in keeping strong the family tradition.

Most society members who have shopped at Johnson's, in person, have met Mr. Lawrence Gonzalez, in charge of foreign and local sales. Mr. Gonzalez has a catalog memory for plant names and the location of every species in the lot.

### LOOKING AHEAD AT FUTURE MEETINGS

September--A representative of Civic Center Garden Club will outline a planting project for the Society at the San Diego Civic Center.

October--Mr. Don Skinner, president of the National Society, and prominent member of the Los Angeles club, has been requested to present a program, but this has not been confirmed yet.

# PROGRAMS GIVEN ON INDIA, SO.AFRICA, PERU

## L. A. COUNTY ARBORETUM SITE OF ANNUAL MEETING

The general public is invited to the annual business meeting of the Cactus and Succulent Society of America, September 12, at the Los Angeles County Arboretum, 301 N. Baldwin Ave., Arcadia.

President Don B. Skinner will open the meeting at 10:30 a.m. and will be followed by Dr. William S. Stewart, Director of the Arboretum, who will speak on plant collecting in India and South Africa at 11 a.m. The Arboretum has a special wild flower garden of South African plants.

The second lecture at 2 p.m. will feature the Peruvian expedition of Dr. Paul C. Hutchison, Univ. of Calif. at Berkeley. Both morning and afternoon lectures will be illustrated.

Those who wish to exhibit rare or well-groomed specimen plants should come at 8 a.m. because the doors will be open to the general public from 9 a.m. to 5 p.m. Society members are urged to participate in the exhibition, but, in order to be sure of reserved space, should contact Joyce L. Tate, Show Chairman, 11845 Hubbard St., Sunnymead, Calif. 92388, Phone Area 714 653-2288.

Although the Arboretum has but few succulent plants, the visitor may see and enjoy many exotic plants from all parts of the world.

Members who plan to attend the afternoon lecture and business meeting should take lunches for the lunch social between 12 a.m. and 1 p.m.

## BAJA SUBJECT OF DISPLAY

An exhibit of photographs titled "Glimpses of Baja California," by Helen Ellsberg, is on display in the Corridor Gallery of the San Diego Public Library, 820 E St.

## PRIVATE GARDENS OPENED FOR MEMBERS TO VISIT

The July, 1965, "Affiliate Reporter" has a list of private gardens open to visitors. Visitors are requested not to drop in unexpectedly but to telephone or to write the host for a convenient visiting time. Just those gardens in California are listed here. Members may secure a complete list from the "Affiliate Reporter" which includes many Texas gardens and two in Pennsylvania.

Mr. and Mrs. M. J. von Preissig  
1950 Camino Loma Verde  
Vista, Calif. 92083  
Phone 724-4795

Mr. and Mrs. Ed Gay  
5353 Topeka Drive  
Tarzana, Calif.  
Phone 345-1620

Marlene Toeppen  
507 Marguerita Avenue  
Santa Monica, Calif. 90402  
Phone EX 3-2085

Walter Fader  
166 S. Baldwin Avenue  
Sierra Madre, Calif. 91024  
Phone 355-9969

Wm. C. Lockwood  
2481 Las Lunas St.  
Pasadena, Calif. 91107  
Phone Sy 2-3990

Mr. and Mrs. J. Reese Brown Jr.  
1871 Sierra Madre Villa Ave.  
Pasadena, California 91107  
Phone 213 SY 4-1727

Marcella Yawitt  
10556 Ashton Ave.  
West Los Angeles, Calif. 90024  
Phone GR 4-6938

## LIBRARY ADDS NEW TITLES

Recent purchases bring the total number of books in the professional library to 39. In addition, there are numerous journals, pamphlets, etc.

The new titles include:

Shreve and Wiggins

Vegetation and Flora of the  
Sonoran Desert

Walter Haage

Cacti and Other Succulents 3 Vol.

Vera Higgins

Cacti

Crassula in Cultivation

Marshall & Wood

Glossary of Succulent Plant Terms

Britton & Rose

Cactaceae 4 Vols. in 2

Phillip Wells

Meet the Southwest Desert

N. Dodge

100 Desert Wildflowers in Natural  
Color

W. H. Earle

Cacti of the Southwest

E. Yale Dawson

How to Know Cacti

Mrs. Edith Werner, Society Librarian, can supply titles of previous additions. It appears that the book most in demand is Exotica III.

## HARDIN HAS RECORD YEAR

Charter member and former president of the society, Mr. Cleoves Hardin, of Spring Valley, had five exhibits entered in the floricultural division at the 1965 San Diego County Fair at Del Mar.

Mr. Hardin's exhibits took one first, three second, and one third place in awards.

First and second place ribbons were awarded for two entries of grafts in the Collectors Display.

Second place ribbons were taken in Succulents and Bromeliads, and a third place ribbon in Cactus.

## LOCAL NURSERYMEN OFFER LARGE CHOICE

Southern county nurserymen offer some of the best selections of cacti and succulents to be found in the United States. Numerous members have visited these nurseries, but there are many who have not.

### TAYLOR'S CACTUS

Mr. and Mrs. Robert Taylor, whose nursery is hidden from the highway at 1640 Main St., El Cajon is the best known because of its long establishment and quality reputation.

Taylor's probably offers the largest commercial selection of mature specimen cacti plants in the United States. Most of the large cactus have been carefully collected in Mexico over the last three decades and nurtured to healthy maturity with daily personal care.

In addition to large specimen plants, the Taylors offer many hundreds of grafted cristate cacti and seedlings.

The Taylors sell many specimen plants to other nurseries and to foreign dealers across the Pacific Ocean. According to Mr. Taylor, the big overseas demand is for grafted cristates. One of Mr. Taylor's big projects at the present time is the grafting of over 2000 cristates.

### HARDIN'S NURSERY

Mr. Cleoves Hardin's nursery, at 9209 Harness Road, Spring Valley, offers one of the largest selections of succulents, bromeliads, and epiphyllums in San Diego County. Many species of cacti and grafted cristates are also for sale, including some large specimen plants.

The visitor may see many succulents and epiphytic plants in baskets.

Mr. Hardin imports his epiphytic plants, and is a supplier to local San Diego County nurseries.

(Cont'd on page 6)

# EDITORIAL

During the past year, Doc R. V. Vaughan and Dr. Ralph Roberts have worked hard to start the rejuvenation of the Balboa Park Cactus Garden. Dr. Roberts played an important role in persistently pressuring city and park officials until they gave consent for the Society to act.

After thirty years of decay and neglect there was little left. Only a few cacti, agaves and euphorbias survived, and most of those are damaged from vandals and lack of care.

There is at least ten years of rejuvenation ahead if the garden is to take its place as one of the prominent cacti gardens in the country. Inasmuch as the Balboa Park administration will do nothing to help, the Society must supply all the labor, the plants, the upkeep, etc.

In addition to hundreds, or thousands, of plants, we must supply a constant effort against the thirty year's of accumulated weed and grass seeds which sprout every time the garden is watered. It is not a job that Dr. Vaughan or Dr. Roberts, or a handful of people can do by themselves, working a few hours each month. It is a job that must take an all-member participation.

One method by which we may insure minimum care and improve the garden more quickly is to organize monthly work parties on the Saturday mornings before each monthly meeting. This would keep the weeds under control, at least, and give essential watering.

In addition, each member should pledge to devote one morning or one afternoon every six months (two times a year) to hoeing weeds and watering, other than during the monthly work parties.

A few weeks ago, I spent a whole afternoon watering the garden, with three hoses going. After repeated watering of the more densely planted areas, the soil was wet only to a depth of 3 to 4 inches. In order to secure adequate watering, each area in the garden must be soaked with a fine spray for three or four hours because the heavy clay soils absorb water very slowly.

It was my observation that many of the succulents are drying out or near death because of lack of adequate watering. It would pay to concentrate these plants in a designated area separate from the cacti, euphorbias and hardier plants, in order to give them more concentrated and more frequent waterings. If we continue to scatter succulents and tender plants haphazardly through the garden, the job of caring for them and saving them will become much more difficult.

A master plan for planting might save the Society many problems in the future and help us keep the garden in more presentable condition. Inasmuch as the park already has a separate agave-aloë garden, it would probably be better to exclude these from the cacti succulent garden, with primary concentration on cacti, euphorbias, drought resistant succulents, and other xerophytic plants such as *Ocotillo*.

The Society should also give consideration to buying mature cacti and euphorbias to speed up rejuvenation of the garden. Depending entirely upon voluntary donations will never get the job done.

J. Ward



# EDITORIAL

What is about to be said is not meant to win friends but is intended to start debate and action on an acute problem.

All of us would admit that public displays, such as fair exhibits, are a valuable medium by which to reach the public and to acquire new cacti and succulent enthusiasts to our growing ranks. In addition fair displays form the basic source of our revenue.

All of us also like to be winners when we are in competition. But putting up a winning display, against stiff opposition, cannot be done by one person or two persons without almost impossible demands on time and effort. However, no amount of time or effort can make up for the lack of variety or rarity in plants.

In displays which require 90 to 100 plants, unless a large number of members lend plants or come through with rare plants, the burden falls on a few people to supply all the plants, and the display lacks sufficient variety and rarity. At this year's fair display, and at previous fair displays, a handful of members supplied most of the plants and/or the labor. In the succulent display, Mr. and Mrs. William Nelson had to supply at least 90 % of the plants and almost 100 % of the labor. In the cactus display, Mr. and Mrs. Taylor graciously donated 40 % of the plants and Mr. Bud Crane donated 25 %. The remaining 35 % were donated by a handful of members. Eighty % of the labor was donated by the Wards. In the rock garden display, three members supplied 90 % of the plants, and 90 % of the labor was done by Mr. and Mrs. Kim Arnold. In the basket display, the Wards, Echavarrias and Nelsons supplied almost all the baskets and the Wards did all the labor.

In a Society with over 80 members this is a sad commentary on the apathy and indifference which exist. The annual fair displays represent more than 80 % of annual income, and are the single biggest project initiated by the Society during the year.

We take undue advantage of members, such as the Taylors, who donate large numbers of beautiful specimen plants, only to see them get damaged or set back considerably in growth. These members get no public recognition for their generosity. This unfair abuse is unjust and improper.

This situation would not exist if each member were to take one succulent and one cactus to groom for fair display. That by itself would represent over eighty plants for each display! Of course, to prevent duplication of species, someone would have to coordinate the whole program, and members would have to cooperate at fair time by bringing their display plants to a central collection point.

Mrs. Crane has suggested that we use Society funds to purchase rare specimen plants and new species to give to each member to groom for public displays. All plants would be kept potted or boxed for easy transport, and they would be used from year to year. Other benefits of this program would be: (1) involving each member personally in our public displays, (2) allow the members and the public to see more rare plants, (3) provide a greater genus variety for displays, (4) take the burden off the few members who have been supplying most of the plants, (5) prevent damage, loss, and growth setback to specimen and rare plants from private collections.

As one who was involved night and day working on this year's fair I make a plea to give careful consideration to this project. It offers the only apparent solution to a difficult problem.

J. Ward

# EDITORIAL

In planning future programs, we should try to take advantage of the color slide sets made available by the National Society to affiliate societies. At the present time, there are seven sets available on a first request, first use basis. Those sets now available are:

1. Calif. Cacti & Other Succulents
2. Baja Calif., Mexican & South American Cacti
3. Orchid Cacti-Misc. Cacti and Succulents
4. Orchid Cacti (Mr. & Mrs. Sherman Beahn)
5. Ariz. Cacti & National Parks
6. Aloes
7. Ariocarpus, Mexican, & Texas Cacti

Requests for use of the slides should be sent to:

Mary Glade, Slide Chairman  
7600 Verdugo Crestline Drive  
Tujunga, California 91042

The National Society has a standing offer of \$50.00 to anyone who has a set of 100 acceptable slides on cacti and succulents. It is especially desired to accumulate slides of plants growing in their native habitats, and plants in bloom.

Societies, such as San Diego, where there are numerous native species of cacti and succulents, might voluntarily initiate a slide project and make a gift of it to the National Society. Even if complete sets cannot be made, any slides of good quality donated to the National lending library may be used possibly in making up sets.

Quail Park in the north county and our own Balboa Park Cacti Garden and the Balboa Park Aloe-Agave Garden would make good slide subjects for donation to the National. In addition, we probably have the largest commercial display of

specimen plants anywhere in the U. S. at Taylor's Cactus, which would make an excellent subject for a photography project.

An additional project might be for the local society to purchase sets of slides from commercial suppliers and donate them to the National. For instance, the Scientific Supplies Company, Seattle, Washington, has over 425 slides for sale on cacti, succulents, and other desert plants at a cost of approximately 50¢ each when purchased in quantities.

Inasmuch as the National operates on a very meagre budget, service projects initiated by local chapters would be of great value in improving services of the National to the affiliates.

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## LOCAL NURSERYMEN OFFER LARGE CHOICE (cont'd)

A visit to Hardin's is a "must" for collectors of epiphytes and succulents.

### WALTER ANDERSON

Walter Anderson, at 3860 Rosecrans, San Diego, has a fair offering of epiphytes, palms, and dracaenas, but his cacti and succulent offerings are negligible.

### LION'S NURSERY

Located at 446 Broadway, Chula Vista, Lion's offers fairly common cacti, euphorbias, epiphytes, and succulents at low prices. A few large specimens are available.

Mr. Lion indicates that he is gradually converting his nursery stock to cacti and succulents over the next few years.

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## OPUNTIAS HARDIEST

The hardiest cacti in North America are Opuntias. Opuntia polyacantha is found in the Canadian provinces of Alberta, Saskatchewan, and British Columbia.

# UNIVERSITY OF CALIF. SCIENTISTS RECOMMEND STERILE SOIL MIX FOR CACTI AND SUCCULENTS

(Based on "U.C. Type Soil Mixes for Container Grown Plants"  
by O. A. Matkin and Philip A. Chandler)

Many members have had questions asked in regard to proper planting mixes for cacti and succulents and in regard to proper fertilization of potted plants. Every member who has been planting for a number of years has worked out his own formula, which usually consists of varying proportions of gravelly sand, loam, and aged horse or rabbit manure.

Soil experts at the University of California recommend a quite different formula for potted cacti and succulents. They recommend an almost sterile soil mixture consisting of fine sand and peat moss, with the addition of specially prepared fertilizers. The reasons they use only sand and peat moss are:

- Sand & peat are readily available in uniform grade.
- They are chemically uniform, relatively inert, easily mixed.
- They are relatively inexpensive.
- They provide good aeration and water drainage.
- The initial fertility is low; an advantage because it gives a known starting point for adding nutrients.
- Salinity problems are reduced by starting with salt-free soil mix which is easy to leach if salts accumulate from watering.
- It produces plants that are more uniform, healthier, and larger at lower cost.
- Chances are reduced of introducing soil fungus, worms, and other pests into the pot.
- Fine sand and peat moss do not bind, cement, or compact.

The fine sand should consist of particles between 0.5 and .05 mm in size. It passes through a screen with 30 meshes to the inch but the smallest particles should not pass through a screen of 270 meshes to the square inch. It is finer than plaster sand, which is considered to be unsatisfactory.

Peat moss should be Canadian, German, or other sphagnum types. Redwood sawdust, shavings, or rice hulls may be used as substitutes for peat moss.

Peat moss and sand should be wetted 1 or 2 days before mixing and should be damp but not wet when mixed together. Dry fertilizer should be distributed uniformly through the soil mix. Two different soil mixes are recommended and two dry fertilizers. Soil Mixture A should be used with fertilizer A, and soil mixture B with fertilizer B. Add the following proportions of fertilizer to each cubic yard of soil mix.

Soil Mix A 100% Fine Sand plus dry fertilizer mixture A to each cu.yd.  
Soil Mix B 75% Fine Sand  
25% Peat Moss plus dry fertilizer mixture B to each cu.yd.

Fertilizer A  
8 oz. potassium nitrate  
4 oz. potassium sulfate  
2½ lb. single superphosphate  
1½ lb. dolomite lime  
2½ lb. gypsum  
(Approx. cost 17 cents)

Fertilizer B  
6 oz. potassium nitrate  
4 oz. potassium sulfate  
2½ lb. single superphosphate  
4½ lb. dolomite lime  
1½ lb. calcium carbonate lime  
1½ lb. gypsum (cost 20 cents)

(Continued on Page 8)



(Univ. of Calif. Soil Mix, Continued)

After the potted or bedded plants have become established, supplementary nitrogen and other nutrients should be added. The first application of nutrients should be nitrogen only. Subsequent applications may be either nitrogen or mixed fertilizers. The following proportions and mixes are recommended.

**Dry Fertilizer:**

Nitrogen only  
1 heaping teaspoon (pots)  
1 to 3 lb. per 100 sq. ft. (beds)

Mixed (Nitrogen, Phosphorus, Potassium)  
2 heaping teaspoons (pots)  
2 to 5 lb. per 100 sq. ft. (beds)

**Dry Mix:**

4 lb. hoof & Horn or blood meal  
4 lb. single superphosphate  
1 lb. potassium sulfate or chloride

**Liquid Fertilizer:**

(Amounts added per 100 gallons of water)

Nitrogen only or Nitrogen/Calcium  
1 lb. ammonium nitrate  
or  
2 lb. calcium nitrate

Mixed (Nitrog., Phosph., Potass.)  
8 oz. ammonium nitrate  
8 oz. mono-ammonium phosphate  
8 oz. potassium chloride

Most of these concentrates can be bought in nurseries and garden centers, and mixed by the amateur gardener. If extensive planting beds have to be fertilized, these chemicals can be purchased in bulk from some of the agricultural chemical suppliers such as Grove Chemical.

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## SUGAR IS PROPOSED AS NEMATODE CURE

Mixing sugar with nematode-infested soil is an almost 100% cure for eliminating them, according to John E. Rodgers in the July-August issue of the Cactus and Succulent Journal.

This information originally was released by the U. S. Dept. of Agriculture in 1961, and has been tested by Mr. Rodgers for four years.

Apparently, the sugar causes dehydration and death of the worm by draining all the fluids from the worm.

Mr. Rodgers did not indicate the proportion of sugar to soil volume, but sugar, per pound, is much cheaper than many of the sophisticated chemicals now used for fighting nematodes.

According to Mr. Rodgers, leafmold also may be used to fight nematodes. The leafmold nurtures a hair-like fungus which traps and kills nematodes.

The two in combination, sugar and leafmold, are easy to use by the amateur. In addition, they do not damage plants or roots as do many of the commercial chemicals.

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## TIJUANOS STRIP OPUNTIA

Know why the few large Opuntias in Tijuana look so beaten and battered? The Mexicans keep the new growth cut off before it can reach maturity. Young joints are sliced for use in green salads, or cooked in various baked and fried dishes.

In Tijuana, few people seem to plant cacti, but many people keep the roadside Opuntias stripped of new joints.



# NOPALEA-MEALY, VALUABLE INDUSTRY BASIS

J. Ward

Before the advent of coal-tar dyes and the miracles of modern chemistry, dyes had to be derived from natural sources, such as squids, berries, barks and roots.

When the Spanish discovered Mexico, they were surprised to find the Indians using a high quality scarlet dye. They were even more surprised that the dye was derived from a small insect covered with cottony scale.

The Mayans and the Aztecs widely cultivated a particular species of mealy bug which preferred a cactus called "nopaln-chotzli" by the Aztecs. Today we call that cactus "Nopalea cochinillifera", a member of the Opuntia tribe.

It did not take the Spanish long to exploit the commercial potential of this dye in the European market. "Nopalerias," or Nopalea farms, were established in Mexico, Yucatan, and the Canary Islands for producing Mealy Bug dyes. Such plantations often had 50,000 to 100,000 plants.

Because the Indians primarily produced red dye, the Spanish called the Mealy Bug "cochinilla" (Latin coccinus is scarlet). The English called these dyes "cochineal" dyes.

Europeans soon learned that acids changed the scarlet to an orange red and that alkalis changed the scarlet to purple. Thus, they produced a wide range of colors for use in the textile industry.

Female mealy bugs were harvested twice a year. They were killed by heat, steam or hot water. Those killed by being spread over hot plates were considered to produce the best dyes. The dried insects were a blackish color and were given the name "zacatilla".

Oven dried insects were an ash-gray color and were called "jaspada". Those killed by steam or hot water were a reddish-brown color. The coloring chemical obtained from cochineal insects is carminic acid.

After the killed insects were thoroughly dried, they were made into a paste by thoroughly mixing three parts of ammonia water to one part dried insects. After allowing the mixture to stand for a few days, the vessel containing the mixture was placed in boiling water to evaporate the ammonia. When the paste cooled, it was ready for use as a dye unless it was desired to alter the basic color with acids or alkalies.

The Canary Islands, in time, became the chief producing area for the dyes, but when the petroleum industry developed coal tar dyes the cochineal farmers were doomed. However, when it was revealed that coal tars could be cancer-producing agents, the cosmetics industry briefly revived the industry. Even today, there is a limited market for cochineal dyes. Some of the top-reputation cosmetic houses in Europe use cochineal dyes instead of artificial dyes.

Cochineals are also used as adulterants in alcoholic beverages. One common adulterant is called "Granilla."

Mealy Bugs or cochineal insects today are considered to be one of the worst pests by the amateur cactus gardener. Once established it takes extensive applications of oil-nicotine sprays to eliminate them.

They may be a curse today, but to countless generations of Indians in ancient Mexico and to four centuries of European textile producers, they were a valuable item of commerce.

If you would like to experimentally produce cochineal dye do not be discouraged that it takes an excess of 70,000 insects to produce one pound of dye.

# A PLEA FOR A SIMPLE, SANE APPROACH TO BOTANICAL PRONUNCIATION

The correct pronunciation of Latin names is one of the biggest problems in botanical nomenclature, not only for the novice and amateur but also for the experienced professionals. Our problem is further complicated by the use of sur names from many languages, and the use of many place names with Spanish, Indian and English origins. We also have many Greek words thrown in, many with Latin endings.

If English had a logical spelling system, as does Spanish, we would not have such a problem. Since we are helpless before the illogical spelling system we have inherited, the best that we can hope to do is to adopt a logical system less complicated than true Latin that will allow us to make a reasonable approach to near-correct pronunciation of Latin.

In the English speaking world, the fact that everyone mispronounces the same word in the same way does not alter the fact that the word is being mispronounced. If there were a logical system to our mispronunciation and we applied that logic systematically to all botanical words there would be no problem.

Let us take a look at Latin pronunciation before I make a plea for the simple logical system used by the Spanish. Part of the problem in learning the Latin vowel system is that each of the basic vowels has a long and short pronunciation. All vowels are pronounced long except when a vowel appears before another vowel, h, nt, nd, and final m and t. The short and long vowel sounds are as follows:

## Long

a as in father  
e as in they  
i as in police  
o as in rope  
u as in rude

## Short

a as in fashion  
e as in beg  
i as in fish  
o as in poor  
u as in mush

Other clues to the semi-correct pronunciation of Latin are sounds given to diphthongs (two vowels making one sound). These are:

<u>ae</u> like <u>ai</u> in <u>aisle</u>	<u>ei</u> like <u>ei</u> in <u>freight</u>
<u>au</u> like <u>ou</u> in <u>out</u>	<u>eu</u> like <u>eh-oo</u> (pronounce quickly)
<u>oa</u> like <u>oi</u> in <u>oil</u>	<u>ui</u> like <u>oo-ee</u> (pronounce quickly)

Consonents, which are frequently mispronounced, are correctly pronounced as follows:

b before g or t has the sound of p  
c is always hard as in cave, never soft as in city  
g is always hard as in gum, never soft as in gem  
i (consonent) has the sound of y in yes (i is a consonent between vowels and before a vowel at the beginning of a word)  
s always has the sound of a in soft; never of s in fleas  
t always has the sound of t in tent; never the t as in potion  
x has the sound of x in flex  
ch has the sound of k as in kapok  
ph has the sound of p as in papa; not as in phone  
th has the sound of t as in tent; never the th in the or thing

(cont'd on page 11)

A PLEA FOR SANE BOTANICAL PRONUNCIATION (cont'd from page 10)

Now that we have established the logic of Latin pronunciation, let us look at how difficult it would be to apply it to presently used nomenclature. Take the word Cereus; if we followed Latin rules we would have to pronounce it with a K rather than with a soft C. Or take the word gholla; we would also have to pronounce it with a hard k to be consistent with Latin pronunciation. You can see that even if we were to learn the rules of Latin pronunciation, we would have to make exceptions to the rules, change a lot of spellings, or change a lot of pronunciations.

Another problem we encounter is the pronunciation of sur names and place names. The general tendency is to pronounce these names as the person who uses them, if we know how to pronounce them. Of course, we couldn't use a more illogical and inconsistent method of pronunciation. The logical way would be to apply consistently Latin pronunciation rules to such names.

You can see why most people give up on attempting correct Latin pronunciation without giving it a real effort. The tendency is to follow the crowd in mispronunciation or to make up personal pronunciations.

In Spanish American countries, the tendency is to pronounce Latin botanical names with only long vowel sounds, principally because only long vowel sounds exist in the Spanish language. Spanish does not have short vowel sounds. This simplifies pronunciation considerably because there are only five basic vowel sounds. All other vowel sounds are achieved through combinations of the five basic sounds (diphthongs).

Basic Vowel Sounds:

a as in father  
e as in they  
i as in police  
o as in rope  
u as in rude  
y as in policy

Diphthongs:

ai as in aile  
ao as ou in out

All vowels are distinctly pronounced except for u in que and qui. Inasmuch as long vowel sounds are much more frequent in Latin than short vowel sounds, the Spanish vowel pronunciation is correct Latin most of the time. Most of us already give almost correct Spanish vowel pronunciation to such names as Opuntia, Nopalea, and Tuna. Cacti becomes "cock-tea" instead of the commonly heard "cack-tie".

There are other advantages to employing Spanish pronunciation other than its simplicity. It gives us a constant, consistent method of pronunciation, and it puts us in to closer relationship to the pronunciation of botanical nomenclature south of the border. Even if applying the Spanish rules does not always give us correct Latin pronunciation, we come much closer to true Latin than the no-rule method presently employed by the majority of English speakers in the U. S.

If Spanish rules are applied consistently to all nomenclature, no matter what its origin, whether it be name or noun, it will be heard and pronounced the same wherever one may go. A large number of cacti already bear names of Spanish-name botanists, Spanish place names, and Spanish spelling of Indian names.

Let us take a final look at common Latin endings. Spanish pronunciation is hardly distinguishable from the Latin pronunciation.

ii as ee-ee  
ae as ai in aile  
iae as ee-ai  
one as e in they, ai  
ea as e in they, a as  
in father

ei as e in they and i as ee in see  
a as in father  
us as in rude  
quei as kay-ee (que as a in gay)

# FREE LITERATURE YOURS BY REQUEST

Hundreds of free booklets and pamphlets on floriculture and agriculture are available through the Univ. of Calif. Extension Service.

Although none of the publications relate directly to cacti and succulents, there are many you may find useful. They treat a wide range of subjects covering weeds, insects, soils, fertilizers, greenhouses, etc.

A copy of the 1965 catalog may be obtained by writing to the Univ. of Calif. Agricultural Ext. Service, 5555 Overland Ave., Bldg. 4, San Diego, Calif. 92123, or you may telephone your request to 278-9200, Extension 431.

Below, you will find some of the titles which may be of interest to you; you may order these without waiting for a catalog, but remember that you are limited to an order of 20 at any one time.

## One-Sheet Answers (OSA)

Scale Insects and Their Control

OSA #147

Compost Preparation OSA #139

Managing Clay Soils in the Garden

OSA #76

Salinity in Greenhouse Soils

OSA #68

Care of House Plants OSA #120

Effect of Softened Water on Plant

Growth OSA #143

## Leaflets (Leaf.)

Controlling Nematodes in the

Home Garden Leaf.112

Controlling Pocket Gophers and

Moles in Gardens Leaf.135

Weed Control Recommendations

Leaf.168

Pest Control Guide for Calif.

Greenhouse plants and Flowers

Leaf.134

U.C. Type Soil Mixes for Con-

tainer-Grown Plants Leaf.145

## Agricultural Extension Pub. (AXT)

Build a Small Greenhouse AXT-39

Plastic Greenhouse Construction

AXT-163

Landscaping in Containers With-

out Natural Drainage AXT-124

Physical Characteristics of

Soil AXT- 152

Control of Weedy Grasses Around

the Home AXT-27

A Study of Insects AXT-7

Poisonous Plants in the Garden

AXT-22

Lily Disease Control AXT-133

Fungicides for Ornamental Plants

AXT-134

What Does Water Analysis Tell

You? AXT-118

## Mimeographed (M) Sheets

Insect Specimen Identification

Form Mim.

Pot-Testing Method for Soil

Fertility Mim.

# MEMBERS MAINTAIN SPECIAL COLLECTIONS

Members who have questions about species with which they are not familiar may be able to obtain answers from members who specialize in the collection of certain species or types of gardening.

Those who have acquired a degree of expertise in their areas are:

Mr. Burr Clouette-Amaryllis

Mr. Bud Crane-Mammillarias and

Cacti of Baja California

Mr. & Mrs. Joe Echavarria-Pot

Culture & Echeverrias

Mr. Cleoves Hardin-Epiphyllums

& Cristates

Miss Debbie Hoffman-Haworthias

Mr. & Mrs. Wm. Hoffman-Euphorbs

Mr. & Mrs. Wm. Nelson-Grassu-

laceae, Baskets

Mr. & Mrs. Robert Taylor-Mexi-

can Cacti, Cristates

Mr. Jack Ward-Opuntia tribe

Mr. & Mrs. Echavarria's collec-  
tion is almost entirely in pots.  
He now has over 650 pots.