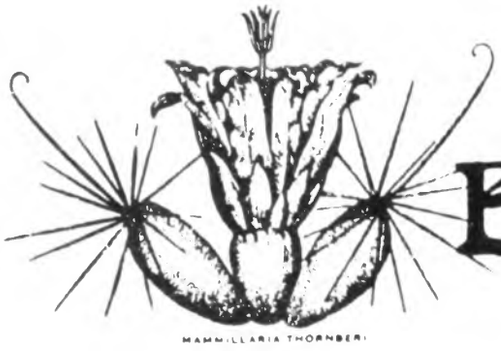
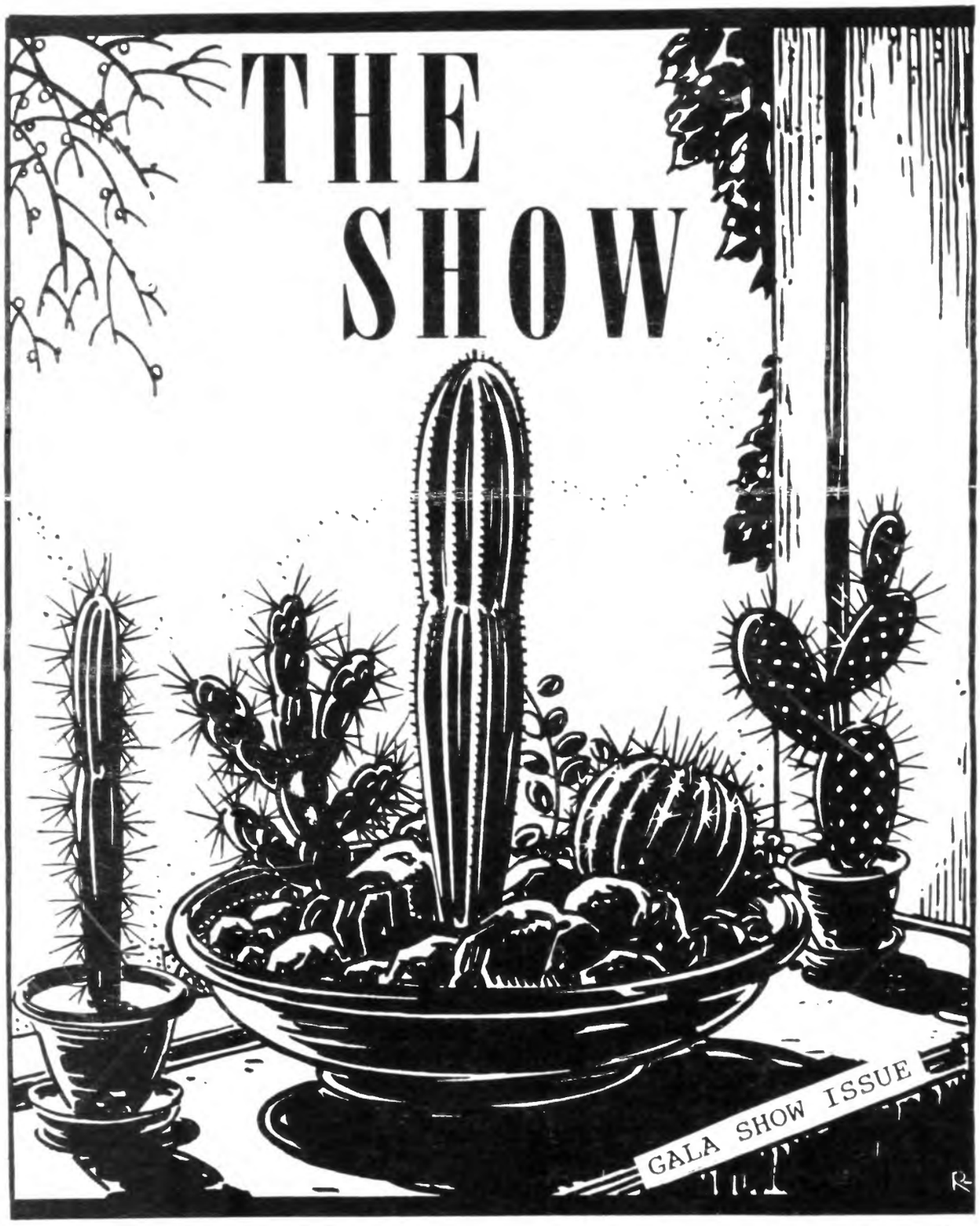


Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY
Affiliate of the Cactus and Succulent Society of America, Inc.

VOLUME XXVIII NUMBER SIX, SATURDAY & SUNDAY JUNE 6-7, 1992



COME SEE WHAT'S NEW!!

The San Diego Cactus and Succulent Society

OUR FOUNDER
CLEOVIS HARDIN
FOUNDED MAY 6th 1961

LIFE MEMBERS

WILLIAM* AND RUTH NELSON
PERSO LEWIS
BOB AND SUZANNE* TAYLOR
WALTER* AND HAZEL* SCOTT
OLIVER* AND SOPHIE LOYLAND
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DR. REUBEN VAUGHAN*
WARREN AND VIRGINIA BUCKNER
MARTIN AND PAT MOONEY
JOHN PASEK
RICK LATIMER
LEROY PHELPS
PHYLLIS FLECHSIG
FLOYD GABLE

* signifies deceased

OUR EDITORS

CACTOS y SUCCULENTES:

1965-66	SHIRLEY AND JACK WARD

ESPINAS y FLORES:

1967	JIM STALSONBURG
1968-69	MICHAEL BUCKNER
1969-70	NIBBY KLEINFELTER
1971-74	WALTER SCOTT
1975-77	AUGIE PFEIFFER
1977-78	AUDREY JOHNSON
1979	JIM DICE
1980	RICK LATIMER
1981-91	MARY AUBUCHON
1992-?	JOYCE AND MICHAEL BUCKNER

OUR PRESIDENTS

1961-62	CLEOVES HARDIN
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1964	WILLIAM HOFFMAN
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1966-68	DR.REUBEN VAUGHAN
1969	WALTER GREENWOOD
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1972	AUGIE PFEIFFER
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1975-76	MARTIN MOONEY
1977-78	WARREN BUCKNER
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1981-82	RICK LATIMER
1983-84	FRANK THOMBLEY
1985-86	DR. LEROY PHELPS
1987-88	MARTIN MOONEY
1989-90	CHUCK ADAMS
1991-92	MICHAEL BUCKNER

Pelecyphora aselliformis.

SHOWS AND JUDGING

Dorothy Dunn 1985

Exhibiting your plants in a show can be fun, stimulating, and very educational. If it is a competitive show, judged by discerning and knowledgeable plant experts, it becomes even more challenging and exciting. It's also very gratifying to overhear strangers ooh-ing and ahh-ing over your "pampered darlings" which you have (hopefully) groomed and dusted to perfection for their public appearance. Unfortunately, too many of us hesitate to enter plant shows because of lack of information concerning just exactly what constitutes a "show-worthy" plant. So - the purpose of this article is to acquaint the timorous uninitiated with a few basic guidelines in preparing plants for a show. Remember, first of all, that judging is a very individualistic, opinionated, and often subjective process, and that rarely will any two judges ever see the same plant in the same way on any given day. A plant which sends one judge into paroxysms of delight may be passed over almost without comment by another.

The criteria most often followed in cactus and succulent shows is the CSSA (Cactus and Succulent Society of America) Judging Scale, which is as follows: Condition = 70%; Staging = 15%; Size and Degree of Maturity = 10%; Nomenclature = 5%.

The condition of a plant relates to general culture. How well has the plant been grown and cared for? Condition reflects on the growers' ability to assess a particular plant's needs to maintain characteristic, healthy growth. Is the plant etiolated? - (too green and lanky, indicating too much shade and/or fertilizer) - Is it sunburned, scarred, discolored, or diseased? - Is the growth uniform and even? - Are there any signs of mealy-bugs, scale, or ants? An experienced judge will note immediately and automatically all of these things, because an experienced judge knows what the plant should - ideally - look like. (In some shows, plants are judged "against perfection" as opposed to being judged against each other).

Staging is the manner in which the plant is displayed, and includes pots, top dressing, and cleanliness. Pots may be ordinary clay, stoneware, ceramic, or even plastic, but they must be in good condition (no chips or cracks) and they must be clean (no alkali encrustations, algae, dirt clinging to the pot, etc.). The pot should be of a complementary size, shape, and color for the plant: no garish, shiny colors or elaborate designs, and no fanciful, overly ornate or "too-cute" shapes. Remember, you are displaying the plant, not the pot, and while the pot should always subtly enhance the plant, it should never overwhelm or detract from it in any way. The judges will, however, take the total effect into consideration. The plant must, of course, be straight and centered in the pot. Top dressing is optional, but generally adds to the well-groomed effect. It may consist of clean gravel, small, natural-looking pebbles, lava rock (scoria), or coarse sand or decomposed granite. Aside from being neat-appearing, top dressing is also beneficial to the plant; it keeps the soil from caking and cracking, conserves moisture, and discourages weeds. Here again, as with the pot, it should never detract from or clash with the plant. If you choose not to use a top dressing, the soil around the plant should be clean and fresh-looking and free of weeds or debris. The plant itself should be as immaculate as you can possibly make it - no spiderwebs and/or (worse!) spiders, no snail tracks and/or (worse!) snails, etc., ad nauseum, and it should be cleaned of hard-water marks on the leaves or body and free of dust, dead leaves and other debris. Dead blooms should be removed, unless they have been left on the plant for the purpose of setting seed.

Dorothy Dunn

A large, relatively mature "specimen-size" plant, if well-grown, will always take precedence over immature or seedling plants. This is where Size and Degree of Maturity come in. It is especially satisfying to display a plant which you have successfully grown from a seedling into a handsome and mature specimen. Due to the recnt emphasis on conservation and endangered species most judges tend to cast a somewhat jaundiced eye on obviously collected plants, and there is some discussion about disqualifying them altogether. Most show rules also require that the plant must be grown by the exhibitor for at least six months prior to the show, and some judges feel that the plants shown should ideally reflect the end result of several years of painstaking effort on the part of the grower. Rarity, and how difficult the plant is in cultivation, although not listed in the judging scale, can also be factors with individual judges, especially when all other points (condition, staging, etc.) are virtually equal. A very rare or difficult-to-grow plant is bound to influence most judges.

SHOWS AND JUDGING

Nomenclature has to do with the proper labelling and correct botanical name (including spelling) of the plant. Even though it counts for only 5%, you should make every effort to provide the correct name for your plant. When in doubt, if all else fails, it is probably better to label it - for example - simply Mammillaria species, rather than to give it an erroneous specific name, or, worse yet, an ambiguous common name such as "Pincushion Cactus". Labels should be clean, neat, and inconspicuous, if used. (Many shows use entry cards instead of labels.) The owner's name cannot be visible to the judges.

So, now - start making plans to cart your favorite (and most delectable) plants off to the next show with confidence, relax and enjoy it, and try to accept with grace and suitable modesty the compliments and ribbons which are sure to reward your efforts!

There is Reason Behind it All

Dr. Ronald E. Monroe

Many years ago, a group of scientists set the framework for the harmonious use of scientific nomenclature. Today, we know these rules as the International Rules for Botanical Nomenclature (the zoologists have their rules, too).

Because common names are useless, scientific binomial nomenclature using either two dead languages is required -- Latin or ancient Greek prefixes or suffixes or by "Latinizing" a popular name, term or location.

According to the rules, all generic names must be capitalized while species, subspecies, variety or form names must not be capitalized. Too, they must be underscored or italicized to set them apart from regular text.

Other scientific names such as orders, classes or families must be capitalized, but not underscored or italicized. One common error is the belief that if a plant is named after some person, the species is capitalized. This, of course, is not true. For example, the correct way to depict one cactus is as follows:

Parodia maasii v. carmargensis f. castanea

Another point of importance is to give credit to the person(s) who originally described the organism. Thus, the name of the person responsible follows the scientific name:

Parodia maasii v. carmargensis f. castanea (Ritter) Krainz

The above information tells us that Ritter first named the plant, but he put it into the wrong genus or the wrong variety or form; thus, his name goes between parentheses. The last name, Krainz, indicates that he recognized Ritter's error and formed a novo combinatium (= he made a change).

However, the way systematists change names at the drop of a hat would imply that there could be a huge number of names between the parentheses, and, of course, such has occurred. Unfortunately, taxonomy is not a very exact science. Frequent name changes may reflect on new well-founded morphological or physiological data or they may reflect on no more than ignorant, stubborn belief (sans reasoning).

Therefore, it's a real pity that well-meaning scientists set down excellent rules for the harmonious use of scientific nomenclature, but could do nothing for the science itself. For that reason, we will always be plagued with name changes, and we must in all fairness to the Rules, take such changes as normal and in stride and with a grain or two of aspirin, and it may even drive one to drink! For example:

Several years ago, A. Lau sent some rebutias to Europe and two of these plants were identified with his field numbers, LAU-401 and LAU-405. These plants were then distributed in the United States as Rebutia narvaecense. Later, John Donald changed the name to Rebutia albopectinata based upon a black and white photo of the type plant by W. Rausch. Dr. Donald soon realized his error and decided to change the name again by using a provisional

name, Rebutia pseudoheliosa nom. prov. Some years later, he changed the names again:

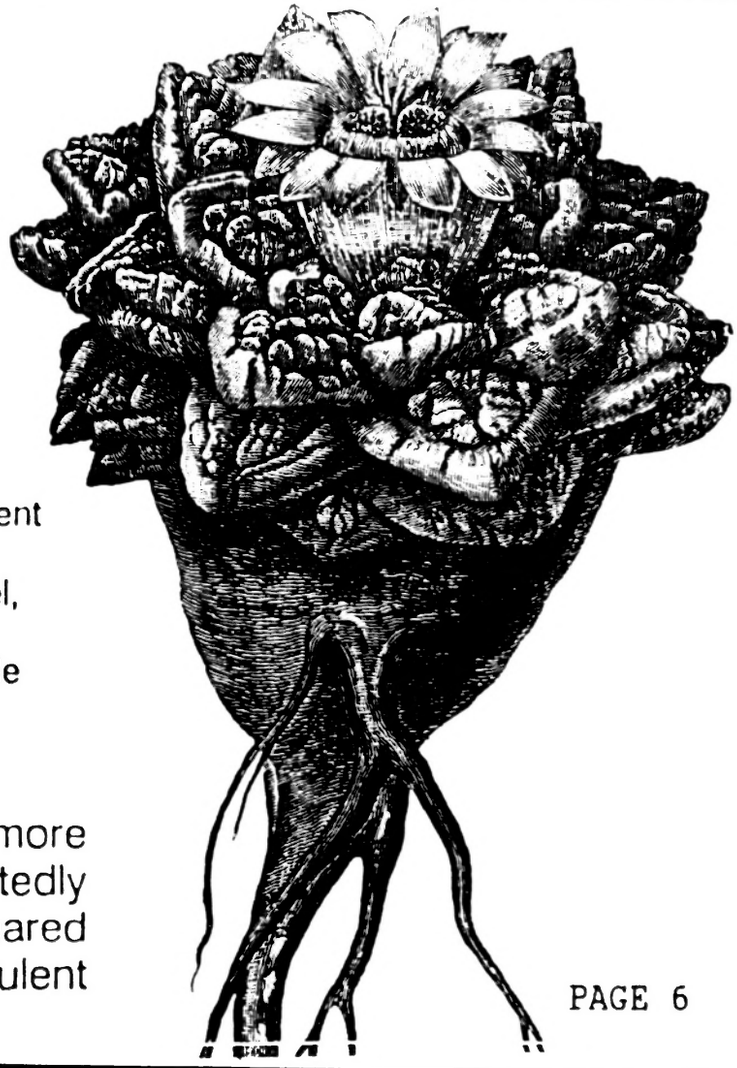
LAU-401 to Rebutia heliosa v. condorensis
LAU-405 to Rebutia heliosa v. cajasensis

Too, another plant, widely distributed by K. Knize as Rebutia solisioides (KK-852) is identical to Rebutia heliosa v. condorensis.

Because the above plant was not the true Rebutia narvaecense, Lloyd Brinson brought a cutting of the "true" R. narvaecense from England (LAU-329A), mass produced it and ISI widely distributed it, beautiful pink flower and all! Later, K. Knize exported a beautiful plant to the U.S. as Rebutia espinosae (KK-1518). Dr. Donald immediately realized that this plant was the "true" Rebutia narvaecense, and he renamed the other as Rebutia perplexa -- and that's exactly what it all is, perplexing!

But, our sanity aside, there is some reason behind the changes, and they were all made according to the Rules!

PLANT NAMES



Echinus, acanthus, and mastus and such
Are the tools of the botanist's skill;
Applied with the art of a surgical touch
They sever, resection and kill.
Taxa and genera flourish or die;
Whole families fall by the way
As the layman responds with a cry and a sigh
Of anguished distress and dismay.
Lumpers and splitters combine and invent
In extending their technical fame,
For it seems that these savants are never content
With any familiar name.
Gone are the days when each plant had a label,
A handle that everyone knew.
And the cactophile dared to believe himself able
To know what it was that he grew!

Dennis Cowper

Names of plants have always caused more than a little consternation which undoubtedly inspired the following poem which appeared in the Journal of the Cactus and Succulent Society of America in 1967.

NEXT MONTH'S MEETING, SATURDAY JULY 11th, WILL BE THE ANNUAL PICNIC (POT-LUCK AND BBQ) AND PLANT AUCTION. THIS YEAR SOMETHING NEW: WE WILL PARTY ON THE GRASS AT "CROWN POINT" ON THE SAN DIEGO BAY. THE AUCTION IS ONE WAY TO ACCUMULATE RARE QUALITY SHOW PLANTS USUALLY NOT AVAILABLE AT ANY PRICE. SO, PLAN ON ENJOYING THIS SUMMER EVENT! MORE INFORMATION NEXT MONTH AND, OF COURSE, A MAP. WE'LL SEE YOU THERE.

THE SHOW PLANT ..A FEW NOTES

Michael Buckner

If you enter a plant (or plants) in a show, first completely read (and re-read and underline) the Show Rules and Schedule. Decide which plants you will enter in advance and their appropriate division, classes, and size designations. You must enter the plant(s) correctly or face possible disqualification and disappointment. In this unfortunate situation the judges notate N.S., or N.P.S. (not per schedule) on your entry card. Place your plants carefully as judges feel compelled by time restrictions to proceed quickly and efficiently; they will not usually reposition plants to correct categories.

Secondly look up the proper name and correct spelling of the plant in advance of the show. Although misspellings of genera and species are only slight deductions, they can make the difference between a blue ribbon and a red one. The clerks will note the deduction for incorrect nomenclature on your entry card (incorrect plant name or misspelling).

Preparation of any entry is of vital importance. The key to winning ribbons and trophies can be succinctly stated: enter pristine plants. This means that the plant entered is absolutely clean of debris, and mars. Any plant which has spider webs, snail or slug tracks, cat or dog hairs, dirt or grime on stems or spines, fingerprints on leaves, old flower buds, calcium water deposits, or any other non-natural or distracting elements will be reduced in the judging process.

Insects of any kind (even if they are beneficials!) will disqualify a plant immediately and the plant may be removed from the show completely. Even apparent previous damage from insects will often take a plant out of competition.

Judges differ on whether some succulent plants (like dudleyas and aloes) with persistent non-defoliating leaves should be shown clean or not-cleaned of their dead chaff. This also applies to plants which have persistent flower peduncles (like cotyledons and pelargoniums). The decision comes down to the overall effect of the plant's appearance and the subjective opinion of the owner.

The container of a plant is important and is included in the staging element of judging. It is true that many plants have won ribbons and even trophies presented in plastic pots, but in the United States this is less frequent. The container should be aesthetically pleasing in size and proportion to the plant; texture and color should be complimentary. The container should be impeccably clean. The container is secondary to the plant, but the ultimate goal is a melding of the two elements, plant and pot, to effect a product greater that the sum. What you and the judges are looking for is an overall pleasing appearance.

THE SHOW PLANT ... A FEW NOTES
by Michael Buckner

The same is true of top dressing. Bright, unnatural colors (exception: Joe Clements) or textures are anathema. Staging devices such as driftwood, or larger pebbles and rocks can be dramatically used as long as they do not distract from or upstage the plant. This is another very subjective area and generalities are difficult to surmise. One should try not to be "cutesy"; no gnomes, deer, Buddhas or other small props unless entered in the dish garden or arrangement category, which allows for these devices.

Eliminate labels in your show plants. Since you print the plant's name on the entry card, labels in your containers are redundant and distracting, presenting a tombstone appearance.

Lastly, face your plant on show table properly and assure no shifting has occurred to displace the top dressing or the plant in its container. If the show chairperson moves your plant, he will attempt to set it as you have originally staged it. Never move or handle another person's entry. If something appears wrong about an entry, don't move it yourself -- rather, notify the show chairman, the plant's owner, or assigned show clerks.

It is also entirely improper to offer any show plant entries for sale. Plant sales are strictly segregated from the show proper!

Most Importantly, because a show represents the end result of the many pleasures you receive from your hobby, participate and have fun -- the ultimate purpose of showing. Never loose sight of this objective! Respect the judges decisions and learn from each show. Observe what people who do win - do - to win.

San Diego Cactus and Succulent Society, Inc.
Meetings held the Second Saturday at 1:30 p.m.
(except June and December)
at Casa Del Prado, Balboa Park

1991 SDC&SS SHOW RESULTS TROPHY WINNERS

Best Cactus (Phillip Corliss) ..... Joe & Susan Clements
Best Succulent (Ruby Falk) ..... Beverly Kirkegaard
Most Artistic Display (Walter & Hazel Scott) ..... Thu Tran
Best Exhibit (Reuben Vaughan) ..... Rudy Lime
Best Education Display (CSSA) ..... Alan Weiss
Best Aloe (Barbara Jeppe) ..... Rick Latimer
Best Echeveria (Oliver & Sophie Loyland) ..... Shirley Berry
Best Epiphyte (William & Ruth Nelson) ..... Warren Buckner
Best Euphorbia (Lydia Evans) ..... Michael & Joyce Buckner
Best Graft (Bob & Suzanne Taylor) ..... Shirley Berry
Best Mammillaria (Elibet Marshall) ..... Joe & Susan Clements
Best Mesembryanthemum (Samuel & Adela Markey)
..... Michael & Joyce Buckner
Best Mexican Plant (Dudley B. Gold) ..... Ed & Karla Nolan
Best Pachycaul or Caudiciform (Warren & Virginia Buckner)
..... Michael & Joyce Buckner
Best Pelargonium or Sarcocaulon (Wilna Johnson) ... Rudy Lime
Best San Diego County Succulent (Julianne Rice)
..... Michael & Joyce Buckner
Best Sanseveria (Richard G. Latimer, Sr.) ..... Edmundo Maio
Best Succulent Bonsai (Rudy & Teresita Lime)
..... Michael & Joyce Buckner
Best Opuntieae (James & Shirley Berry) ..... Shirley Berry
High Points for 50 or Less Plants (James & Shirley Berry)
..... Shirley Berry
Sweepstakes (Dr. Ronald & Marcia Monroe) ..... Shirley Berry

Compost:

Cactus Culture for the Amature Collector

F. C. Thrombley

This article will attempt to address the techniques of the cultivation of potted terrestrial cactus. The cultivation of ephytic cactus will not be included in this article.

There are three ingredients that I believe we amatures should learn most about. They are the compost, the containers and the water we use. All three are dependent on the other to the degree that if we plan ahead properly we will be able to grow and show cacti with pride. Let us look at each one of these ingredients in the order that they are listed.

Compost: A compost may be considered from two entirely different aspects, one physical, the other chemical. Physical properties include porosity, resistance to caking, drainage and moisture retention. Chemical constitution determines nutrient value and balance, organic and inorganic. A plant cannot absorb solid particles from the soil, but only nutritive salts in solution. The soil, that is the earth, has nothing to do with the nourishment, but is only the carrier of nutritive salts in solution. For that reason its physical properties are of great importance for the cultivation of cacti.

- Loamy (clay) soils hold water very well. They also retain nutritive solutions very firmly, not allowing them to be leached out easily. However, loamy clay soils are so closely packed they contain no air spaces. When dried out they split into cracks. For pot culture, therefore, they must be lightened. Fibrous loam is preferred to the clayey loam, and in general, they will not become muddy when wetted, nor cake hard when allowed to dry. The base for almost any potting mix is soil. One can choose between a packaged fibrous loam or a general potting soil.

- Leafmold is a source of fixed nitrogen and carbon dioxide. It should be at least two years old and thoroughly rotted. Being fibrous in nature, it retains moisture well and is often used in composting. Oak leafmold is probably the best for cactus culture because of its acidity. In my opinion a good compost should not be alkaline but have a pH number of between 6 and 6.5. More on this later. I have been using bandini packaged oak leafmold purchased at the local nurseries.

- Coarse sharp sand or agricultural pumice is added to assure open texture in the compost. A compost that will allow the water to drain thoroughly and not leave water pockets. The sand used must be coarse and not childrens play sand which will compact the soil. I prefer the agricultural pumice, it has a coarse granule and will not compact. This pumice is mined in California and is sold in most nurseries. I purchase mine at the Societies plant sales table.

Before mixing these three ingredients to start our compost, lets look at the chemical requirements of the soil. In the cactus regions, mineral salts are formed by gradual weathering of rocks. Since the weathering proceeds continuously, the natural soil in the cactus areas is a changing mixture of particles varying in size from pebbles down to sand and finer. In general, this has been derived from volcanic rocks and often contain a lot of nutritive substances, particularly as the scattered vegetation uses little food material.

In these dry areas the evaporation of moisture from the surface is so great that there is a rising flow of water by the capillary action of the soil. This capillary action brings up to the surface nutritive material from the deeper unused layers. These "deep nutritive salts", products of the weathering of mineral substances, are, however, very poor in nitrates (nitrogen). The soil contains much phosphate and many potassium compounds.

Nitrogen (N) encourages growth, since it enhances the value of the other building materials. But, in excess - which is soon reached in cacti - it leads to spongy tissue. The result is susceptibility to disease, bad over-wintering and poor flowering.

Phosphorus (P) absorbed in the form of phosphates, favors the production of flowers, fruits and seeds, and ensures sound growth. It encourages the roots in cuttings.

Potassium (K) is indispensable to a healthy metabolism of the plants; it increases their power of resistance, even against water shortage.

Therefore, I believe that terrestrial cacti need soil with a high food content containing phosphorous and potassium but little nitrogen.

Beside the food content of the soil, there is also another chemical factor of importance to the well-being of the plant: the soil reaction. By soil reaction, we understand the acidity or alkalinity of the soil solution. The soil reaction is measured by a pH number which ranges from 1 to 14. The neutral value is pH7, values smaller than pH7 are acid and conversly values larger than pH7 are alkaline. All of the authors of articles and books I have read recommend a soil reaction of between pH5 and pH7. Further, they all claim the soil that is alkaline is not the best for growing cacti and can be very detrimental. Through mixing various composts I have found one that suits my needs well and has a pH of 6 to 6.5.

There is one more component that should be considered for our compost: horticultural charcoal. Horticultural charcoal is "activated" to enable it to absorb certain objectionable by-products of bacterial action in soil and so to keep it sweet. Since cacti are apt to remain in one pot for a relatively long period, it is valuable to prevent sourness developing.

There are many different recipes for the compost that one can use. It depends on your ambition, watering habits, location and various other ingredients I call common sense. The real pleasure comes from developing your own compost that works for your set of conditions. However, I will give two recipes which can be used to start us on our way.

#1 (A General Formula)

1 part coarse sand or agricultural pumice
1 part potting soil (packaged as a general soil for all plants)
1 part leafmold

#2 (This formula requires more effort to obtain the components)

2 parts fibrous loam - do not use products sold for mulching that have fine particles.
1 part oak leafmold
1 part agricultural pumice
1/8 part bone meal (for phosphorous)
1/8 part sulphate of potash (for potassium)
1/4 part horticultural charcoal

Both composts should be mixed thoroughly and stored in a clean container protected from the elements. A 3 lb. size coffee can is the measuring device I use. They are usually divided by ribs on the can into four equal parts which makes it easy to measure.

References used:

Marsden, C. 1958 Grow Cacti, Cleaver-Hume, Press, Ltd., London

Buxbaum, Franz 1958 Cactus Culture Based on Biology, Blandford Press, London

Preview of Coming Attractions

June 6 & 7: SAN DIEGO C & S SOC. SHOW & SALE. Setup Friday. Casa del Prado, Balboa Park. Contact Show Chairman Chuck Adams (619) 530-2551, or President Michael Buckner (619) 222-3216.

June 13 & 14: ORANGE COUNTY C & S SOC. SHOW & SALE. At the Buena Park Mall, 1 block EAST of Knotts Berry Farm. Sat. 10am-6pm & Sun. noon-5pm. Contact Toni & Lloyd Garretson, 714-539-8773. Setup Friday. Open show.

July 4 & 5: CSSA NATIONAL SHOW & SALE, at the L.A. Arboretum on Baldwin in Arcadia (opposite Santa Anita racetrack). Setup Thurs. & Friday. Contact Show Chairmen Joe Clements (213) 696-4154 or Duke Benadom (805) 526-8620. Open to all interested if they are affiliated with CSSA **or** an affiliated society.

July 11 & 12: SUNSET SUCCULENT SOC. SHOW & SALE at the Culver City Veterans Auditorium Bldg -- Garden Room. Setup Friday. Contact Show Chairmen Suzanne & Bruce Cameron 310-305-9992. Closed show. RESCHEDULED DUE TO L.A. RIOTS.

Aug. 22 & 23: SOUTHERN CALIFORNIA INTER-CITY SHOW & SALE, sponsored by the Long Beach Cactus Club, the Los Angeles C&S Society, & the San Gabriel Valley C&S Society, at the L.A. Arboretum on Baldwin in Arcadia, with setup late Wed., also all day Thurs. & Fri. Contact Show Chairs Larry Grammer (310) 599-1146, Woody Minnich (805) 944-2784, or Charles Spotts (818) 341-7613. This show may be the largest in the world. Open Show.

Sept. 19, HUNTINGTON SUCCULENT SYMPOSIUM at Huntington Botanical Gardens, 1151 Oxford Road, San Marino, CA 91108, 818-405-2160. Talks, Sales, Rare Plant Auction.

Containers and Water

F. C. Thrombley

Plant Container: The container is also a part of the soil; its nature is essential to success. The act of confining a cactus in a small pot is a radical departure from its normal way of life, where roots spread widely and seek the shelter and moisture of rock crevices.

Cactus can be grown in many different containers; clay pots, tin cans, wooden boxes, glazed pots or dishes and plastic pots. Pots are the most common containers used and so we will discuss them only.

Porous clay pots allow quick drying out and - if exposed to prolonged hot sun - scorching and death of the fine roots. To understand this, one must consider the relation between root and soil. The growing root attaches itself by means of hundreds of very fine root hairs, so closely to the soil particles that it seems almost as if united to them. Only in this way can the root absorb the thin layer of water which surrounds the particles of soil. Now if the soil dries out, its volume is reduced. This reduction in volume produces a tension which tears the root hairs apart and sometimes the very young roots too. The porous pot is continually drawing from the soil, water which evaporates from its surface. Further, nutritive salts also are constantly being drawn up from the soil in the pot, and, by continual watering, the soil becomes more and more leached. The advantage for the amature, however, is because the pot is porous. Unless we have a planned schedule we have a tendency to over water and lose plants to rotted roots. For those of us who live in the fog belt on the coast or where there is a great deal of overcast, I would certainly recommend clay porous pots. The exception to this recommend- ation would be pots under the 4" size. They dry out too fast and the cactus planted in them requires careful treatment.

Glazed or plastic pots, not being porous, do not have the disadvantages just described for the clay pot. One must remember, however, that most terrestrial cactus are especially sensitive to excessive moisture. Plants in these pots must be watered with more care because the moisture cannot escape from their sides. Glazed pots are usually selected for their decorative appearance. Plastic pots, also non-porous, are often used because they are light weight, inexpensive and come in a number of colors.

Consider the size of the pot in relation to the size of the plant being grown. Not only does a small plant look lost in a large pot, it rarely will survive. Unused soil generally becomes waterlogged and leads to rotting of the plants roots. Conversely, you cannot expect a large plant to respond in a tiny pot. Generally, for round or spherical plants use a pot one or two inches wider than the diameter of the plant. For vertical specimens choose a pot half as wide as the plant is tall.

CACTUS CULTURE FOR THE AMATURE COLLECTOR

Clean all pots before planting to be sure they are free of dirt and possible insect eggs. All pots must have drainage holes in the bottom. If you have a decorative container with no drainage hole you can plant the cactus in a clay pot which will fit inside the more attractive container. When potting, cover the drainage holes with broken sections of clay pots, screening or clean stones to prevent the compost from washing away. With plastic pots, it is a good idea to add extra stones or broken crocks to add weight to the bottom to help prevent the lightweight pot from tipping over with your prized cactus planted in it. When adding the compost, do not compress it around the plant with your thumb or fingers. Instead, gently tap the pot on the potting bench to "settle" the compost into the voids about the roots. Never fill the pot so that the compost covers the original soil line of the plant. It is best to leave at least a half inch or more below the base of the plant, this space can then be filled with decorative gravel so that the base of the plant is not in contact with the soil. Remember cactus are especially sensitive to excessive moisture and this is certainly true at its base.

Watering: Many factors govern the watering schedule for cactus; the type of soil, the kind of pot, the climate, the plant itself.

To say that cacti need "no water" or "little water" is nonsense. During the growing period they need water and like being dried as little as do other plants. If water is available to a cactus in its native land, then it grows, if there is none, then it goes to rest, at any period of the year. While all cacti, during the growing period, want a uniformly moist soil, a few genera and species are particularly sensitive to continual dampness, especially in cooler weather. Among these are the species from lower California; those from the coast of Chile, on the other hand, are very resistant to damp conditions. It is, therefore, impossible to lay down hard and fast rules about watering.

I started to collect cactus in the spring of 1976 and during the past four years have kept a file on each plant as I acquired them. During the first two years I used a moisture meter to probe the soil to determine when to water and logged this in the file. During this same two year period a compost mix was prepared which suited my needs. The knowledge gained from this led to the practice of watering my plants on a weekly, bi-weekly and monthly schedule, depending on the size and type of pot. I live in the Escondido area and so I would not recommend my watering schedule for one who lives on the coast. In the Escondido area we are hotter in the summer and colder in the winter months, with less dampness year around. As a side note I would add that using the moisture meter probe played havoc with the root ball of my plants. As a general rule for the beginner use a compost that drains immediately, this means that the water does not lie on the top of the pot for more than 30 seconds, preferably less. When watering be sure that the water is draining out through the bottom drain holes before you stop pouring water in the top. If air bubbles rise to the top of the pot while watering, continue until the bubbles stop. Never let your pots sit in water after watering. This could happen when you would place a potted plant inside another container that has no drainage hole. In the Southern California foothills to the coastal areas there are many micro-climates. We should establish a watering program for ourselves based on our area through trying and observing.

Calling all volunteers

ADDITIONAL VOLUNTEERS

FOR THE JUDGE'S LUNCH:

LOUISE NEWMAN
LOIS ZARANKA
ELIZABETH GLOVER
WILBUR GLOVER
DANA & CHUCK ADAMS
ED & KARLA NOLAN
SANDY FROST
LEE PHELPS
RUTH RICHARDSON
MILLIE & JIM WILLIAMS
AND YOU!!!!!

DEL MAR FAIR

WE WILL INSTALL THREE DISPLAYS THIS YEAR. THE CATEGORIES ARE (1) HANGING GARDEN WITH EPIPHYTIC PLANTS, (2) SPECIMENS OF CACTUS AND SUCCULENTS IN CONTAINERS, AND (3) PLANT COLLECTION. WE NEED YOUR SPECIMENS FOR ENTRY AND YOUR HELP WITH SET-UP, WOULD LIKE TO MAKE THESE EXHIBITS AS EDUCATIONAL AS POSSIBLE - YOUR SUGGESTIONS ARE NEEDED. PLEASE CALL MICHAEL FOR PLANT PICK-UP OR IF YOU WOULD LIKE TO HELP: 222-3216. CARL DYKEMA IS CO-CHAIRMAN. ALL MEMBERS WHO CONTRIBUTE PLANTS OR ASSISTANCE WILL RECEIVE COMPLIMENTARY TICKETS TO THE FAIR.

MAY'S BRAG TABLE WINNERS:

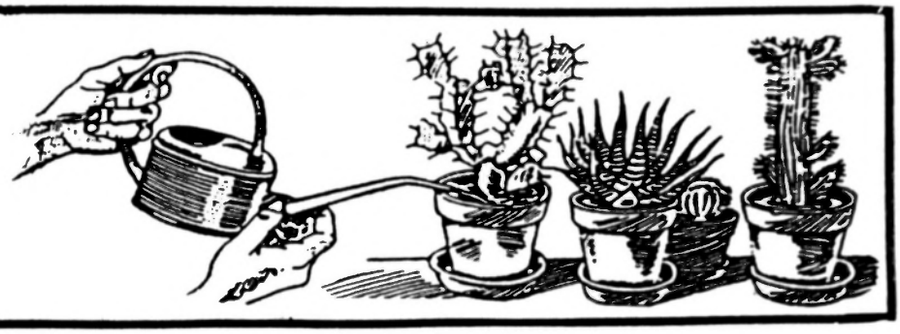
FIRST PLACE: MAMMILLARIA HUITZILOPOCHTII - KAY QUIJADA
SECOND PLACE: REBUTIA KUPPERIANA - KAY QUIJADA
(TIE) PACHYPODIUM BARONII VAR. WINDSORII - ALAN WEISS
THIRD PLACE: ECHEVERIA HYBRID - DOROTHEA/DONDO/DEROSA - MILLIE WILLIAMS

GOOD NEWS!!

TERESITA LIME AFTER NINE HOURS OF SURGERY LAST MONTH APPEARS TO BE DOING BETTER - ALL OUR PRAYERS AND LOVE GO OUT TO YOU, TERESITA. GET WELL & COME BACK AND VISIT WITH US!! WE MISS YOU

"From All Corners"

by Shirley Berry



Plant nutrition is not a subject one can easily exhaust. There is always so much more to know (and remember!) An article by John Betteley in the March 1987 issue of British Cactus and Succulent Journal continues to emphasize the importance of nutrition and the balance of basic and trace elements vital for optimum growth.

He states, "The three basic elements required by all succulents, in differing proportions, are nitrogen, potassium, and phosphorus.

" Nitrogen is absorbed by the root system of all plants as nitrates and ammonium compounds, The optimum level is available in a fertilizer containing 10% nitrogen. Lithops, conophytums, and some kalanchoes require only 4% nitrogen, whereas most epiphytic cacti need 15%.

"Phosphorus is absorbed in the form of phosphates, and is an aid to flowering and a healthy root system, provided in such additives as bonemeal and superphosphates.

"Potassium is indispensable to a healthy metabolism and increases the plant's resistance to drought and disease... available as sulphate of potash. Modern research tends to favor a formula based on 10% nitrogen, 20% phosphates, and 26% potash."

These elements are rendered at optimum level in a solution acidity of PH 5.5....." also significant are the so-called trace elements found in minute quantities but essential to the metabolism of all succulents:

Calcium promotes transpiration and is a vital additive to soiless composts when provided in the form of gypsum (gypsum is 40% of superphosphate.

Magnesium can be provided in soiless composts of magnesium sulphate (Epsom salts)... it aids the intake of phosphorus.

Iron also contributes to the formation of chlorophyll (as does magnesium), but excess alkalinity makes it unavailable.

Boron aids the movement of sugars and starches, and prevents the blemished mentioned in the last article in this paper.

Mr. Betteley states in conclusion that healthy roots can assimilate these elements when supplied in an acid solution.

JOINING THE CACTUS AND SUCCULENT SOCIETY OF AMERICA

THE SOCIETY

The Cactus and Succulent Society of America was organized in 1929 to promote better understanding and appreciation of some of nature's most unusual and unique creations.

CSSA, as a national organization, encourages and supports more than 80 independent local and regional groups toward a unified position on environmental awareness. Regularly these groups are informed of the interests of national and worldwide concern for succulent plants. CSSA is recognized by the Federal Government as a strong voice for conservation and preservation of threatened and endangered plant life throughout the world.

The Cactus and Succulent Society Journal has been issued regularly since the organization was founded. It is an attractive and informative periodical, issued bi-monthly, with a balanced presentation of scientific and cultural articles. Advertisers offer a wide variety of plants, seeds, literature and supplies. Over the years the Journal has become an extremely useful reference source.

ADMINISTRATION OF CSSA

The affairs and the business of the Cactus and Succulent Society of America are conducted quarterly by a board of directors composed of elected members from throughout the United States.

Various committees devote a great number of hours each year to keep CSSA a viable and progressive organization.

Some of our most important programs are in support of the Research Committee and in conservation and environmental protection. Other committee activities relate to our Library, Plant Uses Research, Foreign Relations, Lecture Coordination, International Liaison, Convention, Newsletter, Historian, Journal, Seed Distribution, Slide Programs, Shows, Show Sales and Publications.

We recently accepted responsibility for the magnificent display of Baja Plants at the Wild Animal Park in San Diego and hope to create a major display of other succulent plants at the same location.

There are no restrictions on membership. Members are of all ages, from all walks of life and many different ethnic, cultural and social backgrounds. We have members in South America, Europe, Asia, Africa and Australia. While most members are amateurs, others are world famous scientists, commercial growers and educators. Novice growers are always welcome.

To join the Cactus and Succulent Society of America, fill in the required information on this sheet and send it with your check or money order payable to CSSA in United States funds to:

CSSA, Inc.
P.O. Box 368
Lawrence, KS 66044
Attn: Karen Hickey, Bus. Mgr.

ALL MEMBERS OF CSSA:

share responsibility for preservation of some of our natural treasures (those wonderful succulent plants);

support research related to succulent plants and provide a convenient means for organizations and individuals to contribute to this fund;

receive the Cactus and Succulent Journal and the Cactus and Succulent Newsletter at no additional cost;

are encouraged to submit articles for publication in the Journal and the Newsletter;

may participate in the show judge training and certification;

may participate in any of a number of Succulent Plant Round Robins;

may obtain a list of speakers for club meetings;

may obtain slide programs for use of any affiliated club or group at nominal cost;

obtain early announcements of a great number of new books about succulents, as they are published;

have an opportunity to obtain rare seeds at nominal cost;

obtain reduced registration fees for CSSA Conventions;

obtain reduced rates for copies of some publications such as the Visitors Roster;

and meet many other cactophiles who share their enthusiasm and interest at meetings, conventions, conferences and shows, where enduring friendships frequently begin.

ANNUAL DUES CANADA, MEXICO AND USA	$30.00
Other countries at surface mail rates	35.00
Other countries at air mail rates	55.00

Name (please print) _____

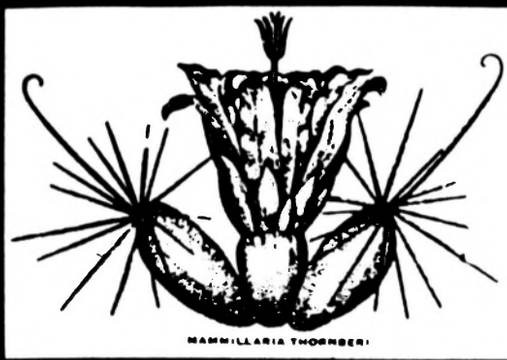
Spouse (active membership only) $6.00 additional _____

Address _____

City _____

State (Province) _____ Zipcode _____

Country _____



The San Diego Cactus and Succulent Society

JOIN US

The San Diego Cactus & Succulent Society is a non-profit, hobby organization created to stimulate interest in succulent plants. This society brings together people (and plants) with a common interest for the purpose of educating the public about the beauty and uniqueness of these remarkable plants, encouraging proper collecting and maintenance of the plants through preservation of native habitats and horticultural propagation, and to foster good fellowship. You are invited to join our society, whether you are an expert, amateur, or beginner, who loves unusual plants and flowers. VISITORS ARE ALWAYS WELCOME. BRING AN INTERESTED FRIEND.

Regular meetings are held on the second Saturday of each month in Room 101, Casa del Prado, Balboa Park at 1:30 p.m. (One may come as early as noon just to socialize or obtain a parking space easily.) Annual dues are $10.00 for a single membership with an additional $5.00 for each additional member at the same mailing address. The dues are payable at time of joining, and January of each succeeding year. Members receive our monthly publication Espinas y Flores, are entitled to library check-out privileges, and may partake in our many field trips and other activities. We offer knowledgeable speakers at our programs; many are world renowned scholars, botanists, explorers and authorities. We have a number of shows each year, especially our Annual Show and Plant Sale in June. We have a wide range of plants and supplies for purchase as favorable costs at most meetings. We also have a plant exchange table and monthly door prizes. All members will be consistently encouraged to contribute and participate in our many functions. Please join us and help us grow.

MAIL TO: MRS. LAURA DE MERRITT, TREASURER
P.O.BOX 33181-HILLCREST STATION, S.D.,CA 92163-3181

MEMBER NAME: _____

ADDRESS: _____

CITY: _____ **STATE:** _____

ALL 9 NUMBERS OF YOUR ZIP CODE PLEASE! _____

PHONE NUMBER: _____

PLEASE LIST ADDITIONAL FAMILY MEMBERS:

_____ $5.00

_____ $5.00

WELCOME

SAN DIEGO CACTUS & SUCCULENT SOCIETY

OFFICERS

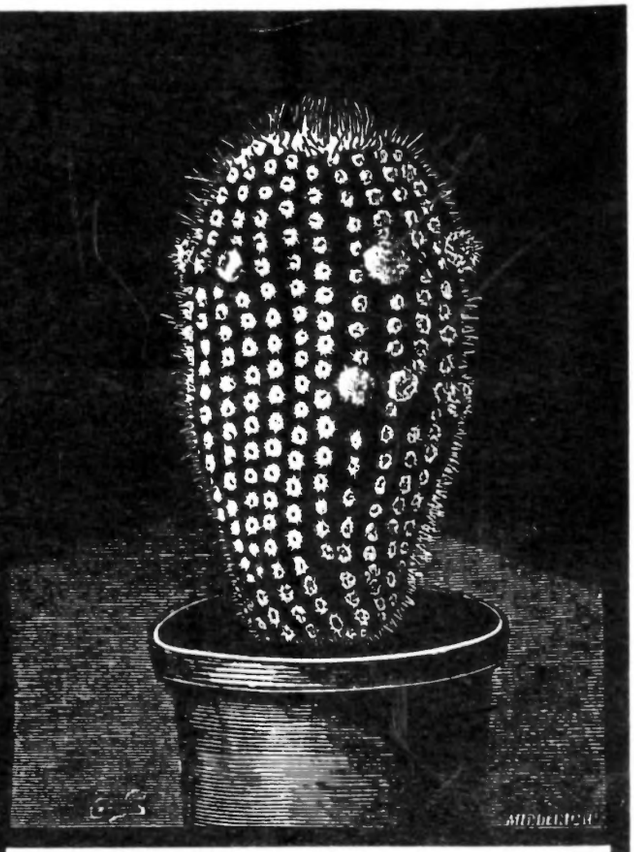
President - Michael Buckner
222-3216
Vice President - Mitch Bahr
571-0912
Secretary - Joyce Buckner
222-3216
Treasurer - Laura DeMerritt
571-5127
Immediate Past Pres - Chuck Adams
530-2551

BOARD OF DIRECTORS

Helen Barkdoll
Shirley Berry
Bill Crowley
Tom DeMerritt
Marylyn Henderson
Harold Richter

COMMITTEE CHAIRPERSONS

Audit - H.W. Buckner
CSSA Affiliate Rep - Michael Buckner
Education Committee - Shirley Berry, Joey Betzler, Joe Clements, Phyllis Flechsig, Dylan Hannon Beverly Kirkegaard, Rick Latimer
Editor - Michael & Joyce Buckner
Historian - Rick Latimer
Librarian - Rick Latimer, Betty Athy
Membership - Laura DeMerritt
Plant Exchange Table - Marilyn Lemrow, Dorothy Larberg
Plant & Supplies Table - Michael Cullen George Plaisted, Bob & Sue Marder
Show - Chuck Adams
Show Sales - Michael Buckner
Reception - Elizabeth Glover, Ethel Standish
Regalement - Diane & Bill Crowley
Representatives:
Balboa Park Desert Garden - Lit Phan
Quail Botanical Garden - Phyllis Flechsig
S.D. Botanical Garden Foundation - Rick Latimer
S.D. Floral Association - Elizabeth Glover
Program - Joe Clements, Joey Betzler



VISITORS WELCOME

San Diego Cactus and Succulent Society, Inc.
P.O. Box 33181
Hillcrest Station 102
San Diego, CA 92163-3181

Editor - Michael Buckner Joyce Buckner
1958 Sunset Cliffs #103, San Diego 92107

The San Diego Cactus and Succulent Society, Incorporated is open to all persons interested in growing cacti or other succulent and exotic plants. Meetings are held the second Saturday of each month at 1:30 P.M. in Room 101, Casa del Prado, Balboa Park. Board of Directors meetings are held at 11:00 A.M. prior to general meetings. Annual dues are $10 per single member per year, and $5 for each additional member of same household. Single copies of Espinas y Flores are $1 per copy sent within U.S.A. Affiliated with the Cactus and Succulent Society of America, Incorporated.

A NON-PROFIT, TAX-EXEMPT ORGANIZATION

SET UP TIME
Friday, June 5, 10:00 a.m. - 8:00 p.m.
Saturday, June 6, 7:30 a.m. - 9:00 a.m.
TAKE OUT TIME
Sunday, June 7, after 5:00 p.m.

JUDGING SCALE

SPECIMENS, COLLECTIONS and DISPLAYS

Condition	70%
Staging	15%
Size & Degree of Maturity	10%
Nomenclature	5%

EDUCATIONAL DISPLAY

Educational Value	80%
Staging & Originality	20%

AWARDS POINT SYSTEM

Individual Plants & Specialties	1st - 3 pts., 2nd - 2 pts., 3rd - 1 pt.
Collections	1 st - 7 pts., 2nd - 5 pts., 3rd - 3 pts.
Exhibits	1 st - 12 pts., 2nd - 10 pts., 3rd - 8 pts.
Best of Show Trophies	10 pts.

Two or more entries are necessary for the Education Trophy to be awarded.

SHOW COMMITTEE

SHOW CHAIRMAN . . . . . Chuck Adams
REGISTRAR & CLERKS CHAIRMAN . . . . . Betty Gomes
HOSPITALITY CHAIRMAN . . . . . Ethyl Standish
SALES CHAIRMAN . . . . . Michael Bulkner
JUDGE & WORKER POTLUCK
COORDINATORS . . . . . Diane & Bill Crowley

JUDGES

CACTI	SUCCULENTS
Larry Grammer	Woody Minnich
Steve Southwell	Steve Plath
Victor Turecek	Rowena Thompson

Judging Saturday, June 6, 9:30 a.m. - 12:00 p.m.

Rhipsalis warmingiana drawing by Helen Barkdoll

SAN DIEGO CACTUS & SUCCULENT SOCIETY

ANNUAL SHOW AND PLANT SALE JUNE 6 & 7, 1992

ROOM 101
Casa del Prado
BALBOA PARK
SAN DIEGO, CALIF.
Saturday, June 6, 1 - 5 p.m.
Sunday, June 7, 10 a.m. - 5 p.m.

PLANT SALES
10:00 a.m. - 5:00 p.m.
Saturday & Sunday
Casa del Prado

CLASSIFICATION

Classes 1 through 55 are "A" and "B"
"A" = 5" pot size and under, "B" = over 5" pot size
Class "A" and "B" sizes will be measured at the inside dimensions of the container

DIVISION I: Cacti

(one plant per pot)

CLASS

1. Frailea, Blossfeldia, Uebelmannia
2. Parodia
3. Notocactus, Malacocarpus, Wigginsia, etc.
4. Gymnocalycium, Discocactus
5. Rebutia, Sulcorebutia
6. Echinopsis, Lobivia, Weingartia, Soehrensia, etc.
7. Melocactus, Buiningia
8. Copiapoa
9. Neoporteria, Neochilenia, Islaya, Pyrrhocactus, Horridocactus, Eriosyce, etc.
10. Borzicactus, Matucana, Oroya, Denmoza
11. "Tubular flowered Cereoids": Arrojadoa, Haageocereus, Cleistocactus, Oreocereus, Espostoa, etc.
12. "Wide flowered Cereoids": Trichocereus, Pilosocereus, Cephalocereus, Pachycereus, Stenocereus, Myrtillocactus, Peniocereus, Wilcoxia, etc.
13. Echinocereus
14. Thelocactus, Hamatocactus, Neolloydia, Pediocactus, Sclerocactus, Turbinicarpus, Ancistrocactus, etc.
15. Coryphantha, Escobaria, Ortegocactus
16. Mammillaria (single head)
17. Mammillaria (multiple headed)
18. Cochemiea Mammillopsis, Dolicothele, Krainzia, etc.
19. Ariocarpus, Obregonia, Strombocactus, Aztekium, Epithelantha, Pelecyphora
20. Astrophytum, Leuchtenbergia
21. Ferocactus
22. Echinocactus, Echinofossulocactus, Stenocactus
23. "Epicacti": Selenicereus, Hylocereus, Heliocereus, Aporocactus, Epiphyllum, Discocactus, Rhipsalis, Schlumbergera, etc.
24. Pereskia, Opuntia, Tephrocactus, Pterocactus, Quiabentia, Maihuenia, etc.
25. Crests and Monstrose
26. Variegates

DIVISION II: Other succulents

(one plant per pot)

CLASS

27. Alluaudia, Didierea, Decaryia, etc.
28. Lithops, Conophytum, Pleiospilos, Fenestraria, etc.
29. Trichodiadema, Mestoklema, etc.
30. Other Mesembs
31. Anacampseros, Portulaca, Portulacaria, Ceraria, Talinum
32. Kalanchoe
33. Cotyledon, Tylecodon, Adromischus
34. Crassula
35. Aeonium, Aichryson, Greenovia, Monanthes, Sempervivum, Jovibarba
36. Sedum
37. Pachyphytum, Tacitus, Graptopetalum, Orostachys, etc.
38. Echeveria
39. Dudleya, Stylophyllum, Hasseanthus
40. Euphorbia (spiny)
41. Euphorbia (non-spiny)
42. Euphorbia (caudiciform)
43. Jatropha, Pedilanthus, Monadenium, etc.
44. Senecio, Kleinia, Othonna, etc.
45. Pelargonium, Sarcocaulon
46. "Stapeliads": Caralluma, Huernia, Hoodia, Edithcolea, etc.
47. Ceropegia, Folotsia, Sarcostemma, Cynanchum, etc.
48. Fockea, Brachystelma, Raphionacme, Gonolobus, etc.
49. Pachypodium, Adenium
50. Cissus, Cyphostemma and Ficus, Dorstenia
51. Fouquieria, Idria
52. Ibervillea, Gerrardanthus, Kedrostis, Seyrigia, Xerosicyos, and Adenia
53. "Pachycauls" (other than those listed in other catagories): Bursera, Commiphora, Bombax, Adansonia, Chorisia, Pachycormus, Operculicarya, Moringa, Pyrenacantha, etc.
54. "Caudiciforms & Geophytes" (other than those listed in other categories): Ipomoea, Dioscorea, Testudinaria, Bowiea, Reichsteinaria, Sinningia, Oxalis, Dolichos, etc.
55. Aloe
56. Gasteria
57. Haworthia, Astroloba, Poellnitzia
58. Sansevieria
59. Agave, Yucca, Hesperaloe
60. Nolina, Beaucarnea, Calibanus, Dasylirion
61. Dyckia, Abromeitiella, Hechtia, etc.
62. Any other genus
63. Crests and Monstrose
64. Variegates

DIVISION III: Collections

(6-10 Different species and/or varieties of any genus)

65. Cacti
66. Other Succulents

DIVISION IV: Specialties

67. Arrangements
68. Dish Gardens, Planters

DIVISION V: Displays

69. Displays, Exhibits

SHOW RULES

Open to anyone with an interest in succulent plants. There is no limit to the number of entries per class or the number of classes entered. No entry shall be entered in more than one class. All property shall be marked with the owner's name, not visible to the judges. Plants must be grown by the exhibitor for at least six months. Plants may be species or hybrids. Grafted plants will be accepted in any class. All entries must have entry cards and exhibitors are responsible for placing entry cards with their entries. Plant name tags in pots must be removed. Awards must remain with exhibits until close of show. Classes with few entries may be combined, classes with too many entries may be split, classes with many oversize entries may be split into "B" & "C" ("C" for oversize). The show committee reserves the right to reject plants or exhibits and to readjust entries for the good of the show. Show hours must be followed. The San Diego Cactus and Succulent Society will exercise due caution in safeguarding exhibits, however, it cannot assume responsibility for loss of property. Entries are judged against perfection. The judges' decisions are final. The Show Chairman shall make all final decisions, except in matters of judging.

AWARDS

FIRST, SECOND and THIRD place ribbons will be awarded in each class; however, should the judges feel that a FIRST, SECOND, or THIRD place is not merited, it will be withheld.

BEST CACTUS . . . . . Phillip Corliss Plaque
BEST SUCCULENT . . . . . Ruby Falk Plaque
MOST ARTISTIC DISPLAY . . . . . Walter & Hazel Scott Plaque
BEST EXHIBIT . . . . . Reuben Vaughan Plaque II
BEST EDUCATIONAL DISPLAY . . . . . C.S.S.A. Award
BEST ALOE . . . . . Barbara Jeppe Trophy
BEST ECHEVERIA . . . . . Oliver & Sophie Loyland Trophy
BEST EPIPHYTE . . . . . William & Ruth Nelson Trophy
BEST EUPHORBIA . . . . . Lydia Evans Cup
BEST GRAFT . . . . . Bob & Suzanne Taylor Trophy
BEST MAMMILLARIA . . . . . Elibet Marshall Trophy
BEST MESEMBRYANTHEMUM . . . . . Samuel & Adela Markey Trophy
BEST MEXICAN PLANT IN SHOW . . . . . Dudley B. Gold Trophy
BEST PACHYCAUL OR CAUDICIFORM . . . . . H. Warren & Virginia Buckner Trophy
BEST PELARGONIUM OR SARCOCAULON . . . . . Wilna Johnson Trophy
BEST SAN DIEGO COUNTY SUCCULENT . . . . . Julianne Rice Trophy
BEST SANSEVERIA . . . . . Richard G. Latimer, Sr. Trophy
BEST SUCCULENT BONSAI . . . . . Rudy and Teresita Lime Trophy
BEST OPUNTIEAE . . . . . James & Shirley Berry Trophy
HIGH POINTS 50 OR LESS ENTRIES TROPHY James & Shirley Berry Trophy
SWEEPSTAKES TROPHY . . . . . Dr. Ronald & Marcia Moore Trophy