

MAMMILLARIA THORNERI

Espinas y Flores

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

Vol. XIV, No. 1.

January, 1979

January Meeting Date: Saturday, January 13th, 1979

South Africa, Part II: A Closer View

by Martin Mooney

The January program will be the concluding part of Martin's lecture and slides of his recent trip to South Africa. This program, which we have eagerly awaited since our first view last September, will complete Martin's impressions of that part of the world.

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Cactus-of-the-Month

Acanthocalycium

Dr. Ronald E. Monroe

The genus Acanthocalycium Bkbg. (spiney bud) was originally associated with Echinopsis (Britton and Rose, 1937) or as a sub-genus of it, in part (Borg, 1959:=Pseudolobivia). However, Backeberg (1935) considered this group as rather distinct mainly because of the short, funnelform flowers of which the tube and pericarp scales become spinelike at their tips and the base of the receptacle has a small woolly ring. After considerable argument, Backeberg (1977) appears to have won, momentarily, this taxonomic battle. An excellent review of this group (Donald, 1975a; 1975b) demonstrates that critical examination of the species pertinent to this genus suggest that the old association with Echinopsis is quite incorrect and that it is closer to Pyrrhocactus than any other genus, and that for the time being it is best treated as a separate genus -- Acanthocalycium.

The plants are found growing in northern Argentina at elevations of 1000-3000 m in the provinces of Santiago del Estero, Salta, La Rioja and Catamarca.

The plants are globular to elongate with white, pink, red or yellow funnelform flowers with a short receptacle. The ribs are either flattened or acute and more or less straight, although some species may possess rather spiral ribs. The spines are somewhat strong, either short or long and sometimes so numerous so as to hide the plant body (A. thionanthum). The color of the plant body varies, but several species have very attractive body colors (A. thionanthum v. glaucum, powdery blue-green; A. aurantiacum, frosted grey-green; A. catamarcense, grey; A. klimpelianum and A. spiniflorum, dark green and A. violaceum, dull, light-green). The plants are mainly solitary and bloom in late spring to early summer; the blooms being usually associated with arioles near the top of the plant, but not on new growth.

Most plants found in collections are A. violaceum and A. thionanthum with violet and yellow flowers, respectively. It should also be mentioned that A. glaucum, A. variflorum, A. griseum and A. brevispinum are best suited as varieties of A. thionanthum as they possess yellowish flowers plus other similar qualities.

By virtue of their solitary nature, this group is best propagated from seed and more than one clone is required for fertilization. However, grafted plants can be topped and offsets induced; the latter can be rooted rather easily.

The potting mix should be the standard sand-supersoil (1:1) and although the plants require considerable light, full sun may burn or otherwise alter the normally beautifully-colored bodies; therefore, filtered sun is advised. Water as you would any echinopoid plant: regularly during the growing period and less in the winter (this author regularly winters these plants outside in the rain without ill effects).

Young plants should be fed regularly (every two weeks) during the growing period with a good non-burning, water soluble fertilizer (Stern's Miracle Gro[®] is excellent), but a fertilizer with lower nitrogen content is recommended for older plants (Watch Us Grow[®] with 5% nitrogen will suffice).

The usual pests (red spider mite, mealy bugs, scale insects, etc.) can be controlled by application of Cygon-2E and individuals with greenhouses may consider closing up the house with No Pest Strips for 1-2 days per week (the strips should be removed and the house aired out before one can work with the plants in safety).

References Cited

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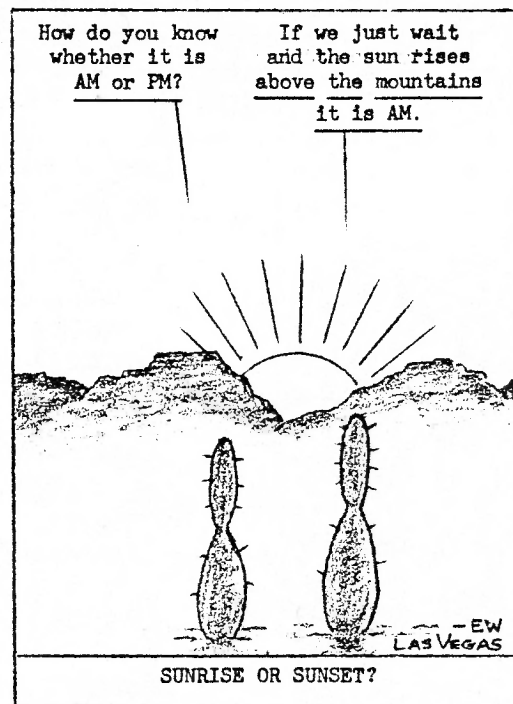
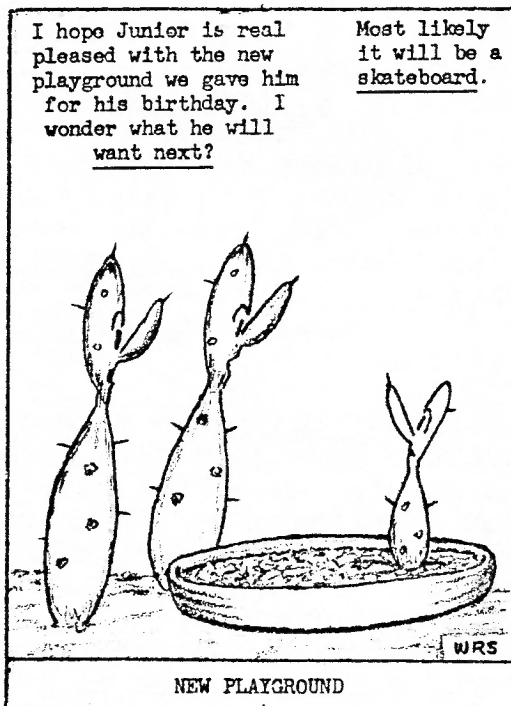
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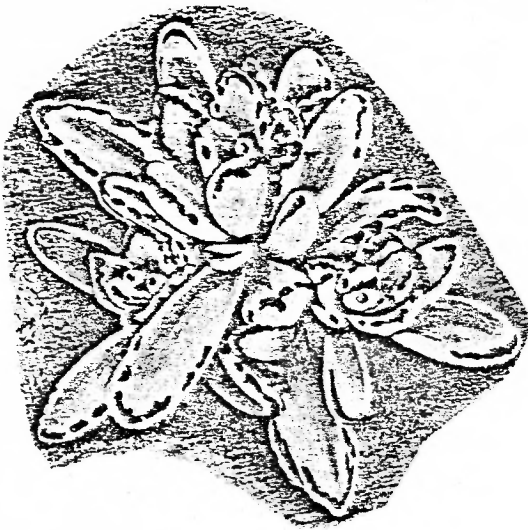
Donald, J. 1975a. Ashingtonia 1:112.

Donald, J. 1975b. Ashingtonia 1:124.



KALANCHOE

Rick Latimer



KALANCHOE TOMENTOSA
PANDA PLANT

The three largest succulent families must surely be: the Cactaceae, the Mesembryanthemumaceae, and the Crassulaceae, each with numerous genera and species. The major genera in the Crassula family are: Aeonium, Cotyledon, Crassula, Echeveria, Sedum, and Kalanchoe. Most of the genera in Crassulaceae have 5-petaled flowers. Although some have more, the genus Kalanchoe has flowers that are normally 4-petaled. The flowers are also free at the tips and the leaves are often

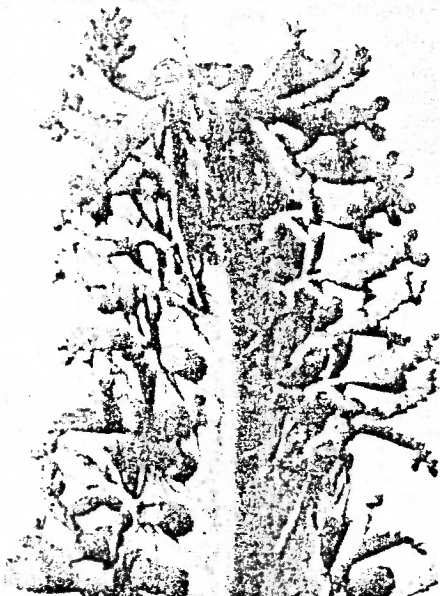
knotched, but not all that succulent. The name of the genus was adapted from a chinese name for one of the species. Unfortunately I cannot find out what the word means in Chinese. (Anybody speak Chinese?) I recognize only two subgenera: Bryophyllum and Kalanchoe. Bryophyllum flowers have a pendant arrangement like bells, while Kalanchoe flowers stand on end like most other flowers.

Of the subgenus Kalanchoe, the largest species (indeed also the largest of the whole family) is K. beharensis (Napoleon's Hat) native to S. Madagascar. This plant (my favorite Kalanchoe) may reach a height of 20 feet and have 18 inch leaves. We are familiar with the gray, fuzzy leafed forms, but there are other natural forms such as a "bald" green leafed variety. Hummel made some crosses, such as "Roseleaf" which is a hybrid with K. tomentosa from Central Madagascar. K. tomentosa has several color forms of its own including a gold one. A famous Kalanchoe is K. Mar-



K. beharensis

morata (Pen wiper Plant) from Ethiopia with long white flowers. With longish yellow flowers and orangish leaves is K. longiflora from Natal, South Africa. A choice plant with pink flowers and chalky leaves is K. pumila from Central Madagascar.

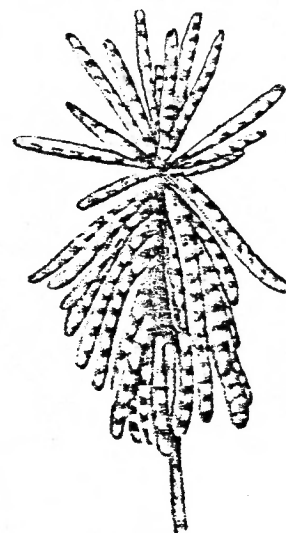


The easiest plant in the world to propagate Bryophyllum D. Merontianum. Note the three generations. (Swingle in Jour. Heredity.)

Kalanchoe blossfeldiana is a study in itself. Many hybrids have been developed such as "Light Pink Jean", "Rose Pink Jean", orange "Exotic", "Exotic Yellow", red "Vulcan", and "Feverball" which has red flowers with a yellow central stripe. This plant is artificially induced to bloom in our winter. The secret lies in the concept of photoperiodism. A 'short day' plant will not bloom if it gets more than its natural seasonal light per day. A 'long day' plant, on the other hand, won't

flower if it gets less than a certain amount of light per day. Since *K. blossfeldiana* buds in response to winter sunlight of 12 to 14 hours (any more and the plant produces more leaves instead) it is a short day plant. The formula for getting blooms in our winter is to cover the plant with black plastic or placing it in a closet for 14 hours a day for 3 or 4 weeks in August or September. Then place the plant back in the sun. The flowers should bloom in December.

The subgenus Bryophyllum contains some rather notorious plants, but some gems as well. *K. constantinii* (=beauverdii=scandens-Wrought Iron Plant), *K. daigremontiana* (Maternity Plant), *K. pinnata* (Plant of Life), and *K. tubiflora* (Zebra Palm) are so prolific as to be weedy. Floyd Gable has a million *K. tubiflora* plants for anybody who wants them. One can never have just one! None the less, *K. tubiflora*'s flower turned up on the May 1978 issue cover of Popular Photography-beautiful! *K. fedtschenkoi*, although rather common, has rare colored purple leaves. *K. gastonis-bonneri* is considered the choicest of all the Kalanchoes with its curled, chalky leaves and pale pink flowers.



KALANCHOE TUBIFLORUM
TUBULAR PLANT

The Madagascar Kalanchoes, especially *K. beharensis* and *K. gastonis-bonneri*, are notoriously frost tender. However, on a recent trip to Walter Andersen's after our recent cold snap, I noticed that the *K. blossfeldianas* were destroyed along with many Euphorbias such as *E. splendens*, *E. knuthii*, and *E. trigons*. The *K. beharensis* were o. k., but this may be due to their being under a shelf.

REFERENCES:

Jacobsen, Hermann, A Handbook of Succulent Plants, Vol II, pp. 638-669.

Johnson, Peter H., "Flowering Kalanchoes", House Plants and Porch Gardens, Dec. 1977, pp. 52-59.

Rauh, Werner, "The Xerophytic Vegetation of Southwestern Madagascar", CSSA Journal, Vol. XLIX, #6, Nov.-Dec, 1978, pp. 247-248.

Sunset, "Garden Guide", 12/75, pp. 152-153.

P.S. Announcing the first annual Orchid Cactus and Opuntia Awards! (These are derived from Orchid and Onion Awards.) The greatest response of plants brought in for Plants-of-the-Month for the year of 1978 was the month of March (Notocactus and Aloe). An Opuntia proliфера goes to the month of May (Portulacaceae and Lobivia).

A VISIT BY DR. GEORGE ENGELMANN TO SAN DIEGO

by Jim Dice

Recently, while researching the life and work of Charles Russell Orcutt (1864-1929), an early San Diego naturalist and cactophile, I happened across some accounts of an 1880 visit to our town by Dr. George Engelmann, the noted 19th-century American botanist and cactologist, which may be of historical interest to local cactophiles.

Dr. Engelmann, accompanied by his friend and botanical associate, Dr. C.C. Parry, came to San Diego in the fall of 1880, during a tour of the western states by the two botanists. Engelmann, who was also an authority on the Coniferae, made it a point to visit the Soledad (Torrey) Pines, near present-day Del Mar, which Dr. Parry had first collected during his work here with the U.S.-Mexican Boundary Survey in the spring of 1850. The two botanists made detailed observations on the pine and obtained sections "of a trunk over one foot in diameter," which were sent to the Forest Commission of the Tenth United States Census (Parry, 1885).

During their stay here, Engelmann and Parry also collected on Pt. Loma and attended a special meeting of the San Diego Society of Natural History on Friday, November 5, 1880. The following account of Dr. Engelmann's attendance at that meeting appeared in the *San Diego Union* on November 13, 1880 (Anon., 1880):

Dr. George Engelman (*sic*), member of the St. Louis Academy of Science, being present, and having been requested to make some remarks, exhibited a specimen of *Batis*, collected by him on the Peninsula of San Diego, which Dr. Torrey had thought was possibly a new species but which Dr. E. regarded as identical with the Florida species. It is quite remarkable that this plant is found both here and in Florida, growing in close proximity to a species of grass heretofore named by Dr. E. *Monanthochloe litoralis* (*sic*) Engel. He also wishes to call the attention of the Society to the *Pinus Torreyana* found only at Soledad, about 20 miles north of San Diego, There are only about 200 of the trees remaining and there is great danger of the species becoming extinct. As it is of great scientific value he suggests that measures be taken to protect the remaining plants and propagate them in other localities. Dr. E. also gave interesting facts of his observations here upon the *Cacti*, the *Yucca* and the *Agave*.

Following the meeting, Dr. Engelmann was escorted back to his hotel by Charles Russell Orcutt, then a young man of 16. Orcutt (1890) later wrote that, "It was my fortune to have the honor of guiding the venerable Dr. Engelmann from our rooms to his hotel at the close of the meeting and the few words of instruction received in the privacy of his room will always be remembered with

pleasure." Orcutt continued correspondence with Engelmann until the latter's death in 1884. It quite possibly was this meeting with Engelmann, and their later correspondence, which first interested Orcutt in cacti, an interest which would remain with him for life.

It is also interesting to note that it is Engelmann who should be given credit for first proposing protected status for the Torrey Pine, and not Parry, who is credited with such by most histories of Torrey Pines State Reserve and who made a similar suggestion at an 1883 meeting of the San Diego Society of Natural History (Hubbs and Whitaker, 1972).

Dr. Engelmann reminisced about his visit here a few years later in the following letter to Dr. Parry. The letter was published by C.R. Orcutt in his journal of natural history, *The West American Scientist*, in 1891. The editorial remarks in brackets following the letter are Orcutt's. "Cleveland," is Daniel Cleveland (1838-1929), a prominent San Diego attorney and botanical collector.

St. Louis, Mo., Jan. 10, 1883.

Dear Parry: If you really leave the 15th these lines will scarcely reach you, but they will greet you on the return from a glorious trip. Thanks for the Cactus seed and Rose.

You complain of my not writing—I think I have been doing nothing in all December but writing to you; at all events I wrote on the 27th which you ought to have had when you wrote last. My letter of the 19th has been already answered—I got yours on the 5th. You see that the Rose has made sensation in Rose circles and will, no doubt, be highly prized by cultivators, but whether you will be able to get it to Europe alive?

I have been overhauling *Plantago* lately. You sent me *Plantago Bigelovii* from near San Diego some time ago. The small slender thing is correct, but there was another bigger woolly headed thing mixed with it, which is nothing but *P. Patagonica*, a dwarf form.

When will I publish *Cereus*? Perhaps in the next world—for I see no possibility to get at it soon, and my time here may soon be out! What a mess of unfinished business will I leave behind.

Remember me to Cleveland. I suppose he has got my *Boundary Cactaceae* now.

So you will take the ladies along! Remember me kindly to both of them; I will be with you in spirit! I have only a few days ago handled *Euphorbia misera* which Miss Smith helped me gather on Point Loma two years ago. My

herbarium is not only a source of scientific delight, but the best journal I could have; every specimen brings scenery and surroundings up like a magic lantern. There are the bushes of *E. misera*, and there the curious sea formations, and there Miss Smith and her father, and up and far west of us the lighthouse—and then the lunch—Oh, it was nice! But the big stick of *Opuntia prolifera* I could not master with my knife—could you with an ax get one! Between old and new San Diego I believe I have seen them four or five inches thick.

And now good luck for your trip. Will you also settle *Agave Pringlei*.

Yours ever,

G. Engelmann

[The above letter will be read with interest by many botanists, and is reproduced by permission from the correspondence of the late Dr. Parry. The rose referred to is *Rosa minutifolia*, a remarkable new species discovered by Dr. Parry and others in Lower California in 1882. The charming reference to the pleasures derived from the possession of an herbarium will be appreciated by every collector.—Editor.]

References

- Anonymous. 1880. Natural history. San Diego Union, Saturday morning, November 13, 1880, page 4.
- Hubbs, C.L. and T.W. Whitaker. 1972. Torrey Pines State Reserve, second edition. The Torrey Pines Association, La Jolla, California. pp. 11-15.
- Orcutt, C.R. 1890. Charles Christopher Parry. The West American Scientist 7(50): 1-5.
- _____. 1891. A letter from Dr. Geo. Englemann to Dr. C.C. Parry. The West American Scientist 7(63): 271.
- Parry, C.C. 1885. Historical notice of *Pinus Torreyana*. The West American Scientist 1(6): 37-38.



Dr. George Engelmann, M.D.
(1809-1884)



New Publications

Desert Gardening: Desert Plants and Their Cultivation, An Annotated Bibliography, compiled by Gerard McKiernan, 1978. 28 pages. Published by The Council on Botanical and Horticultural Libraries, Inc., The Morton Arboretum, Lisle, Illinois. Available from the Library of the New York Botanical Garden, Bronx, New York. \$1.75 postpaid.

QUOTES and Notes _____ by JBM

When, in the vast sweep of time, did the first cacti appear?

"The family Cactaceae is of recent origin as plant families go, being possibly as young as ten thousand years."

Cactaceae, Marshall and Bock, Abbey Garden Press, 1941

"Cacti are a family of plants known as Cactaceae which, considering the age of this earth, are a very new group of plants, probably little more than 20,000 years old."

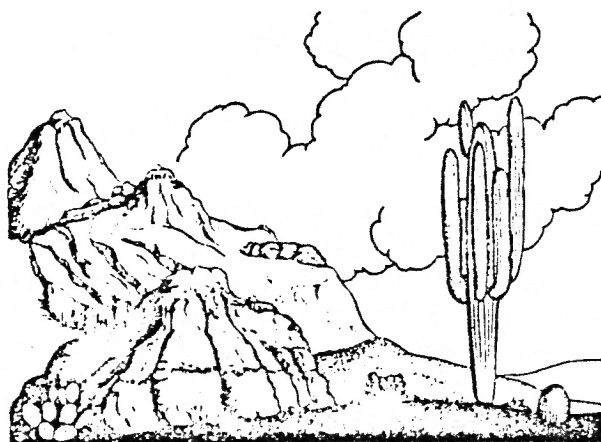
Colorful Cacti of the American Deserts,
Edgar & Brian Lamb, Macmillan, 1974

"It is probable that the Cactaceae did not evolve until sometime before the Pliocene and that xerophytic forms first appeared during the Pliocene itself."

(Pliocene epoch, one to ten million years ago)

The Evolution of Cacti by D. C. Speirs
Cactus & Succulent Journal, Vol.L 1978, p.179

Recent finds in Africa indicate that the early humanoids date back a half million years. Flowering plants date back to the Cretaceous Period of 70 to 135 million years ago. The overall evidence favors the last quote, therefore, in my judgement, a realistic answer to the opening question could be: "Before mankind - perhaps a million years ago."



from the above cited Marshall & Bock

Library Accessions

One of the important functions of our society is to provide a wide variety of reference material for use by the membership. The following books and journals were added to our library during 1977-1978, at a total purchase price of \$608.

<u>Author</u>	<u>Title</u>	<u>Price</u>
Backeberg	<i>Cactus Lexicon</i>	\$42.50
Bartrum	<i>Growing Cacti and Succulents</i>	5.25
Bayer	<i>Haworthia Handbook</i>	9.50
Bechtel	<i>Cactus Identifier</i>	5.00
Clausen	<i>Sedum of the Trans-Mexican Volcanic Belt</i>	27.50
Clifford	<i>Pelargoniums</i>	13.75
Graf	<i>Tropica</i>	98.00
Huxley	<i>House Plants: Cacti and Succulents</i>	5.25
Innes	<i>Complete Handbook of Cacti & Succulents</i>	16.95
Jaeger	<i>North American Deserts</i>	6.50
Jeppe	<i>Aloes</i>	2.50
Jacobsen	<i>Handbook of Succulent Plants (3 volumes)</i>	55.80
Jacobsen	<i>Lexicon of Succulent Plants</i>	19.80
Kramer	<i>Cacti and Other Succulents</i>	15.00
Lamb, E. & B.	<i>The Illustrated Reference on Cacti & Other Succulents Vol. 5 (3 copies)</i>	18.00 ea.
Mace	<i>Notocactus</i>	7.00
Quirus and Young	<i>The World of Cactus & Succulents</i>	4.22
Rausch	<i>Lobivia</i>	53.45
Rice	<i>Cactus and Succulents for Modern Living</i>	3.25
Rowley	<i>Illustrated Encyclopedia of Succulents</i>	14.95
Sanchez-Mejorada	<i>Field Manual of Cacti & Suc- culents of the Barranca de Metztitlan</i>	5.95
Sprechman	<i>Lithops</i>	60.29
Storms	<i>Growing the Mesembs</i>	4.93
Van der Wolt	<i>Pelargoniums of Southern Africa</i>	16.95

Journals

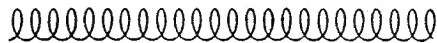
<i>Cactus & Succulent Journal</i> (U.S.), volume 48 (1976)	20.00
<i>Cactus & Succulent Journal</i> (U.S.), volume 49 (1977)	20.00
<i>Excelsa</i> , No. 5	10.00
<i>Excelsa</i> , No. 6	10.00

— Warren Buckner

Editorial

With the new year comes a new slate of officers and new committee chairpersons (see back page), as well as a change in the editorship of *Espinas y Flores*. As your new editor, I would like, on behalf of the society, to thank Audrey and Geoff Johnson for the excellent job they have done as editors the past 2½ years. As noted many times by the Johnsons and previous editors, an editor is only as good as the material (s)he has to work with. *Espinas y Flores* is your newsletter and it requires your support, in the form of articles, information, etc. Your contributions pertaining to cacti and succulents and/or society business and functions will be greatly appreciated.

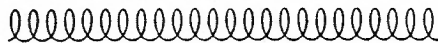
-- Jim Dice



Regalement

A reminder that the following members have signed up to provide refreshments at the January meeting:

Shirley Berry, Marcia Hamecher, Jean Hapeman, Marcia Monroe, Pat Mooney, Rosemary Myers, Verna Pasek, Doris Rake, Eileen Smith, and Veryl Snowhill.



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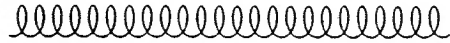
Those readers who find it more comfortable to refer to their plants by common names instead of long, cumbersome Latin botanical names, may find an alternative use for the latter in the following biographical note on Kate Sessions:

It seems as though Miss Sessions was often accused by her friends of swearing at her gardeners, "many of whom were Mexican with little knowledge of the English language. She did speak loudly to them — perhaps in the belief if she spoke loud enough they could understand." Kate Sessions, in spite of the accusations, always maintained that she did not swear, claiming that "what sounded like swear words were really only long Latin botanical names that she used to let off steam." According to Miss Sessions, "Botanical names when spoken vehemently can be very effective in overcoming obduracy."

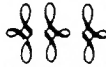
— *Kate Sessions: Pioneer Horticulturalist*
by Elizabeth C. McPhail, San Diego Historical Society, 1976, p. 80.

Pumice

The Plant Sales Committee now has agricultural pumice available for sale to members. Due to the logistics of storing and transporting this material, it will be available only upon request, so please place your order with Carl McLeod (279-2817) several days in advance of the meeting. Available in large (approx. 50 lbs.) and small (approx. 18 lbs.) bags.



Deadline for the February issue is January 27th.



San Diego Cactus & Succulent Society

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The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti, other succulents, and exotic plants. Meetings are held the second Saturday of each month at 1:30 pm in Room 101, Casa del Prado, Balboa Park.

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