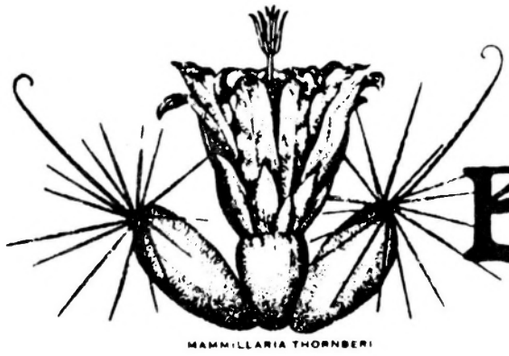
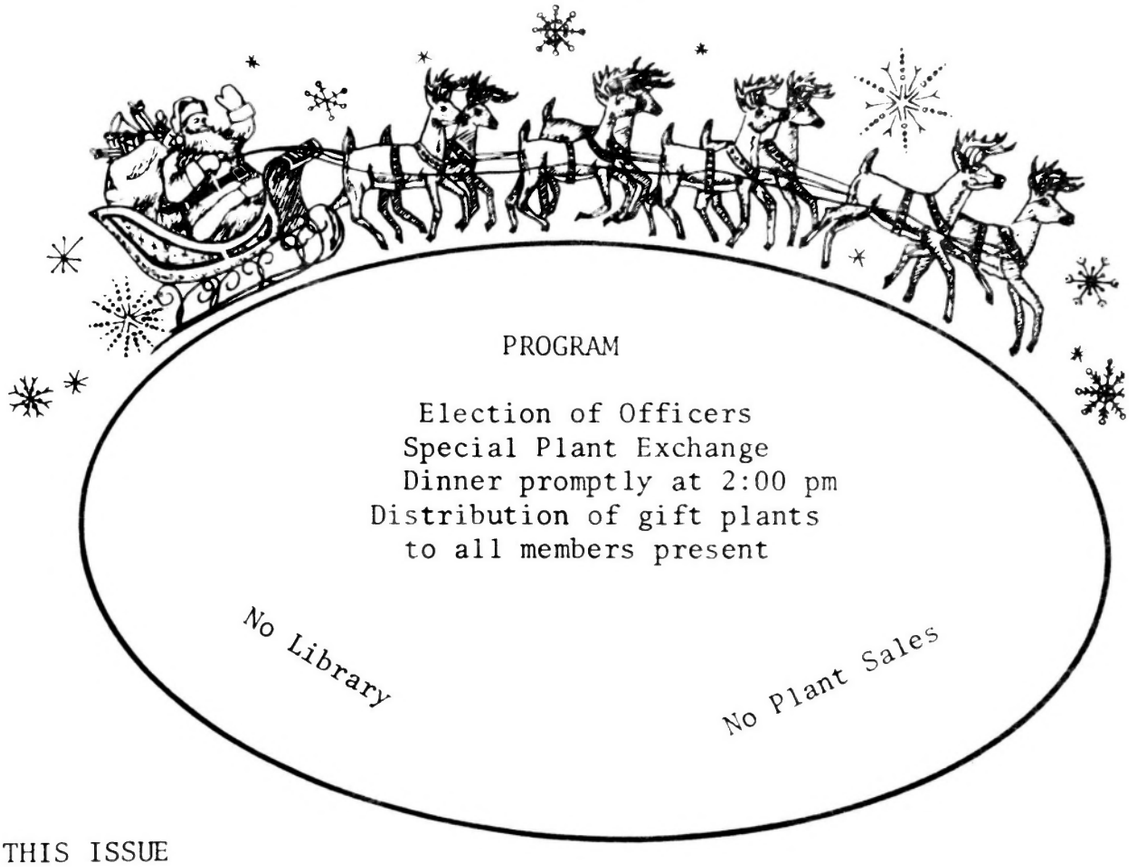


Espinas y Flores

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

Volume XXI, Number 12 December 13, 1986

DECEMBER MEETING
Saturday December 13, 1986
1:30 P.M.
Casa Del Prado, Room 101, Balboa Park



PROGRAM

Election of Officers
Special Plant Exchange
Dinner promptly at 2:00 pm
Distribution of gift plants
to all members present

No Library

No Plant Sales

IN THIS ISSUE Page

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Special thanks to Elibet Marshall for the clever drawings that I have been using in the Espinas y Flores.
Deadline for the January Issue - December 27 -Thanks and Happy Holidays to you all.
Mary

NO ONE will be admitted to the Christmas party unless they are a registered member who has signed up for the party. Please do not embarrass us or yourselves by bringing anyone else to be turned away at the door.

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Bragging plant winners for October

1st place Beverly Kirkegarrd for her Crassula suzannae
2nd Place Joan Johnson for her Aricarpus fissuratus
3rd place Lee Phelps for his Othonna cyphorbioides

Bragging plant winnrs for November

1st place Bob Kent for his Haworthia semiviva
2nd place Joan Zanot for her Ferrocatus latespines
3rd place Joe Wood for his formal arrangement

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WElcome to New Members

Doris F. Rake - San Diego
Eleanor Morrison - Carlsbad
George Jennings - San Diego

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XMAS PLANT DRAWING - NOTICE TO PREFERRED TICKET MEMBERS

If you did not verify that you have earned a preferred ticket for the Christmas plant drawing at the November meeting.
DO SO BEFORE the December meeting. There will be no changes or arguments at the Christmas Party.

Call me at (619) 727-1364 between 4:30 and 9:30 pm if you have any questions.

Madelyn Lee

Madelyn Lee

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ELECTION OF OFFICERS

Voting will be conducted for office positions at the December meeting. The Board's nominating committee has presented the following slate of candidates for consideration. Nominations may be made from the floor, but the person nominated must be willing to serve.

President - Martin Mooney
V. President - Bud Aubuchon
Secretary - Beverly Kirkegaard
Treasurer - Susan Shepherd

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.

In the next article we will look at the other two ingredients, the containers and the water.

References used:

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

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

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SAN DIEGO CACTUS & SUCCULENT SOCIETY
MEMBERSHIP APPLICATION

$8.00 - Single member per calendar year
$2.00 - Each additional member of same household

** PLEASE PRINT **

NAME: _____

ADDRESS: _____ PHONE: _____

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PLEASE CHECK IF;
O You are a new member
O You subscribe to the Cactus & Succulent Journal

** COMPLETE AND MAIL TO **

Martin L. Mooney;Treasurer, 97 K St. Chula Vista, Ca. 92011

Additional members:

Name:_____ Name:_____

AMOUNT ENCLOSED $ _____

There are no back issues of the Espinas y Flores available for late payment.

- -

Money will not be collected at the December meeting

SAN DIEGO CACTUS & SUCCULENT SOCIETY

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Vice President - James Dice
6066 Portobelo Court, San Diego 92124 278-0326
Secretary - Susan Clements
42251 Sixth Street, Temecula 92390 676-6126
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Immediate Past President - F.C. Thrombley
16333 Roca Drive, San Diego 92128 487-5544

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John Pasek, Joe Clements, Bud Aubuchon

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Plants & Supplies Table: Joey Betzler

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Regalement: Warren Larberg and Doc Lemrow
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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. Board of Directors meetings are held after the general meetings. Annual dues are $8.00 per single member per year, $2.00 for each additional member of a household within a family. Single copies of Espinas y Flores are 60 cents.

Editor
Mary Aubuchon
1058 5th Avenue
Chula Vista, CA 92011

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