

Espinas y Flores

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

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TOMO NUEVE, NUMERO SIETE
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JULIO 1974

C H A N G I N G T I M E S

"Changing Times" (pages 3 and 4) is the 33rd in a long series of factual, fascinating, well-written contributions submitted to Espinas y Flores (since March 1971) by our long time member and Past President Doc. R. V. Vaughan for the enjoyment of our readers.

It would be extremely difficult to say which of the series is most stimulating. That choice must necessarily be made on the basis of each reader's life experiences. Having lived in some of the area and during much of the era Doc so knowledgeably describes, Ye Ed's selection is "Changing Times". It strikes a sympathetic chord.

Of all the contributions received by 'E y F' it has been my experience that Doc Vaughan's Page, if missing, brings most inquiries, letters or phone calls. Others say: "When I receive Espinas y Flores, I read Doc. Vaughan's page first.

An added bit of info. Doc Vaughan celebrated his 88th birthday in May. When talking with him at the time, he remarked: "I have never felt better in my life".

All our readers join in saying: "Happy reminiscing, Doc. And long may you put your random thoughts into words."

JULY MEETING -- JULY 13th -- SECOND SATURDAY -- ANNUAL PICNIC

WHERE? At the Taylor's Cactus Garden, 1051 Tres Lomas Drive, El Cajon, map below
WHEN? JULY 13th, SATURDAY.

WHAT TIME? Come about 11 o'clock, earlier if you like, but don't be late!

POT LUCK !! That means you bring a DISH, and if everyone does likewise, food will be bountiful.

COFFEE & PUNCH will be served !

BRING YOUR SERVICE, cup, plate, fork,
" " CHAIR & TABLE too.

NO PLANTS OF THE MONTH -- George and Madelyn get a rest.

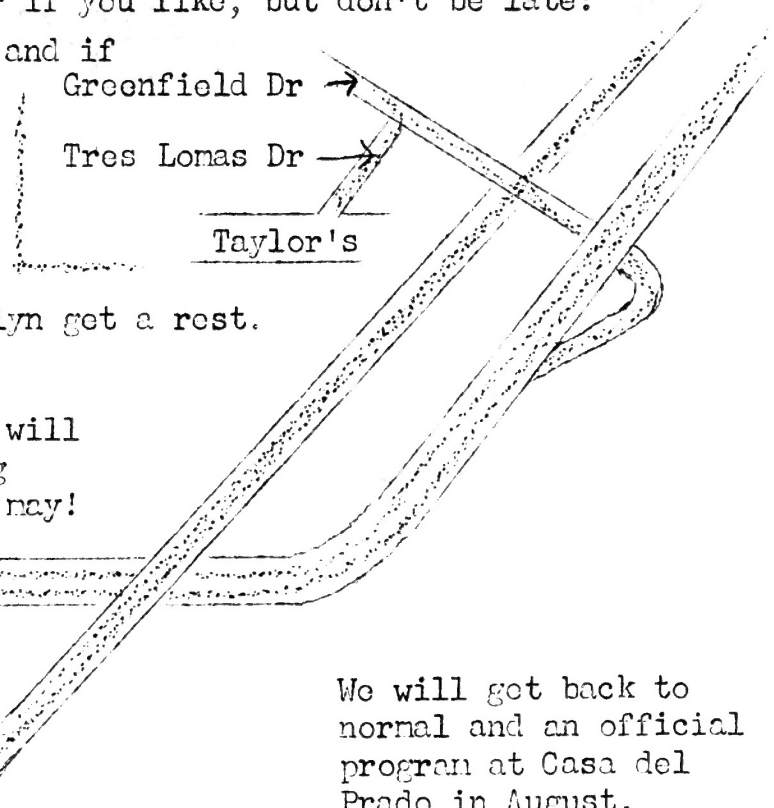
MEMBERS from other Clubs invited.

PROGRAM ?? Our VEEP and Program Chairman will have a tough time equaling or excelling his June 'Round Table Discussion'. He may!

from San Diego --- FREEWAY 8

VISITORS PLEASE NOTE: Do not go into Taylor's garden until after the picnic!!

Main Street in El Cajon



We will get back to normal and an official program at Casa del Prado in August.

COMMUNICATION --

"San Diego, CA 92103
May 26, 1974

Walter R. Scott (Ye Ed)
3430 Wilshire Terrace
San Diego, CA 92104

Dear Walter:

San Diego Cactus & Succulent Society member, Mrs. Minnie Mogil has given her plants, cacti and succulents, to the Society.

Minnie suffered a stroke about a month ago. Owing to her misfortune she will not be able to take care of her plants or attend meetings for an undetermined period. She decided it would be best if the Society cared for the plants and took responsibility for them.

We want to thank Minnie for her generosity and thoughtfulness in the action she has taken and she may be assured all the plants find good homes.

It is the sincere wish of all Society members that our Dear member will recover rapidly and be able to be with us again soon.

Respectfully, Oliver K. and Sophie LOYLAND
(Plant custodians)

C H A N G I N G T I M E S

Doc R. V. Vaughan

"TIMES are out of joint" remarked the buffalo skimmers as they sat huddled around the pot-bellied coal burner in the Central Hotel in Great Falls, Montana. Tobacco juice was squirted into the sand box and tobacco smoke from smelly pipes darkened the air. There were other odors as skin clothing dried by the room's heat. At times the odor of underclothing worn all summer without the benefit of laundromat was quite noticeable.

These long and heated arguments took place night on to a century ago as to "Where are the buffalo?" "Will wheat ever bring a dollar a bushel?" "Is black antimony good for the farcy?"* "Will this new-fangled alfalfa (lucerne) prove to be successful in this climate?"

I believe that my hours spent there with those shepherders, cattlemen, buffalo skimmers were the best years of my life. Looking back across more than three quarters of a century I am able to compare life as we knew it then and what the march of science and regimentation has brought to our land.

Wheat has reached six dollars a bushel, men have learned to fly at the speed of sound, to talk over wires and yet, better than we then dreamed of, is the fact we talk without wires. We send photos via wireless. We have to a degree learned the secrets of the atoms which we then did not know existed. We taught that the smallest particle was a molecule.

We are told that at Bunker Hill a shot was fired that was heard around the world. When Henry Ford advertised for laborers and offered a salary of five dollars a day for an eight hour day, the labor market was shaken and a great emigration began towards Detroit.

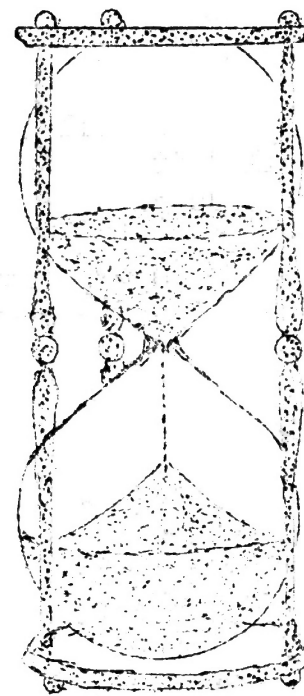
The mines and smelters of Montana were deserted and entire settlements began the trek "Onward to Detroit". The fever was intense as men deserted farms and mines and jobs.

Then three men came to the mining camps of Montana and began to educate the miners that the best life was to work eight hours a day and get five dollars instead of three for twelve hours. The three men were Haywood, Moyer and Pettibone. Later they were swinging from telephone cross arms in Butte as the bloody strike was waged.

The Pinkertons came and patrolled the streets. Women and children were hungry. Men fed on rotten whiskey battled along the streets. Businessmen and churchmen and owners of the mines cursed the thought of an 'eight hour day'.

But it came! Business prospered. Saloons threw their keys away and thru the day roared the revelling workers. Hotels and other businesses took in money with scoop shovels and toted it to the banks in dump trucks.

(Cont'd. next page)



Time Changeth

C H A N G I N G T I M E S, continued:

The "Old order changeth". The butcher did not cut a beef liver into four parts and give us a piece for the cat when we asked him for "two bits worth of stew meat, a soup bone and a piece of liver for the cat".

I well recall the soupbone having a lot of meat on it and how mother boiled it for days on the old wood stove and forking a bit into a bowl when we kids came home for lunch from school.

Money flowed like mucilage because some of it stuck to everyone's fingers. Father brought more money home. Mother found that at Nathan's Department Store she had to pay more for some gingham and father's overalls cost twice as much. The village cobbler raised his price as leather prices were upped.

Governor Stennenborg's death had been avenged in Idaho. The three men who placed dynamite in his mail box were left hanging to cross arms. The mines were tearing copper from the bowels of the earth. The bawdy houses and gambling men were having a 'high old time'.

All was good in the world. Wheat had passed a dollar a bushel. Wool was selling at all time high prices. Meat was cut and priced as to certain sections of the carcass. Stew meat was for the Indians and dogs. We all ate T-bones or fillets.

Two great men came upon the stage of our history and met and told the world about what was ahead for all of us.

Samuel Gompers was just brought to prominence from the Haymarket Massacre in Chicago. He was proclaimed 'Labor Leader'.

William Jennings Bryan was a young attorney of great intelligence. The Democratic Convention was being held in Denver where silver and gold were of utmost importance.

Near the close of the long and wearying convention Bryan took the speaker's rostrum and spoke the great truth that one man ever uttered to change the trend of all men's thinking: "You shall not press upon the brow of labor a crown of gold, etc. . ."

Many years later it was to my great delight to hear one of America's really GREAT Presidents respeak these truths of Bryan's.

Had we heeded Bryan and Hoover we would be in far better shape today.

We are learning the hard way today that "Bimetallism of Sixteen-to-One" would have helped us avoid most of our ills in the financial world and would have avoided most of the wars we have fought since Bryan spoke of "Gold".

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JUNE REGALEMENT

SIX volunteer 'Regalers' for June were led by our two 'pros' Jean and Leta HAPEMAN which assured that the activity would plentiful and productive, were:

Norma BARISIC
Leta HAPEMAN
Frances LANGER

Jean HAPEMAN
Ann HODGE
Perlso LEWIS

S U C C U L E N T F A N T A S Y

N I N T H A N N U A L C S S A S H O W

SUCCULENT FANTASY is the 9th Annual CSSA Show to be held at the Arboretum in Arcadia. The dates this year are from July 4th thru July 7th. ADMISSION IS FREE.

Kathryn Sabo, Club member, CSSA Board Member, Show Chairman (dynamo rather) came to our June meeting in the capacity of 'triplets' -- MEMBER, PANELIST and SPEAKER. Kathryn brings to mind a self-propelled energy source which moves about and supplies power.

The CSSA sponsors the annual show at Arcadia each year and it is beginning to expand show activities to other areas. Kathryn believes this should be encouraged. Succulent plant shows in California are centered in five areas, Sacramento, San Francisco, San Jose, Los Angeles and San Diego. The areas might better be called 'regions'. And if one or more clubs go together in promoting an activity, you've got a 'regional activity'. A splendid example is Sacramento which sponsors the INTERCITY SUCCULENT SHOW in September. Response from regional clubs was very encouraging.

There is a limit to distances participants can travel to take part in an activity, a show or a meeting. Distances are moderating factors. We in California are fully aware of the miles and time involved. Kathryn has a splendid idea, encouragement by the CSSA of regional activities in keeping with local interest and talent.

At times other factors are involved, a local example is the conflict between dates of the CSSA show in Arcadia and Cal Expo at Del Mar. A lot of energy is expended during the days before and after a show, and we all know one person cannot be in two places at one time. Most clubs do not have the manpower to spread over two shows.

Anyone who comes up with a solution to these problems will be declared an 'instant hero' and become eligible for chairmanship of one or more committees.

The Arcadia show is an example of how a show benefits from showing from year to year. Improvement comes naturally year by year. The show brings out the best in plants in the L. A. area. It is good for people who have had little experience with plants to see what is being done with them by others.

There's a negative side to showing plants too. Some of them like to be put in the ground or in a pot and be left alone. They make good show pieces but they suffer from the experience. It may be that people looking at them depresses them. Too, show areas are often 'climatized' for the comfort of people, and plants don't respond to an air conditioner favorably.

If it weren't for shows, how would the word get around that there are so many specimen plants in a region. Could you imagine every person visiting every other person's garden to see for himself. Owners and plants couldn't take that!

The Arcadia show has a DIVISION for practically every interest. The show brings out the best in the region. Most of the entries are local, altho in recent years the show has attracted displays from as far away as Sacramento, and the distant entries have received awards and prizes which demonstrate no region has a monopoly. The DIVISIONS of the Arcadia CSSA show are:

- | | | |
|-------------------|-------------------------|-----------------------|
| DIV. I CACTI | DIV IV RAREST SUCCULENT | VII CHILDREN under 14 |
| II SUCCULENTS | V MINIATURES | IX SOCIETY DISPLAYS |
| III RAREST CACTUS | VI ARRANGEMENTS | X COMMERCIAL DISPLAYS |
| | VII EDUCATIONAL | |

G A R D E N V I S I T S

--- A continuing series ---

Bette Baker

In future issues of Espinas y Flores, the Editor has asked me to attempt to put in writing my impressions of member's gardens---impressions formulated during visits to a wide spectrum of gardens---which reflect the labors of our own members. The reader must bear in mind the limitations of the written word in describing a garden, or imparting the great joy which accompanies one on such a visit.

Nevertheless, come and share with me Ye Ed's and Floribunda's garden! Few in this area can boast of a garden the size of Walter and Hazel's domain---one-third of an acre terraced with native and collected rock and harboring a 9' by 12' plastic greenhouse called "La Casita Caliente" or "Casita Verde", either aptly descriptive. La Casita is supported on cinder blocks. It is one of four covered enclosures. Hazel and Scotty have skilfully sculptured islands featuring similar types of plants one of which is collected, white native Dudleyas, and another a bank of Sedums and Crassulas displaying a surprising array of color.

While fairly small as a greenhouse, "Casita Verde" elicits sheer delight upon entering. One must not miss the leathery Kalanchoe pumila in a hanging basket outside the entrance. Although Scotty says that his favorite plant is "the one that is prettiest at the moment", it is obvious that Mammillarias and Scotty cooperate with each other to an ultimate degree. Mams, some rare, predominate in La Casita, but there are also outstanding specimens representing uncommon genera such as Neowerdermannia, Wigginsia and Sulcorebutia.

The Scotts thoroughly enjoy the plants protected inside the greenhouse because they are so clean and perfect. Time and sound inside seem to be suspended in this orderly and controlled enclosure.

Scotty depends heavily, as many of us do, on the use of decomposed granite in his soil mix. The proof of his culturing technique lies in the fact that often his specimens are chosen at Club meetings as "Succulent- or Cactus-of-the-Month".

Climbing up the steps to the open terracing, one cannot help but envy the freedom enjoyed in cultivating large species of Opuntia, Agave, Ferocactus and Aloe. While most of us yearn heartily for giant plants, we must confine ourselves to the compact and more modest species.

The upper terraces support two majestic specimens of Opuntia inermis, the 'cactus' which earlier in this century invaded and overran a vast area of Australia. Other elegant plants, many collected in the Southwest, include Opuntia robusta, Ferocactus lecontei and Ferocactus glaucescens.

Their eleven years of collecting are obvious when one observes the size and maturity of Pilocereus, Neoporteria, Lobivia and Agave. When you visit the garden, it is worth your while to stop at the door of, and pay your respects to the Granddaddy of all trapdoor spiders, a native.

When descending steps to the lath house, one is afforded a view of banks of succulents and Hazel's lovely hanging baskets. The deck of the plastic-covered area harbors innumerable species and hybrids of Echeverias, Sedums, Crassulas, and so on in excellent culture and in great numbers.

One must visit this garden more than once to discover all its offerings, or its beauty and interest. By her own admission, Hazel invests a total commitment in labor in maintaining order in this garden.

A tour through "Scotts' Terraces" is a delightful adventure and knowing the Scotts, a continuing pleasure.

PLANT INTELLECTUALS

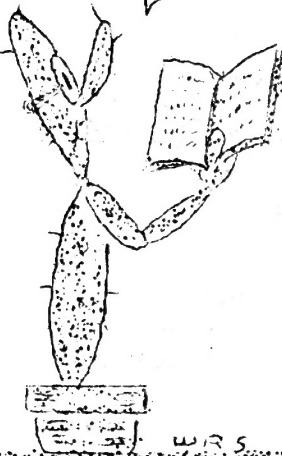
. Audrey Johnson

After four weeks of flower shows, plant sales and an Open House at Casa del Prado, I finally (rather wearily) got around to tending my somewhat neglected flower beds at home. Was it guilty conscience, imagination, or did I really hear a faint muttering from my disgruntled flowers? Any way, this is what I thought I heard:

"Well, here she comes . . at last! And about time too! Here we stand going to seed while she fusses around with those ugly cactus, not to mention the other succulents, all week long. Nasty show-offs those cactus are too. Just when you least expect it, they pop out with the most exquisite flowers imaginable! As for the succulents, well (reluctantly) I must admit that they do look pretty colorful even when they're not in flower. Anyhow, since she likes them so much, maybe we'd better exchange her for a new Plant Slave -- one who will put us first all the time."

Came a timid voice from the back row: "Oh, I don't know. You must admit

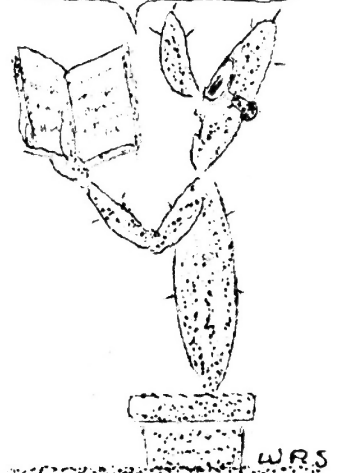
The chapter on water makes you want to reach for a sponge!



she's pretty good to us on the whole. She does give us a drink of water fairly regularly, and if she will just let us have a little of that tasty plant food she uses and remove these wilted old petals, we can soon freshen up and she can "Watch us Grow". Give her a nice smile anyway!

And they did! And I did what was required of me. Already my flower beds are perking up. I should add that my happy, carefree, cactus and succulent beds survived the ordeal remarkably well, for which I complimented them privately.

T L C ?? It must be a misprint!



I was even more impressed by the antics of my beautiful white clematis vine whose waving tendrils I had not had time to direct where

I wanted them. To my very pleasant surprise, that clever little vine had grown in precisely the right direction, and had attached itself to a hanging basket hook on the lathhouse. Need I say I was delighted to leave it that way, but, at times vines, of all plants, sometimes scare me---they are so intelligent!

PESTS---OLD AND NEW

Goeff and I were congratulating ourselves on what we felt was control of rock squirrels. We hadn't seen them for a week or so. We became too smug, we were due for a shock. I was making my morning inspection, leaving the cactus bed until last to gloat over the new growth and opening buds which particularly thrilled us. To my horror I found the front of the bed where I had planted all my special plants conspicuously erupted with many of my 'specials' covered by soil. We guessed "gophers" which previously had given us no trouble. So to the attack: We hosed down the holes and put in 'squirrel deterrent' grain. Now we wonder: Did the squirrels keep away the gophers? Sometimes it seems one can't win.

Last but not least I must mention my old arch enemy, the brown towhee which I had regarded as fat, greedy and somewhat 'nuts'. Despite every discouragement on my part, he appears to just love me!

It would seem that my banging on the window and shouting at him is just my way of expressing a friendly greeting, and his response is simply to sit on the fence bearing, which I interpret as an invitation to come out and join him.

B O O K R E V I E W

PELARGONIUMS by Derek Clifford

Helen Hegyi

With the quickening interest in Geraniaceae (the geranium family) species pelargoniums, it is most helpful to be able to refer to the book PELARGONIUMS by Derek Clifford and get positive identifications as well as other useful material.

The book is a British publication. It is the only one that has a comprehensive chapter on the species pelargoniums. The illustrations are of potted plants and they best show the skeletal forms. Unfortunately, not all plants are pictured. However, we are made aware of the intriguing possibilities the species pelargoniums have as interesting garden specimens and bonsai plants, with their chunky, thickened trunks and tuberous roots, altho the book does not alert us to this facet.

It is fun to look at the almost caudex beginnings and with some judicious training, to envision the plant at a later time.

So many names have been assigned to each of the familiar species pelargoniums that it is quite a task to wade through the text and finally pinpoint the correct name, what with divisions into genus, sub-genus, etc. This chapter of the book is a companion work to the writeup in Volume 2 of Jacobson's HANDBOOK OF SUCCULENT PLANTS under "Pelargoniums" pages 724 to 728.

Here in our Southern California climate we are very fortunate in being able to grow these plants so easily. We have hobbyist societies and good access to plants from the various pelargonium specialists but there too, sometimes one person will list the plant under one name, and another person under a different name. So, "You pays yer money and takes yer chances".

Curiously, the dealers' lists do not refer to these plants as being succulents, and they really are succulents. They have a naked (leafless) dormant season when the fat stems with the remaining stipules have stored up moisture for the dry season.

Lacking a basis for comparison, I cannot report on the balance of Derek Clifford's book. I know we have excellent books here in the states covering the beautiful flowering pelargoniums (geraniums), but have not read any....only gloried in the pictures!

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Why is the Pelargonium commonly called Geranium? In 1753 Linnaeus, who was the first botanist to successfully work out a system of binomial nomenclature based on sexual characters, described 39 species in "Species Plantarum" as Geraniums. These had been brought to Europe from South Africa a century before by Dutch traders. In 1787 the French botanist L'Heritier decided that these new plants had been classed in the wrong genus and another name should be given them. They were not characteristic of the first classified Geraniums which are hardy perennials growing in woods and shady places in the Temperate Zone.

Furthermore, the native Geraniums had five petals to the flower all the same shape and size, while the five petals of the South African plants varied; the two topmost petals were the largest and stood apart from the rest. The hybridized Pelargonium of today very often has all petals of one size, but if you look carefully some difference in shape or veination can be found.

S Y S T E M I C I N S E C T I C I D E S

In theory, the systemic insecticide is most effective. It is absorbed by the plant, either through the foilage or the roots, and all insects that eat of suck the plant are killed by the agent.

One drawback of systemic insecticides is their danger to humans, birds or pets. One of the first to be made available was called "Systox" but restrictions on its use made it unavailable to the home gardener. Probably the best available systemic insecticide today is "CYGON-2E". Precautions to be taken during its use must not be overlooked nor minimized, however.

Another drawback to the use of systemic insecticides, as indeed is also the case with other types, is their toxicity ("phytotoxicity") to certain plants or plant families. Thus, as malathion in very strong solutions is toxic to crassulae, cygon in even weak solutions is toxic to a great many plants. I found that it causes unsightly spotting and some defoliation of aloies and agaves and related plants.

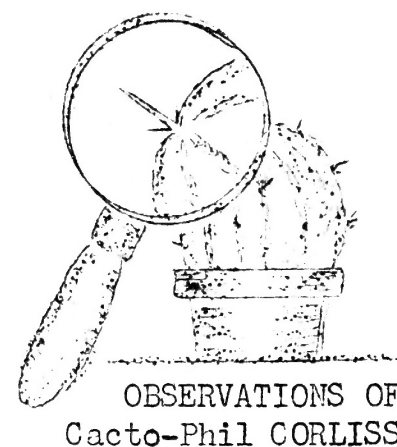
The third drawback to the use of systemics, and one which I have only recently discovered, is this: It will not become a "systemic agent" unless there is adequate absorption by foilage or roots! Cacti are not always in active growth and it does no good to irrigate their pots with a cygon solution if the roote are not active enough to absorb the insecticide. In such cases, drenching the cacti will make it effective as a contact agent but if the cactus is in a dormant condition the spines may not provide enough absorption to make the poison function as a systemic.

I learned this to my sorrow through the loss of several of my most highly prized specimen plants. One was a Mammillaria bullardiana with some fifty heads. As you know, this Man, like many other hooked-spine cacti from Mexico, makes a rather columnar growth. Its large white flowers, almost covering the plant for a long blooming period, made it a showpiece. Two years ago it had not bloomed by late in the season and I gave it an inspection. I was horrified to find it literally covered with mealy bugs. I drenched it with cygon and the mealy bugs disappeared----but the plant never bloomed again. Last year it was apparent it was dying of an internal rot. In taking it apart in the hope of saving some heads, I found that there were live mealy bugs packed between the closely-spaced columnar bodies. The cygon had killed all the mealy bugs it had contacted, but had not been sufficiently absorbed to act as a systemic agent.

It has been my feeling that mealy bugs provide entrance for fungus and virus infections in cacti and even though the mealy bugs may be eliminated, the plant succumbs. It is always a surprise, therefore, to find mealy bugs on collected plants, and I have found them from Nevada to Peru in habitat, as I am sure many of you have. I have seen mealy bugs infesting to a shocking degree some of the finest cactus collections in the world. I can only conclude that the plants survive because the lethal fungus or virus is not also present in those collections. Perhaps it is the wet climate of my garden at the beach that makes my plants so vulnerable to fungus and virus.

Incidentally, a noted garden authority (M. C. Shurtleff) has recently stated that 80% of all infectious plant diseases are caused by fungi. But that is another story. Today I am interested chiefly in warning you not to depend too much on systemic--or other type--insecticides in treating mealy bug infestations.

There is much to be said in favor of the old-fashioned method of washing them off, perhaps with the aid of some kind of brush.



P R E C O N V E N T I O N

GARDEN VISITS in 1975

VISITS to local members gardens have always been one of the more exciting preconvention features of CSSA CONVENTIONS. Since there are more cactus and succulent gardens in our area than in any comparable area, it is the plan of your Convention Coordinators H. Warren Buckner, Dr. Philip Corliss and Ye Ed to continue the visits in San Diego in 1975.

Imagine yourself, if you will, as one who is keenly interested in succulent plants and a visitor to another city. What would you enjoy more than a conducted tour to the gardens in that city?

It is believed that the best procedure will be to divide our visitors into small groups, each with a local leader, to take a group to gardens in a particular area. The total area cannot be covered in afternoon by anyone, let alone a group. Areas being considered are the BEACH AREA, SAN DIEGO AND EAST TO EL CAJON, and southward to IMPERIAL BEACH.

If your name is one of the 30 in the column on the right on page 9 of the June issue of Espinas y Flores, your garden is being considered for a visit. Betty Baker will be delighted to receive a phone call you and an invitation to write up your garden. Besides it will give you both the excuse and opportunity to groom your garden in the several months between now and May 1975. Everything and everybody benefits.

If you would like to enjoy a very favorable and special situation on May 11, 1975, call one of the numbers below and volunteer as a GUIDE! Let's prepare early for MAY 1975. Call either Bette Baker 274 7191, H. Warren Buckner 225 0249 or Ye Ed 296 6022. Let's work together for the best possible GARDEN VISITS!

C A L	E X P O	THREE GARDEN EXHIBITS	F O U R T E E N	D A Y S
Del Mar, CA		CACTUS, SUCCULENTS & GRAFTS	JUNE 21 thru	JULY 4th

SEVENTEEN advisers and workers led by Bill Nelson began in early June to landscape plots in Del Mar preparatory to collecting, inventorying, transporting, setting and naming the plants in three plots to become a part of the 'finest garden show in the land'. . .CAL EXPO. The seventeen were:

- | | | |
|---------------------|----------------|-------------------------|
| Pres. Joe BIBBEY | Nellie KENNETT | Oliver & Sophie LOYLAND |
| H. Warren BUCKNER | Geoff JOHNSONS | William NELSON |
| Evelyn CHATHAM | Ricky LATIMER | Thelma O'REILLY |
| Jean & Leta HAPEMAN | Perlso LEWIS | Mary BIRCHELL |
| the Herbert HEWITTS | Martin MOONEY | |

The plants were collected and separated into appropriate exhibits--CACTUS GARDEN, SUCCULENT GARDEN and GRAFT EXHIBIT. A special feature was a collection of hanging baskets in the succulent garden from the garden of Bill Nelson.

In order to appreciate the great effort, thought and planning required to complete the whole undertaking, or even one of the exhibits, one must have been a participant.

Rewards come to the Club in the form of prize money which goes to the Club's treasury to pay operating expenses for a period...the total this year was \$625.

Modest MODERATOR MARTIN MOONEY (June program) says: "I wish to express my very sincere thanks to all six members of the Club who took part in the panel discussion at the June meeting, and for the way each so thoughtfully responded to the subject assigned to him. Said one: "Now that was the kind of a program we ought to have more often." Amen, best ever . Ye Ed

. GREENHOUSE IN SPACE .

. U C 'Science Editor #1114 .

Everyone has heard about the Russians zeroing in on Mars assisted by a rocket-propelled greenhouse. . . eventually, that is. Who wouldn't like to 'fly' to Mars in a Greenhouse, provided he was assured of a safe return. And if one had the advantages of a greenhouse, he wouldn't care what kind of a climate or surface the red planet had, be it like the Sahara or Sonora.

One particular phase of the undertaking is what the Russian scientists call 'closed-cycle biological life-support systems'.* Another name for the same thing would be "Greenhouse in Space". Scientists shorten it even more and call it "Cosmic gardening". And we don't know what the plants are saying...yet.

Last year four Russian cosmonauts spent half a year in an underground chamber isolated remotely in Siberia. The word approaching the meaning of space in the U. S. is of course Texas, and there may be greenhouses in Texas which the Russians know nothing about, particularly if it were in the vicinity of Houston.

The Russians divided their underground spaceship into four sections, each covering 98 cubic yards. One compartment was for living quarters. Food was grown in the other three chambers with Xenon lamps displacing the sun's rays.** Two of the three chambers had an artificial climate for plant cultivation.

The third absorbed carbon dioxide breathed out by the crew and in turn gave out with oxygen from the algae. The plants grew in artificial soil or on a plastic film.*** The plants were watered by liquid waste and water vapor condensed from the plants themselves.

In addition to sufficient dehydrated food to last out the 6-month mission, every five days the Russians harvested their crops and made fresh sowings. They raised and threshed wheat, and ground it and baked bread. They also grow cucumbers, potatoes, tomatoes, onions, radishes and lettuce.

So it does take 18 months to 2½ years to make a trip to Mars, if one doesn't get off course. That's a long, hard route to take to become a short-cycle vegetarian.

*Lee, would you put that six-word biological term in simple words for our readers and Ye Ed?

**George, you could be doing some of this type of gardening at the Museum.

***Loyal Joe, we see plastic film on the ground around Chula Vista at times, is the soil down your way 'artificial' by any chance?

BEEES IN YOUR GARDEN

Are you one of those gardeners who takes a special delight in watching a bee in a flower and thinking about its life and habits back in the hive? Bees are one of a group of insects which includes ants and wasps in an insect superfamily Apoidea. There are some 20,000 species, some are solitary, some are social and some are parasitic, taking advantage of the nests of others. Doesn't that remind you of man?

A bee is characterized by enlarged feet, equipped with 'pollen baskets' which become conspicuous after the bee has visited a number of flowers and seemingly without giving his work any thought, collects both the nectar and pollen. Migratory beekeeping is an industry, each year an estimated 2,000,000 bee colonies are rented to farmers to pollinate crops such as alfalfa, fruit trees and cucumbers.

PLANT FAVORITES

Madelyn
LEE

A well-known plant plague 'favoritisima' does not exist in Madelyn's collection of plants. She eliminates it by not showing a preference. Each plant is on its own, yet there is a garden routine something like a lineup at the Marine Depot. She inspects, and they all pass inspection of course, just as that was what was expected of them. How does she do it without developing an atmosphere of favoritism. "It's simple" she says, "I like the one I'm looking at".

August
PFEIFFER

Augie has a little Grand Canyon out back where he can display and favor, or disregard and neglect any individual or group of plants. There's no such thing as the plants getting in each other's way. The routine is faultless. If any genus is his favorite, he doesn't let the plants know it. He does seem to lean toward the aloes, but he hasn't told them about it yet.

William
NELSON

If you asked Bill which plant was his favorite, you'd make more headway if you added 'epi' right after favorite. Maryland Street is 'Epi Country' and there's all kinds of different situations and appurtenances to accommodate, such as trees, limbs, fences, arbors, walls, shade and so on. Besides, Bill doesn't get involved with spines. He says 'Epis' are more responsive to training. Could you imagine anyone training any other cactus?

Nibbi
Klinefelter

As you approach Nibbi's driveway, you see a well-ordered cactus and succulent mound which shows no evidence of favoritism. It has plant harmony which harmony carries around to the back and sides of the house, even inside onto the window sills and tables. If there's a space, there's a pot and a plant to fit. It's a three-way accommodation. One is tempted to ask: "Is it an accomplishment or an art?"

Anthony
D'Attilio

Moderator Mooney was not exactly successful in pinning Tony down with an answer to 'favorite'. After you read this, we don't think you can put a tag on his favorite either. Whether or not Tony talks to his plants is beside the point but there's abundant evidence that rapport is superior. If Tony's plants only knew it (and I believe they do) they have everything. No doubt Tony says 'Goodbye' to them when he leaves for work in the morning.

Kathryn
SABO

The original vegetation on the Sabo hillside in Woodland Hills was native chaparral, typical of the California landscape. Not any more! There has been an orderly progression over the years with a replacement of species from other countries. It would appear the change has taken some 'doing'. The Chorissa from Brazil would have a quick reply to your question if you asked: "Do you know where you are?" Answer: "Brazil, of course! That's the Amazon over in the valley, isn't it?" And that 'Creeping Devil'. Did you 'creep' it up here from down there? One day you will have to open your window and say: "Bien venido, Sr. Machero. Entrar Ud. Esta Vd on su casa."

P L A N T N A M E S

It is the good fortune of Espinas y Flores readers to be afforded the opportunity of becoming more familiar with plant names. A continuing series of articles will appear in our bulletin in coming months and starting with this issue.

A special study is being made of plant names----particularly 'specific epithets' by Mary Lou Cargill of Fort Worth, Texas, one of our Club members who has volunteered to provide a list of descriptive names together with their meanings of plants commonly found in our gardens, or perhaps it would be better to say the names which come to our attention most frequently.

As the names are offered month by month, it is our plan to punch the plant name pages and supply them with special page numbers so that they may be removed from the bulletin and kept in a 3-ring notebook in alphabetical sequence. Many of our members file their copies of Espinas y Flores in a similar manner.

It is believed that the name information will be particularly valuable to our members and readers whose libraries do not include volumes supplying plant name information. It is thought that this plant name project will build into a 24-page volume of very worth while information in months to come.

Let us go to the study of plant names, particularly SPECIFIC EPITHETS.

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S P E C I F I C E P I T H E T S

Mary Lou Cargill
Fort Worth, Texas

"The term specific epithet should be explained briefly before a list of them is supplied in alphabetical order in the following continuing series. The list is selective in that it supplies names of plants which are more commonly encountered in our gardens.

The generic name of a plant may be thought of as the family surname, for example Jones or Smith. The specific epithet is a plant's descriptive name, or as one would say in the family, the given or Christian name, examples being Doug, Mary or John.

One must remember a reverse order has been established in the naming of plants, the generic (family) name appears first, followed by the specific epithet, the equivalent of the given name in a family.

A plant's second name, the specific epithet, is generally descriptive. Let us use Euphorbia ingens as an example. The generic name is of course Euphorbia and the specific epithet ingens means enormous or huge, both of which are very descriptive of the plant.

If the Jones family next door used the plant naming system in their family name and their daughter's name was Janice, their daughter would be known as Jones janice. A capital letter is not used in the second plant name.

The generic name of a plant is a noun. The specific epithet is adjectival.

It is believed that our readers, novice or pro, will enjoy and benefit from the following list of specific epithets. (Continued on page SE-2)

SPECIFIC EPITHETS, continued:

<u>Specific epithet</u>	<u>Meaning of word</u>
abnormis	unusual or irregular
abbreviatus	short of length, shortened
acantho-	spined
or -acanthus	
acaulis	stemless
acetosus	slightly acid
acidotus	sharp spines
acuelatus	prickly or stinging
acute	acutely sharp
adnatus	adhering or sticking, to grow on
adscendens	ascending
adsurgens	arising, to originate from a source
adulterinus	false, not genuine, misleading
aduncus	hooked, bent or crooked
aestuans	glowing or brightness
aggregatus	grouped or clustered
albus	white, a dead white
albideus	pertaining to a whitish color
albicornus	Elk-horned or elk's horn
aloides	aloe-like, resembling an aloe
amabilis	lovely or pleasing
ambiguus	doubtful, uncertain, without clear title
amorphus	shapeless or without shape
angulatus	angled
(or angulosus)	
angustus	narrow
annularis	shaped like a ring
apicatus	capped or crowned
apricus	of exposed places, sun-loving
aqueus	lack of color, watery
arborescens	becoming tree-like
arboreus	tree-formed, tree like or branched
arcuatus	bowed, rounded-bent
ardens	glowing or bright
arenarius	of the sand, of sandy places
areolatus	of little open places. Think of 'areole' (L. equiv to arc(a) plus ola (din))
argentous	silvery. Think of Argentina--L. argenteus, equiv. to argent(un) silver, plus -cus.
argentus	silver
.....
barbarus	foreign, exotic, rare or exclusive
barbatus	bearded or hairy
bellus	beautiful, pretty, lovely or agreeable
bi-	a Latin prefix meaning "twice"; twin or double

Walter R. Scott
3430 Wilshire Ter.
San Diego, Ca. 92104
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