

EASTER GREETINGS

ARRANGEMENT

By Mrs. Gladys Beirdneau

> Photo by Rivira

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GARDEN EXCHANGE MAGAZINE

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The Branch Representative Director's Roster will be printed again in May.

The next Board Meeting of the American Begonia Society will be held in the Los Angeles City Hall, Room 55, 7:30 p.m., Monday, April 25, 1949. Park Lower Garage south entrance on Main Street.

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THE BEGONIAN



Illustrated by R. N. Truax

Typical B. rex cultorum bloom used in illustration showing (A) pistils (B) ovary chambers of female flower (C) male bloom with fully developed stamens.

ADVENTURES IN HYBRIDIZING

by Mrs. Mary B. Choate, Hybridizing Chairman

The most powerful law of nature is governed by the reproduction of life, a vast and infinite system of division and multiplication of tiny cells that form the very heart and continuity of all creation.

It is a strange fact that the same law of heredity that applies to animal life also applies to plant life. But stranger still, that the intricate little reproductive organs of a flower in their functional program follows very closely and is quite similiar to the same organs and function of the animal body where reproduction takes place on a higher level. Which proves that every form of life is part of a great pattern that centers on the continuation of its individual species.

Most plant life offers a symbol of this pattern in its flower, which is really of the utmost importance because it contains the reproductive structure by which they propagate themselves through fertilization, that is, the union of reproductive bodies and production of seed.

Some plants are more or less independent because, at a certain stage in their development, self pollination automatically takes place. However there are many strange and interesting methods in which Nature has contrived to aid the plant in obtaining pollen for fertilization. One of the most common sources of supply is from the direct contact made by insects in their search for food. Many particles of pollen adhere to their furry little bodies and are transferred in this manner to the next flower they visit. Bees, ants, moths, butterflys and even humming birds innocently act as hybridizers and these are only a few of the able assistants in the task. Wind is also a very active agent and often transfers pollen.

Begonias are among the plants that are monoecious in their flowering habit, that is, they carry a male (staminate) and a female (pistilate) flower on the same plant. Mother nature seems to have shown marvelous forethought here, because the male flowers which usually open first are often slightly elevated above the female blooms in a more or less protective position, where actually at the right time the slightest motion would cause the little particles of pollen or germinating dust to fall on the stigma of the female flower and fertilization would take place. This is not always the rule however, as begonias are variable in their blooming habit. In most cases the female flowers predominate, while others produce about an equal amount of each, and yet others will have mostly male blooms with only a few female flowers. Some others apparently seem to be sterile. There are few begonias that bloom but do not willingly set seed and make very poor parent plants.

The flower is constructed in such a manner that each part of it has a certain function or purpose. The petals form a cover or shield for the inner sections until they are fully developed. The pistils are the little forked or twisted branches which contain the stigmatic papilae. These are used as an attachment and conveyor through which the pollen passes through the stigma or pistils into the inner section. The ovary contains the little ovules and is usually in three or four sections or chambers where

See next page

the seed is formed, matured and stored until ready for harvest containing in embryo form a new plant. The male flowers produce the clusters of stamens in the same manner and each little grain of pollen contains a growth cell capable of reproduction through unity with the ovule.

The term pollination means simply the transference of pollen grains from the male organ of a flower (the stamens) to the female organ (the pistil). This transference of pollen is necessary to bring about the production of fertile seed. When the flower is at the right stage for fertilization the stigma, or pistils are covered lightly with a sticky substance that holds any of the pollen of fertilizing dust that touches it. Once the little grain of pollen has made contact, a structural change takes places, and it begins its true function by developing into a semi-spear shape and projecting itself downward through the stamens and into the very heart of the little 'plant factory' where it comes in contact with the ovule and a unity takes place between these microscopic cells, a fertile seed is formed and the age old law of life has been fulfilled.

The term *Hybridizing* is applied when using two distinct and different plants for parentage or seed production. For instance, if B. *ricinifolia* was pollinated with B. *ricinifolia*, that would be called *pollinating*.

You would probably have all the same kind of plants and the results would be B. *ricinifolia* because this begonia produces without much variation.

However, with the case of B. *heracleifolia* crossed (x) with B. *nelumbiifolia*, the results would not be predictable because this would be a cross between two different species and the resulting plant would be a hybrid. This would be *hybridizing*.

Three branch presidents on the Recuperation list are; R. P. Minnie, Humboldt Branch, Ira Allyn, San Francisco Branch and E. O. Sherer, Santa Monica Branch. The A. B. S. extend wishes for a speedy recovery.

BEGONIAS ON TELEVISION

Begonias are right up to date, having been on Television in Philadelphia on January 12th, Station WCAU.

Mrs. Elsa Fort, President of the Philobegonia Branch of the A. B. S., gave a very comprehensive talk on the care and pests incident to raising begonias in the house. She had twelve fine begonia plants on exhibition and this enabled her to take begonias 'over the top' on the program "How Does Your Garden Grow".

As far as we know, this is the initial bow of Begonias on Television.

SUMMER IN THE SNOWSTORMS

By Winifred A. Harding, East Berry, N. H.

What do we do in New England when it rains? Why let it rain of course, even as we do when it sleets, snows and freezes for days on end. But our plants do not seem to suffer from the lack of sunshine. We feed 'em, light 'em, water 'em and spray 'em, even as you do in California. The only difference is that we do it all inside for a much longer period of time. We consider from September until early June the housing time here in New Hampshire.

We start getting ready for "June in January" away back in the previous August. Cuttings are taken, rooted, potted and left to acclimate out of doors until the first frost in September. This usually comes with the first full moon of the month. Then every day for the next month the doors and windows are left open wide to assist the plant in making the necessary changes, gradually. Early November brings the really short days with the sun leaving as early as four in the afternoon on pleasant days and much earlier on stormy ones. It stays away until seven or eight the next morning and many days with no sunshine at all. These are the days when growth must be encouraged and all gains maintained. It is very easy for plants with a tendency toward going dormant, to go completely so at this period. We combat this by turning on lights, raising the heat and humidity, and start a period of constant dietary changes. One week it is liquid cow manure, the next superphosphate, the next hormones, and lastly the trace elements, such as Hytrous and the like.

This program is maintained faithfully from the first of November until the first of March, when the candlepower of the sun begins to return to the intensity required for free, unaided plant growth. You ask 'is it worth it'? It is. We enjoyed our own poinsettias, Marjorie Gibbs, It, Saint Paulias and Semperflorens all through the house for the holidays. Beauty without price? Well who wants it that way anyway. Nothing is achieved without effort and here in New England the effort is always great, but we would not exchange with the rest of the world.

We are fortunate in heating with automatic oil burner and of having our temporary glass house connected directly with the living quarters. Our hot water is heated in a large part by the old-fashioned method of a teakettle, on the kitchen stove, so we have a constant supply of moisture floating through the air. Since last winter we have had double sash installed on the greenhouse, so our heat loss is small and the ventilating greatly aided, as one sash opens from the top on the inside and the other from the bottom on the outside. The cold air flows upward over the warm inside sash and thus no frigid sub-zero blast ever directly hits the bench.

Our water supply is from a well in the house and we have no chemicals detrimental to plant life added. We store a supply under the benches to keep it at room temperature and provide additional humidity by evaporation. We can water by the overhead method and do this at least once a month to cleanse the leaves. Personally I perfer the hand watering when the species is so varied, then I am able to look at each one and cater to it's own liking for water. I generally do this in the morning along with my breakfast which consists of a pot of coffee and a cup and saucer on the end of the bench. More often than not the coffee grows cold. Horticulture is a most obsorbing subject!

Soils and potting, in my opinion, is something that every man must decide for himself. Every locality has its own soil composition and what might be fine for New Hampshire would be of no use in Connecticut, and vice versa. Upon pain of causing a wave of controversy, I must say that I think begonias do better when underpotted. I can not agree on the necessity of plenty of root room and I offer proof in the shape of a B. rex with sixteen leaves measuring from eight to nine inches long and six to seven and one half wide, growing in a four inch pot for over six months. I have found this to be true with most B. rex and a greater percentage of bloom on B. semperflorens in the smaller pots.

As for insects, diseases and their attendent trials. We know very little about them. We follow a program of cleanliness and prevention rather than cure and remain free. Regular washing of the leaves with a force of water, clean pots, earth and benches, discarding suspests and the use of Black Leaf 40 prevents and controls.

Now for the augmented sunshine. Lights placed over the benches at four foot intervals with a forty watt bulb and an aluminum reilector does it. In the living-room I use a floor lamp over the table. Try it and see the difference in just one week. The amount of expense involved is minor compared to the sale possible from earlier blooms, or even just the added beauty in the home is worth the cost. These lights are used from 4 p.m. until 10 p.m. every day until March 1st.

Speaking of housing plants in the livingroom, I might as well mention the dining-room, the kitchen, the pantry and our bedroom. To date the bathroom is the only exception and I am considering putting the ivies in there. You see we have ninety-three varieties of begonies alone, plus ferns, callas, one-hundred and ten African Violets, heaven knows how many gloxinias, clivias, poinsettias, kalanchoes, ivies, oxalis, cyclamen, coleus, Easter Lilies, hyacinths, narcissi, amaryallis, Primula *obconica* and geraniums. This does not include the seedlings or the Regal Lily scales that are propagating. We certainly are not typed, are we? Of course the only answer at this rate, is more glass, and we plan to have that in the spring. But I really doubt if that will be the answer. I want some orchids, gerberas, snaps, and mums for winter bouquets and corsages!

You ask what we do when it rains and snows in New England. Of course *we let it!* We don't have time to stop it if we could.



Photo by Bill Bayer

BEGONIA NIGGER TREE by Mrs. Grace L. Bayer

The Nigger Tree is a rex hybrid and has beautiful medium sized leaves, shading from green to purple. As the leaves mature, they become much darker.

The plant is a very vigorous grower, and is especially desirable as a background plant, because it grows to a height of six feet.

It may also be grown as a pot specimen when it is kept pinched back. Propagation may be from leaf divisions or stem cuttings. It prefers the usual rex begonia soil-mix rich, loose and *well drained*.

B. r.c. nigger tree was hybridized by Leslie Woodriff of Harbor, Oregon.

HOW TO CARE FOR YOUR EASTER PLANTS

by Charles H. Jeffress of Flowerlane, Los Angeles, Calif.

Throughout the country this Easter, hundreds of thousands of beautiful flowering potted plants will be given to milady as a token of thoughtfulness or affection.

Probably two weeks after Easter, eighty five per cent of the plants will adorn the trash piles, due to improper care. This is an appalling waste.

Since most holiday florists' plants are 'forced' to bring them into bloom earlier than their nature intended, one must give them an atmosphere as near to that in which they have been growing, if one expects to maintain the beautiful foliage and flowers in tip-top condition.

When first receiving a potted plant with pretty paper decorations around the pot, puncture a hole in the paper near the drainage hole in the bottom of the pot, to insure correct drainage.

They should be kept well watered, have good drainage and kept fairly cool.

The most popular plant purchased is the traditional *Easter lily*. Care for it as recommended and after the bloom has faded, knock it out of the pot, loosen the roots and plant directly in the garden. These bulbs will often grow and flower in the garden, but will seldom come back sufficiently to be specimen pot plants again.

The *azalea* is also a favorite. They are often grown in straight peat moss and this should be kept moist at all times, with good drainage. When they start to shed their leaves and have lost their blooms, plant in a sheltered spot with peat moss and leaf mold as the surrounding soil requisites. The potted plant may be sunk in the ground to the depth of the top of the pot providing sand has been placed under the pot for adequate drainage.

The *tulips* you receive will probably be planted in almost straight sand and again, adequate drainage must be assured. Tulips are a cold climate (loving) plant and after the blooms have faded, should be knocked out of the pot and planted directly in the garden so that they may store up food for next year's blooms. Tulips rot easily if they are not set on a cushion of sand.

The *primroses* and *cinerarias* are plants that require *steady moisture*. They will not tolerate being dry. After the blooms have faded, plant in the shaded garden area and they will often reseed themselves.

The cyclamen is an all time favorite with the florist and they may be obtained in many brilliant colors as well as white. Cyclamen prefer cool places and watering must be watched, so the bulb does not rot. They must have plenty of light (but not direct sunlight) as the light brings the flowers up above the foliage. If and when the leaves turn yellow, place out doors in a sheltered spot and the leaves will again become a lovely green with a definite red appearing, which will not appear as long as it is indoors.

The Saintpaulia or African violets are a great favorite and the best flowering plant for indoor culture. I have found they prefer a light airy position and like to be left alone and not moved. Moving them causes the flowers to drop. Watering with tepid water from the bottom, is found to be the best method.

The *rhododendrons* like shade and a cool, bright exposure.

You will notice I have not mentioned acid food on azaleas or rhododendrons. I do not believe in using acid foods as a corrective measure. I believe the soil should be prepared to an acid state *before* planting.

The *clivia* is a beautiful plant not only in bloom, but the red seed pods that develop after the blossoms have faded are very decorative. This plant is very sensitive to poor drainage and a light sprinkling of charcoal is recommended on the surface of the soil. As it takes approximately five years before a clivia blooms, care should be given the plant and encouraged to grow as a potted specimen, as good drainage can better be controlled.

AN EXPERIENCE WITH SEEDS

A recent letter from Mrs. A. B. Smith of Lincoln, Nebraska to Roy D. King of El Monte, California, might prove of interest to members who are attempting new plants from seeds. Mrs. Smith writes that she planted seed in two flats and "had an electric cable so had bottom heat on my little greenhouse benches-after a week or two some started to show their faces and soon the flats were full. I started picking them out in very small pieces, picking these pieces apart and planting singly about one inch apart. By now I had 22 flats and 2,085 plants but about the time I had these all planted the first had outgrown their living quarters and needed a new home. My brother made more flats and I started to work transplanting-this time I had 2,157 but do not know how many I lost in transplantingthe count was accurate for I had them in rows, so many rows to a flat. Next, I set them outdoors-1300 of them-also 250 of them in 21/2" pots but 32 flats and a few smaller boxes remain. They seem to be semperflorens,

See next page

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altho there are several varieties. If I had more room I would have put them outside but we only have a space 100 x 100 feet and I have other things planted." Mrs. Smith says that she protected from hot sun and dashing rain by sewing potato sacks together and making a drop curtain of them, giving the plants early morning sun, protection during the heat of the day with the sacks, trees and shrubbery shading them during the late afternoon. They were full of bloom and lovely-"there is one deep pink one so full of bloom you can scarcely see the leaves which are small. I am watching those in flats to see if there is anything different among them and I have picked out one B. Popenoei-I have a flat of those from the Seed Eund."

Mrs. Smith begged Mr. King to advise her what to do with her plants during the winter and, if we can believe the weather reports from her part of the country, it would be interesting to know if any suvived and appeared again.

-G. C. N.

BEGONIA DREGEI

by Sylvia Leatherman, El Monte, Calif. Originating in South Africa and growing at a natural habitat of 4000 feet, we have a very delicate and attractive begonia, known as B. dregei. It can be temperamental, like people, and many claim they find it hard to grow. It likes warmth, a minimum of sunshine but good light, high humidity and resents being soggy Good drainage and a porous soil are wet. therefore essential. During hot weather, if humidity is low, it will many times drop its leaves and joints until you have a dormant plant. By foggy spraying and keeping humidity up we have successfully kept this begonia with foliage the year around. It is semi-tuberous and the tuber grows larger as the plant ages. It is best during the winter months if kept warm enough.

Potting soil for this begonia varies according to location. We have found one half oak leafmold, one half sandy loam and one quart of well rotted steer manure to three gallons of potting soil to have been our best growing medium. The use of superphosphate and Humisite, in proportions stated in previous articles, have improved our plants.

Propagation is from cuttings and seeds. Spring cuttings seem to be strongest and we have found a very short cutting is most apt to strike. A three inch tip cutting, removed just below the eye (leaf node), with large leaves removed, inserted in the rooting medium with only about one inch of cutting remaining above the rooting medium, has been most suc-

cessful for us. For true seeds of this plant keep well away from other semi-tuberous varieties such as B. *weltoniensis rosea*, *McBethii*, *Richardsiana*, etc., as these cross-pollenize very readily.

Many people grow plants under the name of B. dregei that are not the true B. dregei species. These plants are B. dregei seedlings. There are some very worthwhile dregei seedlings on the market. They are hardier and much easier to grow, though the seedling. I have come in contact with, lack the coloring of the true B. dregei. The true B. dregei is very scarce and



Photo courtesy of Helen K. Krauss Begonia Dregei

has a bronzy foliage, leaves small and deeply serrated with a red spot on the leaf at the stem junction. The leaf is a bronzy green with faint purple veinings on top and some have faint white spots. The underside is red. It is a bushy, well-branched plant growing about two feet tall. The white flowers are in terminal clusters and it is a profuse bloomer. It has been a favorite parent plant for hybridizers, being a good seed parent. Many are using this plant for crossing with rex begonias to attain miniature rex begonias. With possession of this plant, a willingness to have an abundance of patience and a good imagination, one can have a very fascinating experience by doing some of their own hybridizing. It is a challenge to all begonia growers.

Begonia books by Worth A. Brown (\$2.75) Bessie R. Buxton (\$2.25) Helen K. Krauss (\$4.00) are available through the Librarian.

CARD INDEXING, A HOBBY WITHIN A HOBBY

by Jay C. Jenks, Los Angeles, Calif.

How often have you tried to remember what some one told you about one of your plants and you just could not remember? Or you have a plant that turned out all right but you forgot where you got it? Let's see now, what is it's name . . . what is the latest information as to its correct name?

All this confusion in the pursuance of Growing Begonias and Shade Plants, or any other plants in your garden, can be eliminated by recording the information on pieces of cardboard 6×4 or 3×5 inches.

The simplest way and a good way to start is to number your plants and on the card under this number, write down the following:

	Plant Name No
i	Received from
i li	Remarks

Here, you may keep the life history of that particular plant, such as culture, flowering period, dormant period, etc.

After trying this simple method for about six months you will find that you want information about plants that appeal to you but are not in your own garden. So you will set up another system of cards to record descriptions found in the *Begonian*, begonia books, magazines, etc. For this, a card could be arranged similar to this:

Plant name Description

The description should be 'short and sweet', for instance like those in the *Begonian*, Vol. 14, No. 8, Page 159; and Vol. 15, No. 7, page 146.

Now you are "getting worked up to it"! You will want to record more information . . . you are becoming more technical, so to speak. So a card arrangement like this would be in order:

Plant na				0
Variety .				
1 ype	S	1ze	Ro	ot
Leaf				
Flower				
Remarks				

It is advisable to state where the information was obtained. For example: (from the Begonia, Vol. 17, No. 8) or (by Helen K. Krauss) or (from the Flower Grower) etc. Sometimes you will have three or four references about the plant on the card. You may check back in this way or tell your friends where you obtained the information.

By this time . . . it's got you! You have a Hobby within a Hobby. And in addition, you have learned a great deal more about your original hobby . . . "The Growing of Begonias".

You may have numerous specimens of material available to continue your card-indexing hobby. You could index your *Begonians* with references as to names, culture, construction, feature articles, illustrations, descriptions, etc. Try card-indexing all the begonias listed in Bailey's *Cyclopedia of Horticulture*, Mrs. Buxton's two books "*Begonias and How to Grow Them*", and Mrs. Krauss' book "*Begonias for American Homes and Gardens*".

This writer's Double Hobby for the past five or six years has resulted in two card files full of various indexing endeavors with over two thousand cards.

If time permits, one will go after other publications and sources of information to get their 'version'.

One thought to remember, as you progress with your indexing, do not throw away your original cards. You may have some information that no one else has and it may be of use.



Photo by Rivira

BEGONIAS USED AS CUT FLOWERS by Mrs. Gladys Beirdneau, Glendale, Calif.

The desirability and usefulness of begonias as cut flowers is often overlooked. They do not wilt readily and their lush foliage creates a tropical impression.

The arrangement was made by stapling a pleated row of two and a half inch wide ribbon

See next page



SUMMERING BEGONIAS IN KANSAS

by Lorraine and Edward Wimmer, Manhattan, Kansas

Several years ago, we augmented our collection of a half-dozen common begonias by an order from Leslie Woodriff. The arrival of these in the late spring, at once created a problem. How were we going to care for these begonias which to us, were rare, during the hot summer months? The north light of a screened in porch which faced north proved satisfactory during the early summer, but when Old Sol "poured on the heat" in late July and August, there just wasn't enough air circulation, so we decided to move the begonias outside, under the shelter of the north side of the porch, among

around the edge of a heavy cardboard mat. A narrow strip of ribbon was stretched over this edge (to cover the staples and give a finished line) and were stapled in each corner. The endswere left loose, enabling a spray of the Begonia Mrs. W. A. Wallow to be tied in each of the three corners. The fourth corner holds the (cover picture) B. rosea gigantea and B. Thurstonii as background for the Easter bunny. B. Thurstonii is also seen in the foreground with the chick figurine.

An arrangement of this type may be made, using an appropriate figure for any current holiday arrangement and may be used as a dining table, coffee table or buffet decoration.

After the begonias from Mrs. Isabel Mullen's garden served their purpose in the arrangement, they were placed in my favorite rooting medium where they will take root and in this way will grow to be of use all over again!

the large leaves of Hosta (Funkia) and in the shade of the eaves along the rest of the north side of the house.

This proved adequate for the dozen-and-ahalf or so of begonias which were our pride and joy the first summer. Before we left on a vacation of several weeks, we arranged sphagnum moss around the pots to retain moisture. The pots were placed on about a half-inch layer of sand to insure good drainage. We realized that while we were gone the begonias might not receive any water, so to provide some for at least part of the time, we placed large porous clay pots among the plants. These pots had the hole plugged with some caulking compound, and were filled with water. A thin film of oil was placed on the surface. This would not only prevent evaporation of water but would also prevent mosquitos from setting up house-keeping. The water could be lost only by diffusion through the pot to the surrounding sphagnum and soil. We could have used gallon sized tin cans with a hole punched in the bottom. On our return we found all the begonias in good condition. The watering-pots were filled to the top with water by a good rain which fell a few days before our arrival.

By the time another summer had rolled around, our collection had almost trebled and our problem was correspondingly more acute than it had been the first summer. In addition to the tougher members of the begonia tribe, we had acquired a dozen tuberous begonias and

Turn to next page

with a good deal of apprehension, a few rexes. We decided to enlarge the begonia area to the north of the porch by extending it out about three feet. This meant exposing a large portion of the plants to the glare of the sun. To remedy this, we simply placed an old screen door on four supports at a height of about four feet in front and five feet in the back so as to tilt the door to permit run-off of rain. On sunny days an old curtain was thrown over the screen to provide more shade. There was sufficient aeration through the screen, yet it broke the force of heavy rains which would have broken foliage and stems of the tuberous begonias. It is dry here for long spells, but when it does rain we are apt to get a two, to a five inch rain, in the course of a few hours. Such a rain wrecks havoc with tender-stemmed begonias and sufficient overhead protection must be provided for them.

To conserve moisture lost by air movement under the screen cover, a nine-inch wall of porous bricks was placed around the area. This cut off enough air movement over the pots to improve the humidity materially. Spraying the plants and the brick wall several times a day during hot, dry spells enabled the begonias to remain healthy all summer.

Our vacation arrangement was similar to that of the previous summer and proved satisfactory.

Let it not be thought that our begonia adventures were without mishap. Beautiful *Cathayana* was purchased and promptly began to sulk in the unfriendly Kansas climate, and eventually it ceased to cooperate entirely. Others like Luxurians and some Rexes, were of like "mind", and did not stay with us for long. But the fault was ours, for we had not at that time learned how little water is *too little*, or how much is *too much*. Then there was the matter or aeration. We had not learned that warm, humid, stagnant air is deadly to begonias.

By the time of the approach of a third summer, our collection of begonias had outgrown the available space and a lath-house was the only solution. Before the season had advanced, a seven by nine foot lath-house against the north side of the house and just outside the kitchen door was ready to accommodate our growing family of begonias. The floor was of used paving bricks placed on a layer of sand and the space between bricks was filled with sand. This holds the water and maintains moisture. On the three closed sides, the entrance is on the west, a shelf twelve inches wide was placed on orange crates set vertically. The dividing shelf of the crates provided a storage space for pots, tools, etc. All the wood was treated with a wood preservative and stained with brown shingle-stain. Somewhere

we thought we had read that the laths should be spaced the width of a lath apart. We found that this allowed too much sunlight to pass through. The leaves of the begonias bleached out in a very short time. This we corrected by making a temporary cover which was easily hung under the lath roof and could be removed on cloudy days or when the sun was not too strong. The cover consisted of several ordinary feed bags, dyed green and sewed together. Later we placed half-inch wood strips between the laths, which left a space of about a half-inch between laths and strips. This has proved to be just about right.

An area eighteen inches wide under the shelves, was enclosed by a row of bricks, and filled to a depth of two inches with sand. Vermiculite or peat moss could be substitued for the sand. The potted Rex and other begonias which like moisture were plunged into the sand. Here the begonias are at home. When we leave for a vacation of two or three weeks, any begonias kept on the porch are placed in sand on the floor of the lath-house and arrangements are made with a friend to water the plants with spray from the hose about every other day during the periods when there has been no rain. We have not lost any of the begonias by this method.

This will be the third summer we will be using the lath-house. It is quite crowded and bids to be too small come another year. The screen-door over the tuberous begonias and B. evansiana plants along the north side of the porch has been replaced by a removable lath covering. Periodically all of the plants are sprayed with insecticide and fungicide to control pests. Pill bugs (sow bugs) were a nuisance and also a pest under the favorable moisture conditions, until we scattered hexachlorbenzine powder on the floor and among the plants. This powder is poisonous and quite odorous, but one soon gets used to it and it does kill the pill bugs. We would not advise it's use inside the house and care must be taken lest it scorch the leaves.

On scorching, dry days, we can step outside the kitchen door into the cool shade of the lath house. Here the lush foliage in its wide variety of color and pattern, broken by the trusses of red, pink, and white blooms, gives us a feeling of being in the semi-shade of a tropical jungle which is the home of many begonias. The heat of the Kansas sun is forgotten and many of our cares as well. You may wonder what we do with all the begonias that summer in the lathhouse when they are threatened by Jack Frost but that is another story.

You will find a greater interest in begonia growing if you keep them well labeled.

GROWING BEGONIAS WITH COLORADO RIVER WATER

by Harold E. Pearson, Agricultural Chemist Metropolitan Water District of Southern Calif.

The tendency of irrigation waters to gradually change the pH of soils from a slightly acid to an alkaline reaction is recognized by most begonia fanciers. Considerable confusion exists, however, in the minds of many growers concerning the possibility of increasing the soluble salt content of the soil through the unwise use of irrigation water. Before attempting to suggest methods for growing begonias with Colorado Aqueduct water, a discussion of these



Photo courtesy of Helen K. Krauss

BEGONIA REICHENHEIMI

This begonia was developed near the turn of the century, in Germany, and is believed to have B. *heracleifolia* as one of its parents.

At first glance it is similiar to a few of the other 'star begonias', but after examining it more closely, one finds the very beautiful markings which set it apart from the others.

It is a rhizomatus begonia, having palmatelylobed leaves with reddish-brown areas along the veins. The flowers are borne on tall stems, well above the foliage and are a beautiful, bright pink. This B. *reichanheimi* is worth cultivating for its foliage alone and is an addition to any collection.

D.S.B.

If you like the Begonian, give it to a gardener friend as a birthday present or purely as a gesture of friendship. effects of water quality on begonia culture may be helpful.

Optimum growth of begonias is usually obtained by adjusting cultural conditions to stimulate the native habitat of the plant because in the process of natural selection for many generations a plant becomes adapted to certain conditions of temperature, humidity, light, and soil fertility. It is not surprising therefore that the plant may be adversely affected by a sudden change of some environmental factor. Begonias normally grow in well-drained soils where high rainfall makes for marked leaching and low salt content in the growing medium. That they would have developed through natural selection a tolerance of salinity seems improbable.

This may be illustrated by the known sensitivity of begonias to heavy fertilization. Perhaps every begonia grower has learned from experience that frequent small fertilizer applications are better than infrequent, large ones. The burning and dropping of foliage from an overfertilized plant may be due to one or more of the following effects: (1) the reduction of water intake by the plant because of the high concentration of soluble fertilizer salts, (2) excessive absorption of the fertilizer elements or (3)unfavorable effects on the absorption of other elements. The remedy is to flush out the excess fertilizer with plenty of irrigation water. Salinity caused by some accumulation of soluble salts from an irrigation water causes the same kind of distress symptoms observed for overfertilized plants. The principal difference is in the time required for the appearance of the condition. Overfertilization causes an immediate plant response, but since the amount of soluble salts in irrigation waters is usually too small to cause direct injury to the plant considerable time may elapse before the accumulation of salts in the soil becomes sufficient to affect the plant.

To prevent an undue accumulation of soluble mineral salts, the soil must be leached to remove them from the root zone of the plant. The time for leaching is less obvious, however, than in the case of overfertilization, and it will depend on the amount of soluble minerals in the irrigation water. With some local supplies containing 300-400 parts per million of dissolved salts, rather haphazard watering methods provide occasional leaching which goes on unnoticed by the grower. With the Colorado River supply containing about 700 p.p.m. of total salines, a planned leaching program is desirable. Approximately 5 to 10 percent by volume of drainage water should drip through the bottom of the pot to prevent an accumulation of these

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salts. Some may prefer to accomplish this leaching periodically rather than continuously. In that case a heavy flushing with extra irrigation water every six to eight weeks is desirable for potted plants. Before digressing into "Do" and "Don't" suggestions extensively let us continue with the reasons for them.

When a drying wind comes along, begonia leaves may wilt even though the soil is wet. This means that the rate of water uptake by the roots is insufficient to meet the needs of the plant. This weakness of the root system is normally overcome by sprinkling the foliage or maintaining a high humidity by other devices. If the concentration of soluble fertilizer salts or those accumulated from the irrigation water is high, the roots must expend more energy in the process of absorbing water. This means that less water is taken into the plant and it decreases its leaf surface by drying of the margins or by dropping leaves to adjust itself to the situation. Since the concentration of salts in the pot is seldom uniform there may be some points where the roots themselves dry up because of their inability to absorb water. This in turn throws a greater amount of work on the remaining portion of the root system until leaching takes place and new roots grow.

The ability of plants to absorb the minerals needed for their nutrition is quite selective, but plant species show this ability in varying degree. Some plants will absorb more of certain minerals than can be properly utilized. We might make a comparison of the nutrient absorption of plants with the eating habits of people. If a choice of foods is available certain plants, like people, will select those needed to keep them vigorous and healthy. Some plants, like people, suffer from malnutrition because of the meager diet provided. Other plants may take too much of certain foods and thus make themselves sick like the boy who ate so much cherry pie for supper that he was sick during the night but asked for more pie at breakfast failing to realize the cause of his indigestion. The lack of previous experience with a new environmental factor may account for this behavior of plants or people.

If given too much nitrogen or potassium in a fertilizer, the begonia may injure itself by absorbing more than it can use readily. In the same way experiments have shown that the chloride ion is readily absorbed by begonias when the amount in the soil increases. Sodium too is not as easily excluded from the begonia as it is by many other plants. Like the boy with the pie, the begonia has not learned to exclude certain minerals from its diet despite the fact that they may retard its growth.

The begonia does not tend to "overindulge" in its absorption of sulpate, phosphate, magnesium, and calcium ions, but these elements may exert some influence on water uptake if the soil contains large amounts. It is well to remember that *small* quantities of these elements are nontoxic to begonias, and are utalized by the plant. For example, sodium is a substitute for potassium in some of its functions. The sulfur in the sulfate ion is used to build plant proteins, and the chloride ion in small amounts may assist in the absorption of calcium, magnesium, and potassium. All of these elements occur in the manure mixed into the compost.



The principal chemical constituents found in Colorado River water are shown in Figure 1. The essence of successful begonia culture with either the natural or softened water is to prevent an excessive accumulation of the sodium, sulfate, and chloride ions in the soil as the water is lost by evaporation and transpiration.

In addition to the possibility of certain minerals being absorbed from saline soils, the presence of sodium salts may decease the availability of calcium and magnesium to the After leaching the soil several times plant. with softened Colorado River water in which the calcium and magnesium are reduced and replaced with sodium, it may be necessary to supply the soil with more of these two elements essential to plant growth. This can be accomplished by working a small amount of gypsum, bone meal, or superphosphate into the surface soil. At the time of shifting plants to larger containers, these materials can be add-See next page ed to the potting mixture. In San Diego county, where the unsoftened Colorado River water is used, the water contains sufficient calcium sulfate to eliminate the need for this treatment.

With these principles clearly in mind, some additional practical suggestions to obtain good growth are in order. The soil mixture must have good drainage characteristics in order that the soil may be leached occasionally. The use of liberal amounts of peat, leaf mold, or bean straw will assist greatly in improving the soil mixture for this purpose. One part of good acid peat to 2 or 3 parts of leaf mold or loam soil will help with drainage and will also maintain an acid condition in the mixture for a long time. Because of the overemphasis on control of alkalinity by most growers and their neglect of the drainage and leaching process, no lengthy discussion of ways of maintaining acidity will be presented. The writer feels that adequate amounts of organic matter and the sparing use of sulfur is sufficient to control this factor.

Watering methods influence the rate of saline accumulations in the soil. It is better to water plants thoroughly every few days as they need it rather than to sprinkle the soil lightly every day. However, never allow the soil to dry to the extent that distress to the plant is caused from lack of moisture. Light sprinkling hastens the accumulation of salts in the soil because no water drips through the bottom of the pot. Sprinkling of Rex begonia leaves with Colorado River water tends to induce burning of the margins. By watering the soil without wetting the leaves except occasionally this burning can be made negligible. Where plants are grown in a lathhouse a high humidity can be produced by spraying the walkways, benches, and walls with a hose or by means of air conditioning spravers. By maintaining a high humidity plants do not need to be watered as frequently.

Frequent leaching to prevent accumulations of minerals from Colorado River water requires more frequent fertilization if soluble fertilizers are used because the nitrate nitrogen is also readily leached. Fertility can be maintained more easily by using the slowly soluble organics under this regime of watering; these include cottonseed meal, fishmeal, and bone meal.

Experiments have shown that the tuberous and fibrous begonias can be grown more easily with Colorado River water than the Rex begonias. Such differences in the tolerance of related species and varieties have been found for agricultural as well as ornamental plants. The grower desirous of keeping representatives of all types of begonias in this lathhouse might collect rainwater for irrigating his Rex plants and use the aqueduct water on the other types which tolerate greater accumulations of the minerals contained in the water.

Growers interested in more detailed recommendations for growing begonias with aqueduct water may write for a printed leaflet, available without charge, entitled "Suggestions for Growing Acid-Loving Plants with Colorado River Aqueduct Water' issued by the Metropolitan Water District, 306 West Third, Los Angeles 13, California.



Roy K. Dere's Exhibit

MEMBERSHIP BOOTH

The A. B. S. booth at the Spring Flower Show in Pasadena was extremely popular. Roy K. Dere had an educational display, showing many methods of propagating begonias, which proved to be very interesting to the large attendance this Flower Show attracts each year. Members from El Monte, Inglewood, Foothill, Glendale, Pasadena and San Gabriel Branches volunteered their time in helping make this Membership booth highly successful.

SEED FUND NEWS FOR APRIL

What a beautiful spring this is after the long cold winter and how we welcome it! Plants in my glasshouse are being moved to the lath house to make room for seed planting, and now the fun begins for me. There is no hobby more interesting than watching tiny specks of seeds grow into plants for my garden. My ferns are doing fine, they are ready for transplanting from the glass jars to flats and so on to the ground in the lath house. All of my begonias which weren't moved to the glasshouse for the winter are gone, but by summertime I shall have nice young begonia seedlings to fill the vacant spaces.

See next page

The Achimene bulbs have not arrived from Mexico but they should be here soon. We have just received another shipment of seeds from our member in So. Africa. Proceeds from the sale of these sends will be sent to the collector. We are hoping he will soon have Begonia and Strelitzia seeds for us. Will those who were disappointed in not getting B. cathcartii seeds please write for them now? A new lot of India Begonia species seeds have just arrived. We can still offer 20 packets of Begonia seeds for \$2—all choice kinds. This is your Seed Fund, we want to please you. Let us help you with your seed wants. The following new seed just received:

Fancy English hybrid tuberous begonia seed \$1, mixed tuberous begonia seed 25c, B. Bhotan scented x tuberous hybrid 25c, B. Cathcartii 25c. Mixed India begonia seed 25c, new Mexico species No. 1494 25c. Gloxinia Tigrida, Gesneria cardinalis, Gesneria umbellata at 25c each packet. Incarvellea delavayi 15c. New mixed fern spores, lg. packet 25c.

These from So. Africa—Leucospermum Patersonii (pincushion shrub of Protea family) Protea Cynaroides, Dwarf Protea (low shrub with peculiar pineapple like pink flowers) Satyrium ceriifolium (terrestial orchids, orange flowers in long spikes), Dilatris Berg, (shrubyellow flowers), Watsonia Arendsii (pink flowers), Hemitalia capensis (tree fern) Aloe ferrox (flowers deep red of candelabra type), Streptocarpus multiflorus. The So. Africa seeds are 20c per packet.

Take good care of those baby begonia seedlings and grow some nice plants for our next convention. Best wishes to all my friends.

> Your skipper, Florence Carrell

SHELTERED GARDEN BOOK REVIEWS

TUBEROUS - ROOTED BEGONIAS. By George Otten. Second Edition, 1947. Published by A. T. De La Mare Co., Inc., N. Y., \$2.00.

Into this little book of 88 pages are condensed the results of more than sixty years spent by the author in the cultivation of tuberous-rooted begonias. His treatment of the subject is extremely practical and no one should have any difficulty in following the clear, stepby-step directions given for the care and propagation of the plants in all stages of growth, from the planting of the seed to the storing of the tubers during the winter. There are also excellent chapters on hybridizing, classification of varieties, use of tuberous begonias for table decorations, questions and answers, and a good index. Good illustrations add to the value of the book.

Frank H. Overton

A. B. S. LIBRARY

The new Librarian has "the situation well in hand", having catalogued the books and would be glad to mail a list of books available to any member sending a self addressed, stamped envelope. We are hoping to add more begonia literature to the library for distribution among A. B. S. members. Unfortunately books, magazines or pamphlets are often discarded which contain articles of value that could be added to the begonia scrapbooks. I will gladly refund the postage required to obtain such literature.

Many begonia devotees are tuberous begonia conscious at this time of year and your Librarian would like to call your attention to the many fine books on their culture. These are available on loan to members, on request:

Tuberous Begonias-Worth Brown.

Tuberous Rooted Begonias and Their Culture—George Otten.

Pamphlets

How to Grow Tuberous Begonias—Cecil Solly.

How to Grow Tuberous Begonias-Norvell-Gillespie.

A. B. S. Special Bulletin on

Tuberous Begonias Their Propagation and Culture—H. Dyckman.

Stem Rot of Tuberous Begonias (bulletin)— J. T. Middleton.

Gladys C. Nolan, Librarian

COLORFUL ANNUALS FOR SHADE GARDEN INTERPLANTING

schizanthus—(sky-zan'-thus) Plant these seedling plants in the sides of your hanging baskets, using a wooden dowel (holding it at an upright angle) to force a hole in the sphagnum moss and soil. These flowers are in the pastel shades and contrast beautifully with fuchsias, ivy and loydii type begonia baskets. Pinchr out the ends of the branches after they have developed three eyes (nodes) to make them branch out well.

achimenes—(ah-kim'-e-neez) is a member of the gesneria family and grow from small tubers. They will need a high humidity to thrive. Hot, dry air not only discourages them, it dries them up.

mimulas—(mim'-u-lus) The annual variety commonly called Monkey-flower. They have oddly shaped two-lipped flowers of brilliant yellow, flesh, crimson, maroon and white. With these colors in mind it is wise to know the color of the flowers you are to plant them with. They grow in the open shaded garden and are beautiful interplanted with the helxine (baby tear) moss. The moss should be taken away from the main stem occasionally to keep it from being smoothered.—D.S.B.

IT HAS BEEN SAID

A pen staff with a good stiff pen point is good for removing your seedlings from the seed pans. It makes an excellent trowel for tiny plants.

If you have not ordered your supply of tuberous begonia tubers, do so at once. March is the last practical month for California and Florida to start tubers. April is the latest for the rest of the U. S.

Give plenty of room to the tubers if started in flats or plant directly in eight inch pots. Do not plant too deep. If fertilizer is used, place in the lower part of pot. Do not over water. Give more water when growing well.

Too much water will lower temperature and encourage rot on tubers.

April is a good month to prune fuchsias. Fuchsias bloom on new growth, so do not spare the shears.

A wet soggy soil or extremely dry air often causes begonias to drop their leaves.

A sudden change from a cool moist atmosphere to a hot dry atmosphere, will often cause begonias to drop their leaves.

A very dry soil kills the feeder roots. Too much constant moisture will rot the roots.

Seedlings and seedling transplants want a 'lean soil', in other words, no animal fertilizer, rich compost or strong commercial fertilizer.

It is natural for rex begonias to go dormant in winter. They are tropical plants and do not like low temperatures.

All material intended for publication in the *BEGONIAN* must be sent directly to the Editor, and in her hands not later than the 10th of the month. *Condensed* Branch Reports are solicited.

We have loyal members in the A. B. S. and loyal advertisers in the *BEGONIAN*. Why not get together?

CALLA LILIES

•••••	
C. Aethiopica-Large W C. Black-Maroon C. Pearl of Stutsgard- 6 ft. white C. Albo-Maculata-Whit Purple Center	No. 1 Collection 2 Small Bulbs of each
C. Devoiensis—Fragrant white midget C. Arum Italica—Straw y C. Elliottiana—Orange y C. Minor Fragrant Dwar	ellow of each
C. Jessie Mae–New Wh C. Godefroyana–Dainty C. Gem–Burbanks white Dwarf C. Rehmannii–Pink	White a company
A. A. LO	NGMIRE
Rt. 1, Box 36	Carpenteria, Calif.

WELCOME TO OREGON'S FIRST BRANCH

To Salem goes the distinction of organizing the first Branch of the American Begonia Society in the State of Oregon. We are justly proud to announce that at the February meeting of the National Board the Constitution and By-Laws of the Salem Oregon Branch was voted upon and accepted.

Drawing their membership from a large area the Salem Branch can well boast of their seventy active and sixteen associate charter members.

Their first meeting was held in the local Y.M.C.A. January 6th. The meeting was attended by seventy Begonia enthusiasts, fortyseven of those present signed up for member-The neighboring town of Gresham, ship. Dallas, McMinnville, Fall City as well as the city of Portland were well represented. The Branch organizer, Andrew Clark, presided, assisted by Mrs. John Fletcher. After a short business meeting begonia slides loaned by Victor Cerriale of Santa Barbara were shown. Sample copies of the Begonian were distributed and twenty five packets of species and hybrid begonia seeds donated by Public Relations, were divided among the group. Refreshments were served and the evening spent in "getting acquainted".

The February meeting held the first Thursday of the month drew eighty five interested begonia growers. The Constitution and By-Laws of the Branch was presented and adopted by the group, and officers were elected. Seedlings grown since the January meeting were transplanted and a discussion on seed-growing followed. Begonias and ferns were on display. A series of colored Slides from the A. B. S. Slide Library were shown.

The following officers were elected:

Pres, Andrew M. Clark, 3225 "D" Street.

Vice-Pres., Mrs. John Fletcher, 700 Stewart St. $\sqrt[5]{2}$

Secy., Miss Ellen Quail, 202 East Rural Ave. Treas., E. C. Hamilton, Rt. 1, Box 208.

National Dir., Dr. E. L. Brunk, 1321 North 21st Street.

Branch Dir., Mrs. C. S. McCollam, 1225 North 19th Street and Mr. L. T. Holler, Rt. 2, Box 32D.

All of Salem, Oregon.

Officers and members of the A. B. S. extend their greetings and a warm welcome to the President, officers and members of the Salem Branch, and assure this large and enthusiastic group their full cooperation and support.

> Louise Schwerdtfeger, Director of Public Relations.

WORDS OFTEN USED IN THE BEGONIAN

genus (jee'-nus) a classification ranking above a species and next below a subfamily; a group of related species, though sometimes one species may compose a genus.

genera (jen'-eh-rah) plural of genus.

species (spee'-sheez) a subdivision of a genus.

pollen (paul'-en) the fertilizing powder in the cells of the anthers of flowers.

pollinate (paul'-in-ate) to convey pollen.

pollination (paul-ih-náy-shun) conveyance of pollen.

I move the following Resolution:

WHEREAS; the main office of this Society is no longer in Long Beach and as the place of this office should be flexible within the County of Los Angeles, and WHEREAS, it is desirable from time to time to

hold the annual meeting during some other month September, and

WHEREAS, an adequate monthly magazine can no longer be published along with other necessary expenses of this Society, for less than Two Dollars (\$2.00) per member per year, It is moved that the following changes be made in the Constitution of this Society;

That the second sentence of Article I be changed to read as follows: "The main office of this Society shall be within the County of Los Angeles." "That Article VI be changed to read as follows:

"There shall be an annual meeting of the Society, "There shall be an annual meeting or the Society, to be held in September, or such other month as the Board of Directors shall annually designate, of each year, at a time and place to be designated annually by the Board of Directors". That the first sentence, second paragraph, Article VIII be changed to read as follows: "The annual

VIII be changed to read as follows: "The annual dues of this Society shall be Two Dollars (\$2.00) per year, payable in advance. (Effective July 1, 1949, memberships in the A. B. S. will be \$2.00 per year. All renewals effective after July 1, 1949 will

year. All renewals effective area, sup-be at the new rate.) That, in order to change the Constitution as above a special meeting of the Society shall be called to be held in Room 55, Los Angeles City Hall, at 8:00 p.m. on May 23, 1949, and that this Resolution be published in the BEGONIAN, the Society's official publication, for the month of April. FRANK S. MOORE

HUMBOLDT BRANCH: Had Soil Mixtures as the subject for their February meeting. Mrs. Walter Bragdon brought samples of the soilmix she uses and gave an interesting talk. Members were encouraged to tell of their particular favorite soil-mix. Dr. Joseph N. D. Hindley, of Ferndale, showed colored, sound movies of the County Fair, at which the Humboldt Branch of the A. B. S. had a particularly lovely display. Fortuna was hostess for the evening, using the Valentine motif.

Violet Wooden, Historian



THEODOSIA BURR SHEPARD BRANCH: Report the following officers elected to serve in 1949; President, George Fitch; Vice Pres., Miss Lina Franz; Secy., Mrs. Cylde Snodgrass; Treas., Mrs. A. E. Bird; Nat'l Representative Director, Mrs. A. C. Hodgins; Directors, Mrs. B. F. Korts and F. P. Smith. Become acquainted with these names because they are the officers of the branch hosting our 1949 Convention in Ventura, California.

Walter Knecht, Retiring Director

SAN FRANCISCO BRANCH: Had a very good attendance at their March meeting, although it rained. Arthur Mann presided in the absence of our president, Ira Allyn, due to severe illness. Arthur H. Boissier and Ted Paskeson were the speakers for the evening, their subject being Fuchsia Culture. An open forum was held on Tuberous Begonia Culture and was exceptionally interesting and instructive. A man holds the post of Refreshment Chairman in the S. F. branch and Mr. W. L. Morrison is doing a splendid job of it. The outstanding plant sale climaxed the evening.

Mrs. Frances Morrison, Secretary

BELLFLOWER BRANCH: Had an exceptionally well attended meeting, with many visitors as well as members. Fred Parker talked on Pruning, Spraying and Fertilizing Fuchsias. Some of the new fuchsias of exceptional beauty he suggested were, Pride of Downey, a deep purple; Pink Quartet, a double light pink; California Centennial, an intense red, named for the 1949 Centennial. Fuchsias planted among begonias make an excellent showing and add to the shade garden.

Margaret Hanson, Publicity Chairman

SANTA MONICA BRANCH: Held their Second Birthday party at the home of Mr. and Mrs. E. O. Sherer. Interesting short talks were made by our retiring President, John Lee Moony, Dr. and Mrs. Drummond and President Elect Sherer. Raymond T. Wilson demonstrated the making of begonia cuttings and conducted the plant sale. The Birthday cake was served after the election of the following officers; President, E. O. Sherer, 11983 Darlington Ave., L. A. 24; Vice Pres., Mrs. Evelyn Thompson, 630 22nd St., Santa Monica, Sec. Treas., Mrs. J. R. Hall, 933 17th St., Santa Monica; Nat'l Representative, Mrs. William Haskell, 1253 Amherst St., L. A. 24.

Mrs. J. R. Hall, Secretary

Look for the A. B. S. exhibit at the International Flower Show at Hollywood Park in Inglewood, California, March 26th thru April 3rd.

SEATTLE BRANCH: Report the following officers to serve in 1949; President, Clyde Keeling, 3044 Gennesee St., Seattle 8; President Elect, S. A. McClanahan, 3334 9th Avenue, Seattle 99; National Director, Mrs. Walter Van Dusen, 5552 Windermere Rd., Seattle 5; and Nat'l Representative, Paul Deiro, 4618 13th Ave., South Seattle 8; all of Washington.

Mrs. Van Dusen was the speaker for the February meeting and very generously shared some of her knowledge of her absorbing hobby, Growing Begonias From Seeds, Cuttings and Tuber Divisions. The thoroughness with which she covered her subject from the first time she met up with the tuberous begonia in England, until today, gave us new courage in our own efforts. Each year for the past fifteen years, Mrs. Van Dusen has raised thousands of begonias for the benefit of the Orthopedic Hospital.

The March meeting will be held at the Thomas Meyer's residence and Mr. and Mrs. James A. Buzard will tell of their experiences of visiting "Shade Gardens" in their travels around the United States.

Mrs. Helen Walker, Secretary

SACRAMENTO BRANCH: Celebrated their First Anniversary, February 15th. Mrs. Emma Carleton of the East Bay Branch was a special guest. C. P. Loeb, a pest control specialist, showed colored, sound movies of common garden pests in action. The business meeting was followed by refreshments featuring a lovely birthday cake.

Lynn Cross, Publicity Director

INGLEWOOD BRANCH: Held their First Annual President's Dinner in March and had presidents from Orange County, Santa Monica, El Monte, Pasadena and Glendale Branches. As National President Gale was unable to attend, Mrs. Gale was his representative and the Editor of the *Begonian* was also in attendance. Jr. Past President Drummond represented Hollywood as their meeting nights are the same, the president was unable to attend.

Mrs. M. Holman won the fine begonia in the membership drive.

Mrs. Mary Choate gave her begonia lesson and a round of applause was given Billie Brown for the excellent spaghetti dinner served to forty two members and forty three guests.

William Jonson of Destruxol Corp. gave a wonderful talk on soil aids and fungicides.

The April meeting will find the women wearing Easter bonnets made from fresh flowers.

Leo McBride, Secretary.

SANTA BARBARA BRANCH: Members have signed up for the newly organized Begonia Study Group. Under the leadership of Mrs. Elsie Frey, members plan to meet in the various gardens once a month to study culture, care and nomenclature of begonias. The first meeting was held at the home of Mrs. Schwerdtfeger. Members brought material and spent the afternoon in transplanting begonia seedlings. Each member took home the result of his work and will grow the seedlings to replenish collections and any surplus will be donated to the 'plant sales'. The Branch is steadily gaining members, planning new projects and since the recent cold spell, stressing the propagation of begonias.

Louise Schwerdtfeger, Publicity Chairman

FOOTHILL BRANCH: Celebrated its third birthday on Friday evening, March 4th in true California Centennial style. Members and guests came dressed as '49ers with special prizes going for the best costumes.

Following the dinner the guest speaker for the evening, Roger Dalton, descendent of one of San Gabriel Valley's earliest families, traced the history and development of California. He especially described the horticultural pursuits on the ranchos, development of some of the early Spanish land grants, and the influence exercised by the Missions which were founded by the Franciscan Fathers along El Camino Real.

Community singing, reminiscent of gold rush days, and a plant sale brought the birthday celebration to a gay and fitting climax.

Officers serving the Foothill Branch in its third year are: Col. James A. Mattison, president; Mrs. Horace Whisler, vice-president; Mrs. Phyllis Heth, secretary; Mrs. R. N. Weaver, treasurer; and Horace Whisler, director.

Edwin O. Williams, Publicity Chairman

Our advertizers make the *BEGONIAN* possible. Patronize them.



ROUND ROBIN NOTES

Members writing to Mrs. Frances Downing, Rte. 1, Box 11, Calera, Alabama, may receive information on joining the A. B. S. Robins. Being a member is the required qualification.

A few notes from the Robins . . .

WASHINGTON: Without any oak leaf mold (for hundreds of miles) potting soil comes from the compost heap. Acid loving plants get a little sulphur mix and a handful of mico-grow in the bottom of their pots. Our water is strong with lime and sometimes I put one teaspoon of vinegar in a quart of water for them.

WASHINGTON: To grow rex leaves, I soak the portions in a bright pink solution of potassium permanganate for a few hours and in a B1 solution overnight. Then place the cuttings in a glass jar of sterilized medium of one-half soil and one-half mico-grow. I always put a jar over anything I transplant and water with Transplantone.

IOWA: For lack of enough pots I use babyfood cans for the first transplanting of cuttings. If cuttings are of rhizomes, use a larger, flat (tuna) can.

OHIO: If peat moss, bonemeal and dry cow manure are added to loamy soil at repotting time, extra feeding is unnecessary.

CONNETICUT: Anyone can root cuttings all winter. Use a glass show case similar to those in candy stores. Electric light bulb and a thermometer. Use water, sand or peat moss as rooting medium.

KODACHROME SLIDE LIBRARY

The sixth group of slides is being assembled. The branches will be notified of its completion. When requesting slides, refer to the list that was mailed to the branches some time ago. The groups mentioned in this list are still available and all requests will be promptly answered.

The Slide Library has a demand that is greater than the supply. The only remedy for this situation lies in the procurement of additional slides. If anyone has some goodquality surplus slides of Begonias or shade plants, please contact this department at the address on the inside cover of this issue of the *BEGONIAN*.

The cooperation of the members and the branches is greatly appreciated, because it is only through your support that it may help all of us to appreciate to a greater extent the beauty of our royal plants. the Begonias.

This department wishes to thank Mr. Victor Cerrelle, of Carpenteria, California, for his generous donation of eighteen beautiful colored slides.

Grace L. Bayer, Chairman

QUESTIONS & ANSWERS

Q.—K. R. W. of Washington, D. C. writes "..., As a rank beginner, I would appreciate your telling me how to care for plants received from a long distance".

A.—If received by mail or express, in all probability these plants will have been first wrapped in moist sphagnum moss and then in several thicknesses of paper. These should all be removed and the closely packed roots separated and spread loosely, then plant in the soil mixture best suited to the type of plant; set in the shade and watered with tepid water, not ice cold water. These plants should be kept damp . . . not wet . . . and should not be in a draught or hot, dry air. They will recover quickly if in a humid (moist, warm) atmosphere.

Your Editor Received

A letter from Mrs. E. P. B., Fontana, Calif. "... have found the February issue is the best yet! I have used the rock mulch for many years and have found it excellent".

A letter from Mrs. O. W., Akron, Ohio. "... and the biographical sketches of the people in the Begonia World are very interesting. The pictures are wonderful and I wish we could have more pictures and sketches of the officers and contributors to the *BEGON-IAN*".



CONDENSED MINUTES meeting National Board Feb. 28th, 1949 with President Gale presiding. Present for the meeting Messrs. Gale, Walton, Dere, Bozon, Moore, Hixon, Baliey: Mesdames Drummond, Behrends, Schwerdtfeger, Hixon, Bayer, Hartwell; Branch Representation Sacramento, Seat-tle, El Monte, Santa Monica, Inglewood, South-gate, Hollywood, Glendale, San Gabriel Valley, San Diego. La Mesa. Diego, La Mesa.

President Gale made the following additional appointments;

pointments; Mrs. Drummond and George Lawrence as Co-ordinators with the Committee on Awards. Com-mittee as now stands-Mrs. Clark, San Diego; Mrs. Carleton, Berkeley and San Francisco; Mr. Dyck-man, Long Beach; Mr. Kuester, New York; Dr. Wimmer, Manhattan, Kansas; Mrs. Shippy, Lock-port, N. Y.

President Gale stated he thought he would soon

President Gale stated ne thought ne would soon have a very important announcement to make re-garding the Department of Nomenclature. Mrs. Drummond called attention to two new books-one by Worth A. Brown and one by Norvell Gillespie and the very nice comments each had made Gillespie and the very nice comments each had made of the American Begonia Society. Secretary in-structed to send letters of appreciation to both authors. Librarian Nolan asked for establishment of a revolving fund for the purchase of new books. Revolving fund to be established as per request. Discussion of Pest Control Bulletin resulted as

Discussion of Pest Control Bulletin resulted as follows: President Gale appointed a committee com-posed of Mr. Moore, Chairman; Walton as Co-ordinator, Dr. Drummond, actual working member of the Board with Mr. Parker and Mr. Knecht as assistants-"As soon as the approval of this com-mittee that this book be published, the Board will concur. We give to this committee full jurisdiction over possible advectising and that the previous action

Infittee that this book be published, the board while concur. We give to this committee full jurisicition over possible advertising and that the previous action of the Board that there be no advertising included, BE RESCINDED and it be left entirely in the hands of the Committee;" "We will leave it to the Com-mittee to use their own discretion and after the printing has been authorized by the Board as a whole, to go ahead according to their own ideas." Calvin Trowbridge as Flower Show Chairman outlined plans for the exhibit to be placed in the Show by the A. B. S. Motion by Walton "I move that we appropriate \$60.00 for the use of this Flower Show exhibit to be held in Hollywood Park" In accepting this Mr. Trowbridge said they were going to borrow all the material we can and proba-bly most of this \$60.00 will be returned to the treasury. Watch your Begonian for plans and schedules. schedules.

Capt. Dere told of his need for a machine for cutting stencils. President requested Business Mgr. to check with Finance Committee and if and when he has Committee's approval to make such purchase.

Public Relations Director reported new Branch in Salem, Ore.-70 members and 60 Associate members.

Mrs. Korts showed three drawings for Begonia pin with prices ranging from \$2.25 to \$2.70. Rep-resentative Directors asked to take this information back to their Branch and report at next meeting as

to how this was received. Mrs. Schwerdtfeger reported Round Robins gain-ing membership and urged that as many members

Mix. Schwerdinger reported Round Robins gam-ing membership and urged that as many members as possible join. Business Mgr. Moore stated he felt there were a few changes, pertinent to the Society in general, needed in the Constitution and read a resolution covering the changes. SEE elsewhere in the Be-gonian copy of this Resolution. Col. Gale suggested that if any member desires to make any further changes in the Constitution, it be brought before the National Board, in written form, at the next meeting of the Board. Capt. Barker, President San Diego Branch spoke of lack of contact between the Branches and the National Board and felt that the National Board after each monthly meeting should forward a News-letter to each Branch organization giving them all the information of what occured and to include other helpful suggestions. President appointed Walton, Dere, and Mrs. Hartwell to prepare and send out such a letter. such a letter.

Further business had to be omitted due to closing me. Next meeting March 28th; same place; same time. time.

> Respectfully submitted Gonda Hartwell, Sec.



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Branch Meeting Dates and Places

BARTON, DOROTHY PIERSON BRANCH Regular meetings, Quarterly, 1st Fridays Flint, Michigan, May 6. Mrs. S. V. Clark, Sec., 1919 Zimmerman St., Flint 3, Mich. **BELLFLOWER BRANCH** 1st Monday, April 4, 7:30 p.m. I.O.O.F. Hall, Ardmore and Palm Sts. P. Knapp, Secretary 6144 Blackthorne Ave., Bellflower, Calif. EAST BAY BRANCH 351 BAI BAANOH 3rd Thursday, April 21, 7:30 p.m. Willard School, Ward Street Mrs. H. E. Thorpe, Sec. 1692 San Lorenzo Ave., Berkeley 7, Calif. EL MONTE COMMUNITY BRANCH 3rd Thursday, April 21, 8:00 p.m. Columbia Grammar School, Rm. 160 Mrs. Mary Bradley, Cor. Sec. 701 Asher St., El Monte, Calif. FOOTHILL BRANCH Ist Friday, April 1, 8:00 p.m. Woman's Club House, 1003 Azusa Ave., Azusa. Mrs. Phyllis Heth, Secretary 228 Bonita Ave., Azusa, Calif. **GLENDALE BRANCH** 4th Tuesday, April 26, 8:00 p.m. 206 West Cypress Mrs. F. M. Brown, Sec. 3633 Revere, Los Angeles 26, Calif. GRAY, EVA KENWORTHY BRANCH Srd Monday, April 18 Community House, LaJolla Tillie Genter, Sec.-Treas. 7356 Eads St., LaJolla, Calif. GRUENBAUM, MARGARET BRANCH 4th Tuesday, April 26 Member's Residence Mrs. Frank H. Mather, Corr. Sec. 515 Windover Rd., Hatboro, Pa. HOLLYWOOD BRANCH 2nd Thursday, April 14, 8 p.m. Plummer Park, 7377 Santa Monica Blvd. Miss Marjory Robinson, Sec. 1137 No. Orange Dr., L. A. 46. HUB CITY BRANCH 3rd Monday, April 18 Roosevelt High School Cafe 1200 E. Olive, Compton, Calif. Mrs. Eloise Scheller, Sec.-Treas. 3556 Imperial, Lynwood, Calif. HUMBOLDT COUNTY BRANCH 2nd Monday, April 11, 8 p.m. Lanes Memorial Hall, 1st Christian Church Miss Margaret Smith, P. O. Box 635, Ferndale, Calif. **INGLEWOOD BRANCH** 2nd Thursday, April 14, 8 p.m. 325 No. Hillcrest, Inglewood, Calif. Leo McBride, Secretary 3665 Mountain View Ave., Los Angeles 34, Calif. LA MESA BRANCH A MESA BOARANCH 2nd Monday, April 11, 8 p.m. La Mesa Grammar School, La Mesa, Calif. Mrs. Edna F. Barker 89 Central, Lemon Grove, Calif. 89 Central, Lemon Grove, Calif. LONG BEACH PARENT CHAPTER 3rd Tuesday, April 19, 7:30 p.m. Robert Louis Stevenson School, 5th & Atlantic Cafeteria, Lime St. Entrance, Long Beach, Calif. Mrs. Roy Ohlson, Sec'y. 1925 Marine Avenue, Long Beach 6, Calif. MIAMI FLORIDA BRANCH 4th Tuesday, April 26, 8 p.m. Simpson Memorial Garden Center Mrs. Elizabeth S. Hall, Sec. 2572 Trapp Ave., Miami 35, Fla. MISSOURI BRANCH 4th Tuesday, April 26, 2 p.m. MISSOURI BRANCH 4'h Tuesday, April 26, 2 p.m. Mrs. Bruce Dill, Secretary 3715 Harrison, Kansas City, Mo. NEW ENGLAND BRANCH Mrs. H. H. Buxton, Sec. 114 Central St., Peabody, Mass. NEW YORK SUBURBAN BRANCH Sec.-Treas.: Mrs. Dorothy F. Michaelson P. O. Box 718, Denville, N. J.

NORTH LONG BEACH BRANCH 2nd Monday, April 11, 7:30 p.m. Houghton Park Club House Harding & Atlantic, No. Long Beach Mrs. Merle Penrose, Sec. 4142 Walnut Ave., Long Beach, Calif. ORANGE COUNTY BRANCH Ist Thursday, April 7, 7:30 p.m. Farm Bureau Hall, 353 So. Main St., Orange. Sec. Treas., Ann Peterson, 414 E. Palmyra, Orange, Calif. PASADENA BRANCH Ist Tuesday, April 5, 7:30 p.m. Longfellow Hi School, E. Washington St. Mrs. Fred E. Distel 1320 Elizabeth St., Pasadena, Calif. PETALUMA BRANCH Srd Friday, April 15, 7:30 p.m. Danish Hall, 19 Main St. Mrs. Elizabeth Schlener, Sec. 18 10th Street, Petaluma, Calif. PHILOBEGONIA CLUB BRANCH Mrs. Lillian Watts, Sec., 405 Cotswald Lane Wynnwood, Pa. **RIVERSIDE BRANCH** 2nd Wednesday, April 13, 8 p.m. Mrs. Wm. Allen, Sec.-Treas. 7904 Magnolia Ave., Riverside, Calif. ROBINSON, ALFRED D. BRANCH 4th Tuesday, April 26, 8 p.m. 3030 Homer Street, San Diego 6, Calif. Mrs. R. K. Whitney, Secretary 4661 Brighton Avenue, San Diego 7, Calif. ACRAMENTO BRANCH 3rd Tuesday, April 19, 8 p.m. Garden Center, McKinley Park Mrs. A. Boyd Collier, Secy. 2777 Harkness Way, Sacramento, Calif. SALEM, OREGON BRANCH Let Thursday, April 7 Salem Y.M.C.A. Miss Ellen Quail, Sec. 202 Rural Ave., Salem, Oregon 202 Rural Ave., Salem, Oregon
202 Rural Ave., Salem, Oregon
SAN DIEGO BRANCH
4th Monday, April 25
Hard of Hearing Hall, 3843 Herbert Ave.
Mrs. Donald Green, Sec.
1626 Emerald St., San Diego, Calif.
SAN FERNANDO VALLEY BRANCH
2nd Monday, April 11, 7:30 p.m.
Pierce Jr. College, 6201 Winnetka Ave.
Canoga Park. Mrs. Frank Ecker, Secretary
21003 Devonshire St., Chatsworth, Calif.
SAN FRANCISCO BRANCH
1st Wednesday, April 6, 7:30 p.m.
American Legion Hall, 1641 Taraval St.
Sec. Mrs. Walter L. Morrison
2075 Tenth Ave., San Francisco 16, Calif.
SAN GABRIEL VALLEY BRANCH
4th Wednesday, April 27, 8 p.m.
Masonic Temple, 506 S. Santa Anita Ave.
Mrs. Calvin T. Adams, Sec.
911 No. 2nd Ave., Arcadia, Calif.
SANTA BARBARA BRANCH
2nd Thursday, April 14, 7:30 p.m.
Rm. 5, Com. Center, 914 Santa Barbara St.
Santa Barbara, California
Roy G. Pierce, Secy.
914 Olive St., Santa Barbara, Calif.
SANTA MANIA BRANCH
Senta MONICA BAY BRANCH
Santa MONICA BAY BRANCH
2nd Wednesday, April 13, 7:30 p.m.
University High School, Room 232
11800 Texas Ave., West Los Angeles
Mrs. J. R. Hall
933 17th St., Santa Monica, Calif.
SANTA PAULA BRANCH
4th Thursday, April 28, 6:30 p.m.
Steckel Park
Margaret Richardson, Rt. 2, Box 242A
Santa Paula California SAN DIEGO BRANCH Margaret Richardson, Rt. 2, Box 242A Santa Paula, California SEATTLE BRANCH 2ATTLE BRANDE Srd Tuesday, April 19 Member's Homes Mrs. W. A. Walker, Secy. 4727-34 N. E., Seattle, Washington See Next Page

THE BEGONIAN

SHEPHERD, THEODOSIA BURR BRANCH lst Tuesday, April 5, 7:30 p.m. Alice Bartlett C. H., 902 E. Main, Ventura, Calif. Mrs. Clyde Snodgrass Rt. 2, Box 54, Ventura, Calif.
SO. ALAMEDA CO. BRANCH 3rd Thursday, April 21, 8 p.m. Faculty Cafeteria, High School, Hayward, Calif. Mrs. Dorothy Bayliss, Corr.-Sec. 26706 Monte Vista Dr., Hayward, Calif.
SOUTHGATE BRANCH 4th Tuesday, April 26, 8 p.m. Girls Scout Clubhouse, Southgate Park, Miss Ellen P. Dionne, Sccy-Treas. 31394 Illinois Ave., Southgate Calif.
WESTERN RESERVE BRANCH, CLEVELAND, O. 4th Wednesday, Bimonthly, Mary 25, 8 p.m. Garden Center, 10013 Detroit St.. Cleveland, O. Mrs. Fred McCune, Sccy., 1470 Waterbury Rd. Lakewood. Ohio

WHITTIER BRANCH 4th Tuesday, April 26, 8 p.m. Union High School, Room 19 Lindley Ave. Entrance, Whittier, Calif. Mrs. Haidee Hackler, Secy. 219 S. McNess St., Whittier, Calif.

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