

# The BEGONIAN

*Devoted to the Sheltered Gardens*

## FRANK REINELT

The Tuberous Begonia King himself—amongst his multitudinous flowers of flowers—tuberous begonias, both uprights and hanging baskets. They are better each year, therefore the subjects of this picture will be superseded by more exquisite types this year.



VOL. XIV

No. 7

JULY, 1947

FIFTEEN  
CENTS

# The BEGONIAN

Monthly Publication of the AMERICAN BEGONIA SOCIETY

Founded by Herbert P. Dyckman, January, 1932

General Offices: 1618 Fickewirth Ave., El Monte, Calif.

*Affiliated with the American Horticultural Society*

- Annual Subscription Fee: One Dollar and Fifty Cents.
- Entered as second-class matter, September 21st, 1946, at the Post Office of El Monte, California, under the act of March 3rd, 1879.
- Advertising Rates: \$5.00 per inch, one column wide. Three months discount of 5%, Six months less 10% and One year less 20%. Seasonal changes allowed in contracts over three months. Closing date for articles 10th of each month, and 12th for Advertisement copy.

## STAFF

- Maria Wilkes.....*Editor and Business Manager*  
 158 S. Oxford Ave., Los Angeles 4, Calif.  
 Bessie R. Buxton.....*Co-Editor*  
 114 Central Street, Peabody, Mass.  
*Assistant Editors*—Dr. W. C. Drummond, Miss  
 Charlotte M. Hoak and Mrs. Jay C. Jenks.

## LIFE MEMBERS

- Mrs. Myrtle Shepherd Francis, Ferd P. Neels,  
 Herbert P. Dyckman, J. Paul Walker, T. H. Smith,  
 Fred Riedman, J. S. Williams, Dr. W. N. Caseley,  
 Frank Harrison, Harold W. Hart, Clarence A. Hall,  
 Arthur E. Nelson.

## HONORARY DIRECTORS

- Mrs. Annie C. Robinson Frank Reinelt  
 Mrs. Henry H. Buxton Mrs. Eva Kenworthy Gray  
 T. H. Goodspeed T. H. Everett  
 George Otten E. D. Merrill

## HONORARY VICE-PRESIDENTS

- Mrs. Henry H. Buxton.....Peabody, Mass.  
 Mrs. Lee Krauss.....Wynnewood, Pa.  
 Mrs. John G. Clark.....San Diego, Calif.  
 Mrs. Emma M. Carleton.....Berkeley, Calif.  
 Fred Willard.....Pasadena, Calif.

*Please make Membership Checks payable to American Begonia Society and address to Roy K. Dere.*

## OFFICERS

- George Lawrence.....*President*  
 447 No. Hidalgo Ave., Alhambra, Calif.  
 Mrs. Mary Hazel Drummond.....*President-Elect*  
 1246 No. Kings Road, Los Angeles 46, Calif.  
 W. E. Walton.....*Treasurer*  
 1415 Acacia Ave., Torrance, Calif.  
 Mrs. A. N. Hartwell.....*Corresponding Secretary*  
 1719 Alamitos Ave., Monrovia, Calif.  
 Roy K. Dere.....*Membership Fees*  
 1618 Fickewirth Ave., El Monte, Calif.  
 Mrs. Frances Downing.....*Organization Chairman*  
 The A.B.S. Round Robins, 422 Strong St.,  
 Bowie, Texas.  
 Mrs. Helen K. Krauss.....*Director*  
 The Clayton M. Kelly Research & Nomenclature  
 Committee, 405 Cotswold Lane, Wynnewood, Pa.  
 T. John Parker.....*Questions-Answers Chairman*  
 8531 W. 3rd St., Los Angeles 36, Calif.  
 Mrs. E. Carrell.....*Seed Fund Administrator*  
 214 North Yale Street, Fullerton, Calif.  
 Mrs. John W. Crowder.....*Librarian*  
 9838 Easton Drive, Beverly Hills, Calif.  
 Mrs. Jay C. Jenks.....*Publicity Chairman*  
 and *Chairman Speakers' Bureau*  
 1414 Quintaro Street, Los Angeles, Calif.  
 Frank E. Clark.....*Director Public Relations*  
 2168 Cooley Place, Pasadena 7, Calif.  
 Mrs. Russell Bailey.....*Chairman*  
 Exhibits and Flower Shows  
 4535—50th Street, San Diego 5, Calif.  
 Harold W. Hart.....*Past President*  
 Mrs. Kem Weber.....*Director One Year*  
 Mrs. Sue McRae.....*Director Two Years*  
 Hugh W. Hixon.....*Director Three Years*

## CONTENTS

ROUND ROBIN NEWS .....	123
HOW LONG SHOULD YOU KEEP OLD TUBERS? .....	123
A STUDY — IN HYBRIDIZING .....	124, 125 & 126
BROMELIADS .....	127
SOUTHERN ALAMEDA COUNTY TUBEROUS BEGONIA SHOW .....	128 & 140
CAMELLIA CULTURE IN THE BAY REGION .....	129 & 131
INFORMATION CLEARING HOUSE .....	130 & 131
BEGONIA INVOLUCRATA, LIEBM. AND SKETCH .....	132 & 133
BRANCH NEWS .....	132
HARD AND SOFT WATER .....	134 & 138
<b>BALLOT . . . PLEASE MAIL IMMEDIATELY</b> .....	Perforated Page
WARNING! (This is Important) .....	135
MULCHES AND GROUND COVERS FOR FUCHSIAS .....	136 & 137
PROPAGATION CASE .....	137
SUGGESTION TO EVERY BEGONIAITE .....	138
PROPAGATION BOX OR SEED INCUBATOR .....	138
THE SEED FUND SKIPPER'S MAILBOX .....	139
CONDENSED MINUTES OF THE BOARD OF THE A. B. S. ....	140
MEETING DATES AND PLACES .....	141

## ROUND ROBIN NEWS

By Frances Downing

At last we have a Director for the Orchid R. R.! We are grateful to the person who so generously offers her time and knowledge for the benefit of this group.

The House Plant Robin members keep busy with their hobby through all the seasons. They are now making cuttings for next winter's bloom in the window garden. Seeds are being planted too, that they may bring a riot of color to their windows in early spring.

Do you need help in identifying rare and unusual houseplants? Our Director of this Robin has unusual ability in "dubbing" out-of-the-ordinary plants.

The Tuberous Begonia R. No. 3 awaits new members. Join now that you may learn all about the storage of these precious tubers that "they may keep."

Our Fern Round Robins are becoming increasingly popular. No. 3 of this group awaits new members. Many varieties of fern spores are available (for a small sum) through the seed fund. The Director of the Cyclamen Robin hopes new members will join her group soon. She likes "a fat Robin because of the greater exchange of means and methods.

Roses are blooming everywhere now. What are you using to combat disease and insects on them? Have you a unique but successful method of growing lovelier roses? Join our R. R.'s and discuss all these topics. The Director of this Robin is very well versed in the propagation of roses, and is very generous in the giving of every aid.

If you would have *B. semperflorens* blooming in earliest spring, lots of them, join this group.

The Ivy Geranium needs new members. These Geraniums are lovely and distinctive in flower or leaf.

The Scented and Variegated Geranium No. 1 is most complete. No. 2 will soon be flying. The scented geraniums are hard to propagate and very "tricky" to grow. The Director of this group is eager to help her Robins with all their problems on the subject.

Our Annual Flowers R. R. grows slowly. Strange that not more people are interested in Annuals. Some of the loveliest borders in my gardens have been created with annuals other than *zinnias* and *marigolds* and there are quite a few lovely and colorful plants that grow happily *in shade*.

We have Primrose Robins started which will handle only hardy primroses. We can have a few more members. Only those who take part in these Robins can realize the fun and enthusiasm engendered by these Round Robins.

## HOW LONG SHOULD YOU KEEP OLD TUBERS?

By Ed Carlson, Berkeley, California

There are members of the Royal Hobby of Begonia Growing, who advocate the growing of tuberous begonias from seed each year, as annuals. We are convinced that many large specimen plants would be lost if every one followed this practice.

This picture was taken during the last summer of one tuber we have grown for 12 years. It has increased in size each year and has been one of our main garden attractions. This tuber is a large orange hanging Lloyd type. The tuber now measures eight inches in diameter. The plant is four feet wide by five feet long. We grow it in a 14 inch redwood box, planted in rat's nest leaf mold. It is not grown in our lath house but in a sheltered spot, facing northeast.

Four hundred garden visitors have enjoyed our sheltered garden in the past season, and all have commented most favorably on such a beautiful large specimen plant of a tuberous hanger. We are very proud of this plant and hope it will still be enjoyed by our friends for many years.



Twelve year old Lloyd type—Tuberous Begonia

## CALIFORNIA Liquid Fertilizer

### A PLANT FOOD OF QUALITY

8-8-4 Promotes General Growth  
2-10-10 (Acid Food) Develops Fruits  
and Flowers

Acidate, Corrects Alkalinity

Plant foods so potent that one teaspoonful  
in a quart of water feeds your plant for  
a month

For sale at all nurseries and garden  
supply dealers



Manufactured by the  
**California Liquid Fertilizer Co.**  
34 Pico Street, Pasadena 2, Calif.



AN IDEAL SOIL CONDITIONER for  
**BEGONIAS — CAMELIAS**

**AZALEAS**

**RHODODENDRONS**

and **BULBS** of all KINDS

For Lighter Soil in Sun-Baked  
Gardens as well as  
Shady Places

Sole Mfrg.  
**Redwood Fibre Products, Inc.**  
Santa Cruz, California

**Air Condition your Soil with**

**Sani-Soil**  
SOIL INSULATOR FROM  
REDWOOD BARK

**AT GARDEN SUPPLY DEALERS**

## A STUDY . . .

With Bessie Buxton's book "Begonias and How to Grow Them" as my encyclopedia, The Begonian as my text books, and the acquaintance of a few Begonia Hybridists, I have been making a study of hybridizing and will endeavor to give you a summary of the facts that I have gathered. It is for the Begonia grower who has never ventured into this interesting phase of working with begonias that I write this, in hopes that he will become enthused and devote some of his time to the fascinating work of hybridizing begonias.

To cross-pollinate, develop and prove new plants takes time and patience not to mention the work connected with it. The nurserymen of today, being successful business men serving the public have little time to develop new hybrids and they rely on the individual grower and the amateur to spend the time and take the patience to produce new and outstanding plants with which to enlarge their stock. Of course there is the exception and we have a few begonia-nurserymen, who have worked hard to give us some of our beautiful hybrids, and their untiring labor is to be commended. Yet even they express the need for more enthusiasts who will do the work of hybridizing. It is true that the beginner has the same chance as the expert to find a worthy plant among his hybrids. It then stands as a challenge to each begonia grower and especially to those in California, where it is not difficult to ripen the seed, to take up the work of hybridizing.

Hybridists have worked with tuberous begonias until many new wonders have been developed and each year seems to bring some new type that fairly takes our breath away. I can imagine the day is not far off when all tuberous begonias will not only give us beauty of form and riot of color but they will also fill our gardens with delightful fragrance.

In comparison with the work that has been accomplished with the tuberous group we find only too few new hybrids among our fibrous and rhizomatous begonias, with the rex as the exception. Of the numerous species that we have within our reach and those that are being discovered each year, there are only a few that have been used to any extent in hybridizing. What then about the others? Surely among them lies dormant the power of creating new and wondrous hybrids. The field of hybridization lies open and with so much work to be done, it beckons enticingly to each individual begonia grower. To produce and develop a new begonia hybrid seems a goal well worth the striving.

# . . . . . IN HYBRIDIZING

By Louise Schwerdtfeger, Santa Barbara, Calif.

If you have a natural urge to hybridize and cross-pollinate, or whether you do the work with premeditated plans, there are a few certain rules that nature has laid down for your consideration when you choose the parents for your new begonia child. The plant chosen to be the mother must be productive and able to retain the seed-pod until the seed has matured. To find the productive mother plant you may choose one which has already been proven or you may find it by experimenting. The paternal plant from which you are to obtain the pollen must also be considered, for there are among begonias, plants which are sterile. It is somewhat easier to find the productive male blossom for they are judged by the amount of pollen that they release.

The main objectives in cross-pollinating your begonias may be listed as follows: 1. To improve the formation of the plant as was accomplished when *B. evansiana* was crossed with a *Rex*, giving a more upright plant and one which branched freely. 2. For the shape or the color of the leaves as in the cross of *B. caroliniaefolia* and *B. liebmanni* in producing the *Silver Star*. 3. To aid and prolong the flowering ability as *B. socotrana* and *B. Rex*, ably shown in the hybrid "It." 4. For sturdiness in plant growth as when the numerous crosses of *B. dicroa* were developed. 5. For difference in the size or shape of the leaf as in the development of the miniature rexes by using *B. Dregei*, or in obtaining the various spiral rexes by using a spiral for one parent or both. 6. To produce a hanging begonia as *Marjorie Daw*, when *B. coccinea* was used with *B. Limminghei* (*B. glaucophylla*); or the hybrid *B. Elsie M. Frey*, a result of *B. Baumannii*, and *Limminghei*. 7. To intensify the fragrance as in *Wild Rose*, a tuberous cross of 1041 (a species) and *B. Baumannii*, or in the delightfully fragrant *Orange Sweetie*, a tuberous hybrid hanging type.

Since 1856 when the first rex was sent to Europe from Assam, India, rexes have been used as parents to such an extent by hybridists that our modern rex has very little true rex "blood" left. Species from Begonia haunts of far distant lands have been used in crossing the rexes and in the past few years to such an extent that we now have rex hybrids so beautiful that we sometimes wonder what the early hybridizer could find so interesting in his new crosses as to introduce them to the world as outstanding plants. Although we find a few such plants as the helix or spiral type introduced in France in 1884, to become the foundation of our modern curly rex; and

the *B. Arthur Mallet*, a hybrid of *B. subpeltata* and *B. rex*, also produced in France in 1885, that has withstood the years and is still one of the most colorful plants in existence.

To give you an idea of the various species that have been used in rex hybridizing we have: *B. Dregei* from South Africa, *B. Diadema* from Borneo, *B. evansiana* from China, *B. Cathayana* also from China, *B. Picta* from India, "India Spotted" and other species from India, *B. imperialis* and *B. Sunderbruchii* from Mexico, and perhaps others. I contend that if just a few of the begonia species have done so much for the *rex begonia*—then the field of hybridizing that lies before us must be vast indeed.

Working with the fibrous and rhizomatous types, we find the twentieth century hybridist has used *B. lucerna*, *B. scharffiana*, *B. metallica*, *B. strigillosa*, *B. Limminghei*, *B. Dregei*, *B. Sutherlandii*, *B. Imperialis*, *B. dicroa*, *B. heracleifolia*, *B. fuchsoides*, *B. manicata*, *B. caroliniaefolia* and only a few others to produce so many of our fine outstanding varieties of today. So with the wealth of species and hybrids that we have at hand choose two to be the parents of your new hybrids and give the world new plants to enjoy.

Having decided on the parents you may proceed to pollinate. The best time to do this is in the late morning or early afternoon. It is at this time that the pollen is usually freed of the anthers of the male blossom and the stigma of the female flower is ready to receive the pollen. Begonias being plants with imperfect flowers bear two sorts of blossoms, the staminate, those having stamens only and the other, the pistillate, having pistils, which ripen seed only when fertilized by pollen from the staminate or male flower. It is not hard to distinguish the male from the female blossom as it is the female that holds the ovary or seed-pod back of its petals. There are various ways of transferring the pollen to the stigma of the female flower, one of the easiest is to pick the male flower, fold back the petals and using it as nature's brush, gently draw it over the stigma of the female blossom. It is extremely important that you mark the flower holding the fertilized seed-pod. A whisp of colored thread tied to its stem and a marker stick placed beside the plant can be used. For a permanent record also make a note of the cross in a record book. It is customary to name the mother plant that holds the seed-pod before the name of the plant that has supplied the pollen, thus, with pollen from *B. scharffiana* and *B. metallica*

# PLANTSMITHS SPOONIT

## FOR SMILING GARDENS

Send me a 3c stamp to cover postage cost and I will send you a generous trial can. Or, if you used SPOONIT "before the war," and wish to order some now, just mail me a dollar bill for a big 32 ounce can, postpaid (this includes California sales tax).

## PLANTSMITH

Box 818

Palo Alto, California



### TRUE ORCHIDS

The following choice orchids are all ideal pot plants, for home, conservatory or patio

**LAELIA ANCEPS**—Very showy orchid bearing purplish rose colored flowers, 3 to 4 on a stem. Ea. \$5.50 prepaid.

**LAELIA AUTUMNALIS**—Showy fragrant flowers of deep purple. A lovely orchid, easy to grow. Each \$5.00 Prepaid.

**ODONTOGLOSSUM GRANDE**—Borne 3 to 4 on a stem. Individual flowers about 5 inches across. Yellow, lined and spotted dark brown. Deep golden yellow throat. Each \$5.50 Prepaid.

Full Cultural Directions with Each Order

# GERMAIN'S

Seed Growers and Horticulturists Since 1871

VAN NUYS NURSERY

6183 Ethel Avenue

Van Nuys, Calif.

## Huntington Beach Tuberous Begonia Gardens

Bulbs . . Seedlings . . Blooms

FOR SALE

SPECIALLY PREPARED SOIL  
for growing all kinds of Begonias and  
Shade Plants for sale at all times

Order Early  
Tubers for sale in Feb., Seedlings in May  
No Catalogue—Price List on Request

**HAZEL and R. G. (Scotty) HUDSON**  
PROPRIETORS

220 13th Street Huntington Beach, Calif.  
Telephone 3811

to hold the seed-pod, you would mark your hybrid *B. metallica* X *B. scharffiana*.

Sometimes if you wish to use a certain male flower whose pollen refuses to release you may lay the flower in a dry place and in a matter of a few days if it is not a sterile blossom the pollen will be available. Always place the pollen on a freshly opened female flower as the styles leading from the pistils to the ovary or seed-pod are sure to be open.

After the flower has been pollinated and become impregnated the petals will fall within the first few days and then it is a matter of watchful waiting until the seed-pod has ripened. There seems to be considerable variation in the length of time until the pod is ready to pick. The seed-pod generally ripens on the plant yet seed has been known to germinate from pods that were not completely dry when they fell from the plant or were picked. It is best to leave the pod on the plant as long as possible. The seed in the pod has reached maturity when the stem holding the pod has dried and may be picked and laid in a dry place until the seed too has become completely dry.

Keep the seed-pods dry when watering your plant as water sometimes starts the pod to deteriorate and the seed is then lost. Keep your seed-pod well recorded. Never lose its identity for who knows but it may contain the minute seed that will produce an outstanding plant that will enrich the ever-growing collection of the begonia grower.

The late A. D. Robinson, in an early Begonian, speaking of his seedlings said "I never saw a batch of seedlings that did not have some variations, and in those variations lie the forward strides of the family." Perhaps he was referring to his batch of *B. Macbethi* seedlings when out of a thousand seedlings only the one he named *B. Richard Robinson* proved to be a truly outstanding variation.

So as your begonias bloom plan to do some fascinating work in cross-pollinating and may some of your hybrids be outstanding that you may join the ranks of the begonia hybridists who have done so much for our "Royal Hobby."

THE PREMIUMS, TROPHIES and ribbons will gladden you for the effort in taking your plants to our ANNUAL SHADE GARDEN SHOW Aug. 14, 15, 16 & 17th at Long Beach, Calif. Even should you not win, the experience will make you richer and certainly the joy you give others is considerable.

# BROMELIADS

By Elmer J. Lorenz, Glendale, California (See Also June, 1947)

The bromeliad that started my present collection was the very common *Billbergia nutans* that exists in almost every lathhouse in California, yet it is not nearly as handsome as many of the other varieties. The second addition came from a pineapple (*Ananas comosus*) that was purchased at a fruit stand. The top is easily rooted and forms an interesting plant.

Among the aechmeas we find many handsome plants with brilliant inflorescences or beautiful and exotic foliage. I like to grow my aechmeas, as well as other bromeliads, on a moss wall where they form large clumps displaying their tropical beauty to the utmost.

*Aechmea bracteata* is a large vigorous grower with bright red bracts that remain beautiful for many weeks.

*Aechmea caudata variegata* has long leaves beautifully striped with white and the flowers are yellow. It is a beautiful plant when well grown, but I have found it difficult. Probably ignorance of its cultural needs is my trouble.

*Aechmea fulgens discolor* is a handsome plant and fairly well represented in collections of shade plants.

*Aechmea weilbachia* is an exceptionally beautiful plant and one of my favorites. It is of more open growth with green to bronzed leaves. The flower stem is red topped with red-bracted scape. The flowers are purple-red followed by long lasting, highly colored fruit.

The flowers and colored bracts of the *Billbergias* are very showy. Among the *Billbergias* we find *nutans* and *pyramidalis* which are old favorites with garden lovers.

*B. vittata* is a vigorous grower with deep concave leaves. It is cross-banded on the back. The flower clusters are deep blue and the bracts are red.

*B. Enderi* is a small grower with pale red bracts and deep blue inflorescences.

*Billbergia Euphemiae* has plain green leaves but a beautiful pendant inflorescence with salmon bracts and deep lavender flowers.

Among the *Aregelias*, (often listed as *Neoregelias*) we find many beautiful and handsome foliage plants.

*Aregelia marmorata* and *aregelia spectabilis* are the two most common varieties seen. The latter is called "painted fingernail" because the tip of each leaf looks as if it had been painted with red-purple finger-nail polish and reminding one of a lady's painted fingernail.

The *nidularium* is another outstanding

group of bromeliads grown for their beautiful foliage. The flowers are more or less inconspicuous. I plant my *nidulariums* near the bottom portion of the moss wall as they prefer more shade and moisture than do many of the other bromeliads. Their beautiful colored leaves brighten up that dark portion along the base of a moss wall.

*Nidularium innocenti* var. *striatum* is an outstanding and beautiful foliage plant.

*Quesnelia liboniana* is a showy deep green plant with stiff tubular leaves. My plants have never bloomed, but I understand that the flowers are very highly colored, being red-orange and deep purple.

*Tillandsia lindeniana* is one of the showiest members of the Bromeliad group. My plant has just completed flowering and it was beautiful. It belongs to the narrow leaf group, having deeply concave grasslike foliage. The flower spike is fan shaped and turns pink just before the first flowers appear. The flowers are violet in color. About every third day a new flower appeared so that the plant was in continuous bloom for over two months.

*Tillandsia ionantha* is a small and interesting epiphyte. It is reported that the entire plant turns completely red when it blooms. However, my plant that has just finished flowering remained in a "green" condition. Perhaps it is not so modest in California and doesn't "blush."

Among the *Vriesia* we find many spectacularly marked foliage plants

*Vriesia hieroglyphica* is an old favorite and an outstanding foliage plant with green leaves that are irregularly marked with black. It is from this "hieroglyphic" form of marking that the plant derives its name.

Many additional interesting and beautiful bromeliads are grown and they are deserving of more attention from the "home gardener." If you really want something that will add interest and attractiveness to your collection of bromeliads grow them on a moss wall. They create a real atmosphere of tropical beauty. Try a few of these gems of the plant kingdom in your lathhouse now.

For more substantial information on Bromeliads, I suggest Mulford and Racine Foster's new book "Brazil, Orchid of the Tropics," and the Sept., 1945, issue of the Missouri Botanical Garden Bulletin is devoted entirely to Bromeliads and contains a wealth of interesting and informative facts on their growth, culture, history and descriptions of variety.

## BEGONIAS and FUCHSIAS NEED NITROHUMUS!

Commercial and hobby growers are getting better flower and foliage color, and stronger plant structures since using NITROHUMUS in their potting soil.

The answer is in the milder but longer lasting organic food, and soil building humus contained in every bag of Kellogg's NITROHUMUS Fertilizers.

Use NITROHUMUS freely in potting and top feeding. Available at nurseries and garden supply dealers. Write for descriptive folder to Dept. 1B

**KELLOG SUPPLY CO.**

204 Sepulveda Blvd. Wilmington, Cal.  
Phone Terminal 4-6479

# KELLOGG'S NITROHUMUS. FERTILIZERS

### LEATHERMAN'S GARDENS

BEGONIAS—FERNS—FUCHSIAS  
PELARGONIUMS—GERANIUMS  
NOVELTY PLANTS

6 LABELED REX BEGONIAS—\$3.00  
6 LABELED FIBROUS ROOTED BEGONIAS \$3.00

We Ship Anywhere — Price Lists  
925 Lee Ave. El Monte, Calif.

### CINERARIA SEED

**Campbell's Giant Flowered Hybrids**

Immense flowers in shades of blue, rose, pink, lavender, salmon and white, or semi-dwarf plants.

Pkts. 50c postpaid

Ask for our Reference Garden Catalog

**CAMPBELL SEED STORE**

Since 1907

**Pasadena 1, California Department B**

The new BAFFLE SPRAYS on the market help enormously to maintain atmospheric humidity and coolness.

MAKE YOUR Long Beach, Calif., HOTEL RESERVATIONS DIRECT — NOW — to be sure . . . TO BE SURE . . .

## Southern Alameda County Branch To Feature Tuberos Begonias

By Mrs. Dorothy Bayliss, secy.-treasurer

In their second annual flower show—Aug. 9 and 10, the beauty of potted tuberous begonias will be used to form the outstanding display of the show which this year is being held in the Mt. Eden school patio.

The branch which organized and meets monthly in the city of Hayward, will take their show outside of Hayward this year, since those acting on the show committee, failed to agree upon a suitable location in Hayward. Mt. Eden is at the junction of San Mateo Bridge Road and Hesperian Blvd. just two miles south of the Hayward airport and two miles west of Hayward on Jackson St. For members of the San Francisco Branch, or anyone coming to visit the show from the peninsula side, will reach the school with great ease by crossing the San Mateo bridge.

The school which is built on the mission style, has open cemented corridors and an open grass patio in the center. Holding their show indoors last year, the society was handicapped in the use of water.

The main display will be a massed collection of myriad colored tuberous begonias, on stepped-back shelves placed on the grass plot in the center. The show will this year feature individual displays which will be exhibited around the corridors. Arrangements and small displays will be in the auditorium which opens off the corridor.

One member is planning a moss wall, other members are readying clever and lovely ideas for miniature shade gardens. Other members will exhibit on tables. There will be rex and fibrous displays, gloxinias, ferns, coleus and many other shade lovers. There will be a large display of fuchsias with the Eden Branch of the American Fuchsia Society as a guest participant. The East Bay Branch has also been invited as a group or for individual displays which their members decide on.

There will be a display of "specimen tuberous begonias," plants which must be grown by the members. Prizes are being offered for the best specimen plants in this group. Prizes are being offered for the best in individual displays. The show last year was entirely without competition. Some members acting on the show committee worked hard to get some competition this year as they felt it would stimulate interest. There will be no charge to the show. Some residents of the Mt. Eden area have contributed cash and prizes. One trophy has been promised by an individual member of the Hayward

(Continued on Page 140)

# CAMELIA CULTURE IN THE BAY REGION

By Lillian Asbe, San Francisco, Calif.

*"Their Lush Green Foliage Forms a Perfect Background for Begonias."*

The revival of interest in Camellias was reflected in selection of the topic for discussion at the May meeting of the San Francisco Branch. Following the established practice, the president, Mr. I. Kramer, called again on a member of the branch to deliver the talk.

Mr. Alfred Stettler, the chairman of the San Francisco Camellia Show, spoke on "Camellia Culture in the Bay Region." The lush green foliage of this plant forms a perfect background for Begonias. Both are shade plants; both require acid soil and good drainage. Mr. Stettler refuted an old belief that Camellias can grow only in glasshouses; in fact, experience taught the local growers that this luxuriant plant thrives much better in the open air.

When selecting Camellias it is imperative to purchase only name plants from reliable nurseries who specialize in their culture. They should be planted in a shaded part of the garden, protected from the wind and the afternoon sun. The soil must be thoroughly cultivated by admixture of humus or compost, pine leafmold and a small quantity of ammonium sulphate or powdered sulphur. Good drainage is an absolute prerequisite for attaining success. Care must be exercised in not planting them deeper than they were originally grown, as covering the roots with soil may cause the plants to die. Immediately after planting they must be watered very thoroughly and this should be repeated daily at least for a month. In general, Camellias require constant heavy irrigation of the soil as well as frequent overhead sprinkling.

Surprisingly, they are almost immune to the usual insect pests. Occasionally they are attacked by white mealy bugs or aphids. This happens usually when the plants become too dense. Then they should be pruned in the center by removing excessive branches so that the sunlight and air have free access to all parts of the bush. In addition the plants should be sprayed with Garden Volck two weeks apart. No spent blooms should be permitted on the ground as this may cause formation of fungus. The latter can be controlled by spraying with fermete.

Camellias bloom from September to July. Not more than two buds should be permitted to remain on one axil. Excessive buds should be removed. This prevents dropping of buds, assures more strength in the flowers and in-

creases the size of the blooms. As a rule, choice varieties have less bud drop. The bushes may be pruned to any desired shape immediately after blooming.

The ground should be fertilized in May, August and November by adding a good commercial fertilizer with thorough watering before and after, being very careful not to touch the roots which are very close to the surface. Transplanting may be done anytime with the exception of two or three months following the blooming period. Camellias can be propagated from cuttings treated with root growing hormone. It takes from 30 days to 6 months to develop new roots.

It has been proven that better success is obtained by growing Camellias in the open ground as they can stand adverse conditions more readily than when grown in pots or tubs. The speaker named several choice varieties grown in this region and displayed beautiful specimens of blooms. In conclusion, he showed a selection of colored slides representing individual flowers, entire bushes in full bloom as well as flower arrangements at the San Francisco, Oakland and Pasadena Camellia Shows.

Mr. Stettler has grown Camellias in San Francisco for many years and graciously revealed his experience in a concise and instructive manner. It was the first time that the culture of this plant was ever discussed in our Branch.

For the benefit of the new members, the remaining part of the evening was devoted to a practical demonstration of potting tuberous begonia seedlings. This was very ably done by the ex-president and now national representative, Mr. George Hesketh. His subject was "*How to Take Care of Begonias in May.*"

Mr. Hesketh prepares his soil by mixing one-third each leafmold and cow manure, one-sixth each river sand and top soil, adding 1 lb. bonemeal to 3 wheelbarrows of this mixture. He placed broken pieces of clay at the bottom, put a layer of heavy twigs, and filled two-thirds of the pot with the damp mixture interspersed with a small amount of fishmeal between each 1 inch layer. Then he planted the seedling and covered it with the mixture. As the plant grows up, additional soil is added to support the stalks. He said that seedlings require less fishmeal than tubers.

(Continued on Page 131)

# INFORMATION CLEARING HOUSE

By John T. Parker, Los Angeles, California

Question: I have begonia trouble. Although out of season, I germinated a package of *double tuberous begonia* seed on August 1, 1946. Plants grew wonderfully and were my special pride. About the first of November when I was thinking about their second transplanting from flats into small pots, illness came to the family and I was unable to move the begonias until the 4th of January when they had become somewhat crowded and weakened.

I may have used too rich a soil mixture, (about right for mature plants—and not sterilized) and maybe I overwatered them during the dark, New York winter days, in any case, growth stopped. Soon brownish patches began to curl the leaves which became brittle as time went on.

I still have half of them, about 35 plants, but they do not grow and the "disease" persists, even spreading to some young *B. gracilis*. Please tell me what is this trouble and what can I do about it? I enjoy The Begonian so much and look forward to it with much pleasure. Gowanda, N. Y.

Answer: According to the information contained in your letter the seed in question was set up about the middle of July and consequently the resultant plants would have been due to be in bloom about the middle of January but due to unavoidable circumstances you were only able to make the final shift from the flats to blooming containers about the 4th of January. Doubtless these plants were overcrowded and weakened and added to this, it would seem they were invaded by Nematode infestation. Disappointing as it may seem it would be better to discard the remaining plants and start all over again. It is also much better to start seeds at the generally admitted correct time for sowing such seeds. Any deviation or synthetic procedure calls for specialized and comprehensive treatments and unless one is thoroughly familiar with all the technicalities such procedures are fraught with possible failures. Unless it is essential, do not interfere with the regular cycle adopted by nature.

---

We hope Hazel and Scotty Hudson's beautiful hanging baskets of combined *SCIZANTHUS* and *CEROPEGIA* will still be in condition to show in August.

---

MAKE YOUR Long Beach, Calif., HOTEL RESERVATIONS DIRECT—NOW — to be sure . . . TO BE SURE!

Q. I noticed a statement "Semesan" or a 4 percent solution of chlorox may be sprinkled over the seed flats to prevent damping off. Is the chlorox used the household chlorox and just how would one prepare a 4 percent solution and would it be good to use in planting the seeds of other house plants also? (Anahuac, Texas)

A. The writer is not familiar with the use of Chlorox for this condition but presume it would refer to the regular product of Chlorox. To prepare a 4 percent solution would necessitate mixing one part of the product with 25 parts of water. The Formaldehyde treatment for this condition is still considered an excellent one. If the trouble only consists of a spot here and there, saturate the affected area with a formaldehyde solution prepared in the following manner: procure a 40 percent strength formaldehyde solution and dilute this strength using one part of the formaldehyde to 50 parts of water.

Another method is to use a copper sulphate, one part by weight to 100 parts of water.

One of the commonest causes of damping off is the sudden flooding of soil after leaving it dry too long.

Formaldehyde dust is also a good medium for the treatment of this condition, using 1½ ounces per square foot of flat area on the soil. Seeds may be sown immediately providing the soil is well watered after sowing.

Formaldehyde dust may be procured ready prepared or may be mixed at home in the following manner. Purchase a 40 percent Formalin and use 15 parts by weight to 85 parts by weight of carrier, usually ground or powdered charcoal. Never prepare more than is needed for immediate use as there is likelihood of the strength waning. Another method is to saturate the soil with a solution of Potassium Permanganate mixing 1 ounce of Permanganate to 10 gallons of water. For seedling evergreens the Sulfuric Acid treatment is good, prepared by mixing three sixteenths of an ounce of commercial Sulfuric Acid in 1 quart of water and then apply 1 quart of the solution to each square foot of soil. There are also many products on the market such as "Spargon" and Arasan, etc. which are very effective when used according to the manufacturers directions.

No matter what preventative methods are used, the menace is ever present and only constant vigilance and careful attention to details of moisture and temperature and light will ward off subsequent infection.

## CROSS-POLLINATING FERNS

Question: Since ferns do not produce true seeds and are grown from spores, will you please explain how the crossing is done? I know that hybrids have been produced but I do not understand how they are produced at will. . . . Petaluma, Calif.

Answer: The answer to this question calls for a little preliminary explanation about the history of Ferns. Plants included under this name, including some other plants sometimes called Ferns, such as Lycopodium and Selaginella and Asparagus plumosa, consist of an entire order. Two distinct phases occur in the life of an individual Fern plant. The actual Fern plant represents the Asexual phase of growth (Sporophyte) and produces spores in spore cases known as Sporangia which are borne in masses known as Sori, on the back or margin of the leaf. The sexual stage is known as the Gametophyte develops from the germinating spore and consists of a tiny, usually scale-like green heart shaped Prothallus and this bears the sex organs known as "Archegonia" female and "Antheridia" male," on the under side. After fertilization in the "Archegonium" the egg develops into a young Fern. Knowing this then will more or less explain the fact that crossing takes place naturally in the prothallus stage. Crossing is not done by hand but takes place from accidental mixing when the prothallia of allied species are growing up together. They should be allied species as variant species do not hybridize.

## CAMELIA CULTURE

He then showed how to cut slips at the basal ring, suggesting that they should be disinfected with Semesan. He feeds his plants with liquid cow manure and superphosphate. George showed his January 9th seedling which already developed a small tuber. In

## BEGONIAS

SEND FOR PRICE LIST

We are again equipped to ship plants

### GOBIN'S NURSERY

Rt. 2, Box 117, Paradise, California

## New South African Plants

BY SEED, 50c PER PKT., PLUS POSTAGE  
LEUCOSPERMUM reflexum, GOLD MINE  
as a cut flower, rare shrub.  
LEUCADENDRON argenteum, SILVER  
TREE, still rare tree of great beauty

### MARIA WILKES

158 So. Oxford Ave., Los Angeles 4, Calif.

## Protect your BEGONIAS

from  
NEMATODES

....with....

## LAWN-A-GEN

Send for FREE Bulletin on Nematodes  
Destruxol Corp. Ltd., Pasadena 2, Calif.



conclusion he demonstrated how to pinch a basket type to form a fuller crown. Mr. Hesketh grows several thousand Tuberous Begonias and his experiences are of great value to every amateur Begonia grower.

It was very gratifying that the May meeting was attended by many new members as well as several visitors from other San Francisco flower groups.

A. B. S. ANNUAL CONVENTION AND  
SHADE GARDEN SHOW: August 14, 15,  
16 and 17, LONG BEACH, California.



Listen to Mirandy

Sat., KECA, 8:45 A.M.

*Reaches the Roots  
Quickly and Evenly*

Likwid GRO applied through garden hose,  
feeds the plant as the water is absorbed.  
Ask your dealer about Likwid GRO today.

Price: 1 qt., 75c; 1 Gal., \$1.75

**PESTLESS PRODUCTS CO.**  
PASADENA 2, CALIFORNIA

# B. INVOLUCRATA, LIEBM.

By Alice M. Clark, San Diego, California

I am again indebted to Mrs. Fewkes for the loan of this most interesting *B. involu-crata*, Liebmann. Mrs. Carrell is probably responsible for bringing it in among the Costa Rica seeds. Its collector reported in *The Begonian* for May, 1946, that it was found at an altitude of 3500 to 6000 feet, in quite dry sites, on forest floors, growing four feet high on erect stems from large lateral rhizomes. Bloom from January to May. Both our French and German authorities say it is not existent in their cultures but it is described by Mrs. Buxton in her book and by Mrs. Krauss in an article for *The Begonian* of December, 1946, on the begonia seeds distributed to the Arm-chair Explorers. I hope they have all had good luck with it.

*B. involu-crata* was written up by its discoverer, Af. Liebmann, in 1852, which places it among our oldest begonias. It has a variety, *purpurascens*, renamed *B. metachroa*, by Fotsch, quite different from the one we are discussing. This begonia makes a nice plant for a pot as it branches from the base and also sends up underground stalks that face in different directions, so it looks well from all sides. I could not discover any rhizome, but the  $\frac{3}{8}$  inch trunks, while upright, have the close nodes, an inch apart and the leaf scars characteristic of rhizomes. The tallest stem in my sketch is 20 inches high, of woody green texture stippled with raised white dots.

The petioles of this begonia are from 5 to 8 inches long,  $\frac{1}{4}$  to  $\frac{3}{8}$  inch thick, dull green with white flecks and a red-brown fuzz that also covers the stalks. These stems are firm and strong, supporting the leaves at rather oblique angles. The largest leaf in my painting is 6 by  $7\frac{1}{2}$  inches, if you unfold its point. "Involute" means "to curve inward." You can see from the behavior of the foliage in the upper part of the painting, that it is well named. The leaf is a one-sided oval with the lower part cut into two to five short lobes. Ten or more light green veins radiate from a round center of the same color. In between them, the raised bright-green surface is channeled by other crevices that give a ridged and puckered appearance. The sheen on the leaf is almost obscured by an all-over cover of velvety white hairs, giving a tender texture only approached by *B. subvillosa*. The pale green underside, where the veins are so

elevated as to seem round, is clothed with the same downy hairs that shade into brown tomentum on the stem.

The foliage is rather sensitive to sun, browning easily. New leaves rise from two pale, downy, hook-tipped, keel-shaped stipules that shrink and turn brown, lasting for some time. Shoots come from the upper, older leaf axils as well as from the base. They are usually hidden beneath the larger leaves, though a few are exposed in the sketch. Light, shining on the top of the young growth, is reflected as if from white velvet.

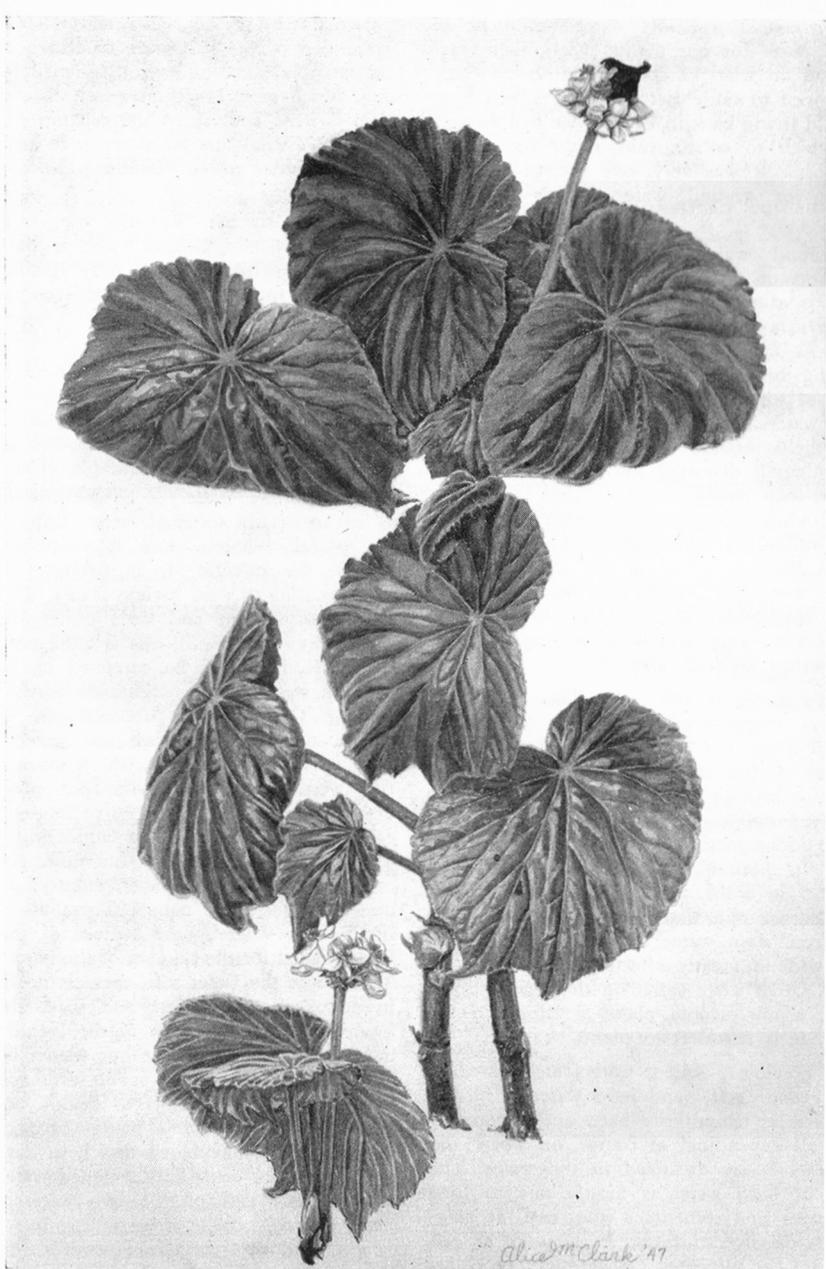
When I saw the little dunce cap on top of the pure white bloom on the first of April, I hastened to paint it before it could fall off, but it fooled me by remaining on, while the flowers bloomed out around it in a fairy ring. The peduncles of *B. involu-crata* are about the same as the petioles, except that there are no white spots on the downy brown surface. The twisted cap protecting the inflorescence usually turns brown and drops off early. Two broad, cupped petals and two slender, sharp-tipped ones, about  $\frac{3}{4}$  inches across when open, show a golden ball of stamen. The female flowers appear as pale green nubbins in between the others. Unfortunately I kept the plant too long in the house, so they did not develop enough to see the petals beyond the three-sided ovary. The flower stalks are few and only rise a short distance above the leaves.

The very unusual bloom arrangement, coupled with the distinctive cut and texture of the foliage, makes *B. involu-crata* definitely a collector's item.

## BRANCH NEWS

The MIAMI BRANCH of Florida enjoyed a varied program at the last meeting: *Begonias diadema* and *crestabruchi* were discussed. Next to pass in review were the *Anthuriums* and *Roscoea*. These were handled by the members in open discussion. The next meeting will be turned over to a guest speaker. This branch is fortunate in being able, through its publicity director, to obtain newspaper and radio announcements which are a great help to the group.

Mr. and Mrs. Wilson donated a white orchid for the plant sale.



**B. INVOLUCRATA, LIEBM.**

# HARD AND SOFT WATER

By Dr. W. C. Drummond, Hollywood, Calif.

We hear much of hard and soft water. Many people feel soft water would be the ideal water for our plants. Well, that would depend on what kind of chemicals our water contained to cause it to be soft. When I was a child living back in Illinois, we had a cistern in which to collect rain water for laundry purposes. It was very soft compared to our pump or ground water, which was very hard.

Ground water most always has large amounts of carbon dioxide dissolved into it. This is a great solvent of minerals. Ground water, as artesian water, when passing through lime or magnesium deposits, dissolves them, causing the water to be hard. There is another kind of soft water beside rain water. We divide waters into hard and soft, according to their behavior with soap, and also because of the minerals dissolved into the water. In soft water, soap readily dissolves, that is it makes suds, while in hard water soap precipitates out until all the mineral elements causing it to be hard, are thrown out of solution. In other words, we soften our water this way with soap, then soap readily dissolves and makes suds. Very hard water or very soft mineral waters are both alkaline.

*Rain water* is soft water because it contains no minerals to speak of, it is not alkaline. It is the best water there is for our plants because of this, and because it is slightly acid and also because it usually has some nitrogen dissolved into it, yet near some factories rain water does sometimes gather deleterious chemicals. In humid regions rain carries down about 5 to 6 lbs. of nitrogen a year. Where possible use rain water, especially for begonia seedlings. Rain water can be stored in glass jugs without greatly affecting the pH of the water. Often when stored in the light a green algae, a microscopic plant, develops in the water. It is harmless to plants.

As previously stated, waters are classed as "hard" and "soft," and hard water is further classified as temporarily hard or permanently hard, all depending, of course, on what kind of minerals are dissolved in the water. The cause of hard water is mostly due to lime (calcium) and sometimes iron, and, or magnesium dissolved into it. If the salts of calcium are the sulphates (as gypsum) or chlorides, or nitrates, they are classed as permanently hard. But where the calcium is a bicarbonate or carbonate it is classed as temporarily hard, boiling will throw out these carbonates and the lime deposits in the vessel used to boil the water. This water is then

suitable for irrigation of acid plants. We have softened it by boiling. Permanently hard water, composed of the sulphates, chlorides, and nitrates of calcium, cannot be softened by boiling. Much of our natural water, before treating, is hard because of the calcium dissolved into it. It would be far superior to artificially softened water where a zeolite process is used.

Artificially softened water is water run through a softener whereby the calcium is traded for sodium. The water is then soft, dissolves with soap, is strongly alkaline, and very bad for plants. Metropolitan water is such a water. The calcium having been taken out and replaced with soda.

Much of the water used for domestic purposes, here in the west, is on the alkaline side, often with a pH of 8 to 8.3 and sometimes 9 pH or higher. Metropolitan water of Southern California has a pH of 8.45.

Metropolitan Water of Southern California is an artificially softened water, using a zeolite process whereby soda is added to it to replace the calcium. It is strongly alkaline and harmful to acid loving plants. The soda of the water can and does unite with the phosphorus of the soil, this is quite poisonous to plants. It cannot be corrected by boiling. Ground water can sometimes be corrected by boiling. Our water departments are continually working to improve our water, often eliminating some element which when in excess would be poisonous to our plants, as boron. They replace excessive amounts of calcium with soda to make laundering easier. This makes the water soft, but more alkaline.

There are domestic water softeners put out under various trade names. These use a zeolite process whereby the sodium of the zeolite is traded for the calcium of the hard water. This leaves the water soft, there is no deposit in your pans or boilers and soap dissolves freely. It is a great boon to the laundry and industry but very bad for our plants because of the alkalinity. There is no evidence that hard waters are injurious to health. Softness and hardness are both a matter of degree.

It is to be remembered that both hard and soft, natural or artificially softened waters are alkaline and that of the two waters, hard water would be the least harmful to our plants or soil, so do not use water out of a domestic water softener. Temporarily hard water when boiled is suitable for most plants.

Naturally where water contains a large amount of minerals dissolved into it, either naturally or when added to make the water soft, it is not good for our plants, especially

(Continued on Page 138)

# W A R N I N G !

ANY PERSON (MEMBER OF THE AMERICAN BEGONIA SOCIETY) living within reasonable distance of LONG BEACH, CALIF.,—heard to say "I HAVE A MUCH BETTER PLANT OF THAT AT HOME" during the 1947 SHOW August 14, 15, 16 and 17—will be fined.

If you desire to win a prize—or prizes, bring your plants, if you want to contribute to the prize money of NEXT YEAR . . . come and boast of what you left AT HOME!

This Long Beach Show is going to be of interest to all flower lovers from everywhere. The four-day show will make it possible for Begonians to make their exhibits attractive without rushing or fear of losing any of the interesting sessions to be held during the last two days which are especially OUR two convention days.

There will be GARDEN TOURS and lectures for your enjoyment besides the thrilling reports of progress from all over the country. Anyone coming from a distance will do well to plan an extended holiday in Long Beach or vicinity, for that time of year is most delightful and enjoyable of all the 365 days in LONG BEACH . . . VACATION LAND.

The large Municipal Auditorium will be able to house some 80 BOOTHS, each with an 8 ft. 6 inch ceiling with an overall measurement of 27,000 square feet which will include 200 feet of tables 5 feet wide for specimen exhibits. Booth space of 10 ft. will be free to all American Begonia Society Branches or to other Garden Clubs organized before May 1, 1947, since the show will be open to all kinds of Flower and Garden Organizations and Allied subjects. For Commercial organizations and Nurseries or Florists, there will be a charge made for floor space, according to the position and the measurement of the booth.

There will be many classes for our varied types of BEGONIAS and all shade plants of all kinds, plan to bring all the plants you can possibly transport safely and well. The SCHEDULE is too lengthy to be published in The Begonian this year. See below for source of your copy.

For the Flower Arrangement section there is another large hall of approximately 8,000 square feet, with space for all kinds of arrangements. We have never had such scope before for our exhibits. Let us see what we can make of them.

So that there will be no possible favoritism charged there will be a public drawing of the numbers for the booths designated for the A. B. S. Branches and other Garden

Clubs. This will take place on Wednesday, Aug. 13, which means all those interested should send in reservations for space at once, or as quickly as possible.

The Auditorium will be open to workers all day and night Wednesday, Aug. 13 and through 10 a. m. Thursday, Aug. 14, WHICH IS DEAD LINE for exhibits entered to be judged.

Exhibitors with large specimens may drive right into the Auditorium to the booth, if they come early, otherwise it will still be simple since the wide entrance at the side of the Auditorium will have dollies to move plants and heavy materials to the booths. Commercial growers in good standing may assist Branches of their own district to stage better exhibits without impairing status of eligibility for competition.

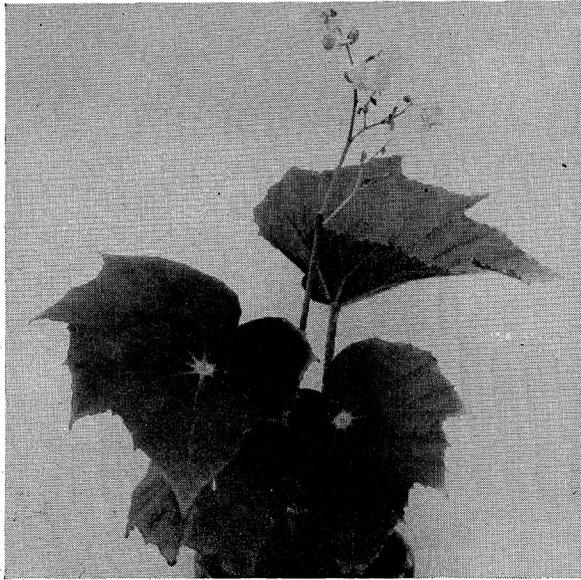
Floor plans and schedule are available with other data and information from Mr. E. A. Taylor, Sec. Treas. of Pacific Flower Shows, Inc., 6138 Orange Ave., Long Beach 5, Calif.

Mr. R. C. Hudson, President, and Mr. B. E. Rownd, Vice-President, may also be addressed at the same address or by telephone—Long Beach 2-2766.

These public spirited men, supported by every Civic organization in Long Beach, have arranged an enticing array of trophies with prizes amounting to \$5,500. It is planned to sell two-day admittance tickets to the Long Beach Flower Show for \$1.50 and four-day tickets for \$3.00, including 38c tax.

Since The American Begonia Society has not yet been charging REGISTRATION FEES for the Annual Convention, we can regard this as a registration fee with added privileges.

We might suggest NOW—that every member check his own standing with his home secretary or thru the National Membership Chairman to be sure that each may have his membership card with him. The meeting in Long Beach, the original home of the American Begonia Society is being anticipated with much pleasure. It is expected that all those who will have the privilege of attending this Convention will date this not only as one of the MILESTONES in the history of the American Begonia Society, but as an instructive period with extra special attractions to remember.



**B. THILDA FISCHER**

A new rhizomatous begonia, with a dark green, heavy-textured leaf, which should do well as a house plant. The large clusters of pink blooms are held high above the foliage.

Price \$1.50, f. o. b. Santa Barbara

**RUDOLF ZIESENHENNE—Begonia Specialist**

1130 North Milpas St.,

Santa Barbara, Calif.

## MULCHES AND GROUND COVERS FOR FUCHSIAS

*By Ed Carlson, Berkeley, California*

*(Courtesy The American Fuchsia Society, San Francisco, California)*

Do you really love your fuchsias? If you do, you will try and grow them under the conditions nearest to their native habitat as possible. We are well repaid for any extra care we give them, as they respond so quickly with an abundance of bloom.

Their two main requirements are rich, acid soil and the correct amount of humidity, moisture in the air. How are we going to create humidity in our gardens? By planting our fuchsias in a shady site, under lath, or under a cloth house. The prevailing dry winds must be excluded. The air should pass over ground covers, lawns, through trees and shrubs. Artificial spray or fog makers could be used to good advantage.

One should not have any dry or unplanted garden space near fuchsias. I favor a complete ground cover throughout the garden, shade or sun. Ground covers for sunny areas are wild strawberry, lippia, dichondra, grass, creeping thyme, etc. For shade, Lily of the Valley, Helx-

ine moss (Baby-tears), ground ivy (*nepeta hederacea*), *ajuga reptans*, etc.

In using ground covers, do not overlook the addition of small flowering plants, such as violas, pansy, forget-me-not, primrose, etc., and always ferns. These add a note of interest and continuity from the ground level to the top of the lovely fuchsia blooms.

Even fairly good garden soils will not hold as much water as they should, and the capacity of all soils to hold adequate amounts of moisture is tremendously increased by humus. Our best mulches are peat, redwood bark fibre, various manures, leaf mold, compost, leaves, etc. Several inches of these materials around fuchsia plants as a mulch are necessary to increase the water-holding capacity of the soil. If your location is hot and dry, the amount of mulch should be doubled. It also provides an ideal environment for microscopic organisms, upon which the acid-loving fuchsia

(Continued on Next Page)

# PROPAGATING CASE

By Elsie Wallis, Oklahoma City, Okla.

Many Round Robin members mention difficulty with starting plants from seeds as well as with seedlings and I too have experienced the same difficulty and have made numerous experiments both with various soil mixtures, and with the environment in the way of housing the seed trays and seedlings, with mediocre success, generally speaking.

Recently, Robin members have mentioned "propagating case" and "Wardian case," and after corresponding with some of the members, learned they referred to a specially constructed case with controlled heat and heavy humidity, both of which are vital to sprouting seeds and for seedlings. We built a composite case, as it were, using ideas gleaned from this one and from that one, adding some innovations that appeared feasible, and I am more than amazed with the results, especially with the seedlings, which seemed to absolutely stop all growth with the advent of cooler weather, until they were placed in this case. They make more progress in one week than in any three or four weeks that I have experienced. Some seedlings have actually grown a quarter inch in a week and look exceptionally healthy, have better roots and actually seem to have better color.

I found that small plants which have been shipped, recover from shock exceedingly rapidly when placed in the case. There are over seven hundred seedlings and small plants in my case, and they amaze me with their progress, and all at a very nominal cost.

Of course we were fortunate in having materials at hand with which to construct it, having only to purchase two electric light bulbs, and the thermostat (which cost only a couple of dollars). A thermostat can be purchased from most any poultry or seed supply house. My case is a little larger than some would want, but they can be built to suit the requirements of the individual. It is 32 inches long and 24 inches wide, has a gable roof, and as some one remarked, "looks like a small greenhouse." The apex differs from the conventional greenhouse in that, on the top, I placed a three inch board 32 inches long (laid flat), and have four 1½ inch holes near the center for ventilation and covered with a pad. The doors are hinged to this

plants depend at least in part for getting their food.

When you have created the ideal humidity conditions and provided adequate ground covers and mulches, you may expect fuchsias in all their glory.

three inch board and form the roof and rest on the side walls. (Both the doors and the side walls are 13 inches wide and 32 inches long. They are doors from book cases usually found in law libraries, attorney's offices, etc.) The ends I boarded up solid to retain warmth. A heavy pad cut from a piece of carpet is thrown over the entire structure, covering all the glass during the night. This helps to conserve the heat also.

The base is a five inch board rectangle on which the case itself rests. An electric light is fixed in each end of the base with large pieces of tin over them to diffuse and scatter the heat. Four small cross pieces (1 x 2) are securely fastened to the base to support the weight of the trays, pots, etc., and a piece of half inch hardware cloth (small mesh chicken wire will serve the purpose) is laid on the cross pieces. Trays of seedlings are set on the hardware cloth, then a couple of racks are placed over the trays to support more trays, then more racks supporting still more trays, pots, etc. The thermostat is near the top of the case, fastened to the boarded up end, and entirely surrounded with a guard of hardware cloth, letting the sharp points stick out and jab the incautious, for the thermostat is rather delicate and would receive many jolts if not protected.

A large tray is placed on the floor under the hardware cloth and kept full of water—a couple of large sponges in the water creates a greater evaporating surface, thus intensifying the humidity. The inside walls and glass are always sweating. Every crack is made as air tight as possible with odds and ends. Of course a small cheap thermometer is kept in the case to check on the temperature. I am toying with the idea of installing a hygrometer to check on the humidity.

This case is still in the experimental stage, and expect to improve on it from time to time. It may not be necessary to have glass in the sides at all, as glass dissipates so much heat. Some may find that the glass in the roof is sufficient, and different climatic conditions may require different construction, but one may get the basic idea from this description. Medium sized bulbs seem to be ample at present, and they are lighted only a small portion of the time.

The case affords me endless pleasure in watching the cute little seedlings grow and progress, and I pass my findings on that others may benefit also, and extend my hearty thanks to those that helped make it possible.

## HARD AND SOFT WATER

begonias and shade plants. One reason is because when either of these waters are used in irrigation they evaporate, or the water is used by the plants, and leave minerals behind. This evaporation often leaves the soil minerals 3 to 5 times more concentrated than the original water used in irrigation, depending of course on the nature of soil and drainage. When the concentration of these minerals in the soil is great enough the plant may even give off water to the soil, whereby the plant wilts. Plants also wilt because the plant cannot carry sufficient water to the leaf, due to sudden change of humidity or temperature.

When hard water is used continuously for irrigation, and the field is not flushed out by the rain water, or is not well drained, it usually results in what is called white alkali; while the carbonates of soda in mineral water, which are soft, when used the same way, usually result in black alkali land. Our garden soil, after prolonged irrigation with hard or soft water may not be classed as alkaline soil, nevertheless, it will be quite alkaline and many shade plants demanding an acid soil will not grow well in it.

## Suggestions That Might Win You a Prize—

Try to prevent leaf and flower blemishes by good, constant and safe pest control. Fish fertilizer is on the market again . . . We all know ROBERT H. CALVIN won all the trophies last year with this as ONE of his secrets.

Stake all branches that might be jiggled with fine bamboo or wire. Soak plants thoroughly a few hours before packing. Use several sheets of newspaper in which to wrap each plant individually, be sure the leaves are dry.

The plants are then packed snugly into deep cartons with wads of paper or cardboard in between them to keep them from moving against the other plants.



FUCHSIA Pat. by Evans

## FUCHSIAS

AMERICA'S  
FINEST COLLECTION  
Catalog on Request  
**Evans & Reeves  
Nurseries**

255 S. Barrington  
Los Angeles 24, Calif.



AGGELER & MUSSER Packet Seeds are the products of over a half century of beautiful gardens.

Let A & M SEEDS make this year's garden the best you've had.

Buy them with confidence.

AT YOUR  
LOCAL DEALER

**AGGELER & MUSSER**  
SEED COMPANY  
652 MATEO STREET, LOS ANGELES, 21, CALIF.

## ORCHID SPECIAL

Here is your chance to start your own HARDY OUTDOOR COLLECTION at a minimum cost. A special importation enables us to offer plants of many fine varieties:

LAELIA ANCEPS STANHOPEA TIGRINA  
LAELIA GRANDIFLORA  
LAELIA AUTUMNALIS EPIDENDRUMS  
ODONTOGLOSSUM GRANDE  
AND ONCIDIUMS

Small clumps .....	each	\$1.49
Medium clumps .....	each	2.49
Large clumps .....	each	4.98
Orchid Fern Fiber .....	per lb.	.85

Also offered are large assortment of CYMBIDIUMS . . . reasonably priced  
Please add 25c for mailing plus Calif. tax.

**WINSEL-GIBBS NURSERY**

1955 W. Florence Ave.  
TW. 1564 Los Angeles 44, Calif.

## CONCENTRATED FERTILIZER

Concentrated fertilizer—a fish by-product—used by experts. Dilute and apply from pail or hose proportioner. For lawns, flowers, shrubs, gardens, trees, potted plants. Results will delight you.

PINT makes 20 gals. 80c

**ATLAS CHEMICAL CO.**  
1 Drumm St., San Francisco 11, Calif.



**ATLAS**  
FERTILIZER EMULSION

## FROM THE SEED FUND SKIPPER'S MAILBOX

Dear Armchair Explorers:

Your Begonia plants should now be growing fast. Soil tends to dry out very quickly now so special attention must be given to see that the roots are moist at all times. It may be advisable to prune some of your plants at this time to make them more bushy and better shaped. The cuttings taken off should start very readily now. Save your surplus Begonia seeds for the Seed Fund.

Fern growing from spores has been a most fascinating subject, members are now writing to tell of their successes. From Mrs. Marguerite Heinrich of Galveston, Tex., comes this letter: "All of the spores which you sent are coming up fine. Of course some are more advanced than others. I think growing from spores is a most exciting hobby. Have you ever watched them with a powerful magnifying glass? It is a thrill of a lifetime because you can see the tiny plants long before they can be seen by the naked eye. I want to tell you how I plant the fern spores for you may be able to pass this method on to others. No propagating case is necessary and each kind of fern is in its own private container. I save glass jars of all kinds with tops, fill these half full of pure peat moss (half leafmold can be used) which has been sterilized with boiling water. Sprinkle the fern spores on the wet moss and put top on jar. These jars are placed out in my yard under the shrubbery where there is plenty of light but no sun. They keep damp the same as in a terrarium and if you do have to have more moisture, then spray gently with a fine spray. I leave the ferns in these jars until the first leaf or frond appears, then prick out very small clumps with a fine knitting needle, transplant them to small pots and pack pots in damp peatmoss under my greenhouse shelves. Over each pot I place a small jar and leave them until more fronds appear, then remove glasses and gradually move plants up on the greenhouse shelves. I now have about 200 jars of fern spores out under the shrubbery, many are ready now for first transplanting." (Begonia seeds can be grown the same way).

Many Gesneria fans have written asking that I write more on this subject, I shall do so soon. I have been asked repeatedly if I would conduct a Gesneria Seed Fund. My task is to try to please the A. B. S. members, if a pool of Gesneria seeds is what you want, then let us make it a short one—For \$2 you will be sent a small packet of all the kinds of Ges-

### CYMBIDIUM BACKBULBS

From Finest Imported Plants  
Sprouted and Ready for  
Immediate Delivery

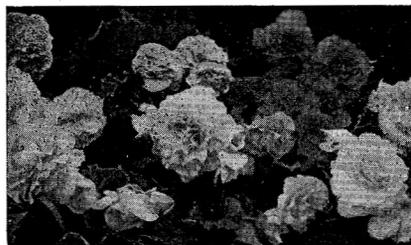
—ALSO—

### CYMBIDIUM SEEDS

*Send for List of Varieties and Crosses*

## OAKHURST GARDENS

345 W. Colorado St. • Arcadia, Calif.



THE LARGEST ASSORTMENT  
AND FINEST NEW DEVELOPMENTS

of the

PACIFIC STRAIN

of

**TUBEROUS BEGONIAS**

Write for Catalog

**Vetterle and Reinelt**

Capitola, California

neria seeds on hand—(from 15 to 20 kinds) Pool to run from August 1st to September 1st.

Plan now to attend the Long Beach Convention in August, let's have a big showing of Armchair Explorers.

Cheerio until next month. Your skipper—  
Florence Carrell.

Los Angeles, California  
May 26th, 1947

CONDENSED minutes meeting National Board, A.B.S. held May 26th, 1947, Clark Hotel, Los Angeles with President Lawrence presiding.

Meeting called to order at 8 p. m. Directors Lawrence, Hart, Walton, Dere, Clark, Drummond, Weber, Hartwell, Jenks, present; Branches represented: Parent Branch, North Long Beach, Inglewood, Ventura, Santa Barbara, Glendale, Orange County, Bellflower, Foothill, San Gabriel Valley, Hollywood.

Routine business followed: Reports of Treasurer, Editor and Business Manager, Membership Fees; Minutes of April 27th meeting read and approved as read.

Mrs. Drummond passed around for inspection a new type of membership card for Past Presidents and Life Members—a white cardboard printed in black type, laminated, at a price of about \$22.50 per hundred. Motion made, seconded by Mr. Walton "That we have these cards printed and ready for use as soon as convenient." Carried unanimously. President Lawrence instructed Mrs. Drummond to go ahead and order the cards.

Mrs. Drummond reported on a recent visit to the Santa Barbara Branch and of the very cordial welcome extended her; stated she had visited some 12 branches to date; had found much of interest in each meeting; hopes to attend several more meetings before the date of the Annual Meeting.

Mr. Clark, public relations director, read letter from San Diego Branch asking the National Board to approve their amendment to Article V of their By-laws. Motion "That this amendment to Article V of the San Diego Branch By-laws be approved." Second by Mr. Hart. CARRIED.

Mr. Heth, of the nominating committee, asked for an extension of time for one week to submit list of nominations as the committee was not quite ready to report at this time. President asked Mr. Heth to act as chairman and that he and Mrs. Jensen complete the ticket as promptly as possible. Discussion followed as to what issue of the Begonian should carry the ballot, with motion below resulting.

Mr. Hart: "I move that we set aside the dates as appear in Article 4 of our Constitution & By-laws, for the year 1947 and new dates be used for this 1947 date; that the ballots be published in the July Begonian and that the report of the nominating Committee be made by June 5th in order to be included in the July Begonian." Carried UNANIMOUSLY.

President reported Seed Fund Chairman Mrs. Carrell advised she was mailing out the rex Begonia seeds from India; she also asked for copies of horticultural magazines and seed catalogues which she could use on her exchanges. Anyone having extra copies of material of this nature, please contact Mrs. Carrell.

Mrs. Jenks asked for names of speakers to add to her list as she is often called upon to furnish speakers for the Branches.

President opened the meeting to a discussion of the Robinson Memorial and called on each Branch present for expression of opinion as to how this should be handled. At the conclusion the consensus of opinion was that a plaque, or shrine, would be more in keeping with the desires of the Branches and a motion by Mrs. Drummond was unanimously adopted—"That we place a plaque, and state on the plaque—or leave it to the Committee to word something appropriate—that this is the home and place of work of Mr. Robinson; and also that we establish a medal, either bronze or other material, to be given for the best seedling of fibrous, rex, or tuberous, each year in the name of Alfred D. Robinson and that the medal be called the Alfred D. Robinson medal for the best seedling plant." Secretary instructed to write Mrs. Clark and Mr. and Mrs. Hunter of the Robinson Branch telling them of the action of the Board and to assure them of the very high appreciation of all members for their generous offer and their helpful attitude throughout this entire consideration. President Lawrence stated he would appoint a committee of three to work out the details on this motion and would announce his committee later.

Branch reports from representative directors present showed interest good and meetings interesting with good speakers.

## IMPATIENS

### Vavrai

This beautiful new Impatiens makes a rounded bushy plant, 2½ ft. in diameter and just as tall, with large, shiny foliage of Oliveri type and lovely shell pink flowers from February to December. Grows wonderfully well in shade or part sun.



Each \$1.50

(Please Add 3% Sales Tax to All California Orders)



Send 25c for our new catalog, or Free with Order

**PAUL J. HOWARD'S**  
California Flowerland

11700 National Boulevard  
LOS ANGELES 34 CALIFORNIA

### Southern Alameda Show

Chamber of Commerce. Financial assistance and a rotating trophy has been asked from the C. of C. At this writing there has not been a definite response to the request.

The show committee is formulating plans for a plant sale at the show to which all members have been asked to contribute plants. There will be refreshments on sale also. The committee is entertaining plans for an evening entertainment program in the auditorium.

Mr. Rownd and Mr. Taylor spoke of plans for the Flower Show and Annual meeting; stated plans were coming along in good shape; plenty of room for the show; annual meeting, and banquet reservations up to 500; urged branches and members to get their reservations in early. Mr. Rownd stated he planned to attend branch meetings and talk up the flower show; asked all representative directors to stress the importance of their branches getting in reservations early. Theme for the show "Floral Fantasy for 1947"; booklet soon to be published and mailed to Branch Secretaries giving classifications and list of awards. Will have lots of publicity in the papers and urged members to watch the Begonian for further details. And for everyone to support the show and asked for a good attendance. Plan of floor-space met with approval of Board and members asked to work on their plants to have them in shape for the show. More about this from time to time.

Meeting adjourned to meet again June 23rd, Clark Hotel; dinner at 6:30 with meeting to follow.

Respectfully submitted  
Gonda Hartwell, Secretary

## Meeting Dates and Places

The next meeting of the American Begonia Society Board will be held in the Clark Hotel Grill Room, Hill Street, Monday, July 28th, 6:30 p. m.

- THEODOSIA BURR SHEPHERD BRANCH**  
 Tuesday, July 1st, 7:30 p. m.  
 Alice Bartlett C. H. 902 E. Main, Ventura, Calif.  
 Mrs. Harry Meyer, Secretary, 111 Leighton Dr.
- SAN FRANCISCO BRANCH**  
 Wednesday, July 2nd, 7:45 p. m.  
 American Legion Hall, 1641 Taraval St.  
 Sec.: Mrs. Walter Ashe.  
 1855 - 33rd Ave., San Francisco 22, Calif.
- SANTA MONICA BAY BRANCH**  
 Wednesday, July 2nd, 7:30 p. m.  
 University High School Horticulture Dept.  
 11800 Texas Ave., West Los Angeles  
 Mrs. Denman Bemus, Secy.-Treas.  
 345 So. Santa Anita Ave.  
 Brentwood, Los Angeles 24, Calif.
- ORANGE COUNTY BRANCH**  
 Thursday, July 3rd, 7:30 p. m.  
 Farm Bureau Hall, 353 So. Main St., Orange.  
 Doris Burdick, Sec.-Treas., Rt. 4, Box 296,  
 Anaheim, Calif.
- FOOTHILL BRANCH**  
 Friday, July 4th, 8 p. m.  
 Woman's Club House, 1003 Azusa Ave., Azusa.  
 Mrs. James M. Reed, Secretary  
 643 No. Wabash Ave., Glendora, Calif.
- BELLFLOWER BRANCH**  
 Monday, July 7th, 7:30 p. m.  
 Washington Street School Cafeteria  
 Sec.: Mrs. Edna Leistner, 610 Nichols St.,  
 Bellflower, Calif.
- PASADENA BRANCH**  
 Tuesday, July 8th, 7:30 p. m.  
 Pasadena Public Library  
 Lester F. Harrell, Sec.-Treas.  
 668 Bellefontaine St., Pasadena, Calif.
- RIVERSIDE BRANCH**  
 Wednesday, July 9th, 8 p. m.  
 Mrs. T. W. Gall, Sec.-Treas.  
 4518 Bandini Ave., Riverside, Calif.
- HOLLYWOOD BRANCH**  
 Thursday, July 10th, 7:30 p. m.  
 Plummer Park, 7377 Santa Monica Blvd.  
 Mrs. Vera Lynde, Rec. Sec.  
 1030 N. Orange Grove Ave.  
 Los Angeles 46, Calif.
- SANTA BARBARA BRANCH**  
 Thursday, July 10th, 7:30 p. m.  
 Community Institute Centre  
 Room 5, 914 Santa Barbara St.  
 Santa Barbara, Calif.  
 Mrs. E. H. Mercer, Secretary  
 2019 Bath St., Santa Barbara, Calif.
- CALIFORNIA HEIGHTS BRANCH**  
 Friday, July 11th, 7:30 p. m.  
 Members' Homes  
 Mrs. Esther L. Randall, Sec., 3638 Cerritos Ave.  
 Long Beach 7, Calif.
- SEQUOIA BRANCH**  
 Friday, July 11th, 8 p. m.  
 Members' Homes  
 Mrs. Albert Lowery, Secretary  
 620 W. Grove St., Visalia, Calif.
- INGLEWOOD BRANCH**  
 Friday, July 11th, 8 p. m.  
 325 No. Hillcrest, Inglewood, Calif.  
 Mrs. Laura Crandall, Secretary  
 2730 Redondo Blvd., Los Angeles 16, Calif.
- LA MESA BRANCH**  
 Monday, July 14th, 8 p. m.  
 La Mesa Grammar School, La Mesa, Calif.  
 Sec.-Treas.: Dr. Constance Holmes  
 133 Prescott, El Cajon, Calif.
- NORTH LONG BEACH BRANCH**  
 Monday, July 14th, 7:30 p. m.  
 HOUGHTON PARK CLUB HOUSE,  
 HARDING & ATLANTIC, NO. LONG BEACH  
 Mrs. Harry H. Boyd, 5670 Walnut Ave.  
 Long Beach 5, Calif.
- HUMBOLDT COUNTY BRANCH**  
 Monday, July 14th, 6:30 p. m.  
 Lanes Memorial Hall, 1st Christian Church  
 Sec.-Treas.: Dorothy Lark  
 Box 16, Scotia, Calif.
- SO. ALAMEDA CO. BRANCH**  
 Thursday, July 17th, 8 p. m.  
 Scout Room, Markham School, Hayward, Calif.  
 Sec.-Treas.: Mrs. Dorothy Bayliss  
 26706 Monte Vista Dr., Hayward, Calif.
- NEW YORK SUBURBAN BRANCH**  
 Sunday, July 20th, 2 p. m.  
 Home: Mrs. Fifi Kline  
 Mt. Kisco, N. Y.  
 Sec.-Treas.: Mrs. Norman Hedley  
 71 Willard Terrace, Stamford, Conn.
- PHIOBEGONIA CLUB BRANCH**  
*Irregular Meetings*  
 May T. Drew, Pres.  
 Box 331, Narbeth, Pa.
- EVA KENWORTHY GRAY BRANCH**  
 Monday, July 21st  
 Community House, LaJolla  
 Tillie Genter, Sec.-Treas.  
 7356 Eads St., LaJolla, Calif.
- MISSOURI BRANCH**  
 Tuesday, July 22nd, 2 p. m.  
 Mrs. Bruce Dill, Secretary  
 3715 Harrison, Kansas City, Mo.
- MIAMI, FLORIDA, BRANCH**  
 Tuesday, July 22nd, 8 p. m.  
 Simpson Memorial Garden Center  
 Mrs. W. G. Coffeen  
 1742 S. W. 10th St., Miami 35, Fla.
- WHITTIER BRANCH**  
 Tuesday, July 22nd, 7:30 p. m.  
 Union High School, Room 19  
 Lindley Ave. Entrance, Whittier, Calif.  
 Madeleine Hall, Secretary  
 509 Friends Ave., Whittier, Calif.
- EAST BAY BRANCH**  
 Tuesday, July 22nd, 8 p. m.  
 Council Chambers, Berkeley City Hall  
 Mrs. Emma Carlton, Secretary-Treas.  
 1430 Oxford St., Berkeley 9, Calif.
- MARGARET GRUENBAUM BRANCH**  
 Mrs. W. E. Jones, Sec., Willow Grove, Pa.
- GLENDALE BRANCH**  
 Tuesday, July 22nd, 7:30 p. m.  
 329 No. Brand Blvd., Glendale, Calif.  
 Charles Richardson, Secretary  
 1441 Fairfield, Glendale 1, Calif.
- SAN GABRIEL VALLEY BRANCH**  
 Wednesday, July 23rd, 8 p. m.  
 Masonic Temple, 506 S. Santa Anita Ave.  
 Mrs. Myrtle Jones, Secretary  
 132 May Ave., Monrovia, Calif.
- SANTA PAULA BRANCH**  
 Thursday, July 24th, 7:30 p. m.  
 Memorial Hall High School  
 Mrs. C. F. Crang  
 907 Pleasant St., Santa Paula, Calif.
- ALFRED D. ROBINSON BRANCH**  
 Friday, July 25th, 7:30 p. m.  
 Loma Portal School  
 3341 Browning St., San Diego, Calif.  
 Mrs. J. J. Howarth, Secretary  
 4319 Del Mar Ave., San Diego 7, Calif.
- SAN DIEGO BRANCH**  
 Monday, July 28th  
 Hard of Hearing Hall, 3843 Herbert Ave.  
 Mrs. A. P. Carlton, Sec.-Treas.  
 624 Arroyo Dr., San Diego, Calif.
- LONG BEACH PARENT CHAPTER**  
 Thursday, July 31st, 7:30 p. m.  
 Robert Louis Stevenson School, 5th and Atlantic  
 Cafeteria, Lime St. Entrance, Long Beach, Calif.  
 Sec.-Treas.: Mrs. E. G. Arbuckle  
 5932 Seville Ave., Huntington Park, Calif.
- SANTA MARIA BRANCH**  
 Sec.-Treas.: Mrs. Peter Mehlschau  
 Nipomo, Calif.
- NEW ENGLAND BRANCH**  
 Mrs. M. W. Stewart  
 224 Armington St., Edgewood, R. I.

POSTMASTER  
PLEASE NOTIFY ROY K. DERE  
1618 FICKEWIRTH AVE.  
EL MONTE, CALIFORNIA  
OF ALL CHANGES  
RETURN POSTAGE GUARANTEED

## FUCHSIA-LA NURSERY'S ANNUAL SHOW

JULY 4th - 5th and 6th

AMERICA'S FINEST FUCHSIAS ON DISPLAY

CALIFORNIA'S LARGEST GROWERS

SPECIAL DAILY PROGRAM

LECTURES: Growing, Spraying, and Fertilizing

◆ DOOR PRIZES ◆

Large Hanging Basket Fuchsias; Upright Fuchsias; Fertilizers;  
Bedding Plants, etc.

FUCHSIA-LA NURSERY — 3569 Atlantic, Long Beach, Calif.

*Palos Verdes* BEGONIA  
FARM

4024 Pacific Coast Hi-Way  
WALTERIA, CALIFORNIA

All Types of  
BEGONIAS and SHADE PLANTS  
Specialty: HYBRID NERINES

1½ miles E. of Redondo Beach, Hiway 101

### SPECIALTY BEGONIA SHOP

Camellia - Fimbriata and New Ruffled  
Novelties

TUBEROUS ROOTED BEGONIAS

also  
HANGING BASKET TYPES

as well as  
Seedlings and Cut Flowers of These

POTTED BEGONIAS & PRIMROSES

*McMill's Begonia Garden*  
1103 Madison Ave., Redwood City, Calif.

REX BEGONIAS—FIBROUS BEGONIAS—FERNS—SHADE PLANTS  
DISH GARDENS—POTTERY—FUCHSIAS

### NICHOLL SHADE GARDEN

1035 South Ardmore Ave.

Phone TORrey 7-4500

Bellflower, Calif.

Seeds, Plants, Bulbs, Insecticides, Fertilizers

Closed Sunday Except by Appointment

B. A. Nicoll and F. L. Nicoll