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The ßegonian
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This Society shall be conducted on a nonprofit basis, and its purpose shall be to stimulate interest in begonias and shadeloving plants; to encourage the introduction and development of new types of begonias and related plants; to gather and publish information in regard to the kinds, propagation and culture of begonias and other shade-loving plants, and to issue a bulletin which shall be mailed to all members in good standing.

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## Begonia Boweri

This very attractive Mexican begonia probably will be familiar to many members of the Begonia Society in spite of the fact that it has been in cultivation for only seven years. It was found by MacDougall in 1948. How. ever, it certainly is an "eye catcher" and is always remarked upon by those who see our plant collections. The plant shown in the illustration is not yet two years old from a cutting, but has a diameter of $18^{\prime \prime}$. We found that this species is somewhat more finicky than most other begonias, and, after trying it in several soil mixtures, we transplanted it into pure sphagnum moss, which seems to suit it to perfection. The abundant flowering of the illustrated plant attests to its health and happiness. Not all of the begonias seem to prefer sphagnum moss, but a trial quickly reveals which do, and these will then be vastly better for the change.

The procedure for sphagnum moss culture which we have worked out, employs carefully hand cleaned moss from which all dead leaves and other litter have been removed. The moss is first thoroughly dried and then shredded so that the individual strands are about I or $\mathrm{I} 1 / 2$ inches long. It is then thoroughly mixed to render it fluffy and is soaked in a mild fertilizer solution for which we use I teaspoonful per gallon of either Ra-Pid-Gro or Hyponex. Any other equally complete and completely soluble fertilizer can be used also. The sphagnum moss is then squeezed out by hand until it is no more than moderately moist, and fritted trace elements are added to it at the rate of half of a tablespoonful per bushel. This powdery material is sprinkled over the moist moss which is once more thoroughly mixed. In potting, no crocks are placed at the bottom of the pot, and the moss is packed medium tight. It is important to plant neither too tight nor too loose. The surface is covered with gravel to exclude the light, since otherwise algae invade the moss and spoil it.

No water is given after potting. In future the need of watering can be established easily by lifting the pot, because the difference in weight between wet and dry sphagnum moss is very great. At first and until the plants are well established, the moss must be kept only moderately moist. Once they are thoroughly rooted through the moss, the best procedure is to place the pots in a pan with water and to allow the moss to soak the water up from below. One must then wait until the pot becomes very light and appears to be quite

dry before watering again. This change from wet to dry is very important, since plants will not thrive in sphagnum moss which is kept continuously soaking wet. The danger of wilting is much less than in soil. Freely growing plants are fed twice a month with the same highly diluted fertilizer solution mentioned above, and we also use an infusion of chicken manure. This is prepared from pure chicken manure without litter. Three pailfuls of chicken manure to a 45 gallon barrel of water are allowed to ferment for 10 days under occasional stirring. Two pails of the liquid are then mixed into another 45 gallon barrel of water, and this is used for watering the begonias once a month.

We have found that also those of our begonias which are grown in soil are greatly benefited by the addition of small amounts of a mixture of fritted trace elements. We have a fully equipped laboratory at our disposal, but still have never been able to establish clearly which of the trace elements is in short supply or is for some reason or other not readily available to the plants. With a mixture of "fritted" or "chelated" trace elements, this is not necessary, since the plants are able to take from it whatever they require. Since we are using fritted trace elements, our begonias have improved so tremendously in vigor and floriferousness that they are the admiration of everyone who sees them.

Our begonia collection is not a very large one, comprising only 104 species and 75 hybrids as well as 29 varieties of rex begonias We always are happy to exchange with others, and we shall be glad to correspond with members of the Begonia Society who have large collections.
H. Teuscher

Curator, Montreal Botanical Garden

## Botanical Orchids

Would you like to add orchids as another hobby on your list? Now do not say, "Why I couldn't raise orchids, I don't know anything about them." Just look back a few years when a begonia was more foreign to you than a dandelion. If you have a glasshouse, it will not be too long before orchids can be blooming. And even without a glasshouse you will find many varieties that will bloom under lath, under a tree, or on the patio.

Of course you might guess that I am speaking of botanical orchids, and not all of the most exotic varieties. But many botanicals do offer variety, shape, size, color, fragrance, oddity, and other qualities that will endear them to you and your friends. I like to define botanical orchids, as all of the 15,000 or more native varieties of orchids whose flowers are not usually sold by florists, or by most commercial orchid growers. To most people, nothing is an orchid but the Cattleya, usually found in various shades of lavender, but some in white, with yellow or purple lips. They also come in yellow and gold, and are very striking in appearance, but these come in a category of being harder to grow. Then there are cymbidiums and cypripediums, but these are grown and sold in large quantities. The rest of the more than six hundred genera can properly then come under the classification of botanicals.

Now where does one buy his first botanical orchid? Read the advertisements in horticultural or orchid magazines. Then visit the growers if possible, and tell them the conditions under which you will have to grow the orchids, and they will know which varieties to sell you. Many botanicals may be purchased from $\$ 2$ to $\$$ ro per plant. You may buy them as low as 50 cents, but these are freshly imported plants, and may not survive the fumigation, or the long wait for transportation. I would advise against buying any but those that are established and in good growing condition. Most dealers will want them this way in order to keep your orders coming their way.

The native home of these orchids is mostly in the tropics, that is in Mexico; Central

America, northern part of South America, the Philippines, Malaya and the district around there. Of course some orchids are to be found in every country of the world, and in even every one of the United States, but you would never recognize them as being orchids. Some grow in dry regions, but mostly under very humid conditions. Some grow in low countries, but some in much higher altitudes. In order to grow them to the maximum, we always try to approximate the native conditions as to temperature, humidity, etc. But there is nothing to stop one from trying to improve on nature. Some orchids seem to get along in nature with the barest amount of water or nutrients, and I feel certain that with a supply of better growing media, that the plants will reward you with more and better flowers.
The fragrance of many botanicals is always a surprise to most people not raising orchids. Our greenhouse smells just like a perfume shop at certain times, especially in the mornings. Zygopetalum Mackaii is one of the most fragrant and beautiful too, and blooms around the Christmas season. Epidendrum fragrans, you might know, was named because of its fragrance. But the one that surpasses all others is Maxillaria tenuifolia, which smells just like a freshly baken coconut pie right out of the oven. It has a curiously shaped flower, deep red or orange in color, and comes from Mexico, but is not frequently seen.

These plants may be grown in a wide variety of composts. I have tried seven or eight, but for the past two years I have put all of my orchids (other than cymbidiums) in a compost of redwood sawdust, chips and shavings which has been treated with certain chemicals, and then I feed them every two weeks with that all-purpose fertilizer No. 312. This compost is the easiest ever to use, is low in cost, and is long lasting. Does it ever make those plants grow! Here in California in the past year, white fir bark also has been largely used, but I am staying with the redwood until I am satisfied there is something better.

Our greenhouse is about 16 by 60 feet, and is divided into two sections. By using hot
water for heat, and evaporative coolers in each section, I can maintain one above 63 degrees at all times, and under 95 degrees. The other one for the cooler growing varieties, I can keep under 85 degrees, and down to 50 or even to 40 on some nights with no harm. I try the plants out in various parts of both houses to see where they like it best, and there I keep them. Some plants will grow anywhere, but others seem very sentimental about their likes and dislikes, and some even do not like me at all. I love all of them and live with them, and try not to make them grow, but to LET them grow.

There are books describing orchids and their culture which you would do well to read. "Sanders Orchid Guide," 1927 edition, is a must if you would grow orchids. You must realize, however, that the book was written about orchid growing in Britain, and the climate being quite different from ours, we find that orchids in many cases will bloom at different times of year and under different growing conditions. It lists thousands of varieties and hundreds of genera and is a valuable book to have. There is one book, if you can find a copy, that contains about one thousand pictures of orchids in fairly natural color. It is called "Atlas on the Culture of Orchids" by Julien Costantin, and is published in Paris. The context is in French, but the names of the flowers are in English. It is most valuable in identifying certain orchids that have come to one without names.

Some botanicals have most terrifying names, such as Bifrenaria, Arpophyllum, Aerides quinquevulnerum, Ionopsis utricularioides and countless others, but do not let them. disturb you too much. It should not take over two or three days to memorize any one of them. These names are not too unlike those of many other flowers in the horticultural kingdom whose names still leave me gaasping.

One hears at times of a "black orchid," but to my knowledge over the past fourteen years, there is no such animal. I have bloomed the "black orchid of Borneo" called Coelogyne pandurata, but it is not all black. The petals are a lovely shade of green, and only a part of the lip is a deep velvety black. Then there is the so-called "black orchid" of the Philippines, Trichoglottis brachiata (syn. Stauropsis philippinensis var. brachiata.), another ten dollar name. Again, the color there is a very deep maroon red, without a trace of black, but it is a most beautiful orchid related to the Vanda family. There is the curious Epidendrum cochleatum, its lip resembling the cockle shell, from which it gets its name. The five petals, which again are green, hang down like
the arms of a devilfish. It is possibly the most prolific of all orchids, being almost always in bloom. The only really all-black orchid then, is the product of someone's imagination, or the result of someone applying artificial color.

Growing orchids offers many challenges to the hobbyist, and brings disappointments as well as pleasures. Trying to hasten or retard the blooming so they will be in perfect condition for a show or a special display is ever a problem, and in most cases is quite insurmountable. It seems invariable that when you have a specimen plant with many spikes, that it will be either through blooming or the blossoms will not be open when you want to show it. But if you have a hundred plants, you will find it quite possible to have at least a dozen of them in flower at all times of the year. Then listen to the ohs and ahs of your friends when they see them.

Possibly the easiest of all orchids to grow and to bloom is the Laelia anceps or L . autumnalis from Mexico. They will withstand sun, rain, drought and some cold, but like all orchids, will not tolerate temperature much below freezing. I have had one of these plants for the past six years, and just last month it rewarded me with forty spikes, each with two or three lovely lavender blooms. Many of the Epidendrum family you will find easy to grow, as they seem to like either hot or cool house. Many Oncidiums likewise are easy to grow. Most of their flowers are yellow with brown markings. Some of them are known as 'dancing girls,' because they are so similar in appearance. I once cut off a dozen of these blooms, arranged them like a ballet chorus on black velvet, and took a color picture. The result was most pleasing.

The interest in small botanicals among orchid growers, has been increasing yearly. Many of these interesting varieties grow in a two or three inch pot, and have flowers as small as your little finger nail, or even smaller. To see hundreds of these on a plant just does something to one. They take up so little space on a bench. I could tell of the dove-orchid, swanorchid, spider-orchid and so on, but my space is limited, and I know you will be wanting to rush out and try to find some of these interesting plants. May I say right here that the Bilbergia is not an orchid, although so-called by the misinformed. They do grow together and seem to like similar conditions.

Orchiditis is the name of the little bug that bites you when you buy your first orchid plant, so watch out or your entire house will soon be filled with this charming hobby!

Albert R. Moore
San Marino, California

## The Culture of Tuberous Begonias

Time and effort will be conserved if tubers are planted in the starting flat after they show pink buds. The planting medium is preferably a coarse hardwood leaf mold, with a Ph of 6 . to 6.8 , or an organic substitute, which will not pack and become soggy, thereby excluding air. Peat moss, holding 90 per cent of its weight in water when saturated, is not recommended as a starting medium for dormant tubers. Fill a nursery flat with coarse leaf mold, and space the tubers evenly, allowing sufficient space between tubers for heavy root development, which may be considered the most important factor in the ultimate growth of fancy begonias. Bury the spaced tubers, covering with one-half inch of leaf mold. This is a very essential step, one which we wish to emphasize strongly. Its omission will preclude the full development of roots from the tuber's base, sides, and top, as nature intended. The planted flat should be watered CareFULLY, maintaining even moisture, but not soggy wetness. Place flat in strong light; shield from direct sun's rays. A warm $65^{\circ}$ to $75^{\circ}$ temperature will hasten growth. Every effort should be made for close, compact plant growth. Plants are potted, or planted in prepared beds, if the weather is favorable, when the first two leaves have reached equal development. At this stage the roots are heavy, and will adjust to transplanting.

## transplanting mature plants

Firstly, to consider transplanting from flats to pots. Begonias do not root deeply, and the shallow 8 or 9 inch azalea pots are preferred to the deeper pots. Our standard potting mixture consists of two-thirds partly rotted oak leaf mold and one-third coarse sand. Remove plant from starting flat carefully. Mix one handful of fish meal with enough potting mixture to fill the bottom two-thirds of pot, place plant in pot, fill in around root mass. Firm, and finish by covering top of root mass lightly with a quarter inch of potting soil. Water carefully.

The prime soil consideration for ourdoor beds of Pacific Strain tuberous begonias is perfect drainage. One-third leaf mold, onethird sand, one-third sandy loam is good. The addition of one-half sand to existing garden soil will generally drain well. If rotted cow, or steer manure is added to the bed, it should
be mixed thoroughly a month in advance, and watered several times. In planting, place a handful of fish meal under the root mass, and barely cover the root mass with soil. Soil should not be pulled in contact with plant's stalk. The points of all leaves should face the front of bed, presenting a uniform appearance to finished planting. Location of planting area in relation to the sun is important, and can spell success or failure. Pacific Strain tuberous begonias are semi-shade plants. They will not perform satisfactorily in complete shade, nor in a bright, sunny spot. If too shaded there will be little or no bloom, but lush plant growth. Excess sun will stunt and burn. The correct degree of light and shade will produce strong, compact plants, and profuse bloom. Suggested locations include the north side of buildings, light tree shade, lath houses. Plan for plants to receive morning or afternon sun, but shielded from hot noonday rays. Pots may be shifted from place to place until the right spot is found. After transplanting, the most important consideration is careful watering until new roots form and growth is evident.

## FEEDING

For pots or beds a definite feeding program will reward the grower with stronger growth, and increased bloom. After transplanting, when active growth is observed, commence the following routine: Feed I tablespoon of Atlas Fish Emulsion, combined with I tablespoon of California Liquid's 8-8-4, mixed in I gallon of water once a week until plants begin to flower. After plants begin to flower switch to this combination: I tablespoon of Atlas Fish Emulsion, combined with 1 tablespoon of California Liquid's 2-10-10 in I gallon of water once a week. Cease to fertilize by the end of September. The use of the first combination is intnded to induce strong plant growth; the latter combination will harden cell structure, strengthen flower stems, provide an abundance of firm, highly colored blossoms, and store energy for the tubers' resting period. The individual must judge when plants are under fed, well fed, or over fed. Maintain a deep green color, and a meaty thickness of leaf. A slight turning under of the leaves is no cause for alarm, a definite "roll" indicates over feeding. Beware of a sickly yellow green, the sign of starvation. The current season's care and feed-
ing will be reflected in the following season's flowering.

## DIGGING AND DORMANT STORAGE

Plants should be allowed to continue growing through November, if possible. During this late period the tuber increases in size and stores up energy for next season. Pot plants may be forced into dormancy at any time by withholding water. Bedded plants may be dug with a ball of soil, placed in a dry shed if necessary to force dormancy. The first light frosts will not harm the tuber. When foliage drops, and all growth breaks free of the tuber, wash soil free of tuber and cure in the hot sun for four days, or longer, until tuber is hard and dry. Be sure to remove all particles of the old stem from tuber. If this is neglected their decay will destroy the tuber. Store in open flats in a cool, dry place until evidence of growth is noted, usually in February or March. Remove from storage, and handle as outlined under "Planting Dormant Tubers."

## CULTURE OF HANGING BASKET BEGONIAS

Basket begonias have the same cultural requirements as already outlined, with minor exceptions. For the best results the larger tubers, having many flowering branches, will stage a more lavish show. Basket tubers are more sensitive to excess moisture than the standards. For this reason do not over pot and use shallow containers for planting. Baskets should be hung in a still, wind free location. Basket tubers, which do not show more than two branches at the beginning of the season, should have the tips pinched off when the first flower bud appears. This will form a fuller basket. Water carefully until the plant is well rooted, and then never allow plant to become dry, or in need of fertilizer.

## PROPAGATION BY CUTTINGS

A week or two before potting, excess shoots should be removed, leaving the strongest to flower. This removal will concentrate the entire energy of the roots in one dominant stalk, and provide propagating material for those interested in increasing a favorite plant. With a sharp knife sever stalk by a parallel cut as near to tuber as possible, short of injury. Plant cuttings in a flat of leaf mold topped with one-half inch of sand. Place flat in a close box or frame, heavily shaded. Moisten with a fine spray at least once a day until well rooted, in about six weeks. Harden
gradually, and then treat as outlined for tuber plants.

## CARE, INSECT, AND DISEASE

When plants are budded, if they are secured to an inconspicuous bamboo stake with raffia or Twist-Ems, plant damage from children, animals, and wind will be minimized. Old flowers should be removed before petals shatter and lodge around plant. Decaying plant material on live tissue will cause rot. With a sharp knife cut out infection, and dust wound with Zerlate. The use of Ortho Isotox will effectively control all chewing and sucking insects. The larvae of Brachyrhinus, a small white grub, which feeds on the tuber, is controlled by an Isotox drenching of the soil, or Dieldrin. The adult beetle can be killed from May through the summer months, by spraying with Isotox, or baiting with BugGeta. Powdery Mildew, the number one enemy of tuberous begonias, must be controlled, or it will destroy the entire planting. Ninety per cent sulphur dust used as a preventative before bloom is effective. After blooms appear care must be exercised, or the sulphure fumes will bleach and burn blossoms on hot days. One of the most thorough water sprays is Mildont (Mildex, Karathane, Iscothane). Whether a dust or spray is used, it must be applied regularly, daily, or weekly, as the need may be, to effect a control.

Frank Reinelt
ED.: Frank Reinelt won the Robinson Medal in 1949 for his outstanding basket type tuberous begonia, "Golden West."

## COVER PICTURE

UPPER Left: B. compta in basket. Philodendron, Columbia species in pot on shelf.

BASKET BY HOUSE: Fijiensis plumosumgrows like Canariensis only fronds very fine. TOP RIGHT, BASKET: Polypodium from Mexico, Pbilodendron pertusum-split leaf. Maiden hair fern back of large fern.

LOWER LEFT: B. "Ricinifolia," ginger grown from seed, anthurium in ground (species).

CENTER RIGHT: Moose-horn fern from Florida, B. "Fisher's Ricinifolia."

CENTER: Hawaiian tree fern.
Lower right: Frilly polypodium grown from spore. B. involucrata in ground next to fern.

CENTER LEFT: Red ginger.
Polypodium knighti fronds from hanging basket.

Taken in tube house of Turner Gardens, where jungle like conditions of heat and humidity are simulated.


## DESCANSO GARDENS

## Azalias Are Tops for Garden Color

THE RHODODENDRON FAMILY-of which azaleas are a part-is a very large group varying from Alpine dwarfs to giant trees in tropical Himalayan areas. Although there is no botanical difference, growers generally distinguish between azaleas and rhododendron for purposes of classification. It is toward the azalea group that this writing is directed.

The areas in this country generally considered as best for growing azaleas include the entire Eastern Seaboard, the Gulf States, the Mid-Western States and the West Coast, with a few local exceptions.

The lowest temperature to which deciduous azaleas should be exposed is between io degrees above and io degrees below zero. There are tender evergreen varieties, such as the Belgian hybrids, certain English hybrids and certain Southern Indica varieties, that should not be subjected to temperatures below $25^{\circ}$. Other evergreen species and varieties can take temperatures to $10^{\circ}$ or $15^{\circ}$ above zero.

The basic culture requirements do not vary a great deal from one climatic condition to another. All azaleas require an acid soil condition. The best PH range is from 4.5 to 6.5 .

In areas where alkaline conditions abound, soil acidity can be increased by regular and intelligent applications of soil sulphur. In sandy loam soils, two-thirds to one pound of soil sulphur per 100 sq. ft. will lower the PH one-half point after a month or so. More or less may be applied, depending on whether the soil is heavy or light. In addition to soil sulphur, one-half pint of ferrous sulphate per 100 sq. ft. should be applied.

In selecting the planting medium for azaleas, thought should be directed toward their native
conditions of growth. In pine forests they grow in pine needle mold-in some cases without their roots even reaching the soil. In swampy areas they grow perched upon something where leaves and debris have gath-ered-even occasionally being found growing in crotches of trees. Oftentimes they will be discovered growing in profusion on a welldrained hillside out in the open.

In all cases the growing media is largely organic matter in the process of decomposition. In duplicating natural growing conditions in the home garden, it is wise to prepare a mixture including leaf mold (oak or pine needle), peat moss and some good loamy soil.

In Southern California most growers are currently using pure peat moss. At best, this type of planting is temporary. The really successful azalea growers in Southern California are using mixtures including some soil and well decayed leaf mold with peat moss.

When preparing a bed or digging a hole for azalea planting, the hole should be no deeper than the depth of the root ball of the plant. The root ball should sit firmly on the solid foundation with the top of the roots either level or slightly above the surrounding soil area. The prepared mixture should then be filled firmly around the root ball and watered thoroughly.

Of course good drainage is of the essence. In areas of poor drainage, actually build the azalea beds on top of the ground, retaining the soil with redwood boards, bricks or rocks. The same raised bed method of planting will apply in areas of highly alkaline water.

Mulch materials are very important-particularly in the drier climates. Undecayed
leaves, broken twigs, or coniferous wood shavings make a good mulch, or can be mixed. It is good gardening to apply fresh mulch each year, removing the old to a compost pit or otherwise disposing of it.

As azaleas are shallow rooted, no cultivation should ever be practiced. Remove weeds by hand, disturbing the surface as little as possible.

Certain growers have reported remarkable success by incorporating some native azalea soil with a newly prepared mix. Until recently, the reason for this success was not known. It is now apparent that a fungus is found in most native azalea soils which works in conjunction with the roots to digest and otherwise absorb nutrients that normally would not be available to the plant. This fungus is called Mycorrhizae. It seems to develop best in oak leaf or pine needle mold.

Fertilizing of azaleas when other conditions are good, should be at a minimum. The azalea has the remarkable ability of being able to manufacture its nutrient needs from the very minute amounts found in natural organic materials and good quality water.

However, when conditions less than ideal exist, the nutrients supplied should be either acid or neutral in soil reaction. Any material of alkaline reaction should be avoided, as those compounds actually poison the plants.

Fertilizing should be done two or three times a year during the growing season, using any good basic plant food. Soil acidity can be maintained by using soil sulphur and ferrous sulphate, as mentioned above.

Pest control of azaleas is not a serious matter in most sections of the country. There are, however, certain ones to watch out for that can prove to be serious if they get out of hand.

Red Spider is one of the most serious pests. The plant will take on a yellow, sickly ap-pearance-actually becoming starved by the ferocious sucking of these minute insects. Control is by judicious fumigation, using some of the newer mite control compounds.

Leaf gall is common in some areas and is best controlled by picking the affected parts and burning them. A sùbsequent dusting of dusting sulphur should keep it from recurring.

Petal blight is a problem serious in many sections of the South. Brown spots appear in the center of the flower and quickly spread to to envelop the entire blossom. There are new fungicides on the market which are reported to give good control of this pest. Complete removal and burning of all infested flowers should be practiced when this disease is noticed.

Irrigation should in all cases be thoroughgetting penetration to the deepest root with each irrigation. Azaleas do not like to have moisture standing about the roots, so overwatering is as harmful as under-watering.

In California, one of the most serious failings in azalea culture is allowing the root ball to dry out when the plants are in pure peat moss. Once the peat moss is dried, it is nearly impossible to wet it in a short period of time.

Azaleas like humidity. In areas where normal humidity is 50 or above, azaleas can be grown in the open, getting the benefits of full sun exposure. In areas where summer humidity averages below $50 \%$, azaleas are best grown in some shade. Light as filtered through oak trees is ideal.

In Southern California, most azaleas are grown in shade. However, certain apparently successful attempts have been made to grow some of the Southern Indica types in full sun. There is some question as to whether this method will be popular in years to follow.

An ideal method of getting ideas and studying varieties of azaleas is to visit one or more of the outstanding public gardens which feature azaleas. They are to be found in all. sections of the country.

On the Eastern Seaboard and Gulf State areas, the beautiful Magnolia Gardens in Charleston, South Carolina; the Municipal Gardens in Norfolk, Virginia; and Bellingrath Gardens in Mobile, Alabama, all provide excellent opportunities for seeing these marvelous plants under beautiful surroundings.

On the West Coast, the only public garden featuring the beautiful azalea in mass plantings is Descanso Gardens in La Canada, California. Descanso Gardens is operated by the County of Los Angeles, Department of Parks and Recreation. It is open every day of the year and features many types of plants popularly grown in Southern California. April is "Azalea Month" in Descanso Gardens. Many thousands of plants are displayed in a natural garden setting beside running streams and under the protecting branches of a 25 -acre California Live Oak Forest.

Azalea month is a peak time for visitors interested in photography. Of all plants under cultivation today, none excell the beautiful azalea in photographic appeal. In Descanso Gardens the appeal of the azalea is enhanced by rushing water, pools, and the background of huge camellias and other plants under the canopy of oaks.

John L. Threlkeld<br>Superintendent, Descanso Gardens



## Begonia Verde Grande

At THE 1954 Convention of the A.B.S., one room was reserved for the Nomenclature Department. All hybridizers were urged to display their new begonia additions, especially those registered with H. M. Butterfield, the director of that section of the society. Nearly all Pacific Coast hybridizers were represented by their begonias.

The showing was non-competitive in the true sense of the word, but the public was asked to ballot for their first, second and third choices of all the new begonias. About one hundred and fifty specimens were displayed in three classes: fibrous, rex and rhizomatous. This preview of begonias to be available for sale the following year attracted much attention and most of the visitors to the Nomenclature Room cast ballots for their favorites after much study.

Since most of the plants were displayed for the first time, the appetites of the begonia collectors were whetted and their, names appeared on the reserve list compiled for the hybridizer of each plant.

Mrs. E. L. Korts, chairman of this project, had requested that entries in this section be sized for four inch pots, but due to the eagerness on the part of the hybridizers to preview their new begonias, many of the plants were larger size specimens. Actually this was a public poll for a popular new begonia and must not be confused with the regular accredited judging that prevails in competitive flower shows. The tabulation of the ballots showed a wide range of selection and proved the theory of everyone having a difference in eye appealling beauty.

The begonia receiving the greatest number of votes in the popularity contest was $B$. "Verde Grande." Susie Zug was the hybridizer and the cross was made in 1952. It is number

IO3 of the registered begonias. Mrs. Zug pollenized B. "Dark Sheen," Don Horton's hybrid, and the old favorite species, B. manicata. Begonia "Verde Grande" therefore is another plant with B. boweri and B. "Joe Hayden" in its ancestry, as they were the parents of B. "Dark Sheen." The name literally means green giant from the Spanish interpretation of verde and grande.

It no doubt will prove to be a "giant" in the "Begonia World" too, as it is a very large rhizomatous specimen both in the size of the root stalk as well as in the size of the leaves. An eight inch pot specimen has had as many as 28 leaves on one plant in various stages of development.

One reason it received so many votes was because of its distinctiveness. Everyone will be able to identify this plant because of its markings, its color and its size and structure. The petioles, 12 inches or more long, are pale green, slightly channeled and covered with short, stiff white hairs. At the intersection of the petiole and the leaf, there is a definite collar of quarter-inch-long white hair. The sinus or leaf "eye" is large and it is a very pale light green. From this sinus, radiates the veining which is very strong for the first two inches down the sinus toward the lobes of the leaves. This veining narrows to threads when it ends just short of the tip of the lobes. They are just slightly depressed on the surface of the leaf, but very pronounced on the underside. There is no overlap of the leaf at the sinus.

The leaf color is intense bright green, almost what we think of as "Kelly" green. This clear color is even over the six and one-half by ten inch surface of the eight or nine shallow lobes. The leaves lay straight and flat from the petiole as they are of such strong construction. They might be called semi-heavy in texture. There are very short, sparse hairs that are quite stiff on the upper side of the leaf. The trimming or frame of the leaf is one of the most unusual points about this begonia. Around each lobe, extending inward to one-half or three-quarters of an inch, are irregular streaks of blue-black. This pigment, on the back of the leaf covering the same area, is deep cinnabar red. The entire margin of the leaf is serrated and the red brown is accented by short stubby hair.

If this description, made while looking at a specimen plant of $B$. "Verde Grande," seems too detailed, it is only because the plant is so outstanding in beauty and form. It is easily grown in the ordinary potting soil and uses average watering. Light is very necessary to
(Continued on Page 63)

## INDEX, THE BEGONIAN, JAN. 1955-DEC. 1955

To facilitate its use, this index has been divided into two sections. The first is a "General" index, the second, a "Special Begonia" section. An asterisk (*) following a page number indicates the presence of an illustration.

There has long been confusion in the listing and spelling of begonia names. In this index all names have been checked with the BUXTON GLOSSARY and THE BEGONIAN registration list and changes made according to International Code, namely-no capital for species even if named after a person, and only one " i " instead of " ii " at end of name. Species are printed in italics, common names in Roman, horticultural-cultivars, hybrids and varieties capitalized.

In many cases the same name is used for members of different divisions, therefore when the name only is mentioned no distinction could be made for rex, semperfloren, etc. Thus I see a great need for registration to clear up name duplication.

The Editor

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## 'Toughies'

OUR CHAMBER OF COMMERCE declares we live in a semi-tropical area of Texas. Our weather is unpredictable. It might be nearly a hundred degrees in summer, and Texas sun is hot! It might be fifteen degrees or even twenty-four degrees in winter, and with our dampness, that is cold! The Gulf of Mexico is about 50 miles by crow flight and our average temperature year around ranges fifty to ninety degrees.

We have a plastic-wire-o-glass greenhouse of twelve by sixteen feet, beneath the oak trees. The sides are made like windows that are removable. In summer, the trees give filtered sun from about eleven A.M. on. Come winter, the oaks are bare and the sun is welcome all day. There is gas heat for the severe weather and electric lights for the light freezes.

Back in 1947 through 1950, we grew many begonias, from seeds, as well as from cuttings and leaves. They were our specialty. Our greenhouse was full of lovely ferns from spores and several hundred pots of other assorted plants.

Do you want to know what plants can rough it-and perform? Spinal trouble kept me out of the greenhouse nearly three years-so I learned.

My vote goes to rhizomatous begonias and cattleya orchids! The tougher the going, the lovelier they looked! The husband's idea of care is drenching the entire greenhouse one time, and forgetting it for weeks! Our two

## C L A S S I FIED

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daughters feel the same. I did my best to get the greenhouse watered once a month in winter and every week in summer. Once they even fertilized the plants-orchids, ferns, begonias, all, using Hyponex at goodness knows what strength! This is a fine fertilizer if used according to directions, but-

Begonia "Ricinifolia," B. "Feasti," B. sunderbrucbi and B. manicata are in bloom now, responding to my careful care, but truly no lovelier than in the past years. All four were potted in 1947 and not again until this fall. The begonias and orchids are both on the east side of the greenhouse, where the sun is best.

The orchids are lovely now. Catteleya trianae and C. percivaliana, with seven sheaths between them, are beginning to show color in some buds. Oncidium splendidum has a long bloom stem developing, which in a few weeks will look like a spray of yellow butterflies. On cloudy days, a regular 100 watt incandescent light in a reflector, mounted about 26 inches above the orchid tray supplements the sun. The pots are setting on a wire rack over a three inch deep tray of water. About two inches is maintained between the water level and pot bottoms at all times as drainage is very important to orchids. They must be happy for they performed nicely through the neglect. The mature plants are in need of repotting. The seedlings just "stood still" for three years, but are beginning to grow again.

I do not recommend neglect as the best treatment, but if sickness, or work, causes the plants to take a back seat, it is nice to have a few that remain lovely-toughies that can take it.

I would like to add, I have The Begonian, r946 through 1952. They are well worn. Like old friends, they went to the hospital and they also kept me company at home. Again I am a member in good standing.

God give me time and strength, and The Begonian, a couple of Robins to help, and again our greenhouse will be worth its name of "Gene-Ann Flowerland."

Ann Harding<br>Anahuac, Texas

## Verde Grande

## (Continued From Page 58)

maintain its color intensity. Fertilize lightly at regular intervals.

If you can't find this unusual beauty for your collection, be patient, Mrs. Zug has had more demands than she has stock which must be increased by the vegetative method.

Jean Kerlin

## Gloxinia Culture

The gloxinias ordinarily raised in greenhouses are listed under the botanical name of Sinningia speciosa. Certain improved varieties are advertised as Gloxinia bybrida grandiflora, and in these there is considerable variation in the size of their flowers and their color range. The best strains of gloxinias include plants with large flowers in a wide variety of colors, including scarlet, pure white, white margined with pink, royal purple, crimson, deep wine, purple-violet to white,-and spotted and netted varieties.

Gloxinias are not suited to outside culture even in California. Their culture is limited to the greenhouse where the temperature does not fall below $50^{\circ} \mathrm{F}$. The best temperature for gloxinias is between $63^{\circ}$ and $65^{\circ} \mathrm{F}$, but the maximum temperature may range from $70^{\circ}$ to $75^{\circ} \mathrm{F}$ in the summer.

Gloxinias do best when grown in a moist atmosphere. They should be given as much light as possible, but should be shaded from the strong sun. As in the case of most greenhouse plants, it is important to avoid a drafty situation or a dry atmosphere. Greenhouse plants need to be given air, but on cold days it is best to open the top ventilators fairly wide for a time and then close them, so that the plants are not exposed to a direct draft for any lentgh of time. It is also very important to insure good drainage for the plants so the roots will not be kept too wet.

When the flower buds begin to show, the plants may be given liquid manure once a week. A weak solution of manure water may be given more often. Some liquid fertilizers available to the public can be substituted for the liquid manure. Ammonium sulfate at the rate of $I$ ounce to $2 \frac{1}{2}$ gallons of water will supply adequate nitrogen and is easily applied. Avoid watering overhead, because water standing in the crown of the plant will produce fairly good conditions for Botrytis (gray mold) to get a start.

As soon as the plants are through flowering and the foliage has begun to die down, so that the corms will keep well, the pots may be dried off by placing them on their sides under a bench where there is an even temperature that does not range lower than $45^{\circ}$ to $50^{\circ} \mathrm{F}$. By keeping the corms fairly dry during the winter months, they should
remain in good condition for repotting about the first of February.

Gloxinias should normally be free from insect pests or fungus diseases when grown at the proper temperature in soil that is well drained and sterilized before planting. A virus disease and a leaf nematode are serious problems at times. The virus disease may be avoided largely by prompt control of possible carriers such as aphids and thrips. Strict sanitation in the greenhouse should help control the leaf nematode. Sickly plants should be removed promptly and destroyed.

Gloxinias may be propagated in three different ways:
(1) Seed is best planted in the latter part of winter in a mixture of equal parts of light organic soil, coarse sand, and granulated peat moss. The mixture should be sterilized before planting, preferably with steam, to avoid $R b i$ zoctonia or damping-off fungi. Under cool conditions, the seed should be given as warm an exposure as possible during the first few weeks after planting. Flowering will take place in from 10 to 12 months. Plantings also may be made in June and July for display flowers in the following spring months.
(2) Gloxinia corms should be planted in early February in a soil mixture, such as one containing equal parts of peat moss, light organic soil, and sand. Perhaps a leaf mold that is well decomposed could replace the peat moss. The soil mixture should be sterilized before planting to avoid soil-borne diseases. The addition of sand sometimes helps maintain good drainage. The corms should be started in small pots and later transplanted to larger ones. Flowering will take place in about six months.
(3) Leaves may be rooted during the spring and early summer months in sand to increase a particularly desirable variety of gloxinia. Leaf cuttings from firm, nearly matured leaves with a small portion of the petiole attached give excellent results for increase of gloxinias. These leaves will form a new plant with a corm at the base, which should bloom in from IO to I2 months. Cuttings of the shoots may be rooted in the same way. The rooting medium may consist of fresh vermiculite or perlite. If these rooting mediums have been used before, they should be sterilized before planting to help avoid infection of the cuttings during rooting.
H. M. Butterfield

## Begonia Culture

THE LUSH, bright leaves, the varied-colored and shaped blossoms, and the ease of their culture, have made begonias a favorite in California gardens and in the window gardens and conservatories of less temperate locations.

Although begonias vary as to leaf and stem development, as evidenced by plants displayed, similarity of root systems makes certain basic requirements general according to Rudolf Ziesenhenne. Although begonias generally are described as fibrous rooted, tuberous, or rhizomatous, the fibrous root system of all of the plants enables them to adapt themselves to various conditions.

Though preferring a temperature in the range from 50 degrees to 80 degrees, begonias can withstand temperatures from freezing to over 100 degrees. The Brazilian native species survive temperatures which range from frost in the morning to almost absolute humidity at roo degrees in the middle of the day.

Delicate as they may appear, begonias like moving air but not wind. There is danger of plants snapping off, especially tuberous begonias, if they are exposed to strong winds.

Watering is one of the most important points in begonia culture. When the plant needs water, give it a thorough soaking to penetrate the top three inches of soil. Unless this surface is penetrated, the plant will get little or no water, as most will be lost in surface evaporation. Mulching the surface greatly increases the plant's chance for getting sufficient water. A half inch layer of peat moss, manure, or other organic top dressing is recommended for mulching. If the mulch is manure, the plants greatly benefit in getting food.

Clay pots are the most unsatisfactory containers for begonias. Food producing bacteria in the soil are happiest at 60 degrees; and in clay pots, because of evaporation, the soil becomes too cool. Tin, wood, or glazed pots are preferred, with wooden containers being the best.

Although specimen plants grow best in big containers, Ziesenhenne pointed out that for a compact bedding begonia, a 4 -inch pot is sufficiently large. He recommended for the larger-growing plants a move from 4 -inch pot to an 8 -inch pot for large, shapely plants. A move from a 4 to a 5 -inch pot is practiced by nurserymen for economy of space, but for show specimens, a move to the larger pot was recommended. The underpotted plant is
the one which puts out a tall stem with few leaves.

The nature of growth of begonias, Ziesenhenne illustrated with specimen plants of B. scandens, B. jessie, B. involucrata, B. "Catalina," cane and semperflorens types, and a Mexican rhizomatous species still designated by the collector's number, " 27 S." B. scandens has a tendency to cling like English Ivy and makes a handsome plant if trained on a moss "totem pole." The cane types may be encouraged to propagate at each joint by placing them on their sides until an upright branching appears at the joints, each of which can be cut off and rooted.
B. "Catalina," a begonia originated by Theodosia Burr Shepherd of Ventura soon after the turn of the century, will grow anywhere, sun or shade, and makes handsome basketed plants. It is used frequently in commercial plant displays where hardy plants are required.

Plants must be fed when they are in the ground just the same as when they are given a rich potting mixture. Giving $I$ inch of manure to the plants in February and August was recommended. Liquid fertilizer, made by using 6 drops of household ammonia in a quart of water, may be used now for quick results.

Margaret Ziesenhenne
——B-

## A.B.S. REGISTERED BEGONIA HYBRIDS AND CULTIVARS

120 Anna Christine, cane, dwarf, Salmon rubra x dichroa. Originated by Mrs. A. J. Kusler, 1950. Distributed 1955. Registered April 7, 1955. Inspected by Mrs. Della MacLanahan.
i2r Los Angeles, rhiz., star, Bow-Chancee x Bow-Chancee. Originated by Mrs. Della MacLanahan, 1954. Distributed 1955.. Registered April 7, 1955. Inspected by Mrs. Dorothy S. Behrends.
122 Joseph's Coat, rex medium, Chance seedling. Originated by Mrs. Wilma Blough, 1951. Distributed late 1956. Registered April 7, 1955. Inspected by Mrs. Joe Fox.
Mrs. A. J. Kusler, Frederic, Wisconsin.
Mrs. Della MacLanahan, 3734 Overland Ave., L.A. 34, Calif.

Mrs. Wilma Blough, 1550 East Puente Rd., West Covina, Calif.

# Clayton M. Kelly Seed Fund Flight CLOSE-OUT SALE 

OUR annual close-out sale is now in progress. This is a rare opportunity to purchase seeds from many countries that will add something new and different to your garden. Space does not permit us to list by name, but included in the sale will be shrubs, trees, vines, tropicals, and fern spores. New spores of the Mexican flowering fern have been added as well as other types of ferns. Close-out sale price-20 packets for $\$ 1.00$, which will include io packets of begonia seeds. All close-out seeds have been in the files only a short time, but we must have the space for new seed. This is a real bargain.
special offers: No. i. From Brazil comes fresh seeds of Philodendron described only as self-heading small and self-heading medium. Mixed. 50 c per packet. No. 2. Pbilodendron bipinnatifidum. Choice. Selfheading. Deeply notched leaves, very tropical in appearance. Considered one of the best of this type. soc per packet. Seed require warmth and moisture during germination. Plants are perfect for indoor planting because of the handsome foliage and durability. Will grow with or without much light; however, in Southern California they are popular as an outdoor plant. Self-heading philodendrons do not require supports as they radiate their growth from a central crown. Keep reasonably moist, mulch with peat moss and feed once a month with liquid fertilizer. No. 3. Super Offer. Rex begonias still available. Seeds of Rex cultorum are from a group of beautifully colored hybrids, spirils and dwarfs and have been especially selected for their highly decorative leaves. They come to us from a famous specialist and are of a superior strain. $50 c$ per packet. See January The Begonian for cultural directions. No. 4. Fresh seed of the following begonias are available: (i) B. mazae. Mexico. Small heartshaped leaves of a velvety texture. Some are light green with black stitching and some are deep, rich green. Is of a creeping habit. One of our lovliest begonias. Flowers numerous and pink. (2) B. macbethi. African species with small deeply cut leaves. Flowers white or pink. (3) B. tenuifolia. Java. Rhizomatous species. Leaves bright green; flowers large soft and pink. (4) B. Cypraea (b. metalica seedling). Tall, bushy; leaves broad, olive green. Flowers large, white or pale pink. (5) B. Crown Jewels. Semperflorens that were sent by a collector in South Africa. No
description available except that it is dwarf. Probably English origin. (6) Rex. Mixed seed of two beautiful hybrids. \$1.25 for entire collection. Single packets are available at $50 c$ per packet.
gloxinia offer: No. i. Mixture of Gloxinia crassifolia, Luxton and pink tigridia. No. 2. G. macrophylla-Slipper type, deep purple flowers, foliage olive green with gray veins above and red Burgundy beneath. No. 3 . Buell's red. Beautiful, velvety, deep red. No. 4. Streptogloxinia (stroxinia). This is a Streptocarpus x Gloxinia. Beautiful plants with various colored flowers. Interesting to grow. In addition to the above we will include seeds labeled as Primula malacoides, double white. They were sent to us by our friend in South Africa who described them as being small, compact with double white flowers. We do not know whether they will come true from seed or not but it will be interesting to see. This collection is available at $\$ 1.25$, but single packets can be purchased at 500 per packet.

Do you have a vacant space in your garden that you would like to see with a riot of color? If you have, try these easy to grow native seeds. No. I. Belamcanda chinensis. Blackberry lily. Iris family. Foliage like iris, blooms in clusters of bright orange flowers on tall stems. Relatively hardy and makes a striking landscape subject. The common name is derived from the character of the seeds which resemble blackberries. No. 2. Coreopsis pubescens-Handsome plants of the Compositae family. Flowers yellow. No. 3. Delphinium ajacis-Rocket larkspur. Annual. Tall, erect and branching. Flowers violet, pink, blue and white. Shaded garden. No. 4 . Papaver orientale. Oriental poppy. Large, showy, orange flowers with black centers. No. 5. Diantbus aremia. Fragrant little plants for borders and rockeries. No. 6. Aster no-vae-angliae. New England aster. Compositae family. One of the finest wild flowers known. Ray flowers deep purple with yellow centers. Plants often hybridize themselves in their wild state and beautiful garden flowers have been produced from them; for instance the popular Michaelmas daisy. Nice for cut flowers. The above collection $\$$ r.oo.

Mrs. Florence Gee
Seed Fund Administrator
4316 Berryman Avenue Los Angeles 66, California

## From the President

I HAVE attempted in previous articles to indicate to you the many and varied activities of our Society. The reference to any one department was broadly presented with the expectation that the department chairman would prepare an article more in detail for publication at a future date in The Begonian. Several articles have been presented and more will be printed. I shall from time to time report to you, the members, through this medium any activity I feel will be of interest or should be mentioned.

A healthy condition, I am happy to report, is the addition of new Branches to our directory. The addition of the Lone Star and Treasure Island branches brings the total to fifty-one (5I). Public relations Director Frank Moore and his assistants are doing a fine job; our sincere thanks to them. When you see a new Branch added to the directory, drop them a card or letter of welcome into the A.B.S. It's a wonderful gesture. Which reminds me of something else about which I wish to comment.

I have observed, while attending all kinds of meetings, that where someone is acting as host to greet everyone attending there is a more relaxed and friendly feeling. Courtesy is one of our least expensive means of encouraging visitors to become members. A host that greets a guest and introduces him to other members is doing the Branch and the A.B.S. a great service. Make your visitors feel like they are welcome; discuss the evening's program; tell about the plant sale; who the speaker is going to be; ask about his interest in plants; act like a long time friend. Any visitor receiving this kind of attention will feel like coming back, and upon finding that this kind of treatment is normal with your group, will be more likely to become a member. Remem-ber-it costs so little to be courteous and friendly and results to your guest, yourself, your Branch and the A.B.S. are beyond estimate. Make courtesy a habit at all your meetings.

By the way, do you take pictures? Have you some color slides of begonias, of gardens or glass houses containing begonias and other shade plants? Will you share these pictures with many other gardeners? Our Slide Librarian, Mabel Anderson, will be happy to correspond with you about the possibility of adding your slides to our library for use by all Branches. Incidentally, if you have not seen our slides, have your program chairman
send Mabel a request for same. allowing plenty of time for correspondence and availability of slides.

I am happy to report that the quarterly regional meetings have been very successful. The next time the National Board meets in your area be sure to attend, see and meet the Na tional Officers of your Society. The only regrettable thing about these meetings is that we cannot meet in other parts of the country and meet with more of the members.

I am sorry to report that up to this writing no acceptable bid for our Annual Convention has been received. Several possibilities are being investigated and a report will be made as soon as a decision is reached.

I do hope all of you Begonia Fans in the Northern and Eastern part of our continent have not lost your plants due to too much cold weather. If you did lost some and want to start something new, write to Florence Gee, Seed Fund, and start some plants from seed for a real thrill.

I have been suggesting that you write to others and now I wish to say if there is something you wish me to report about, write so to me.

A successful season to each of you. Joe Taylor President, A.B.S.

## Brown Bulb Ranch

CAPITOLA, CALIF. SEATTLE, WASH.

## World's Largest Growers of TUBEROUS BEGONIAS

Ruffed Camellia<br>Improved Fimbriata<br>Single Frilled (Crispa)<br>Crispa Marginata<br>Hollybock (Martiana)<br>Daffodil (Narcissiflora)<br>Improved Multiflora<br>Double Marginata (Picotee)<br>Hanging Basket (Pendula fl. pl.)<br>"Santa" Varieties<br>WHOLESALE ONLY<br>Available at most Nurseries and Seedhouses

## Long Beach Parent Chapter Anniversary

Twenty-three years ago a group of people saw a few begonias exhibited and their interest was aroused. The result was the formation of our Society. The Long Beach Parent Chapter held its twenty-third birthday party at the home of Lena and Paul Walker, two of the charter members. There was a representation from several branches to help them celebrate this historical event.

The meeting was held in the enclosed patio with a cheery fire crackling in the fireplace. Ceropegia woodi trailed from shelves on the sides of the fireplace. Growing on a wall was Nephtbytis liberica, the arrow shaped leaf of rapid growth. Proudly held aloft in a wall bracket was B. "Credenri." The doorway was entwined with Pbilodendron cordatum, the many leaved branches providing an arched bower.

After a dinner of "melt in your mouth" barbecued steak hamburgers, we all gathered around the fireplace. Above our heads was a canopy of hanging pot plants, the branches showering over the side. Electric lights staggered among the pots, produced interesting leaf formation patterns and shadows.

Begonia "Ricinifolia" headed the group of hanging pots, its proud leaves drooping down to catch all of the historical reminiscing given by Mr. Walker. Some of the old timers chimed in with their part of the early days. Turning to see each individual, we glanced up and saw some of the old time begonias, B. "Catalina," B. "Nelly Bly," and B. "Margaritae" proudly present.

A clever idea of especial interest for those disliking totem poles for the philodendron family was displayed in hanging pots. We saw Monstera deliciosa (erroniously called Pbilodendron pertusum), with the split leaf; P. laciniatum, with leaves of irregularly pointed scallops; $P$. tripartitum, three lobed pointed leaves; P. erubescens, shining arrowshaped leaf; and the small leaved $P$. cordatum; many leaved full plants trailing from the large hanging pots. From the appearance of the plants, I presumed they were layered. A single plant left to trail over the side would have resulted in a lone straggly branch from one side of the pot.

After bidding our fond adieus and driving home, we do some reminiscing and wonder if our begonias are "sulking" because we have not been fair with them. Begonias living side by side are happy with their lot. Some begonias are temperamental, but we find
out why. Perhaps we could learn a lot from begonias that could be used to advantage in our own every day living. We grow begonias to bring out the good characteristics of each individual plant-we should try to bring out the good characteristics of our fellow man.

Sylvia B. Leatherman<br>————

MINUTES, NATIONAL BOARD, JAN. 23
Meeting of National Board of American Begonia Society called to order at $7: 30$ P.M. by President Taylor, in Los Angeles City Hall. Opened with Pledge of Allegiance to Flag and reading of Aims and Purposes of Society.

Secretary and Treasurer's reports read and approved.

Reports of officers given.
Editor Cramer stated that measurements of ads in The Begonian and on contracts did not agree, wished to know which one to use. Moved and seconded that we use the size stated on contract. Carried
Moved by Moore, seconded by Sault that we approve the Constitution and By-Laws of Lone Star Branch, Dallas, Texas, and grant it a charter. Carried.

Research Director Leatherman read Rules and Regulations drawn up in regard to Test Gardens. Moved and seconded that we accept the Rules and Regulations as read by Leatherman. Carried.

Moved and seconded that each Test Garden receive a copy of The Begonian each month. Carried.

Editor asked if she could sell cuts after using them. Moved and seconded that in case individual or firm furnished us with a copy from which we make a cut, we sell it back and release the copyright. Carried.

Because of some discussion, moved and seconded Leatherman be instructed to hold up using the Rules and Regulations as approved, until next meeting. Carried.
Sub-committee of the Awards Committee on E. K. Gray Award submitted the name of Charlotte Hoak as 1956 recipient of the Award. Moved, seconded and carried that we accept recommendation of the committee.

Next Regional Meeting to be held February 11, at La Jolla, Branches in that section to be hosts.

Meeting adjourned to meet February 27, 1956.

ARLINE STODDARD, Nat. Sec.

## IJn Altemoriam

We are sorry to learn of the passing of Marie Minter of Encinitas, California, who was a contributor to The Begonian, and an ardent begonia grower. She was a judge for many flower shows. Much research with the cane type begonia was done by her. Begonia "Ricky Minter" was named for her son.

## Your Slide Library

THE SLide Library had its inception in the latter part of 1947, when Mrs. Grace Bayer was appointed chairman of the Speakers Bureau. There was a great need of pictures of begonias to aid in the identification of the species and varieties and to help the members of the Societies to see the different plants. It was largely through the effort of Mrs. Bayer that Branches and individuals were contacted and donations were made to start the library. The largest contributor was Mrs. Helen Krauss, who so generously donated 89 of her own slides to form the nucleus of the library. Some of the pictures appeared originally in her book: Begonias for American Homes and Gardens. Several Branches donated groups of slides, among them, Ventura, Santa Barbara and New England. Individuals have made contributions from time to time and the library grew.

Many individual members were interested enough in the project to devote their time and money to make pictures of the begonias in the nurseries and gardens they visited.

From time to time the library has had to be revised, slides have had to be discarded because they were not longer suitable. Like books, through usage they became old and worn out.

The Slide Library is a free service devoted to the interest of the members and is not self supporting. The library has no funds to purchase slides even if an outside source could be found and must rely on the generosity of the members of the Society. The money allotted to the library as an operating fund is used to repair damaged slides, purchase packaging materials and other things used in maintaining the library.

In order to secure new slides of begonias and other slide plants, your assistance and cooperation is solicited. To enable your Slide Librarian to replace those discarded slides, won't you please look through any slides you have that would be suitable and either send them or have copies made and forward them to the library? Please include name of sender, address, name of begonia or shade plant and a brief description of the plant. Even if the picture of the plant is of an old variety, it may be one not in the library. There has never been in the library, pictures of all the many varieties and species of begonias. Slides of all classes of begonias, fibrous, hirsute and rex, will be welcome, also slides of shade plants.

Don't "let George do it." George probably

## Raund Ralin Notes...

NOW THAT SPRING is just around the corner all garden enthusiasts will be out working in their yards and the Robins will be flying in from all over the country.

I am delighted to report the new Robins are on their second and third flight. Many cards have come asking for memberships in Robins. One from the east would like to join a Robin on General Gardening for the States of Ohio, Pennsylvania and West Virginia, as conditions in that section of country are a little different. Another asked for a California Fuchsia Robin. This would be a very interesting subject as so many of the new fuchsias are grown in California. There is still room for a few more in Hybridizing African Violets and Rex Begonias.

I have received three cards asking to join a Robin. One had no name or address, the other two did not have a complete address. I would like to hear from these prospective members again.

As this is a new year I am going to ask all the Directors to please send me the number of Robins you are now directing with their names and addresses, also if any of the Robins have been lost, I must have this information in order to keep an accurate record and by checking with you once a year I can trace the Robins that have been delayed for some reason. May I ask that you send me this information at your earliest convenience.

Some interesting ideas have been sent in and I am passing them on.

It has been suggested that the Hybridizing Robin start a pollen bank to be used by the members.

## Mrs. A., Missouri

A good way to root leaves or cuttings of any kind is to wrap the stems in sphagnum moss and place in small jar and keep moist. The roots form very rapidly.

## Mrs. F. C., Michigan

I would like to say "Thanks" for all the lovely cards I received at Christmas. They made me very happy. I am so glad I have so many nice Robin friends.

MARIE REED
is waiting for you to "do it." Get busy today and send slides to YOUR SLIDE Librarian.

Mabel Andersion
Io64 Davis Avenue
Glendale 1, California

## Test Gardens

A begonia is born!!! The hybridizer and a few trusted friends watch the new "baby's" growth, its temperaments, its faults and its good qualities. After hovering over the new "baby" for one year, the hybridizer must then decide: Can the new offspring take various growing conditions in the same manner as at home? What will it act like when it goes to some one else's home? Will it like the dry hot air and will it thrive under cooler growing conditions? Is it different than something Mr. X has several thousand miles away? Hybridizers do have problems. To share these problems and to learn of their "baby's" manners in someone else's house will be of valuable assistance not only to the hybridizers but also to people who will in the future grow these new "babies."

Any member of the A.B.S. developing new hybrids may avail himself of the facilities of our A.B.S. Test Gardens. The Test Gardens are located at Botanical Gardens in various districts throughout the U.S.A. I feel we are very fortunate to have these Botanical Gardens to test the new begonias. Quarterly reports will be made on the development of the plants and just what the growing requirements are in a specific locale.

Some of the Botanical Gardens are in the position not only to test the begonias in conservatories, but also under oak trees out-ofdoors, etc. Reports, under code, will be available to you, the members, in The Begonian. After the year of testing, the code will be identified.

Test Gardens are vitally important and are something we have all been interested in. It is a project that is going to take time to develop into a perfect pattern. This can not be done in a year, but over a period of years.

Some of the Botanical Gardens are going to test other begonias. This will give valuable information for members in specific locations, so they will know what to grow and what not to grow. Begonias are being contributed to the Botanical Gardens by the A.B.S.

Are you, the hybridizers, going to confine your new begonias to an incubator or are you interested in weaning them? Let me hear from you.

Sylvia B. Leatherman<br>Research Director



Let's have more pulling together; less off to one side for selfish aims.

Let's have more of "WE" and less of "I."

## Library

Greetings to all Members from your Library. Have you ever read "Gardening in the Shade," by H. K. Morse? This book is very good and will be of great help to all you shade gardeners. It can now be sold to you through your Library for $\$ 5.20$.

It has been very gratifying to this Department to have members show so much interest in the Library. I want you to know that when you do not receive books promptly, it is for the reason that someone has the book out on loan. This is one reason why all loans are limited to 30 days, and we are again requesting all borrowers to look at the date on the Library slip. If you have had it over 30 days, please return it promptly so that someone else may have a turn.

We can now fill the many requests made for "Exotics," \$2.60, and that wonderful book on ferns by Macself, \$5.20.

In returning books to the Library, please do not overlook sending the amount of postage used in sending the book to you. Thank you.

Lucy A. Sault, Librarian

## TUBEROUS BEGONIAS PRICE LIST NOW READY

RUDOLPH ZIESENHENNE
1130 N. Milpas St. Santa Barbara, Calif.

Samuel C. Sault
Member A.B.S.
REGISTERED CIVIL ENGINEER PROPERTY SURVEYS; Sensible Rates
26938 Dapplegray Lane DA 6-5218
Rolling Hills, California

CACIUS-FLOWERED GERANIUMS 1956 Introductions
Star of Persia-Deep Crimson-Purple Starlet-Rose-Salmon
$\$ 1.50$ Each Both for $\$ 2.50$ Postpaid
KENNETH TERRY
2314 Harriman Lane, Redondo Beach, Cal.

## CALENDAR

Feb. 25-Mar. II-Descanso Gardens Camellia Festival and National Convention of the American Camellia Society.
Mar. 6-Ventura - "Ferns" by Sylvia Leatherman.
Mar. I5-Foothill Branch-Tenth Birth-day-"Begonias" by Louise Schwerdtfeger. Jitney pot-luck dinner, 6:30 P.M.
Mar. 17-25-International Flower Show, Hollywood Park.
Mar. 2 I-Hollywood - "Camellias" by Mark Anthony of Descanso Gardens, illustrated with colored slides.
Mar. 25-April 8 - Spring and Easter Flower Show. Admission free. Garfield and Lincoln Park Conservatories, Chicago, Ill.
Mar. 28-San Gabriel Valley-"Camellias" by M. Leslie Marshall.
April 12-El Monte-Are you sick about a sick plant? Come forth to the El Monte Healing Powers audience participation. Bring your sick shade plants.
April 12-Inglewood Branch- 8th annual branch president's dinner, 6:30 P.M. Speaker Philip Chandler, U.C.L.A., "Trend in Modern Gardening."
April 16-African Violet Society, Pomona Valley Branch, $1: 00-9: 00$ P.M., free. Recreation Hall, 2nd and D, La Verne, Calif.

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## Committee Report

THE FOLLOWING is the report of the chairman of the committee to revise the constitution and by-laws:

I have chosen to work with me Mrs. Mary Gillingwators, San Gabriel Branch; Mr. Roland Maddox, Riverside Branch; Mr. Eugene Hedrick, Orange County Branch; and Mrs. Ethel Arbuckle, Long Beach Parent Chapter.

I have collected most of the former constitutions and by-laws for reference, outlined a few changes which will simplify the matter and we are now ready to receive suggestions for additions, changes or omissions which members think should be made, so that we can work them into what we hope will be a satisfactory document.

> R. H. Terrell, Chairman 6848 Leland Ave., Riverside, Calif.
> B-B

## CORRECTION IN NOMENCLATURE

A.B.S. registered begonia No. II6 should read Pinafore, not Pinefore.

There are many begonias heing introduced that are not being registered. This seems to me to be of great importance, because with Mrs. Buxton's Glossary, there would be no need of duplicating names. There is a copy of this book in your Library.

> EmMA M. CARLETON

Nomenclature Committee

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