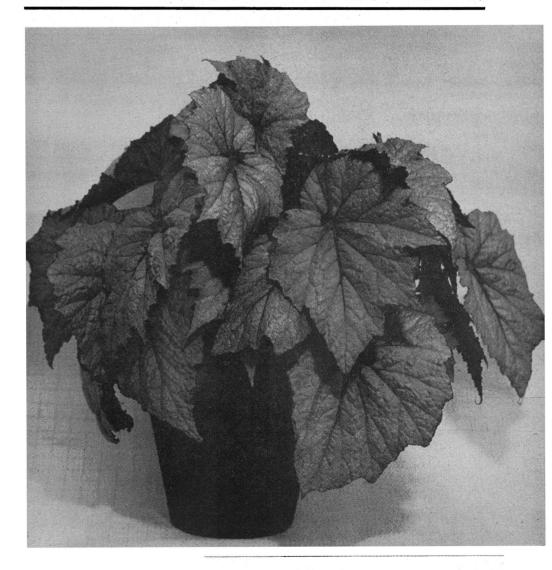
The Begonian

DEVOTED TO THE SHELTERED GARDENS

MAY, 1956

PRICE 25 CENTS

VOLUME XXIII, NUMBER 5



Rex B. Silver Star'--- Page 103

Monthly Publication of the American Begonia Society, Inc.

The Begonian

Founded by Herbert P. Dyckman January, 1932

Editor......Louise Cramer, 839 Woodward Blvd., Pasadena 10, Calif. Advertising Manager.....Emri Stoddard, 768 Avenue B, Redondo Beach, Calif.

Copyright 1956 by the American Begonia Society, Inc.—Affiliated with the American Horticultural Society and the American Horticultural Council.

General Offices: Box 2544, Los Angeles 54, California. Annual Subscription, \$2.50 Entered as second-class matter at the Post Office of Los Angeles, California, under the act of March 3, 1879.

For dues, address changes or magazines, write to Membership Secretary, Box 2544, Los Angeles 54, California. Branch members pay dues to branch.

AIMS AND PURPOSES OF THE AMERICAN BEGONIA SOCIETY, INC.

This Society shall be conducted on a non-profit 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.

ELECTED OFFICERS

Treasurer Mrs. Marie Trowbridge 9600 Van Ness Ave., Los Angeles 47, Calif.

Vice-Pres., 1 yr....Mrs. Louise Schwerdtfeger 1450 Cantera Ave., Hope Ranch Santa Barbara, Calif.

Vice-Pres., 2 yrs. Fred Browne 817 Novelda Rd., Alhambra, Calif.

APPOINTED OFFICERS

Editor Mrs. Merwyn D. Cramer (Louise) 839 Woodward Blvd., Pasadena 10, Calif.

Secretary Mrs. Arline Stoddard 768 Avenue B, Redondo Beach, Calif.

Membership Secretary Jack MacLanahan 3734 Overland Ave., Los Angeles 34, Calif.

Nomenclature Director ... H. M. Butterfield 121 Giannini Hall, U.C., Berkeley, Calif.

Nomenclature Committee — Mrs. Emma M. Carleton, Dr. V. T. Stoutmeyer, Frederick J. Bedson, F.R.H.S., Herbert P. Dyckman, R. S. French.

Slide Library and Speakers Bureau
Mrs. Mabel Anderson
1064 Davis Ave., Glendale 1, Calif.

A.B.S. LibrarianMrs. Lucy A. Sault 26938 Dapplegray Lane, Rolling Hills, Calif.

Seed Fund Mrs. Florence Gee 4316 Berryman Ave., Los Angeles 66, Calif.

Advertising Manager Emri I. Stoddard 768 Avenue B, Redondo Beach, Calif.

Parliamentarian Samuel Sault 26938 Dapplegray Lane, Rolling Hills, Calif.

ResearchMrs. Sylvia Leatherman 2637 Lee, El Monte, Calif.

School of Judging Mrs. Jean Kerlin 3207 Perlita Ave., Los Angeles 39, Calif.

Historian Mrs. Pearl Bauer 1482 Buena Vista, Ventura, Calif.

Awards Committee Mrs. Edna L. Korts 3628 Revere Ave., Los Angeles 39, Calif.

PUBLIC RELATIONS COMMITTEE

Public Relations Director Frank S. Moore 1857 Fair Park Ave., Los Angeles 41, Calif.

Assistant Director. Mrs. Louise Schwerdtfeger 1450 Cantera Ave., Hope Ranch Santa Barbara. Calif.

Northwestern Chairman . . Mrs. David Talbot 6209 Riverside Drive, Vancouver, Wash.

Eastern Chairman Mrs. Elsa Fort 6123 Cedar Ave., Merchantville, New Jersey

Southern Chairman E. Weaver 1325 Thomas Blvd., Port Arthur, Texas

Round Robin Chairman ... Mrs. Marie Reed 325 Breed Ave., San Leandro, Calif.



Photo by Percy Zug

Begonias 'Silver Jewel' and 'Emerald Jewel'

These two begonias of the imperialis group were outstanding plants arising from the SAME seed pod of a cross made in 1955 by Mrs. Susie Zug of San Dimas, Calif. These two begonias with creeping rhizomes have larger leaves and are sturdier than B. imperialis. The cordate, pustulated, even margined leaves with depressed veins have white hairy petioles and green stipules. Their difference is in coloring: B. "Silver Jewel" is silver blotched with emerald green between the veins; B. "Emerald Jewel" is emerald green overlaid with silver along the veins.

BEGONIA "Silver Jewel" is a plant which resembles *B. silver imperialis*. At first look you would think it is one of the imperialis group. The plant is very hardy and everything is in its favor. Those of you who have had experience with any of the imperialis group know that *all* in that group are plainly temperamental. *B.* "Silver Jewel" has the beauty of all the *B. imperialis* plus hardiness as my experience has proved to me.

Last summer Susie Zug gave me a plant to test as she knows my methods of plant testing. I placed the plant with the rest of mine and really did neglect it. I figure if the plant can take neglect and abuse while small, it surely will be worth having. I left it dry and in a place where the afternoon sun was beating and the plant took it all. Still it was in the same small pot!

When Susie came to visit me last January, I showed her the plant she had given me to test. I know she thought, "I'll never trust you with another plant." The plant did not grow, but very little, yet it held its own. In the middle of January I repotted it and since it has grown to more than four times it original size. It is outgrowing anything I have ever seen. Everyone who sees it wants it, and I am happy to say that Susie will have plants later this year in limited supply.

MARIE TURNER

You Can Grow Begonias If . . .

BEGONIAS are the much loved plants that give pleasure to so many people, yet so few people know anything about them except that they are beautiful. There is supposed to be about five hundred books written on begonias. You can read them all, yet all you can learn are the names and descriptions and perhaps information on potting mixture.

Now, stop to think! Is the mixture you are using giving you good results? If so, stay with it because each climatic condition calls for different potting mixtures. I know the mixture I am using I won't recommend to the grower who lives where he gets moist air all the time.

Books tell you some one else's experience and speakers are telling you theirs. As for telling the hobbyist how to grow and care for his plants is not so easy. First, let's consider the climatic condition. That has lots to do with your potting mixture. If you live in a place where the air is dry, you will want to use peat moss in the potting mixture to help retain moisture. However if you live where the air is constantly moist, keep away from peat moss as it will keep the plants too

(Continued on Page 116)

Ineradicable Garden Pests

CONSIDERING what the average gardener has to put up with, I am convinced that he is a direct descendant of Job. His patience is limitless, and his persistence in the face of adversity is positively Spartan. When I examine the catalog of hazards in the endless steeple-chase of gardening, I cannot help but wonder where the gardener finds his courage.

He fights with soil and water, weather and wind, sun and shade, bugs and fungi, viruses and blights, sprays and fertilizers, Latin and Greek, and the Terrible Temptations of the Seed Catalog. All of these things he appears to take in his stride, and seemingly he is ever happy in his private warfare. But when it comes to pests, there are some over which he has no control, and from which he has scarcely any protection, unless he abandons the hobby and cements the entire vard.

It may be that you will recognize some of these pests. They seldom look like the more common insects, and fortunately they are highly migratory, rarely staying in any one place for long periods of time. I suppose their mobility is a direct result of their instinct for self-protection, and also for the reason that the devastation they wreak is always efficiently sudden in character. It is difficult to say what they feed on, but the best opinions concur that it is mostly broken morale. The following list is probably not complete by any means, so, Gentle Reader, I should be appreciative of such additions as you might like to make to it.

1. The Sharp-Eyed Weed Spotter. There are many varieties of this species, all of whom are related by the common denominator of their desire to find something wrong in your garden. The Weed-Spotter is an ambulatory pest who is generally silent as you lead him past a magnificent rose bed, or a collection of azaleas that are blooming their heads off. You hear not utterance as he examined your imported hybrid iris, and the most perfect tuberous begonia fails to brighten his eye. Then as you are showing him a tomato vine that would have Burpee himself busting the buttons off his vest, this pest finds what he is looking for: a dandelion!

2. The Fan-Footed Seedling Crusher. There is only one species of this slug, but he comes in two sizes. You can depend upon his arriving just as you have set out the last of a flat of zinnias. The king size FFSC is anxious to

borrow your ladder, and is so intent upon his mission that, on his way to you, he cuts a wide swath through your newly planted bed. A special identifying characteristic of this pest is that, when you gaspingly point out the damage, he promptly thrashes about in a wide circle under the impression that he is avoiding what ever is still left standing. The small size Seedling Crusher is usually preceded by a large heavy ball, and more often than not he arrives with several of his kind, all of whom engage in a wild strugle for the possession of it. A pest control measure involving a hair-brush is sometimes effective in this latter case.

3. The Loud-Mouthed Mine-Are-Better. Avoid this plague, unless you already have a psychiatrist. No one has ever seen this one's garden but it is certainly advertised at the time he visits yours. If your dahlias are as large as a dinner plate, his are the size of a washtub. Should your sweetpeas run to five flowers on a stem, his have seven. He regards your two-pound avocados as puny and hardly worth picking, and will acidly enquire what stunted your four-foot gladiolus spikes.

4. The Stiff-Backed Strawberry Weevil. Frequently, though not necessarily, this scourge is female, and she is adept at praising your berry patch. This flattering attack disarms you, and you urge her to take some berries home with her. Before you know how it happened, your back is aching from having picked two quarts of fruit for her, each berry having been examined meticulously before you were allowed to harvest it. As she leaves the house with a pint of heavy cream she happened to notice in the refrigerator, you are delighted to learn that she will be back next week for more, provided it won't take you so long at the picking.

5. The Insatiable Blossom Grabber. This bete noire is usually a member of a group, civic or otherwise, and she is distantly related to the Strawberry Weevil. The impending doom to your rose garden or bed of snapdragons is forecast when the telephone rings. You are first praised to the teeth about your garden, and how it looks from the street to the passer-by, and then you are asked as a civic-minded citizen to contribute a few flowers to the decorations of such-and-such affair. This strikes you as reasonable and you make an appointment for the IBG to come by.

Two days later she arrives in a station

THE BEGONIAN

wagon which is hauling a trailer loaded with buckets, and, accompanied by two Mexicans who not only don't understand your English entreaties but are deaf in the bargain, she strips every plant in the place. As she takes the dozen or so flowers you thoughtfully cut in advance of her arrival and adds them to the total proceeds of your garden, she remarks that she would have sworn there was more. Totally smitten, you agree that from the street it did look like more. Three days later you are astounded to see her again, this time in the company of two other committee women, all of whom have come from the Town Council to advise you that if you don't do something about your messy looking yard, you will be given a summons.

6. The Near-Sighted Label Shuffler. This bramble is always curious about your greenhouse and your propagating frame. He is never quite able to make out the labels in your seed pans and cutting flats, so, he plucks them out for a close-up. He prefers doing this to asking you "a lot of annoying questions." This sticky-fingered pest enjoys fondling at least four or five labels at a time, and when he puts them back (if he remembers to do it at all), it is a totally haphazard process. Subsequently, it is disconcerting enough to discover you have been weeding seedling Ziesenhenne Rexes out of a pan "marked" Strelitzia Regina, but when all of your cymbidium backbulbs now have names that sound like Saintpaulias, you are in a fair way to lose some hair.

7. The Nimble-Fingered Pollen Snatcher. There should be an open season for hunting this canker. He is usually more indigenous to flower shows, although he may visit your garden. If he does visit your home garden, he will be camouflaged in a garden-tour group. He works anonymously, but effectively. This pest is vitally interested in hybridizing, and doesn't care a hang about flowers, except as parents. At a show, he seems to have followed the judging party invisibly close to their heels. The blue ribbon flowers are his target, and later a casual visitor wonders why a plant so obviously damaged should have won honors.

8. The Over-Zealous Cutting Wormer. Here is a fungus who has just discovered for herself that plants may be propagated by cuttage. She will be all for having you lop off the top of a palm tree so that she might try rooting it. As she flits through your garden her first question about any plant is, "Will it grow from a cutting?" If it does, it might then occur to her to ask what the plant is, as she breaks off a branch to take with her. Your prize camellia is the thing that catches her eye. You have worked with this plant for years, feeding and

spraying and pruning it to a perfect thrifty specimen. You make the mistake of admitting that it is possible to root slips. She cajoles you out of two or three prunings, and having done this, mentions that she has four friends in her garden class who would be so delighted to have slips too, and after all, sharing things like this is what makes gardening and gardeners so wonderful. Reluctantly, you make a few more snips with your shears. She thereupon insists that you take several pieces for each in case of failures, and then she remembers cousin Willie-Mae and Old Uncle Joe Masterson who would probably love to grow this plant too. By this time your vertigo has the best of you, and from far off, you hear your own voice agreeing that if she had another carton she could take a few slips out to some friends in La Mesa.

Later on, when the sedatives have worn off, you can't even find the camellia. When you ask your wife about it, you discover she has given "that scraggly misshapen thing to Aunt Julia, you know, the one who is so good at reviving beat-up plants."

Nurserymen who grow begonias are acquainted with a relative of the OZCW, the Furtive Leaf-Snitcher, a fellow with big pockets, and a master of the fast pinch. Cactus growers are the only ones safe from this predator.

9. The Sad-Eyed It-Won't-Grow and The Thick-Skinned You'll-Be-Sorry. This pair of mildews is not as harmful as some of the preceding species. The worst they can do is make you wish that you lived in a gravel pit, and had never heard of Aggler and Musser. They will give you fifty reasons why a plant won't grow where you have planted it, even though you point to the same thing in a similar situation just across the street. If the plant can be expected to succeed, you will be assured that you will rue and curse the day you spotted the plant in a nursery. The most effective control for these Oracles of Doom is to turn down your hearing aid.

10. The Agile-Tongued Latin Spouter. It may be said of this smut that he is of minor consequence, sometimes even beneficial when you might want to settle an argument. He may easily be controlled by never mentioning the common or local name of any plant whatsoever. If you must talk plants with this pedant, throw Mrs. Post to the winds, and use your index finger and a heavy sprinkling of impersonal pronouns. Together with this pest, mention should be made of the Sorcerer's Gadzooks-Fly, a moth who can recite at interminable length the most incredible supersti-

(Continued on Page 116)

New Fun With Old Logs

SAVE that burley old klunker, gardeners, it's invaluable. Logs and old stumps, yes, people will almost pay money for them now. Landscapers make great effort to bring them into flower shows and out-ofdoor settings. It is true they will harbor a few pill-bugs, vermin in general, and worry you with the thought of fungi, but do not let such little things worry you, go ahead and bring in your favorites. Plants just love old logs, as in nature, they generally hold moisture, offer shade, and eventually break down into rich soil. As planters they keep even temperatures, do not reflect the scorching sun, insure drainage, and get the plants up nearer to eye level.

One of the most delightful uses of an old oak stump I have seen was effected by Mrs. Ramey Hudson of Bel Air. With the help of her loving husband and son, they waltzed a six-foot section of an old live oak stump, replete with knots, hollows and cavities, right into the living room. It must have weighted over a thousand pounds and averaged over two feet in thickness. A copper tray and pad protect the floor. A few additional well placed holes were chisled to balance it out, and the jagged edges softened. The bark had been previously removed. There, in front of a beautiful picture window she stands. By the way, she is named Mrs. Jones, because of the resemblance to a busty torso. Planted in the cavities, which are lined with aluminum foil, are tropicals and ferns of every description. It makes a perfect setting of informality, and happy blending of nature and man, as one looks through the window into the yard. I just drooled at the thought of what I could do with a similar setting of rhizomatous begonias, red, purple and silver-lined rex varieties, with a sprinkling of maidenhair ferns for brilliant, delicate greens and for variation of size and texture. I thought of the warm greens in B. "Rajah" (now called B. "Ranee"), the purple and silvers in the B. "Maccado," commonly called B. "Mikado," to complete the picture.

The use of foil opens many new fields for planting of logs, both in and out of the house. So, bring in the log, choose a sharp chisel and go to work. Holes six inches deep and the same width, will take a five inch pot gracefully, allowing sphagnum or greenmoss for covering the pot and covering the foil edges. Out-of-door logs placed horizontally can, for luck, be drilled through with an extension bit. One can rent one at any tool rental place if so desired. I would



suggest a one inch hole to insure air in the cavity, especially where overhead sprinkling is practiced. With the pot method, plantings may be moved to rearrange for color, passing of prime periods of plants, replacing of overrobust specimens and diseased or blighted foliage. Where the cavities created are uniform and properly tapered at the bottom, the foil, and the soil itself may be shifted. Plantings directly into the foil should have a goodly bottom layer of small-chunk sized charcoal to help keep the area fresh where drainage is not wanted.

It may be found desirable, or for pest control purposes to raise the log slightly above the surrounding soil, allowing air to penetrate freely. One of the most likely visitors will be an inch-long, jointed member of the multi-legged group erroneously called wireworms. They seldom eat live plant matter, but do love to chew on wet wood. Termites may appear, but I have had an awful time trying to get them to chew up my unwanted, buried logs and stumps. I argued, they would beat the fungi sporophytes to it, and would offset their own terrible reputation, but they still preferred the soil-contacting posts and portions of structures instead. Maybe you can, if you want your logs to have all the true marks of nature, have better luck than I did. The pill-bugs will be so happy chewing on the wet wood, that they may even leave your plants alone. After all, their true name is wood-louse. All of these, termites excepted, may be poisoned, along with slugs, by several of the all purpose baits. It is best to tuck the poisons away under boards or containers where the bugs seem to congregate during daylight.

If you place a log, try to capture the wild primitive feeling of logs undisturbed, as they fell, as if some sections had already fallen to dust. This appearance can be helped along by woodsy plants such as ferns, Canada ginger, farfugium and other shade plants. It would be surprising to find how long that old rotting log will last, even when in its last stages. An old oak log is good for five to fifteen years in a lathhouse. It will be your most likely find, as it is most common. If my guess is right, it will most probably have been killed by continued ravages of attacks by the twig borer and the oak worm. Its fall, by decay of age. If you suspect oak root fungus as the culprit, strip the bark and douse or saturate well with ferric sulphate, or ferric oxide, which seem to discourage sporophytic development.

Here and there a conifer log may be promising material, but handchiseling of holes will be generally necessary as I have seen only a few cavities in the resinous trees. Hollow boles are usually fire damaged and are well charred to resist further decay. Protruding stubs often will be enhanced by well placed holes, which should be grouped to form an interesting colony of woodsy epiphytes.

If a happy medium is sought, and no giant logs come your way looking for a home, take a twelve-foot section of any tree trunk, preferably crooked, and placed it at a forty-five degree angle. Chisel the hole along, and up the line like steps. This, planted with bromelliads of differing foliage types, will give very interesting tropical effects.

FRED KAYE

Rex B. 'Silver Star'

YEARS AGO I obtained a rex begonia named "Silver Star." I also have the rhizomatous, Begonia "Silver Star." This has resulted in confusion and repeated explanations. I do not know the origination of the rex, Begonia "Silver Star."

R. c. Begonia "Silver Star" (front cover picture) is still one of my favorites. It has a pebbled, silver leaf with depressed veins and a black eye at the sinus. The back of the leaf is red tinged. It is of the upright branching type and when properly grown under normal rex culture and cared for, develops into a lovely specimen which is not susceptible to powdery mildew.

Rex begonias of the upright growing type are best grown as a cane type begonia. They will need support and therefore stakes are necessary. By placing the stakes in the center of the plant and using tie materials, each individual branch can be held up in position. Several small stakes, redwood or bamboo, will result in a more attractive plant, rather than one stake and drawing all of the branches to one center position. To obtain a graceful, natural appearance, supporting the branch in position, not tying tightly to a stake, is the secret.

The rex begonias that are of the upright, branching type require a pruning in the spring if they did not go dormant during the winter. Taking cuts, going down two eyes (two leaf nodes) on each branch every week has proven satisfactory for us. Eventually all the old branches are removed down to the last one or two nodes. The shock of cutting all the branches completely down at one time in many cases results in the loss of the plant. The pruning should not be done before the normal growing period in spring if you have the plants growing out-of-doors. Grown under glass with heat, the pruning can be started in December or January. Pruning early, let two weeks lapse between each two eye-node removal. In order to obtain a specimen plant from this type of begonia, the pruning is essential.

A clever way to grow some of the more rampant growers as: Begonia r. c "Nigger Tree" and B. "Lavender Glow" is in a redwood hexagon tub. On two or three sides redwood trellises are attached to the sides of the redwood tub. As the branches grow, they in turn are trained on the trellis.

SYLVIA B. LEATHERMAN

Streptocarpus Culture

THE GENUS Streptocarpus, commonly known as the Cape primrose, is native to South Africa. It is worthy of greater consideration by California gardeners, because it is easily grown in a cool greenhouse, in fact, it is not a warm greenhouse plant. The Cape primrose tolerates cooler greenhouse conditions than the gloxinia, which it resembles, and it is easier to manage as a potted plant.

Hardy strains of the Cape primrose are planted outside where there are no extremes of temperature. A protected place is needed, because most of the flowers appear from summer into winter.

The flowers are borne in great profusion from summer on until winter or spring. The popular hybrid varieties come in a wide range of colors. They keep very well as cut flowers. The compact foliage of the best strains is a desirable feature, as well as their hardiness and their large flowers of pleasing colors.

VARIETIES AND SPECIES

Several species of Streptocarpus have been used to produce the best varieties of today. Certain striking hybrids were produced by crossing three species, S. rexi, S. parviflorus, and S. duni, some sixty years ago. S. rexi has blue or mauve flowers about 2 inches long and 2 inches wide with a narrow corolla tube. S. parviflorus has purplish flowers with white inside the mouth, the individual flowers being about three-quarters inch across and borne in 3 to 10 flowered cymes. These two species have very short flower stems and several leaves which form into a rosette. The third species, S. duni, has rose or reddish flowers about 11/2 inches long. It has solitary large leaves, 2 to 3 feet long, which rise from the base of the flower panicles.

Other species of *Streptocarpus* have been introduced such as *S. wendlandi*, which has several forked scapes I to $2\frac{1}{2}$ feet high, with as many as 30 violet-blue or white flowers borne in the inflorescence, each with a corolla tube about I inch long. It is considered one of the finest species in cultivation. *S. galpini* also bears flowers on stout stems. Both species are characterized by solitary leaves, from the base of which the flower panicles arise.

Plants of hybrid origin involving various species are now listed as *Streptocarpus hybridus*. Much improvement in the size and color range include white, blush pink, salmon pink, blue, purple, and red. The throats of the flowers may be striped or pencilled or of clear self colors. The popular hybrids have

several leaves and large flowers borne on tall, erect stems.

Seed. Propagation of the Cape primrose from seed is easiest, and is generally recommended for the hybrid varieties. The seed should be sown in January or February, 1/16 inch deep in a soil mixture of 1 part loam, 1 part leaf mold, and 1 part sand. The plants normally bloom in the summer, but may be flowered in pots for winter.

The temperature should be between 55° and 65° F. during the period of germination and while the seedlings are small. Transfer the seedlings finally to well-drained shallow seed pans where they may form a thick network of roots. These seed pans should be filled to within 3/4 inch of the top with a light potting mixture, consisting of about 1 part soil, 1 part sharp sand, and 2 parts of well-rotted leaf mold.

Leaf Cuttings. Leaf propagation of the Cape primrose is largely limited to the species having solitary leaves, such as Streptocarpus wendlandi, S. galpini, and S. duni. Healthy, mature leaves make good leaf cuttings. Do not select very young or very old leaves for rooting. Insert the base of the leaf in coarse sand or horticultural vermiculite to a depth of about 1 inch. A new plant should form at the base of the leaf after the leaf roots. The leaf cuttings should be rooted in a warm, shaded, humid propagating frame where a temperature of 65° to 70° F. can be maintained. Some sun should be given the young plants when they have formed.

Division. Old plants which have formed several divisions may be carefully separated and planted.

SUGGESTIONS ON CULTURE

Soil and Location. The Cape primrose may be planted outdoors in a mild climate. The best modern strains do well at a slightly cooler temperature than the older ones. A moist, shady situation where the temperature averages 40° to 50° F. in winter and 55° to 65° F. in summer is best. Any fertile, well-drained soil can be used, or a mixture of 2 parts leaf mold, I part fertile loam soil, and I part sand may be used. Other similar mixtures with more soil may give good results.

Fertilizing. Apply liquid manure or a suitable mixed fertilizer containing 6 to 8 per cent nitrogen, 10 per cent phosphoric acid, and 4 per cent potash once every 4 to 6 weeks to aid in producing vigorous growth and continued production of the finest blooms.

Watering. Seedlings should be watered carefully to avoid wetting the foliage any more than necessary. More frequent watering will

Tuberous Begonias . . .

. Grown Under Artificial Light

THE SCORCHING heat of Tennessee summers is not conducive to successful growing of tuberous begonias out of doors. My need for the lush blossoms for a garden club display prompted me to grow them under a fluorescent light set-up. A friend, a greenhouse grower, was very skeptical about this venture, but suggested that choice tubers be purchased from the Pacific Coast. Tubers were ordered, planted in flats according to instructions, and in due time nice little plants were ready to be potted.

In my basement, a 6' x 5' bench stood near an open door, this bench being lighted by a fixture holding four 40-watt tubes, arranged in a "V" shaped manner. In this way the two lower tubes were at a distance of 24" from the bed, and the top tubes 27". The bed contained a 2" layer of sand and zonilite used to increase humidity.

Then came the problem as to what potting soil would be used for planting under the artificial lighting. Two plants were placed in a soil mixture recommended for greenhouse growing, in 4" squatty pots and placed on tin cans so that the plants were elevated 4" closer to the bottom lights. Three plants were put in a soil mix (which I had found satisfactory for growing bulbs under fluorescent lights) in 5" standard pots and placed directly under the lower lights on the sand bed. The remaining four plants were potted in 6" standard pots in a soil mix consisting mainly of woods dirt (leaf mold) and small portions of compost and sandy loam and placed on the outer fringe of light. All the above mentioned pots contained good drainage material and a

be needed if the soil mixture contains a large percentage of leaf mold than when soil makes up a large percentage of the mixture. Watering once or twice a week may be adequate in a moist greenhouse and even outdoors unless the weather is dry. Watch the soil to see when the top inch shows signs of drying and apply water as needed. Allow the water to wet down to the full depth of the feeding roots at each irrigation.

Pests and Diseases. Young seedlings may damp off unless the soil is sterilized before the seed is planted. Good ventilation is important. Certain leaf-eating pests, such as slugs and snails, can be controlled with poison baits for the purpose.

H. M. BUTTERFIELD

light sprinkling of bone meal, and then were filled with the various growing media.

As outdoor temperatures rose to over a hundred degrees, the windows and doors of the basement were kept closed during the day, two floor fans circulated air day and night, and the concrete floor was wet down daily for the humidity needed. Temperatures ranged from 70 degrees to 80 degrees during the day and humidity readings ran as high as 80 percent on several occasions during the growing season.

As time went on, the first two plants seemed to refuse to grow, and on checking I found the tubers rotting. The next three plants were growing, but had bad leaf color, wilted badly, and it seemed impossible to keep them watered. The last four did not make rapid growth, but grew steadily, and gradually were moved closer to the lights until they were directly under the two side tubes. Here they grew straight and sturdy under 14 hours of light daily. These plants were fed with fish emulsion, extra shoots were cut off, a mist fogger was used, and I watched carefully for any signs of mold or mildew. Some nights the plants were placed out doors on a stone step, hoping that the night air and perhaps a little dew would encourage them in their growing. Finally buds showed and my last fear was to have bud blast.

Now my story has a happy ending. Three plants had beautiful blossoms. What happened to the other is anybody's guess, but the buds refused to open. In checking back on all factors used in growing these plants, it would seem that the greenhouse soil was too heavy for indoor growing, although I had contemplated this and potted them in smaller pots. My own mixture must not have contained the needed moisture retaining qualities and it was not rich enough for sturdy growth and good foliage. Perhaps, too, larger pots should have been used. The last potting soil undoubtedly must have contained all needed substances for growing and blooming, for the foliage was good and blooms outstanding. Many other people may have grown tuberous begonias under artificial light, but this is the story of my experiences. Whether this feat can be duplicated this year remains to be seen. With the knowledge gained in the first trial run, perhaps this time more plants can be grown.

JEAN BOGGS, Nashville, Tenn.

Is Alkaline Water Your Problem?

QUITE OFTEN the limiting factor to growing good begonias is the potting soil. While various soil mixtures from pure clay to pure sand have given satisfactory results when properly managed, it is possible to prepare a soil mixture which will give consistently good results with not too exact handling and only the usual watering.

Since this soil is prepared to fight an alkaline water it will not give good results if you use soft or sulphur water, for the soil will become so acid that fertilizing elements will be made unavailable to the plants.

My requirements for a good potting soil are definite. First it must be a loose, porous mixture which drains quickly, yet stays moist, and does not pack. It must not fall apart when the plant is knocked out of the pot for shipment. It must have sufficient fertilizer for satisfactory growth immediately and yet must break down slowly so that ample food is available for at least one year without the addition of anything but water. It must maintain an acid condition to counteract the alkaline salts in our city water. It must be free of soil animals, especially root nematodes. It must be standardized so it can be readily and repeatedly duplicated.

All of these problems were satisfactorily worked out and I have been using the following soil mixture since 1939 with consistently good results.

In measuring the materials I use a onecubic foot capacity bucket but any size container may be utilized so long as it is used for all measurements. I use, by volume, 2 parts of leafmold composed mostly of leaves of scrub oak or mountain lilac (ceanothus). The common live oak leaves are usually so rich in tannic acid that the bacteria will not attack them readily and they will decay too slowly to feed the plant. I usually screen the leafmold through a half-inch mesh hardware cloth screen to remove sticks, stones, and large pieces of leaves, which, if used, will keep the soil too open. Next, one part European peat thoroughly wet. This peat, a dark reddish-brown when wet, is used primarily for its ability to hold water. The peat is valuable because when leafmold alone becomes dry in a pot, it refuses to get wet again and water applied will run right through the soil and out the pot without getting the leafmold wet.

When European peat is used, it absorbs the water and wets the leafmold through its contact with it. The peat also swells up in size

when it absorbs water. This forces out the old air, and, as the water is used, the peat contracts and sucks new air into the soil. This expanding and contracting keeps the soil loose, which is important, for one must not cultivate around surface-feeding plants. The Canadian and United States peats contain so little acid that they break down too rapidly and free too much nitrogen at once and thus cause poor results. One part compost or rich soil is added to furnish immediate food elements as well as bacteria and mineral matter. It also furnishes weight to the mixture, which helps to supply the proper compacting material to create numerous small air spaces in the soil and also keeps the pot from falling over. If the leafmold is mostly leaves and the compost mostly sandy soil, add one fourth part clay, for it has the ability to hold fertilizer elements to itself and thus prevent them from washing out of the pot. One half part cow or steer manure (just decayed enough to prevent its heating up) furnishes a reserve of available fertilizing elements and plant vitamins as well as all the beneficial materials still unknown which makes this manure retain its title as the best general fertilizing material and soil conditioner. To a total volume of about 3 1/2 cubic feet (one construction wheel barrow-full) of the above materials, add the following materials: One four-inch pot hoof and horn shavings, which furnish a slow form of nitrogen, phosphoric acid and lime as well as other minor elements; one five-inch pot of oyster shells (as supplied to chicken raisers), to furnish a steady supply of lime; one two-inch pot of air-slaked lime to supply an immediate source of lime; one fourinch pot of charcoal (of mixed sized particles), which has the ability to absorb large amounts of ammonia gas and thus keep the soil smelling sweet as well as saving the ammonia (a nitrate) to feed the plants; one four-inch pot of bat manure to supply immediate as well as a long-time supply of nitrogen, phosphorous, potash, and other elements; one two-inch pot of superphosphate to furnish a steady supply of phosphoric acid and lime; one and one-halfinch pot of sulphate of potash, which furnishes sulphur and potash steadily; one four-inch pot of Scotch Soot, supplying readily available nitrogen as ammonia and carbon; one twoinch pot of Vaporite to act as a mild fungicide and repellent to worms and soil animals. If the soil is not to be steamed, then add on four-inch pot of the Vaporite. I place the soil in nursery flats and steam it, trying to hold the

Scrapbook for Begonias

A FEW YEARS AGO, in my struggles to learn about the begonia family and how to identify its members, I started to make a scrap-book, devoting one page to each variety. It turned out to be good fun, and today this rather bulky, loose-leaf affair contains photographs and pressed leaves of about 300 (sometimes wrongly) named plants.

The pages of this book are standard typewriter size, with three reinforced holes to fit the binder. In the upper right hand corner I write the name of the begonia, in pencil if I'm not sure of it, and my own number for the particular plant. In the other corner I write the source of the plant, the date I received it and whether it was plant or cutting. At the bottom of the page go notes on the origin of the plant as I come cross them, either in The Begonian or the Krauss or Buxton books. Eventually I get around to taping in a leaf, and also a bit of bloom if there is anything unusual about it. I experimented with various ways of pressing the leaves including ironing them between sheets of cellophane, which removed the color, and so was unsatisfactory; now I use wide Scotch tape

(2"), employing as many widths as necessary to completely cover the leaf. It is important to place the leaves in different places on the various pages so that the sheets don't develop a hump. Eventually a 21/4" square photograph . . . and there's plenty of room left for notes on culture or whatever. When I lose a plant, I switch its page to the morgue at the back of the book, which, I regret to say, is rapidly overtaking the live section at the front.

For a number of years I have kept a bloomchart in the scrapbook. It is a sheet or two of graph paper, with the live plants listed vertically and the months of the year horizontally. When a plant is in bloom, it receives a dot for that month in the appropriate square. As the years accumulate, so does interest in this chart; and through it I discover that the champ, B. "Preussen," is now in its 64th month of continuous bloom. It would be interesting if other growers would do this too, so that the blooming habits of the various begonias in different parts of the world could be compared.

MARJORIE WIHTOL

temperature of the soil at 180 degrees for one-half hour.

It will be noted that the above potting mixture does not contain sand which is inert as a fertilizer and always packs the soil, an undesirable trait. When sand had been added to the above soil mixture I always obtained poor results. Besides, nearly all the sand available in Southern California and probably into Central California is infested with root nematode, which will cause untold damage to plants.

Because of the abundance of potential fertilizer in the soil mixture it is best to allow the soil to become slightly dry on the surface between waterings as this slows up the action of the bacteria. Also, if you keep the soil too wet in the lower part of the pot air will be excluded, bacteria will develop swamp gas, and the roots will never penetrate the lower soil. When you water, water thoroughly so that the soil ball is soaked, but remember that the water which runs out of the bottom of the pot takes with it in liquid form the fertilizer which you have thoughtfully provided. For this reason, if you stand the potted plant in a pan of water, only pour in as much water as the pot will take up.

To use this mixture for tuberous begonias you must have the plant well rooted before it is potted or the tubers may rot. It is best to start the tubers in peat moss, leafmold, or in a small pot in the soil in which the plant grew last year, and then shift into the rich soil after the roots are well developed. Plants of various begonias in active growth may be transplanted directly into this preparation. Cuttings of begonias rooted in pumice or sponge rock may also be placed in the mixture but they should be heavily watered once in order to wash out the excess available fertilizer.

While this soil was especially prepared for begonias, it has proved an excellent soil mixture for coleus,, gloxinias, cyclamen, saintpaulias, ferns, primulas and cinerarias. For cymbidiums this same soil mixture, used half and half with oak leaves or leaves of the same texture and acidity, will give excellent results for two or three years with only the addition of water. The mixture, used with two parts garden soil, will give good results with other RUDOLF ZIESENHENNE plants, also.

Camellias

LESLIE MARSHALL grew up in the nursery business in Arlington, Nebraska. He specialized in horticulture at the University of Nebraska and then came to California. Growing plants is much different here than in the plains states, but he prefers the long growing season, better climate, and home owners are more garden minded. The Temple City Camellia Festival has done more to popularize the camellia because all the children go out to get camellias to decorate their floats for the youth parade just as Pasadenans originally used roses only on their floats for the now famous New Year's parade.

The camellia is a natural shade loving plant in its native home south of Nippon and in China, where it gets lots of rain in the acid growing conditions near the mountain timber line. This shrub is not temperamental as some people think. It is really the easiest to grow in this country, but it is easier to kill with too much kindness, he states. While the camellia is a shade loving plant, that does not mean for it to be put in dense shade. The more light the plant can get, the bushier it becomes with more prolific flowering. Usually these shrubs are planted on the north or east side of the home or under trees which give strong filtered sunlight so they will be protected from the burning rays of the sun during the hottest part of the day. There are some varieties which are strong growers which have thick, dark green leaves and dark colored flowers which can stand the sun better without protection. The varieties which can take the sun well are: Covina, medium semi-double rose red: Madame Jannoch, large red semi-double vigorous grower with flowers from December into March; Princess Bacciochi, orange-red low bushy spreading grower; Jordan's Pride, solid or variegated; Gigantea (Emp. Wilhelm), very large marbled cherry red; Kumasaka, deep pink; and Pink Perfection, formal soft shell pink. While Marshall suggests these camellias to take more sun, he states that they should not receive reflected heat from buildings or drives, nor be allowed to get dry in hot spells. Purity and Finlandia, both white flowered, also will take more sun, but the flowers will brown on a hot day. Daikagura, which blooms very early in the season, may make new growth and set new small buds for April blooming. The preceding camellias are known as the "Japonicas"-Japan, their native home-which are used extensively for landscaping.

The Sasanguas are hardy, early, profuse bloomers which have small dark green leaves and small flowers. They thrive in sun or partial shade and can be used for hedges, espalier or ground cover. Their culture is the same as the Japonica.

The most spectacular bloom is found in the newer class, Reticulata, which has been more in the collectors' class because of the high price. These are all grafted plants and probably will be higher in price for some time because the reticulata does not put out much graft-wood, but if one wants a real show plant with magnificent color, giant flowers and unusual crepey petal formation, this is "It."

The most important factor in successful camellia growing is GOOD DRAINIGE. The soil in which this plant is grown should contain a large quantity of humus and be slightly acid—ph of 5.5 to 7.5. Below this ph range, 4-4.5, Marshall says the plant is more susceptible to sunburn, alkali poisoning and does not have the strength reserve. Above 7.5, if the plant is too heavily watered it will lose its leaves, or leaves will darken, veins turn dark and brown spots form on outside and underneath the leaf. He prefers a good grade peat moss with a low ph-European because it is more acid, more fibrous and lasts longer in the soil. The carbonized or peat containing much vegetable matter breaks down too quickly in the soil to be of good use to camellias as they must not only have the soil in an acid condition, but it also must be aerated. In heavy soil, sponge Rok may be used. In adobe, he recommends a post hole dug at a 45 degree angle at the corner of the planting hole and then filled up with crushed rock so water has an opportunity to seep off different layers of soil. If the hole is dug straight down, in winter the basin will fill up like a bath tub and drown the roots of the camellia. Set the plant 2" to 3" above soil level in heavy soil. In normal soil, level, and in sandy soil the junction of the root-ball may be slightly depressed.

More camellias are killed by over watering and over fertilizing. Keep the plant moist, but not soggy wet. When you water, soak well and only as often as necessary to keep the soil moderately moist. During hot weather the foliage appreciates a light syringing, but do not do this when the sun is brightest or the water droplets will magnify the sun's rays and cause burned spots. Don't foliage water

while blooming as the flowers may brown or be knocked off.

Fertilize oftener and not too heavy at each application. Start a feeding program in March and use the fertilizer according to directions on the package. This if followed by half-strength feeding at two month intervals, but not used any later than August. Be sure the camellia is thoroughly watered the day before fertilizing and water in the fertilizer thoroughly. If the fertilizer used does not give an acid reaction, use enough soil sulphur to make the ground yellow, keeping it away from the trunk and spread thinly to drip line. Use this only once a year and remember sulphur is active only in temperatures of 80 degrees and above. Leaf mold gives a good summer mulch and some people use manure in the summer mulch if they have no water alkali problem.

Use no fertilizer when planting the camellia—only when established. Only use half strength solutions on seedlings and use oftener.

Pests are few on camellias. Scale or aphis may be found if ants are around. Scale usually comes from ivy or orange trees. Control the ants with chlordane; the aphis with nicotine containing spray; the scale with 2% oil spray; and leaf eating insects with a stomach poison. All old fallen flowers should be removed from the ground to prevent petal blight, a fungus disease, which shows up the following season with brown spots on the flowers.

Prune the camellia only as much as necessary to keep it in a desirable bushy shape by cutting with SHARP tool just above a bud or leaf. This is best done by cutting flowers with stems where the shaping is necessary. Control any unusual growth before it gets out of hand.

Do use the camellia as the glossy leaved background for all summer shade plantings. Being non-deciduous and a clean shrub, it not only gives a beautiful array of blooms in a variety of color and form for winter and spring, but also provides shade for ferns and begonias in summer and an excellent background for fuchsias and azaleas.

(Interview of Leslie Marshall preceding talk given by him to San Gabriel Valley Branch.) LOUISE CRAMER

CLASSIFIED

BEGONIAS, African Violets, Ferns, general line of plants. Seeds, Sodium Selenate, Sprays, supplies, books. Free list. Yoars House Plant Nursery, Bunker Hill, Indiana. A.B.S. PINS, stationery, signs. Write to Fred

A.B.S. PINS, stationery, signs. Write to Fred Browne, 817 Novelda Rd., Alhambra, Calif.

Begonia Evansiana

MY EXPERIENCE with Begonia evansiana is slightly different from most people's in that I can grow this hardy begonia near and around a stone wall. The soil around the stone wall is a light rich humus mostly leaf mold. The main point to remember is that the soil should be coarse and porous so that it permits free drainage. The stone wall not only gives a background for my lovely plants, but ensures enough moisture around the roots.

A plant, small in size, was given me several years ago by Selina Jones. I planted it near the wall. It thrived immediately, growing to a height of 18 inches, with large leaves green with lovely purple veinings underneath. The flowers are large, bright pink, in forked terminal clusters. William Kerr, son of an English nurseryman, discovered *B. evansiana* in China around 1804.

Copies of the leaves and flowers of this plant are frequently seen in antique and modern Chinese embroideries and paintings. This indicates they have been known to the Chinese for many centuries. Japanese artists also have made use of the *B. evansiana* motif for decorative purposes.

Begonia evansiana bears in the axils of its leaves little bublets which, if left undisturbed, fall to the ground and under favorable conditions develop the following spring into new plants. These bublets planted very shallowly in pans or flats in light humus soil form a rapid means of increase. Being hardy, they will come up year after year as far north as New York City with no further protection than a light covering of autumn leaves.

It is well to bear in mind the place about where they come up. Most people in their haste to plant other things overlok the fact that the *Begonia evansiana* is a late sleeper. It is generally the middle of May before shey show themselves. They, however, make up for their slow appearance and grow frantically, ending in a burst of pink glory in early September and lasting until frost. These tropical looking plants do well in flower arrangements, using leaves and flowers together for an oriental effect or the leaves as a focal point in any flower grouping. It is surprising that begonias of this class are not more widely known and used.

In addition to their interesting characteristics, they will thrive in most any shaded spot and will endure a reasonable amount of neglect.

FRANCES S. HEINICKE, Ivyland, Pa. From Begonia Bulletin for Eastern Fans

Growing Tips

CULTURE: THE PLANTING OF TUBEROUS BEGONIAS

WITH the welcome change in weather this month we should all be thinking about tuberous begonias. Those who lifted your tubers last Fall should bring the tubers out of storage now and place in empty flats in a warm place. Moisten slightly once in a while until pink eyes have formed. Then plant the tubers 3 to 4 inches apart in flats of peat and sand, leafmold and sand, or peat alone. Some advise to plant one-half inch below the surface. I prefer to keep the top of the tuber visible at the surface to forestall any rot developing at the junction of the tuber and stem. Keep tubers and mixture moist, but never wet. This stage of starting should be in strong light, but not sunlight, to prevent the sprouts becoming spindly. After sprout are 3 to 4 inches high, a strong root system will have developed. They then are ready to plant out in beds or in pots, whichever you prefer.

If you are purchasing new tubers this Spring, see that you select only firm, regularly shaped tubers with several pink eyes showing, or at least one strong eye.

If you have left your tubers in the ground all winter, and many people do this with good results, lift them now and carefully wash off the soil. Any roots that adhere to the tuber should not be removed or damaged. Then follow the same procedure as with tubers that have been kept in storage.

If the tubers are to be planted outside in beds, now is the time to prepare same, digging in lots of manure and leaf mold. By the time the tubers are sprouted and ready to plant out, the beds will be ready for planting.

HERB FITCH

Many people have migrated to California from the east and middle west in the last few years. These people have been accustomed to quite different gardening methods due to the difference in climatic conditions. They are now able to have many plants in their gardens with which they are not familiar. To acquire knowledge of the fundamentals of gardening one must learn about soil, food, water, and cultivation. Then one must learn to put the right plant in the right place.

How fortunate we are in California to enjoy often a warm week or two in February in which to begin our gardening. We may begin our Spring gardening by scattering a generous amount of complete commercial fertilizer around the base of our narcissus and daffodils, watering it well. This will provide food for the flowers we hope to have next year, for these flowers are now forming in the bulbs.

February also is a good month to begin looking for azaleas in the nurseries. Choice of type and color may be made while they are now in bloom. Azaleas do best when planted in leafmold or peat moss with only just enough earth to anchor them securely. Plant them where they will be shaded from the afternoon sun.

O. C. WYMAN

——В——

FOLIAR FEEDING

FOLIAR feeding is a new quick way to provide an effective complete nutritive feeding of plants. Under certain circumstances the essential nutrients are not readily available to plant roots through the soil. Thus, feeding the plants through leaves permits the food to travel, in minutes, quickly through the breathing pores of the leaves to the point at which they are used in the plant growth.

Food placed in the soil must be dissolved in water. It first enters the finer roots and then travels into the axis (stem) and on to the branches and to the leaves. We can see how quickly and efficiently foliar feeding is.

Every February I foliar feed all of my house plants which include begonias of all types and even violets. Each Friday morning I mix Ra-Pid-Gro with warm water and using a windex sprayer, spray the plants thoroughly on top and under the leaves. I do this for four consecutive Fridays.

Begonia Tips—Yes, we have had some cold weather and I hope your begonias were protected. No begonia likes too much cold or too much water and the combination is very bad for rhizomatous. Remember, where they come from it may rain heavy, but the drainage is good and they dry quickly.

Keep your begonia garden clean. Do not let bad leaves lay around your plants as they may cause a fungus when they rot.

Mildew and stem rot both can be controlled by spraying with "Captan" or the new "Doo-Spray." This product contains both "Karathane," which licks powdery mil-

dew, and "Zineb," which licks downy mildew. This spray was put out for roses but I have tried it on tuberous and it will not damage them and so far it shows great promise. SACRAMENTO

____B___

Now is a good time to dig up something for the plant sale table and help your plant chairman. As you trim your plants, instead of throwing away the slips, stick them in some starting medium and bring them to the society later on. You can get a flat from your nurseryman for a quarter. Think of the nice feeling you will have when you can help out the plant table.

ORANGE COUNTY

Begonia-growing tips—to all who grow begonias as potted plants, your plants will start their new growth soon, so this is a good time to check the soil for excessive moisture or necessary re-potting. The easiest way to do this is to lay the plant sideways on your hand, or a table, and with a small stick gently push in on the plant from the drainage hole. When the plant slides loose remove the pot and check the soil—if you find it soggy wet, clean off what you can of the wet soil and pot in fresh mixture. If the plant has many roots, do not disturb, put it in a larger pot with fresh soil. I like this method of removing a plant better than turning it upside down and tapping, as it does not break the soil from the roots and I can handle large plants in this manner and not break leaves. We find Super-Thrive a good tonic for all our plants, but especially after repotting. It is not a fertilizer, but a tonic for the roots.

EDNA KORTS

Last winter I wintered a large Begonia "Lucerna" in the basement not too far from the light, but not right under, and it wintered all right. It didn't bloom in the dim light, of course, but it did make new growth from the bottom, and this winter I noticed plants making a growth in dim light.

I feel for begonias to bloom they have to have more sun than we do here in winter. I have *B. kellermani* in a south window and it blooms and many others that would bloom don't get the light. A recent magazine article said we have less sun than any other part of Pennsylvania. Believe me we have our share of moisture.

I don't have B. "Beatrice Haddrell" and haven't heard of it. Perhaps if we contacted

the party with a name similar in begonia circles we could track it down.

The begonias I like best in the house are the rhizomatous and the smaller kinds such as B. "Bow-Nigra," which is one of my favorites, also B. "Maphil." B. "Braemar" is growing like a weed, in a north window this winter; that's a problem when crowded for room.

My black vitafolia has a tough time as my grandson picked the big leaves. I have them in water. I like the star begonia and wish I could see all the different ones and study them. I have a green star from B. glabra (scandens) seed that I think is B. heracleifolia, then I have B. "Mrs. Mary Peace," B. sunderbruchi and others in shades in between, but all fingered like them. I wonder how many kinds there are? Another thing I'd like to compare: B. heracleifolia and B. "Carol Star."

MAUDE S.

—В—

LAYERING

From the plant table at the Long Beach Parent Chapter Anniversary, I received Begonia "Stitched Leaf" and I am going to try once again to get a full trailing plant. In the past, I have had a few straggly branches. I shall try layering to get a nice, full, many branched trailing plant of B. "Stitched Leaf" and several of the other willowy soft begonias, especially when some one just hasn't got the heart to continue pinching the plant.

To layer, take the stem that is trailing down over the side of the pot, very gently lift it and bring it up level with the pot, turn it and circle it around the pot. At intervals loop hair pins (for the heavier branched philodendrons use bent wires) over the stem, pushing them down so the stem is anchored on top of the soil. Each one of these eyes (nodes where the leaves are) will root and throw out branches. As you shift to larger pots, continue layering until the plant has many branches. Growing it in this manner will, in a short time, result in a very full plant with an abundance of trailing stems. They are attractive in wall baskets.

SYLVIA B. LEATHERMAN

In Memoriam

WE ARE very sorry to hear that Leora Calmese of Kansas City had passed over the threshold to the "Land of Everlasting Begonias," but her work and kindness to everyone will not be forgotten.

My 'Breezeway' Greenhouse

WE HAD an old, ramshackle garage on our place in Neshaming Falls. At least we called it a garage, but we found out it had been a sort of cabin for someone's father. Someone had added a "rear" to make it long enough for a car; anyway, my husband built a real garage on the same spot. There was fifteen feet between our outside kitchen and the garage, so he put a side door in the garage. There was a window in the kitchen, and by more luck than good management, window and door were right in line, although we didn't realize that until Mr. asked if I wouldn't like a greenhouse built between garage and kitchen. Of course I said a greenhouse sounded wonderful to me, so he built it. Of course he was thinking of something else too, "a nice, warm garage."

The kitchen window was transformed into a doorway. Between the kitchen wall and the garage wall, he put in an all glass front, glass roof, and a window 4' by 6' in back (which he doubled as it was the cold side). A cement floor was laid and we have a lovely greenhouse 12' x 15' with 3' benches front and back, and a 3' center bench. There are two glass shelves the length of the back and a shelf below the front and back benches. Wherever there was a space, we have a shelf. There is a stove in a garage corner and pipes all through the greenhouse and overhead. We also put radiators on the back wall of the garage so we go right through the greenhouse into a nice warm garage.

I certainly have a lot of pleasure with that greenhouse. One side of the greenhouse is all African violets, while the center table and other bench is all begonias. I have quite a lot of square gallon jars in which I grow leaves and cuttings. My seeds I plant in plastic refrigerator dishes. Later I transplant to thumb pots and put them down in the jars till they get a good start, then transplant again to larger pots.

Of course "everything hasn't been all roses." Last Spring a twelve foot dead limb fell from one of our big trees, hit the greenhouse and broke in five pieces. I really felt sick when I investigated the "crash." I had just cleaned off the back bench and filled the upper end with "jewelry" violets, twelve varieties of double pinks and a lot of others, some not yet on the market. Yes, you guessed it. All the broken glass and a chunk of the limb on those new plants just cut them to pieces. One end (the heaviest) was hanging on the edge of the roof

and had broken both large panes (I should say one because the inside was just cracked); the other three pieces were on the floor but had missed the center table of begonias. However, they were full of broken glass, but not too badly cut. Well, we got the mess away and all new glass in and I filled the center with all my best begonias to groom them for our fall show at Trevase. They were lovely, but a bunch of tree trimmers came to trim our three large trees as they were going to put high tension wires up. Even though they were so careful lowering the big limbs they cut, one hit a dead branch (about an inch in diameter) and smack through the greenhouse it went, right on the center table. A large aureo-maculata cristata was just so much "lettuce," the glass having cut it to ribbons. We are all fixed up again and I did try not to feel too badly for I am very thankful neither of us happened to be walking through either time, and have grown lots more plants.

It is surprising how much one can grow in a place that size, but it is true the more room you have the more you want. When first I started to raise violets and begonias, I only had the tables I placed at the windows for my plants. My husband built another large room on the house and made two sides all large windows which he put thirty inches from the floor. As the sashes were 4' x 8', they go to the ceiling, three on the long side and two on the short (they are double in winter). We have a 20" extension at the lower edge of the windows on both sides and enclosed to make closets. That makes a nice wide shelf for plants. He put two glass shelves above on both sides so these three shelves surely hold lots of plants. I filled these up, then came my breezeway greenhouse and it's filled. I hope all our Begonian friends get as much pleasure and fun from their plants as I do and maybe my little story will make some more husbands "greenhouse minded."

ANNA M. STEELE Langhorne, Pa.

REX BEGONIAS

3 for \$3.00 6 for \$5.00

Labeled 3-in. pot size. No price list this year.

Leatherman's Gardens

2637 N. Lee Avenue, El Monte, California

Remembering Marie Minter

THESE LINES are an appreciation of Marie Blaine Minter, who gave five years of fine writing to "The Begonian" in spite of her many handicaps.

Born in the little mining town of Aspen, Colorado, now noted for its ski activitiees, Marie came to San Diego in 1916. Eventually she met and married Henry Minter there and later they moved to a hilltop home with an ocean view in Encinitas, up the coast from San Diego. In March 1941, their son Richard was born, but he was so delicate he had to be carried around on a pillow. To complicate matters, his father was called back into the navy. Marie and the baby went to Hawaii to be near him, but they were hardly settled when along came the Pearl Harbor disaster and they were sent back to the hillside house, while Henry went on to the South Pacific.

Gas restrictions really had Marie and her sick baby isolated. To keep her mind off her worries she began to raise begonias from seed, using an old-fashioned glass showcase for starting them. Later the begonias bulged all over the good-sized lathhouse and ended up in beds around the front of the house. She was also much interested in ferns. So she kept busy for the two years her husband was away.

This might have been a tale of an ordinary begonia fancier, but Mrs. Minter possessed a keen mind as well as green thumbs. She made an intensive study of begonias, filling dozens of loose-leaf notebooks with cut-out or typed-off source materials, supplemented with her own graphic observations that she had made as she watched the plants come to maturity. She also carried on an extensive correspondence with growers and hybridizers everywhere. As a result of all of this activity, a very valuable reference file on begonias was built up.

With such a comprehensive background, it was fortunate for us that Marie took up writing about begonias, for this magazine, in 1948, when Dorothy Behrends was editor. Meanwhile, her little son had had an operation and, for a time showed some improvement. In 1949 he relapsed and slipped away. Writing then became a safety valve for his mother's empty hours. By 1951 she was doing some very informative articles on new and old hybrids. Look them up, they are fine to reread. In a burst of ambition she rounded up all the old cane varieties she could find that had been introduced by A. D. Robinson.

They were difficult to locate and even harder to distinguish. When she found she lacked the strength to carry on the project, she passed the plants and the job on to Ora Wilson.

While Mrs. Minter was writing her signed articles, she was carrying on a splendid "Question and Answer" section in *The Begonian*, under her mailing address, because she was too modest to let her name appear twice in one issue. How editor Spaulding must have appreciated her cooperation and missed it when she stopped with her last article in May, 1953.

Marie made many friends among begonia growers, particularly Marie Turner, whose prize-winning rhizomatous seedling "Ricky" was named in memory of the Minter boy. I understand that she will see that some of the rare begonias from Encinitas will be preserved at the Los Angeles Arboretum along with the files of source materials.

Marie Minter was a tower of strength at convention shows. I remember one at Inglewood in 1950, when we had to take sandwiches and coffee to her and made her take time out to eat them. That night she worked to clear some records for the show while the rest of us were at the banquet. That was Marie's way. Always self-effacing, she wanted to get the job done right and neither sought nor expected credit. Her whole interest was in begonias, not personalities. When conflicts arose between individuals, she would step out and take no sides.

Marie's health began to show the strain she had lived under. She had a baffling illness that only one doctor was able to help. When he moved away she lost heart, particularly when even a ride to town left her limp. However, her friends had many fine visits at her home, punctuated with repeated cups of coffee and excited arguments over begonias. Our begonia friend had a keen visual memory for plants and an orderly mind with quick responses that made discussion most stimulating. She was a real student with a fine sense of the true values of life and the courage to live by them.

Marie Minter showed us that there is no limit to the heights that can be attained with a hobby, clearly conceived and faithfully pursued in spite of, or even because of, difficult situations. If her strength had permitted she would have gone even further. She has left us the inspiration of a life that made a triumph out of tragedy.

A.M.C.

Clayton M. Kelly Seed Fund Flight

No. I. B. CALLA LILY. We have just received fresh seed of this popular begonia and, in as much as we have had so many requests, please do not ask for more than one packet. This begonia is said to be temperamental in its growing habits, but if a few simple rules are followed you should have no trouble. Habit of growth is low, bushy, and branched; slightly blotched with white, more white appears at terminals, and terminals are all white suggesting a small calla lily. Flowers are from light pink to scarlet. We have found sowing seed in a small clay pot to be most successful. Fill pot to one-third with coarse gravel or broken crockery; fill to the top with damp well decomposed leaf mold. Sow seeds sparingly, but do not cover with soil. Pot may be covered with paper and placed in a fairly light and airy location. When seeds germinate, remove paper and give a little more light. If soil becomes dry place pot in shallow container of water until moisture appears on the surface. Seedlings are at first like any other semperflorens, the white blotches and terminals do not appear until the plants have the second or third set of adult leaves. Plants should be kept pinched to make a compact plant. This begonia does not require a great deal of water. It should, however, be kept reasonably moist. Seeds are 35 cents for a small packet.

No. 2. B. LUXURIANS—Brazil. This very ornamental begonia is palm-like in appearance and grows to six feet tall or more and unlike any other begonia. Flowers small, white in dense clusters. Seeds are rare. 50 cents per packet. No. 3. B. SCHMOPETALA ROSEA—Brazil. These seeds have just come in from Brazil and is of recent introduction, therefore no information is available. So far as can be determined it is new in this country. 50 cents per packet. No. 4. B. UNKNOWN BEGONIA FROM BRAZIL. A new introduction, therefore no information on this one. 50 cents per packet.

Listed below are seeds of choice semperflorens just received from England and Germany. The first is B. SEMPERFLORENS AT-ROPURPUREA VERNON. Bronze leaves and deep scarlet flowers. No. 2. B. SEMPER-FLORENS HETEROSIS LUCIFER. Foliage deep blackish brown and flowers very large scarlet. No. 3. B. SEMPERFLORENS HETE-ROSIS ORGANDY. Extra dwarf 5" to 6" high. This is a mixture of many F1 hybrid varieties. Flowers pink, foliage green. No. 4. B. SEMPERFLORENS HETEROSIS SLEEP-ING BEAUTY. Extra dwarf 5" high. Extremely free flowering. Flowers bright carmine. The originator describes these begonias as being sun and rain proof. The last two varieties mentioned received awards of merit in the Wisley trial gardens in England in 1955. Judging from the colored pictures that came with the seeds they are indeed beautiful. Collection of semperflorens \$1.25. Not available in single packets.

Other shade-loving plants are: No. 1. NAE-GELIA HYBRIDA NAMA. From Germany. Semi-dwarf, large flowering varieties, mixed colors. No. 2. GESNERIA LEOPOLDI—Brazil. Grows to 1'. Flowers scarlet. No. 3.

STREPTOCARPUS COMPTONI from Southeast Africa. No. 4. STREPTOCARPUS WENDLANDI. Southeast Africa. Clear blue flowers. No. 5. STREPTOCARPUS VORTALIENSIS—New Rhodesia. No. 6. STREPTOCARPUS MONTIGENA — New Rhodesia. Seeds of streptocarpus mentioned above are rare and not available in this country. They are well worth trying for something new and different. Above collection \$1.50 or 50 cents for a single packet.

Other genera consist of the following: No. 1. PILEA MICROPHYLLA—Artillery plant. Spreading habit to 1' high. Leaves small and flashy. Greenhouse culture. The common name comes from the interesting manner in which the pollen is discharged explosively when dry. No. 2. ANIGOZANTHOS MAN-GLESI-Australia. Kangaroo paw. Red and green. Grow this in your greenhouse for something different. No. 3. DAIS COTINI-FOLIA—tree daphne. Medium growth, yellowish flowers. Easily grown from seed. Beautiful plant. No. 4. CORDYLINE BANKSI PURPUREA. Handsome foliage plant . Usually grown as a greenhouse subject. Foliage large and dark red. Seeds are dried berries and whole berry should be planted. Plants can be separated when ready for transplanting. 4 packets for \$1.00.

Ferns are beautiful and easy to grow in the shade garden. For planting suggestions consult April "The Begonian." No. 1. WOOD-WARDIA. Radicans. Chain fern. Easy to grow and requires less shade than most ferns. Needs moisture. No. 2. DAVALLIA CANARIENSIS. Ideal for hanging baskets as the root stock creep along the surface and over the edge of the basket. Fronds are delicate and feathery. No. 3. POLYPODIUM VULGARE. Sometimes called wall fern. Practically ever-

THE BEGONIAN

green and of easy culture when planted in leaf mold. No. 4. POLYPODIUM MAN-DAIANUM. Hare-foot fern. Fronds long, bluish green and fringed. Root stock brown and creeping. Basket fern. No. 5. PYRROSIA LINGUA. Japan and India. No. 6. ATHY-RIUM FELIX—femina. Lady fern. A delicate feathery fern with bright green fronds. No. 7. ATHYRIUM CONGESTUM—grandi-

ceps. England. Similar to the above but fronds are crested. Beautiful little fern. No. 8. ALSOPHILA AUSTRALIS. Tree fern of great beauty. Fronds long and wide in a handsome crown at the end of the trunk. Grow outdoors in mild climates, elsewhere in greenhouses. It is grown for its showy and feathery foliage. Fern spores, 4 packets for \$1.00 or 8 packets for \$2.00.

Special note: Almost all of the seeds offered this month have been imported from many countries and are available only through the seed fund. The main purpose of the seed fund is to offer you something new and different.

MRS. FLORENCE GEE, Seed Fund Administrator 4316 Berryman Ave., Los Angeles 66, Calif.

Round Robin Notes . . . Begonia Bibliography

THE RORINS are getting more and more new members. Almost every day I have an application for membership in one or more Robins.

The new Robins I have started have shown so much interest in begonias, African violets and other plants that I have found it necessary to start a second Robin of some of them.

Each Robin has a membership of from eight to ten members, and sometimes twelve, but the Robin which flies the best has an average of eight members. Sometimes when they are too large it becomes necessary to divide them in order to cut down on traveling time. Most of the members enjoy getting the Robins about every six weeks, which is about the correct time if they are mailed within five days after receiving.

These Robins are a fine source of information. They create an understanding among people from all sections of the country, and not only that, but so many interesting friends are found through the Robins.

Why do you not join a Robin?

I still have openings on the Fuchsia and Violet Robins and then they can be on their way.

May I ask again that the Directors please send me their reports on the Robins they are directing as it is very necessary that I get this information. Many thanks to those who sent in their reports so promptly.

MARIE REED, R. R. Chairman

SPOONIT

FLOWER FOOD

Send postal card for sample & information.

PLANTSMITH

Box 818

Palo Alto 3, Calif.

THE HELEN K. KRAUSS collection of begonia references deposited at the Los Angeles State and County Arboretum comprises forty-five volumes. These books contain photostatic copies of descriptive begonia references and hand painted begonia illustrations. It is of great interest to taxonomists and botanists as well as amateur begonia collectors.

Mrs. Gladys C. Nolan, former American Begonia Society Librarian, has worked for two years processing the material to index cards and also indexing by volume. This material is that used by Mrs. Krauss in compiling her book.

With her limitless patience and genuine flair for research, Gladys Nolan's work has been highly commended by the Arboretum staff and personnel of U.S. Botanical Gardens and Libraries. This was a voluntary task and the A.B.S. is extremely proud of her service to all the people who will have the advantage of such an index for the bibliography of Begoniaceae.

JEAN KERLIN

Palos Verdes

Begonia Farm

4024 Pacific Coast Hi-way, Walteria, Calif.

TUBEROUS BEGONIAS

COMPLETE SELECTIONS OF BEGONIAS
AND SHADE PLANTS
FUCHSIAS — CAMELLIAS
OPEN EVERY DAY
Complete Nursery & Garden Supply Shop
1½ Miles E. of Redondo Beach

Hi-Way 101

Minutes. National Board. Mar. 26

The meeting of the National Board called to order by President Taylor at 7:40 P.M. in the Los Angeles City Hall. Opened with Pledge of the Flag and reading of Aims and Purposes.

Secretary's and Treasurer's reports read and approved. The Treasurer authorized to purchase new Record Book.

Communications from Behrends in regard to printing articles about unregistered begonias in The Begonian and from Inglewood Branch in regard to recognizing Directors at Board meetings.

Moore stated that now that "Les Begonias" can be loaned by Board action, the books should be insured but must first be appraised. Moved, seconded and carried that Moore have the book appraied. Moved, seconded and carried that Moore obtain temporary insurance on "Les Begonias" until he can have it appraised. until he can have it appraised.

until he can have it appraised.
Editor Cramer received request from Woman's Home Companion for permission to use pictures used before. Moved, seconded and carried that the Woman's Home Companion be permitted to reprint the pictures used before and that we request a copy of the magazine for the Library. Moved, seconded and carried that as soon as the Treasurer thinks it possible, \$50.00 be transferred from the General Fund to the Life Membership Fund to cover Past President Koebig's Life Membership.

bership.

Moore called attention to motion made in 1941 that charge of \$2.00 be made for a Charter. Moved, seconded and carried that a new Charter be given free, a charge of \$2.00 be made for a duplicate Charter and no request for multiple Charters be granted.

President Taylor appointed Clarence Hall and Edna Korts on the nominating committee, a third member to be appointed

There being no further business the meeting closed to meet again April 23, 1956.

Respectively submitted, Arline Stoddard, Nat. Sec.

Ineradicable Pests

(Continued From Page 101)

tions, and recommend the most fantastic items as indispensable garden aids. His counterpart, The Frustrated Science-Garble, is a bane who will launch into a post-doctoral thesis at the drop of a manure fork. And I suppose I should not forget to list the Heavy-Heeled Basin-Buster, a weed who has a reversed Hans Brinker complex, and who apparently can't avoid smashing every irrigation dike around your fruit trees.

I don't suppose there is any real (legal, that is) control for these pests, except perhaps to keep a few savage mastiffs on your place. If you work it right, and the dogs are mean enough, they can provide you with good reason for taking up golf or Scrabble, and stay out of the garden altogether.

F. C. QUINTANA

You Can...

(Continued From Page 99)

wet and you are running the chance of having the much dreaded mildew.

The worst enemy begonias have is WATER. Sounds funny and contrary to everything you ever read. You are made to believe begonias are something complicated and that they want lots of water. So you give it to them with sad results. You know you can revive a begonia if it is left to dry out. When you drown the begonia, fungus attacks it and you won't have a chance. Last winter I had a chance to find out how much abuse and neglect begonias can really take. I was unable to take care of them and they were watered only when the leaves were almost white. Still, when I gave them a drink, they came right up. I always have advocated keeping begonias on the dry side to have beautiful plants.

If you once overpot a begonia, just control the water and you are all right. Remember you can have beautiful plants if you only think when you are making the rounds with the watering hose. Now that summer is coming on, remember you like to have your face washed; so do begonias. All plants breathe through their leaves and it is important to keep the leaves clean.

MARIE TURNER

Brown Bulb Ranch

CAPITOLA, CALIF. SEATTLE, WASH.

World's Largest Growers of **TUBEROUS BEGONIAS**

Ruffled Camellia Improved Fimbriata Single Frilled (Crispa) Crispa Marginata Hollybock (Martiana) Daffodil (Narcissiflora) Improved Multiflora Double Marginata (Picotee) Hanging Basket (Pendula fl. pl.) "Santa" Varieties

WHOLESALE ONLY

Available at Most Nurseries and Seedhouses

Leaves From Our Begonia Branches

CENTRAL FLORIDA

New officers are: Pres., Mrs. W. F. Jeffries; Vice Pres., Mrs. James Merry; Sec., Mrs. Arthur Gerde; Treas., Mrs. John Winfrey; and Cor. Sec., Mrs. Leo Spingler.

—В—

GLENDALE

"Miracles of Plant Growth," a colored film, was shown by Mr. Paul Little from Pacific Guano Fertilizer Co. He spoke on fertilizers and soil conditioning.

MISSOURI

We purchased a foreign membership for the A.B.S. Mrs. Luceal Taylor was elected as representative director. Mrs. Breshear's hybrid of *Begonia kenworthyi* x B. "Starfolia" was auctioned to the highest bidder.

MIAMI, FLORIDA

New officers are: Pres., Mrs. Gene Ennemoser; Vice Pres., Mrs. R. Rosengren; Sec., Mrs. W. C. Gorman; Treas., Mrs. Lyle P. Mc-Ewen; Hort. Chrmn., Mrs. Elsie Picot; and Nat. Dir., Mrs. Hesse Hyden.

We held our Annual Begonia Show at Simpson Garden Center, Miami, on April 25 and 26 under the direction of show chairman, Mrs. Lyle P. McEwen.

——В—

OCEAN COUNTY, NEW JERSEY

New officers are: Pres., Mrs. Bessie Stout; Rec. Sec. and Treas., Mrs. Anna Peck; and Sec., Mrs. Tena Kistrup. We have seven members.

---B---

ORANGE COUNTY

Mr. Glenn Motschman of Anaheim, past president of the American Begonia Society, showed a colored movie on the culture of tuberous begonias and told how to care for them. He surely knows how, as he has had beautiful blooming plants when they weren't even supposed to be growing. Mr. Fox showed exactly how to fix the proper soil mixture for your other begonias.

—-----

SAN DIEGO

The new president is Mrs. A. F. Owen, and Sec., Mrs. Maurice P. Mitchell.

WHITTIER

"Driftwood" was presented by Mrs. Alberta Logue. Driftwood is so popular today and the subject was most unusual and interesting.

----В----

Regional Meeting

WHERE — Santa Barbara County Bowl, 1130 Milpas Ave., Santa Barbara, Calif. Use parking lot next to Ziesenhenne Nursery.

WHEN—May 20. Pot-luck lunch at 12:30 P.M. and meeting beginning promptly at 2:30 P.M.

The Eva Kenworthy Gray award will be presented to Miss Charlotte Hoak, national runner-up in woman's horticultural field. Everyone plans to attend to honor Miss Hoak. Exchange growing tips with members from other branches, make new friends and renew acquaintances.

Calendar

May 14—San Miguel, "Ferns" by Sylvia Leatherman.

May 17—Foothill, "Begonias" by Mrs. Sylvia Leatherman.

May 18—Alfred D. Robinson, "Begoniasitis," by Mrs. John Clark.

May 20 — National Regional Meeting, Santa Barbara County Bowl, 1130 Milpas Ave., Santa Barbara, Calif. Lunch, 12:30 P.M. Meeting, 2:30 P.M.

May 23 — Glendale, Rudolf Ziesenhenne will speak on "Begonias" at the Cherry Tree Festival.

May 23—San Gabriel Valley, "Saintpaulias" (African Violets), Mrs. Cecil Houdyshel.

June 2, 2-10 P.M., and June 3, 10-6 P.M., Whittier Community Beautiful Flower Show, Walter Dexter School, 1425 W. Floral Dr., Whittier, Calif. Adm. free. -Door prizes.

June 7, 8, 9—Philobegonia—Third Annual Begonia Show. Garden of Mrs. Elsa Fort, 6123 W. Cedar Ave., Merchantville, N.J. Tea served.

Material for June issue must be received by May 1, 1956.

Branch Meeting Dates . . .

VISITORS ALWAYS WELCOME AT THESE MEETINGS

AMERICAN BEGONIA

HYBRIDIZERS BRANCH
Called Meetings Quarterly
Mrs. Daisy L. Walker, Secy.-Treas.
2425-A Silver Lake Blvd.,
Los Angeles 39, Calif.

BRITISH BRANCH F. J. Bedson, Secy. Kent, England

CENTRAL FLORIDA BRANCH Last Thursday, 8:00 p.m. Homes of Members Mrs. Leo Spengler, Cor. Secy. 15 West Preston Ave., Orlando, Fla.

DALLAS COUNTY BRANCH, TEXAS 1st Thursday, 7:00 p.m. Members' Residences Mrs. Ruth Cook 923 S. Edgefield, Dallas 8, Texas

EAST BAY BRANCH
2nd Thursday, 7:45 p.m.
Willard School, Telegraph at Ward,
Berkeley, California
Mr. Stuart C. Smith, Secy.
3147 Stanley Blvd., Lafayette, Calif.

EL MONTE COMMUNITY BRANCH 2nd Thrsday Lions Clubhouse, 225 W. Garvey Blvd. Monterey Park, Calif. William Edwards, Cor. Secy. 1886 San Pasqual, Pasadena, Calif.

FOOTHILL BRANCH
3rd Thursday, 8:00 p.m.
LaVerne Recreational Building,
College Park, 2nd and D Streets,
LaVerne, California
Mrs. C. W. Hall, Cor. Secy.
358 E. Arrow Hwy., Upland, Calif.

FORT, ELSA BRANCH
1st Saturday, 2:30 p.m.
Miss Lola Price, Secy.
628 Beech Ave., Laurel Springs, N.J.

GLENDALE BRANCH
4th Wednesday, 8:00 p.m.
Tuesday Afternoon Club, 400 N. Central
Mr. and Mrs. Frank Coe, Cor. Secy.
28904 Cliffside Dr., Malibu, Calif.

GRAY, EVA KENWORTHY BRANCH 3rd Monday, 7:30 p.m. Community House, La Jolla Mrs. Charles Calloway 1311 Torrey Pines Rd., La Jolla, Calif.

GRAY'S HARBOR BRANCH
2nd Monday, 8:00 p.m.
Hoquiam Public Library, or
Messingale and Rosenear Music Store
Aberdeen, Washington
Mrs. Jessie B. Hoyt, Secy.
1013 Harding Road, Aberdeen, Wash.

GRUENBAUM, MARGARET BRANCH 4th Tuesday, 10:30 a.m. Homes of Members Mrs. W. Ernest Jones, Secy. Welsh & Dresher Rds. Willow Grove, Pa.

HAMSHIRE, TEXAS BRANCH
3rd Tuesday of each month
Mrs. Peter DeYoung, Hamshire, Texas
HAWKEYE STATE BRANCH

HAWKEYE STATE BRANCH
3rd Friday, Members' Homes
Ruth Anderson, Secy.
Underwood, Iowa

HOLLYWOOD BRANCH
3rd Wednesday, 7:30 p.m.
Plummer Park, 7377 Santa Monica Blvd.
Mrs. Helen Ehret Murphy, Secy.
715 N. Genesee St., Los Angeles 46, Calif.

HOUSTON, TEXAS BRANCH
2nd Friday, 10:00 a.m.
Garden Center, Herman Park
Mrs. Grant Herzog, Secy.
12601 Broken Bough, Houston 24, Texas

HUB CITY BRANCH
3rd Wednesday, 7:30 p.m.
Mrs. L. R. Kellogg, Secy.
1120 E. 71st St., Long Beach 5, Calif.

HUMBOLDT COUNTY BRANCH 2nd Monday, 8:00 p.m. Los Amigos Club, Loleta, Calif. Miss Margaret Smith, Secy. P.O. Box 635, Ferndale, Calif.

INGLEWOOD BRANCH
2nd Thursday, 7:45 p.m.
Inglewood Women's Club
325 North Hillcrest, Inglewood, Calif.
Mrs. Hattie Bradford, Secy.
1825 W. 73rd St., Los Angeles 47, Calif.
LONE STAR BRANCH

3rd Monday, members' homes
Mrs. Chester Terry, Secy.
5511 Richmond Ave., Dallas, Texas
LONG BEACH PARENT CHAPTER
2nd Tuesday, 7:30 p.m.

2255 Elm Ave. Mrs. Alice Waldow, Secy. 2175 Cedar Ave., Long Beach 6, Calif.

LOS ANGELES BRANCH
4th Wednesday, Homes of Members
Mrs. Glenn Morrow, Secy.
2821 N. Musgrove Ave., El Monte, Calif.
LOUISIANA CAPITAL BRANCH

2nd Friday Mrs. H. E. Dorris 3213 Eaton St., Baton Rouge, La.

MIAMI, FLORIDA BRANCH
4th Tuesday, 8:00 p.m.
Simpson Memorial Garden Center
Mrs. W. C. Gorman, Secy.
2296 Coral Way, Miami, Fla.

MISSOURI BRANCH
3rd Tuesday, 7:00 p.m.
Mrs. Hattie Taylor, Secy.
P.O. Box 25, Raytown, Mo.

NEW ENGLAND BRANCH 3rd Saturday, Homes of Members Mrs. Lester H. Fox, Secy, 170 Marsh Hill Road, Dracut, Mass.

OCEAN COUNTY, NEW JERSEY BRANCH 1st Tuesday, 12:30 p.m., members' homes Mrs. Tena Kistrup, Secy. R.D. 2, Box 583-J, Toms River, N.J.

ORANGE COUNTY BRANCH
2nd Thursday, 7:30 p.m.
Garden Grove Grange Hall
Century and Taft Streets
Garden Grove, Callf.
Mrs. Maybelle Woods, Secy.
604 South Helena St., Anaheim, Calif.

PASADENA BRANCH
2nd Wednesday, 8:00 p.m.
Homes of Members
Mrs. Alva Graham, Secy.
515 El Centro St., South Pasadena, Calif.
PHILOBEGONIA BRANCH

PHILOBEGONIA BRANCH
2nd Friday, Members' Homes
Mrs. Robert York, Secy.
3311 Fremont St., Camden, New Jersey

PORTLAND, OREGON BRANCH 4th Friday, 8:00 p.m. Members' Homes Mrs. Helen Parrott, Secy. 3955 S.E. Kelly, Portland 2, Oregon RAYTOWN, MISSOURI BRANCH 4th Tuesday, 7:30 p.m. Homes of Members Mrs. Mildred Schorr, SecyTreas. REDONDO BEACH AREA BRANCH 4th Friday each month 2308 Rockefeller, Redondo Beach, Calif. Opal Murray Ahern, Secy. 1304 Poinsettia Ave. Manhattan Beach, Calif. RIVERSIDE BRANCH	SANTA BARBARA BRANCH 2nd Thursday, 7:30 p.m. Girl Scout Clubhouse, 1838 San Andres St. Mrs. Maria Sanchez, Secy. 1753 Glen Oaks Dr., Santa Barbara, Calif. SEATTLE BRANCH 3rd Tuesday, 7:45 p.m. Trinity Parish House, 609 Eighth Ave. Mrs. Wm. Stankman, Secy. 4116 15th Ave., Seattle, Wash. SHEPHERD, THEODOSIA BURR BR. 1st Tuesday, 7:30 p.m. Alice Bartlett C.H., 902 E. Main, Ventura, Calif. Mrs. Don Claypool 104 Fobes Lane, Ventura, Calif.
2nd Wednesday, 7:30 p.m. Shamel Park, 3650 Arlington, Riverside, California Mrs. Olive Thaller, Secy. 7195 Orchard St., Riverside, Calif. ROBINSON, ALFRED D. BRANCH 3rd Friday, 10:30 a.m. Homes of Members Mrs. Merrel H. Taylor, Secy.	SMOKEY VALLEY BRANCH 3rd Thursday of each month Mrs. A. L. Romeiser, Secy. 1104 South Ninth St., Salina, Kansas SOUTHERN ALAMEDA COUNTY BR. 3rd Thursday, 8:00 p.m. Cafeteria, High School, Hayward, Calif. Theodore Vierra 341 Redbud Lane, Hayward, Calif.
4285 Sierra Vista, San Diego 3, Calif. SACRAMENTO BRANCH 3rd Tuesday, 7:00 p.m. Mrs. Gordon Long, Secy. 5416 Dana Way, Sacramento, Calif. SAN DIEGO BRANCH 4th Monday Hard of Hearing Hall, Herbert & University Mrs. Maurice P. Mitchell, Secy. 2329 Bancroft St., San Diego 4, Calif. SAN FRANCISCO BRANCH Ist Wednesday, 8:00 p.m. Forest Lodge, 266 Laguna Honda Blvd. Mrs. Louise Allmacher 1963 45th Ave., San Francisco, Calif. SAN GABRIEL VALLEY BRANCH 4th Wednesday, 8:00 p.m. Masonic Temple, 506 S. Santa Anita Ave. Arcadia, California Mrs. Merilyn Jewett, Secy. 461 E. Mariposa St., Altadena, Calif. SAN MIGUEL BRANCH 2nd Monday V.F.W. Hall at Imperial and Lincoln, Lemon Grove, Calif. Ida M. Barker, Secy. 7591 Central Ave., Lemon Grove, Calif.	TALL CORN STATE BRANCH Mrs. Edna Monson, Seey. South Taylor, Mason City, Iowa TEXAS STATE BRANCH 1st Tuesday night in members' homes Mrs. William Demland, Seey. 2400 19th St., Port Arthur, Texas TREASURE ISLAND BRANCH 4th Friday Miss Isabelle Sievert. Secy. 3912 Ave. "S," Galveston, Texas WESTERN PENNSYLVANIA BRANCH 2nd Wednesday, 11:00 a.m. Homes of Members Mrs. Joseph Rock, Cor. Secy. Maplewood Ave., Wilkinsburg, Pa. WHITTIER BRANCH 1st Thursday, 7:30 p.m. Palm Park Community Center, 1643 Floral Drive Mrs. Edna M. Hill, Secy. 8408 S. Madison Ave., Whittier, Calif. WILLIAM PENN BRANCH 3rd Tuesday, 2:00 p.m. Homes of Members, Wallingford, Pa. Mrs. Ernest C. Drew, SecyTreas. 635 Moreno Rd., Narbeth, Pa.
Begonias "Silver Jewel" and "Emerald Jewel" . You Can Grow Begonias If	99 99 100 100 102 103 104 ht 105 106 107 108 109
, -//	

POSTMASTER: Return Postage Guaranteed P.O. Box 2544 Los Angeles 54, California

BEGONIAS, GERANIUMS, EXOTICS

Houseplant Specialists for 50 Years
Illustrated catalogue, 1,000 varieties, 10c.

LOGEE'S GREENHOUSES

Danielson, Connecticut

MAGAZINE

Small, interesting—flowers, gardening, bird and nature notes, poems, ads.
\$1.00 per yr.; 25c, 3 months; Sample, 10c

GARDEN GLEANINGS

2B, Baroda, Michigan



CACTUS-FLOWERED GERANIUMS 1956 Introductions

Star of Persia—Deep Crimson-Purple Starlet—Rose-Salmon

\$1.50 Each

120

Both for \$2.50 Postpaid

KENNETH TERRY

2314 Harriman Lane, Redondo Beach, Cal.

AFRICAN VIOLETS

LEAVES — PLANTS

The best of the older varieties and many new ones

WRITE FOR LIST

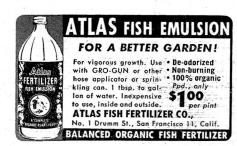
ORCHARD NURSERY
4011 Mt. Diablo Blvd., Lafayette, Calif.

Introducing a New MacDougall BEGONIA FIND Page 1 V Hetal Color

Begonia X Hotel Colon

It has large, roundish, star-shaped, lettuce-green leaves; pink flowers on long stems. Winter bloomer. Rhizomatous. Price \$1.50 plus postage.

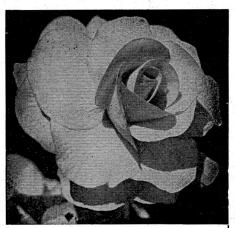
RUDOLF ZIESENHENNE 1130 N. Milpas St., Sta. Barbara, Calif.



BEGONIAS, FUCHSIAS, TROPICALS HOUSE PLANTS

The Best of Everything for Your Garden
FIFTH AVE. NURSERY
AND GREENHOUSE

2510 W. Manchester, Inglewood, Calif. Don & Ron Stanley PLeasant 1-0874



The One and Only Pacific Strain of TUBEROUS BEGONIAS

Originated by Frank Reinelt
The largest assortment and finest new
developments in rose form and ruffled
novelties available this year!
WRITE FOR FREE CATALOG

VETTERLE and REINELT

DEPT. "B," CAPITOLA, CALIFORNIA