

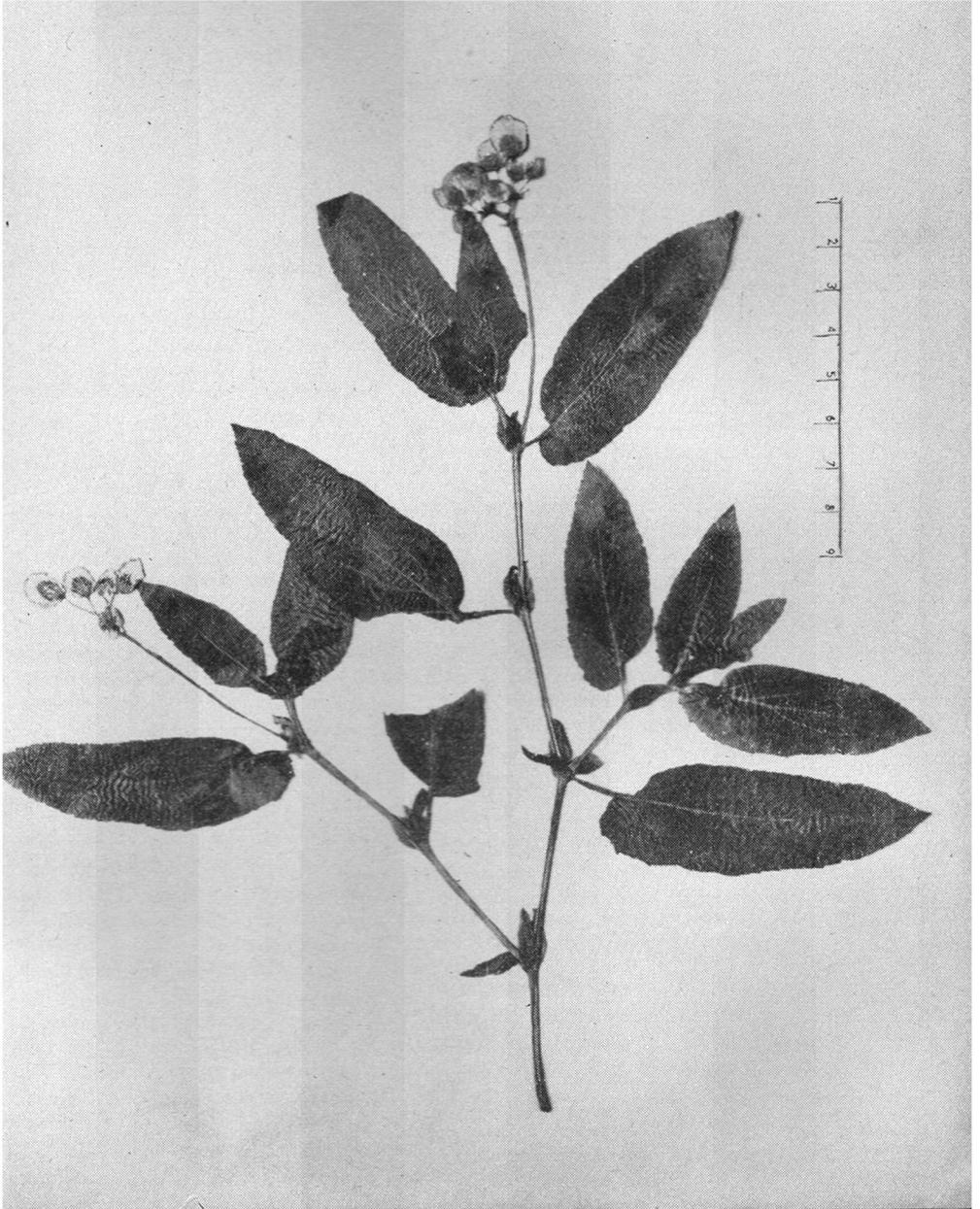
The Begonian

DEVOTED TO THE SHELTERED GARDENS

FEBRUARY, 1957

PRICE 25 CENTS

VOLUME XXIV, NUMBER 2



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

Copyright 1957 by the American Begonia Society, Inc.—Affiliated with The American Horticultural Society, The American Horticultural Council, and The Los Angeles State and County Arboretum.

General Offices, Dues, Address Changes or Magazines:
Bill Walton, Membership Secretary, 1415 Acacia, Torrance, Calif.
Annual Subscription, \$2.50. Branch members pay dues to branch.

Entered as second-class matter at the Post Office of Torrance, California, under the act of March 3, 1879.

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 shade-loving 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

- President Calvin Trowbridge
9600 Van Ness Ave., Los Angeles 47, Calif.
- President-Elect Frank Coe
29904 Cliffside Dr., Malibu, Calif.
- Past President Joseph Taylor
301 Anita St., Redondo Beach, Calif.
- Treasurer Opal Murray Ahern
1304 N. Poinsettia Ave.
Manhattan Beach, Calif.
- Vice-Pres., 1 yr. Fred Browne
817 Novelda Rd., Alhambra, Calif.
- Vice-Pres., 2 yrs. Ken Terry
2314 Harriman Lane, Redondo Beach, Calif.
- Vice-Pres., 3 yrs. Mrs. Alva Graham
515 El Centro, South Pasadena, 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 Bill Walton
1415 Acacia, Torrance, Calif.
- Advertising Manager Emri I. Stoddard
768 Avenue B, Redondo Beach, Calif.
- Nomenclature Director H. M. Butterfield
121 Giannini Hall, U.C., Berkeley, Calif.
- Slide Library and Speakers Bureau
Mrs. Mabel Anderson
1064 Davis Ave., Glendale 1, Calif.
- A.B.S. Librarian Mrs. Lucy A. Sault
26938 Dapplegray Lane, Rolling Hills, Calif.
- Seed Fund Mrs. Florence Gee
4316 Berryman Ave., Los Angeles 66, Calif.
- Parliamentarian Roy Joyce
1435 Coronado Ter., Los Angeles 26, Calif.
- Research and Test Gardens
Mrs. Sylvia Leatherman
2637 Lee, El Monte, Calif.
- Identification Garden John Thieben
6409 Will Rogers St., Los Angeles 45, Calif.
- School of Judging Mrs. Edna L. Korts
3628 Revere Ave., Los Angeles 39, Calif.
- Historian Mrs. Pearl Bauer
1482 Buena Vista, Ventura, Calif.
- Awards Committee Mrs. Ethel Arbuckle
5932 Seville Ave., Huntington Park, Calif.

PUBLIC RELATIONS COMMITTEE

- Public Relations Director ... Frank S. Moore
1857 Fair Park Ave., Los Angeles 41, Calif.
- Round Robin Chairman ... Mrs. Marie Reed
325 Breed Ave., San Leandro, Calif.
- Northwestern Chairman... Mrs. David Talbot
6209 Riverside Drive., Vancouver, Wash.
- Eastern Chairman Mrs. Elsa Fort
6123 Cedar Ave., Merchantville, N.J.
- Southern Chairman E. Weaver
1325 Thomas Blvd., Port Arthur, Texas
- No. California Chairman... Mrs. John Smith
2479 29th Ave., San Francisco 16, Calif.



Begonia Megaptera

By H. TEUSCHER

Curator, Montreal Botanical Garden

Many of the Asiatic species of the genus *Begonia* are still hardly known in cultivation in North America, and the subject of this paper appears to be one of them. It is very pretty, though perhaps not outstanding in this respect, and this may be the reason why this species is not found more often in collections. However, there are many others which have much less showy flower, and which are commonly grown. Besides, the true begonia fan will always be interested in a species of his favorite genus which is new to him, and the begonia breeder may find it of interest also. The accompanying photograph which shows a well grown plant gives a good idea of the general appearance of *Begonia megaptera*.

This species is native to the foothills of the Himalayas in Nepal and Sikkim. The seeds from which our plants were raised were received from the Lloyd Botanical Garden, Darjeeling, India.

The plant of *Begonia megaptera* which is here illustrated has a diameter of 26 inches, while its height is 14 inches from soil level. The stems and leafstalks of this species are green with short white stripes. Its oblique, 5-7 inch long leaves have irregular, sharp-pointed lobes and toothed margins. The leaves are smaraged green on top and have red veins underneath. The flowers are apple-blossom pink—white with pink flush—and have a diameter of two inches. The individual panicles usually do not carry more than 10 flowers each and rise only slightly over the surface of the leaves. The male flowers have two large, rounded and somewhat concave sepals and two narrow, usually more or less recurved petals.

The female flowers appear much larger, though their diameter is nearly the same, because they usually have 7 parts which vary

(Continued on Page 45)

Gift Plant Care

By LOUISE CRAMER

THE "LIVING" Christmas gift, most cherished because it is not a gift here today and gone tomorrow into a box or drawer—Or Is It? The plant may reflect the personality of the giver for months or years after it has ceased to grace a living room table or in a few days it may be well on its way to extinction. It must be remembered that most plants sent from a florist have been "forced" into radiant showers of bloom for the holiday trade. Forcing means controlled feeding, temperature and light by predetermined formula used in the culture of the plant to bring it into maximum bloom at a certain time.

The cyclamen, its single flower with reflexed petals of many hues from white, combination of pinks to deep maroon, is a beautiful plant in the florist's window and maybe for a day or two in a home. The leaves start to turn yellow or the stems begin to rot off at the top of the flat tuber. This plant resents the heat of the house and it should be placed in a cool airy place at night—this does not mean outdoors on an almost freezing night. The plant should be kept *moist by watering the soil, not the crown*, then not watering again until the top of the soil feels just dry. Be sure to empty any water which collects in the saucer after watering as the cyclamen does not like "wet feet." When the cyclamen ceases to bloom, plant outdoors in a lightly shaded garden area with the tuber planted in a raised section for good drainage.

The azalea is a little more tolerant to house conditions, but it enjoys being kept cool at night. It is an outdoor shade loving plant, so do not place in front of a sunny window, but do give light to it so blooming will continue. The azalea is usually planted in peat moss which does not dry too rapidly, but this potting medium must not be allowed to dry out to the extent that it pulls away from the edge of the pot. The easiest way to water this plant is to submerge the pot into a large pan and let stand for about ten minutes, then remove the potted plant from the soaking pan and drain thoroughly—that is when no more water drips through the bottom hole. I usually do my watering at the kitchen sink so I can do a thorough watering and draining job. When the azalea has ceased to bloom, plant in filtered sunlight area of the garden for years of enjoyment from the dainty evergreen foliage and the winter color of the radiant blooms.

The African violet, one of the most popular house plants, comes from a temperate, humid atmosphere. It is often killed by over devotion. Do not set the violet in front of an open window or in a draft. It likes a warm, sunny, slightly curtained window. I say curtained window (sheer glass curtains) because at this time of year, the slanting sun rays through a window pane will burn the leaves of any plant. The violet desires much humidity obtained by placing pea gravel in the bottom of a saucer placed under the violet pot. Keep a small amount of water in the saucer, but do not allow the bottom of the pot to stand in the water. Violets thrive in the kitchen or bathroom where there is much humidity and light. Water a violet only when the top surface of the soil feels dry, then thoroughly soak. There are two schools of thought in watering violets. One method is to immerse the pot in lukewarm water and let the water be absorbed until the surface soil is moist, then allow the pot to drain; the other method is to pour lukewarm water into the pot until the soil is thoroughly soaked, then drain. Do not pour the water into the crown of the plant. Water on the leaves will not harm the violet, but cold water will spot the leaves. If the plant is put in sunlight before the leaves are dry yellow spots may appear due to burn produced by the water droplets acting as tiny magnifying glasses concentrating the sun's rays.

By all means don't get "repot happy" and feel the poor little violet is uncomfortable in its little pot. Violets bloom best in close confinement.

Poinsettias, which are Mexican or South American shrubs with yellow flower surrounded by tapering red leaves resembling petals, are the Christmas flowers grown extensively here in fields. Since these plants are cool season flowering, they do not like a hot, dry room. Keep the potted plant cool and just moist. Blooming begonias which do make ideal house plants do not like a hot, dry room. Try to keep the temperature at not more than 72 degrees and provide additional humidity which is helpful not only to plant health, but also to human health.

Planters present another problem because they have no drainage. Do give them plenty of light, but water only when a finger, forced about an inch into the soil, when withdrawn does not have moist soil adhering around the

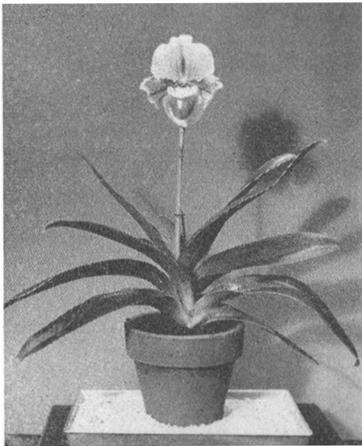
Begonia Echinosepala Regel

By E. IRMSCHER

It is understandable that the begonia fancier pays attention to the new hybrids. They surely considerably surpass the original plants through larger, more luxuriant growth and beauty of the flowers. The preference for the new hybrids consequently has pushed the original species into the background. Perhaps for this reason the old species are not so abundant in cultivation now. There is a danger as a result that the knowledge of the old species is lost and occasionally a new form is assumed to be the original species. That is why the original species should have their place in a begonia collection.

Since I have specialized for a long time in the study of the older species, may I be per-

finger nail. These plants will benefit from an occasional light feeding with dilute liquid fertilizer.



Cut Courtesy Stewart Orchids

The cypripedium gives much pleasure because the slipper-like flower remains for several weeks. It likes the warm room with plenty of light provided it is given humidity. The humidity producing gravel tray as shown here for the cyp is the same described for African violets.

With cautious watering, avoidance of sudden temperature changes and occasional feeding, gift plants should give continuing enjoyment after they have become acclimated to your home conditions. Remember they have to recover from "shock" to return to the normal growing cycle.

mitted to call attention to a small error in the magazine. In number 2 of volume 20 (February 1953) of "THE BEGONIAN" on page 34 is a picture of *Begonia echinosepala* which certainly does not represent the species. Since many readers may like to see the true *B. echinosepala*, I present a picture of a herbarium specimen of it.

Begonia echinosepala was described by Regel, Garden Director in Petersburg, in 1871. In this account he lists the species as native to Brazil from where he had obtained seed through the collector Gautier. Nowhere in literature is any closer indication given of the exact place. Still I have seen in the Berlin Herbarium a sheet of Th. Bernhardt who was in 1851-71 Inspector of the Botanical Garden in Leipzig and who died in Erfurt in 1889. This plant Bernhardt had been received from the well known seed firm and nursery of Haage & Schmidt and on the label was marked, "Brazil, province St. Catharina." The oldest herbarium specimen, which I have seen, is from the year 1877 and 1878 and consists of plants which were grown in the Botanical Garden at Dresden. The front cover picture is of this material, which was in the Botanical Garden in 1882 and is indubitably the true *echinosepala*. That the habitat of St. Catharina is correct as given by Bernhardt is proven by Ule who with Blumenau in 1888 found the plant again in the Brazilian state of St. Catharina and indeed in a variety with somewhat longer leaves.

Begonia echinosepala is a tall, much-branched bush and is distinguished by the comparatively small two to two and three quarters inches long and five sixteenths to one inch wide finely toothed leaves. The flowers are medium large and the white petals of the males have rather large hairs in the middle of the outer side for which the species is named. It is almost bare and only the leaf-stem is finely hairy. *B. echinosepala* was much used in earlier hybridizing. One of the best known hybrids is *B. "Duchartrei,"* whose parents are *B. echinosepala* and *B. scharffiana*. Many of the descendants of these species are still in cultivation. What form is pictured in THE BEGONIAN one cannot say because of the photo reduction and lack of information about the flowers.

I wish to thank Mr. Ziesenhenné very much for translating my manuscript into English.

Begonias Without Soil

By NANCY H. PRICE

BEGONIAS are like most people; they thoroughly dislike hot sultry nights. These we do have in the Miami, Fla., area for almost six months of the year, the Chamber of Commerce to the contrary.

All of my plants are grown in my "Florida Room" which is set between the two wings of the house and opens by double glass doors into my living room. Its east side has glass jalousies and is screened, of course. In winter it is heated by a thermostatically controlled electric unit. I have two three-tiered aluminum flower carts with three removable trays fifty-one inches long by nineteen wide and each three-quarters of an inch deep. The trays are covered with a fine chick gravel which is kept moist, thus providing my plants with ample humidity. Each tray has two fluorescent light tubes with reflectors over it. These tubes are adjustable as to height above the trays. I also have some begonias in hanging baskets, some in pots in brackets on the supporting roof posts and other in a plant "tree" close to the glass jalousies, so that they have a plentiful supply of early morning sunshine and ample light throughout the rest of the day. The fluorescent lights are kept on for at least twelve hours each day. So much for the physical setup.

The majority of my begonias are rhizomatous and during the summer of '55 the poor dears drooped, shed their leaves, and many gave up the struggle entirely. I was most discouraged. All my pots had been sterilized as had the carefully prepared soil—a job which I found most troublesome. I needed to make a fresh start in all directions.

My first purchase was plastic pots; two-and-a-quarter-inch, three-inch and four-inch, all with splendid drainage holes, light in weight and most attractive, with their soft colors that blend so prettily with the plants. Sphagnum moss came next and a large bottle of Atlas Fish Emulsion. All trash was removed from the sphagnum and the moss broken into pieces about two inches long, then soaked in a solution of the fish emulsion—one-quarter teaspoon to one quart of water. Carefully removing all traces of soil from the plants, they were repotted in the sphagnum moss, packing it firmly but not tightly. The top was covered with a light sprinkling of gravel to prevent the forming of algae. No need to sterilize

either soil or pots. Hurrah! Wipe the pots off before the show and they are clean and ready to go.

How my plants loved this new planting medium! They were not fertilized again until new growth started and then only every two weeks, using the same strength solution. Does it smell? Yes, but only for about two hours and it never burns. I use it on rooted leaves of both begonias and African violets before the plantlets appear.

This summer was a real test and the plants came through with flying colors. Not one was lost and not once have they been sprayed. No bugs, no troubles, just fine, vigorous plants. It is almost impossible to over-water when using the sphagnum moss method. There is such excellent drainage, and always a good circulation of air around the roots. A little practice soon tells you when your plants need moisture. Is the pot light? Water. If it is heavy, no water is needed.

Space being a great consideration, I have become much interested in the miniature type of begonias, especially *B. boweri* and its hybrids, of which I have nine. For example *B. "Spaulding," B. "Bow-Chancee," B. "Bow-Nigra"* and *B. "Bow-Arriola,"* still dainty leaved, are practically crawling out of their six-inch pots. Oh yes, they are in plastic pots also. Altogether I have forty-three different varieties. *B. boweri major*, one of my favorites, is a vibrant green with its leaf edges splotched with the typical *B. boweri* marking, complete with eye lashes. *B. "Zee-Bowman"* is exquisite, with its tender green splashed with silver.

African violets flourish under the lights also, though these are planted in a commercial violet mix which I have found most satisfactory. My plants are all state inspected and I sell quite a few young plants, the proceeds going to my hospital and church circle.

With a few exceptions, all my begonias have been purchased from Logee's greenhouses and I have had the pleasure of going to see the beautiful plants there several times. All of mine are choice named varieties, as are my African violets.

I use the same method of propagation for both begonias and violets. A leaf with about two inches of stem placed in water until roots form, then in damp vermiculite. I make tiny greenhouses of my little pots by making a tent

Odontoglossums and Oncidiums

By DOROTHY FRICKER

WHILE growing many varieties of botanicals in one greenhouse, we have found that as far as temperature is concerned most of them will bend a little in either direction. Most important now is your treatment of humidity, watering, and light; and to repot at the right time.

Your oncidium and odontoglossum plants which need repotting and were not potted in fall due to an immature growth at that time, should be repotted in early spring, before the new eye breaks. This will give the odontoglossums a chance to get their new roots firmly into the potting material before warm weather begins; and will establish the oncidiums with a good strong growth that will produce fine flowers.

Humidity is an important factor in both establishing and growing oncidiums and odontoglossums. Keep humidity high around newly potted plants—spray between the pots. It is beneficial to top fog newly potted oncidiums ever day to coax out the roots—with the exception of the large leathery leaved species such as *O. lanceanum*, *O. bicallosum*, *O. cavendishianum*, etc. These should have no top fogging until the roots begin to show. When new roots appear mist very lightly over the plant once a day. Do not water the potting material until the roots have started into the material, and then increase watering gradually as the roots grow. This is an excellent way to treat bare root or jungle plants which you want to establish.

You may also, on a bright day, spray the foliage of plants that are resting now—and

want practically no root watering—such as *Odontoglossum grande* and *Odontoglossum citrosium* as well as the hard bulbed and coriaceous leaved oncidiums like *splendidum* and *microchilum*. These plants require a definite resting period of several months to make them flower. If you don't rest them—the new growths will start too soon and be too weak to produce flowers.

Why are *Odontoglossums grande* and *citrosium* hard to flower? With both of them it is a matter of resting. *O. grande* should not be watered during the months of December, January and February. When the new growth commences and the plant is rooted, start pot watering gradually. *Odontoglossum citrosium* should not be watered until the new growth is about two inches high. If a flower spike is not showing by this time, you can stop hoping. For the past several months, both genera have been growing together in a pleasant strong light (not a glare), and their treatment has been similar. Now that the days are getting brighter, give your odontoglossums some additional shading and continue watering until the new growths are completed. The oncidiums will enjoy more light and can stay where they are. When their growths are mature, they can also rest.

I would like to add that there are some varieties of oncidiums and odontoglossums which do not rest. Their flowering time is variable and some will flower twice a year, such as *Odontoglossum insleayi* and *Oncidiums leucochilum* and *ornithorhynchum*.

of saran wrap leaving a small opening for air. They need no water from then until the little plants appear.

Following is a list of the begonias I grow. B. "Bow-Nigra" won best in show for me last year at the annual spring flower show of the St. Lucie County Federation of Garden Circles and all my begonias exhibited won blues.

Boweri hybrids: "Maphil," "Virbob," "Bow-Chancee," "Bow-Arriola," "Bow-Nigra," "Bow-Joe," "Zee-Bowman," "Cool Waters," "Spaulding."

Species Begonias: *boweri*, *hydrocotylifolia*, *kennworthyi*, *schulziana*, *acetosa*, *goegoensis*, *pustulata*, *rotundifolia*.

Rhizomatous: *Begonias* "Baby Brown,"

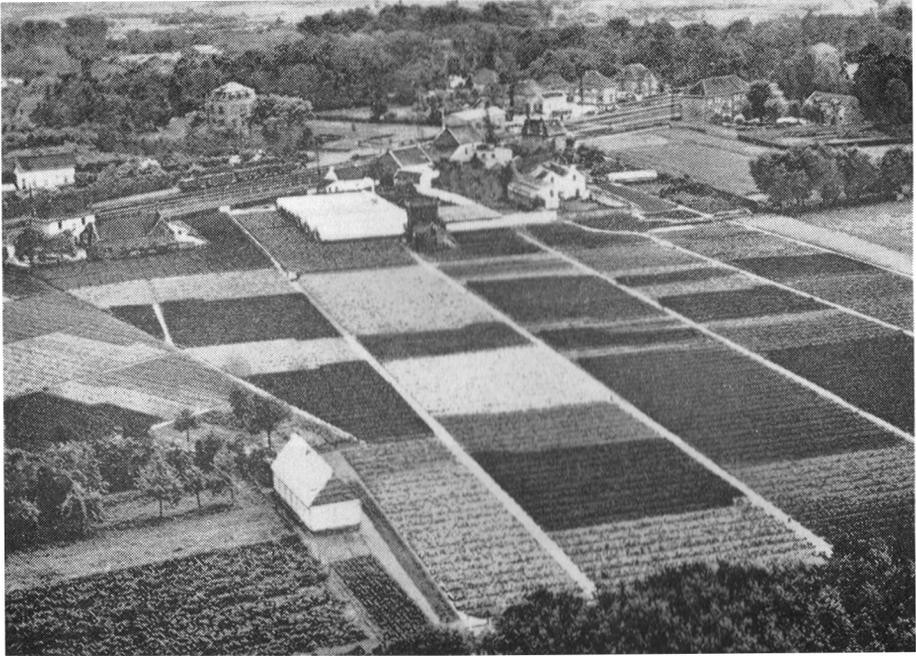
"Joe Hayden," "Fuscomaculata," Brown *pustulata*. Also four beautiful plants, all very different, from the same seed batch, a cross of Brown *pustulata* x *hydrocotylifolia*.

Miniature rex: *Begonias* "It," "Louise Clossen," "Calico."

Cane and Angelwing: *Begonias* "Tingley Mallet," as handsome as any rex; "Dancing Girl," every leaf different; "Pinafore"; "Dierna"; "Medora"; "Dogwood"; "Fairy."

Wax Begonias: "Ballet," "Richmondensis," "Lucy Locket," "Old Lace," "Pink Wonder," "Goldilocks."

Hanging: *Begonias* "E. O. Orpert," "Florance Carrell," *scandens*, "Limminghi."



A Million Begonias

By H. B. EDMUNDS

Just after my return from a visit to Belgium, I read the article in the October *Begonian*, entitled "Culture of Tuberous Begonians" and I have since wondered if members of the A.B.S. would like to know something about tuberous begonias in Belgium.

Enormous quantities of begonia corms and seeds are exported from Belgium each year; many of them going to the U.S.A. The price list of the nursery about which I am writing states values in dollars.

The begonias are cultivated in the neighborhood of Ghent where the soil is of very peaty nature — I have heard it called "fat." On my previous visits to Belgium I had been to a number of nurseries at Loochristi, a small village on the Antwerp to Ghent road, and it was in a greenhouse of one of these nurseries that I first became bitten with the "begonia bug." This house was full of baby begonia rex hybrids, and as I admired them so much my Belgium friend insisted on making me a present of three dozen plants. Now I have a collection of all kinds and it is always increasing as I collect whenever I travel abroad.

On my recent visit I went to what I under-

stand to be the largest nursery in Belgium, that of Mr. Raimond Moerman at La Pinte; there I saw one million, two hundred thousand tuberous begonias growing in the fields. It was late in the year and the flowering period was nearly over; in fact, the nurserymen were actually cutting off the blooms to prevent them dropping off and rotting, thus causing the start of stem rot. Soon the plants would have to be lifted so as to harvest the corms. Having seen nurseries at Loochristi at their best, I can well imagine what a wonderful spectacle Mr. Moerman's fields must be when the begonias are in full bloom in early August.

The begonias are grown in blocks according to color, and I noticed that some of the plants had been marked with canes; these I was told were considered to be the best plants and their corms would be grown under glass next year as parent plants for seeds. All the pollination of these plants is done by hand.

Seeds are sown in January; as soon as they are ready the seedlings are transplanted into boxes; later into pots, and finally into the fields. What an enormous task it must be.

The begonias in the greenhouses at the time

Seeds, Seedlings and Hybrids

By DON HORTON

Transplanting Seedlings

The critical time in raising begonias from seed is in the first transplanting. The days following the time the seedlings are weaned from their seed bed probably sees more losses than any other period of time. This is especially true of seeds that have been planted in jars. When they are removed from the warm moisture-laden air to the more rigorous conditions outside the jar, they undergo a shock from which some may not recover unless proper precautions are taken.

The most important factor is accomplished in the sowing—DO NOT PLANT TOO THICKLY. This rule is violated by almost everybody be it begonias, balsams, or beans they are planting. Thickly growing seedlings cannot develop properly. Below ground their roots inter-tangle which causes loss of roots and greater shock when they are separated. If these plants are to be separated it must be done before they get too large.

On the other hand, even if the seedlings are at a respectable distance apart in the seed jar they should be transplanted before they get *too* large. Transplanting an overly large

of my visit, late September, were still full of bloom, although many of the plants already had seed pods almost ready for harvesting. I noticed that Mr. Moerman grows a number of British and American varieties, which he uses for hybridizing.

In addition to the large flowering double begonias, I saw many other varieties of tuberous begonias, such as single and camellia flowering, *crispa*, *cristata*, *fimbriata*, *multiflora* and *pendula*; these hanging varieties in their baskets were still a lovely sight. As I grow all these different varieties myself, I was glad to have the chance of comparing my own results with those obtained by a leading professional grower. I learned a great deal.

In addition to growing tuberous begonias, Mr. Moerman also specializes in gloxinias and *amaryllis hippeastrums*.

If you go to Belgium, try and find time to visit La Pinte—there is a railway station—and Mr. Moerman's nurseries are only a block away. I know he is always delighted to show visitors round, particularly if they are "begonia fans."

seedling, especially when there are others nearby, also will cause it to lose some of its roots shocking the plant and setting its growth back.

Begonias, like almost all other flowering plants, absorb water and minerals through root hairs found *only* at the tips of growing roots. Whenever a plant is moved, these root hairs, which cling tightly to soil particles, usually stay behind. The plant thus deprived of its water and mineral gathering organs is handicapped until it can grow new ones. Small plants will keep all of their root systems better than large ones. This is because small plants do not as yet have an extensive root system.

The proper size to transplant begonia seedlings is at the time they are starting to develop their third true leaf. But if they are too thickly planted it can be done when their first true leaf is fully developed. "True leaf" does not mean "true" in the sense that it has its adult coloring but that it is a "true leaf" as distinguished from the two tiny "seed leaves" that appear when the seed first germinates.

The seedlings may be transplanted into a flat or large pot (six inches or bigger) which contains a soil mixture similar to that they were germinated on. This is peat and leaf-mold in equal proportions.

A pair of tweezers is the perfect transplanting instrument. Close the tweezers and punch a hole into the soil where the seedling is to be planted. The hole should be deep enough that the roots may hang straight down without curling up at the bottom. Then, with the tweezers open, loosen the soil on each side of the seedling. Remove the seedling by catching it by the tip of a leaf with the tweezers. NEVER grab it by the stem. A bruised stem can be fatal.

Set the plant into its new home at the same depth, or a little deeper, than it was before and firm the soil around it with your fingers. Then water with air-temperature water. A weak solution of Hyponex, and I presume other such soluble fertilizers, seems to help reduce transplanting shock.

The distance to set the plants apart in this first transplanting depends on the growth habit of the plant and whether you want to

(Continued on Page 45)

It's for You; the Arboretum

THE ARBORETUM is one of the greatest heritages of Los Angeles County and the State of California for here we have not only an interesting historical site and bird sanctuary, but also an educational, research and horticultural facility in a setting of natural beauty. It provides an interesting field for the whole family—those interested in horticulture and the home, botany, bird lovers, school classes, history and research.

Many trees, shrubs and plants from countries with climate similar to ours are grown and tested here. If they prove worthy, they will be released to nurserymen for sale, thus it saves us homeowners much time, expense and heartache if we had planted a tree or plant which is not suited to our area and it soon succumbs to our conditions of climate. We could grow a lot more flowering trees than we do. Many persons object to the flowering tree because of what they call its "dirtiness." It is the degree of dirtiness" which should be considered which may be counter balanced by personal likes or dislikes. We are in the finest growing climate for these beautiful trees which should give us color as well as shade.

Closely working with the U.S. Forestry Service, research has been done in finding fire resistant plants for reforestation and flood control in our watershed. The cistus or rock rose has proved to be quite adaptable to this field as it is fire and drought resistant and if it is burned, thousands of plants spring from the roots of the mother plant. A difficulty in the germination of seeds of this plant has been overcome by the use of charcoal at seeding time.

Another research problem of especial interest to home owners is the testing of many grasses which will be tough to wear and tear of children and will not go dormant during the colder weather (turning brown), yet will not present the troublesome problem of keeping our common Bermuda grass (devil grass) in bounds. Scientists say we are in the ideal climatic area to grow the luxurious, tough, Bermuda which gives such a fine carpet of green in the summer. In time science may be able to find a way to break the dormancy period. The much advertised "Zoyias," while a good grass, DO TURN BROWN IN THE WINTER. The U-3 Bermuda, which has been used in the Rose Bowl, is a finer textured, very hardy grass which does not spread by seed,

but must be propagated by cuttings, yet it does brown in the winter.

Working with the Smog Control District the effect on plant life is being studied because the growing of several million dollars of the wide leaved vegetable crops such as spinach have been discontinued because the damaged leaf product was unmarketable. The common petunia which is most sensitive to smog is used as a smog indicator. The leaves of the petunia in the presence of smog develop a brown band across them which deforms not only the leaf, but also the whole plant. Sturt's desert pea (*Cliantbus speciosus*) was unable to withstand the smog in its infantile stage. The quick decline of azalea flowers is also attributed to this menace of increasing population.

School classes visit and study not only the flora, but also the wild bird and animal life in this bird sanctuary. Over 165 species of migratory birds have been counted by the Audubon Society. These birds have been attracted by the ample food supply of fruits and seeds, and the shelter of the trees and shrubs; the water fowl by the natural lagoon. A feeding station has been erected so birds may be watched more closely as otherwise they might not be seen by the public.

Incidentally those interested in viewing a real movie location can find the setting in the tropical jungle area with its 5 acre lagoon where "Ramar of the Jungle" and "Jungle Jim" were filmed.

Historically the Arboretum, the old Lucky Baldwin estate, is of interest as it was built on the site of an old Indian village and it is a part of the old Spanish Land Grant.

Two greenhouses have been provided by orchid enthusiasts and it is hoped that those persons interested in the growing and development of begonias can finance by contribution or activities a greenhouse for begonias where species begonias can be displayed for the public to enjoy and hobbyists can study and identify their own plants.

The Arboretum is yours to enjoy. You benefit esthetically, educationally and economically.

—B—

Coleus have grown till they crowd one another out. One is so branched it looks like a collection itself.

Registration and Nomenclature

IN ANSWER to questions on plant registration and nomenclature the following pertinent paragraphs are reprinted from the 1956 *American Horticultural Council Handbook for Plant Originators and Registrars*.

REGISTRATION

16. The fundamental objective of nomenclatural legislation is stability of names. The originator may follow every directive and recommendation of the Code in the classification of a new plant, in the selection of its name, and in the mechanism of publication and still end with a name that is useless. This is because, operating independently, he has no assurance that the name selected has not already been used for another plant of the same genus or group. Here is where registration is of utmost importance as further assurance of name stability.

20. *The function of registration* needs clearly to be understood. It is agreed by leaders in all countries active in these matters that registration is the

- (a) compiling of a list of names and descriptions of cultivars accepted in conformance with the rules and recommendations of the International Code for the Nomenclature of Cultivated Plants;
- (b) maintaining of this record, processing new names as received, keeping the list up-to-date;
- (c) publishing of these data in list form, together with supplements and new editions in a manner to keep the originator readily advised of what names have been used within the group; and
- (d) soliciting of cooperation and support from raisers, introducers, and all others concerned with the distribution of plants, or with the use of these names, in their registration and use.

21. *Registration and testing are separate functions.* Registration provides a record of cultivar names. Associated with the names is the record of descriptive material. Registration aims to scrupulously avoid application of the same name for two or more different cultivars. The determination if one cultivar name is only a synonym of another is a matter of identification, not of nomenclature. It is a function of testing, not of registration. Testing, in addition to evaluating the merit of a cul-

tivar, should serve also to determine if the cultivar has been introduced previously under another name.

22. It is fundamental that these distinctions be appreciated. It is desirable that the validity of the differences be recognized and adopted. Many registrars (or registration committees), by society authorization or by self-assumed powers, exercise the role of judge. They may rule that a new cultivar name shall be rejected because the plant whose name is submitted for registration is not believed to be different—or sufficiently different—to merit recognition and for the new name to be registered. It is the belief of persons considering this matter from both national and international approaches that:

- (a) it is not generally possible to determine the eligibility of a plant and to recognize it as a new cultivar from a description or photograph submitted with the name to be registered;
- (b) proper and competent identification must be the result of careful study of the plant itself;
- (c) very often several closely related plants must be compared if an opinion on worthiness or distinctness is to have reasonable validity;
- (d) it occasionally may mean comparison of a plant of one country with plants of other countries before identification problems may be resolved; and
- (e) the originator is entitled to a decision on identification matters by the best of authorities; and pending action on this, it is unfair to deprive him of the protection afforded his cultivar name by prompt registration.

23. It sometimes happens that the registrar is one of the most competent persons to evaluate the identification of a cultivar in the group concerned. But, his function in this capacity should be as a member of a testing unit.

24. It is generally accepted as being unfair to the registrant of a cultivar-name to defer registration of that name pending decision of a testing unit. In most instances this is done to ensure that new cultivars meet prescribed standards of horticultural quality before being accepted for naming. This practice need not conflict with registration if there is a requirement that originators submit material to be

tested under a number or code, reserving the application of a name until evaluation procedures have been completed.

25. One reason for linking testing with registration is that a means is provided to reduce the number of names being registered. This reduces the registrar's work. It keeps the size of lists to a minimum. It contributes to a better literature by precluding admission of names of questionable material. These motives are laudable, but a policing action is separate from nomenclature. Furthermore, the objectives of keeping lists of cultivar-names within reasonable limits, and without hardship or injustice to any originator, can be achieved effectively by registration requirements that are within the province of the Code.

NOMENCLATURE

50. There are two international codes of plant nomenclature: The International Code of Botanical Nomenclature (hereafter referred to as the Botanical Code), basic for the scientific names of all plants; and the International Code of Nomenclature for Cultivated Plants (hereafter referred to as the Horticultural Code), based on the Botanical Code, but which provides for situations encountered by the agronomist and horticulturist but not met by the average botanist. Both Codes are the product of extended study by leaders in their respective fields, of all nations concerned.

CATEGORIES

51. The categories of plants are the classification units recognized by a nomenclatural code. For general purposes, the largest unit of importance to the horticulturist is the category of family. In scientific literature, family names are written in Latin and generally end in *-aceae*; e.g., *Rosaceae*, the Rose family; *Aceraceae*, the Maple family (and *Begoniaceae*, the Begonia family).

52. A family of plants is composed of one or more genera. The singular form of "genera" is genus. The Ginkgo family, *Ginkgoaceae*, contains a single genus, *Ginkgo* (as does the *Begoniaceae*, a single genus, *Begonia*). Some families, such as the *Liliaceae*, which includes *Lilium*, *Tulipa*, and *Hyacinthus*, comprise hundreds of genera.

53. The genus, in turn, is composed of one or more species. The genus *Ginkgo* has but a single species, *Ginkgo biloba*. On the other hand, *Juniperus communis* is one of perhaps sixty species belonging to the genus *Juniperus* (while *Begonia heracleifolia* is one of hun-

dreds of species belonging to the genus *Begonia*).

54. The species is the basic unit in any system of classification. Its scientific name is always in Latin form, and consists of two words: the generic name, plus a specific epithet. Sometimes the species name is referred to as a binomial. *Juniperus communis* is the scientific or species name of the Common Juniper. *Juniperus* is its generic name, *communis* is its specific epithet. (*Begonia heracleifolia* is the scientific or species name; *Begonia* is its generic name, *heracleifolia* is its specific epithet.)

55. The variety is a variant of the species which maintains itself in the wild by propagation by seed, but which is not so distinct genetically from the typical form of the species as to be considered a separate species. By some botanists the variant is termed a subspecies. *Juniperus communis* var. *depressa* is the scientific name of the American variant of Common Juniper that sometimes is called Ground Juniper. (*Begonia heracleifolia* var. *nigricans* is the scientific name of nature's variety.)

56. These are botanical categories. The names of the categories (family, genus, species, etc.), and the relationship of one to another, are prescribed by the Botanical Code.

57. Similarly, the Horticultural Code provides for the names of the categories of cultivated plants not treated in the Botanical Code. The categories of genus and of species pertain to plants that occur either in the wild or in cultivation. To be sure, there are some genera, such as *Ginkgo*, that are not known in the wild, and many genera have some species not known in the wild.

58. Scientists do not agree on the definition of what a hybrid is. Perhaps the broadest view is that it is the product of cross-breeding of two or more species. The term may also include the crossing of varieties of two or more species. When a hybrid results from crossing species of two genera, it is said to be a bi-generic hybrid, or a hybrid genus. An example is *Mahonia aquifolium* x *Berberis vulgaris* — *Mahoberberis neubertii*.

59. The term "variety" as applied to cultivated plants has often included material taken from the wild as well as material known only in cultivation. It is recommended in the horticultural Code that the term "variety" (usually abbreviated to var.) be reserved in technical literature for plants which occur in the wild. Such plants are given names of Latin form, under the regulations of the Botanical Code. When such a variety is brought into cultivation, it continues to be treated as belonging

Fluorescent Lighting for Shade-Loving Plants

By MRS. W. H. HAWKINS, Calgary, Alberta

FLUORESCENT lighting for basement gardening was very new six years ago; it proved very successful with a minimum of effort and worry of the elements, and for those of you who have some spare space it is a very economical, comfortable and rewarding venture. With the extensive research which is being conducted in your American universities, colleges and electrical companies, it is reasonable to assume that shortly we will have charts from which to select the color tube to purchase for the particular season of the year or for which phase of growing we are interested: blossoms, foliage or seedlings.

The first popular lights were the Daylight tubes, and they do provide enough energy to raise good specimen, shade loving plants, but with the wide variety of tubes in commerce today, experiments with the different colors are worth while, as they provide light of different wave lengths. My trials have been with African violets, the Saintpaulia species, and this is what I have found the past year. After changing a few colors, that to grow a mature plant of better substance, with more blossoms, in less time than previously, I root leaves using a Standard cool white fixture with the tubes six inches above the tray. These usually produce plantlets in eight to ten weeks, but on ONE occasion, they appeared in 37 days from many

in this category. *Prunus serrulata* var. *sachalinensis*, from Korea and the Sachalin Islands, is considered by both botanist and horticulturist to be a variety of the species *Prunus serrulata*. (*Begonia beracleifolia* var. *nigricans* from Mexico is considered by both botanist and horticulturist to be a variety of the species *Begonia beracleifolia*.) Because it is a native plant it is treated as a botanical variant of the species.

60. In contrast to the "variety," the Horticultural Code provides that, for purposes of precision, the term cultivar (a shortened form of "cultivated variety" and abbreviated to cv.) is to be applied to all variants that have originated in cultivation, or which are not known to occur in the wild. More particularly, the category is for those plants which would not usually be given names in Latin form. It is the equivalent of "cultivated variety," "hort. form," and "variety" as commonly used in agriculture, forestry, and horticulture. (In *The Begonian* cultivars will be identified by quotes, as *Begonia* "Henry.")

different varieties. All petioles are dipped in rooting hormone. I do not have as many plantlets with this light, but all are robust with a heavy root system. When time to pot, 2½ or 3 inch pots are used (size of root system regulates the size of pot), keeping as much vermiculite and peat moss clinging to the roots as will. This pot is placed under Daylight tubes seven inches from the pot on the upper decks of the three tiered units as these young plants will accept more heat. When the pot is full of roots, the first buds are usually formed. The tiny crowns which appear on the row of leaves before the first buds are now removed and the plant potted on, into a 4-inch pot, care taken not to disturb the root-ball. At this final stage, the plant is placed beneath a De Luxe Warm White tube, approximately 12 inches above the pot. With the usual variety, in eight months the plant should be nicely formed with several clusters of buds and blossoms. These plants kept a few degrees cooler than formerly will produce larger and stronger flowers. Usually at one year the plant will be worthy of the Show Bench display. If this plant never suffers retarded growth there will be no more crowns and blossoms will be continuous on some varieties and so little attention is required, but the weaker ones seem to require grooming at least once a month, but am sure that all collectors in time use the back door for these when a robust similar variety appears.

Light alone does not provide the whole environment for growth and development, but it is first on the list of requirements and a bit of experimenting will soon give you distance from light and timing, 15 to 18 hours is acceptable, but at times 12 hours is sufficient. Controlled temperature has its merits, a low of 60° at night and up to 75° for days is ideal, when heat is above 80° growth is retarded. Fresh air is a necessity, use indirectly if the new air is cooler. A fan is standard equipment; turn off and on a few times each day while working in the room, assuring that all corners will have a change of air. Keep benches away from the wall for circulation. Boil and aerate water; cool it in the flower room for added humidity, 60° F. is the ideal temperature. Water plants thoroughly when dry to the touch.

Each locale and fancier has his own ideas of potting medium. I use a generous amount

of peat moss as our city is on glacial silt and carries a heavy limestone content (I would use leaf-mold instead of so much peat moss but my husband hordes it for his tuberous begonias). I pasturize the medium and then add two cups of superphosphate, 1 tablespoon of trace elements and 1 teaspoon of aldrin to 1 bushel of medium. The aldrin discourages all insect life. Our loam does not harbor root-knot nematodes due to winter frosts, but apart from them we are prone to the majority of pests. It is the moment to presume that the enemy is lurking in the shadows, so as a precautionary measure bring forth the spray. Malathion, if well agitated and used as directed will not mar leaf or blossom and is efficient.

Fertilizer used once a week at 1/4 strength is sufficient food until the specimen reaches 1 1/2 to 2 years of age, then increase to half strength. I prefer the weak fertilizer and each week for an even tempo of growth.

A basement garden can be a show place if you will be generous with white enamel and paint. Do walls, benches and trays. Keep picking up fallen blossoms each day and every two weeks devote plenty of time and wash everything thoroughly except plants, as their foliage keeps dust-free in the basement, after this operation of tedious work (this to me is the only chore; all other phases I enjoy).

Fluorescent lighting is popular in our locale with people who have no greenhouse and raise their bedding out plants prior to the cold-frame move. They are also being installed by degrees in privately owned greenhouses to supplement light during our short winter days. If you have never grown a gloxinia under lights, try one under Standard Cool White tubes. It definitely is a space-thief, but the day you exhibit it in your planter with unmarked flat leaves and the first flowers bursting forth, all is forgiven. Better still, place it in a suitable window so that all who pass may enjoy the striking flowers and perfect background of foliage. Episcias thrive under De Luxe Warm White tubes and come into bloom very much quicker. Other shade loving plants I have tried and have concluded that the field is large and trials will surprise you favorably.

The following table is for blossom index only, using the Daylight tube at the ratio of 100.

Daylight	100
Soft White	130
White	135
De Luxe Warm White	225
Standard Warm White	170

Begonia Leslie Lynn

BEGONIA "Leslie Lynn" is a large, star-type rhizomatous begonia, introduced by the hybridizer, Dorris Motschman at the 1956 A.B.S. Convention at Plummer Park. The plant was named for her eight year old daughter, Leslie Lynn Motschman. The leaf is a large, seven-lobed star, measuring up to 9" x 11". The margin of the leaf is serrate, while the smooth textured surface is chatoyant, black green; the underside dark or purplish red; the veins, light green. The petioles are light green, heavily splotted red, each splotch containing red hairs which are green tipped. The flowers are in dichotomous clusters well above the plant. The male flower is dark pink, 2 petals; the female light pink with dark pink splashes with three uneven ovary wings. B. "Leslie Lynn" blooms from spring to middle of summer depending on growing conditions.

The seed parent was *Begonia* "Lexington" which gives the begonia its color; the pollen parent, the species *B. bill*, from which it gets the shape of leaf (only larger), and the growth habit. The creeping rhizome will make a beautiful, round specimen plant, or a plant which will grow well in the garden in part shade. It is hardy, having withstood the frost and hot summer of Anaheim. It has grown very well planted in the ground with morning sun and afternoon shade. The more sun it receives, the lighter the leaves will be, losing their blackness.

Begonia "Leslie Lynn" is A.B.S. registered No. 130 and will be sent to the various test gardens in the near future. This begonia received the A.B.S. certificate for a Hybrid of Distinction, receiving the second largest number of points in the new introduction class at the 1956 A.B.S. Convention. Susie Zug's *B. "Emerald Jewel"* received the plaque for the most points scored. It will soon be available from Leatherman's gardens.

—B—

Geraniums

IF YOUR geraniums are overgrown, cut them back to about eight inches from the ground. From the stems you cut off, take tip cuttings. Make the cuttings about four inches long, cut just below a joint, insert the cuttings in damp sand and you will have a new supply of geraniums in about four weeks. "Martha Washington" pelargoniums like light shade in inland areas. They need protection from heavy frosts.

Africa Story

"AFRICA THE BEAUTIFUL," a travelogue in color illustrating the unusual and exotic flora and fauna, was presented by Peggy Sullivan, noted West Los Angeles landscape architect, to the San Gabriel Valley Branch at its sixteenth annual birthday dinner. Miss Sullivan, a vivacious young lady, attended UCLA, Cornell University and the University of California at Berkeley, specializing in horticulture and entomology. She has the distinction of being the first woman in the Los Angeles County Plant Quarantine Service. Pegg has been garden consultant on the staff of *Sunset* magazine and writer for the *Los Angeles Times*.

The client's desires are of utmost consideration in a successful landscape project, states Miss Sullivan. The amount of maintenance work the client wants to do or pay a gardener to do; the need for privacy in his garden; sun or wind protection; place for play; entertainment needs and service areas; all must be ascertained before a project is begun. The outdoor living area must be comfortable and easily accessible, while the garden area must be enticing and restful. A homeowner's personality should be reflected in a completed landscape, not a "landscape done by." He must be imbued with a greater enthusiasm for gardening, because he is personally informed about the feeding, watering and pruning care of each plant. Success in her business, Peggy says, is keeping errors to a minimum by personal selection of plants which should be of a size to stand on their own and acclimate themselves to the new environment; and on the job planting guidance when her crew does the work.

One of the problems involved in landscaping is that a new homeowner is so desirous of growth that he allows the shrubbery to grow rank without pruning, thus losing the architectural design of a home. Landscaping complements a home, not detracts from it. Another problem of landscaping is the desire of an owner to fill an area immediately, not considering the size of mature plants.

Each year Miss Sullivan takes a trip photographing in color and studying the growth and habits of plants in their native habitat, so she may better serve her clients. In her recent trip by air, boat and 7000 miles in a jeep with native drivers, Peggy traversed Africa down the East Coast, the Belgian Congo, around the

Cape of Good Hope, up the West Coast and inland at Nairobi. The central areas reflect the pure native customs because the coastal regions are influenced by travelers and adjoining countries. The natives leading such a simple life were most friendly. These inhabitants, herding cattle on the hills and protecting these herds from lions, do not grow the native plants in their gardens. They prefer sword ferns and coleus. The city native who may sell cut flowers to florists' shops may be found wearing native hat and dress, Western business coat and shoes, but no stockings or pants. Over the business coat may be wrapped a blanket. Yet in this country of mixed dress, is found the ultimate is contemporary architectural design in apartments, office buildings and homes in the cities of Johannesburg, Nairobi and Leopoldville.

Peggy says she was most impressed with the plants she associated with landscaping which in Africa were growing wild in dangerous areas. The Bird of Paradise (*Strelitzia reginae*), the official flower of the city of Los Angeles, she found growing in dirty, dusty brush while here in the United States it is a "pampered darling."

Contrary to the common belief, Africa is quite dry except in the coastal areas where there is more rainfall and the growth is more lush. Most of the country is on a 5000 foot plateau, the sun being very warm in the day and the nights very cold. At the high altitudes in the moist areas, the exotic gloriosa lily climbed the trees in the dirty brush. Under the flaming orange flowered coral trees (*Erythrina caffra*) the natives formed their kraal or encampment of *rondavels* (mud huts), producing an overwhelming atmosphere of contrast. Along the Indian Ocean coastal jungle area, hung from the trees great chains of ropey vine, *Cissus capensis*, which is used extensively in landscaping in Southern California. In South Africa it was like "driving on the moon" when suddenly appeared great windbreaks of eucalyptus trees. From the source of the Nile, crowded with crocodiles and hippos, 3000 miles from the Mediterranean, in three weeks travel they were in Cairo where the dirty, filthy Nile floods. Primitive irrigation, 5000 years old, was observed in two forms; the water buffalo turning the water wheel or the

(Continued on Page 43)

Compost Heap

TO MAKE a compost heap, you may either dig a hole or build a frame in some secluded spot in your garden. Available space will determine the size. When building a frame, allow about one and one-half inches of space between your boards so that there will be a good circulation of air around your materials.

Everything not of a woody nature may be placed in this heap to make new soil for your garden. First, place a layer of vegetable wastes, weeds (without seeds), grass cutting (minus Bermuda), coffee grounds and leaves, etc. Remember that small pieces of waste material will decompose quicker than large ones so cut up your materials as much as possible. There are a number of compost grinders on the market but their price is prohibitive. The layer of waste materials should be about two feet high.

Second, add a layer of manure, alfalfa meal or commercial composting material. Now cover with soil and soak well. Repeat as your waste material accumulates. Keep well soaked with water. Turn every two months and mix thoroughly.

Wood ashes from the fireplace in the winter or ashes from trash burned in the summer may be added to keep down odors. Air-slaked lime may be added also for odors; however, lime is not good for your shade loving plants.

It will require from six to twelve months to produce compost by this method. However, the compost heap is one of the most valuable assets of the garden and often the least valued by amateur gardeners.

RUTHANNE WILLIAMS
From Sacramento *Begonia Leaf*

—B—

A.B.S. BEGONIA REGISTRATIONS

- Nos. 1-33, June 1954, page 130
- Nos. 34-57, Dec. 1953, page 266
- Nos. 58-116, Sept. 1954, page 209
- Nos. 117-119, April 1955, page 77
- Nos. 120-122, March 1956, page 65
- Nos. 123-130, Sept. 1956, page 211

Calendar

- Feb. 27—Glendale—Mrs. Winona Jensen, "Begonias and Shade Plants."
- Mar. 2-10—Descanso Gardens Annual Camellia Show, 1418 Descanso Dr., La Canada, Calif.

Growing Tips

I have been growing tuberous begonias in Roslindale, Mass., for two years now with some success. I say success because I grow them under fluorescent lights in my basement.

This year I grew fifty plants from tubers started in flats and then later potted. I started them in February and in October they were still in gorgeous bloom and had been since late June.

KENNETH L. WATSON

—B—

Begonia growing tips: Mulch will help to protect your begonias for the winter and do no harm if not kept too wet. Ordinary amount of rain will be a help but be *sure* the drainage *good*. Never have *any* kind of a begonia where the drip from a roof can fall on the plant, but above all do not allow any rhizomatous to get too much water. This does not mean to dry them out completely. I have known good plants that were dried out so they never came to life again. They must have some moisture. Besides a dry plant will freeze much more quickly than one that has some moisture. This I have proved with fuchsias in particular. If it is possible, protect your begonias from extreme cold by some means.

EDNA KORTS

TUBEROUS BEGONIA

PRICE LIST NOW READY

RUDOLF ZIESENHENNE

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

A. B. S. STATIONERY

(Cost Price to Branches)

	per 100	per 50	per 25
Letter, sm.	\$.80	.40	.20
Letter, lg.	1.10	.55	.30
Envelope, sm. . . .	1.25	.65	.35
Envelope, lg. . . .	1.55	.80	.40

For A. B. S. Stationery, Pins and Signs

Write to: Fred Browne

817 Novelda Road, Alhambra, Calif.

Round Robin Notes

Begonia growing is not always successful; seems as though the best ones we want are always the ones we lose. Do you suppose in our desire to be extra good to them we overdo something: watering, feeding not enough or too much, sun, etc? Why is it a plant we aren't too keen on, but keep it, blooms and survives in rain, and too much sun as if to say, "Look at me; I'm not an ugly duckling any more"? A beefsteak begonia I pampered for three years didn't get bushy or even grow. If was the first begonia I put out in the spring on the north of the garage where morning sun hits it till 9:30. You guessed it. It only got watered when it rained and through the dry, hot weeks, maybe I'd throw some water at it once a week. Now it is spreading out over the 8" pot, bushy and full of leaves with good color. How could I discard it? I think my best growing plants are those which grow in spite of my care.

—B—

My husband's hobby is camellias and mine is fuchsias, so fuchsias are hanging over, under and in between camellias. I have about 200 varieties. I also am getting hardy fibrous begonias. Our water is nearly 100 per cent Colorado River water now, so I am experiencing new difficulties with everything. Who can help? I sowed begonia seed from the A.B.S. Seed Fund. I transplant, then transplant again into another flat. Don't know where it will end—our hobby is plants.

ALICE E. ROBERTS, Encinitas, Calif.

I have around 150 different varieties of fuchsias. Many of them are new varieties, but I think I really prefer the older ones as they always have so many more flowers and they last so much longer even if the new fuchsias are a little more glamorous in size and color. I find the fuchsias that I plant in the ground do so much better than the ones in pots except the hangers.

MARIE REED, San Leandro, Calif.

—B—

RUMMAGING through my belongings I recently found some unnamed begonia seed pods. Into a 3" clay pot, I placed a mixture of sand and peat and scattered the seed on top; and placed the pot in a bowl of water. (I use commercial bottled water for drinking and watering my few plants as we have been forced to use salt water this year, which at present has a salt content measure of 1000). In 11 days the surface of the pot was a solid green, so I'll have some begonias to start on again as I lost my previous collection due to the salty water.

EULA, Dallas, Texas

—B—

World educators, some of them in native costume, were among the Arboretum patrons in 1956. Some of them inspected plants which originated in their respective countries. Among the nations sending observers to the Arboretum in 1956 were: Australia, New Zealand, South Africa, India, Egypt, Mexico, Germany, Malaya, Pakistan, Israel, and Finland.

in rose form and ruffled novelty

**New
for 1957
Striking
Advances**



**TUBEROUS
BEGONIAS**

Exactng quality in color and form, from the prize-winning Pacific strain originated by Frank Reinelt. The very finest obtainable!

Choice tubers now being shipped

1957 COLOR CATALOG NOW AVAILABLE—WRITE FOR IT TODAY!

VETTERLE & REINELT

Dept. B Capitola, California

Clayton M. Kelly Seed Fund Flight

No. 1. B. paulensis—Brazil—A good friend sent a few seeds of this exotic begonia and we are happy to offer them to you. A full description and pictures appear in October issue of *The Begonian* so we suggest you refer to this story for complete information. We advise that only experienced growers try these seeds as they require special greenhouse care to start properly. Germination will be slow and will not be perfect but some plants can be grown from a small packet of seed. 50c per packet. Back issues of *The Begonian* are available from our librarian. **No. 2. B. Christmas candle F1 hybrid**—double semperflorens. Fluffy, deep rose flowers, emerald green, waxy foliage. Plants are dwarf and compact and make ideal pot plants or may be used as bedding plants. 50% double and 50% semi-double flowers. 35c per packet.

Freshly collected seed of the following are available at 25c per packet: **No. 1. B. Dishasta**—*Dichroa* derivative. Cane type with green sometimes silver spotted leaves. Flowers are large, scarlet, in pendulous clusters. Nice. **No. 2. B. Decorus**. Resembles *B. undulata*. Leaves are smooth, ovate-pointed, green. Flowers are white in pendulous clusters. **No. 3. B. Mr. Schinkle** (*B. coccinea* seedling). Small erect branched. Flowers pale orchid-pink, leaves like *B. coccinea*. **No. 4. B. Rubra**—rose—choice cane type with rose flowers. **No. 5. B. Rubra pink**—same as above but with pink flowers. **No. 6. B. Sparkler**—semperflorens. Large orange-salmon flowers with creamy white centers. Intermediate growth. Outstanding for pot culture or as a bedding plant. **No. 7. B. Matador**—semperflorens—compact plant with rose colored flowers.

***Pteris cretica cristata*, *Pteris cretica mayi*, *Pteris cretica albo-lineata*, *Pteris ouvardi cristata*, *Pteris wimsetti*.** The translation for *Pteris* (the p is silent) is Brake, and for *Cretica* is Cretan. This family of warm greenhouse, outdoors in mild climates, ferns are natives of the countries from the Isle of Crete on southward through Africa. Brilliant in color, the fronds are either lateral or terminal, adhering to a short creeping rhizome. These ferns are well suited to decorative purposes, and flourish under electric lights. The fronds may grow to a foot in length. Several varieties, such as *mayi* and *wimsetti*, are lobed with tasseled tips to the leaf divisions. One species, *albo-lineata*, has a white line through each leaf division. Five varieties listed above are 25c per packet.

Special seed—**No. 1. Lobata variegata**—a hybrid. Medium erect and branched. Leaves silver spotted and flowers white. **No. 2. B. heracleifolia nigricans**—Mexico. Rhizomatous, medium growth, rhizomes procumbent, leaves long, to a foot across, handsomely variegated with bright black-green and taffeta-like in appearance. Flowers are white on tall panicles—much admired for its handsome foliage and flowers. **No. 3. B. venosa**—Brazil. Seed just arrived. Beautiful plant covered with white scurf; leaves kidney-shaped, depressed in center, thick and fleshy; upper side is frosty in appearance; inflorescences stalked and arching, white and spicy. Plants should not be overwatered and require maximum sunlight in winter. A worthwhile plant but not easy to grow. Above 35c

per packet or 3 for \$1.00. We still have a huge supply of *B. tuberosa*, mostly *camella* or rose bud type in all desirable colors at 50c per packet.

B. Flamboyant European tuberous. Single and semi-double vermilion flowers. Resembles *B. davisii*. 25c per packet. Beautiful greenhouse and companion plants for tuberous begonias is the lovely **Gloxinia**. We have a choice selection of these seed which should be planted now for next summer bloom. They come in colors of deep purple, two shades of red, pink with brown dots in throat, lavender ruffled and others—slipper and bell types—separate colors or all colors mixed. 25c per packet.

Other genera—**No. 1. Mimulus primuloides**. Low growing perennial with golden yellow sometimes brown spotted,

Africa Story

(Continued From Page 39)

simple hand dipping by bucket from the stream to the garden.

The wild crinums had pink flowers which were larger than those of our cultivated plants. Glads, tritomas or torch lily, clerodendrons, canary bird bush, thunbergias, tree-like gardenias and some begonias grew wild in the dirty brush. There were forests of wild aloes in South and East Africa. The callas and lily of the Nile, identical to our plants, grew wild in the swamps. *Meliantbus major* appeared everywhere.

—B—

"The genus *Begonia* is not represented in the flora of Chile. The *Begonias* that are seen in this country are only cultivated plants of foreign origin."

DR. GUALTERIO LOOSER
Santiago, Chile

velvety flowers. Should be grown in cool, moist locations. Ideal plant for hanging baskets in the lath house. **No. 2. Climbing foxglove.** Climbing plant for the shade garden. Handsome foliage, pinkish rose flowers. Requires rich soil and does well near the seacoast. **No. 3. Maurandia barclaiana**—Mexico. Scrophulariaceae family. Choice plant for the shade garden. Has gloxinia-like velvety bluish-purple flowers. Leaves are halter-shaped. Showy plant. **No. 4. Adenantha pavonina**—Tropical Africa and Asia. Sometimes known as red necklace bean or red sandal wood. Foliage fine and feathery, yellowish white flowers. Can be grown outdoors in mild climates, also makes a nice greenhouse plant. Soak seeds in warm water before planting. **No. 5. Astralochia grandiflora.** Pelican flower. West Indies. Greenhouse vine with heart shaped leaves and extra ordinary flowers of yellow-green, purple spotted and purple veined. **No. 6. Datura suaveolens.** Angel's trumpet—Tropical shrub with large white, trumpet shaped, fragrant flowers. Grown in a warm greenhouse or outdoors in mild climates—any of the above—25c per packet.

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

NEW POLICY AT DESCANSO

Under a new policy, any non-profit, charitable organization may have its members, in groups of 50 or more, admitted to Los Angeles County's Descanso Gardens in La Canada at a reduced fee of 25 cents per person. Descanso Superintendent John Threlkeld said that groups qualifying for the revised entrance fee may contact the Gardens by mail at 1418 Descanso Drive, La Canada. The phone is SYlvan 0-5571. Reservation blanks will be sent upon request.

"Descanso Gardens is ideal for meetings of garden clubs, women's clubs and assistance leagues," Threlkeld said. "They may conduct luncheons, fashion shows, or special meetings which may result in a contribution to some charitable cause."

—B—

THE ROBIN traveled all over Cape Cod. Only flowers or plants are in tourist places—motels and restaurants. Average home owners are too busy with the trade to do anything around their homes. Scrub pines, sand, grass and bearberries are nice once in a while, but I'm glad to get back to cool grass and shady gardens. There plants grow out of doors two to three months longer than just 100 miles west. I list my begonias when it is time to bring them in. We have had a lot of mildew and rot from too much moisture.

Ed. Watch circulation to help combat mildew and spray with good fungicide. Hold up on water and repot if condition in soil mix holds too much water to cause rotting. Too low night temperatures also are conducive to rot and mildew on wet plants. Water early in the morning so the leaves of the plant will be dry by evening.

—B—

"Jamaica has very few indigenous begonias, and they are not particularly good subjects for cultivation. On the other hand, various private individuals here have numerous imported begonias under cultivation. So far as I know, no one has ever attempted to identify these. The known wild species of begonia in Jamaica are: *B. glabra*, *B. minor*, *B. acutifolia*, *B. purpurea*, and *B. purdieana*. The last named is known only from the type specimen collected more than a century ago and never seen again."

GEORGE R. PROCTOR, *Botanist*
Science Museum Institute of Jamaica

—B—

Material for *The Begonian* must be received the first of the month prior to publication.

Leaves From Our Begonia Branches

CENTRAL FLORIDA

At the meeting at Mrs. Campbell's, Mrs. Spengler talked on growing begonias from seeds, and showed some very interesting young plants, results of her own crosses. Mrs. Campbell's collections of old china attracted much attention. Gift plants were exchanged at the Christmas party.

—B—

EL MONTE COMMUNITY

Our new officers are: Pres., Virginia Brandon; Secy.-Treas., Daisy Morrow; and Nat. Dir., Gladys Mattuket.

—B—

GLENDALE

Exhibited through the courtesy of the Southern California Camellia Society, and Col. and Mrs. Gale, were a group of beautiful camellia flower slides, accompanied by commentary explaining varieties.

Mr. Calvin Trowbridge, A.B.S. national president, installed the new officers for the coming year.

The following are the new officers: Pres., Roy Joyce; Vice Pres., Mrs. Frances Cooley; Rec. Sec., Mrs. Dorris Gifford; and Cor. Sec., Mrs. Cleo Price.

—B—

MARGARET C. GRUENBAUM

A very interesting and festive Christmas meeting was held at the farm of the president, Mrs. Frank Oehrle, Hatboro, Pa. Extensive plans were made for 1957, each member being responsible for a program during the year. Several games were played that tested our knowledge of begonias.

—B—

LONG BEACH PARENT CHAPTER

The following officers have been installed for 1957: Pres., Mrs. Alberta Logue; Vice Pres., Mrs. Winifred Caseley; Secy., Mrs. Rosa Cox; Treas., Mrs. Rose Hixon; and Nat. Rep., Mrs. Alice M. Waldow.

—B—

PHILOBEGONIA

The warmth and glow of the holiday season—the joy of friendships, and a common interest—our BEGONIAS—all were shared at the

Christmas supper party at the home of Elsa Fort.

Elsa Fort was honored with a permanent paid-up membership in the Branch and will remain our advisory consultant. Elsa's work with the A.B.S. as Eastern Public Relations Chairman is a time consuming job.

Games, gift exchange and a beautiful candle light ceremony with the singing of Christmas carols concluded a wonderful evening.

A luncheon was given by Becky Browning to "show off" gift begonias.

—B—

RIVERSIDE

New officers for 1957 are: Mrs. Jean Symons, pres.; Mrs. Lillian Maddox, vice pres.; Mrs. Olive Thaller, rec. sec.; Mrs. Ethel Prior, cor. sec.; Mrs. Kay Elmore, treas.; Mr. R. H. Terrill, nat. rep. with Mrs. Mary Gillingwaters as alternate; and Mr. Rowland Maddox, show chairman.

—B—

SACRAMENTO

Installed 1957 officers and exchanged Christmas gifts. Mrs. Emil Hansen gave a dramatic reading from the book, "The Lost Word." Al Berman entertained with songs and his ukulele.

The following are officers for 1957: Pres., Mrs. C. E. Crouch; Vice-pres., E. D. Jordan; Sec., Mrs. Gordon Long; Treas., A. L. Smith; and Nat. Rep., Mrs. J. R. Williams.

Members showed their slides of trips, gardens or flowers. The plant chairman announced that anyone who brings one or more plants for display on the Bob Gunther Memorial plant table will be given a number, and a prize will be given at each meeting for the holder of the lucky number. Everyone bring a plant and enjoy the fun. Ruthanne will talk about some of the plants. The plants must be named. If you do not know the name of your plant, bring it and maybe someone can identify it for you.

—B—

SAN DIEGO

Officers for 1957 are: Pres., Charles Williams; and Sec., Mrs. Phyllis Kausky.

—B—

SAN GABRIEL VALLEY

The new officers were installed by William Walton, past president of the A.B.S. They are

Begonia Megaptera

(Continued From Page 27)

in size. Their similarity to a large apple blossom is rather striking.

The ovary is oddly bent and asymmetrical. It has one or two large red wings on one side and two or three greenish ridges with red rims on the other. The plant produces a short, thick rhizome and is easy to accommodate.

Calvin T. Adams, pres., Arcadia; Mrs. John Fahey, vice pres., Temple City; Mrs. E. F. Slavik, sec., Arcadia; James Giridlian, treas., Arcadia; Mrs. Mary Gillingwaters, national representative, Upland; and Howard Small, director, Pasadena. The installation took place at the birthday dinner celebrating the seventeenth year of the founding of this branch.

—B—

SOUTHERN ALAMEDA COUNTY

Held its installation and Christmas party at John's Cafe, San Leandro. The officers installed were: Mrs. Edith Slutter, pres.; Evan Berg, vice pres.; Ed L. Kappler, rec. sec.; Mae Bolyard, cor. sec.; William Simon, treas.; and Vincent Peck, nat. dir.

For the Avid Flower Lover the Ultimate Is ORCHID CULTURE

The doors of our nursery are always open to you. Our trained staff is available for your assistance and guidance.

ORCHIDS ARE EASY TO GROW

Sturdy Plants From \$2.49

FREE LITERATURE ON ORCHID CULTURE
SENT ON REQUEST

Fred A. Stewart, Inc.

**CYMBIDIUMS CATTLEYAS
CYPRIPEDIUMS**

8606 EAST LAS TUNAS DRIVE
SAN GABRIEL, CALIF.

ATlantic 7-8974 ATlantic 7-0015

Stewart's is so easy to reach when in Los Angeles. Just a few miles by San Bernardino Freeway from L.A. city hall.

Propagation from cuttings presents no difficulties.

I have often been asked how we proceed to obtain seeds of new plants which we wish to add to our collection, and this may be as good an opportunity as any to explain it. The Botanical Gardens and institutions of the world maintain an international seed exchange in which anybody can join who annually publishes a list of the seeds he has available. Two copies of this list usually are mailed to each correspondent, and the recipient keeps one for reference and returns the other to the sender after having marked the varieties he wants to have. Small amounts of these seeds then are distributed free of charge to those who asked for them as long as the supply lasts, and it does not matter if one asks for many varieties but can send only a few. This is an international service to science which does not count package for package. Many Botanical Gardens make special efforts to collect seeds of the native plants of their country for this exchange. Therefore, it is often possible to obtain through this exchange seeds of plants which otherwise are not available at all. The Montreal Botanical Garden exchanges seeds with over 400 Botanical Gardens and institutions in all parts of the world, and plants also are freely exchanged, even with individuals. It is largely in this manner that our plant collections, now including over 12 thousand different kinds, have been assembled.

—B—

Transplanting

(Continued From Page 33)

transplant them soon again or not. An inch or two apart is a good distance.

Covering the flat or pot with glass right after transplanting is often a good idea. This can be gradually removed by sliding it off a little every day, or by removing it entirely for increasing periods of time daily. When the plants start to crowd each other, they can be transplanted into a soil mixture that is similar but can contain some well rotted manure. There should be no trouble with this and successive transplantings.

* * * *

(Let me hear from you on your experience and what most of all you would like to read about in this column. The address is: 683 Congress St., Costa Mesa, Calif.)

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

4th 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

3rd Friday, Members' Homes
Daisy Morrow, Cor. Secy.
2821 N. Musgrove Ave., El Monte, Calif.

FOOTHILL BRANCH

3rd Thursday, 8:00 p.m.
La Verne Community Bldg.
2039 Third St., La Verne
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
Mrs. Cleo Price, Cor. Sec.
377 Myrtle, Glendale 3, 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. Adolph Belser, Cor. Secy.
Welsh and Veree Rd., Philadelphia, Pa.

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. Antoinnett Dawson, Secy.
6243 Acacia, L.A. 56, Calif.

HOUSTON, TEXAS BRANCH

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

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

1st Thursday, 7:30 p.m.
1925 Maine Ave., Long Beach 6, Calif.
Mrs. Rosa Cox, Sec.
3592 Lewis Ave., Long Beach 7, Calif.

LOS ANGELES BRANCH

4th Wednesday, Homes of Members
Mrs. Glenn Morrow, Secy.
2821 N. Musgrove Ave., El Monte, Calif.

LOUISIANA CAPITAL BRANCH

First Friday, Homes of Members
Mrs. Thos. O. Day, Secy.
4065 Hollywood 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. Anna Peck, Secy.
23 So. Gateway, Toms River, N.J.

ORANGE COUNTY BRANCH

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

PASADENA BRANCH

Meetings on call.
Homes of Members
Col. C. M. Gale, Secy.
40 N. San Rafael, Pasadena 2, Calif.

PHILOBEGONIA BRANCH

2nd Friday, Members' Homes
Mrs. Charles J. Allen, Sec.
Woodside Lane, Riverton, N.J.

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, Secy.-Treas.

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

2nd Wednesday, 7:30 p.m.
Shamel Park, 3650 Arlington,
Riverside, California
Mrs. Ethel Prior, Sec.
4345 5th St., Riverside, Calif.

ROBINSON, ALFRED D. BRANCH

3rd Friday, 10:30 a.m.
Homes of Members
Mrs. Harlie Brown
3233 Tennyson, San Diego 6, Calif.

SACRAMENTO BRANCH

3rd Tuesday, 8:00 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

1st 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. E. F. Slavik, Sec.
300 Hacienda Dr., Arcadia, 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.

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.
Green Lake Field House
7201 Green Lake Way
Mrs. Carl Starks, Secy.
6116 Greenwood, Seattle 3, 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.

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.
Strowbridge School Multi-Purpose Rm.
21400 Bedford Dr., Hayward, Calif.
Mae Bolyard, Cor. Secy.
2425 Thornton Ave., Newark, Calif.

TALL CORN STATE BRANCH

Mrs. Edna Monson, Secy.
South Taylor, Mason City, Iowa

TEXAS STATE BRANCH

1st Tuesday night in members' homes
Mrs. William Demland, Secy.
2400 19th St., Port Arthur, Texas

TREASURE ISLAND BRANCH

4th Monday, 7:30 p.m.
Homes of Members
Miss Isabelle Sievert, Secy.
3912 Ave. "S," Galveston, Texas

WESTERN PENNSYLVANIA BRANCH

2nd Wednesday, 11:00 a.m.
Homes of Members
Mrs. Albert S. Lash, Cor. Secy.
1228 Oklahoma Ave., Pittsburgh 16, Pa.

WHITTIER BRANCH

1st Thursday, 7:30 p.m.
Palm Park Community Center,
1643 Floral Drive
Mrs. Rebecca Olson
714 N. Palm Ave., Whittier, Calif.

WILLIAM PENN BRANCH

3rd Tuesday, 2:00 p.m.
Homes of Members
Mrs. Ernest C. Drew, Sec.
Box 331, Narberth, Pa.

C O N T E N T S

Begonia Megaptera.....	27
Gift Plant Care.....	28
Begonia Echinosepala Regel.....	29
Begonias Without Soil.....	30
Keeping Them Happy: Odontoglossums and Oncidiums.....	31
A Million Begonias.....	32
Seeds, Seedlings and Hybrids.....	33
It's for You; the Arboretum.....	34
Registration and Nomenclature.....	35
Fluorescent Lighting for Shade-Loving Plants.....	37
Begonia Leslie Lynn.....	38
Africa Story.....	39

POSTMASTER:
Return Postage
Guaranteed
1415 Acacia
Torrance, Calif.

BEGONIAS, GERANIUMS, EXOTICS
Houseplant Specialists for 50 Years
Illustrated catalogue, 1,000 varieties, 10c.
LOGEE'S GREENHOUSES
Danielson, Connecticut

MINIATURE ROSES
for Pots, Edging or Low Hedges
1 RED, 1 PINK, 1 YELLOW, 1 WHITE
4 for \$5.00, Postpaid
KENNETH TERRY
2314 Harriman Lane, Redondo Beach, Cal.

HYPONEX[®]
SOLUBLE PLANT FOOD COMPLETE
Grows Better Plants in Soil, Sand or Water
Simply dissolve and water all your house plants, garden flowers, vegetables, shrubs and lawn. Feeds instantly. If dealer can't supply send \$1 for 1 lb. Makes 100 Gal. 
HYDROPONIC CHEM. CO., Copley, Ohio, U.S.A.
Guaranteed by Good Housekeeping
NO ADVERTISED TRADING

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. 

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

RARE HOUSE PLANTS
Beautiful exotics. Also old favorites. Many Begonias, Gesneriads, etc. Extensive catalog 10c. Includes cultural instructions for hundreds of varieties.
BARRINGTON GREENHOUSES
P.O. Box 85 Barrington, N.J.

SPOONIT
FLOWER FOOD
Send postal card for sample & information.
PLANTSMITH
Box 818 Palo Alto 3, Calif.

BEGONIAS, FUCHSIAS & A COMPLETE SELECTION OF ALL PLANTS FOR THE SHELTERED GARDEN
RAINBOW NURSERY
1635 W. Florence Ave.
PLeasant 3-6121 Los Angeles 44, Calif.

Palos Verdes **Begonia Farm**
4024 Pacific Coast Hi-way, Waleria, Calif.

TUBEROUS BEGONIAS
COMPLETE SELECTIONS OF BEGONIAS AND SHADE PLANTS
FUCHSIAS — CAMELLIAS
OPEN EVERY DAY
Complete Nursery & Garden Supply Shop
1 1/2 Miles E. of Redondo Beach
Hi-Way 101

Knott's Berry Farm & Ghost Town
BUENA PARK, CALIF.
(From L.A., take Santa Ana Freeway to Buena Park, then South 2 miles.)
In Our Nursery at the South End of the Large Berry Market . . .
FUCHSIAS
BEGONIAS
FERNS
SHADE PLANTS
SUPPLIES
STAY FOR DINNER
Chicken Dinners + Snack Bars + Steak House
12-8:30 p.m. Daily 12-8:30 p.m.
ex. Mo. & Tu. 12-9 p.m. ex. Friday