



July/August, 1988

*The* BEGONIAN



# The BEGONIAN

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*Publication of the American Begonia Society*

## **American Begonia Society**

Founded January 1932 by Herbert P. Dyckman

### **Aims and Purposes**

To stimulate and promote interest in begonias and other shade-loving plants.

To encourage the introduction and development of new types of these plants.

To standardize the nomenclature of begonias.

To gather and publish information in regard to kinds, propagation, and culture of begonias and companion plants.

To issue a bulletin which will be mailed to all members of the society.

To bring into friendly contact all who love and grow begonias.

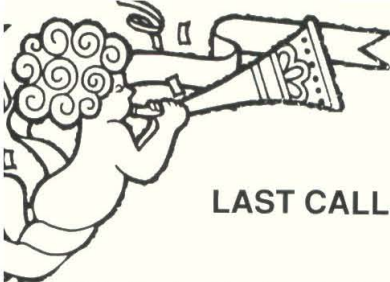
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## LAST CALLS!

**July 9** is the deadline for submitting names for ABS' three highest awards: the **Eva Kenworthy Gray Award**, the **Herbert P. Dyckman Award for Service**, and the **Alfred D. Robinson Medal** for outstanding begonia hybrid. Please write to Awards Chairman Michael Ludwig, 7007 Mt. Vernon Ave., Lemon Grove, CA 92045 and tell him who (or which plant) you think deserves to be honored, and why. For a list of the criteria for nomination and for a list of previous winners, see the May-June **Begonian**, pp. 92-3.

**Our membership contest ends July 31** - you have until then to receive credit for signing up new members and giving gift subscriptions to plant-loving friends and relatives, the local library, school, or botanic gardens. Please write membership chair John Ingles, Jr. at 923 E. Francis, Corona, CA 91719 and list for him: your name, your branch, and the new member(s) you have signed up. The individual signing up the most new members will receive a \$25 gift certificate from Kartuz Greenhouses and a one-year first class subscription to the **Begonian**; the winning branch will receive a \$50 gift certificate from Kartuz Greenhouses. Both individual and branch receive credit for each new member. John says memberships are pouring in!

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*Begonia bulbifera*

## COVER PHOTOS

Front: Gene Daniels took this picture of the garden of the late Ethel Reid in Ventura, CA in 1972. See article, p. 119.

Back: The photo of the grouping of Clips begonias was taken by Don Miller at Northaven Gardens in Dallas, TX. See article, p. 123.

## The Barkley Begonia Collection

by Wanda Macnair

Dr. Fred Barkley was for many years a botany professor at Northeastern University in Boston, Massachusetts. He encouraged his graduate students to use the family *Begoniaceae* for their studies, and he spent every vacation in the field, primarily in the countries of Mexico, Colombia, and Honduras, collecting begonia species. With the addition of plants sent by Orpha C. Fox and Rudolf Ziesenhenné, among others, the collection of begonias in his office proliferated, and soon filled a small greenhouse at the N. U. greenhouse complex.

The results of studies using the collection culminated in the publication of Species of the Begoniaceae, by Dr. Barkley and Jack Golding. Publication was financed by contributions from the Knickerbocker, Long Island, and Buxton Branches, and individual members.

The nucleus was in place for an outstanding begonia collection in New England. Several species were added through donations by Mike Kartuz, Merry Gardens of Camden, Maine, and the Montreal Botanic Gardens. In recent years additional species and cultivars have been donated by branch members, Millie and Ed Thompson, Mabel Corwin, Joan Coulat, Goldie and Douglas Frost, Helene and Charles Jaros, and the ABS Seed Fund. Currently the collection includes approximately 120 species and almost 300 cultivars, and covers 1200 square feet. Greenhouse manager is Eugene Courtney, a Buxton member; he is assisted by Raymond Everett. Buxton Branch members devote Tuesdays and Thursdays to keeping up with grooming and culture.

The greenhouse which holds the Barkley Begonia Collection is located at 35

Cambridge Road, Woburn, Massachusetts, and is open Monday through Friday from 8 a.m. to 5 p.m. During the 1988 national convention, shuttle buses will run between the hotel and the collection throughout the day on Thursday for informal tours.

*Wanda Macnair, ABS convention chair, is a volunteer who works with the Barkley collection. Her address is 177 Hancock St., Cambridge, MA 02139.*



## CONVENTION 88!

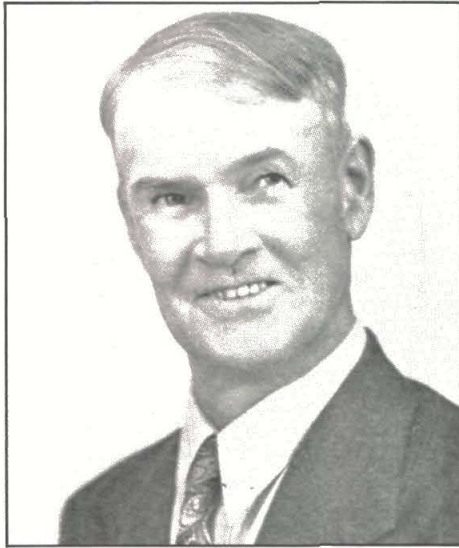
Registration packets for the ABS Convention 88! were mailed in early June. If yours has not arrived, contact Corliss Engle, 26 Edgehill Rd., Brookline, MA 02146 and she'll send you another. One hundred rooms have been reserved at the hotel; please get your registration in early to guarantee that you will have a room. Note the information in your packet referring to special savings on car rentals and other transportation arrangements.

In addition to tours of Boston, Harvard's glass flowers, Wellesley College greenhouses, and Logee's Greenhouses, there will be shuttle vans transporting visitors for informal tours of the Barkley Collection.

There is a special division in the show schedule for travelers: eligible for entry are plants (in pots up to 4") which have been brought by air, or which have travelled more than 200 miles. Distance travelled will be taken into consideration in judging.

The Bessie Buxton Branch is looking forward to seeing you in September!

## HERBERT P. DYCKMAN, ABS FOUNDER



by Rudolf Ziesenhenné

Railroad as an assistant yard master. He was married to Miss Gladys d'Lavergne on February 7, 1912, and they resided in Livingston until 1922, when they moved to Long Beach, California. It was reported that his flower and vegetable gardens were greatly admired in Livingston and surrounding communities.

Dyckman became interested in begonias when he moved to California, and began his study of the genera with a rex leaf from which he grew his first begonia. He read everything he could find on begonias and visited people who grew them and made a study of soils and other rooting mediums.

Herbert P. Dyckman, founder and first president of the California Begonia Society (which on June 3, 1934, became the American Begonia Society) was an honest, modest person who loved his fellow man. He was born April 11, 1884, in Aurora, Illinois, about 40 miles west of Chicago. His parents had settled first in the east but later moved to the midwest. As a boy he spent several years on a farm, and, as early as five or six, he planted his own flower beds with the common annuals of the day.

Dyckman completed grade school in his early teens, and, after assisting his mother in raising and educating his younger brothers and sisters, went out on his own to earn a living. He served time as a cutter in a meat market and then, to satisfy his youthful urge to roam, spent a few years traveling around the United States, working at various different jobs, but always interested in horticulture and farming.

After his return to Aurora, the Dyckman family moved to Livingston, Montana, where they ranched for several years. Later Dyckman was employed by the Northern Pacific

While Dyckman worked as a millman at the Century Lumber Company in Long Beach, he attended night school to further his interest in begonias. When he lost his job during the depression, after nine years with the firm, Dyckman's hobby became a serious part of his life. In 1928 he had produced the rex begonias 'Dela Dyke' and 'Pink Lady' and he had improved his 6 x 12 foot lathhouse to 12 x 18 feet. In 1928 he exhibited rex begonia specimens at the Annual Dahlia Show in Long Beach and in 1930 he and Fred M. Riedman again exhibited begonias which aroused much interest. Staying at the show with his plants, Dyckman talked about them to visitors, some of whom became so interested that he invited them to his home in December 1931 to discuss begonias. As a result of this meeting, a group met at the home of Clayton M. Kelly the next month, in January, 1932, to form a begonia society. Those attending were Dyckman, Kelly, Roy Berry, L.G. Wylie, A.S. Hunt, Fred M. Riedman, J. Paul Walker, Roy McGaughery and Carl Fisher. Thus the California Begonia Society was formed.

During the 1932 Olympics the aquatic activities were held in Long Beach and the program authorities appointed Dyckman supervisor of the Olympic Games Beautification Program sponsored by the Long Beach Chamber of Commerce. Later he supervised about 500 city-sponsored thrift gardens for the unemployed.

In the fall of 1933 he started teaching home gardening in the Adult Education Department of the Long Beach City School District, where he continued until World War II. His classes were always full and very popular, and gave him an opportunity to recruit new members for the begonia society.

In 1934 Dyckman started a nursery, growing begonias and exotic plants as well as cut flowers, but he had to close the business in December 1936 when a severe frost destroyed his plants. He had managed to save some of his rex seedlings, including B. 'Prince of Wales,' B. 'Lucy Meyer,' two Van-ex plants, B. 'Esther Randall' and an unnamed begonia.

Dyckman was re-elected president in 1933 and became a very active member of the newly-named American Begonia Society. At the December, 1933 meeting the society decided to publish a monthly bulletin which first appeared in January, 1934. This bulletin gave Dyckman chance to share his begonia knowledge. He wrote on the following subjects: classification of begonias for shows, *tuberous begonias*, *fibrous begonias* (1934); new varieties and hybrids (1935); winter-blooming begonias, early spring bloomers (1936); January to June "Do It Now" column (1937); January to September, begonia checklist (1938); for members living out of California, begonia hints, hints for July, timely hints for November, winter and spring bloomers (1941); timely suggestions (1942). Dyckman also assisted in compiling Cultural Bulletins and in 1936 the society published the Bulletin on Cultural Directions for Tuberous Begonias, followed by the Cultural Directions for Fibrous Begonias.

Dyckman served the society in many capacities, including Chairman of the Nomenclature Committee, classification of begonias for show purposes (1934); Treasurer's Books Committee (1935); Cultural Directions Chairman, Chairman of the Nomenclature Committee, Committee to classify begonias for shows, Committee to Revise the Constitution (1936); member of the Board of Directors of ABS (1937); Vice-President, honorary Director (1940); National President (1941); Past President, Life Member (1942); Chairman of the Nomination Committee (1949).

In 1939 the Dyckmans took a long trip, visiting gardens in Canada and the United States. He visited the New York Botanical Garden and Mr. T. H. Everett, the horticulturist in charge of a large begonia collection. In 1939, the Herbert P. Dyckman Branch was formed at California Heights.

Dyckman lectured about begonias to branches and other groups. In May, 1941, he appeared as a guest speaker on the "Nike Planter's" show of radio station KMPC in Los Angeles.

Herbert P. Dyckman died May 9, 1958. Gladys Dyckman continued her interest in the society and its activities. At the 1976 Convention in San Diego Mrs. Dyckman called me over and said, "I promised Herbie on his deathbed that I would attend every convention I was physically able to. I want you to know I have done this." Gladys Dyckman died January 15, 1977.

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*Rudolf Ziesenhenné, begonia grower/scholar/hybridizer, lives at 1130 N. Milpas St., Santa Barbara, CA 93103.*



## THE ROLE OF MICRONUTRIENTS IN PLANT NUTRITION

by Louis C. Manning, PhD.

Bob Hamm's excellent article, "Soils, Ideas Old and New" in the March-April issue of the **Begonian** is well-timed. One thing Bob didn't stress enough is that this relatively new genre of potting mixes is essentially non-nutritive. They merely support the plant in an *upright position and retain moisture*. Another important fact to be remembered is quite simply that almost no commercially available plant food mix is even approximately complete. Most merely contain the basic nitrogen, phosphorus and potassium (NPK) known since the last century, and that's it! The result of poorly balanced NPK mixtures is to over-supply nitrogen generally and ignore the plant's demonstrated need for as many as sixty other "micronutrients" (as reported by V. Sauchelli, p. 21, "Trace Elements in Agriculture").

All living things are related in the sense that everything requires adequate enzymatic function, be it man, beast, or begonia. Much of this is dependent upon the catalytic action of microscopic amounts of these micronutrients. While many of these elements are used by living organisms only for catalytic action, a goodly number of them are assimilated into the tissues. Dr. Henry A. Schroeder stated in a speech (reported in the "Spex Speaker," Vol. 6, No. 2, 1961) that manganese, iron, cobalt, copper and zinc are essential to life in man and are also of proven essentiality to plant life. Three other elements, titanium, nickel and vanadium, act as catalysts in biological reactions but are not regarded yet as essential for life.

What can plants extract from the growing medium we provide? Certainly not anything

that isn't there to begin with. Ergo, let us give them the elements they really need: an excellent opportunity to begin anew with no pollutants, real or imagined! However, they need such small quantities that these elements must be provided with the greatest precision. That is why we must stick to the Cornell mix genre of potting mixes, or else risk certain failure. Earth soils show great variations in make-up. Alina K. Pendas, in her most informative volume, "Trace Elements in Soils and Plants," reports more than twenty-five distinct types of soils around the world, each deficient in some respect or polluted from some cause. Here in the United States the soils around the Great Lakes are singularly deficient in iodine. Great deficiencies are found in the soils of the coastal plains of the Atlantic and Gulf Coast. If you live in the San Joaquin Valley of California you are in luck, as these soils are probably the most productive on earth and more scientific investigation on the mineral make-up has occurred there. Soil maps of the country have shown that in thirty states a deficiency of manganese is reported; boron is deficient in forty-four states. The reporting of these data have excited farmers to apply elements indiscriminately, sometimes with a great loss resulting. The application of as little as twenty pounds of borax per acre, i.e. one ounce per one hundred square feet, was ruinous to a commercial crop.

A Czech investigator, S. Nikolic, reported in a paper read before the Sixth International College of Soil Science in 1956 that the then current list of eighteen essential elements would certainly be expanded. He carried out experiments with the NPK mix-

ture enhanced with the addition of nickel chloride, cobalt chloride, sodium fluoride, and ammonium fluoride. His experiments on the oat led him to conclude that NPK was better utilized in the presence of these elements.

I'm going to risk boring you with some of the history of important research on this subject. Please bear with me. It's worth knowing.

Shortly before World War I, two pioneer investigators named Sachs and Knop commenced to investigate plant nutrition requirements in the laboratory under closely controlled conditions. They grew plants hydroponically, i.e. in distilled water, with the then-known nutrients: nitrogen, potassium, and phosphorus in carefully regulated amounts. Meeting very limited success, they then began to add other elements known to exist in the soil. The result of this pioneer experimentation was the recognition of the need for sulfur, calcium, magnesium and iron in plant sustenance. The publication of their findings, epic at the time, led to more diligent work by other investigators.

In the early 1920s, K. Warington of the Rothampstead Experimental Station in Harpenden, England, commenced work with "broad bean" plants. She had been experimenting with various nutrient solutions of the same general nature that Sachs and Knop had used but with a minute amount of boron added to the nutrients of some of the plants. She noted a striking difference in growth and vigor in those plants that had received the boron. Later Dr. D. R. Hoagland confirmed these results in similar tests at the University of California, Berkeley. Hoagland was to find, largely by chance, that zinc benefited fruit trees suffering from the disease "little leaf" and the serious citrus tree disease "mottle leaf." The essentiality of zinc and boron has become so firmly established that zinc was to become second in importance to nitrogen in agriculture in California and several other Western states.

Before the publication of Hoagland's confirmation of Warington's findings, Stout and Johnson had established the need for manganese and, shortly thereafter, copper in plant culture.

As this was happening, Australian scientists demonstrated that certain, if not all, higher plants were benefitted by the addition of very small amounts of molybdenum. This was of great significance in the development of reclaimed land in The Netherlands and China as well as Australia. From the 1920s through the 1950s very precise analytical procedures were developed and through their use we were able to determine that both sodium and chlorine are needed in microscopic amounts.

Now, as Begonian talking to Begonian, let's understand one very important thing: if a little is good, a whole lot is not necessarily better. These additions of ammendants to the plant rhizosphere - the growing region next adjacent to the roots - must be done with great precision or the plant will suffer greatly and immediately. Also, consider that a lot, if not all, plant failure may be attributed to pollution of this rhizosphere.

When the aforementioned discovery of the requirement of sodium and chlorine occurred, a very dear friend of mine who was much disposed to radical fundamentalist beliefs took this as a sign from the Almighty to go forth and "salt the earth." Needless to say, the results were disastrous. At first, he was overjoyed to note a marked improvement in his fields, then - silence. So elated had he been at his earlier success, he had gone out to his fields again and given them a "good salting."

Not that I want to discourage experimentation. I simply don't want to cause a disastrous disappointment and a needless failure. The most sensitive instrumentation is needed to measure the chemical make-up of the soil, hence the Cornell mix genre of potting mixes are to be preferred unless the



reader wishes to start by growing hydroponically in distilled water.

We live in a world so vastly different from the world in which I was born (1919), and many marvelous things have occurred which have greatly improved our lives. However, there are booby traps at every hand. A good example of this is in the recent craze for adding epsom salts to everything that grows. Surely, it is beneficial to add magnesium and sulfur to the rhizosphere in correct amounts; roses especially benefit from a fairly large amount of epsom salt, but a rose is a rose. I recommend that a tablespoonful of magnesium sulfate be placed at the roots of a rose bush commencing at first growth in the spring and repeated at monthly intervals for a total of three applications. But don't get carried away! My goodness, the same treatment in another part of the country might be fatal! And certainly don't do it to so delicate a plant as a begonia. TAKE IT EASY!

With these wonderful modern times have come some wonderful instruments, tools the early investigators couldn't have dreamed of, such as the computer that supports the chromatoscope and can detect elements in parts per billion. Oh, you can't afford one of those, but the your state Department of Agriculture can, and they will analyze your soil for you. The mere reporting that an element is present in "trace" amounts is no longer acceptable; we must know more precisely. Czechoslovakian investigators determined that probably every element in the periodic table is required for good plant nutrition; even lead (that bane of the ecologists) is required, though in only the most microscopic amounts.

Also, we must bear in mind that very closely related plants require widely differing amounts of the same element. For instance, ryegrass requires 21 ppm (parts per million) of iron while alfalfa requires 1,000 ppm; red clover requires .01 ppm of molybdenum and white clover needs 156 ppm. So it goes, element after element, plant after plant.

Just for pure cussedness, not every plant of the same seed lot will absorb the same amount of a given micronutrient. Some won't absorb any! Each individual plant operates as its own law. They do, however, generally follow the same characteristics overall, and that certainly makes the growing of field crops a great deal simpler.

Who said it would be simple for you? You will have to do a limited amount of experimentation as you go along. But, haven't you been doing that anyway? That ancient Roman, Cicero, advised us best when he said, "Make haste slowly" - but not too slowly, please. I'm old now and the fun is only beginning. Just trying to stay current on knowledge has become a travesty. We can't know everything we need to know, but let's approach knowledge for the benefit of mankind. Let's not pollute knowledge with trivia and thereby impede learning.

Here is a formula for a micronutrients solution which I have used successfully in past years. It is from Montague Free's book All About Houseplants.

Add to 1 liter distilled water:

ferrous sulfate	5 g. (grams)
boric acid powder	2.5 g.
manganese sulfate*	2.5 g.
zinc sulfate	2.5 g.

\* not Epsom salt

It isn't the last word, but it has done wonders for me in the past. I used to apply it meticulously to my vegetable garden, with spectacular results here in Georgia. I pass it along to you with the hope that it will be beneficial to you with the soil where you live. But this was in soil, not potting mix. Your search for the ingredients that work for you may be interesting (in a simpler time, they could be found in the medicine chest). If you use this solution with potted plants, add one teaspoonful to two gallons of plant food; but do not allow this mixture to stand for more than two weeks after mixing with the NPK in your plant food.

A similar formula from Taylor's Encyclopedia of Gardening (all measurements in grams) is:

Add to 0.5 liter of distilled water:

ferrous sulfate	2.5
boric acid	1.4
magnesium sulphate	0.9
zinc sulfate	1.1

To use, add 2 teaspoonsful (10 cc) to two gallons of dilute plant food.

The above formulas are given in the assumption that you follow the widely-used practice of watering your plants with 1/8 strength liquid plant food.

Let me tell you of a naive experiment of mine. I'll tell you also of its failure, hoping you may sidestep the same. Vitamin B first came on the market as a plant food supplement back in the 1930s. I used it most successfully on a rose bush. Why, I asked myself, couldn't I try a vitamin tablet in the Miracle Gro that I use on my begonias? The Centrum vitamins that I take also contain: calcium, 162 mg; phosphorus, 125 mg; iron, 25 mg; magnesium, 100 mg; copper, 2 mg; manganese, 5 mg; potassium, 30 mg; chlorine, 27.2 mg; chromium, 25 mcg (micrograms); molybdenum, 25 mcg; selenium, 25 mcg; and zinc, 15 mg. Why not give it a try? I dissolved one tablet in a gallon of distilled water, added my Miracle Gro to it, and watered my prized B. 'Moonstone' with the mix. "Moonstone" absorbed nitrogen so fast the plant seemed to turn to water as I watched! I do use the vitamins in my plant food mix, but at a considerably greater dilution. If the doctor tells you to take a 500 mg antibiotic tablet twice a day for ten days, he wants you to ingest ten grams of antibiotic, but, please, not all at once! Nothing better than common sense has ever been invented, not for anything.

In your own experimentation, use careful measurements. Good chemical balances are not prohibitively expensive. Use a metric scale; it's the simplest, and least prone to error, system on earth. Read, learn, make notes, share your results with others, publish

if possible. But be certain of your facts when you do.

If you want to experiment, expect failure. It is part of the price you must pay to push back the frontier of knowledge. If you learn why you failed, then your "failure" is really a triumph for all of us.

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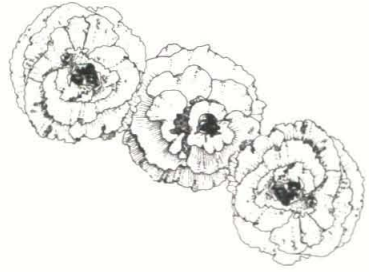
Sodium (title of society unknown) Nature. Vol. 179, p. 635.

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Wonderfully qualified to tackle the subject of micro-nutrients, Louis Manning, PhD., is both a chemist and an avid gardener. He has great success in growing begonias from seed, and has recently germinated some of the Malaysian seed mentioned in the O'Reilly article (the **Begonian**, March-April, 1988). Dr. Manning's address is 6620 Ramgates Way, Norcross, GA 30093.



In May, 1972, Gene Daniels began four articles describing the techniques long-time ABS member Ethel Reid used to grow the spectacular tuberous begonias seen in his cover photo. Mrs. Reid is no longer with us, but memories of her lovely garden remain. In condensed form, Gene's articles are being re-printed here and in the September-October issue.



## TUBER HYBRIDS, THE ETHEL REID WAY

### PART 1

by Gene Daniels

Ethel Reid's home in Ventura, California, attracted eight hundred or more people in one day, from areas as far away as South Africa. The big reason was a massive display of six hundred specimen plants of Tuberous Begonias...Here are the major points of her cultural method.

A begonia tuber should be started when the buds are beginning to show, by burying it about an inch below the top of the starting mix. The tuber will root from the top and the bottom, as well as the sides; consequently, the root system will be stronger in the pot. A huge root system is the only way to have a huge plant.

Start tubers in very coarse oak leaf mold, being certain to provide a great deal of space between them, and never putting more than eight tubers to a flat. Soak them thoroughly and keep them evenly moist. When the leaves are 3 to 4 inches long, water the plants heavily and then allow them to rest a day before lifting them from the flats for potting.

The size of the root system dictates the size of the pot. The pot should be at least 3" to 4" larger in diameter than the root system, regardless of the size of the tuber itself. An 8" fern pot (shallow) is usually the smallest ever

used. There is no need to keep potting a plant up in size during the season. The chances are that any attempt at this will break off a main stem and ruin a good plant. Never press the mixture down around the plant when potting. Merely tap the pot on a bench a couple of times to secure the soil.

When you can find it, mix two good fistfulls of fishmeal into each pot of tuberous mix. If fishmeal is unavailable, cottonseed meal may be substituted. Ethel used three parts coarse oak leaf mold and one part sharp builders' cleaned sand for her mix.

A heavy bamboo stake is best put into the pot at this time on the side away from the points of the leaves so that it will be at the back of the plant. If a stake is positioned early in growth it will allow roots to grasp it tightly and make for more security. Later, it can be removed and a taller stake of the same diameter will slip into the hole and remain steady.

Tying the plant to the stake produces a potential hazard. If the plant is growing well, the main stalk can reach 3" in diameter. It is best tied with a figure eight around the stem and stake, with a tie made of raffia, although round paper-covered wire will do. The tie

should be crossed loosely behind the stem and then tied very securely to the stake. It is imperative that enough slack is left in the tie so that it does not bind as the stem grows in diameter.

As soon as active growth appears, fertilize with "Green Thumb" liquid fertilizer, one tablespoonful to a gallon of water. Applying every two weeks. When signs of flower buds appear, change to one tablespoonful of "High Bloom" and one tablespoonful of "Atlas Fish Emulsion" to one gallon of water. These are brands available in the Southwest and Mrs. Reid insisted that they are the only materials that will not burn the plants. "High Bloom" is very low in nitrogen and high in potassium and phosphorus. "Atlas Fish Emulsion" is low in nitrogen.

Ethel Reid never used less than one-half gallon of fertilizer per plant! Her intention was to soak thoroughly every drop of mix in the pot, with fertilizer or water, whichever she was using at the time. This fertilizing continued at two-week intervals until mid-October.

It is important that the plants have extremely good drainage. A careful knock with a hammer will enlarge the hole in a clay pot. Ethel used plastic pots exclusively as they are cleaner. She enlarged the holes with a hot soldering iron. With this proper drainage, she believed in thorough watering each time the top surface of the mix got dry.

At planting time, and for the next month or so, the decision must be made whether you want lots of smaller flowers or fewer but larger ones. From a 2" or 3" tuber, one stem will produce larger flowers; two stems will give more but smaller bloom. More than two stems is usually unnecessary. A 4" or 5" tuber can handle two stems comfortably and still produce great numbers of large blooms. If two stems are left, they should be selected for vigor and their leaves should point in approximately the same direction. This way all the flowers will be showing on one side, which is the proper way to grow tuberous

begonias. A tuber does not grow well if it is isolated and made to grow on all sides; when grown near walls or shrubbery, it can easily obtain much needed moisture from them.

Mrs. Reid developed a safe method of removing the additional stems and, at the same time, starting these stems into new flowering plants the same year. A few hours after watering, grasp the extreme base of the unwanted stem and pull with a steady, twisting motion. Sometimes a tiny edge of the tuber will come with it, sometimes one or two small roots, but neither is necessary. Because this plant was watered prior to this action, no additional water needs to be added to the wounded spot for a few days, and the air getting into the open hole in the mix will heal the mother tubers quickly. Do not push mix into the open hole. It will fill in rapidly from future waterings anyway.

The removed stems will root nicely in straight leaf mold in a flat. Place these cuttings 2" apart and they will flower the same summer, and make identical plants the next year. Allow them to remain in the flat until spring of the following year. Do not allow them to dry out completely during the winter.

Stem rot is sometimes a major problem, and Ethel found most of the reasons and some of the cures. A heavy hand with a watering wand bumping against a stem is a major contributor. Watering should be done from an open-end hose or large diameter pipe permitting water to trickle very slowly onto the loose mix so as not to pack it down or wash it up against the stems. If leaf mold does get on the stems it is a good idea to wash it off.

But the main cause of stem rot is allowing blossoms or stems to remain loose and rotting on the plant or on the surface of the mix. Ethel's special preventive against stem rot was to remove the mix carefully from directly around the stem and substitute silica sand (sharp sand) around the stem. It acts just like a clean, dry bandage if any problem

should develop. If stem rot does occur, and it can happen regardless of care, cut it away cleanly with a very sharp, clean knife (easier than a razor), and dust CAPTAN, available in agricultural supply stores, onto the open wound. Good ventilation will also help.

Old flowers should be removed by snapping only the blossoms, not the stem, from the plant. Bad leaves may be removed by snapping the petiole (leaf stem) about 3" or 4" away from the main stem and then allowing the remaining part to rot slowly, dry up, and fall off with no additional help. Do not snap it close to the main stem or rot might spread throughout the plant. If it is snapped off 5" to 6" away from the main stem, the remaining butt sometimes dries, but remains an unsightly stub on the plant.

The plants will do best where they get lots of light and, in a cooler area, even direct sun early and late in the day. But if they are to get direct sun, it is imperative that they be conditioned to the sunny area from the initial planting, and not moved into position after they have begun to flower in a more protected, shaded place.

The ideal location for tuberous begonias is where they can create their own environment. By this, Ethel meant where they are grown in large numbers with lots of ferns and other companion shade plants around to give off humidity. She was completely opposed to fogging or misting either the blossoms or the plants themselves. Instead, she suggested that walls, the ground, other plants, everything except the begonias should be misted and then the tuberous begonias can accept the high humidity naturally.

Like everyone else, Ethel Reid contended with mildew and pests. At the first sign of mildew, or even before, plants, benches, and shrubs were given a solid dose of Doospray (Doospray is no longer available, although other Karathane products

are). After this initial major treatment, the tuberous begonia plants were spot-sprayed as needed, hitting all parts of the plants, including the stalks.

With her preventive treatment mildew usually did not get on the blooms. If it did and the bloom was especially desirable, she peeled away the outside petals which were hit first by the mildew, thus leaving a quality flower.

Three times during the growing season, the plants received a dose of a "double-duty" systemic, which pretty well eliminated most insect pests. This left snails and slugs to contend with. Ethel used an early spray of a liquid slug and snail chemical throughout the garden, to everything *except the begonias*. This included pots, benches, fences, everything that might house or feed pests. Following the major preventive spray, snail and slug baits of different brands were alternated as needed, applied to everything except the potted plants.

This was her basic plan of attack against pests. But she warned that it is entirely inadequate by itself. Thorough grooming and inspection of each plant throughout the growing season is the real way to keep clean plants. At least three times per season each pot was lifted from its position, placed on a pedestal of convenient height, and literally searched. If small holes in the leaves were visible, she used a hand-held magnifying glass to find the tiny worms hanging by their own threads. She checked each leaf carefully, top and bottom. Stalks were given special attention in the search for mildew or rot.

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*After many years in Ventura, CA, Gene Daniels is living at 3631 Valley View Lane, Flower Mound, TX 75028. Part II will cover winter storage of tubers and hybridizing.*



## COMING EVENTS

June 25-October 3: Phipps Conservatory and Edna Stewart Pittsburgh Branch summer display of begonias, at the Conservatory.

July 30-31: San Francisco Branch annual show and sale, Tanforan shopping mall, San Bruno, CA.

July 30-31: San Gabriel Branch Show at the Los Angeles State and County Arboretum at Arcadia. Open to the public Saturday 1-4 p.m. and Sunday 9 a.m.- 4 p.m.

August 16-17: The London Begonia Society annual show at the Royal Horticultural Society Hall in Vincent Square, Westminster, London. For information write Jean Hopkins, 9 Dukes Ride, Silchester Reading, Berkshire RG7 2PX, England.

August 19-21: Palomar Branch Show, open to public Saturday, 1-5 p.m., and Sunday, 10 a.m. - 4 p.m.

August 20: Orange County Branch Begonia Fiesta.

August 26-28: San Francisco County Fair-Flower Show, 10 a.m. to 6 p.m. Preview August 25, 6:30-8:30 p.m. San Francisco County Fair Building, 9th Ave. and Lincoln Way in Golden Gate Park. Admission \$3, seniors \$2, children under 12 free.

September 9-11: Sacramento Branch Show and Sale.

**September 15-18: ABS Convention 88!, "Begonias in Boston," Burlington, MA.**



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## CLIPS BEGONIAS

by Don Miller

The Clips begonias are the easiest tuberous begonias to grow. They produce numerous medium-sized flowers in many colors, some being double and others semi-double. In cooler regions of the country, they will bloom as bedding plants all spring and summer and, because of their higher tolerance for heat and sun, they will bloom from early spring through early summer even in the hotter regions such as Dallas, Texas. Their inability to perform in hot summers probably is related to excessively high nighttime temperatures. Their ideal temperatures are 62° at night and between 70° and 75° during the day.

A fairly recent introduction in the X tuberhybrida multiflora maxima group, Clips were developed by Benary, an old West German nursery which has been hybridizing tuberous begonias for over a century. This begonia group, with its smaller and more numerous flowers, was developed when *B. davisii* was crossed with other tuberous species and early hybrids by Benary and others. In South America, *B. davisii* and other species used in breeding this group grow high in the Andes mountains. Characteristics which *B. davisii* has brought to this group include a dwarf habit of growth, attractive foliage, and the habit of flowering quite high above the foliage.

An improvement over the very successful Non-Stop begonias, the compact Clips plants produce numerous double and semi-double flowers 2" to 3" in diameter in scarlet, rose, pink, salmon, orange, yellow, and white. Sturdy growth, strong basal branch-

ing, and small leaves make this group excellent blooming plants for 4" or 5" pots. Whether potted or used as bedding plants, they like a well-balanced soil mixture with plenty of peat moss and some perlite or coarse sand for good aeration. They respond to a weekly feeding with a well-balanced fertilizer, such as 20-20-20. To eliminate tuber production and induce flowering, about five hours of extra light after dusk is required from October through March.

As for pests and diseases, Clips will be damaged sometimes by bacterial leaf spot. Treat this with a copper fungicide. Occasionally these begonias are attacked by spider mites or cyclamen mites, with the result that new growth is distorted and stunted. These mites can be controlled with nicotine sulphate or pentac. Thrips, an insect about 1/16ths of an inch long, can attack the tips of new growth and prevent flowers from opening. Lindane or Orthene will control thrips.

Clips begonias, with their show of brilliant colors, are a treat not to be denied any lover of beauty. Wherever you live, plant these glorious begonias and enjoy them while they last. When they leave, take comfort in the Oriental belief that, though beautiful things must be released and made free, destiny provides that more beauty soon will follow.

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*Horticulturist Don Miller is Vice-Director of the Southwest Region and past President of Dallas Area Branch. His address is 1005 Mt. Auburn, Dallas, TX 75223.*



## TIPS FOR BEGONIA BEGINNERS

by Dorothy Patrick

When learning about different types of begonias, you will need the Thompsons' Begonias: The Complete Reference Guide, which is not only full of cultural advice but has lists of the popular begonias that do well for beginners. But to get you started, here is a very brief description of the groups of begonias a beginner might start with:

**CANE-LIKE:** The stems of canes, if stripped of all their leaves, would resemble upright stalks of bamboo, just thinner and not as tall. They have swollen nodes (the places from which new leaves grow) all up the stem, and the nodes will be separated from each other by fairly even spaces. Their leaf shapes, leaf edges, and leaf color can vary widely. Many are splashed with silver or white patterns. You may hear them called "angel wings." They are most widely known and loved for their spectacular clusters of blooms, which can also vary in color. Canes can be found in many stores with plant departments; rooted cuttings may also be available. They may or may not be correctly named - but don't let that stop you. It has been my experience that I do the very best with begonias I raise from a very small plant. We have an opportunity to get used to each other that way (and that applies to begonias in all the groups).

**SHRUB-LIKE:** Shrubs can vary in leaf size, shape, and color also. They tend to be bushy, and some have very hairy-textured leaf surfaces. I included them because I have seen several varieties in the plant departments of grocery stores. Three which are easy to find are *B. 'Argenteo-guttata'* and *B. 'Medora,'* (both commonly called "trout leaf begonia" because of their speckled leaf pattern), and one which is radically different, *B. 'Thurstonii.'*

**THICK-STEMMED:** As the name implies, thick stems are a prominent feature of this group, even when the plants are very young.

Most of them are, inherently, large plants, with large to medium sized leaves. It has been my experience that members of this group are not likely to be found except where begonias are featured as a specialty.

**SEMPERFLORENS:** The "wax-leaf" or "bedding" begonias are probably the easiest to find. You are likely to find them in a "six-pack" of 1" pots, or in very small 1 1/2" or 2" plastic or peat pots. Tiny as they are, they very well might be in bloom. If you have an outdoor flower bed that is well-drained and receives a little shelter from the sun, they will give you a good show from early spring until the first freeze. And of course they can be planted in a pot or hanging basket, with well-drained potting mix. Do not plant them too deep; they are shallow-rooted. Semps grow bushy and compact, and have easily broken succulent stems. The leaves are likely to be similar in shape, but not in color. Blooming is the thing they do best, and they will even bloom in pots in the house over fall and winter if you can put them in a window with enough sun.

**TRAILING-SCANDENT:** These begonias inherently want to trail or climb (as on a totem pole). The leaf shape of the different varieties does vary, often widely. But, with a few marked exceptions, the leaf color is likely to be a solid shade of green. In a hanging basket their grace in trailing is a sight to behold. The most common ones I have seen around are *B. convovulacea*, which might be labeled "cucumber begonia," and *B. glabra*, which is sometimes mistaken for a peperomia.

**RHIZOMATOUS:** This group has a totally different type of stem from the others discussed, a rhizome which is a thickened stem of varying thickness. Although the rhizomes can grow in several different ways, I am going to stick to the ones which creep over



the surface of the soil, sending down roots as they go. Hopefully, these are the ones a beginner would experience first. The shape, size, texture, and coloration of the patterns of the leaves has got to offer something for everyone's taste, they are so diverse in all of those areas. This is also the only plant I know of where the back side of the leaf equals the beauty of the front side. Blooming is the icing on the cake with rhizomatous begonias, and it occurs in mid-winter to spring.

The only drawback to rhizomatous begonias for beginners, in my opinion, is that they are so shallow-rooted, and the rhizomes store liquid. You can kill one quicker than you can blink an eye by keeping it sopping wet, and/or in too deep a pot. In a deep pot the wet soil mix just sits on the bottom of the pot and sours, because it is not being utilized by the shallow roots.

It is usually easy to find rooted cuttings of rhizomatous begonias in a wide variety of stores where plants are sold. They may not be correctly labeled; I have seen half a dozen totally different ones in the same store labeled "eye-lash begonia" - so called because of the marking around the edge of the leaf. But properly there is no such name. Probably the rhizomatous begonia best known by the most people is the "beef steak begonia," correctly, that is *B. 'Erythrophylla'*.

**REX CULTORUM:** The Rexes are the prima-donnas of the begonia family. In this group you can find foliage of any color known to the human eye, arranged in a multitude of patterns. Add this color to leaves of a wide variety of textures and shapes, and you have a plant which is more than the mind can comprehend. And I have been totally defeated at growing them. Maybe the main reason is because, unlike the others, rexes DO NOT thrive on neglect and haphazard care. Weather, though, is the most important factor in growing them. They need warm (NOT HOT) days, cooler nights, and humidity. If your climate sounds like that, go ahead and try them. If you don't have a greenhouse,

set the pot on a tray of pebbles. Pour water over the pebbles, replenishing the water as it evaporates. Just make sure the water level is below the drainage holes of the pot. Rexes do not want direct sunlight, just bright indirect light. Many of them are perfect for growing under fluorescent lights, if you can meet the temperature and humidity requirements. Amazingly enough, I have frequently found them for sale in grocery stores, dime stores, discount stores, etc., in Dallas, the very city where they defeated me! Every time I see them, I wonder how many persons in unsuitable climates have been turned off of begonias because they lost rexes whose beauty they were unable to resist.

**TUBEROUS/SEMI-TUBEROUS:** If you live in a climate where you can successfully grow rexes, you probably can grow the other very spectacular group, hybrid tuberous begonias, or *Tuberhybrida*. In the proper environment they have many uses: hanging baskets, patio tubs, window boxes, or in beds in the garden. The foliage is not what we're looking at here - it's the blooms, which come in many forms and colors. These begonias are started from tubers (similar to a bulb) early each spring. And at the end of the summer, when their blooming period is over, they go into a state of complete dormancy, leaving you with the tubers to store through the winter.

The semi-tuberous group includes the "maple-leaf" begonias, which are truly lovely. Even in Dallas I could grow *B. dregei* and *B. 'Weltonensis'* without any special care. Their leaves really are shaped like a miniature leaf of a maple tree and they have a silken, translucent texture that is breathtaking. They bloom easily, covering themselves with delicate white flowers. I grew them both in the greenhouse and in the house under lights. If they are kept in a warm environment during the winter they will not go even semi-dormant. The only caution I would stress is not to overwater or overpot them.

## PINCHING AND PRUNING

Particularly with the canes, it is very easy to point out why a begonia should, from early in its life, be pinched regularly and pruned occasionally. Have you ever seen an 'angel wing' begonia that is three to four feet tall, has maybe two or three stems in the pot, and a small cluster of 4 to 6 leaves on top of each long stem? That means you are looking at 1 1/2 to 3 feet of bare stem. This begonia is crying out to be pruned! Here's how I would do it:

Today I would water the plant thoroughly. Then tomorrow I would go down each stem to the point where there are 3 or 4 nodes above the soil level, and cut off each stem at that point. The stems should be firm from the recent watering, and - although this is changing the subject - I would set up about 6 small pots (maybe 3" pots) with moist soil. Keeping the down end down, I would sink at least 1 node into the rooting pot, leaving 2-3 nodes above the soil. I would probably sink 2 or 3 cuttings per pot, depending on how large the stems are; I would go on cutting this stem until it was used up. I would have 2 or 3 tips with leaves, and I would use those also, trimming the foliage so that each cutting had no more than 2 or 3 leaves. Cane cuttings do not have to have leaves on them. All of the pots need to be placed in good light, not sunlight, and covered with a clear covering such as a produce bag to provide a mini-greenhouse effect.

Now, back to the parent plant. It is going to do two things: send up shoots from the roots (called basal growth), and send out side shoots, or branches. From now on you should try to pinch out regularly (with your fingernails or manicure scissors) the growing point on the end of each branch or stem. Look closely at the very end of each branch and stem, and you will see a small, dagger-shaped, tightly furled new leaf. Take it out. Pinching this growing point causes the plant to send hormones back down the stem or branch, and this brings about more basal shoots and branches. Begonias thrive on

being cut or pinched; it only makes them fuller and more beautiful. Don't ever hesitate to cut back a branch that keeps your begonia from being symmetrical or rounded. Cutting out selective stems also creates better air circulation. This applies not only to canes, even though I used a cane as an example. It holds true in varying degrees for all the different groups. Any time you cut a piece of the plant out, put that piece down to root. If you don't have room for another plant of the same variety, give it to a friend, make a new friend with it, or trade it for a begonia you don't have.

When I had a greenhouse I had a set way of doing this. I put all my begonias under the trees in the spring and let them vacation out of doors. They were so big and lusty when fall arrived that the same plants wouldn't go back in the space they had come out of - so every begonia was pruned, and repotted if need be.

Canes were handled in this manner: if the plant was very full, I first cut out any "old wood" (brown stems), right at the soil level. This stimulated the basal growth of new canes. Then I started around the outside edge of the plant, pruning all outer canes down to 3-4 nodes above the soil (when you cut, by the way, you cut just about 1/4 to 1/2 inch above the top node you want to save). I worked in toward the center then, leaving the inner canes taller than the outer ones, and not all the center canes the exact same height. This is the perfect time to look your pruned plant over thoroughly: you don't want to carry a summertime critter into the house! Clean all the debris off the top soil level. It is easy then to lift the plant out of the pot and see if it is rootbound. Kathlynn Calvert, champion Oklahoma grower, told us once in the Southwest Region newsletter that she not only cut the foliage of her begonias back but "root pruned" them if needed. I never got brave enough to try that; I just moved the plant up into the next pot size if it was rootbound. If it wasn't, I repotted it, adding top soil if needed. I am a firm believer in

another of Kathlynn's recommendations: watering a pruned plant in with a Super Thrive solution - 1 drop to a gallon of water.

The shrub-like begonias I pruned in a much less severe manner than canes. I made my decision on how much to cut by looking at the plant. First I cut out any dead or old stems. Then, if stems had foliage on the tips only, they got cut back hard. If the stem looked pretty good and I was just trying to conserve space, I did tip cutting (2 to 3 inches) on all the branches, aiming for a symmetrical plant.

You can ensure continued beauty and bloom of *semperflorens* by frequent pinching of the growing point, and also by cutting out old "bloomed out" stems, right at soil level. When I took all my pots and baskets in at the end of the summer, they got a "burr head." The entire plant was cut back slightly and evenly. Ridding this full, compact plant of debris is not the easiest thing to do, even after it has been cut back. But it can be done. An oversized water color paint brush is helpful.

The trailing-scandent begonias need regular pinching from the very beginning in order to make them fill the hanging basket with foliage. Any bare stem hanging over the side of the basket needs to be pruned out. Of course, those stems you cut out can be put down as cuttings, making more rooted cuttings to fill out your basket.

The rhizomatous begonias have the same hormonal reaction to having their growing points pinched back at the end of each rhizome. If the rhizome has grown out over the edge of the pot into thin air, just prune it back to the edge. The cut rhizome will then branch, back down the way, and will also send out more foliage.

That was a lot of repetition for pinching and pruning! Whenever I think of the subject, and of how difficult it was for me to start doing it, I think of the old saying when a parent got

out the paddle: "Son, this is gonna hurt me more than it does you." No kid believed that, but maybe it made the parent feel better. I still feel as though I'm inflicting pain on my begonias, even though common sense tells me differently. Anyway, let's sum up the subject this way:

**Pinching:** begin when the begonia is young and small. Continue on a realistic schedule you can deal with: every time you water, or the 1st of every month, or every other Saturday, etc.

**Pruning:** use along with pinching as the plant grows. Prune selectively to add interior air spaces, to rid the begonia of an unattractive stem, or to add a balanced, symmetrical look to your begonia.

In retrospect, I wish I hadn't been forced to prune severely each fall to get the begonias back under cover. I wonder if there is a single greenhouse owner who has all the space he needs for all the big lush begonias at the end of the summer. I have never met such a person — but, on a positive note, just think of all the rooting material you have when you prune!

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*Dorothy Patrick's address is P.O. Box 2515, South Padre Island, TX 78597. Her begonias have already gone outside for their summer vacation, and are growing and blooming despite salty winds.*



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SPOTLIGHT ON:

***Begonia dregei***



by Mary Weinberg

The dainty *B. dregei* was discovered in 1836 by F. J. Drege, a German collector, in the Natal Mountains, Cape of Good Hope, South Africa, at about 4,000 feet. It was named by Otto and Dietrich after its discoverer.

*B. dregei* is semi-tuberous, having small maple-shaped green leaves with red veining and red stems. The underside of the leaf is light green and shows the red veining. Flowers are white, appearing in late summer

through the fall and into December. My flowers tend to be light pink when the plant is grown under lights.

The tuber can attain a diameter of four inches with age, and the plant can become quite tall. I have read that 2 to 3 feet is possible.

Young seedlings usually have silver spots on the leaves, which disappear as the plant becomes older.

*B. dregei* enters a semi-dormant state as winter approaches, but unlike some semi-tuberous plants it does not lose all of its stems and leaves. It usually keeps the main stems and some of the leaves.

*B. dregei* makes an excellent bonsai subject. Judicious pruning and planting it in a small bonsai dish will keep it small indefinitely.

## CULTURE

**Light:** For two years I kept *B. dregei* in my basement light garden. It did well and flowered both years. Next I moved *B. dregei* upstairs to an east window; there were no changes in its growth habits.

**Water:** *B. dregei* should be planted in some form of pottery container always, as it is prone to rot if over watered. During winter months I water once a week, very sparingly. In summer it needs more water; I usually water when the soil dries out.

My *B. dregei* is in a small bonsai dish, so I bottom water by setting it in a shallow pan of slightly warm water until the soil appears moist (not wet!). When I remove it from the pan I tip it slightly to allow excess water to drain out the hole in the bottom of the dish.

**Humidity:** In the Midwest, *B. dregei* does not require extra humidity.

**Soil mixture:** I use a mixture of 1 part sphagnum peat moss, 1/4 part sandy loam, 1/4 part perlite, 1/4 part cow manure, and a small amount of charcoal. Soil mixes are not critical with semi-tuberous begonias, and almost any good potting soil can be used.

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Artist/writer/begonia grower Mary Weinberg lives at 1527 W. Highland Ave., Chicago, IL 60660.



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## ROUND ROBIN NOTES

Margaret Coats, Round Robin Director

Dorothy Cox (TX), a new member of a Growing from Seed Robin, sowed some seed on sterilized leaf mold, as she was out of her usual mix. While she had good germination, she says the seedlings are now at a standstill, and she plans on transplanting them into her usual mix. The leaf mold also grew a good stand of algae, but two teaspoons of clorox to a quart of water took care of it with two or three top waterings. May Kendall (CA) has found a good cure for salt build-up on clay pots. In her Senior Citizens art class, she has been painting her flower pots with bright, cheery colors, carrying the paint over the rim and into the pot about 1 inch. Dorcas Resleff (WA) grows her seedlings at 70 degrees - Houston Knight (CA) says that's too warm, the seedlings dry out too fast. Different things work for different people: whatever works for you, stick to it!

Ian Robertson (Aus) observed in one of the Odd/Rare/Unusual Robins that he thinks we baby some of our plants too much. A friend of his grows two plants of *B. cathayana*, one in a terrarium, which she pampers, and the other in her shade house with minimal attention. It is Ian's opinion that the one grown in the shade house is more compact with better color. He also feels that there must be a number of clones of *B. chlorosticta* being grown, as one friend says his plant needs constant warmth while another friend grows his in a shade house all year round without any heat.

If your water is on the acid side, here's something Rhodora Buss (IA) of the Propagation group learned. She found Superthrive (a vitamin-hormone solution) simply did not work for her because of the acidity of her water, so she switched back to Allegro. Virginia Hamann (IA) uses a rooting hormone

made by Fertilome for first waterings of cuttings, and soaks her seed with it before she sows. She also found it really perks up her dormant tubers.

Here's a comment on wick watering from Mary Ellen Taback (VA) of the Mini Begonias Robin: she has found rhizomatous begonias to be very unsatisfactory when grown in plastic pots and wicked. They tend to drown. She finds the theory that plants decide how much water is drawn up into the pot is so much stuff. It seems to be the soil mix that makes that decision, and a plant can drown by being damp too long. Gwen Stephens (CA) gives a good rundown on the way the *B. dregei* group of begonias should be grown for optimum beauty. She explains they all should be grown dry, in shallow pots like succulents, which, in fact, they are. She uses a mix with added pumice. They're all very susceptible to fungus, as they were never exposed to it while evolving in their native Africa and have not developed any natural immunity. In nature, some caudex grows below soil, but growers have found it aesthetically pleasing and very fashionable to grow the caudex exposed. She warns against wicking this group. (See this month's SPOTLIGHT for more information on *B. dregei*).

Sheila Matthews (IL) of the Terrarium Robin went into a detailed dissertation on how she plants her begonia seed. She made it sound so easy that members who have never planted seed said they were going to give it a try. Sheila said everyone should get involved in growing from seed as a conservation measure. She is concentrating on the species and new finds for this reason, and has always been more interested in native or wild flowers than in hybrids.

Dan Paulson (IL), a member of one of the Rex groups, used 3M storm window shrink film as a liner in his greenhouse last year, and found that his plants stood still all winter. This year he used the regular 6 mil. polyethylene, which is heavier and does not stay in place as well, and found it transmitted the light which the plants need. He said he had never had so many rhizomatous blooms before; one moss-lined basket of B. 'Chumash' was absolutely covered with blooms.

Priscilla Beck (CT) says she forgets that rex plants look their best when two years old. At that time they seem to start downhill for awhile, and may or may not recover. She finds they really should be restarted at the end of two years.

Have you been plagued with mealybugs? Elaine Ayers (OH), a Cane Robin member, used Ivory soap spray with a few drops of dormant oil in it, with excellent results. In fact, she says all the foliage on her plants really look clean and shiny. Although he has not experienced soil mealybugs as some of his friends have, Art Sackenruther (CA) has been using Oxymil for several years as a preventative, and finds it very effective. He has been recommending it to those friends with soil mealybug problems.

Elaine Ayers (OH) commented that manufacturers now are putting colored lids on their sweater boxes, and Rhodora Buss (IA) came up with an excellent solution to this problem. She places metal paper clamps along the top edge of one box, and then inverts another box to rest on the clamps. This arrangement will accommodate taller plants, and the small crack between the two boxes seems to be just the right amount of air for good circulation. Another excellent tip from a member of this group came from Dorcas Resleff (WA). She says it is always a good idea to treat new cuttings for any possible insects, eggs, or scale immediately upon receiving them.

Bob Moore (FL) explained his newly

found way of succeeding with seeds in the Propagation Robin. He placed a mixture of perlite and vermiculite in the bottom of an old 10-gallon aquarium for moisture. He then spread potting mix in a metal frozen dinner container, sowed his seed, and placed the container in the aquarium. After sealing the top of the aquarium with Saran wrap, he just left the seeds on their own for a very long time. The seedlings came up and he watered, sparingly, from the bottom - he says that in fact they went for months without water. He left those small seedlings in the original container for about two years, and when they were finally transplanted they grew by leaps and bounds.

While most people try to separate each little seedling on the first transplant, Art Sackenruther (CA) transplants in "clumps" at first. He uses cottage cheese or margarine containers filled with a light mix, properly moistened, for his "community pots." Art says it is amazing how much faster the seedlings grow when planted in bunches.

Here's an experiment I bet no one has ever thought of: Rita Sendic (NJ) wrote in the Miniature Robin that she had cooked some spinach, then took the water it was cooked in, diluted it half and half with regular tap water, and watered some of her begonias and violets. She claims you wouldn't believe how green and vibrant the plants are now. Guess the experiment was a success, as she says she never throws out water in which she has cooked greens.

In the Tropical Robin, Elaine Ayers (OH) wrote of a neat idea she had read about for in-the-ground planting of things that need a lot of moisture. Dig out the hole in a shaded area, line the hole with plastic, punch a few holes in the plastic for drainage, place the moisture-loving plant in, and fill with soil.

Chris Giordano (NY) has been having trouble with her rhizomatous begonias in hanging baskets, and has come to the conclusion that the containers are too deep. However, it seems shallow containers are

## BEGONIAN MINI-ADS

difficult to find in her part of the country. Frances Hoffman (NY), also a member of the Greenhouse group, grows her rhizomatous begonias in moss-lined wire baskets or cheap plastic colanders lined with plastic screening to retain the soil. To water, she simply submerges them in an old plastic dishpan containing fertilized water.

Are you a "do-it-yourselfer?" Here are directions from Barbara Nunes (VA) of the Growing under Lights Robin for making terrariums (making terrariums was a project her branch undertook at their last meeting):

"Cut two six-sided pieces of glass for top and bottom; then cut pieces for sides at a height you prefer. Join the side pieces to the bottom using clear caulking. The piece to be used as the top is cut in half, and one half is glued to the sides, the other is hinged to the glued half so that plants can be put in or taken out easily. Another idea for the top is to just glue a knob on so it can be lifted off."

In case you have tried the tuberous begonias and failed, Howard Siebold (CA) gave excellent instructions in the Tuberous Robin for planting tubers. Start the tubers in flats or pots. Put down a layer of wet, but not soggy, coarse ground peat moss or old mix and then cover the tubers with a good 1/2 inch of the same material. Use no fertilizer at this stage. You want the roots to reach out looking for food. Light isn't necessary at this stage, but warmth is. Hold at 70-75 degrees F. Don't guess - buy some thermometers. Howard prefers the floating type used for tropical fish tanks, which are enclosed in glass. Raise or lower the temperature to speed the tubers up or to hold them back.

*Make begonia friends across the country (and even abroad) while learning new ways to improve your begonia growing: join a Robin! There are over 60 flights circulating, on a variety of topics. To join in, or for more information, write to:*

Margaret Coats  
11203 Cedar Elm  
San Antonio, TX 78230

Mini-ads are a service to our members. The charge is \$1 per line per insertion with a minimum of \$4. Payment must accompany order. Make checks payable to ABS and mail to:

James Hankerson  
Advertising Manager  
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**BEGONIA CUTTINGS AND PLANTS** Send \$1 for list. Kay's Greenhouse, 207 W. Southcross, San Antonio, TX 78221.

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**BEGONIAS: THE COMPLETE REFERENCE GUIDE** by Mildred L. and Edward J. Thompson. 884 pages, 850 illustrations (165 in color). Culture, classification, and history. \$20.00 to ABS members. To order ungraphed copies write: THE THOMPSONS, P.O. Drawer PP, Southampton, NY 11968. **BEGONIAS: 1984 UPDATE** \$6.75. Prices include shipping. Master Card and Visa available.

**SOUTHWEST REGION, ABS:** Annual Get-Together, show, sale; monthly newsletter. Membership \$7, family \$10. Send to Marie Harrell, Rt. 3, Box 689, Elgin, TX 78621.

**THE BEGONIA HOUSE** Mail order: hundreds of begonia species and cultivars - also episcia varieties. Send \$1 for list to Jeanette McCombs, 2228 W. Southgate, Wichita, KS 67217.

**BEGONIA CUTTINGS & PLANTS** Send \$1 for list. "Begonias Galore," P.O. Box 5052, Gainesville, FL 32609.





## BEGONIA QUESTION BOX

Mabel Corwin, ABS Horticultural Correspondent

**Question:** I am a fairly new member of ABS. I recently received a lot of back issues (great reading) and I noticed quite a few mentions of Lysol used for mildew and grey mold. I don't have a severe problem, but when I use fungicides I itch, no matter how careful I am. I wonder if you have ever used Lysol, and if so, how do you use it?

Our weather this last summer was rainy and cold. It rained every day for weeks. My tuberous begonias planted in the beds outside were just covered with mold. Spraying didn't help for the spray was washed off, sometimes immediately. Will the tubers be affected in any way, and if so, is there anything I can do? I would hate to lose my 100 tubers. CANADA

**Answer:** Lysol spray is not really the answer to mildew on begonias in the garden. We are talking about the aerosol spray can, not the liquid used for cleaning. It is sometimes used on plants indoors when the grower doesn't want to use sprays inside the house. It does seem to help if there is only a little mildew. It is usually sprayed around the room as a preventative.

I don't think your tubers will be affected by the mildew on your plants last summer. A light dusting of fungicide powder would be a good precaution.

I keep an old pair of slacks, and an old jacket that I wear zipped up when I spray, even if it is a warm day. I wear a mask that covers my mouth and nose. I always spray early in the day while the air is still. As soon as I finish spraying, I change my clothes.

**Question:** I have a tiny cutting of a begonia labeled "aequia." I have never seen, heard of, or read about such a begonia. I found *B. aequata* listed in a catalog. My plant looks like the leaf description, so I'm sure this is the same plant. It is listed under rhizomatous, with distinctive foliage, "a tiny oak leaved creeping begonia with thread-like stems. Hugs the ground." Do you know anything more about it? Is it any relation to *B. prismatocarpa*? What is the best way to grow it? Where is it from? ILLINOIS

**Answer:** I feel sure your plant is *B. aequata*. Someone probably misread a label. I saw it spelled with an "i" recently, so perhaps some plants have been released with that spelling, which is wrong.

*B. aequata* came from the Phillipines in 1981. We first grew it as *B. U075* until it was identified. It is usually listed as trailing-scan-dent. I don't think it is correct to list it as rhizomatous.

I grow my plant in a round plastic bubble. It is planted in sphagnum moss with a little perlite added. It creeps along, rooting as it grows, and the bowl is full now. I had a sweater box almost full at one time. Just before it filled the last corner it started to die back. I think it is a good idea always to have a spare plant coming along. *B. aequata* roots easily in sphagnum moss or perlite.

*B. prismatocarpa* is from Africa, so the plants are not related. However, they do require similar care.

**Question:** I have been growing *B. 'Masoniana Verdant'* for over a year. It is in a terrarium, and is a very nice plant. I bought it from Logee's Greenhouses. In good light the new growth is rusty orange. It grows very slowly.

Is *B. 'Masoniana Verdant'* the same as '*Masoniana Orange Queen*,' or did '*Orange Queen*' come from it? Does a mutant retain true traits in leaf rooting, or should it be propagated by a stem cutting? Would seed come true, or would it revert back? TEXAS

**Answer:** *B. 'Verdant'* is a *masoniana* seedling introduced by Logee's Greenhouses in 1953. I have not grown it, but did grow '*Tricolor Masoniana*,' a seedling from Michael Kartuz. It was very slow growing, and I felt not as interesting as *B. masoniana*. I grew it in the greenhouse. It probably would have grown better and been more beautiful in a terrarium.

I have never heard of '*Orange Queen*' and can't find it listed in any of my books or catalogs. Since you have good growers and hybridizers in Texas, perhaps it is a local introduction.

When species seed is planted, there are often variations. That is why we have different forms of some species. I think if you propagate your '*Verdant*' from a rhizome cutting it probably would come true. From seed, I think it would be doubtful. Mutations are often not very stable.

---

*This will be Mabel Corwin's last Question Box column. Our new Horticultural Correspondent is Mae Blanton. Mae is a Herbert P. Dyckman Award winner, former Round Robin Director, and founder of Southwest Region, but she is known best as a hybridizer. Begonias 'Flo'Belle Moseley,' 'Essie Hunt,' 'Pickobeth,' and 'Glennis Crouch' are among her creations. Send horticultural questions to: Mae Blanton, 118 Wildoak, Lake Dallas, TX 75065.*



## ABS Slide Programs

**Rhizomatous Begonias** 200 slides with taped discussion by Mildred Thompson.

**Japanese Cultivars** grown in the United States. 127 slides, printed list. Taped program. By Mildred Thompson.

**Begonias in their Natural Habitat** by Scott Hoover. Slides from Mexico, Guatemala, Venezuela, Colombia, Ecuador, Papua New Guinea, and Jamaica. Taped program.

**Begonias for Contained Atmospheres.** 81 slides. Printed list, taped program. By Mildred Thompson.

**The Tropical Rainforest** by Scott Hoover. 45 minute tape narration. 78 slides.

**The Making of a Begonia Show.** 77 slides of the show being set up and the plants displayed by the Barkley Branch in 1982. Printed slide list.

**A Trip to the Montreal Botanical Gardens.** 92 slides by Jackie Davis and Joy Porter. Printed list.

**Horticultural Grouping of Begonias.** 140 slides by Mildred Thompson. Begonias divided into 8 groups. List.

*This is a partial list of slide programs available for rental to ABS members and branches. The fee is usually \$10 plus First Class Insured return postage. Deposit required. Send SASE for complete list and detailed instructions.*

Daniel Haseltine, Slide Librarian  
6950 W. Nelson Street  
Chicago, IL 60634



## AROUND ABS

Notes from our Newsletters

Some of our branches are getting old! San Miguel Branch is 43 years old and celebrated with a party May 4 - their newsletter, the Beacon, promised refreshments "ample enough to keep everyone from starving to death." Santa Barbara Branch was 48 on Sunday, May 22, and held a luncheon. Dorothy Napper brought a beautifully decorated cake for the Monterey Branch 17th Anniversary Birthday in March. Ever notice how begonia meetings and food seem to go hand-in-hand?

In the May-June "Around ABS" we published a recipe for a non-toxic plant spray taken from the East Bay Branch newsletter. The abbreviation "TSP" stands for tablespoons, and the recipe should be credited to originator Tiny Phillips.

The Miami Branch show April 9-10 had some extras: a stage exhibit by Daisy Farm Nursery (member Tim Anderson is owner), a display of begonia arts and crafts by Charles Jaros, an informative exhibit by Jim Newbold on "Growing Begonias from Seeds," and an exquisite doll house with miniature begonia garden by Cathy Perpich. Their judged show had 220 entries. Edythe Ropeik won Sweepstakes with fifteen blue ribbons. Then at the Metropolitan Miami Flower Show the last weekend in April, Charles Jaros' B. U002 won the award for highest scoring begonia and Alma Crawford and Edythe Ropeik won blue ribbons.

Pinellas County Branch, one of our newest (organized a year and a half ago) entered a display in the Pinellas County Fair and walked off, triumphantly, with first place among plant societies' displays! What will they do for an encore? Individual members took honors in the flower show, too.

The Knickerbocker Branch exhibit in the New York Flower Show March 5-13 won the Safer Gardening Award for Horticultural Excellence, and entrants took home a silver tray and citation. Bea and Sue Hessel, Jim Fryer, and Edwin Hymovitz contributed plants. Sue Hessel and Ed Hymovitz were on duty at the display when WOR-TV News came around and filmed the exhibit. Jim Fryer won a blue ribbon with his B. 'Guy Savard.'

The Barkley Branch produced another spectacular show April 9-10, with 167 begonia entries. Ruth Wills took Best of Show with a bonsai version on B. 'Lacey,' and Gene Salisbury won the Sweepstakes Award. Many of his winning plants were rexes, and growing rexes in Oklahoma is a triumph! Among the out-of-town visitors were former Barkley members Sandy and Marvin Crane, who now live in Chalma, New Mexico.

The Rubidoux Begonia Gazette reports that Rubidoux members Arlene Davis, Terry Hicks, and Frank Nudge won blue ribbons in the Riverside Flower Show.

Brown Bulb Farm and manager John Hutchins donated 200 begonia tubers for the Monterey Bay Branch's spring sale.

Joan Coulat was the March speaker for East Bay Branch, and, along with cultural tips, she shared her formula for potting mix: 1 cubic foot of Supersoil, 1 cubic foot of oak leaf mold, 3 1/2 gallons coarse perlite, 2 gallons coarse vermiculite, 1 cup hoof and horn meal, 1 cup bone meal, 1/2 cup superphosphate, 1/4 cup blood meal, 1/4 cup Iron Plus, 7-7-7, 3/4 cup agricultural lime, and 1 1/2 gallons charcoal.

Joan also arranged a combination panel discussion and hands-on demonstration of different propagation techniques for Sacramento Branch in April. Four tables were set up with displays and materials for growing from seeds (Bob Hamm), starting cane-like and shrub-like plants from stem cuttings (Leora Fuentes), growing from rhizome cuttings (Dave Anderson), and starting begonias from leaves and leaf wedges (Joan Coulat). Members could move between the tables to learn about and experiment with the different techniques. Containers, starter mixes, and name tags were provided by the branch.

Alice and Isadore Gold showed slides of the 1986 Scottish Begonia Society show at the March meeting of the San Francisco Branch. The newsletter reports: "Everyone was bug eyed at the size of the tuberous begonia flowers. We think our flowers are large but how mistaken we are. Ours are about the size of salad plates, theirs are dinner plates."

East Bay Branch members toured the half-acre garden of the Gordon Pipers in April. The flower-filled garden must be lovely - [Better Homes and Gardens](#) magazine plans to do a feature story on it!

Alma Crawford arranged a tour to Selby Gardens in Sarasota for members of Miami, Fort Lauderdale, and Tampa Bay Branches. They saw species from India and the Phillipines in the stock greenhouse and then visited the display greenhouse and saw "*B. glabra* trailing down an overhead trellis with sprays of white flowers hanging down. *B. 'Orococo'*, *B. 'thelmae'*, and *B. 'Panasoffkee'* were being used as ground cover with beautiful results. A huge *B. thiemei* was among the waterfall and rocks and was in full flower with its large whitish green flowers."

If you've ever dreamed of working with fabulous begonia collections, you'll envy some of the southern California branches. Both Orange County and Whittier Branches

hold monthly study group meetings in addition to their regular meetings, and back in February both branches met at Sherman Library and Gardens, bringing clippers, to help prune the begonia collection there. They took home cuttings as a reward for their work. And after an April program on propagating leaf cuttings, Palomar Branch held a "potting party" at Kartuz Greenhouses April 16, taking "expertise, energy, and lots and lots of cuttings."

In other parts of the country, Edna Stewart Pittsburgh Branch works with begonias at the Phipps Conservatory every Monday, in preparation for their summer display; Buxton Branch members volunteer at the Barkley Collection at Northeastern University, and members of the Mae Blanton Branch work with the begonia collection at the Fort Worth Botanic Gardens.

Esther Nagelberg, editor of the Palm Beaches Branch newsletter, gives a tip to those who grow begonias in terrariums:

"If growing in a terrarium, check periodically for moisture at the plant's roots. Even though there may be condensation on the sides of the terrarium, this does not necessarily mean that the plant has sufficient moisture to sustain its growth."

From the [Potting Shed](#), newsletter of the Edna Stewart Pittsburgh Branch, comes this explanation of fertilizing:

"As plants begin a new growth cycle, adequate nutrients are required. If you use a soilless mix or haven't repotted in the last few months, fertilizer should be provided. Plants don't know the difference between fertilizer brands or the source of the fertilizer, they react only to the elements contained. The important factor is the quantity, availability, and balance of the elements contained in each. For example, in 5 pounds of 10-6-4 slow release fertilizer, there is 1/2 pound of nitrogen (5 pounds times 10%), 1/3 pound of phosphorus (5 pounds times 6%) and 1/5 pound of potash (5 pounds times 4%). Since the words "slow release" appear in the title,

the fertilizer will be released over time, usually 3-4 months, to be taken up gradually by the plant. The balance is indicated by the relative value of each element. Since this example has a higher nitrogen content, it will tend to encourage relatively more green growth than a fertilizer with a lower nitrogen content relative to the other values. In other words, a 10-6-4 fertilizer will have a different effect than the same quantity of 10-20-20 but the same effect as twice as much 5-3-2. From the plants' standpoint it's a numbers game!"



## IN MEMORY

Allan K. Brown, son of the founder of Brown Bulb Ranch of Capitola and one of the world's leading authorities on growing tuberous begonias, died on March 31 in Santa Cruz. He was 82. Mr. Brown was the first American grower to produce begonia seeds for commercial plantings, and worked to improve begonias. He helped to create the big-blossomed, ruffled, and frilled American hybrids, developing tuberous begonias with sturdier stems, fully double flowers, and larger and hardier blooms.

## EARLY BEGONIAS: THANK YOU!

Joan Campbell and Tamsin Boardman wish to thank Jack Golding and Rudolf Ziesenne, who sent copies of early Begonias to help fill out the Seed Fund Director set and the Editor's set.

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## BOOKS AVAILABLE

Winifred Piper has one copy each of the begonia books of Bessie Buxton, Helen Krause, and Bernice Brilmayer, and eighteen years of the **Begonian** from the 1960's and 1970's which she would like to sell. Contact Winifred Piper, 6 Boulter Road, Wethersfield, CN 06109 and make her an offer if you are interested.

## BRANCH DIRECTORY

*Visitors always welcome.*

### REGIONAL GROUPS

#### Eastern Region

Howard Berg, Pres.  
16 Highview Terrace  
New Canaan, CT 06840

#### Southwest Region

Kay Tucker, Director  
207 W. Southcross  
San Antonio, TX 78221

### ARIZONA

#### Desert Begonia

Barbara Moody, Pres.  
1200 Christmas Tree Ln.  
Pearce, AZ 85625

### CALIFORNIA

#### Alfred D. Robinson

2nd Tuesday, 10:30 a.m.  
*Homes of members*  
Hazel Jacob, Pres.  
2035 Illion St.  
San Diego, CA 92110

#### Central San Joaquin

Mary Lane, Treas  
19239 Road 232  
Strathmore, CA 93267

#### East Bay

3rd Thursday, 7:45 p.m.  
Northbrae Com. Church, Berkeley  
Julia Huwe, Pres.  
743 Albemarle St.  
El Cerrito, CA 94530

#### Garden Grove

1st Wed., 7:30 p.m.  
12860 Euclid St.  
Garden Grove  
Art Monday, Pres.  
12881 Sylvan  
Garden Grove, CA 92645

#### Long Beach Parent Chapter

3rd Saturday, 1:30 p.m.  
Mercury S & L  
4140 Long Beach Blvd, Long Beach  
Ruth Hurd, Pres.  
2924 Sawyer  
Long Beach, CA 90805

### Monterey Bay Area

4th Wednesday, 8 p.m.  
New Monterey Neighborhood Cntr,  
Lighthouse & Dickman Sts.,  
New Monterey  
Raymond Peterson, Pres.  
192 Walker Valley Rd.  
Castroville, CA 95012

### Orange County

2nd Thursday, 7:30 p.m.  
Fullerton S & L  
2310 E. Lincoln Ave.  
Anaheim  
Elda Regimbal, Pres.  
3117 San Juan Dr.  
Fullerton, CA 92635

### Palomar

2nd Sunday, 2 p.m.  
Quail Botanical Gardens  
230 Quail Gardens Dr.  
Encinitas  
Ingeborg Foo, Pres.  
1050 Melrose Way  
Vista, CA 92083

### Rubidoux

4th Thursday, 7:30 p.m.  
W. Riverside Mem. Auditorium  
4393 Riverview Dr.  
Richard Moore, Pres.  
8710 Tourmaline Court  
Riverside, CA 92509

### Sacramento

3rd Tuesday, 7:45 p.m.  
Garden Center  
3330 McKinley Blvd.  
Sacramento  
Paul Tsamtsis, Pres.  
1630 F St.  
Sacramento, CA 95814

### San Francisco

1st Wednesday, 8 p.m.  
Garden Center  
Golden Gate Park,  
9th Ave. & Lincoln Way  
Carol Notaras, Pres.  
2567 Green St.  
San Francisco

**San Gabriel Valley**

2nd Tuesday, 7:45 p.m.  
Los Angeles State & County  
Arboretum  
301 N. Baldwin Ave.  
Arcadia  
Elaine Baxter, Pres.  
2333 Treelane  
Monrovia, CA 91016

**San Miguel**

1st Wed., 7:30 p.m.  
Casa del Prado, Rm. 104  
Balboa Park, San Diego  
Toni Baker, Pres.  
6575 50th St.  
San Diego, CA 92120

**Santa Barbara**

4th Sunday, 2:30 p.m.  
The Cottage  
1130 N. Milpas St.  
Santa Barbara  
Rudolph Ziesenhenné, Pres.  
(address same as above)

**Santa Clara Valley**

3rd Thursday, 7:45 p.m.  
Rm 2, Kirk Com. Cntr.  
1601 Foxworthy Ave.  
San Jose  
Mary Ann Leer, Pres.  
1600 Nilda Ave.  
Mountain View, CA 94040

**Theodosia Burr Shepherd**

1st Tuesday, 7:30 p.m.  
Senior Citizens Bldg.  
420 Santa Clara St.  
Ventura  
Barbara Schneider, Pres.  
3774 Vineyard Ave.  
Oxnard, CA 93030

**Westchester**

1st Thursday, 7:30 p.m.  
Univ. Christian Church  
5831 Centinella Ave.  
Irene Nuss, Pres.  
8329 Regis Way  
Los Angeles, CA 90045

**Whittier**

1st Friday, 7 p.m.  
Room 1, Civic Center  
7630 Washington Ave.  
Whittier  
Nellie Weaver, Pres.  
6123 Corona Ave.  
Huntingdon Park, CA 90255

**CONNECTICUT****Connecticut**

4th Monday  
homes of members  
Arline Peck, Pres.  
Eagle Peak Rd., R 1,  
Box 478  
Pascoag, RI 02859

**DISTRICT OF COLUMBIA AREA****Potomac**

4th Sunday, 2 p.m.  
Sherwood Hall Library  
1205 Sherwood Hall Ln.  
Alexandria, VA  
Barbara Nunes, Pres.  
6025 Greeley Blvd.  
Springfield, VA 22152

**FLORIDA****Fort Lauderdale Area**

1st Tuesday, 7:30 p.m.  
Melrose Park Com. Cntr.  
Plantation  
John Doel, Pres.  
5280 Redwood Ct.  
Plantation, FL 33317

**Jacksonville**

3rd Monday, 7:30 p.m.  
Garden Club  
1005 Riverside Ave.  
Jacksonville  
Mary Harrell, Pres.  
1628 Broward Road  
Jacksonville, FL 32218

**Miami**

4th Tuesday, 8 p.m.  
Simpson Garden Center  
55 SW 17th Rd.  
Miami  
Ann Fergis, Pres.  
10220 SW 133rd St.  
Miami, FL 33176

**Palm Beaches**

2nd Monday  
Horticultural Center  
531 N. Military Trail  
West Palm Beach  
Charles Jaros, Dir.  
2621 NW 23rd Ct.  
Miami, FL 33142

**Pinellas County**

3rd Tuesday, 7:30 p.m.  
Suncoast Bot. Gardens  
10410 125th St.  
Seminole  
Robert L. Moore, Pres.  
6316 8th Ave.  
St. Petersburg, FL 33710

**Tampa Bay Area**

3rd Thursday, 7 p.m.  
North Tampa Com. Cntr.  
N. 11th St. & E. Seward  
Tampa  
Robert L. Moore, Pres.  
6316 8th Ave.  
St. Petersburg, FL 33710

**GEORGIA****Greater Atlanta**

Betty Lockett, Pres.  
2064 South Akin Dr. NE  
Atlanta, GA 30345

**ILLINOIS****Greater Chicago**

4th Sunday, 1:30 p.m.  
Oak Park Conservatory Earth Shelter  
621 Garfield St.  
Chicago  
Daniel Paulson, Pres.  
6339 S. Kenneth Ave.  
Chicago, IL 60629

**MASSACHUSETTS****Bessie Buxton**

Call for meeting info.  
Nancy F. Alvord, Pres.  
79 Shore Ave.  
Quincy, MA 02169

**MINNESOTA****Minnesota**

2nd Wed., 7:30 p.m.  
Homes of members

**NEW JERSEY****Elsa Fort**

Helen Green, Pres.  
2100 Hunter St.  
Cinnaminson, NJ 08077

**NEW YORK****Knickerbocker**

2nd Tuesday, 7:30 p.m.  
Hort. Society of NY  
128 W. 58th St.  
New York  
Edwin Hymovitz, Pres.  
144 East 74 St.  
New York, NY 10021

**Brooklyn-Queens-Nassau**

Tim Last, Pres.  
437 Prospect Ave. # 15  
Brooklyn, NY 11215

**OHIO****Greater Cincinnati**

Erich Steiniger, Pres.  
208 Beachpoint Dr.  
Oxford, OH 45056

**OKLAHOMA****Fred A. Barkley**

3rd Sunday, 2:30 p.m.  
Will Rogers Garden Cntr.  
3400 NW 36th St.  
Oklahoma City  
Gene Salisbury, Pres.  
Box 504  
Tonkawa, OK 74653



**PENNSYLVANIA****Edna Stewart Pittsburgh**

3rd Wednesday, 7:30 p.m.  
Pittsburgh Garden Center  
Melissa Jones, Pres.  
5220 Beeler St.  
Pittsburgh, PA 15217

**William Penn**

4th Tuesday, noon  
Homes of members  
Mrs. Jacques Le Roux, Pres.  
Dove Lake House  
Gladwyne, PA 19035

**RHODE ISLAND****Roger Williams**

3rd Monday night  
Homes of members  
Arline Peck, Pres.  
Eagle Peak Rd., R 1,  
Box 478  
Pascoag, RI 02859

**TEXAS****Alamo**

3rd Saturday  
homes of members  
Kay Tucker, Pres.  
207 W. Southcross  
San Antonio, TX 78221

**Astro**

Gloria Quinn, Pres.  
234 Tallant Dr.  
Houston, TX 77076

**Dallas Area**

3rd Thursday, 7:30 p.m.  
Northaven Gardens  
7700 Northaven Rd.  
Dallas  
Merle Gotcher, Pres.  
4553 Dee Lane  
Fort Worth, TX 76117

**Houston**

Mrs. Grant Herzog, Pres.  
12601 Broken Bough  
Houston, TX 77024

**Mae Blanton**

4th Wed., 9:30 a.m.  
Homes of members  
Tamsin Boardman, Pres.  
Box 249  
Roanoke, TX 76262

**WASHINGTON****Seattle**

3rd Tuesday, 7:30 p.m.  
Bethany Lutheran Church  
7400 Woodlawn Ave. NE  
Robert Major, Pres.  
4825 Terrace Dr. N.E.  
Seattle, WA 98105

## ABS SERVICES

These services are available to all ABS members. For names and addresses of department heads, see inside back cover. Include a self-addressed, stamped envelope *when you write*.

### At-Large Members

Members who do not belong to branches are represented at board meetings by the *Members-at-large director*. MAL committee works on projects by mail.

### Bookstore

Books about Begonias and back issues of the *Begonian*.

### Judging Dept.

Mail order course for members who wish to become accredited judges. The course is currently being revised.

### Nomenclature Dept.

Monitors newly published findings on *Begonia* names. Handles official international registrations of new *Begonia* cultivars and publishes these registrations. Gathers information about and assigns numbers to unidentified species.

### Question Box

Prompt assistance with horticultural questions. Those of general interest will appear in the *Begonian*.

### Round Robins

Members exchange information about begonias and their culture through packets of letters which circulate among a small group of growers. There are dozens of these packets, called flights, on many specialized subjects. Contact the director for information.

### Seed Fund

The Clayton M. Kelly Seed Fund offers seeds of begonia species and cultivars by mail. New acquisitions are discussed in the *Begonian*. Donations of seeds are encouraged.

### Slide Library

List of programs available from slide librarian. Donations of individual slides and programs requested.

### Speakers Bureau

The director maintains a list of speakers on begonias and related subjects.

## ABS BOOKSTORE

**Begonia Book**, Gray \$4.

**Begonias**, Arakawa \$25

**Begonias in Color**, Murotani \$15

**Growing Begonias**, Caterall \$18

**Les Begonias**, Chevalier \$5 soft cover

**Buxton Check List** \$20

**Guidelines for Conventions & Shows**,

O'Reilly \$2.50 (5 or more, \$2 each)

**Catalog of Reg. Cultivars** \$4

**Roses**, Taylor \$14.95

**Your Indoor Garden**, Seddon \$12.95

**NY Times Book of Houseplants**, Faust \$10.95

Binders \$5.25

Prints, \$5 set of 6, \$1 single

ABS emblem pin \$6

Plastic sign, \$1

See Nov-Dec, 1987 issue for complete descriptions of items.

Back Issues of **Begonian**: \$1 for individual copy more than a year old, \$6 full year through 1981; 1982 and on are \$1.50 @ or \$7 year. Issues less than a year old \$2 @.

Send check or money order to:

Bob Bailey, ABS Bookstore  
5190 Mission Blvd., Sp. #90  
Riverside, CA 92509

Add 75 cents per book for postage and handling. California residents add 6% sales tax. Foreign orders must be paid in US currency. Please add \$1 per book for orders outside USA.

## MOVING?

Please remember to notify the Membership Chairman of your change of address. The Post Office does not forward third class mail: ABS is billed for notification of the new address (*if one is available*), but the issues are destroyed. You miss your **Begonian**; ABS must pay for the issue, the postage, and the notification that you have moved; and no one is happy. If you forget to let the Membership Chair know you've moved, you'll have to purchase your missed magazines from the Book Store.

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## ELECTED OFFICERS

President . . . . . Arlene Davis  
923 E. Francis St., Corona, CA 91719  
(714) 371-8042

Past President . . . . . Margaret Lee  
1852 31st St., San Diego, CA 92102

First Vice-President . . . . . Michael Ludwig  
7007 Mt. Vernon Ave., Lemon Grove, CA 92045

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2621 NW 23rd Court, Miami, FL 33142

Third Vice-President . . . . . Bob Dodd  
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Secretary . . . . . Jeannette Gilbertson  
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Treasurer . . . . . Eleanor Calkins  
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Ballot Counting . . . . . Ronnie Nevins  
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Business Manager . . . . . John Ingles, Jr.  
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Clayton M. Kelly Seed Fund . . . . . Joan Campbell  
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Co-chairman . . . . . Martin Johnson  
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Convention Chariman . . . . . Wanda Macnair  
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Slide Librarian . . . . . Daniel Haseltine  
6950 W. Nelson St., Chicago, IL 60634

Speakers Bureau . . . . . Muriel Perz  
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Please send manuscripts to editor, with SASE if return requested.

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Address correction requested

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