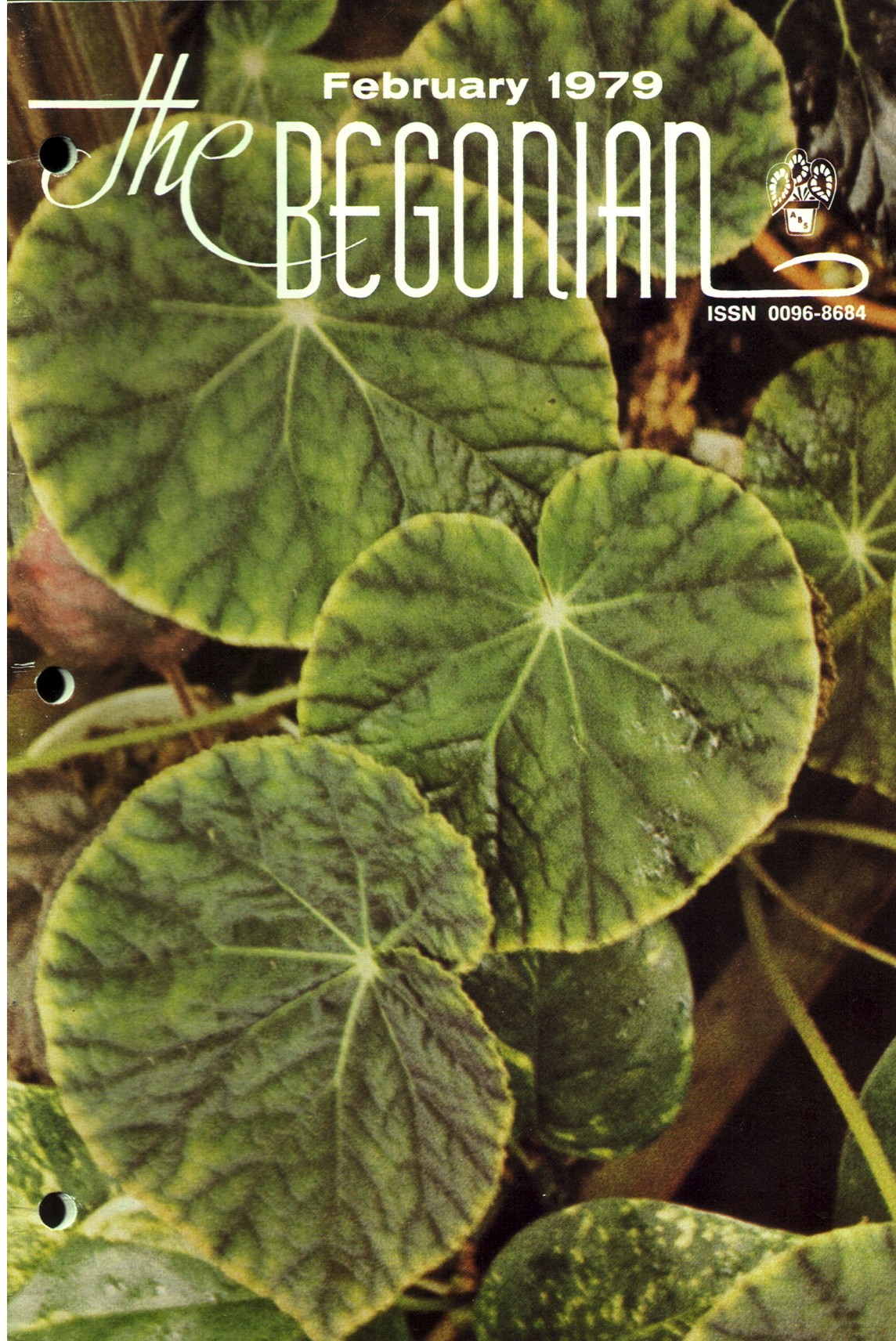


February 1979

The BEGONIAN



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Photo by Nancy Torzeski

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AIMS AND PURPOSES OF THE AMERICAN BEGONIA SOCIETY

The purpose of this Society shall be:

TO stimulate and promote interest in *Begonia*
and other shade-loving plants;

TO encourage the introduction and development
of new types of these plants;

TO standardize the nomenclature of *Begonia*;

TO gather and publish information in regard to
kinds, propagation and culture of *Begonia* and
companion plants;

TO issue a bulletin which will be mailed to all
members of the Society; and

TO bring into friendly contact all who love and
grow *Begonia*.

Species Survey

BEGONIA EDMUNDOI BRADE

By Mildred L. Thompson, Southampton, New York



On July 11, 1940 Dr. A. C. Brade collected an interesting Brazilian species, later named *B. edmundoi*, at Córrego Beijaflor, state of Rio de Janeiro, at 1400 meters in the Organ mountains. In this same location Edmundo Pereira later collected the same species on March 1, 1944. Both specimens were collected in flower.

In 1945 the name and description of this new species was effectively and validly published by Dr. A. C. Brade in "Begonias Novas do Brasil IV," *Rodriguésia* in Volume 9, No. 18 on pages 33-34. In the same publication is an excellent illustration, *Estampa* 6, drawn by Brade in 1944.

For botanical classification Dr. Brade placed *B. edmundoi* in the new

section *Pereira*, which he described in the same publication. The type specimen is at Herbário do Jardim Botânico do Rio de Janeiro No. 48,879.

Dr. Brade named this unusual species *B. edmundoi* and the new section *Pereira* to honor the collector, Edmundo Pereira.

It is difficult to determine when *B. edmundoi* was first brought into cultivation in this country, but there is a record that the New York Botanical Garden received this species from Brazil in 1951 from A. C. Brade. The first time I have found it in any horticultural literature is in the 1962-63 catalog of Logee's Greenhouses and in the Buxton Checklist Supplement

1962. It appears that this species has not been widely grown or known by growers in this country. Up to the present time hybridizers apparently have not used *B. edmundoi* in their work because to my knowledge no cultivars of hybrid origin have been introduced using *B. edmundoi* as one of the parents.

For horticultural classification *B. edmundoi* is classified "shrub-like, bare-leaved, small-leaved (general average leaf size at maturity under 3")" in *The Thompson Begonia Guide*. At maturity *B. edmundoi* will reach a height of about two feet. It has dark brown glabrous stems, that are erect, thin, and very brittle. There is not much branching. The dark green upper surface of the leaves is glossy and glabrous; the mahogany red under surface has a dull sheen. The lanceolate leaves have long acuminate apices, and the bases are acute or obtuse. The veins are arranged pinnately with four to six veins on each side of the midrib. The leaf margins are dentate and undulate. The red petioles are about 5-6 mm. long. The membranous stipules are linear lanceolate and are somewhat persistent.

B. edmundoi flowers sparsely starting in the fall and continues intermittently through the winter. The flowers are white with a deep pink tinge at the edges of the tepals when they are in the direct sunlight. The short peduncles are axillary with one to four flowers. The oval membranous bracts are 16 mm. long and 8-9 mm. wide. The male flowers have two rounded tepals 25 mm. long and wide, and two obovate tepals 20 mm. long and 10-11 mm. wide. The an-

thers are obovate and the filaments are shorter than the anthers. The female flowers have five unequal tepals 15-23 mm. long and 7-20 mm. wide. There are three styles shortly joined at the base. The stigmas are bilobate and somewhat kidney-shaped with papillae along the margin. The ovary has three cells and the placentae are bipartite with ovules on all sides. The glabrous capsule has three equal wings.

B. edmundoi requires the same basic culture as other shrub-like begonias. It is a somewhat slow-growing plant; training it into an attractive, mature plant takes time and patience. Because this is such an unusual and interesting species we particularly like growing it in a natural-looking container, preferably a moss-lined wire container, which will provide the optimum conditions for drainage and aeration of the root system. Our alternate choices of containers for this species are clay pots or redwood containers. In any event we would suggest using a squatty container.

Since *B. edmundoi* is not a naturally compact plant, it is imperative, especially when the plant is young, to pinch it regularly by cutting back to the third or fourth node on some of the older stems; on other stems pinch out the terminal bud. Even though *B. edmundoi* has erect stems it can be grown attractively in a semi-erect fashion by encouraging branching at the lower level of the main stems. To do this cut the tops of most of the outer main stems immediately above a lower side branch and allow the center main stems to grow erectly; this will produce a symmetrical



plant with a pleasing shape.

To keep the foliage a rich deep green remember regular fertilizing and proper light. It is essential to fertilize the plant regularly with a well balanced fertilizer according to the manufacturer's instruction. *B. edmundoi* will do best when it has about 4-6 hours of sunlight a day; in some geographical locations where the sun's rays are intense, filtering may be needed. This species will also do fairly well when it is grown where there is plenty of light without direct sunlight, but flowering will be less.

In the summer we grow *B. edmundoi* outdoors in a spot best suited to its light requirements and in the winter we place it similarly in our greenhouse. This species will also do well in the fluorescent light garden until it becomes too large. If you want to do something a little different with this species, try growing it in a drift-

wood or rock planting. *B. edmundoi* lends itself to this kind of growing that somewhat simulates its natural habitat.

Propagation of *B. edmundoi* is done with stem cuttings. However, we have found that it takes a little longer to root than most. Propagation by sowing seeds is good because, since it is a species, the resulting plants will be true to the parent plant.

Growers will not be attracted to *B. edmundoi* because it is a particularly lovely or beautiful species, but rather because it is unusual and interesting. It will surely delight the *Begonia* enthusiast and be an attraction in any collection of begonias.

Photographs by Ed and Millie Thompson

Photographs: will appear in the forthcoming additional sheets of *The Thompson Begonia Guide*.

BEGONIA EXOTICA HORT.

By Elda Haring, Flat Rock, North Carolina

Recently Clarence Hall of Sacramento, who interestingly enough is the oldest living member of any Branch of ABS, having joined in 1938, asked me how and where I take cuttings of *Begonia exotica* hort. After writing him at length about my experiences with this fascinating plant he suggested that I write this story for the *Begonian*, as it was his feeling that it would be of much interest to the members.

My plant was grown from a single leaf cutting sent to me five years ago by Yvonne Wells of Texas. By trimming the leaf to half-dollar size and cutting wedges, I grew several nice little plants under fluorescent lights. At that time I knew nothing of problems other members were experiencing with this beautiful species.

For a rooting medium I use a mixture of equal parts vermiculite, perlite and *milled* sphagnum, thoroughly dampened before using. Cuttings are crisped in water several hours before inserting in the mix and watered again around each stem, leaf or wedge to settle the material closely around the cutting. As a rule, I do not use plastic propagation boxes but prefer to use a small 3 x 5" flat covered with a plastic bag and with the end left open. As the cuttings produce new plantlets I cut the plastic bag down the center to harden the plants to accustom them to the condition in my fluorescent light plant room.

As normal outdoor humidity where we live is rarely under 40 percent I do not find it necessary to grow

B. exotica hort. in a terrarium and it is my feeling that even in areas where outdoor humidity is very low most of the year, if humidity in the greenhouse can be kept up to 40 percent this species would need not be grown in a terrarium. However, if cuttings are being taken from plants grown in closed containers, they will suffer disastrously when exposed to open air. Therefore, any cuttings taken from a terrarium plant should be completely submerged in water for several hours before placing in a propagation box, and the lid of the box should be left slightly ajar and gradually removed as the small plants grow to acclimate them to the conditions in your plant room. Unless the temperature is below 65° there is no need to use bottom heat for rooting.

B. exotica hort. will rot if overwatered, yet it will wilt quickly if the root ball should become the slightest bit dry, and this happens even if the top one inch of the soil seems moist to the touch. The first time this happened to my plant I found the stems completely limp and falling down over the bench. They truly appeared lifeless. However, as I am never one to become completely discouraged where plants are concerned, the pot was submerged in a container of water to permit the water to run into the top of the pot and allowed to remain until bubbling stopped after which it was placed in a deep saucer containing about two inches of water for overnight. The following morning, much to my delight the

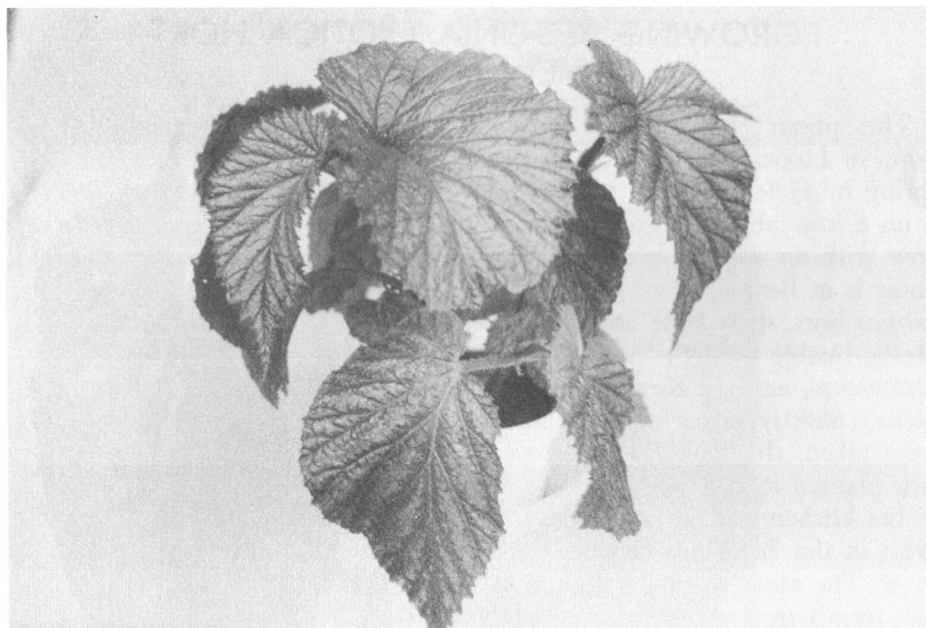


Photo by Walt Haring

plant was standing up again although a few leaves were permanently damaged. After this experience, I wicked the pot and grew my original plant, which now has five stems and is about 12 inches tall, over a reservoir containing a pint of water. When in need of transplanting from a four to five inch pot, I put it in a deep five inch plastic pot to fit the reservoir.

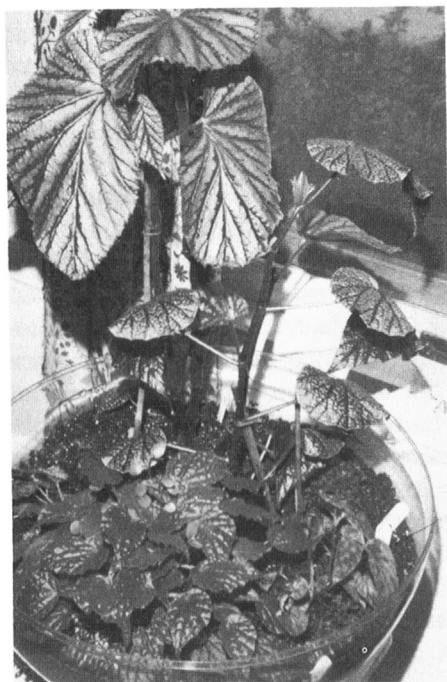
This species need not be allowed to grow tall. When my original rooted cuttings reached 4 inches tall, I pinched out the unfurling new leaf to force new stems from the pot level and as these reached a desirable height, they too were pinched to keep the plant within bounds. If your plant has grown much too tall the top 4 to 12 inches can be cut off and it may be rooted as any stem cutting. As a matter of fact, the entire top can be cut off to within four inches

of the soil level after which it will renew itself. My biggest problem with this begonia is keeping a supply on hand as everyone who visits me wants one.

I grow *B. exotica* hort. under fluorescent lights in my cellar using a combination of cool and warm white tubes. In summer, relative humidity stays about 70 percent and temperatures vary from 70 to 75 degrees. In winter, humidity varies from 40 to 50 percent and temperatures from 65 to 70. I have never grown this begonia in my greenhouse but Clarence Hall has inspired me to place several plants there as an experiment to observe their behavior. In winter the minimum night temperature in the greenhouse is about 58 degrees and humidity varies throughout the year from 35% on sunny days when natural outdoor humidity is very low to 70% on dark and rainy days.

GROWING BEGONIA EXOTICA HORT IN NEW ENGLAND

The photo showing *B. exotica* hort. in bloom was taken late last spring by Helene Toolan who grew it on a low table in front of a window with an eastern exposure. Her home is in Bennington, Vermont. *B. exotica* hort. shared the bottom of a plastic bubble with *B. 'Arabelle'*, *B. 'Buttercup'*, and the Kew species begonia. Shortly after these photos were taken, she took *B. 'Buttercup'* out, planted it in a pot and grew it by her kitchen sink. It later won first prize in the Berkshire Garden Club show. The other plants continued in the terrarium bottom without the dome and were put into her little greenhouse adjacent to lights, but not directly under them. The base of the terrarium was on the floor. The plants required staking.



While she was away on vacation, the caretaker broke the top of *B. exotica* hort. off about seven inches above the soil level. This unfortunate incident did not end unhappily for the plant soon sprouted new leaves and new canes and looked fine.

Mrs. Toolan's favorite begonias are the miniature rexes and the rexes with swirled leaves. For the Minneapolis show of the Garden Clubs of America, she had an interesting entry: six plants of *B. 'Persian Swirl'* all grown from a leaf and uniform. This entry received special commendation from the judges.

Photos by Helene Toolan, Old Bennington, Vermont. See note on page 54.

FAIR WINNER Walter P. Witek



Here's a picture of a proud and happy man. Thanks to the knowledge he has gained mainly through avid reading of the *Begonian*, ABS member Walter P. Witek of Lake Zurich, Illinois, won not only first prize for the best begonia in the begonia division but also the Best of Show ribbon in the Horticultural Division at the Lake County Fair in August 1978. It was the first time Wally ever entered anything, anywhere.

About five years ago he barely knew roses from geraniums and didn't much care. Then a neighbor gave him a begonia leaf from a lovely little plant to try to propagate. Wally got a plastic shoebox and Redi-earth. Carefully following directions in a library book, he snipped

the veins, contoured the moist medium, and fitted the leaf snugly into its new home. The top was covered by plastic wrap. By the time "babies" appeared about a month later he was completely infected with the "bug" — it was the beginning of a most rewarding hobby.

One of those tiny plantlets became this prize-winning *B. masoniana*. One of the seven other plants went back to its grandfather at the neighbor's home and all the others are doing well, too. Wally went on to other types of begonias after joining the ABS and our yard in summer is resplendent with semperflorens, shrubby, tuberous and other begonias that Wally always starts from seeds or cuttings.

By Dorothy C. Witek

THE WINTER BLOOMING BEGONIAS

By Robert B. Hamm, Wichita Falls, Texas

When the gorgeous hybrids of the winter flowering tuberous begonias from the German hybridizer Rieger hit the world, they created quite a bit of interest. These Rieger hybrids were patented under the Rieger name and distributed through wholesale distributors worldwide.

While these hybrids had gorgeous flowers and a wide range of colors, the hybrids suitable for German culture, did not always do well in other areas. Taking the traits from their parental types, they were very sensitive to mildew and some plant diseases. Also a great deal of misinformation about their culture and care was distributed and this certainly did not help those persons trying to grow them.

However, as the plants were grown in the United States and Canada, many new varieties were bred, discovered as mutations, and otherwise developed and tested. These plants kept the beautiful flowers of the old Rieger types, but were much stronger growers, much more disease resistant and in many cases were much smaller in growth and therefore more suitable for home window-sill and light garden culture. These new hybrids were also patented, but under the name of the US distributor, Mikkelsen Inc., and were named Mikkel begonias. However, the public was used to the Rieger name, and confusion resulted on the part of the buying public when their "Rieger" begonias had "Mikkel" tags. This made some people think that the patents had expired. They had not —

they were newly developed plants patented under a new name.

There is a botanical group within the *Begonia* known as the hiemalis group. Karl Fotsch named the original *B. x hiemalis* which was produced from a tuberous species and *B. socotrana*. Today all begonias that are derived from that parentage, primarily winter-blooming tuberous plants, are properly referred to as hiemalis. However, when a person finds the words hiemalis begonia on a commercial plant, in nursery or florist shop, it will often be one of the ones derived from the Rieger/Mikkelsen line.

The new hiemalis varieties are vastly improved over the older Rieger types. No longer are they highly mildew sensitive. Many are small enough to grow in a 4" pot, and while the older Riegers had double blossoms on only the basket types, the double bloom has come to the new smaller pot types now. Also the color range has increased to include the yellow and orange spectrum in single and double blooms.

The hiemalis varieties are not really hard to grow once you understand their requirements. The mildew susceptibility of the Riegers lead to the idea that hiemalis types do not like humidity. This is not true. Hiemalis begonias grow very well in high humidity as long as the foliage is kept dry and the air circulation is good. Poor air circulation and wet foliage, especially at night or in cloudy weather will result in mildew, even on resistant plants. It also promotes

certain bacterial diseases in begonias.

Remember that hiemalis plants are very succulent and while they like a humusy soil, they must drain well and do not tolerate wet soil or water standing around the base of the plant. Therefore mix extra perlite or sand in your potting mix, and pot the plant "high" so that the top of the root ball is slightly above the new soil level. This will prevent water from standing around the base of the stems and causing rot.

The hiemalis group will stand a great range of temperatures. I have had them survive 95 degree summers, and 45 degree winters, but with special care. In cold weather, I water the plants with LUKE WARM water and grow slightly on the dry side. If a plant seems to be slightly dry, I wait an extra day to water. In hot weather, more water is needed but still they must not be kept too wet. I keep the humidity and air circulation up. Drier air in colder conditions is the rule, but always with good air circulation.

Ideally hiemalis types should have temperatures of 68-75° for growth, and when ready for blooming, temperatures should be lowered to 60-65° to help induce bud set. Also note that the hiemalis were developed from winter blooming tuberous types, and while they grow and bloom all year round, they bloom best from fall to spring when the days are shortest and the temperatures cool. If you insist on growing your plants at warm temperatures and lighted long hours, they will grow beautifully but may never bloom. When growing them under lights it is best to either shorten the

time to 11 hours until buds set, or remove plants to natural light to promote blooming. Cooler temperatures (60-65) will help induce flowering also.

Feeding the hiemalis types is not hard. They respond very well to constant feeding of a dilute liquid fertilizer. Strong and harsh concentrations of fertilizer should be avoided as they may burn the plants. A nitrogen rich fertilizer such as 20-10-10 or 10-5-5 will promote growth, while during the growing season a fertilizer should promote bloom and not strong leafy growth, so a 10-20-10 or 10-15-10 or such is good for promoting heavy bloom.

Hiemalis hybrids are not bothered by many pests or diseases. Should you get a case of mildew, take care to keep the foliage dry and increase the air circulation, and spray with a fungicide containing Benlate or Benomyl. Mites or mealybugs will occasionally attack hiemalis begonias, but can be eliminated with a number of the regular plant sprays. Neither are real serious pests, though dry air will prompt mites into a population explosion if they are present.

Don't be afraid to try the newer hiemalis hybrids, they are getting better and easier all the time. Most of the problems of hiemalis can be best treated by prevention, and making sure the soil, air circulation and cultural requirements are right.

These plants are beautiful in bloom and wonderful to display throughout winter and early spring.

ABS CONVENTION 1979

New York, New York, a place so nice, they named it twice.

See you there.



B. hemsleyana

Best rhizomatous begonia

HANDSOME SPECIMENS

Joan Coulat of Sacramento is an accomplished begonia grower and had many fine specimens on display at the recent national show in Sacramento. She has plants in her garden, home, and greenhouse, and enjoys bringing each plant to its very best appearance. Her advice on growing begonias is simple. "Begonias are just like people," she told the reporters from the *Sacramento Bee*. "Just keep them clean, water and feed them. Remember each plant is an individual with different texture, color and substance."

Among the plants selected for honors was *Begonia hemsleyana* which brought Joan the John R. Williams Trophy for the Best Rhizomatous Begonia in Show and a cultural certifi-

cate. *B. hemsleyana* is one of a small group of begonias that have rhizomes that lie just at the soil level and the petioles seem to grow from the ground to create a bushy plant. The specimen which she showed was about three feet high and at least five feet in diameter. The compound leaves are medium green and remind one of those of *B. carolineifolia*. However, *B. carolineifolia* has an upright rhizomatous stem and the two plants do not have a similar appearance overall. Rose pink blooms will appear on *B. hemsleyana* in the spring.

A favorite with the public was *Begonia* 'Kitty', shown on the next page. The silver and pale green leaves with maroon markings are



B. 'Kitty'

Photographs by Robert Q. Jacobs

spiraled and frilly, so that the pink buds are hidden by the glorious leaves. This rex hybrid, hybridized by Louise Schwerdtfeger, is considered a difficult plant to grow. It certainly deserves the acclaim which it won.

Although Joan Coulat has been growing begonias since she was a little girl, she has belonged to the ABS and the Sacramento Branch for about five years. She did not take long to become active in branch activities and soon found herself very

busy with plant sales and then as chairman of the last national show. Like all other major show chairmen, she started preparations a year before the show and still serves as advisor to the next show chairman. In addition to the many other duties, she had entered a large number of fine plants in the show. "The Show Hall looked so big and empty and I feared that it would still be that way at Convention time, so I brought everything I could," she said.

BEGONIAS AT LONGWOOD GARDENS

By Keith Mautino, Santa Barbara, Calif.



Begonias at Longwood: *B.* 'Tom Ment', canes, *B.* 'Ingrammii', center, and *B. schmidtiana*, lower right.

As we entered the gates of Longwood Gardens, Kennett Square, Pennsylvania, we Californians were amazed by the beauty of the spring flowers and trees which were at their peak of bloom in April. There were five of us from Santa Barbara who visited Longwood.

We admired many plants growing in different ways than we were accustomed to see. Instinct seemed to draw us to the place where we would see our hobby plant, the *Begonia*. As we entered the large conservatory, the first begonia to be seen was a gorgeous wall pocket of *B.* 'Tom Ment'.



B. x heracleicoryle



Begonias, tropicals in garden setting



B. epipsila

Beautiful specimen plants in full bloom such as *B. schmidtiana*, *B. speculata*, *B. 'Oceanside'*, and *B. 'Red Planet'* adorned the shade garden room. In the balcony gardens hanging baskets of *B. epipsila* and *B. x heracleicotype* stood out with their crowns of pink blooms. The major part of the collection was housed in the rare plant room where the humidity was quite high. The rexes were quite well represented by *Begonia* (Rex Cultorum) 'Fee', *B. 'Red Berry'*, *B. 'Merry Christmas'* and *B. 'Shirt-sleeves'*. I recognized many begonias that were familiar to me from our own collections at home, for example, *B. 'Los Angeles'*, *B. bowerae* var. *nigramarga* and *B. 'Silver Star'*.

In the propagation house there

were many rooted cuttings of the semperflorens, *B. 'Linda'*, and of many single and double flowering semperflorens, including some of the large flowering "butterfly" type. The tuberous begonias were just beginning to sprout. Hanging baskets of *B. 'Pink Shasta'*, *B. acetosa*, and *B. foliosa* were showing new growth. One of the 200 gardeners who worked on the 300-acre estate formerly owned by the DuPont family said that the mass plantings of small begonias would fill the beds after the tulips had finished blooming.

We were pleased that begonias were so well represented at Longwood Gardens and even dare hope that their numbers will increase.

Photos by Keith Mautino

CLAYTON M. KELLY SEED FUND

Linda Miller, Director

February 1979

- FB 1 — *B. bowerae* var. *major*: Mexico. Rhizomatous. Lovely green leaves with "eyelashes" around edges. Flowers pink. Germination time: 11 days. per pkt 1.00
- FB 2 — *B. cubensis*. Shrub like, compact plant, with small, bare leaves. Flowers white. Everblooming. Germination time: 8-11 days. per pkt 1.00
- FB 3 — *B. engleri*. Curious, tall, shrub like plant with red hairs on stems; dark green, wide leaves with white hairs; rose-pink blooms in spring and summer. Easily grown from seed. Germination time: 6 days. per pkt .50
- FB 4 — *B. epipsila*: Brazil. Low-growing, shrub like, with roundish fleshy leaves, green above and red obverse. Flowers white. Germination time: 8-10 days. (see photo, page 44) per pkt 1.00
- FB 5 — *B. glabra*: Brazil. Scandent species, with waxy green leaves somewhat heart-shaped. Makes a most attractive hanging basket. Small white flowers. Germination time: 9 days. per pkt 1.00
- FB 6 — *B. hydrocotylifolia*: Mexico. One of the small-leaved rhizomatous begonias. Great for small places or light gardens. Does well in a terrarium also! Has round, waxy green leaves. Small pink flowers. Germination time: 6-13 days. per pkt 1.00
- FB 7 — *B. johnstonii*: Africa. Tall, loosely branched with pale green leaves and red-spotted stems; few but large, pink flowers. Germination time: 7 days. per pkt 1.00
- FB 8 — *B. olsoniae*: Brazil. Compact, shrub like, leaves to 6 inches, bronze green with yellow veins and red hairs. Flowers large white. A very special plant to add to your collection. Germination time: 24 days. (Note: germination time is a lot longer than many others; so be patient, you will be rewarded.) per pkt 1.00
- FB 9 — *B. rubro-venia* 'Silver': Bhutan. Beautiful, rhizomatous species, with rhizome jointed at or near the soil. Has silver leaves that are oblong and pointed. Flowers white with red veining. Can be grown in a terrarium. Makes a very special specimen. Germination time: 12 days. per pkt 1.00
- FB 10 — *B. schmidtiana*: fibrous species from Brazil. It grows to 12 inches with a bushy habit. Handsome olive green foliage. Prolific bloomer with "apple-blossom" pink flowers. Makes a graceful basket plant. One of the "easy" growers! Germination time: 10 days. per pkt .50

Hybrids

- FB 11 — *B.* 'Bikerack #3': A ruffled semperflorens type. A beautiful and hardy plant with large leaves. Flowers range from light pink to dark rose. per pkt .50

- FB 12 — *B. 'Charm'*: Very different semperflorens type with yellow and white coloring on leaves. Flowers light pink. per pkt .50
- FB 13 — *B. 'Kalla King'*: Another very special semperflorens type, this one with pure white inner leaves, resembling a Calla lily. Pink flowers. per pkt .50
- FB 14 — *B. nelumbiifolia* x *purpurea*: These plants are turning out to be very interesting. So far my seedlings seem to have the teardrop shaped leaf of the *nelumbiifolia* parent and the coloring of *purpurea*. Try something different. per pkt .50
- FB 15 — Mixed semperflorens: Mixed colors and forms. JUMBO pkt .50

Gesneriads

- FB 16 — *Alsobia dianthaflora*: (formerly *Episcia*) Fibrous plant that makes a lovely hanging basket. Germination time: 17 days. per pkt .75
- FB 17 — *Chrysothemis friedrichsthaliana*: tuberous rooted, yellow flowers in axils. Germination time: 15 days. per pkt .75
- FB 18 — *Columnnea argentea*: fibrous, narrow silvery leaves, flowers lemon colored. Germination time: 10 days. per pkt .75
- FB 19 — *Episcia 'Hummingbird'*: Germination time: 7 days. ... per pkt .75
- FB 20 — *Gloxinia sylvatica*: rhizomatous, lovely plant. Flowers a deep red. Germination time: 10 days. per pkt .75
- FB 21 — *Sinningia cardinalis*: tuberous, with tubular red flowers. Germination time: 11 days. per pkt .75
- FB 22 — *Sinningia speciosa*-mixed: Tuberous. Seed sown now will give you many lovely blooming plants by summer. Germination time: 10 days. per pkt .75

Other Plants

- FB 23 — *Arisaema triphyllum*: "Jack-in-the-Pulpit" per pkt .50
- FB 24 — *Celosia 'Red Fox'* per pkt .25
- FB 25 — Hemerocallis hybrids: mix includes small, mini and large. per pkt 1.00
- FB 26 — *Rhododendron hirsutum*: 4-5 ft. shrub, hardy from the Alps. per pkt .75
- FB 27 — Luffa gourd: sow now for vining plant that produces large squash-like fruits that when mature are used as sponges. Free instructions with order. per pkt .50

A free packet of mixed begonia seeds will be sent with each order this month.

Calif. residents please add 6% sales tax on all orders. All customers please send a self-addressed, stamped envelope with all seed orders. Make all checks or money orders payable to: Clayton M. Kelly Seed Fund. (Foreign orders please make out in U.S. funds only.) Mail to: Mrs. Linda Miller, 4613 Cochran St., Simi Valley, CA 93063.

SPECIAL SEEDS WANTED BY MEMBERS

The seeds on the following list are in demand. Some members have been waiting years for seeds of some of these to be available. Even if the amount you can supply is small, it will be appreciated. Please share if you can. Your help will be rewarded. Thanks for your support. Happy growing!

Begonia species

<i>acaulis</i>	<i>ficicola</i>	<i>paulensis</i>
<i>annulata</i>	<i>froebelii</i>	<i>pustulata</i>
<i>aridicaulis</i>	<i>gebrtii</i>	<i>rufosericea</i>
<i>bartonea</i>	<i>goegoensis</i>	<i>sementacea</i> hort.
<i>bogneri</i>	<i>hidalgensis</i>	<i>socotrana</i>
<i>bipinnatifida</i>	<i>imperialis</i>	<i>squamulosa</i>
<i>boisiana</i>	<i>jussiaeicarpa</i>	<i>sudjanae</i>
<i>crispula</i>	<i>laciniata</i>	<i>violifolia</i>
<i>decora</i>	<i>lubbersii</i>	
ex Kew sp.	<i>morelii</i>	



THE PERIDOT GROUP

Three small rex begonias often grown in a terrarium are *Begonia* 'Peridot' (top), *B.* 'Exotic Peridot' (lower left) and *B.* 'Silver peridot'.

Begonia 'Peridot', the smallest of the rex hybrids, first appeared in the Kartuz catalog about 1974. The tiny
(Continued on page 54)

ROUND ROBIN NOTES

By Mabel Corwin, Round Robin Director

Mildew treatments

Mildew continues to be a problem for many growers. Keith Mautino, California, says: To treat my rexes for mildew I mix up a large bucket full of diluted Doo Spray. I dunk the small plants in the spray and splash it on the larger ones. Alta Soule, California, writes: For mildew I keep a can of Lysol Spray in the lathhouse in easy reach. I spray the plant, pot and all at the first sign of mildew. In January I go out and start pruning (surely makes the plant look bad for a little while). Then I soak the plant with cow tea and put it back in place. I spray with garlic spray and in a few weeks the plant is beautiful again.

Propagation of mildew prone cuttings

Ruth Ihara, Washington, D.C., reported: I was asked to be chairperson of the propagation committee of our local ABS chapter. I've been experimenting with different ways of making the rooting of cuttings a little closer to being foolproof. For begonias that are prone to mildew in a closed container (*B.* 'Tingley Mallet', *B.* 'Dorothy Barton', some of the rexes), I found the following eliminates the need to enclose the cuttings in plastic as I do with most varieties. Put the cutting in a vermiculite filled plastic pot or styrofoam cup with holes punched in the bottom for drainage. Set it in a pan of water with a dash of fertilizer. I use a very dilute solution of fish emulsion or Miracle-Gro. Keep the pan

filled with water until the cutting is rooted. This method gives me sturdier rooted cuttings that do not need to be hardened off, unlike those in covered containers. Cuttings started in styrofoam cups have the advantage of less transplanting shock, since you need only to tear away the cup from around the roots. Some cane begonias act as though they might like to live in the styrofoam cups forever.

Propagation of *B. diadema*

Jan Clark, North Dakota, did not have success rooting *B. diadema* from stems without cutting into the basal rhizome. She tried whole leaves with the sinus at the sand surface. They formed tiny nodules in a clump at the sinus, then produced quite a clump of plants there. Even where the leaf completely rotted away the stem stub produced a clump of plants at its top. Most leaf cuttings have the plantlets coming from the bottom of the stem. The sinus must be where the "oomph" is located in that species. Jan added that *B. diadema* is one that does not like cool temperatures.

Heating cable

Roman Wiza, Wisconsin, told how he made a heating cable from an old electric blanket: I stripped the heating coil from inside the blanket. It seemed as if I ended up with about a mile of wire. I used a cutout from a sink top which is formica as a base and I drilled hundreds of holes, starting in the center and going to the outside. In these holes I

put small nails so that I could string the wire to hold the rectangular shape. This wire is plastic coated so that moisture does not harm it or short out by making contact with the small nails. It works fine for me.

Garden sculpture

Verda Stull, Ohio, gave her recipe for making pots or cement sculpture: Use one part pure cement, three parts vermiculite, and add enough water to make a pouring consistency. Be sure to mix well. It can be poured into wax milk cartons or any larger container lined with plastic. Forms of absorbent materials will absorb water and cement from the mix and the finished product will crack or break. Something can be inserted to make a hole and various forms can be contrived. This mix is left for 18 to 24 hours to harden, and then it can be carved into any desired shape. It can be kept moist wrapped in wet newspaper and plastic for a few days while working on it. When finished let it dry gradually. After drying it can be painted with pure waterglass as a sealer to preserve. This will preserve the natural color. I have seen both pots and sculpture made from this, but I have only made a couple of pots. I have also seen larger items made in parts and put together, too.

Hybridizing

In a discussion on hybridizing, Francis Michelson, Florida, reported: When you are making a cross cut off all of the male blooms and leave only the female blossoms on the plant. When the small petals on the female flower curve back, take ripe pollen from the male blossom and put it on the female blossom. Test

for ripe pollen by placing the male flower on your fingernail. If it is ripe some pollen will show on the fingernail.

B. masoniana

Growing begonias in an arid climate is a real challenge. Florence Clough, Arizona, found a way to grow *B. masoniana* (Iron Cross). She put it in a hanger over the bathtub. There was lots of light and it enjoyed the humidity from the bath water. It bloomed for 3 months.

Watering

In a robin on Miniature Begonias, Mary Harbaugh, Wisconsin, had this to say: I first thought it was over watering, but now I tend to think it was just the opposite. In my desire not to over water the poor plants are dying of thirst. By the time I realize it they are beyond hope. I have been having good results in wicking many of my other begonias, so I may try it with the miniatures. When I first started wicking I was afraid the constant moisture would kill the plants, but they seem to thrive on it. I suspect many, if not most of them, prefer the constant conditions as opposed to the alternating dryness and wetness. I have been wicking only a few at a time, but so far, so good. I use the rug yarn, but separate the strands that are entwined together and use a single thin one for all but my biggest plants. The full strand tends to create a soggy condition.

In the same robin Anne Crowley, Mass., wrote: My begonias also suffered from underwatering extremes. Keeping in mind that over watering was the main cause of death, I was treating them as if they were cacti

and the poor things were flopping like mad. I began my own sort of capillary matting — an old orlon sweater cut to the size of the tray. This was kept wet. I had tried wicking, but it was a chore to clean out those individual pots and flush out the fertilizer salts. With the mat I just have to toss it in the washing machine every few months and rinse out the tray. I have had no mildew on plants, but the added humidity does improve their looks. This is also much cleaner looking than the pebbled trays. There is a commercial matting, but it does not survive the washer. You are left with lots of lint and nothing else.

Plant Records

Many of the robin members keep notebooks where they record suggestions from the letters. Some keep plant records in notebooks or file boxes. Christine Cook, Oregon, told how she does it: I use a receipt box with colored index cards. Green is for plants. I record the name, date purchased, cost, and size. Also, the feeding dates and what I used. On the back I put the name of the person with whom I shared the plant. Pink cards are for people I correspond with, also anything they may have sent me. I like to let them know I still appreciate their gift, and how it's doing for me. Blue cards are for businesses, what kind of catalog they have, and how much it costs. If I order from them I record what kind of packing and service I got.

Horticulture award

Leona Gildseth, Minnesota, recently won the award of merit for service to Minnesota horticulture. The award

was presented at their state meeting in St. Paul. Last year she was voted All Star Gardener by her garden club. Our congratulations to Leona!

Humidity

In one robin they were discussing how to cope with a lack of humidity. Alta Soule, California, wrote: I find if we water the ground and not the leaves it is better. This helps to create humidity. In the house I turn a flower pot upside down and put it in a pan of water. I set the plant on top of this. This increases humidity and the plant does much better.

Fern notes

Dora Lee Dorsey, Florida, grows many ferns from spores. She prepares her planting medium by first boiling the leafmold compost. Then she adds perlite and vermiculite until it is the proper consistency.

Art Sackenruther, California, described his method of mounting platyceriums: I use a piece of redwood board about $\frac{3}{4}$ " to 1" thick and from 8" to 12" wide. I like to use either sheet or sphagnum moss, and place the moss and the plant on the board. Then I wrap nylon fish line around it to hold in place and hang in filtered light. Usually the plant "takes off" and really grows after mounting.

If you would like to take part in the robins write to me. I will be happy to send you a list of flights available and information about joining.

Mabel Corwin

1119 Loma Vista Way
Vista, CA 92083

ABS CONVENTION 1979

New York, New York, a place so nice, they named it twice.

See you there.

Joy Martin To Be Workshop Leader

Joy Logee Martin will be principal speaker and seminar leader at the Cheekwood Begonia Workshop, February 24 and 25 at Tennessee Botanical Garden in Nashville. Mrs. Martin, whose nursery is at Danielson, Conn., is well known for her begonia hybrids. She has been very active in several plant societies including the ABS.

Contact the Garden or Kit Jeans, Route 1, New Johnsonville, TN 37134. Phone (615) 535-2026 for additional information.

Price Change

The Schultz Company has announced a price increase for products in their ad (Back cover). Schultz Instant Liquid Plant Food is now \$1.25 for 5½ oz., \$2.50 for 12 oz. The Soluble Fertilizer sells for \$7.95 for 5 lbs. All prices include mailing.

Arizona Violet Show

The Tucson African Violet Society will have a show at Christopher City, 3401 N. Columbus Blvd., Tucson, AZ, on Saturday, March 3 from 3 to 7 p.m. and Sunday, March 4 from 10 to 5 p.m. The show will include prize winning plants, flower arrangements, terrariums, dish gardens, and African violet handicrafts. For further information, contact the chairman, Mrs. Bernice H. Strauss, 4002 E. Montecito, Tucson, AZ 85711.

Lending Library

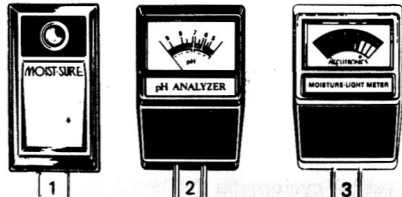
A list of the books in the ABS Lending Library and rules about borrowing them may be obtained from Delores Fernandez by sending a self addressed stamped envelope to her at 4369 Tujunga Ave., North Hollywood, CA 91604.

MARCH GATHERING IN TEXAS

Excitement is growing for the 1979 Southwest Begonia Growers Get Together. If you haven't made reservations for March 8 through 11, send them in now. Everyone is eager to hear Millie and Ed Thompson, who will present two days of growing and showing begonias. The plant sale is expected to be great with plants promised from every direction, and there will be a special collectors' table with rare varieties. All your old friends from last year plus some new ones will be there. So find your December Begonian and send the reservations in right away. You'll enjoy a good ol' Texas hospitality fun time!

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Woodriff's Fairyland Begonia Hybrids. List 25¢. Visitors welcome. Leslie & Winkey Woodriff, Fairyland Begonia & Lily Garden, 1100 Griffith Rd., McKinleyville, CA 95521. (707) 839-3034.

BEGONIAS, Popular varieties, new hybrids, 300 kinds. 20¢ cash or stamp for list. Rainbow Begonia Gardens, Box 991, Westminster, CA 92683.

The Good, The Rare and The Beautiful in begonias. Rex, rhizomatous, cane and shrubs. 25¢ for list. Visitors welcome. Lera's Greenhouse, P. O. Box 551, Wailer, Texas 77484 (713) 372-2800.

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Beautiful cyclopedia TROPICA by Dr. A. B. Graf; 7,000 all-color photos of Exotic Plants, including 215 Begonias, 1,120 pages; list price \$115.00, postpaid if check with order. Circulars gladly sent. ROEHR'S COMPANY, Box 125, E. Ruthersford, NJ 07073.

CANADIANS: Begonias are now among the many delights at the PLANT PLACE. Lovely rex and rhizomatous hybrids, many miniatures for the light gardener. Also featured, Aeschynanthus, Columnea, Nematanthus, Sinningias, Streptocarpus, African Violets. Mail order catalog 75¢ (deduct from first order). Box 936B, New Hamburg, Ontario NOB 2G0. Yes, we do ship to the US also.

Exhibition Manual. Optional supplement of The Thompson Begonia Guide for subscribers and non-subscribers, 100 pages. Price \$4.95, optional binder \$3.50, including packaging and shipping. N.Y. residents add state tax. Thompson, P.O. Drawer PP, Southampton, NY 11968.

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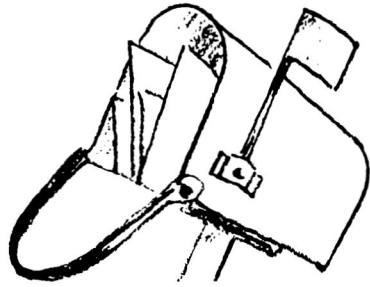
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You will receive a prompt personal reply.



Question: How do you do about rooting cuttings of *versicolor*, *decora* and *prismatocarpa*? **Answer:** I root these by leaf stem cuttings and wedges. Even the small leaves of *B. prismatocarpa* may be cut into small pieces. Each one will make a plantlet if the cut edge is pushed into the propagation mix. The mix is thoroughly dampened before using. After inserting each leaf wedge or cutting it is lightly watered to settle mix about the cutting and container enclosed in plastic bag propped up with a plant label and closed with a twist tie. If humidity is very high in your plant room the end of the plastic bags may be left open and the lid of clear plastic propagation box pulled slightly ajar to give a little air. I have never had to use bottom heat to root these begonias, but if your plant room is very chilly I am sure it would be helpful.

Question: Do you get fertilizer salts build-up in plastic pots? If so, what do you do? **Answer:** Yes, there can be a build-up of salts in plastic pots, especially if you practice constant feeding. The pots should be thoroughly flushed out once a month by taking to sink or laundry tub and pouring clear water through the mix several times to flush out excess salts. Permit them to drain before replac-

ing to community tray or individual saucers.

Question: One of the current magazines shows "tip cuttings" grown from the tip of the leaf section with the point of the lobe in the propagation mix. Does this work or did the artist get things upside down? **Answer:** If you will look carefully at the illustration you will see that wedges were cut from the leaf with the narrow end of the wedge toward the center of the leaf and the wide end toward the lobe. The narrow end of the wedge is shown inserted in the mix, not the pointed tip, which presumably was discarded.

Question: How do you stop *B. "Exotica"* from just growing upwards? How can you, or where can you make cuttings? **Answer:** The unfurling new leaf may be pinched off while the plant is small to encourage branching and to force new stems at soil level. Stem cuttings 4 to 6 inches long can be taken from a taller plant. I like to let mine grow to ten inches and take off the top 3 inches for propagation. As new growth appears I pinch out the new leaf to keep plant more compact. Single leaf stems will root as will leaf wedges.

See page 34 for more detail.

THE EXOTIC GROUP

(Continued from page 47)

button-like leaves are coppery green with a red obverse.

B. 'Exotic Peridot' is a mutation of *B. 'Peridot'* which occurred at the Plant Shop's Botanical Gardens and was registered with ABS number 549. The miniature leaves are somewhat heart shaped and bear silver spots on green background. There is a bronzy-pink overlay. These leaves are somewhat larger than those of the original 'Peridot'.

A further mutation produced *B. 'Silver Peridot'* which has the largest leaves of the trio, growing to about 2 by 3 inches. The heart shape is more pronounced, the one lobe overlaps the other, and the veins are more pronounced. The coloring is silver-pink with very little green color evident.

Several growers who have seen the mature plant of *B. 'Silver Peridot'* have thought that it was *B. 'Dewdrop'*, a small rex hybrid registered by Helen Lewis in 1947. Mike Kartuz speculated about the possibility of a mutation occurring which has gone full circle, since his original plant was a mutation from an unknown rex received from a shipment from the midwest, and Bob Cole has said, that the group mutates readily. However, no information about the stability of *B. 'Dewdrop'* has been brought to my attention, and the connection is unproven at present.

Photo by Bob Cole

The February meeting of the Board of Directors will be at 7:30, Monday the 26th at South Gate Auditorium.

There are no minutes in this issue since there was no Board Meeting in December.

Late Issues

The causes for the delays in the last two issues were many: delays in communication and transfers of materials, illnesses, holidays, rescheduling, postal delays, etc. The production workers, the various Board members, the editors and staff have been working to smooth out the difficulties and to have the next issue back to the normal schedule, so it is mailed about the first Tuesday of the month.

B. exotica hort.

See related articles on pages 34 & 36.

At the present time to the best of my knowledge, no one has validly published the name for *B. exotica hort.*, nor has it been definitely identified with an already named species. It has been found on several occasions in its native habitat in New Guinea.

I would be interested in learning about members' experiences as they attempt to set seed or to grow it from seeds.

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Robert B. Hamm

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A MESSAGE TO MY FRIENDS AND CUSTOMERS FOR 1979

To better serve all my friends and customers in the coming year I have made a number of changes in my procedures and a number of additions to my listings.

I am now open for in person sales ONLY BY APPOINTMENT OR CHANCE. I am not keeping regular "open" hours so that I can devote more time to the plants and packing without interruptions. As part of this, I will be drastically cutting back on the larger plants available here and concentrating on the plants for shipping. This will give me more room for Begonias for shipping and should eliminate a number of problems I had last year in running out of certain varieties.

Also I have made several improvements in the greenhouses, and the problems of last year caused by loss of heat/cooling are now guarded against. This will help me make sure that I do not have to disappoint anyone who has ordered plants.

Additions to my listing that have come from your suggestions include:

- 1) Beginners' Collection of Begonias
- 2) Resale Collections of Begonias for retailers/clubs
- 3) A permanent production schedule for Hiemalis (Rieger) Begonias to insure delivery for those that want these plants, and a special list for them.
- 4) An option on whether to substitute or ship as ready so you get exactly what you order, even though this often means I have to propagate to order and means delays. However, many people would rather wait and get only what they ordered than have me substitute what they might already have.

A VERY SPECIAL part of my new listing is the fact that I have NOT RAISED PRICES (except on patented plants due to increases in their cost) for 1979, in fact I have lowered a large number of them for the coming year.

My 1979 list will be sent free of charge to EVERYONE who received a listing in 1977-1978. If you are not on my mailing list the cost is \$1.50 to be put on it. I hope you will all continue to send me your suggestions and comments. I wish everyone a glorious 1979 and hope your plants do better than ever!

Good growing,

Bob Hamm

American Begonia Society
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