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AMERICAN BEGONIA SOCIETY

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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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See inside back cover

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INSIDE/May 1980

THE COVER: B. 'Essie Hunt' grown by Joan Coulat in her Sacramento, Calif., greenhouse was photographed by Karen Bartholomew. See Elda Haring's profile on page 136.

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NOTES/From the editors

Your distaff co-editor was walking down the street in Palo Alto, Calif., a few weeks after completing work on the March rex issue of this magazine. She was watching cracks in the sidewalk and occasionally glancing at window displays.

Then she stopped dead in her tracks. Had she just seen a picture of *B. rex* in the last store she passed? Fearing that the March issue had driven her to the brink of insanity, she walked back to the store expecting to find nothing.

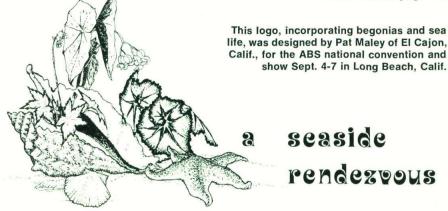
But there it was—a botanical print of *B. rex* displayed with other prints

on an antique cabinet. She rushed into the gallery and, looking through the pile, discovered two other begonias—*B. rex* var. *Isis* and *B. Marshallii*, both apparently invalid names or plants lost to cultivation. They were from the 1861 book *Beautiful Leaved Plants*.

The shop owner told her he purchased the volume from a woman in England, promising never to dismantle it. Unable to sell the book for a profit, he later broke his promise.

The damage was done—there was no putting the book back together. The co-editor was heartbroken. She

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1980 american begonia society convention

Roots and shoots: a guide to propagation

Elda Haring

Many of us who have devised methods for propagation become too rigid in our thinking. We tend to make such statements as: "There is only one way and that is the right way."

Horticulture is not an exact science and there are many ways to achieve the same goal. What seems best for me could be all wrong where you live. We should encourage our members to try several different methods to find the one that suits the particular growing conditions. Experimenting is interesting, fun and exciting.

Beginners and inexperienced growers are often reluctant to remove a leaf or cutting from a cherished plant. Aside from the pleasure it gives one, it is important to propagate a very special, rare or hard-to-find begonia to be sure it is not lost altogether.

Look over the plant and choose firm leaves, stems, rhizomes, or tips for propagating. If you carefully observe your plants and their growth habits you can choose a cutting or leaf where it will not disturb the symmetry of the plant.

The preferred time for taking cuttings is at the beginning of the growing season—when the plant starts to show new growth. This varies depending on the climate where you live or conditions in your plant room. Many of us take cuttings at any time of the year, especially if we are growing under fluorescent lights, but my own experience has been that it takes much longer

Elda Haring, ever free with her begonia expertise, lives at P.O. Box 236, Flat Rock, NC 28731. She has prepared this article using information she presented at the 1978 ABS convention in Sacramento, Calif. Photo/Ralph Corwin



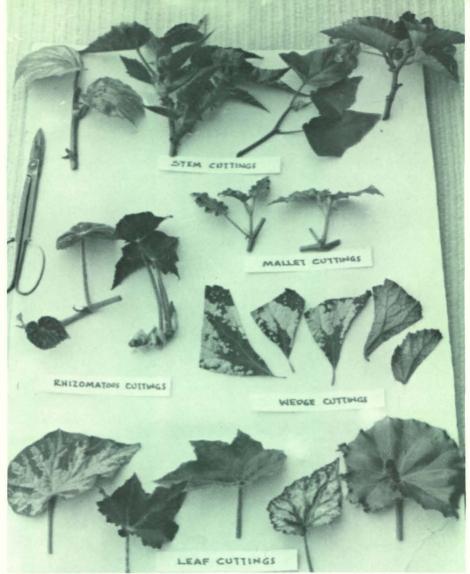
The author with plant of B. masoniana newly grown from a cutting

for roots to form and a new plantlet to grow when a cutting is taken in winter.

If you live where July and August are extremely hot it is often best to take cuttings in late winter, spring and early autumn.

It is important to crisp cuttings in water for several hours or overnight before propagating. Even badly wilted leaves or cuttings that you have received in the mail—or transported—will become firm and crisp if submerged in water overnight. Cuttings taken from bowl plants or those growing in terrariums especially need this treatment.

Most any kind of container may be used for propagation of begonias. You can use cottage cheese or margarine dishes with holes punched for drainage, small flats, or any container deep enough to hold 1½ to 3 inches of root-



The best kind of cutting depends on the plant group

Photo/Walter Haring

ing medium—the depth of medium depends on the size of the cutting.

Plastic shoe or bread boxes or plastic sweater boxes with clear lids are excellent, especially if you live where normal outdoor humidity is very low. I often use these in winter when the temperature in my fluorescent light plant room is 60 to 65 degrees and humidity at 40 percent.

Bottom heat is not necessary unless

the temperatures are under 65. If you use it, bottom heat should not exceed 70 degrees. I have rooted many begonias in winter uncovered in our greenhouse with a minimum night temperature of 58 degrees, although, as previously mentioned, rooting takes considerably longer than when the weather is warmer.

There are many media suitable for propagating begonias and I have

done considerable experimenting with these, starting out years ago with garden soil. I tried a mixture of peat and sand as well as packaged potting mixes, Jiffy Mix and others of the so-called Cornell mixes, but have had excellent success for more than 20 years using a mixture of equal parts vermiculite, perlite, and *milled* sphagnum.

Two years ago I experimented with 225 cuttings and all but three rooted successfully. Obviously this mix is the best for me.

The mix needs to be premoistened, for these materials are very dry and it is important not to have any dry material in the containers. If it is too dry to hold the cutting upright, water it before inserting the cutting. After the cuttings have been placed in the mix, water again lightly to settle the mix around the stems. If it seems too wet, let the container drain until it stops dripping.

Put containers where they will get good light but no sun. In my fluorescent light garden, cuttings are placed about 15 inches from the tubes. I might add that there is bright natural light in the room. Make sure the medium is lightly moist at all times but care should be taken to see that it is never saturated, for the cuttings may rot if overwatered.

As many members have told me they have good success in rooting their cuttings only to lose them when potting up, I experimented with cuttings started in individual $1\frac{1}{2}$ -, 2- or 3-inch pots, depending on the size of the cutting. A record was kept on the label showing the date put down to root, when a firm tug indicated they were well-rooted, and the date when a new plant appeared.

The cuttings were fed once a week with Schultz Instant fertilizer—six

drops to a quart of water. When ready to be potted, the little plants had filled the pots with roots and the plant could be moved to a larger pot in potting medium thus suffering no shock at all.

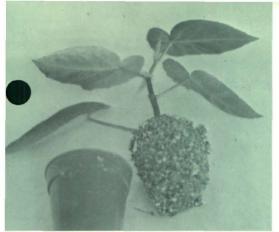
From small flats or community pans, cuttings may be lifted with a table-spoon, getting as much mix with the roots as possible. Always choose a size pot to fit the root system with only a half-inch of the pot to spare, shifting to larger sizes as they grow.

I find that some varieties root quickly, while others take several months. Never throw away a cutting that has rooted and is in good condition, for eventually a new plant will show. For instance, in autumn 1977 I took cuttings of *B*. 'Dancing Girl' which promptly lost their leaves. They rooted, but it was not until May 1978 that they began to grow, showing new leaves and branches.

The subject of rooting hormones always comes up when talking about propagation. As begonias do root readily, hormones are not necessary but I have used them with varying results. They must be used absolutely according to directions on the package. Rootone contains a fungicide which protects the cuttings from various forms of rot. The end of *dry* cuttings or wedges must be dipped first in the powder, flicking off most of it. Too much, I find, is damaging.

In various experiments with Rootone I have found that in some cases it hurries the rooting process; in others it slows it up and in the case of *B*. 'King Alfred' those without Rootone grew plants three weeks before those dipped in the powder even though they were in the same community flat of mix.

Cuttings of *B. versicolor*, which sometimes have a tendency to rot—especially if the medium is too wet—



Well rooted in its own pot, this small plant is ready for larger container

will root 100 percent if ends are first dusted lightly with hormone powder. Cuttings of *B. rajah* rooted about the same with or without the powder. Many books and articles on propagating indoor plants advise dipping cut ends of cuttings in water first and then in the powder. My advice is not to do so unless it says to on the package, for dipping wet ends in powder leaves too much powder on the stems, causing losses.

Cane-type begonias—Usually it is advised to take stem cuttings with two or more nodes, cutting below a node. On some begonias nodes are spaced close together, on others quite far apart. Short-stemmed cuttings will result in compact plants.

Stems and tip cuttings of canes will root on the bottom of the stem as well as at the node. I found that those put in to root with no node did as well as those with one or two nodes. (A node is the spot on the stem where a leaf or branch emerges or from which a potential leaf or branch will grow.)

Never take cuttings of soft new growth from canes. It is best to take them either in autumn after flowering or in spring before new growth begins.

Stems should be crisp and firm.

When the cutting is firmly rooted and new growth starts, pinch off the pointed new leaf to encourage new stems to grow from the pot level. Single leaf cuttings of canes are far from satisfactory, but mallet leaf cuttings from a cane taken during my experimenting rooted in seven days and took four weeks to produce a plant.

Shrub-like—Cuttings will grow from single leaves, mallet leaf cuttings, ends of branches, and stems. Even the tiny single leaves of *B. foliosa* will root, but in my experience mallet leaf cuttings of these produce plants in a shorter time.

To take a mallet cutting, cut the stem on either side of the leaf or branch, leaving a small piece of the stem resembling a mallet. Place in mix with stem flat and leaf standing up. This will root at the ends of the stem as well as at the node.

In experimenting with shrub-like cuttings, I found they rooted much more quickly in a medium than in water and grew faster when transferred to potting soil.

I also grew cuttings with the bottom half of the pot filled with rich potting soil and the propagating mix in the top. The resultant plant naturally grew larger and faster when the roots came into contact with the nutritious potting soil.

For a full pot, put three to five stem cuttings in a 3-inch pot of the medium and, when roots have filled the pot, transplant to a 4- or 5-inch pot in potting mix. Pinch out the top inch of each stem to encourage branching.

Semperflorens—A single leaf cutting of these will root, although we rarely grow them this way. However, during my experimentation a single leaf cutting of *B*. 'Charm' rooted in two weeks and in four weeks new

growth was well started. By autumn it had developed into a lovely spreading plant. For a bushy plant, it is best when propagating semperflorens to take a cutting at the bottom of the plant where it shows signs of possible new branches.

I like to pinch the top half-inch or so of semperflorens cuttings when inserting into the mix. In my experiments I also found that hardened stems of *B*. 'Calla Lily' would root satisfactorily and a cutting of *B*. schmidtiana in poor condition, when crisped in water, did root and grow well. Beginners should never be afraid to try anything, for sometimes results are most interesting and gratifying.

Rhizomatous and rex—Propagate these from single leaves, leaf wedges, or ends of rhizomes, or use the cone leaf method. Unless leaves are very small I trim all rhizomatous leaves to half-dollar size and cut the rest of the leaf into wedges. Even the top half of the wedge will root.

I usually cut mine with scissors, but torn leaves root as readily as those cut with knife or scissors.

Some beginners are puzzled about wedges, asking how to tell you are getting a piece of the main vein when taking a cutting. If you are unsure, turn the leaf over. Veins are more prominent on the back of the leaf.

Each of these could be considered a main vein. Cut between them. It is not necessary to get a piece of the leaf stem or the center vein for rooting.

The bottom of the wedge may be cut to a point or left blunt. Some rhizomatous begonias grow upright; others creep. My experiments showed it is preferable to stand the rhizome cutting upright with the bottom half of the rhizome covered with mix. The upright growers produce attractive plants this way and the creeping ones soon assume their natural form as they grow.

Pieces of rhizome cut an inch or so long may be laid horizontally on top of the mix. They will root and grow. Care must be taken, however, not to keep the rooting medium too wet or rotting will result.

For a cone leaf cutting, cut a circle where the leaf meets the stem and use the trimmed part with stem attached for a leaf stem cutting. Form the cut leaf into a cone with edges even, pushing the cone down into the medium in a 2- or 3-inch pot, depending on the size of the leaf.

The cut veins root and send up plantlets in the middle of the leaf. When new growth starts, feed with quarter-strength water-soluble fertilizer once a week until the pot is filled with roots. Transplant to the next size pot in your favorite potting mix.

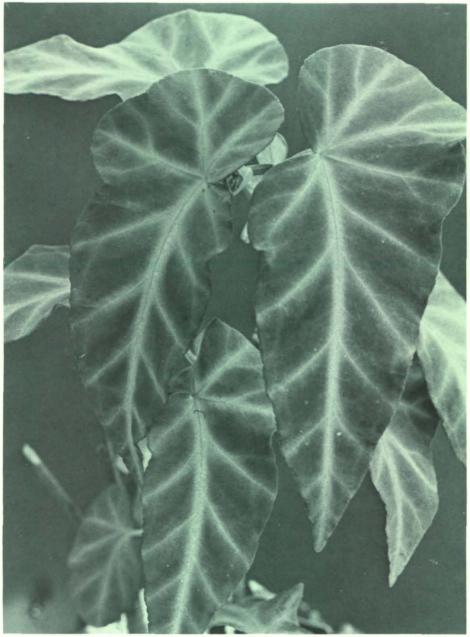
Trailing or scandent—For these I use stem cuttings, mallet, and single leaf cuttings. I prefer to take the cuttings immediately after flowering ceases, for, if taken in autumn, potential flowering branches may be cut off just at the time they may be forming their flower buds.

If you take tip cuttings of such species as *B. procumbens* and *B. solan-anthera* or cultivars such as *B.* 'Richmondensis' and *B.* 'Catalina', place several cuttings close together with ends pointing toward the outer edge of the pot. The result will be a fine specimen to eventually plant to a hanging basket.

Thick-stemmed—Very few beginners are familiar with the thick-stemmed begonias and most of us do not have a large collection of them.

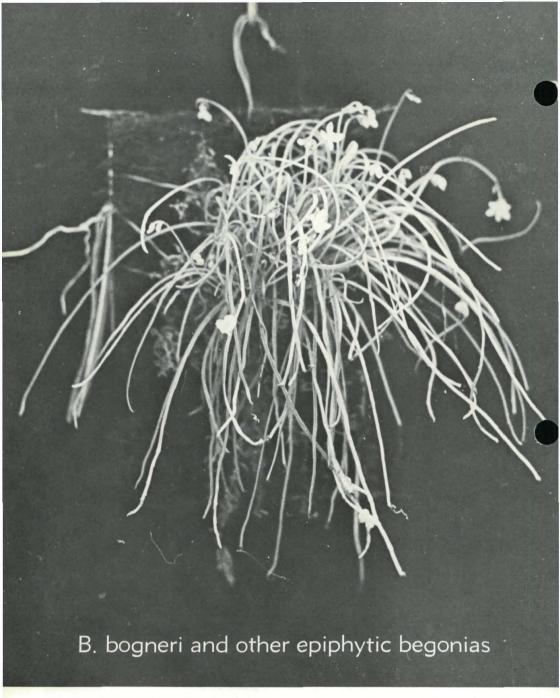
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Begonia gallery: B. 'Grey Feather'



Photo/Kit Jeans

B. 'Grey Feather', a B. compta seedling, grows handsome gray-green leaves about seven inches long and three inches wide, shaped like arrowheads. It is an intermediate cane-like plant with an obscure origin. The wavy leaves are characterized by a light gray broad outline to the veins. The reverse is red. The plant grows to between two and three feet tall



Alan Meerow

(Last of two articles)

A begonia discovery of recent vintage could probably claim title as the most unusual species in the entire genus. It, too, is an epiphyte, though perhaps more properly called a "lithophyte" for it was found growing on steep granite cliffs in small pockets of moss.

Currently known only from a small

Begonia bogneri growing in the greenhouse at The Marie Selby Botanic Gardens

area in the mountains of the Malagasy Republic (formerly Madagascar), this African species was discovered in 1969 by Josef Bogner, inspector at the Munich Botanical Garden and a well-known aroid collector. The species, named for its discoverer, was first described in *The Begonian* (April 1973).

At first sight, *Begonia bogneri* resembles anything other than a species of *Begonia*. It has been rightly called the grassleaf begonia in deference to its long (6") and narrow (1/8") leaves. One easily observed vein impressed into the leaf runs the length of the blade.

Morphological studies of *B. bogneri* have suggested that its leaf structure is the result of drastic reduction. In essence, the leaf is little more than the midrib of a usual begonia leaf. The leaves appear to rise directly from the base without stem support, but a small petiole, pink in color, can be discerned upon inspection.

Begonia bogneri is considered a semi-tuberous species. It produces a swollen stem base from which individual growths of leaves develop. In the greenhouse, B. bogneri exhibits a dormant period. Growth comes to a halt and all or some leaves may drop. This resting period can be overcome by growing the plant under artificial light.

The specimen of *Begonia bogneri* at Selby Botanical Gardens is grown attached to a slab of cork oak bark with a small cloak of sphagnum moss around the roots. In early summer it produces a profuse flush of bloom.

Alan Meerow is greenhouse manager of The Marie Selby Botanical Gardens, 800 S. Palm Ave., Sarasota, FL 33578. Both male and female flowers are small and pink in color. Inflorescences have appeared sporadically since first blooming.

The grass-leaf begonia made quite a splash among begonia fanciers when introduced through ABS's Seed Fund. It will be interesting to see what hybridizers are able to do with its unusual foliage characteristics.

The remaining complement of known tree-dwelling *Begonia* are true epiphytes and fall neatly into two distinct sections of the genus, one African and one South American.

The African species are embraced taxonomically by the section Tetraphila, containing about 40 species. Virtually all are epiphytes and of a climbing habit, producing roots at the stem nodes. Flowers of this group are

Photos/Alan Meerow



Begonia mannii



Begonia polygonoides

stemless, borne in small clusters directly in the axils of the leaves. The fruit character of this species complex is also distinctive. The ovary lacks wings, and is cylindrical or fusiform in its shape.

Begonia mannii, a highly variable species widespread throughout western Africa, is perhaps the most ornamental of the section Tetraphila. It is a lanky, much-branched climber, well suited to a hanging basket. The rosy red flowers are produced freely over a long period and are viewed to best advantage from below.

A related species, *B. polygonoides*, will never win any prizes for beauty, but it is favored by collectors for its graceful, pendant habit. The narrow leaves, like most species in the section, are leathery in texture. *Begonia polygonoides* blooms in the fall and winter,

never profusely, and the flowers are small, white, and rather inconspicu-

Begonia squamulosa from the Cameroon region of Africa, is a miniature species that grows well in the greenhouse on a slab of tree fern or cork. The small pink flowers with tepals edged in white are nestled in among the closely spaced leaves.

Other members of the section Tetraphila in cultivation include *Begonia molleri*, *B. cavallyensis*, *B. jussiaecarpa*, *B. eminii* and *B. rubro-marginata*. As a group they seem to prefer conditions on the cool side and prosper in a situation near the wet pad in the greenhouse at Selby Gardens.

Brazil, that Latin American giant, is the repository of an overwhelming number of *Begonia* species. Included among them is a small section of closely related species whose taxonomy has confused growers for many years. Each has been grown under any one of the names ascribed to its relatives, and as each differs from the others by only a handful of often variable characteristics, the predicament seems understandable.

Begonia section Trachelocarpus currently consists of six Brazilian species, all true epiphytes on rain forest trees. The section as a whole shares some unusual characteristics that have endeared the species to collectors.

All are small plants growing from much-branched rhizomes that cling to tree trunks and branches. Closely set lance-shaped leaves arise from the rhizome, resembling, at first glance, the fronds of a small bird's nest or hart's tongue fern. The two-tepaled staminate flowers are borne in clusters on elongated peduncles (stems), only a few of which are ever produced at one time. The pistillate flower, however, is solitary, and features an unusual ovary connected to the rhizome by a pedicel so short that the fruit seems to sit directly on the rhizome. The capsule is separated from the three or four tepals by a long neck or beak.

The significance of this floral morphology in pollination ecology is not yet clear. From this floral character is derived the sectional name. A further interesting characteristic of this species complex is the production on the foliage of glandular secretions that resemble sugar crystals. This feature has more than once set novice growers running for the pesticide sprays.

Begonia herbacea is the most widely cultivated species of the section Trachelocarpus and was the first to be described in botanical literature. It can be distinguished from its near relatives by the extension of its toothed leaf blade tissue down both sides of the petiole, lending a winged effect to the leaf stem. Leaves exhibit varying degrees of silver-spotting depending on the light they receive. Flowers are white, and the females are nested within shaggy-margined bracts at the rhizome.

The closely related *Begonia attenu*ata differs from *B. herbacea* by its smaller unspotted leaf and wingless petioles.

Begonia velloziana is perhaps the most handsome of the group. The leaves are always densely silver-spotted and the margins of both the lamina (blade) and the distinct petiole are edged with fine, closely set red cilia (hairs).

Three other species round out the section Trachelocarpus, *Begonia depauperata* (synonym *B. rhizocarpa*) has a blunt, rounded leaf base contrary to the tapered base of the other species. *B. angraensis* resembles *B. herbacea* but its leaves are narrowed, longer and almost entire about the margin. The tepals of its pistillate flowers are distinctively toothed and ciliate, as are the female flowers of *Begonia fulvosetulosa* whose densely pubescent (hairy) leaves distinguish it from the other five species.

Cultivation demands of the epiphytic begonias run the gamut from carefree to finicky. The scandent African species such as Begonia mannii are excellent hanging basket specimens and can be grown outdoors for most of the year in mild winter climates. Begonia glabra also makes a superb basket plant with its self-branching habit and vigorous growth.

The miniature species are a bit more demanding. *Begonia prismatocarpa* thrives near the wet pad of the research greenhouse at Selby Gardens,

Begonia attenuata



Begonia herbacea

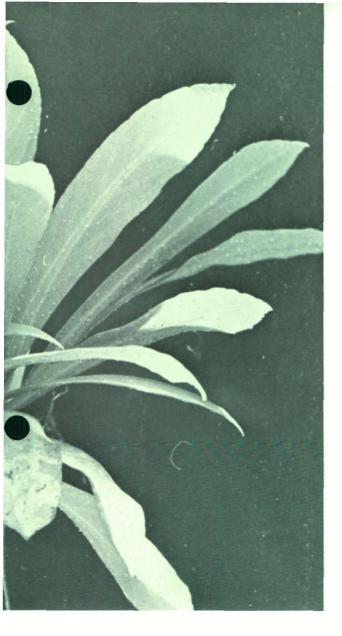


producing its yellow flowers all year. Outside this environment, it must be pampered, and is best grown in an enclosed container. *B. prismatocarpa* will quickly carpet a terrarium with its tiny rhizomes, and is a natural ground cover for an artificially lighted glass or plastic enclosure. Without good light, however, it is a shy flowerer.

Collectors have been successful in growing this species in bubble bowls filled with unmilled sphagnum moss.

Begonia 'Buttercup', a hybrid between B. prismatocarpa and B. ficicola developed by Michael Kartuz, is a more robust larger-flowered specimen requiring similar conditions.

Begonia bogneri and the Trachelo-





Begonia velloziana

carpus group, if grown in a greenhouse, are excellent mounted on tree fern or cork slabs with sphagnum, and are best kept in the cooler section of the house. As houseplants, terrarium or bubble bowl culture under fluorescent lights is recommended.

Specimens of the species discussed are available from specialty growers

throughout the country.

Epiphytism is by no means a survival strategy limited to orchids, bromeliads, aroids and gesneriads. As botanists seek further to understand the complex and endangered tropical ecosystems of our world, the list of epiphytes in other vascular plant families will surely grow in size.

Easy to grow: B. 'Essie Hunt'

Elda Haring

If you are fond of *B*. 'Bunchii', one of those commonly called "lettuce leaf" begonias because of the frilled edges of the pale green leaves, you will be thrilled with the extraordinary beauty of *B*. 'Essie Hunt'.

This begonia—pictured on the cover—was originated by Mae Blanton of Texas, by crossing *B. conchifolia* var. rubrimacula (formerly called *B.* 'Zip') with the lovely *B. manicata aureomaculata crispa*. It is classified as rhizomatous, erect, with crested margin.

The rounded, deep green, shiny leaf with a pointed tip is curled (spiraled) where the leaf meets the stem. Leaves are quite large with red center veins and bordered with a very fine red band. The leaf edge is frilled and crested similar to *B*. 'Bunchii'.

B. 'Essie Hunt' not only is a gorgeous begonia but is very hardy, growing well under varying conditions of climate, temperatures, potting mixes, and fertilizing practices. Too much sun in summer, however, will fade the red veins of the leaves. During winter, bright light is essential, but if you live in the South where a strong winter sun prevails, the plant must be observed carefully to assure that it retains its lovely coloring.

In many parts of the South and West, greenhouses are constructed of translucent materials. My own greenhouse is glass and the roof vent is shaded all year by a lath cover. The overhead and side panels are protected from strong rays of the sun by adjustable plastic shades so that the winter

This series on easy-to-grow begonias is written by Elda Haring, P.O. Box 236, Flat Rock, NC 28731. She is author of Begonias for Beginners.

sun does not fade the leaves of my begonias.

As the glass goes to the ground level, I keep *B*. 'Essie Hunt' on the floor of the greenhouse under the east bench where it gets sufficient light and even a little morning sun. Winter nighttime temperatures are kept at a minimum of 58 degrees and the floor in very cold weather may be 10 degrees colder, yet *B*. 'Essie Hunt' is always magnificent under such difficult conditions. Under fluorescent lights in my cellar, the leaves are deeper green and the red veins much more pronounced.

When well grown, the leaves of this begonia are very crisp—they tear easily if the plant is not handled with care. In February rosy pink flowers appear in clusters on long stalks.

As this is a winter bloomer, if you are growing it under fluorescent lights they should be kept burning no longer than 10 hours a day during November, December, and January to set buds. However, I consider this plant worth growing even only for the beauty of its foliage.

B. 'Essie Hunt' does as well in my potting mix containing some soil as it does in packaged potting mixes and the so-called soilless mixes. As a matter of fact, a rhizome cutting taken last September, placed in a pot of propagating mix constantly fed with Shultz Instant Liquid Fertilizer, is as handsome as those grown in the potting mix.

B. 'Essie Hunt' is not a registered cultivar. ABS Nomenclature Co-director Thelma O'Reilly says it cannot be registered because it is nearly identical to B. 'Nagare'—they have the same parents—and cannot be distinguished from it easily. —Editors

QUESTION BOX/Overwatering may be the villain

Elda Haring

Question: A year ago I obtained a small plant of *B. conchifolia* var. *ru-brimacula*, but it does not thrive. I have tried it in all locations in the house, even in a plastic bag. Only one mature leaf is left and new growth no larger than ½ inch. What am I doing wrong?

Answer: It is always good practice to remove a newly acquired plant from the pot to check the root system to see if the plant needs repotting. As this begonia carries most of its rhizomes just beneath the soil surface, it is easily overwatered, especially during dark, chilly months.

Send questions about begonia growing to Flda Haring, P.O. Box 236, Flat Rock, NC 28731. She'll mail you her reply promptly.

Mine is always watered from the bottom by placing the pot in a container of water until the surface becomes moistened. Then it is not watered again until it has dried out.

Question: As begonias seem to root best if from a strong mother plant, how should I treat the mother plant and which branches should I select to cut?

Answer: For best results, stems of the mother plant should be rigid and leaves crisp. If they are at all limp, the plant has not had sufficient water, in which case give it a good watering the day before taking cuttings.

Look the plant over and try to take stems so the symmetry of the plant will be retained. I like to cut just above a leaf where the cut will not be noticed.

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ROUND ROBINS/Growing those challenging begonias

Ian Clark

The Robins abound with advice on growing challenging begonias.

Casey Marchlewicz, Illinois, grows *B. ficicola* (see *The Begonian*, January 1980) in a terrarium in soil, and keeps it very dry. Dry culture has been the secret of success with *B. masoniana* for Elaine Ross, Louisiana. She waters infrequently but maintains high humidity, and recommends pebble trays to home growers.

Mickey Meyer, Australia, grew *B. carrieae* from seed. She found that the seed germinated readily, but, alas, the seedlings were difficult to maintain. She comments that those remaining "for the most part I completely neglect—they seem to thrive in a cool, dry atmosphere."

Half a world away, in Pennsylvania, Arline Peck has found a good formula for growing *B. paulensis:* "It does not like sun. Give it semi-shade but good light and it grows like a weed."

Ruth Ihara, District of Columbia, shares her method of keeping *B*. 'Buttercup', a lovely *B. prismatocarpa* hybrid, at its prime in a bowl:

"If the plant grows too thickly, it stops blooming until thinned out again. And once it stops blooming, it takes months for it to start again. So I've learned my lesson and keep it small by continuous dividing of plantlets."

And to those of us who have grown Jan Clark is the new round robin reporter. Mary Harbaugh, a robin participant and University of Wisconsin Cooperative Extension Service master gardener, will become round robin director June 1. She will tell you about joining a robin—a packet of letters circulated among begonia growers—if you write to ber at Rt. 4, Box 343, Shawano, WI 54116.

B. serratipetala into a mound of iridescent beauty, only to watch in horror as it collapses overnight for no apparent reason, Mabel Corwin, California, offers some moral support and sound advice: "B. serratipetala is one of the most difficult begonias to grow. In fact, I find all of the New Guinea species very difficult. I find the best way is to constantly start new plants if you want to keep them going. B. serratipetala will grow from a leaf or a cutting. If you ever find a spot where it is happy, don't move it! They don't like to be moved."

Manipulating bloom time

Bernard Yorke, Australia, has been experimenting. Rather than storing pollen for hybridizing, Mr. Yorke manipulates the bloom time of his plants, so they will be in bloom when he needs them. He describes his method:

"To force a bloom stem into flower . . . I take all the male flowers off so that the female flowers come on quicker. It is surprising how forward they grow, and it brings the flowering of the female flowers ahead by sometimes up to two weeks.

If I want to self a plant, then the female flowers on the first stem can be pollinated with the males on the second. Another method I have adopted is when one has several plants of one species, put one in the sunny house and others in the more shaded ones. That way, on occasions I have found that the flowering has varied also by a couple of weeks."

Voices of experience—Robin quickies:

Pat Burdick, Minnesota: "There is one very important thing to remember about begonias and it took me a long time to learn—begonias are almost succulent. . . . So I grow the begonias very dry and I don't water them ever unless the top of the soil is dry. Most of them like humidity in the air."

Pat Maley, California: "The reason I get strong growth is my mix, which is very coarse and loose. The mix never packs down or gets waterlogged, and air can get through it to the roots freely. The roots do not have to fight their way through, but move through it quickly. If the roots can grow easily and strongly, then the foliage can take strength from the roots and follow suit."

Make it a big project

Doreen Van Der Tuin, California: "I seem to do better with seed when I sow quite a few containers of them at once; that way I remember to keep an eye on them. One isolated pot always seems to get ignored."

Iris Shepherd, Texas: "After spraying for mildew unsuccessfully, I watered the benomyl into the soil and the mildew was cured."

Charlotte Kuhnle, Oregon: "If you use benomyl be sure it is a fresh mixture and throw away the left-over spray, because Benlate breaks down

More propagation Continued from page 128

However, most will root from stem cuttings and even single leaf cuttings.

B. egregia, I found, will root on the end of the stem even with no node. B. 'New York Botanic Gardens' will, too, but it will also root easily from single leaf cuttings.

Because of the habit of growth of *B. handelii*, I prefer to use single leaf stem cuttings and trim the leaves to half-dollar size. New growth will often form where the leaf meets the stem as do leaf stem cuttings of various other

very quickly and can then become very toxic to plants."

Mabel Corwin, California: "In your light garden you should change one fluorescent tube at a time. Wait a week or two and then change the second tube. This exposes the plants gradually to the extra light."

Once our begonias have grown and multiplied under our good care, we face the problem of what to do with the excess.

Donations and contributions

Christine Giordano, New York, who raises a lot of semps, donates them to many organizations to sell at their fairs. Member-at-large Peetie Swafford, Arkansas, proposes having a patio sale and sending the proceeds to the ABS as a personal contribution.

In the end, Linda Kirik, Ontario, has the last word on the space problem: "... So glad to hear that I'm not the only one with 'expansion' problems. Every time I lift out a plant to either look at it or give it a cleaning, its spot disappears and there is no place to put it back. I keep thinking all the plants take a deep breath and fill in the empty spot before I get the missing pot back in again."

classes of begonias.

Tuberous and semi-tuberous—

Most tuberous and semi-tuberous begonias root and grow from single leaves, tip cuttings, and ends of branches. I grow *B. pearcei*, *B. sutherlandii*, *B. dregei* and its hybrids from both leaves and stem cuttings.

In experimenting with *B. evansiana* I found that leaves grow from wedge cuttings very easily. Tuberhybrida kinds will grow from single leaf or stem cuttings, although these I find under my conditions are often very slow to root and produce a plant.

NEW CULTIVARS/Official international registrations

Carrie Karegeannes and Thelma O'Reilly, nomenclature co-directors

In the citations of cultivar parents, the female (seed) parent is listed first.

Begonia 'Far Out'

No. 751—Begonia solananthera x prismatocarpa X unknown tuberous hybrid 'Far Out'

Canelike; trailer. Medium green, 2" x 3" leaves have a smooth surface, subentire margin, and 7 veins, with red petioles and light green stipules. Single 2" flowers, deep pink with a red eye and 4 male and 5 female tepals, are arranged in 4"-6" clusters on 8" peduncles. The unusual combination of parents has produced a trailing plant with 18" stems yielding year-around blooms larger than usual for trailing varieties. Originated in 1977 by Leslie Woodriff, 1100 Griffith Road, McKinleyville, CA 95521; first bloomed in 1978; first distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Frosty Fairyland'

No. 752—Begonia 'Bunchii' x 'Bokit' 'Frosty Fairyland'

Rhizomatous with distinctive foliage. Double-spiraled 4" x 6" leaves are dark green with crested margin, smooth surface, 7 veins, and light green petioles and stipules. This cultivar is distinguished by the crested leaves and a color much darker than that of its parent 'Bunchii'. Originated in 1978 by Leslie Woodriff (address above), it has not bloomed to date. Registered Sept. 8, 1979.

Begonia 'Irish Dream'

No. 753—Begonia 'Cleopatra' x unknown 'Irish Dream'

Rhizomatous with distinctive foliage

Applications to register Begonia cultivars may be obtained from Thelma O'Reilly, 10942 Sunray Place, La Mesa, CA 92041. A \$2 check or money order payable to the American Begonia Society must accompany each completed application. Photos, drawings, and/or dried specimens to accompany applications are encouraged. ABS is the International Registration Authority for Begonia cultivar names.

and rhizome jointed at or below the soil. Double-spiraled 5" x 6" leaves, medium brown with chartreuse stripes, have a lobed margin, smooth surface, 10 veins, clear white petioles, and red stipules. Leaves are larger than most spiraled, striped cultivars, and the plant is more compact. Originated in 1978 by Leslie Woodriff (address above), it has not bloomed to date. First distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Midnight Twister'

No. 754—Begonia conchifolia var. rubrimacula x 'Bokit' 'Midnight Twister'

Rhizomatous with distinctive foliage. Double-spiraled, thick black leaves are 4" x 5" with lobed margin, smooth surface, 10 veins, and light red petioles and stipules. Flowers—white flushed with pink, ¾" across, with 2 male and 4 female tepals—are arranged in clusters on 12" peduncles, blooming in the spring. The black, spiraled leaves distinguish it from other cultivars. Originated in 1978 by Leslie Woodriff (address above); first bloomed and distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Mini Merry'

No. 755—Begonia unknown x unknown 'Mini Merry'

Rex Cultorum group. Nonspiraled 2½" x 3" leaves have a black center with red and green, silver-spotted zones, subentire margin, smooth surface, 6 veins, red petioles, and white stipules. Flowers are light pink, 1", with 4 male and 5 female tepals; they are borne in 2- to 3-flowered clusters on 5" peduncles in the spring. Small, brightly colored leaves are less than half the size of leaves on B. 'Merry Christmas'. Originated in 1978 by Leslie Woodriff (address above); first bloomed in 1978; first distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Orange Delight'

No. 756—Begonia 'Salmon Sweety' x

socotrana X 'Wild Rose' 'Orange

Delight'

Tuberous: Hiemalis group. Leaves are deep green, 3" x 4", with lobed margin, smooth and waxy surface, and 7 veins: petioles and stipules are light red. Full, camellia-like flowers are deep orange, 3" across, with about 40 male and 4 female tepals, and are arranged in clusters on 8" peduncles, blooming the year around. A rose fragrance in the mornings, in addition to the deep orange flowers and pendant 18" stems, distinguish this cultivar. Originated in 1978 by Leslie Woodriff (address above); first bloomed in 1978; first distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Tiny Bright'

No. 757—Begonia (chance seedling) 'Tiny Bright'

Rex Cultorum group. Leaves, with black star at center, are banded in red and silver and edged in green and black, measure 3" x 4" and have serrate margin, smooth surface, 6 veins, and light red petioles and stipules. Flowers are light pink, 1", with 7 male tepals; clusters of three flowers on 5" peduncles appear in the summer. This compact begonia is distinguished by its color and small size. Originated 1978 by Leslie Woodriff (address above), it first bloomed and was distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Two Face'

No. 758—Begonia incarnata hybrid x unknown 'Two Face'

Canelike: trailer. Leaves are silver with a deep green edge and red back, 2" x 3", with serrate margin and smooth surface. Flowers are deep pink, 1", with 4 male and 4 female tepals, blooming in the spring on 3" peduncles. The distinct color for a canelike begonia is enhanced by a pink overlay in certain light exposures. Originated in 1978 by Leslie Woodriff (address above); first bloomed in 1978 and first distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Whirling Sky'

No. 759—Begonia (chance seedling) 'Whirling Sky'

Rhizomatous with distinctive foliage. Lobed leaves are medium green with chocolate brown spots, 4" x 41/2", with a smooth surface, 9 veins, and light green petioles and stipules. The leaves are distinguished by their color pattern and deep lobes. Originated in 1978 by Leslie Woodriff (address above), it has not bloomed to date; first distributed in 1979. Registered Sept. 8, 1979.

Begonia 'Winkey's Chocolate Chip'

No. 760—Begonia unknown x unknown 'Winkey's Chocolate Chip'

Rhizomatous with erect stem and distinctive foliage. Chocolate chips on chartreuse green, edged with brown markings, pattern the 21/2" x 3" leaves, which have shallow lobes, smooth surface, 7 veins, clear white petioles, and light green stipules. Flowers are white, 1/2", with 2 male and 2 female tepals; the clusters of flowers on 8" peduncles bloom in spring and summer. Originated by Leslie Woodriff (address above) in 1978; first bloomed and distributed in 1979. Registered Sept. 8, 1979.

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GROWING FROM SEED/How to tell B. pringlei

Joy Porter

A letter from Jackie Davis of Aptos, Calif., asks if *B. pringlei* is the correct name for plants grown from Seed Fund seed with that label.

The answer begins with a triangle: *B. schultziana*, *B. pringlei*, and *B. kraussiantha*. The last two are the same plant but, because *B. pringlei* Watson was named and described in 1819 and *B. kraussiantha* Irmscher in 1959, the older name takes precedence. (See photo and description in Seed Fund, *The Begonian*, April 1970.)

B. schultziana, not in cultivation, has white flowers with four petals in males, five in females, whereas B. pringlei has only two in both.

Jackie also asks: "Should I throw away seedlings which refuse to grow?"

I have done this much to my regret

Seed grower Joy Porter of 9 Bayberry Lane, Framingham, MA 01701, is director of Clayton M. Kelly Seed Fund. Write to her about your seed growing experiences.



when I later read that they were tuberous and realized they were making tubers at the expense of top growth. *B.* Madagascar species No. 4 grows three or four leaves, goes dormant, then repeats the process until it is mature enough to bloom.

I think seedlings which do not grow are not getting correct conditions. I would like readers' opinions.

Rosemary Norton, Roslindale, Mass., replied to my question on *B. ebolowensis*: Germination was prompt, but seedlings died slowly from the tips down.

This was my experience, too. Has anyone been able to grow this one?

A reader's S.O.S. from Chicago: His tuberous seed, as well as seed of gloxinias, failed to germinate. It was planted in vermiculite and sphagnum moss in peat pots which were set in a tray with an inch of water and covered with plastic.

Bottom heat was provided and light was 2 to 3 feet above this.

My guess is that his medium stayed too wet. Send me your opinion.

Jackie Davis says she shares Seed Fund seedlings at branch meetings—a great way to spread begonia wealth.

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Illustration/Pat Maley

Send orders to Joy Porter, 9 Bayberry Lane, Framingham, MA 01701. Include self-addressed stamped envelope. Massachusetts residents add 5% sales tax. Checks and money orders should be made payable to: Clayton M. Kelly Seed Fund. Foreign orders: U.S. funds only.

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Volume 47 May 1980

B. johnstonii

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We will appreciate your support and interest.

We would also like to take this opportunity to thank all our *Begonia* friends for the thousands of letters and phone calls filled with encouraging words; for without these, we would not have had the courage to continue our efforts for the past 5 years to get this book published. Our sincere thanks and appreciation!

Ed and Millie Thompson

ABS NEWS/ New director for Round Robins

Mary Harbaugh of Shawano, Wis., will become Round Robin director June 1 following the resignation of Mabel Corwin.

ABS directors March 17 ratified the appointment. But the board delayed establishment of a fee for the position.

Directors voted 8-7 to table until May 19 a recommendation of the finance committee that a \$50-a-month fee be established for the director plus a \$25 fee for the Round Robin reporter.

Mabel had raised the question of a fee several months ago, noting the position requires her to spend several hours a day to keep the more than 90 robins operating

smoothly.

ABS pays a fee to the editors, membership secretary, and Seed Fund director, who generally must devote very large amounts of time to ABS business.

The board also named Millie Thompson of Southampton, N.Y., chairman of a new classification committee and Pat Maley of El Cajon, Calif., chairman of show classification and entries.

The resignation of Millie Thompson as co-director of research was accepted.

She will, however, continue to direct the department Grow and Study project until its conclusion, she said.

San Miguel's Begonia Portraits show

The San Miguel Branch will stage a show and sale, "Begonia Portraits," May 31-June 1 in San Diego's Balboa Park.

The show will be dedicated to Alice M. Clark, the San Diego begonia grower and artist and author of the privately printed book, "Begonia Portraits."

Some of Alice's paintings will be dis-

played

The event will be at Casa del Prado on Saturday from 1-5 p.m. and Sunday from 10 a.m.-5 p.m.

Combined show in Ventura County

The Theodosia Burr Shepherd Branch will join with other Ventura County plant societies for a combined show and sale June 28-29 at the county fairgrounds in Ventura, Calif.

The show and sale will include bego-

nias, African violets, bonsai, and fuchsias. Hours are 10 a.m.-5 p.m. both days in the home arts building.

In Memoriam:

Elizabeth Warrick

Elizabeth (Bessie) Warrick, longtime Seattle area begonia grower and ABS branch organizer, died March 14.

Bessie and her husband, Herb, helped found the South Seattle branch in 1967. Herb also is a past president of the Seattle branch.

In recent years, Bessie was unable to attend many branch meetings. She had turned up, though, for the 31st birthday celebration of the Seattle branch Feb. 19.

Mary Sanderman

Mary Sanderman, longtime member of the Seattle branch, died Feb. 18. She served many years as editor of the branch newsletter, "The Begonia Chatter," and financial chairwoman of begonia shows and luncheons.

Branch members have many happy memories of board meetings she hosted.

Mary is survived by husband Austin, a branch past president.

Gil Long

A former member of Knickerbocker branch, Gil Long, died recently. He had been newsletter editor and vice president before a change in career forced him to curtail branch activities.

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THE BOARD/Condensed minutes—ABS directors, Nov. 19, 1979

President Nathan Randall read correspondence from Tatsuo Suzuki, chairman of the board of directors of Japan Begonia Society, thanking Nate for his message to be included in a begonia book being published. A letter from Dorothy Behrends was read, asking help locating the papers of Eva Kenworthy Gray.

President-elect Gilbert Estrada reported on the response to the bookstore sale announced in the October Begonian. In three weeks, 40 orders were shipped. Gil reported that in December several plant magazines will carry an ad of Elda Haring's offering her book paperback for \$3.75 and hard

More editors' notes Continued from page 123

debated. Should she buy the prints despite moral opposition to destruction of antique books?

She loved the plant B. rex and couldn't bear to leave its likeness for someone who collects prints but doesn't love begonias. In the end she produced her plastic money and bought all three. But she didn't buy them for herself—she presented them as a gift to her husband.

The editors are abandoning The Begonian—but only for two weeks. During June 14-30 they will be available only by ship-to-shore radio. Deadlines for the July issue have been moved up in hopes it can be printed before they leave the country. The August issue may be delayed a bit.

And where are they going? They'll be hiding on a sailboat. The ABS member closest to them geographically will be Don Peterson, who lives on the island of Nevis.

(You'll have to look it up.) -C.A. & K.B.

Your expiration date

Your membership expiration date now shows as the last six digits of the identification number on your Begonian label.

cover for \$5.75. Gil reported that we are almost out of pins. Last order cost \$3.40 per pin; with the new order the cost has gone up to \$4. After discussion, Margaret Taylor moved to raise the price by \$1. Motion carried. Gil brought a copy of the work done by Herb Warrick listing begonia cultivars numerically by registration number and also alphabetically. Chuck Anderson moved that the president be directed to write a letter to Mr. Warrick commending him on his work and thanking him on behalf of the board, Motion carried,

Treasurer Eleanor Calkins reported a balance on hand Oct. 1 of \$5,459.29; income of \$3,057.27; disbursements of \$4,584.17; leaving a balance on Oct. 31 of \$3,932.39. The

report was filed for audit.

Chairman of School for Judges Margaret Lee reported 7 courses, 4 classification booklets, and 3 point scoring booklets dispensed for a total of \$73.65, expenses of \$25.01, for a net gain of \$48.64. Margaret also asked board approval to name a codirector of judges and recommended Pat Maley. Gil Estrada moved that Pat be appointed, Motion carried,

Research Director Millie Thompson sent a check from the Sacramento branch in memory of Dr. Earl Doersch, husband of member Brenda Doersch.

Mabel Corwin, Round Robin director, asked that the board consider paying the Round Robin director in the future. It is a very time-consuming job, and needs to be divided, Mabel announced that this is her third and last year and it may be easier to fill the position if it included a fee. Chuck Anderson moved to refer the subject to the finance committee for a report, Motion carried.

Membership Secretary Kathy Brown reported 48 new members, 126 renewals for a total of 2,479 members in good standing

this month.

Wanda Elin, ballot counting committee chairman, asked that the board approve her committee, consisting of Lucy Meadows, Elda Reginbal, and Norma Taylor, alternate. Chuck Anderson moved that they be approved. Motion carried.

The Board was asked to approve Kit Jeans as awards committee chairman. Gil Estrada moved approval. Motion carried.

Chuck Anderson moved that the editors be authorized to write to 118 persons missed on the computer list asking them to send a list of issues missed so copies can be sent. Motion carried.

A letter and check were received asking for a life membership for Beatrice Sutton. Gil Estrada moved that we grant this. Mo-

tion carried.

The May board meeting will be held at 7:30 p.m., Monday, May 19, at Fullerton Savings and Loan, Anaheim.

ABS SERVICES

These services are available to all ABS members. For names and addresses of department heads and other officers, see inside front cover.

AT-LARGE MEMBERS—Services for members who don't belong to branches are handled by the members-at-large director, Contact him for details. If you are interested in finding a branch or starting one in your area, contact the branch relations director for help.

THE BEGONIAN—The monthly journal of the society publishes how-to articles, scientific information, and ABS news. Articles on a member's personal experiences with begonias are welcomed, as are black-and-white photos of begonias and color slides suitable for use on the cover. Contact the editors. Individual copies of The Begonian more than a year old are available from the back issue sales chairman (75 cents). A full year is \$6.50 for any year in the 1940s. \$5 for any year from 1950 through 1978. Back issues less than a year old are ordered from the membership secretary (75 cents).

BOOKSTORE—Books on begonias and related subjects can be purchased mail-order from the bookstore librarian. Contact him for a list of books available. Include a stamped, self-addressed envelope. The bookstore also sells reproductions of antique begonia prints.

JUDGING DEPARTMENT—The judging department offers a course by mail with which you can learn to become an accredited begonia show judge. Also available are a booklet on point scoring, information on fuchsia and fern judging, and other requirements to become a judge. LIBRARY—Books about begonias and gardening may be borrowed by mail from the lending library. Contact the librarian for a list of books and the procedure.

NOMENCLATURE — The nomenclature department monitors newly published findings on begonia names as well as handling official international registration of new begonia cultivars. Registrations are published in The Begonian.

RESEARCH—The research department conducts a Grow and Study project in which members experiment with various begonias and compile their findings. The department also has other activities, including the review of requests for ABS backing of outside projects. For details, contact a co-director.

ROUND ROBINS—Members exchange information about begonias and their culture through a packet of letters which circulates among a small group of growers. There are dozens of these packets—called flights—on many specialized subjects. To join one or more, contact the round robin director.

SEED FUND—The Clayton M. Kelly Seed Fund offers seeds of begonia species and cultivars by mail. New offerings are listed in The Begonian.

SLIDE LIBRARY—A series of slide shows on begonias and begonia growing can be borrowed by mail for showing at meetings and seminars. New shows are under preparation. Contact the slide librarian for fee information.

SPEAKERS BUREAU—The speakers bureau maintains a directory of speakers on begonias and related subjects. Contact the director.

BEGONIAN MINI-ADS

Rare and unusual rhizomatous begonias, including Lowe hybrids, Price list 35¢. Paul Lowe, 1544 West Rd., Lake Park, FL 33403

Begonias — "Wax" semps. All types and colors. Unrooted, rooted or potted cuttings. Send Ige. stamped, addressed envelope for free list. Pauline Chambers, P.O. Box 313, McIntosh, FL 32664.

Almost Heaven. Indoor Plants, New grower specializing in begonias. Visitors welcome (call first), 503 741-2446, 2328 Don St., Springfield OR 97477

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