

September/October, 1988

The BEGONIAN



The BEGONIAN

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American Begonia Society

Founded January 1932 by Herbert P. Dyckman

Aims and Purposes

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

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

To standardize the nomenclature of begonias.

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

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

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

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COVER PHOTOS:

Front - Mary Bucholtz won the Photography Division Trophy at the 1987 ABS convention in Long Beach with this shot of *B. 'Homossasa'*. Mary is a member of the Photography Robin For background on the begonia, see p. 154.

Back - Gene Daniels photographed this bronze-leaved, double-flowered semperflorens sc long ago he doesn't remember the name of the plant - but isn't it lovely!

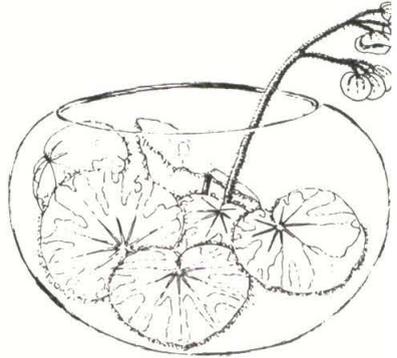
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The Missing Envelopes

If you get your **Begonian** by first class mail, you probably noticed that your July-August issue was not in an envelope. Here's why: starting with the May-June issue, the **Begonian** has been mailed from Dallas, TX. Mailing is handled by Ridgway Mailing Co., and the owner oversees our mailing personally. The first mailing went out in perfect order. In June, shortly before our magazines were delivered to Ridgway, our overseer was rushed to the hospital for emergency surgery. Her staff rushed our order out quickly - but the first class labels were not separated out and put on the envelopes and

all issues went bulk rate. We're all sorry for the delay some of you may have experienced in getting your magazines. We hope the mailing will be back to running smoothly.

HELP WANTED

ABS needs a Seed Fund Director! Requirements: attention to detail, patience, willingness to learn. Rewards include the joy of growing begonias from seed. Contact Arlene Davis, 923 East Francis St., Corona, CA 91719 to volunteer.

MCDONALD TO SPEAK AT CONVENTION 88!

Elvin McDonald, renowned horticulturist and writer, will be our banquet speaker at the ABS convention in September. Known as the "James Beard of Gardening" and the "Guru of Gardeners," among other accolades, he is Director of Special Projects at the Brooklyn Botanic Garden. Included in his many activities are producing videos for the Garden and writing a twice-weekly column called "Plants in the Home" for King Features. He is like an old friend to those of us who are acquainted with his many practical books.

In other convention news, Chair Wanda Macnair reports that activity has been at a very high level all summer for New Englanders preparing for the Buxton Branch's fiftieth anniversary and the very first ABS convention in New England. Members have been growing excellent plants for the sales tables from cuttings sent from all over the country. The selection will be very choice.

Exhibitors at the convention who have more than eight plants to exhibit are asked to contact Entries Chair Timothy Last, 437 Prospect Ave. #15, Brooklyn, NY 11215, to help streamline entry of their plants.

Roberto Brin, who will not be able to attend the convention this year, wishes to be remembered to all his friends.

NOTABLE QUOTE:

"It may sound foolish, but it is true that each time another person begins to grow plants at home, the world gets a little better."

- Elvin McDonald, in Miniature Gardens (Grosset & Dunlap, New York, 1975), p. 9.

HARVARD'S FAMED GLASS FLOWERS

Harvard University is home to the famous Blaschka Glass Flowers, a collection of more than 3,000 botanical models in glass representing 847 different species of plants.

Leopold and Rudolph Blaschka, a father-son team, were naturalists and artists in Dresden. Before starting on their glass flowers, they made glass models of marine animals for several institutions. In 1886 Professor George Lincoln Goodale, founder of the Botanical Museum, persuaded the Blaschkas to begin their glass flowers, a task that was to take them 49 years to complete.

The painstakingly accurate, beautifully crafted models are made of glass which was shaped by hand, not blown. Some of the larger parts are reinforced internally with wire. All of the color is in the glass itself, and, amazingly, the colors have not faded. Even the first models, made in 1887, retain true colors.

The collection came to Harvard as a memorial to Dr. Charles Eliot Ware, Class of 1834, through a gift from Mrs. Elizabeth C. Ware and her daughter Mary Lee Ware.

The Glass Flower collection is used extensively for teaching purposes. Through the Glass Flowers students are able to study three dimensional models of the entire plant kingdom in natural size and color.

Convention 88! will feature tours of the lovely Blaschka Glass Flowers on Friday, September 16.

ABS National Convention
CONVENTION 88!

September 15-18

LET'S ENJOY BEGONIAS IN CONTAINERS CLOSE AT HAND

by Shozo Okuyama

Some of the many varieties of *begoniacea* are not easily grown on a shelf of the greenhouse. The reason: these begonias need high humidity. Let's grow these begonias in a terrarium - the only way to keep these begonias alive indoors from autumn to spring.

In terrariums we can see and enjoy another facet of begonias, and you may be able to keep rhizomatous begonias, which have beautiful leaves which are different from the showy canes.

Containers:

When you start to grow begonias in a terrarium, choose your container with care. You may want to plant several begonias together in a large container, or one variety in a small container. If you grow one plant, you can use bottles or jam jars, or purchase a glass container. You must use a clear container which can be closed tightly. Plastic and acrylic containers are available and inexpensive, but they crack easily and are not good for long use.

The containers used for fruit liqueurs are strong and of a desirable size, but are made of such thick glass that they are not good for enjoying the beauty of your begonias. On the other hand, containers designed for scientific experimentation are good because they are of clear glass and will not break if washed in hot water. Another good container is an aquarium; these come in many sizes.

Planting:

I use peat moss only, or peat moss with a small amount of perlite. I also add a small amount of Magamp K as a fertilizer; don't use too much - a plant which is overfed grows too rapidly. Vermiculite and moss make another good planting medium.

When selecting begonias for your terrarium, use plants which have been grown in a shallow container, or in a container with no drainage hole, or in another terrarium. Plants with deep root systems do not make beautiful terrarium plants.

To create a one-variety terrarium, you can put a leaf cutting down directly in the soil, or use a plant which has been raised in another terrarium.

One way to plant in an aquarium is to spread pebbles 5-6 centimeters (2-4 inches) deep over the bottom of the aquarium and add water, covering the bottom third of the pebbles. Then push containers with plants into the pebbles. After that, hide the pots by wrapping them with moss. You may plant *B. prismatocarpa* or *B. thelmae* this way in an aquarium, and they will grow so vigorously they will hide the pots. You may also want to add other moisture-loving plants, such as *episcia*, to your aquarium.

Light:

Do not place terrariums in bright sunlight. You must take care not to put a terrarium even in weak winter sun. Sunlight will cause the plants to die down.

Temperature:

Begonias in terrariums flourish in places where people are comfortable. In spring and autumn, temperatures are usually suitable; the terrarium must be kept cool in summer and warm in winter.

Terrarium begonias do well in a heated room in winter, because the terrarium has plenty of moisture even though the room is dry. If you turn off the heater before going to bed, cover the terrarium to protect it from midnight cold; a cardboard box or blanket will help.

Care:

Check your terrarium begonias every day. Remove dead leaves and keep the container dust-free. Watch for signs of disease; remove any plant that seems to be infected, and treat other plants in the terrarium.

Different begonias need different amounts of moisture. Be careful about losing moisture when opening and closing the lid of the terrarium.

If you'll take care of your begonias in terrariums, you'll take great pleasure in having them nearby.

Varieties to plant in a terrarium:

Some of the begonias that are, in my experience, best for terrariums are *imperialis*, *decora*, *versicolor*, *prismatocarpa*, 'Buttercup,' and 'Piccolo.' B. 'Piccolo' and B. 'Silver Jewell' have lived in terrariums in my house for four years. B. *versicolor* has been in a terrarium for seven and a half years, and

is a beauty in good condition; it becomes weak in the hot summer, but blooms all year around.

Here is an interesting way I grow begonias:

- 1) Prepare two aquarium containers, one large and one small.
- 2) In the small container, with a 60 watt heater with a thermostat, raise tropical fish.
- 3) Place the smaller container with the tropical fish in the large container, and plant begonias around it.



The begonias in the larger container will grow and maintain good condition; the temperature will stay around 20 degrees centigrade (68 degrees F).

I enjoy my two-tank arrangement. It is on the north window side of my house at Gotembe, near Mt. Fuji. Maybe others who live in cold districts would like to try this method of growing.

Permission to use this article is given by the Japan Begonia Society, which holds the copyright. The original appeared in **Begonia**, the bi-monthly bulletin of the JBS, No. 106, September-October, 1984.

Thanks to Mr. Akira Tanaka, Director of the Japan Begonia Society, for translating Mr. Okuyama's article.

SANTA BARBARA SOJOURN

by Thelma O'Reilly

Spring was in the air as Tim and I traveled up the Pacific coast to Santa Barbara. This tranquil, beautiful city by the sea, spread out between the ocean and the mountains, is steeped in early California history. It also played an important role in the history of the ABS. Many of the society's pioneers, including Clarence Hall and Louise Schwerdtfeger, lived in Santa Barbara or nearby.

I was filled with excitement and enthusiasm as this was my first outing since a knee operation three months earlier and my first visit to Santa Barbara in three years. Arrangements were made to visit Dr. Tracy McLellan, Barbara Phillip, and Margaret and Rudy Ziesenhenné during our three day sojourn.

A quick tour of the famed annual Santa Barbara Orchid Show was followed by an interesting visit with Tracy McLellan. She greeted me in the campus parking lot at the University of California Santa Barbara.

The first part of my visit was spent in Tracy's office discussing the begonia species in Trinidad, an assortment of rare species from other parts of the world, and her proposed trip to Africa in early 1989.

During their 1985 trip to Trinidad, Tracy and her husband collected begonia seed from several species, including *B. glandulifera* and B. U175. I discussed with Tracy my personal observations when examining the inflorescences of both plants side by side (they bloom simultaneously), concluding that they appeared identical. Tracy made the

following comments, "At this point, it seems that the inflorescences of both plants are very similar. *B. glandulifera* is widespread and occurs in several types of habitats. B. U175 has been found in only one place, and its mossy streamside environment is similar to some of the places where *B. glandulifera* grows."

I asked Tracy, "Could B. U175 be a hybrid of *B. glandulifera*?" She answered, "If B. U175 is of recent hybrid origin, you might expect to see mixtures of the two leaf forms in one place, or plants with leaves that are intermediate in shape between the two. But the one population of B. U175 has lanceolate leaves throughout. Furthermore, there is no species of begonia in Trinidad with long, narrow leaves which might have served as the other parent in hybridization to give plants like U175." Tracy intends microscopic study of the inflorescences of both plants during their next flowering period.

I was thrilled to examine a live plant of the rare *B. thomsonii*, a species from India. It has an unusual rhizomatous-like growth habit. Another recently described African tuberous species, *B. brevibracteata*, caught my attention. Seedlings were nearing dormancy but small, healthy tubers were evident on the soil surface. Seed of this species was collected in Malawi where it has a very narrow distribution on one mountain.

When we went into a greenhouse where Tracy conducts her work on leaf development in the *B. dregei-partita-natalensis-suffruticosa-homonyma* group of species, I

gaped in amazement. She has made crosses between all pairs of the above species, now working on the second generation of some of them. She has over a thousand plants growing under fluorescent lights underneath large artificial streams (where her ichthyologist husband's fish collection is established). Flats upon flats of these plants are flourishing in an area that is approximately 4 ft. x 36 ft.



Dr. Tracy McLellan viewing begonias for her project studying *B. dregei* & *B. homonyma*

The latter part of the visit was spent viewing the well maintained University greenhouses. We were most interested in the recent begonia collections from Costa Rica and Mexico. Time passed so quickly that I was not prepared to leave when Tim arrived at dusk.

Tracy plans to go to Africa in February, 1989 when all of the project species should have ripe seed. Besides collecting seed for the Seed Fund, she will have the opportunity to study and gather material in the field for her work on the leaf development in this group of begonia species.

***Personal donations to assist Tracy with expenses for her research project in Africa should be sent to: Eleanor Calkins, ABS Treasurer, 910 Fern St., Escondido, CA 92027 and designated for the Dr. Tracy McLellan Research Project. ***

The following day started at 9 a.m. in Rudy's nursery, which is a treasure chest of old and new begonias, including many unidentified species. We spent the entire morning discussing and studying unidentified species and begonia literature. Exchanging opinions and information with Rudy is a special experience that I wish I could share more often (like every week or month).

We had a lively talk about tuberous species, still Rudy's favorites. I can still feel the weight of a tuber of *B. U103*, collected in Bolivia; it was 9" across and 4" deep. As I usually leave my tubers in their containers during dormancy, I had not seen my plants' tubers in two years (a quick peek on my return home showed one about 5" x 3"). *B. U103* has an unusual fragrance.

Rudy has written an article for the **Begonian** covering *B. manicata* and its varieties (May-June, 1988). I was pleased to learn that he included "Scott Hoover 179," which is listed in the Unidentified Species List as *B. U179*. Scott sent *B. U179* to me as a live rhizomatous stem cutting upon his return from Guatemala in December, 1979. I recognized it immediately as being closely related to *B. manicata* or a very select form of this species. I sent first propagated material to Rudy. This striking form has the thickest, largest, and most widely spread red scaly hairs and cuffs on leaf undersurfaces and petioles of any *manicata* I have seen in cultivation or habitat, plus lobed leaves. So that ABS members can enjoy this species, I selfed it for the Seed Fund.

Tim and I were the guests of Margaret, Rudy, and Barbara Philip for a delightful lunch, following which Rudy and I discussed begonia cultivars. Then came a tour of the large begonia house, and choosing plants for future study and enjoyment. Of course I wanted one of nearly every interesting begonia I saw. I finally managed to limit myself to three large boxes, mostly species and a few tubers, including *B. davisii*.



Thelma and Rudy examining a U number

Before leaving to visit Barbara's ranch, we were treated to a tour of Margaret's family homestead, which is filled with rare and exquisite antiques.

Mid-afternoon until early evening found us in the lovely garden on Barbara's ranch. She is still busy creating her famous *B. rex* hybrids. Several of the hybrids emphasized traits of their 'Connie Boswell' heritage.

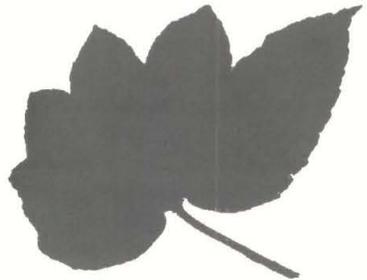
You cannot imagine the best treasure Barbara shared! LEAF MOLD - honestly, the real stuff that is earthy smelling, richly black, and nearly impossible to find. Manuel, Barbara's long-time gardener and friend, sifted a big bag of this "black gold" for my special begonias. The ranch has changed little over the years. Its beauty, warmth, and friendliness remain the same, as does its keeper, Barbara Philip.

Finally, midst a wonderful collection of begonias, I found the answer to one of our begonia puzzles. In recent years the question of how to distinguish between B. 'Mrs. Fred D. Scripps' and B. 'Lady Clare' has appeared. (See "The Mystery of Two Ladies," by Tony Newnham, the **Begonian**, Nov.-Dec., 1987, p. 171). Going back in time, I remember that they were quite different. Barbara still grows handsome specimens of both cultivars and they are distinctly differ-

ent. B. 'Lady Clare' has smaller, less red colored, more deeply cut leaves; the plant is more slender and shrub-like. B. 'Mrs. Fred D. Scripps' is more cane-like, taller, and more robust; leaves are larger, redder on under-surface, and not as deeply lobed.



leaf print, B. 'Lady Clare'



leaf print, B. 'Mrs. Fred D. Scripps'

I spied another species I have been trying to locate, *B. metallica*. A few cuttings (which are now well rooted), and fond farewells ended another day of friendly begonia contact.

Driving home the following day, surrounded by boxes and baggies of begonias, the scent of ranch oranges, the aroma of "black gold," and my capable chauffeur, Tim, I was happy and content with memories of our "Santa Barbara Sojourn."

Members at Large Director Thelma O'Reilly lives at 10942 Sunray Place, LaMesa CA 92041.



B. 'Homossasa'

by Francis O. Michelson

I raised *B. ulmifolia* for years. I grew it because it was a species, but I never thought it was anything outstanding. I noticed that nobody ever tried to cross it, so I tried to use it and produce a more decorative plant.

However, the little pollen available at that time was not mature enough, or the chromosome count on the crosses I tried was not compatible. Finally in 1976 I got a cross using *B. ulmifolia* as the female parent and *B. bartonea* hort. as the male parent. This produced B. 'Homossasa,' which is named for a city and springs in Florida.

Another cross I made in 1970 is B. 'Tomoka' (*B. convolvulacea* x *B. peruviana*). It is a basket type with white flowers, named for a Florida river. It is not registered.

I named a chance seedling of *B. incana* - the bees did the crossing in Miami in 1949 - after a town and river in Florida: B. 'Kissimmee.' I guess you can tell by now that I like Indian names.

Hybridizer Francis Michelson lives at 1291 9th St., Orange City, FL 32763.



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A NOTE ON: *B. bartonea* hort.

Because of some confusion about B. bartonea, Nomenclature Dept. Director Carrie Karegeannes was asked about the correct designation for this begonia. Here is her reply:

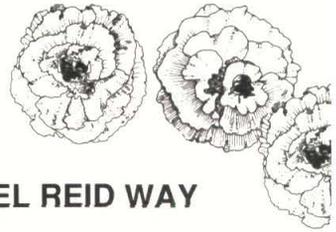
Begonia bartonea hort., syn. 'Winter Jewel,' hasn't been scientifically published or identified. Hence the need to keep the term "hort." with it. Helen Krauss, writing in 1947 in Begonias for American Homes and Gardens, pp. 147-8, says it is an unidentified species introduced from Puerto Rico "a few years ago" and also grown as 'Winter Jewel.' Botanists would likely be hesitant about naming it without any collections from the wild in all this time; you'd expect a species to turn up again.

On the other hand, it might already have a name - actually be the same as a species found earlier - but I don't know that a good herbarium specimen has been sent to botanists to study. I have found no mention of it in the botanical literature, and Dr. Smith didn't know it when we did the species list, so it has no official standing and should keep the "hort." designation (which means "of the gardens") until scientifically determined.

If it should turn out to be a cultivar, of course, then it would take a cultivar name (B. 'Bartonea' if that was used before 'Winter Jewel') - but that would need botanical determination. And I think it best to keep the Latin name to show that it is thought to be a species, until definitely thought otherwise.

So: *Begonia bartonea* hort., syn. 'Winter Jewel.'

In this issue we conclude the re-printing, in condensed form, of the articles Gene Daniels wrote in 1972 about the garden and growing methods of Ethel Reid.



TUBER HYBRIDS, THE ETHEL REID WAY

Part II

by Gene Danie

It was Mrs. Reid's belief that the finest plants are mature tubers from three to ten years old. Seedlings will give fine plants and in very rare cases they may be genetically superior to the old plants, but they never put out the growth, the number of flowers, the size of flowers, or the general vigor of the mature tubers.

When September and its shorter days are just around the corner, the colorful begonias will start to stretch to find more light. Some can grow three feet or more in height at this time, and there is an inherent danger of breakage because of this. It is a good idea to check to be certain that all stakes are tall enough, and that ties are secure but loose enough for growth. A tall, heavy plant should be tied at three to five points up the stalk to spread the weight and prevent stem damage. Frequently more than one stake is necessary. Pots that are on the ground can often be braced advantageously by pushing a heavy stake in the ground behind the pot and then tying the original stake to the new one.

During the late season the tuber is building up in size, which means a finer plant next year. The flowers will be getting somewhat smaller, the doubling of the males will start to disappear, and stamens with ripe pollen will begin to show.

If you want to try one of the more interesting aspects of tuberous begonias, October is the time to do a bit of hybridizing. It is essential that you have been observing all

the traits of the finer plants throughout the growing season, so that your new seed will contain desirable genes and thus produce fine seedlings.

For the amateur, it is best to try only one or two crosses, so that a reasonable number of seedlings can be grown and a choice selection made from them.

You will discover that usually even one seed from one pod seed will give a differently colored flower. The flowers may be various colors or they may be entirely different colors.

Usually it is not necessary to isolate the female plant completely as long as vigorous tuberous species are not grown within the feet of the mother plant. The pollen from these could have a tendency to spread and could give you seed that would produce single blooms. The small female bloom with the ovary should be dusted lightly with the pollen-bearing stamens of the male flower. This is accomplished best by breaking off the male flower and then removing all petals leaving the stamens protruding. Of the cross made, you can expect about 25% or less to produce ripe seed in about two months from the time of the pollinating.

The above instructions on hybridizing are rather general, as the purpose of the articles has been to teach the culture of fine plants. But I urge you to try it; it is easy and very enjoyable.

In the last issue you learned how to make cuttings of tuberous begonias. During the first year only, these cuttings have a much greater tendency to produce pollen than does the plant the cutting came from. Consequently, if you want to make a specific cross and pollen is not available from your stud plant, using pollen from a cutting of this stud will give the same results and is a *method used widely in commercial hybridizing.*

It is easy to get the cuttings to root, but sometimes troubles develop before the tubers sprout the following year. The cuttings root best when they are started only two inches apart in a flat of pure leaf mold. As soon as new growth is really obvious and small root balls have developed, they should be put into the regular leaf mold and sand mixture in 6" pots. This is usually in July. If they are especially large, the pots can be 8". They are handled then exactly like full-sized plants, with normal fertilizing and watering. But they should always be left in the pots throughout the winter as the tubers are forming late in the year and these tend to shrivel if removed. It is wise to moisten the soil occasionally during the winter this first year.

The late season and winter storage of specimen plants is much misunderstood and is extremely important. Ethel's system was to continue to water as the plants required it, gradually spacing the waterings a little farther apart in late November and December. Fertilizing was continued semi-weekly until the middle of October. She advised spraying heavily for mildew in the late season as it can get out of hand easily. It is imperative to keep the plants clean of fallen blooms and stalks, or rot which can kill the tuber can set in. Plants continue to receive water until all leaves are gone and most of the stems have lost their color and disintegrated. A little judgement must be used at this point because not all plants react identically at the end of their growth.

A plant in a pot is allowed to dry out thoroughly and the stem will break away clean of natural causes or it will remain attached and slowly dry up. The longer there is green growth and stem, the more the tuber is developing. When the final remnant of stem finally falls off on its own (never break it off) check to be certain the base area of the stem on the tuber itself is dry.

At this point the best storage method is to leave the tuber in the pot until about February 1, when it should be removed and cleaned up. This method is very space-consuming because of the large number of pots, so Ethel removed most of her tubers. She still liked to leave them in pots every two or three years to help them firm up.

Tubers should be removed after the open scars from fallen stems have dried up thoroughly. If a short piece of stem persists in hanging on to a tuber, the tuber is left in the pot until it finally gives up the ghost and lets go. The tubers are washed thoroughly and set in full sun for two days to dry. They are then stored in shallow cardboard boxes so they do not touch each other, and kept in a cool, dry, fairly dark area. They should be checked periodically for damage by bugs or mice.

This was the Ethel Reid way. It is not the only way to grow fine tuberous begonias, but it is a successful way. It was the method of a very gracious lady, and an energetic one. It was the story of a perfectionist. It was Ethel Reid.

While Gene lived in Ventura, CA, which has been called "begonia heaven," he did some successful hybridizing himself. One of his creations is a tuberhybrida whose red flower has a white center: B. 'Ethel Reid' var. 'Flowering Quince.'

Don't write to Gene at the Flower Mound address given in the last issue. He and wife Nettie are moving to Oregon!



RANDOM THOUGHTS on TUBEROUS BEGONIAS

by Howard Siebold

It is a pleasure to be able to read some of the articles from the older issues of the **Begonian**. Very few members have access to a complete collection of back issues.

This series of observations on tuberhybrida is aimed at the members attempting to grow them under less than ideal conditions. All of the available books and most articles have been written by growers living on the West Coast or in England where the conditions are almost ideal. The person trying to grow tuberhybrida under less sympathetic conditions is going to need a lot of help.

PREPARING FOR WINTER - Do not fertilize tuberhybrida after September 1st, and water only enough to keep the plant alive.

Plants being grown outside in beds or pots should have the flowers and buds and the growing tips pinched off by late October. This will direct all energy to building up the tuber for next year. In most areas, a light frost in October will damage the tops. Cut off the tops, leaving about six inches of stem. Tubers in pots may be moved to a place protected from freezing. Those in beds are lifted with a ball of soil and moved inside also. Both will benefit from some daylight during this period.

The tops will fall off a section at a time. Be patient. Don't force the separation - especially at the tuber. When the tuber is free of stems, wash or brush off the soil or mix. Don't remove the roots from the tuber.

Tubers may be left in their pots for winter storage. This helps prevent loss of moisture in the tuber, but it does make it difficult to inspect for rot or damage.

Tubers not left in pots are stored in boxes or trays where the temperature will be 38 to 50 degrees F. Where the humidity is likely to be low, cover them with a material that will let them breathe. Coarse peat moss, shavings, perlite, or vermiculite will do. Have the covering slightly moist to avoid drawing moisture from the tubers. Sprinkle lightly with water as the medium gets dry.

Inspect the tubers about once per month. If any show signs of rot, cut away the bad part and dust the cut surface with a Rose Dust containing sulfur. Any mold on the outside is a sign that the tuber is rotting.

The inspection in February may show some small buds starting. Depending on your facilities for carrying them along, you may wish to hold them back or push them along. You do that by lowering the storage temperature to hold them back, or increasing it to get quicker sprouting.

POWDERY MILDEW - There are several strains of powdery mildew. The spores of all are carried on the wind. Don't plant downwind of Lilacs, Zinnias, Roses, etc., that seem to act as hosts.

In the **Begonian** for September-October 1982, Robert D. Raabe mentions that the strain of mildew that infects begonias seems to have developed some resistance to Benomyl (Benlate). He recommended Triforine (Funginex) alternated with Benomyl and perhaps with Karathane.

The **Begonian** for December, 1980, had a report by two Ohio State University plant pathology researchers comparing

common kitchen products to Karathane and Benomyl for the prevention of powdery mildew. They found that weekly spraying of 2 teaspoons of bicarbonate of soda in a gallon of water was almost as good as Karathane as a preventative. It was better than Benomyl in their tests.

They also found that plants subjected to drought stress were more susceptible to infection.

STEM ROT - Too often, this is discovered only after the stem has rotted through and is on the ground. If it is discovered when it is only a small brown spot on the stem, it can be wiped away with a clean rough cloth or cut away with a sharp, sterile knife. In either case, dust the exposed tissue with a Rose Dust containing sulfur. Prompt action is important as rot can travel down the stem to the tuber and destroy it.

When rot is more than half-way through the stem, cut off the stem below the infection and far enough below that only clean tissue is exposed even if the cut is near the tuber. The tuber will probably start new buds. These are best treated as new plants, but all flower buds should be removed as they appear.

These spots of rot are often caused by damage to the stem by snails or slugs, by injury from cloth or wire ties, or from dirt splashed up on the stem. Use plastic ribbon for tying.

Adequate ventilation is most important. Space the plants at least 18 inches apart and as the lower leaves show brown spots or edges, remove them. Cut them off, leaving an inch of leaf stem attached to the main stem. It will heal and fall off in a few weeks. When the plant has two or more stems, remove enough leaves from the center to insure good ventilation.

The natural "cup" shape of the tuber can assist in rot that starts at the tuber tops. Most

likely this is due to watering too often or too heavily. This can start water mold, which is a form of rot. Water only when the soil surface is dry. Once the top of the tuber starts rotting, it is difficult to stop.

Dr. Raabe discussed water mold in the article mentioned above. His recommended treatment was 1/2 teaspoon of Benomyl and 10 drops of a new fungicide, Subdue, per gallon of water. Since Subdue is not yet available in small packages, he mentioned Lesan, Banrot, and Truban.

Perhaps the most common cause of stem rot and mildew is the purchase of seeds or tubers from stock that is susceptible to both. Keep a record of the origin of your seed or tubers and if they give you more trouble than you can handle, locate suppliers in a new area or even a different country.

Howard Siebold is both a grower and a hybridizer of tuberhybrida, and has scored a breakthrough with fragrant tuberhybrida. His address is 32050 Westwood Drive, Fort Bragg, CA 95437.



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A GROWING PARTNERSHIP: Margie and Jim Smith

by Tamsin Boardman

Jim Smith of Denton, Texas, used to play pool. He had a nice air-conditioned and heated room, with a full-size pool table, right off his garage.

When he gave the table to his son, he took up another pastime: building tables, plexiglass boxes, and frames to hold fluorescent light fixtures - all designed to help his wife Margie grow her pampered terrarium begonias in that air-conditioned, heated room.

Both Margie and Jim are plant people. They grew iris commercially for a number of years, and fell in love with begonias when they first visited, then lived in California during the late 1930's and the 1940's. They moved back to California, to Point Loma, in 1954, and after their return to Texas continued to visit her mother, who lived near Point Loma.

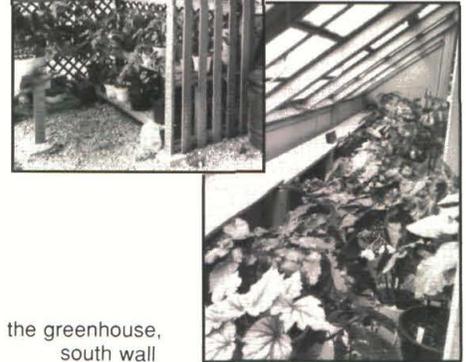
Margie still remembers with awe her visits to Alfred D. Robinson's famed Rosecroft Gardens. She was hooked instantly! She has grown begonias and other plants for years, and Jim is a devoted gardener whose specialty is hybridizing day lilies. Their acre-plus yard is all raised beds with walks between. In the early spring visitors are greeted by iris in bloom, and later by mounds of thrift. By the end of June Jim's daylilies are afire with bloom. Every season has its beauty in their garden.

After Margie sold her fabric shop ten years ago, her begonias really began to take over her time and her home. Jim encouraged her to plunge in, and used his construction skills to help. Margie grows beautiful cane-

like, shrub-like, and rhizomatous begonias in a wood-and-glass greenhouse and (except in winter) in a redwood lath house. Believe it or not, one of the plants grown outdoors in her lath house is a huge and lovely *B. herba-cea*, which has been there since March, weathering some very low temperatures and now facing 100 degree days.



Margie's lath house



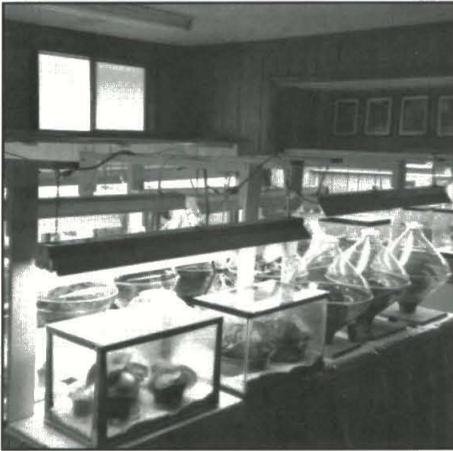
the greenhouse,
south wall

It is in her light garden that her talents and dedication really shine, for there she grows the rare and unusual terrarium begonias that are so finicky in their cultural requirements.

The entire room is given over to terrariums. Jim has built five large plexiglass cases, each of which holds several begonias. These allow room for larger plants such as *B. paulensis* to flourish. In addition, there are fifteen aquariums in 5, 10, 15, and 20 gallons sizes, with glass covers; there are fourteen 18" terrariums, with adjustable air vents; there are shoe boxes and sweater

boxes galore, fish bowls, strawberry containers, clear plastic cups (with inverted cups for tops), soft drink container terrariums, and clear plastic dishes designed as "diapers" for hanging baskets (these, like the plastic cups, are used in combination: one as bottom, one as top).

Where Jim's pool table stood, in the center of the room, he has built a large wooden table to hold terrariums, with a framework overhead for lights. Margie skirted the table with fabric, and keeps plant paraphernalia underneath. The walls are edged with more tables, with terrariums on top and underneath.



The light room, looking south

Windows on the east and west are painted over with a thinned white latex, to avoid the possibility of sunlight burning the plants, and tables and the walls behind the tables are painted white to reflect light.

Light is a very important part of Margie's plan for her terrariums. Two four-foot fluorescent fixtures hang about 4" above the top of each aquarium and terrarium, for a total of 44 bulbs. All of the fixtures are on surge protectors. The ceiling has more fluorescent lights, which serve to brighten the room on cloudy days. Bulbs are changed when they began to flicker. Margie lights her plants 12-14 hours per day, more in summer, less in winter.

Air conditioning keeps the temperature in the room below 80 degrees in the summer. In winter it is heated to 70 degrees, although on occasion temperatures have dropped as low as 55 degrees with no ill effects on the begonias. Gauges in each of the large boxes measure temperature and humidity, and the fronts and tops of the boxes can be opened to lower temperature or humidity. Thermometers are placed among the other terrariums.



B.'s 'Emerald Jewel,' 'Goshe.' *squamulosa*, 'Mumtaz,' and *raynaliorum* in one of Jim's cases

Margie believes strongly that begonias need good air circulation. She vents all her terrariums, and opens doors and removes tops for several hours to air the plants. Three fans run continuously in the room, aiding air circulation as well as helping maintain an even temperature throughout the room.

Before planting her begonias, Margie boils water and pours it over sphagnum moss. When the sphagnum has cooled, she cuts it with scissors and mixes it with perlite (1/3 perlite, 2/3 cut moss). This is the only mix she uses for her terrariums. Usually, the begonia is potted in her perlite-sphagnum mixture and then set in a terrarium which has a 1" to 2" layer of perlite on the bottom. Margie uses mostly plastic pots, and all pots have good drainage. Some are set on saucers when watered, to make sure the water is absorbed by the loose mix.

Schultz Instant is the only fertilizer Margie uses. She mixes 5 drops to a quart of water. Larger plants get this as a constant feed, and smaller ones are fed on an "as needed" basis.

B. U089 is a particular favorite. Margie grows it in lower light, to keep the blossoming down, because she has found that allowing it to bloom prolifically brings on problems of rot and mildew from fallen blossoms; this happens despite her painstaking care in removing spent leaves and flowers (she uses a very soft complexion brush). She keeps B. U089 and other yellow-blooming species on the dry side.

With bright light, air circulation, and temperature control Margie has had almost no problem with rot and mildew. The only times mildew has reared its ugly head she followed Elda Haring's advice in Begonias for Beginners: removed the affected leaves, and barely tapped the rest of the plant with Fertilome Rose Dust. If a newly acquired plant breaks out in a bad case of mildew, she throws it away rather than endanger her collection.



B. thelmae, foreground, with *B. U074* in back
B.'s brevirimosa, rex, 'Little Brother Montgomery,' with 'Connie Boswell' in back



Margie Smith is a generous grower as well as a "green thumb." She has donated hundreds of plants to the Mae Blanton Branch, to Southwest Region, and to the collection at the Fort Worth Botanic Gardens. She participates in four Round Robins, and shares cuttings with Robin friends across the country. Her light room is filled with tip cuttings, leaves, and wedges (leaf cuttings being her favorite because she finds they make for nicer, more shapely plants), destined to be given away when they make established plants. Visitors don't go away empty-handed.



Two plants of *B. gehrtii*, with *B. paulensis* in back and *B. potamophila* on the right

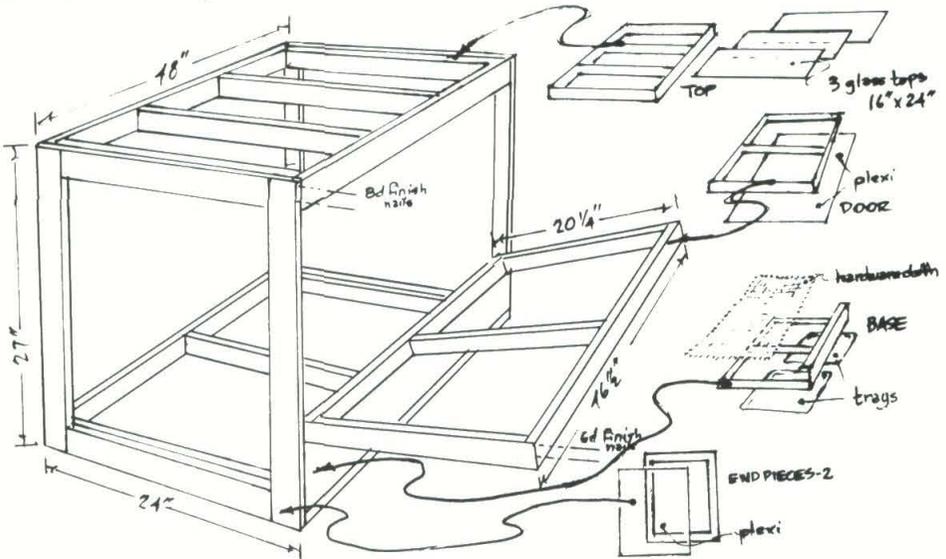
18" terrariums, under a table; they are anchored to boards for better balance



Margie and Jim Smith are delightful people to visit. He'll no longer challenge you to a game of pool, but you can sit beneath the huge elm trees in the back yard and admire the daylilies, or wonder at the beauty of the begonias in the lath house and greenhouse, or wander into the light room and be amazed by the variety of begonias grown there, by their size and health and vitality. Together, the Smiths have produced a lot of beauty.

BUILDING A BEGONIA CASE,

Jim Smith's way



drawing and directions by Bruce C. Boardman

materials for a 27" x 24" x 48" case:

- 1 pair 1 1/2" or 2" butt hinges;
- 2 sheets 1/16" plexiglass, 6' x 30" (cost is about \$16 ea., locally);
- hardware cloth, 48" x 23 1/2";
- 66' of 1 x 2's, bought in multiples of 4';
- 1 pc of 3/4" lumber or plywood 3 3/4" x 46 1/2";
- wood glue, finish nails & screws;
- foam strip insulation for tighter seals;
- 3 pieces 16" x 24" single strength glass (ssb);
- used cafeteria trays under hardware cloth in base frame.

Jim has no sophisticated workshop, nor can he call a helper when needed. So his box design and construction technique is for a one-man job. All wood cutting is done with a skill saw; assembly with hand tools, pre-drilling for long nails and thru the plexi to prevent splitting. (Drill holes larger than screw diameter!) The plexi is cut with a sharp 'linoleum' knife.

The bottom, 2 end pieces, top, and access door are individually framed. Plexi is attached to the sides and door with screws, and then assembled into the whole unit. Then the plexi is attached to the back. The glass covers (top) are kept loose, as is the hardware cloth. The bottom of the case is open, for air circulation and ease of cleaning, with the hardware cloth resting on the frame. Trays under the hardware cloth catch dead leaves and dirt.

A framing square, hammer, screwdriver and a 1/4" electric drill with proper sized bits completes the tool kit. Jim buys for convenience of size: he can live with the waste on the plexi and has found ways to use the off-fall resulting. A bit of wood filler and a couple coats of paint make these units look like factory built jobs; but good viewing of the plants is the first requisite.

SOUTHWEST REGION GET-TOGETHER

Begonia lovers from twelve states converged on Austin, Texas May 13-15 for the Southwest Region's annual Get-Together. Alamo Branch was the host Branch this year, and they put on a fabulous reunion.

Ninety-four members and friends attended. Distinguished guests included ABS president Arlene Davis and Past President Margaret Lee, Treasurer Eleanor Calkins, Convention Chair Wanda Macnair, Membership Chair John Ingles, Round Robin Director Margaret Coats, Classification and Entries Chair Tim Last (who is also president of the Brooklyn-Queens-Nassau Branch), Branch Relations Director Douglas Hahn, past Seed Fund Director Joy Porter (a SWR Trustee), Greater Cincinnati Branch president Erich Steiniger, Astro Branch president Gloria Quinn, and presidents of all SWR member branches.

Miriam Steiniger welcomed all comers at a registration table decorated with older hybrids and species in beautifully crocheted and ribboned plant covers made by Helen

Spiers. The lovely and nostalgic decorations, reflecting the show's theme of "Oldies but Goodies," continued throughout the lobbies and sitting areas and into the hospitality room, and added a touch of elegance to luncheons and banquets. A further note of nostalgia was the beautiful lacy cover Helen prepared for SWR's historical scrapbook.

The show had 156 entries. Placement Chair Tom Keepin and his crew worked into the wee hours of Saturday morning to arrange the show plants in a manner both comprehensible to the judges and lovely to look at. One exciting feature this year was having entries in the Tuberhybrida division.

A view of the show room, with June Shawver's Best of Show B. 'Benitsubomi' in the foreground and Don Miller's terrarium of miniature rexes to the left.



The hanging baskets were large and beautiful.



June Shawver won the Mildred Hooton Trophy for Best of Show (donated by the Mae Blanton Branch) with her *B. 'Benitsubomi.'* John Howell took the Kathlynn Calvert Sweepstakes Trophy with 28 blue ribbons and the Millie and Ed Thompson "Showing is Sharing" Trophy. John's *B. foliosa* won him the Dallas Area Branch Trophy for Best Species in Show.

Cultural Awards went to June Shawver, for *B. 'Benitsubomi,'* Melba Schultz for *B. 'Kathleen Mayer,'* Don Miller for *B. 'Little Joe'* and for his terrarium of miniature rexes, and to John Howell for Begonias '*Regalia,' 'Silver Sweet,'* and *foliosa.* In the commercial division, Northaven Gardens won a Cultural Award with a cross of *B. imperialis* x *B. 'Bokit,'* which was scored at 98 points.

While judges and clerks pondered their choices in the show room, Maurice Amey presided over an interesting and varied program of seminars. Maurice did a presentation on begonia leaf shapes and margins, and Don Miller showed breathtaking slides of his recent trip to Ecuador to collect begonias. In the afternoon, Tamsin Boardman did a slide tour of the begonias at the Fort Worth Botanic Gardens, and master hybridizer Don Asmussen shared his secrets. Don has an interesting approach to hybridizing; he requires freeze-resistance as well as beauty from his begonias.

Marie Harrell, aided by Ann and George Fletcher, put together an enormous and beautiful plant sale, and worked frantically to keep up as the result of all their labor was attacked at one o'clock Saturday afternoon by hordes of begonia-starved maniacs who, not satisfied with back-breaking loads of plants, kept coming back for more.

Also available for purchase were items of begoniana: T-shirts, bumper stickers, magnets, decorative miniature blackboards, cookbooks, stationery, cloisonne pendants, buttons, and - new this year - needlepoint designs created by member Betty Nation based on botanical drawings of begonia species.

At the banquet Saturday night, the Mae Blanton Service Award was given to membership chair Marie Harrell. Marie, a SWR member for ten years, has served also as secretary (1983-5), and as plant sale chair for three out of the last four Get-Togethers.

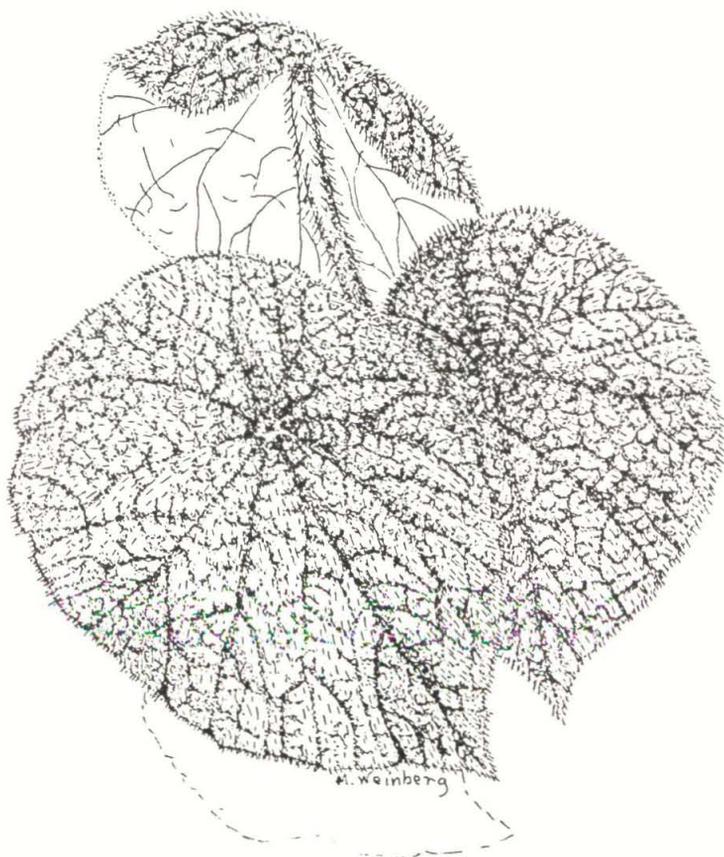
Begonias were seen at several spots on the tour Sunday: *semperflorens* at the entrance gates to the Texas Capitol, large blooming canes in a gazebo at the Governor's Mansion, *semperflorens* in gardens along the way to lunch at Lake Travis. But most interesting of all was the discovery of a whole new variety of begonias! These had lovely big flowers in many colors, and a sign identified them as "tubular begonias."

There was one final, unannounced event that took place before the sale room was cleared: John Howell auctioned off many of his show plants, donating the proceeds to the Region.

After three days of begonia excitement participants loaded cherished plants in boxes, bags, suitcases, and cars, and vowed to see each other next May, when Dallas Area Branch will host the 1989 SWR Get-Together in Dallas, Texas.

SPOTLIGHT ON:

Begonia staudtii



by Mary Weinberg

B. staudtii Gilg. var. *dispersipilosa* was first described by Imscher in 1954. It is in section *Scutobegonia* and has 34 chromosomes.

B. staudtii was discovered in tropical Africa, probably in the Guinea forest region of West Africa as this area abounds in yellow-flowered begonias. It has also been collected in the Cameroons.

The Guinea region of West Africa has an annual rainfall of over 80 inches, and tem-

peratures average over 68 degrees in January and over 86 degrees in July. The region's vegetation consists of tropical rain forest, woodland, and wooded savannah. Soil type is laterite (decomposed rock), red to red-brown in color; the humus content is very low because of rapid decay of organic material caused by the high temperatures and high humidity.

B. staudtii is classified as a rhizomatous begonia, distinctive foliage/unusual surface/unusual color. It is stemless. Leaves are light

green in color, peltate, asymmetrically ovate with deeply sunken veins. Petioles and both sides of the leaves are densely pilose. The peduncles are pilose and as long as the petioles, so that the flowers are held above the leaves. These flowers are deep golden yellow. (Description by Dr. Dorenbos, *The Begonian*, Vol. 47, January, 1980).

B. staudtii must be grown in a terrarium in order to supply the high humidity and warm atmosphere required for its survival. It is not a difficult begonia to grow, although there is a problem that happens to many growers: the plant will do fine for a while, then a petiole or petioles will develop rot starting at its base. As the plant is very hairy, I suspect it is a condition caused by too much moisture in the growing medium or by water collecting on the petioles.

Terrarium plants have a small ecosystem of their own. The roots take up moisture from the growing medium, and moisture is given off by the leaves. This condenses on the sides of the terrarium and runs down into the growing medium to start the process over again. Possibly moisture drips down into the petiole, or the growing medium stays wet over a period of time and causes the rot to start. Petiole rot does not necessarily kill the plant, as *B. staudtii* will start up again if transplanted to a new growing medium.

CULTURE

Light: *B. staudtii* needs a reduced light condition; when growing under lights, place the terrarium slightly off to one side of the fixture. If growing in natural light near a window, place the plant where sun will not touch the terrarium.

Temperature and humidity: Humidity should be at least 70%. Temperature range should be 70-75 degrees F.

Growing medium: I use a sphagnum - perlite mixture: 5 parts sphagnum to 1 part perlite.

Cut the moss into two inch long pieces and soak in hot water. I pour a container of diluted fertilizer over the moss before squeezing the excess moisture from the moss.

Water: Water only when no moisture appears in dots on the sides of the terrarium. Take off cover and feel the moss before watering.

Propagation: *B. staudtii* propagates easily from leaves.

Propagation from seed is trickier. The female ovaries are long and quadrilocular in shape. After pollinating the female ovary a problem arises when trying to remove the seed; if you wait until the seed pods are fully ripened, pods seem to become crystalloid, and the seed is cemented inside the pod, making it almost impossible to remove. According to Mike Kartuz, the seed should be removed from the pod just as the pod becomes brown in color.

Another method was suggested by Tom Hixson in the March-April, 1983 *Begonian*. He sliced the ovary into very thin slices (less than 1mm) and laid the slices about a half inch apart on a tray of fairly wet milled sphagnum moss. He said that "after two weeks, the ovary decomposed and nearly every seed germinated." He then separated the clumps with the point of a needle into individual two-leaved seedlings.

Reprinted with the author's permission from the January, 1985 *Chicago Begonian*.

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



IN THE NEWS...

THOMPSON COLLECTION HIGHLIGHTED

At the New York Flower Show, the Bronx Botanical Garden put on a lovely exhibit of begonias given them by Millie and Ed Thompson.

The Bronx designers set up a *Machin* Victorian Greenhouse as part of their "English Garden" to contain a selection of the Thompson plants, set off by a special brass plaque.



Photos by Paul Allen

LOGEE'S FEATURED

The Day, the newspaper of New London, Connecticut, carried an article by Steve Fagin on Joy Logee Martin and the famed Logee's Greenhouses. Impressed with the more than 2,000 varieties of plants, many of them rare and unusual and grown commercially nowhere else, Mr. Fagin was even more impressed with Joy: "Mrs. Martin can identify all 2,000, as well as recite their Latin names, country of origin and interesting historical tidbits."

Logee's has more than 700 varieties of begonias (30 developed there), over 100 varieties of ferns, and 40 varieties of scented geraniums, including a peppermint geranium 'Joy Lucille,' named for Joy. Among the unusual plants are Palmer violets, once beloved by Victorian ladies, an ever-blooming African gardenia, and Ponderosa lemons - lemons the size of enormous grapefruit.

ZIESENHENNE RECOGNIZED

"I started growing begonias in 1934, and it's still an adventure," Rudolf Ziesenhenné told columnist Tara Meehan when she interviewed him for *NOTABLES*.

Santa Barbara, the magazine of Santa Barbara County featured Rudolf Ziesenhenné in its *NOTABLES* column in May/June. Describing his inconspicuous greenhouse, marked only by a small painted sign saying "Begonias," MS Meehan wrote "...he wouldn't have it any other way. He's not interested in flash or hype or high-tech greenhouses. What interests him are begonias and it is to this interest that Ziesenhenné has devoted his life."

Mr. Ziesenhenné moved to Long Beach in 1923, married Santa Barbara Margaret Selover in 1933, and the couple immediately bought the property where they still live. They added a lath house in 1934, the first greenhouse in 1937, and have since added two *more greenhouses*.

Inevitably he was asked, "Why begonias?" His answer: "God had an opening in the begonia department and I was it."

TIPS FOR BEGONIA BEGINNERS

by Dorothy Patrick

PREPARING FOR WINTER

If your begonias have been out of doors this summer, you will need to get ready for winter. Adapt what I say here to suit the climate of your area to avoid being caught at the last minute, frantically trying to protect your begonias from an early frost. And, yes, I confess, I've been in that predicament more than once.

First, greenhouse growers: if you used shade cloth, it's time for it to come off. I always stretched mine lengthwise on the fence and gave it a showerbath with the water hose. After it dried, I folded it and packed it away. Next, I put a screw-on nozzle on the end of the hose, which changed the normal flow into a hard-beating jet of water, and I washed off the gables and sides of the greenhouse, where dirt and dust had been trapped under the shade cloth.

I used a layer of heavy, clear plastic on the entire inner surface of my greenhouse to form an airtrap between it and the outer fiberglass. This cut down my heating bill in the winter. In the fall I would check the plastic, repairing or replacing as needed.

Now is the time to check your greenhouse shelving, making any needed repairs. If the greenhouse has been shut down during the summer, you can now wash off the shelving. I used bleach in a sprayer. You might also use a very small amount of detergent or just a brisk stream of water; the aim is to rid the shelves of any fallen leaves, dirt, or debris lying around. If, however, you still have plants in the greenhouse, you can pick up old leaves with a shop-vac, your hands, or a brush. Cleanliness in the greenhouse is one of the best disease preventive measures.

Depending on your climate, you may still have to use your fans or evaporative cooler for a while. I did, in Dallas, and so I didn't cover the interior front of the cooler until the first really cold wave.

Regardless of whether you use a portable or built-in heater, **CHECK IT OUT RIGHT NOW** and be sure it is operational.

Air circulation, like cleanliness, is vital to healthy begonias. The best investment I ever made was a small fan, mounted high on the back wall of my greenhouse, and connected to a 24 hour timer that turned it on for 15 minutes, off for 15 minutes, around the clock. It not only circulated air, but moved the heated air, reducing my heating bill as well as protecting plants stuck in the corners.

For most of the years I grew begonias in a greenhouse, I only aimed for winter temperatures in the upper 50's. This means lower heating bills, much less watering, and no fertilizing. However, you won't have show plants ready by early spring, and, if you raise rexes, they might go dormant. Choosing the best temperature is a decision only you can make.

In a "cart before the horse" sort of way, in the July-August **Begonian** I went into how I handled begonias when their summer vacation was over and it was time to bring them into the house or greenhouse. You'll probably have to do some trimming. You've read that propagation should be done in the spring, and I'll grant you that cuttings probably root faster then. But who can throw away bushel baskets of cuttings? Not this begonia! And I would like to correct myself on one point in last issue's "Tips." I use 1/2 vermiculite, 1/2 perlite for starting cuttings, not soil, and I water the pots from the bottom, setting them in a pan of water until they are moist

clear to the top; then they go back into the plastic bag enclosures.

If you're bringing your plants into the house, not a greenhouse, use the same plant preparation outlined in the July-August issue. If you grow on window sills, you should be able to keep your begonias in good condition, even if the light is not all that strong. Rotate each plant 1/4 turn every couple of weeks to keep it symmetrical. You should be able to cut back on the frequency of watering (this depends on how warm you keep your house). To raise humidity, it helps to set pots on trays of moist pebbles. I did not ever fertilize a plant grown in a window sill in winter. I also ran a fan on indoor begonias.

Begonias grown under fluorescent lights grow on a 12 month schedule with no winter rest. They can be watered and lightly fertilized, just as in summer, again depending on the temperature of the room.

If you have *semperflorens* begonias in flowerbeds and live in an area where the ground freezes, take cuttings of all the different varieties you put out. You may also want to lift some of the plants gently with a trowel and put them into pots to winter over in the house.

In areas where the ground does not freeze, or where freezes are infrequent and short, *semperflorens* can be left in the ground, heavily mulched. Cut the foliage back before frost, and cover the plants up as snug as a bug in a rug. Make sure they get some water during the winter. In the spring, rake off the mulch; some, maybe most, will have survived. Tom Keepin, of Houston, Texas, plants pansies among the mulched and resting begonias; the pansies provide additional shelter, and, because they must be watered and fed all winter, guarantee that watering the begonias will not be forgotten.

One last, and controversial, statement. My late husband, Joe, was an expert on plant insects and disease, and treatments for

both. He did not approve of preventive spraying, because of the danger of the disease or insect developing a resistance to a treatment that might be really necessary at a later date. Therefore, I'm going to stick my neck out and NOT tell you to spray all of your begonias before, or when, you take them in. Instead, check each plant carefully; provide good air circulation, keep fallen leaves and flowers picked up and out of the pots, don't overcrowd plants, and keep water off the foliage. If you still get mildew, *then* treat it.

Dorothy Patrick is relying on memory for this issue; she's living in a warmer climate now. Her address is P.O. Box 2515, South Padre Island, TX 78597.



FERTILIZERS

by Joan Coulat

Like people, begonias do better with a mix of foods. Fertilizer directions say to water once a month at a certain concentration. By diluting that recommended strength to 1/4 to 1/10, your plants can be fertilized each time you water. This closely resembles the Texas method or greenhouse continuous feed systems. Alternating different fertilizers provides a wider range of micro-nutrients. I use, among others, Romeo (14-14-14), Romeo (18-18-18), Romeo (15-30-15), Peters, Mir-Acid, Miracle Gro, and Schultz.

To produce blooms for show, start fertilizing ten weeks ahead with high bloom fertilizers.

Using Superthrive at 1 drop per gallon of water as a foliar spray once a week adds a new depth of color and vigorousness to begonia foliage.

The short article above was taken from the Rubidoux Begonia Gazette, which printed a handout prepared by Joan Coulat., 4111 DePaul Court, Sacramento, CA 95821.

CLAYTON M. KELLY SEED FUND

September-October, 1988
Joan Campbell, Seed Fund Director

The Seed Fund is a service for members only. It is a privilege of your membership.

All packets of species seeds are \$1 each. Hybrid seed packets are 50 cents. A pamphlet on growing begonias from seed is 25 cents.

Orders must be accompanied by check or money order in U.S. funds made payable to Clayton M. Kelly Seed Fund. For seeds alone, add 45 cents for postage on orders from the U.S., Mexico, and Canada (60 cents on orders of more than 12 packets). Overseas postage is \$1.20.

With care, I can get two sets of planter dishes with free instructions in one mailer. For this alone, send 62 cents. For dishes and seeds, send 75 cents postage or 92 cents if more than 12 packets are ordered.

Send check or money order to:

Joan Campbell
814 NE Honey House
Corvallis, MT 59828
USA

Notes on the Seeds Listed:

Four kinds of seeds from Scott Hoover's Ecuador collection have arrived. B. U236 is a tuberous species, although Scott describes it as "cane-like," which is different. It was collected at 4000' near a landslide area. *B. holtonis*, received under its synonym as *B. foliosa* var. *amplifolia* and collected at 4100', is classified as shrub-like and has small, bare leaves and white blossoms. Please see the growing comments in the Seed Fund listing of March-April, 1987. Scott comments that this variety is everblooming. B. U246 was collected at 5500' and is described as a species from section Ruizopavonia. I haven't the foggiest notion what this will be. And last, Bs. U241 and U245: the supply of these is so

limited I did not test these seeds. Scott thinks these may be *B. maynensis*, collected at about 2000'. For a better description see the cover story in the **Begonian**, May-June, 1987. Seeds were distributed in 1984 as B. U141 and my plantlets developed round white dots on the leaf, so pronounced you could feel them with the tip of a finger. I later lost them and learned from a story in the Eastern Region, ABS Bulletin of June, 1986, that this begonia may not be easy to grow. Martin Johnson and I have rooted cuttings from another area in South America and my plants appear to be more thick-stemmed than shrub-like.

I have seeds of *B. listada* from Brazil which is a shrub-like begonia, and it will occasionally throw a fasciated stem. The elongated, oval, boat-shaped leaves, pointed at both ends, have light yellow-green stripes down the middle giving it its name, which means "striped." It is a moderate bloomer fall and winter; the white flowers have red hairs on the tepal reverse. See the cover of the **Begonian**, July 1981, and the accompanying articles.

I've made a mistake. The form of *B. foliosa* (B. U231) listed in the March-April issue is not the same as that pictured in the **Begonian** of September-October, 1986. The begonia listed in the last issue as *B. thomsonii* is *B. thompsonii* (spelled with a "p"). *B. thomsonii* is another species and has not been offered here.

B. deliciosa has been described by Belva Kusler as the "least difficult of the ornamental begonias for house culture, the flowers are a bonus; decorative enough in itself, this plant does not need blossoms to improve it." This begonia is from Borneo with

its rhizome jointed at or below the soil and it has dark green lobed leaves with raised veins and silver dots. The large pink flowers are fragrant. This begonia is confused occasionally with *B. diadema*.

B. U188 from Peru is still a bit of a mystery. The leaves are covered with glandular, sticky hairs, and the plant produces white flowers in the spring. Although we should avoid nicknames, this one might be known as the "Sticky Begonia," as the donor reports the stem and leaves, at maturity, feel sticky and if you brush against the plant it will grab you!

The "Brazilian species" sold at the 1986 convention has been identified as *B. petasitifolia*.

B. megaphylla from Mexico hasn't been offered since 1979. It is a rhizomatous begonia with dull bronze leaves with pointed lobes, growing to two feet or more (guess what its name means!). The inflorescences appear on two to three foot peduncles, producing hundreds of very small white flowers. This begonia is believed to be synonymous with *B. barkeri*.

We have seeds of a rare white-flowered form of *B. bracteosa*. Seeds of this begonia germinated on the soil of another plant which had recently been imported and Mr. Ziesenhenné made this identification. The pink-flowered variety has been well described in the literature and is known as one of the Machu Picchu begonias from Peru. *B. bracteosa* is an ancestor of our modern semps. This begonia should interest you "Armchair Explorers" who are trying to research B. U095 and B. U186. There were several albinos in my test seedlings.

We have a form of *B. fischeri* from a new source. This is a semperflorens or shrub-like species with the typical semp leaves, red stems and petioles and dark pink blossoms. Takes heat very well in both Montana and Oklahoma.

B. hirtella is another of those curious self-pollinating small annual begonias. The structure of the inflorescence of this species is such that the stamens of the male flowers appear right above the stigma of the female flower, so the seed set is abundant. This little begonia has shiny green stems and petioles with entangled white hairs. The upper side of the leaf is finely pubescent. *B. hirtella* is so pervasive it has become naturalized in parts of South Africa, well outside its South American habitat.

B. tayabensis from the Phillipine Islands is a small-to-medium leaved rhizomatous begonia with peltate leaves sharply pointed on the tips. The plant is glabrous, with red-tinted petioles and reddish color on the rhizome. It is very attractive with its rosy color on the blossoms, although growing under lights may influence this. It was mistakenly offered in 1986 as *B. rizalensis* and probably also as *B. elastostematoides*.

B. cardiocarpa is an upright rhizomatous begonia from South America with beautiful twelve-inch "pinwheel" leaves reminiscent of *B. 'Fischer's Ricinifolia'* and others of the *B. manicata* varieties. It has the familiar red cuff at the base of the leaf petiole and red freckles (trichomes) on the stem. The deep green leaves are large, but the root mass is small, so it doesn't take as much room as one might think. Reportedly, this begonia may be confused with *B. pruinata* (syn. *B. bakeri*) which Dr. Burt-Utley considers conspecific with *B. cardiocarpa*. I have small plants of *B. cardiocarpa* and *B. pruinata*, through the kindness of Mr. Ziesenhenné, but they haven't bloomed, so I have nothing to compare yet. "His" *B. cardiocarpa* has noticeably hairy stems, while "my" *B. cardiocarpa* matches Burt-Utley's description. For more research, see the article in March-April, 1988, regarding the varieties of *B. manicata* and see the Tulane Study for Dr. Burt-Utley's comments regarding *B. manicata* and *B. cardiocarpa*. Whatever its name, this is a beautiful, graceful begonia. It may well be the same as B. U205 from Panama.

Chirita lavandulacea is probably one of the easiest gesneriads to grow as it actually likes water! The erect branches have soft, hairy leaves and whorls of funnel-shaped, lavender and white flowers. It is an annual, but propagates easily from tip cuttings and you may keep it going forever this way.



Underside of a leaf of *B. U179*
photo by Thelma O'Reilly



The distinctive leaf of *B. gehrtii*

B. gehrtii from Brazil hasn't been offered in a long time. This rhizomatous begonia with its puckerred, shiny "spider web" round leaf is unmistakable once you've seen it, although it seems to have been confused in the past with *B. moysesii* and *B. paulensis*. The plant blooms in winter with white flowers and needs as cool conditions as you can find year round. Otherwise, it is undemanding. Test germination started in 42 days, although seeds supposedly can take months to germinate. Fresh seeds and the sowing environment probably determine the length of time here.

A final listing is the seed of *B. U179*, the Guatemalan species discussed in Thelma O'Reilly's article (page 152). See also Rudolf Ziesenhenné's article on *B. manicata* and its varieties, in the **Begonian**, May-June, 1988, pages 84-89.

I have other seeds I hoped to offer in this issue, but I haven't proved germination yet. The November-December issue is a long way off and since germination doesn't improve on the shelf, I am wondering whether a regular listing by SASE four times a year might take some of the pressure off by removing the **Begonian** deadline. Other plant societies sell in this manner. Of course, the **Begonian** could still print the descriptive listing. I believe the seeds would get out faster and be fresher. What do you members think? It won't be my decision as this is the last listing I will be preparing for the Seed Fund. My husband retired in July and while I should have more time on my hands, there will be more confusion around the house. And the bottom line is that I simply cannot handle the eye strain. I want to thank my wonderful donors and testers who have been such help over the past three years.

Clayton M. Kelly Seed Fund

Species seed

(\$1 per packet)

- S-O 1 B. U236
- S-O 2 *B. holtonis*
- S-O 3 B. U246
- S-O 4 Bs. U241 & U245
- S-O 5 *B. listada*
- S-O 6 *B. deliciosa*
- S-O 7 B. U188
- S-O 8 *B. megaphylla*
- S-O 9 *B. bracteosa*
- S-O 10 *B. fischeri*
- S-O 11 *B. hirtella*
- S-O 12 *B. tayabensis*
- S-O 13 *B. cardiocarpa*
- S-O 14 *Chirita lavandulacea*
- S-O 15 *B. gehrtii*
- S-O 16 B. U179

COMING EVENTS

September 9-11: Sacramento Branch Show and Sale, Garden and Art Center, 3330 McKinley Blvd., Sacramento, CA.

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

September 18: 6th annual Arnold Arboretum Plant Sale and Auction, at the Case Estates, 135 Wellesley St., Weston. MA. 11 a.m.- 4 p.m. Admission free.

October 13-14: Palomar Branch will participate in Flower Show at North County Fair, San Diego.

Longwood Gardens of Pennsylvania, is offering seminars and workshops on Topiary (September 9-10, \$49-119) and Perennials (October 25, \$30). For more information contact Longwood Gardens, Education Division, P.O. Box 501, Kennett Square, PA 19348-0501.

IN MEMORY

Edna Francis Watson died in San Diego in May. Mrs. Watson, who married long-time friend James Watson this year, was vice-president of the Alfred D. Robinson Branch, and loved for her warm nature and quiet humor. Memorials in her name may be sent to the American Cancer Society.

Maurice Haldeman passed away June 5 in San Bernardino, California. Maurice, with his wife Bertha, had been a member of Rubidoux Branch since February, 1983, and belonged to the Orange County Branch and several other garden and plant clubs. They were always there to help when something needed to be done, and an inspiration to us all. He shall be sorely missed by the members and his friends.

- Arlene Davis

East Bay Branch member June Cunningham died on May 30 after a long illness. June was an accredited Flower Show judge and a Gardening Consultant with California Gardens Clubs, Inc. The Branch is considering an appropriate memorial.
-from the East Bay Branch newsletter

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JUDGES' CORNER

Michael Ludwig, Judging Department Director

In this issue, I'll answer some of the questions that have come up in the process of revising the judges' course.

Q. There seem to be differences of opinion on whether it is permissible to have plants in bubble bowls/terrariums planted in pots. Several judges say no, and the same answer has been presented at several judging seminars. However, at an ABS show where potted plants in terrariums were entered, the show chairman, finding no reference in the show rules, allowed them. I found nothing about this in the judging course I have. If they are not allowed, what is the reasoning behind prohibiting them?

A. Plants in contained atmospheres should appear as though they are growing in that container. With the help of moss, bark, or soil mix it is possible to hide pots. Also, this will help stabilize the plant in transportation. This is the common practice with these plants. If an area wishes to allow pots to show, they should inform exhibitors and state this in the show rules. All these plants should be entered in the contained atmosphere division of the show.

Q. Judging seedlings that are about 2-3" with about 4 leaves are a challenge - any hints would be helpful about this situation.

A. The course revision team also believed this to be difficult and took some action. The seedling division has been moved to the newly created ARTISTIC SECTION. Here the seedlings will be judged by appearance and not point scored. The best looking plant wins. We believe these plants provide an excellent educational opportunity for viewers and should continue to be entered in shows. This change will let judges off the hook a little (we hope!)

Q. Judging seminars have mentioned using scissors to remove bad places. We know that it is a judgement call weighing points lost versus apparent leaf damage. Should plants that have all the leaves (1/3 off) cut to disguise the problem be benched?

A. A plant that has most of the leaves cut should have been left at home. Cutting a portion off the leaf, even if well done, becomes noticeable if done on many leaves. The plant doesn't appear true to variety if leaves are smaller than normal. This could be a cultural problem that with some help the exhibitor could overcome.

Q. What about a vehicle to keep judges up to date on updates and changes? Is Judges' Corner the vehicle, or should it be separate?

A. The judges' course revision is taking all my time now. A judges' newsletter will be available once this is completed. Also, Judges' Corner will continue in the **Begonian**.

The course revision is nearly complete. Watch for more details.

Judging Department Director Michael Ludwig's address is 7007 Mt. Vernon, Lemon Grove, CA 92045.



ROUND ROBIN NOTES

Margaret Coats, Round Robin Director

Lois Rowland (AR) tells her cane Robin members to try putting orange peels in a baby food jar to set inside their box of seedlings. She says it gets rid of bugs like a charm. (I am always amazed at the things begonia growers salvage and recycle). Eleanor Calkins (CA) keeps a teakettle of water on the stove with the flame low, and it gives off enough steam to keep the air moist, which her plants seem to love.

A. H. Weatherhead (Eng.) collects the soil from mole hills when he needs a heavier mix for his begonias! He says this is the finest compost one could ever wish to have.

The Midwest II Robin members were discussing rex begonias grown from seed. Mary McClelland (NE) says she puts a layer of moss in her sweater box and places her newly potted rexes in it. This keeps the humidity up when she slowly starts to open the lid to harden them off. She says to remember not to rush them along; if in doubt leave them for another week. Mary really likes New Zealand moss to put down rex leaves; even tiny sections of leaves are rooting with absolutely no rot.

Dora Lee Dorsey (FL) is a walking encyclopedia when it comes to good growing tips. In a Growing from Seed Robin, she tells several ways to propagate B. 'Crestabruhii.' First, she says the best way to get plantlets is to cut the stem out at the center of the leaf, and put the leaf down with the center veins in rooting medium. Small plants will come from the main veins very nicely. The second way she propagates B. 'Crestabruhii' is when the rhizome begins to grow over the edge of the pot, she sets a pot of soil beside the plant so that the rhizome rests on the soil. When the rhizome is well-rooted, it is cut free from the main plant.

The topic of discussion for this round of the Southeast Growers Robin was heat tolerant begonias. The one everyone agreed on was B. 'Pinafore Sport.' Mary Bucholtz (FL) had a list of ones she considers heat tolerant: B. 'Silver Mist,' B. 'Lana,' B. 'Nokomis,' B. 'Kristy,' B. 'Irene Nuss,' B. 'Sophie Cecile,' and B. 'Kentwood.' She claims B. 'Orange Rubra' is an easy grower for her, but difficult to keep in shape, as it is a rangy grower. B. 'Pinafore,' B. 'Pinafore Sport,' and B. 'Elaine' also do well. She finds the Kusler hybrids want the coolest spot she can find in her garden. Mary also mentions that begonias with thin leaves do not do well in the heat. Another subject discussed was the trick of getting good bloom from rhizomatous begonias. LaVerne Carpenter (MS) feels they need long, dark, cool nights. She tries to give hers the usual day and night lengths, as if they were outside. In her experience most will not bloom if grown in the living area of the house.

Esther Combs (TN) wanted her friends in a cane Robin to know of her success at rooting some tuberous cuttings. She said she really didn't know what to expect, but found they do nothing the first year but make a small tuber. New growth sprouts from the little tuber, and she hopes by fall she'll get some blooms. She is quite proud of meeting the challenge. Esther must be impressed with the other members of her Robin, for in welcoming a new member, she stated that the others know their begonias and even call them by their "first names." And Rhodora Buss (IA) quickly wrote back to Esther that of course she calls her begonias by their first names, as they are some of her best friends.

In response to Virginia Hamann's (IA) remark that she had tasted her begonias, Lois Kruger (NJ) said, 'How could you?' Lois

said she had to reassure her plants that she would never, never eat them. Lois' husband wanted to know if Virginia had first dipped them in chocolate. Then back to the subject of propagating, which the Robin covers, Elaine Ayers (OH) said that almost every article she has read recently states experiments prove that most cuttings root better in an acid mix, and that most botanical gardens are now using a bark-based mix.

Charlotte Kuhnle (OR) finds the African species particularly difficult to grow, so she has given up on almost all of them except for a few in terrariums. Having only a scrap of *B. subscutata* left, she put it into a terrarium at the end of the lights and totally ignored it. Suddenly it began to grow and now fills the bowl, looking somewhat like a philodendron. Chairman of this species group, Mabel Corwin (CA), in spite of being "off her feet" by doctor's orders, is growing about 600 plants for several branches' plant sales. Such a caring and sharing person - one great lady!

A rhizomatous Robin member, Priscilla Beck (CT), comments that no matter how long one gardens, one can always learn something new. As an example, she has always fertilized her plants in mid-March, but since she was going to be away most of the month of March, she went ahead and fertilized in mid-February, and says it has made a delightful difference. From now on she will fertilize her plants in mid-February.

The discussion this round for one of the rex Robins concerned problems encountered in bringing their plants out of dormancy. Frances Hurley (IL) says this is not one of her talents; the methods used by others have never worked for her. She says starting from leaves is too slow for her, so when she loses a plant she just goes out and buys one to replace it. Doug Hahn (OH) finds he has more success at keeping his rexes actively growing by keeping them under lights, or starting leaf wedges that, while not growing in winter, do not go dormant. Priscilla Beck (CT) is inclined to agree with Doug, as she

says keeping the rexes under lights in winter seems to be more important than warmth or anything else. She cautions against overwatering them at this time. Another opinion was given by Elaine Ayers (OH). She says in her experiments she has noticed dormancy will occur if rexes are kept too cold, too dry, or if potting mix isn't acid enough. All of her rexes are grown in her basement under lights in the winter and fed 1/8 strength fertilizer with each watering. She rooted them in water five years ago, and they have been actively growing since.

The members of the fern Robin are so knowledgeable on their subject. Marguerite Hankerson (TX) has about seven shoe boxes filled with sporophytes, several sweater boxes, and a number of plastic strawberry boxes with various species. She says she has 40-45 species and cultivars altogether, leaning heavily toward Adiantums. All members claim the dry weather nationwide has affected some of their ferns. Don and Chris Lill (Aus.) have a real love for their native plants and spend their holidays each year camping in the "bush" and identifying plants and birds. In answer to a question by Mary Ellen Taback (VA), the Lills say the way to persuade gametophytes to "move" is to cover them with sterile lukewarm water overnight, then drain it off. It must take a very special sort of person to have the patience to grow ferns from spores.

There are openings in the photography Robin, and if this is your interest, I urge you to join the group and see some of the beautiful photos they are taking. Dan Haseltine (IL), chairman of the group, says good photography takes time, patience, and some luck in being in the right place to get a shot at a good subject.

What is your begonia interest? With over 60 flights on varied topics circulating, there's a Robin for you! To join in the fun, write to:

Margaret Coats
11203 Cedar Elm
San Antonio, TX 78230



BEGONIAN MINI-ADS

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

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

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

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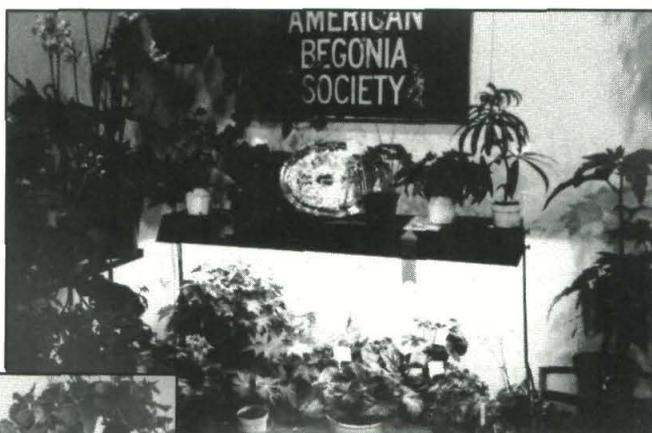


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is the International Registration Authority for *Hedera*; provides sources for new & unusual ivies; publishes *Ivy Journal* three times a year with reports on research, hardiness testing, life-sized photos of ivies. Memberships: General \$15; Institutional \$25; Commercial \$50. Information: The American Ivy Society, P.O. Box 520, West Carrollton, OH 45449-0520.

SHOW SCENES

Best of Show at the Westchester Branch show July 11 was this lovely specimen of *B. cucullata*. The winning plant was grown by Emma A. Mercon, who had been a member of the branch for only one month when she purchased the seeds of the South American species from the January-February, 1987 Seed Fund listing. Her *B. cucullata* went on to win another blue ribbon at the Culver City, CA, Garden Club Show.



From the Knickerbocker Branch exhibit at the New York Flower Show, "Begonias in the Home," come photos of their award-winning exhibit.

The Victorian wrought-iron stand holds an assortment of mostly rhizomatous begonias provided by Knickerbocker Branch president Edwin Hymovitz; to the left is a container of high humidity specimens grown by Natasha Hymovitz and a stately *B. 'Sophie Cecile'* grown by Sue Hessel, who also brought the tuberous and semperflorens on the floor and the *B. convolvulacea* hanging in the upper right. On the light stand are James Fryer's blue-ribbon winning *B. 'Guy Savard'* and the silver tray awarded the exhibit by the Safer Company for Horticultural Merit.

Photos by Paul Allen.

CHEMICALS AND THEIR EFFECTS ON YOUR BEGONIAS

by Houston Knight

How can you tell that your plants need more nitrogen? Or that they are getting too much phosphorus? Here's a quick reference guide.

(D) is for deficiency

(E) is for excess

NITROGEN

D stunted growth, pale green foliage, oldest leaves turning yellow and defoliating; some begonias show reddish color instead of pale green.

E heavy bushy growth, many large, dark green leaves, few flowers.

PHOSPHORUS

D dwarfed plants: thin shoots or stems, small leaves, dull purplish color of whole plant, early defoliation.

E high bloomer

POTASSIUM

D slender stems, shoots, or roots: green leaves with marginal browning of leaves which can extend into the leaves; forward curling of the leaves.

E good roots, and stem and crown.

CALCIUM

D yellow terminals with oldest leaves remaining green: stunted growth, die-back of terminals, abnormal growth of young shoots followed by die-back, pitted stems, rot of plant centers, short stubby roots with black spots; sometimes distorted leaf growth.

E not easily noted

MAGNESIUM

D interveinal chlorosis (yellow first, then brown) of oldest leaves; leaf margins green at the beginning, yellow later; withering of old leaves.

E not easily noted

suggestion: dose mildly six weeks before show time.

TRACE ELEMENTS

IRON

D net-like interveinal chlorosis, followed by browning of leaves on young growth.

E dark green foliage turning sometimes into manganese or zinc deficiency.

MANGANESE

D fishbone-like appearance of veins with interveinal chlorosis on leaves near the tip of the plant; leaf curl and complete yellowing of leaves.

E like manganese deficiencies, plus dark brownish spots on leaves; sometimes it also looks like iron deficiency.

BORON

D stunted growth, dieback of terminals or centers of plants (similar to calcium deficiency, but with no abnormal growth of young shoots); cracking of petioles or stems, internal browning and hollow stems.

E looks similar to boron deficiency with deformed youngest leaves and blackheart.

This article first appeared in the Whittier Branch newsletter.

Houston Knight's address is 13455 Hadley St., Whittier, CA 90601.



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AROUND ABS

Notes from our Newsletters

Summer proved a time for visiting, as branches held garden tours. Miami Branch members Georgia and Ron Humphries and Eleanor and John Benders held "open gardens," with lunch served under the trees at the Benders' and cakes for dessert at the Humphries' home ("delicious," was the report). Two Sunday afternoons, August 7th and 14th, were the times for San Francisco Branch members to tour each other's gardens. Nearby Monterey Bay Area Branch visited Carriage House Gardens in Monterey, and Palomar visited the charming gardens and lath houses of Mabel and Ralph Corwin ("Bring food and eating tools," said the newsletter).

Other branches roamed farther afield. Orange County Branch rented a bus and drove members down to see Rudolf Ziesenhenné's famous begonias, and the Brooklyn-Queens-Nassau Branch toured the Thompson collection at the New York Botanical Garden, then enjoyed a picnic before going home.

Palm Beaches Branch held a "Paul Lowe Mini-Show" featuring hybrids by their president, Paul Lowe. Members brought 31 plants, all hybrids of Paul's. Now Paul has developed a beautiful new hybrid with white flowers, and is making a unique bid for new members: he will name his new begonia for whoever brings in five new members! Watch for membership growth from Palm Beaches...

An interesting warning appeared in the Palomar Planter after announcing a talk by Irene Nuss about cane begonias: "Don't attend this program if you want to nap!" Irene is noted for her lively and sprightly lectures about her favorite begonias.

San Francisco Branch has gone international. It has several new members, but one is really unique: Daniel David lives in France, works for a charter airline, and flies into San Francisco a few times a month.

Thelma O'Reilly responded to questions about New Zealand Sphagnum Moss in the Members at Large newsletter #11:

"Unlike the domestic or even Canadian Sphagnum, this product is clean, fresh, and resilient. And it smells wonderful. One can immediately sense that this medium will stimulate excellent growth...and it does. It has lit a fire in the orchid world. An orchid nurseryman told me it was used during World War II when medical supplies were unavailable to pack wounds.

I soak moss in Super-thrive, squeeze excess water from moss and pack it lightly around plant material I am propagating. I am impressed with the root development on all types of begonias, orchids, bromeliads and assorted tropicals. When plant material is well-rooted I transplant into my regular mix.

It is expensive. Cost ranges from \$4.98 for 8 oz. to \$19.95 for a kilogram. One source is Jones and Scully, 18955 SW 168th St., Miami, FL 33187-1112. It does go a long way."

The Potting Shed, newsletter of the Edna Stewart Pittsburgh Branch, has had lots of good short tips for helping grow better begonias. Here are three of them:

"For graceful cane begonia baskets, outer stems should be trained down (use weights if necessary) with inner stems arching upward and then down. The overall effect is like a fountain shooting upward in the center and cascading down. Some species and cultivars lend themselves to this treatment more easily than others; for example,

B. 'Richmondensis' makes a stunning basket. If you're working with small plants, four inch pot size or smaller, try three of the same variety in a 10" basket for a fuller effect by fall."

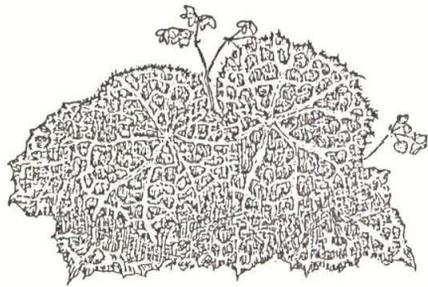
"Large pot-grown specimens, particularly in plastic pots, can be blown over by even a moderate wind, resulting in considerable damage. One way to minimize this problem is to use a heavier potting mix. For example, substitute sand for perlite (by volume) in the potting mix. Alternately, the pot can be anchored to a square of wood with eye hooks and picture wire. The wood should be about 2 times as wide as the diameter of the pot. A 12" pot would require a 24" square of wood. Use 4 eye hooks and wire in an "X" pattern. The wood can be removed when the specimen is to be transported."

"It has been reported that 3 month time release Osmocote fertilizer can break down suddenly under very warm conditions, releasing all of its nutrients at one time. This can be very damaging to the plants. The manufacturer suggests incorporating Osmocote in the soil mix rather than using it as a top dressing to avoid this problem. Reportedly the longer lasting forms (9 month) do not have this problem as they have a heavier coating."

The B-Line, newsletter of the Alfred D. Robinson Branch, is re-printing some of the articles and drawings Pat Maley did for them a few years back. Here's Pat on a favorite:

Begonia rajah

No matter how many begonias I may collect and grow through the years, I know that few will ever match the beauty and specialness of *B. rajah*. It is special in two ways to me...for being the uniquely beautiful begonia that it is... and because my particular plant came to me one fall day a couple of years ago from my special friend, Daniel Haseltine.



B. rajah was discovered in the early 1890's in Malaya by R. A. Ridley, a plant collector for the Singapore Botanic Gardens. While *B. rajah* was at one time extremely rare, it is now quite well distributed and available from most commercial begonias specialists.

B. rajah has a slender, creeping rhizome. The 3" to 6" leaves are glossy and heavily puckered in colors of reddish brown and a beautiful metallic green, and the margins are denticulate and fringed with red hair. Rising an inch or two above the foliage are lovely peachy-pink blooms which appear nearly year round. While my plant does grow in a terrarium, the top has often been off for days at a time. *B. rajah* does not seem to notice!



BRANCH DIRECTORY UPDATE

Time and place change: Tampa Bay Branch is meeting on the 3rd Wednesday at 7:30 p.m. at the Seminole Heights Garden Center in Tampa.

MINUTES OF THE BOARD OF DIRECTORS' MEETING

May 22, 1988

The May 22, 1988 meeting of the Board of Directors of the American Begonia Society, held at the Fullerton Arboretum, Fullerton, CA was called to order at 11:45 A.M. Aims and Purposes were read by Michael Ludwig.

Treasurer's report showed a balance as of April 30, 1988 of \$13,747.91 in checking, \$35,410.77 in savings, for a total of \$49,158.68.

Minutes of the March 6 meeting were read, and corrected to state the Westchester Branch show is at Fox Hills Mall, not Cox Hills Mall. Minutes were approved as corrected.

Correspondence was read. The Eastern New York Branch has officially disbanded and sent a check for \$4.60, which will be deposited in the General Fund. This Branch had been inactive for quite some time. Tamsin Boardman reported that A.B.S. has received a tax exemption in Texas, so there will be no taxes levied for the publishing of the **Begonian**. We received a copy of Elvin McDonald's newsletter, which mentions the A.B.S. and his visit to the Corwin's garden.

Appointments: Carol and Peter Notaras were appointed as chairmen of the 1989 convention in San Francisco. The convention hotel will be the Clarion, which is close to the San Francisco airport in Millbrae.

Special project report: The revision of the judges' course should be finished by the 1st of the year. Seven meetings have been held so far. The next is at Thelma O'Reilly's house June 25.

Nominating Committee presented the following slate of proposed officers: President, Arlene Davis; First Vice-president, Michael Ludwig; Second Vice-president, Charles Jaros; Third Vice-president, John Howell (San Antonio, TX); Secretary, Ingeborg Foo (Vista, CA); Treasurer, Eleanor Calkins. Board accepted the proposed slate.

Membership reports 81 Life members, 113 Institutions, 1344 dues paying members. There were 35 new members in April. So far in the new member contest Buxton Branch is ahead with 9 new members. Contest ends July 31.

Awards: The Awards Committee has received several nominations. More are needed! The deadline is July 9.

Seed Fund reports sales of \$615.87 for Feb. and March. Expenses were \$50.37. A check for \$590.51 was sent in.

Conservation: Martin Johnson reported seed from Scott Hoover's trip has been distributed to growers around the country. There were twelve different species. Cuttings were also distributed. Martin suggests that the Conservation Dept. be "formalized," with specific functions to carry on. He would like to be able to pursue grants for collecting and research projects. He will work on a committee to "formalize" the department, and more members will be appointed.

Judging Chairman is still looking for judges and clerks for the A.B.S. convention in Boston.

Members-at-Large: #11 newsletter has been sent out. Color Fund received a \$25 donation from the Mae Blanton Branch.

Nomenclature reported one new application was sent in, also \$4.00 in fees. U #s are up to #248. These include species collected in Ecuador.

Convention chairman Wanda Macnair reports the first mailing will be going out the first week in June. Donations are still needed to purchase sale plants.

Unfinished Business: John Ingles reports there has been excellent cooperation concerning the update of the Buxton Checklist. The original will stand as it is. The three supplements have been put on a computer disk, and John has been working on editing and updating. It is a huge undertaking.

New Business: Board approved a working account for Editor Tamsin Boardman of \$2,000. It can be increased in the future if necessary.

Houston Knight exhibited several sizes of plastic terrariums he has made, and offered to supply them to A.B.S. at cost. Because of problems in shipping and handling, it was suggested that he offer them to the local Branches, who could pick them up directly.

Branch Reports: San Miguel Branch will be meeting the 1st Sat. of the month at members' homes during the summer. San Gabriel Branch has replanted the begonia display at the Los Angeles County Arboretum.******All annual Branch and Chairman reports are due following the close of the fiscal year July 21, 1988.**

Next meeting will be at Mabel and Ralph Corwin's house, 1119 Loma Vista Way, Vista, CA. July 17 at 11 A.M. Please bring a sack lunch. A reminder with map will be sent out. Meeting adjourned 1:40 P.M.

Respectfully submitted,

Jeannette Gilbertson, Secretary

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TreasurerEleanor Calkins
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