A lush, green, moss-covered forest floor with various plants and ferns. The scene is dense and vibrant, with a variety of green hues from deep forest greens to bright, almost yellow-green mosses. A central plant with broad, heart-shaped leaves is prominent, surrounded by smaller ferns and mosses. The background is a soft-focus wall of moss and foliage.

January-February 1986

The BEGONIAN

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ISSN 0096-8684

Publication of the American Begonia Society

The **Begonian** is published bimonthly by the American Begonia Society, Inc. Views expressed are not necessarily those of the society, its officers, or the editor. Contents, except where labeled otherwise, may be reprinted without limitation, provided credit is given to "The Begonian, magazine of the American Begonia Society."

Membership (subscription) \$15 annually, \$20 first class mail, also Mexico and Canada. \$19 foreign surface mail except Mexico and Canada, \$35 overseas air mail. Added member, same household, \$2. Consult membership secretary for sustaining, benefactor, life membership dues. U. S. currency only. Back issues (current volume) \$2.50.

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The Cover: *Begonia glabra* growing epiphytically on the trunk of a moss covered tree in Monteverde Cloud Forest Preserve, Costa Rica. Photographer Lynda

Goldsmith remarked that the light level in the *Begonia* habitats is often so low that getting good photos is very difficult. For her account of the trip, see pages 4-7.

COMING EVENTS

BARKLEY BRANCH SHOW

Begonias on Parade, a show sponsored by the Barkley Branch, will be held at Will Rodgers Garden Center, 3400 N. W. 39th St., Oklahoma City. The hours are 2 p.m. to 5 p.m. on Saturday, April 5, and 11 a.m. to 5 p.m. Sunday, April 6. Kathlyn Calvert is the show chairperson. Everyone is invited.

EASTERN REGIONAL MEETINGS

The Eastern Region will sponsor an all-day study group in Jacksonville, Florida on Sunday, April 13. Reservations are required, and there is a fee of \$5.00. Contact Mary Bucholtz, 2411 Hendricks Ave, Jacksonville, FL 33207.

A judging seminar for the Eastern Region will be hosted by the Potomac Branch on Saturday, March 15, starting at 9 a.m. and ending at 5 p.m. A teaching and learning show will held in conjunction with the seminar. Contact Jim and Barbara Nunes, 6025 Gleely Blvd. Springfield, VA 22152.

PRINTING DELAY

The former printing company was sold and this delayed production of the Jan-Feb and Mar-Apr issues until a new company could be found. New contracts have been arranged and work proceeds to correct the schedule. As a result of the delays, this issue contains some updated material that is seemingly in the wrong time frame.

PUA NANI BEGONIAS

"Beautiful Begonias" — You will be surrounded by them at the 1986 Annual Convention and Show. We are fortunate to have as our Convention headquarters this year the lush tropical surroundings of the fantastic Hanalei Hotel in San Diego, September 4 through 7.

Watch for your convention packet; and then make your reservations for a fun-filled, informative tropical weekend dedicated to Pua Nani Begonias.

BEGONIA COUNTRY FAIR

The annual Get-Together of the Southwest Region will be held on Saturday and Sunday, April 26 and 27 at the Holiday Inn on I35E, 2 miles south of Lewisville, Texas.

Our Begonia Country Fair will include informative seminars and helpful discussions, plus a show and sale to be open to the public on Saturday from 3 to 5 p.m., and on Sunday from 10 a.m. to 2 p.m. Join us for the finest in begonia fun, facts, and fellowship.

DIRECTORS' MEETING

The Board of Directors will meet on Sunday, May 4, 1986 at the Corona Steak Company Restaurant, 1195 Magnolia Avenue, Corona, Calif. The meeting will convene at 11 a.m., will recess for a no-host lunch, and will reconvene as necessary.

COSTA RICA: BEGONIA TREASURE TROVE

Lynda Goldsmith

It was on a frigid, late December morning that our group began to assemble at New York's LaGuardia Airport. Among the holiday crowd it was easy to spot our fellow botany students in their heavy hiking boots, laden with backpacks and photographic equipment. Some looked disheveled and tired after an all-night drive to the airport, but excitement shone from their faces. We were off on a big adventure, a botany field trip to Costa Rica.

Most of us had just completed a course with Dr. David Barrington at the University of Vermont in tropical taxonomy. The trip was designed by Dr. Barrington to expose us to *three different tropical vegetation life zones*: the Tropical Dry Forest of the Pacific Coast, the lower Montane Rain Forest found along the Continental Divide, and the high Montane Rain Forest made accessible by the Pan American Highway. In addition, we would botanize on the grounds of the government agricultural station at Turrialba and in the parks and streets of the capital, San Jose, both in the Central Plateau. Judging from what I know of the country, I was resigned to the probability of seeing begonias only at Monteverde Cloud Forest Preserve, which was to be our second stop. No matter, for I was as anxious as the other students to see brought to life the photographic slides of our botany class.

Even the trip from the airport to San Jose was educational, as we tried to identify the ornamental trees along the highway. In the next few days we quickly got used to the perfect climate of San Jose (elevation 3800 ft) as well as the lush plantings everywhere. Next to our hotel was a gas station with huge hanging baskets of prize-worthy begonias directly above the gas pumps.

A day trip to Turrialba provided us with our

Lynda Goldsmith has enjoyed collecting begonias on several trips to native habitats. Her address is R. D. 2, Box 3850, Fairfax, VT 05454.

first look at a tree burdened with epiphytes, including orchids. A trail through a natural wooded area there yielded my first two begonias, neither of them familiar to me. Because there was only a single representative of each, and because the trail was very close to human activities, I suspected that they might be escaped cultivars. Photographing them was nearly impossible because of the low light, a perennial problem with photographing begonias in their shady natural habitats.

Our first experience in the field was at Santa Rosa National Park, Costa Rica's first national park. Like most tropical countries, Costa Rica has been losing its rain forests at an alarming rate, but it is in the forefront of nations trying to preserve some of their land *and wildlife before it is too late*—over 8% of the area of the country, nearly 1 million acres, is protected. As a result it is a country well known among travelers with an interest in natural history, perhaps chiefly among bird-watchers. The bird species of Costa Rica outnumber those of the United States and Canada together; there are some 850 species, including the rare and colorful quetzal. Moreover, there are 700 species of butterflies, 9000 moths, 320 reptiles and amphibians, and 8000 plants, indicating the great diversity that exists in this little country where South and North America meet.

Of the 9000 moth species, biologist Daniel Janzen estimates there are some 2500 species in Santa Rosa National Park. The elevation of the park, in the northwest part of the country ranges from sealevel where it meets the Pacific Ocean to over 900 ft at some locations. The vegetation is characterized as Tropical Dry Forest; annual rainfall occurring seasonally is about 50-80 inches. Because of the six-months dry season many of the trees are deciduous, except in the moistest stream beds and river valleys. Our first impression was of savanna with an occasional tree, or island of trees, thrusting above the grasses; these are not natural savannas, but are the product of agricultural encroachments on the forest many years ago. (Today these savannas are

maintained by periodic controlled burning.)

Our camping experience here included bent tent poles because of strong, never-ceasing wind, a poisonous snake that slithered into a camper's tent the moment she unzipped it as though it had been waiting to enter, the sound of howler monkeys as they swept through the forest canopy, and a glorious full moon to greet the new year. It did *not* include showers or toilet facilities, owing to a rainy season that had not lived up to its promise, or bothersome insects because of the relentless wind.

Any annoyances were far outweighed by the many new plants we learned and by cherished glimpses of wildlife. I forgot everything else when I found my first truly wild *Begonia*, *B. filipes*, growing near a dry stream bed. This is a small, delicate plant that evades the six-months drought by means of its annual habit; the plants I found, a month and an half into the dry season, were nearly leafless and the seed pods were almost empty.

Encouraged by this first finding, I followed the stream bed for a short way and was rewarded by the discovery of another species, this one rhizomatous, and as yet unidentified (UI04, distributed by the Seed Fund in March-April 1984). The many holes in the leaves I attributed to the rich insect life, and I wondered if the exposed rhizomes, twisting over rocks, survive the dry period in a near-leafless state of semidormancy. I felt well satisfied at having found two *Begonia* where I had not expected any; what more could Monteverde offer?

We climbed up to this most verdant of cloud forests with great expectations. The Monteverde Cloud Forest Preserve, elevation more than 4000 ft, is owned by the Tropical Science Center in San Jose. It has obtained a fair portion of its more than 6000 acres with the aid of international organizations such as the Nature Conservancy and the World Wildlife Fund, as well as U. S. universities that study there, including the University of Vermont. Making our headquarters at a guesthouse in the nearby Quaker dairy community founded in 1951, we made our way to the reserve at a snail's pace, stopping to observe the profusion of wayside plants, including a bank



Begonia involucrata on road to
Monteverde Cloud Forest Preserve

of *B. involucrata* in full bloom — much photographed by our group — and an unidentified begonia species with leathery, dark green, entire leaves. We spent so much time on the approach to the park, we had to postpone our entrance into it until the next morning.

When we finally entered the preserve, bedecked in all manner of raingear, and began our ascent of the slippery, muddy Chomogo Trail, we hadn't gone far when someone pointed out a small begonia growing in a crevice at the foot of a tree trunk. It was *B. heydei*, with its bright pink horned fruit. We spotted more of these along the trail, always growing singly in a hollow of a trunk or on a fallen mossy log, under very low light conditions. The same trail yielded a large patch of *B. alnifolia* more than six feet high, and the scrambling *B. glabra* in full bloom. *B. glabra* looked a bit different each time, now a woody thicket, now trailing over other shrubs, and some times even delicate young plants could fool one into thinking them a different species. Its great adaptability in habit undoubtedly contributes to its success as one of the most widespread of begonias.



Begonia alnifolia, Chomogo Trail, Monteverde Cloud Forest Preserve

After Monteverde, I was sure that my begonia viewing was over. There couldn't possibly be any growing at our next stop along the Pan American Highway headed toward Panama, the Cerro do la Muerte, where temperatures frequently fall below freezing at elevations of 8,000-10,000 ft. (Every 1000 feet gained in altitude is equal to about 300 miles of northward journey.) The flora here was a mix of North and South American species — temperate groups such as lupine and iris, for instance, as well as plants we know in the northeastern United States only as summer annuals or greenhouse plants: nasturtium, ageratum, marigold, and calceolaria, to name a few. The forest, formerly oak, has given way, after much human disturbance to aggressive bamboo which forms a canopy 15-20 ft high.

We hadn't gone far from our lodging when we spotted our first patch of begonias. The plants showed signs of extensive herbivory, as elsewhere, and frost damage, but apparently neither of these occur in sufficient force to prevent this species, possibly *B. oaxacana* var. *stenoptera*, from flourishing. Once again the great range in appearance caused me sometimes to think, mistakenly, that I had found

more than one species, but I now believe there was only one, a vary hardy species in that location. We left Costa Rica well satisfied with our tropical plant studies, and I was particularly pleased with the reward of having found unexpected begonias.

The following year my husband and I returned on our own, this time spending a full week at Monteverde. I had received permission to collect within the reserve, and I set off on a trail on which several trees had recently blown down. I'd been told I might harvest what I could from such trees, for the plants growing epiphytically on them would not survive the demise of the trees — the changes in light, moisture, and so forth would be too great. With the help of a sharp-eyed local guide who was interested in what I was doing, I harvested ripe capsules from several plants of *B. heydei*. Later I sent seed to several ABS members who are growing this plant successfully.

Changes can occur rapidly in the rain forest, with its continuous supply of moisture and favorable temperatures. In just a year's time the patch of *B. alnifolia* of the Chomogo



B. heydei in mossy tree hollow along Chomogo Trail. Note horned fruit.

Trail had nearly disappeared because of more aggressive shrubs closing in on it, although I found other thriving populations. The leathery-leaved species I'd seen on the roadside had disappeared, presumably because of work on the road necessitated by the intervening rainy season.

A second lesson to be learned involved the epiphytic habit. I saw *B. heydei* growing only as an epiphyte at Monteverde, yet when I grew it from seed in pots, at the University of Vermont greenhouse, it performed very well, producing many more leaves and flowers per plant than I had observed in the wild.

On the second trip we also visited Tapanti Forest Preserve, a few hours' drive from San Jose. Here I found a diminutive *B. glabra* growing from the moss on a tree trunk (cover photo). The roots were embedded in the moss, not the soil below. The plant grew only to about 12 inches, and the leaves were very small. Nevertheless a cutting of this plant brought home and grown in a pot now has leaves of ordinary size and needs frequent pruning if it is not to clamber to the greenhouse roof.



B. oxacana var. *stenoptera* (?) under bamboo, Cerro de la Muerta. Elevation 8000-9000 ft.

In each of these latter two cases, it would appear the plant is a *facultative* epiphyte rather than an *obligatory* one; that is, it is able to escape competition from other herbaceous plants by exploiting the unoccupied crevices and hollows, but these do not necessarily provide the best conditions for it. Studying how plants adapt to greenhouse conditions is not the least of the pleasures of seeking begonia treasure in Costa Rica.

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THE YEAR OF THE CANE

Those Super Superbas!

Pat Maley

I love cane begonias, and every one of them is a favorite in some way. But, oh how I especially love those majestic canes we classify as Superbas! Their large, cut, undulating leaves, often splashed with silver, are only outdone by their magnificent clusters of flowers.

The Superba type begonia originated in 1926, when Eva Kenworthy Gray crossed *Begonia aconitifolia* and *B. 'Lucerna'*. Most Superba type canes are tall growing, often to five feet or more, although pruning can control the height to suit varied growing conditions. They are generally less branched, with longer internodes than other canes. As a group they are very floriferous. Some Superba canes tend toward bareness on the lower portion, but this condition can be reduced by proper early pinching and by pruning older canes.

Few of the original Superbas are grown now, for cultivars developed in the last 20 years have proved to be far superior to the originals, being naturally fuller plants and much more floriferous. The prime contributors to our selection of Superba canes have been Belva Kusler, Margaret and Paul Lee, and Irene Nuss.

If I had to give up every begonia but one, the one I would choose to keep would undoubtedly be *B. 'Irene Nuss'*. This begonia, like the lovely lady whose name it bears, gives joy the year round. It is everything a cane should be: it is fast growing, easy to care for, easy to propagate. It grows full and lush, with immense pendulous clusters of gigantic, very fragrant blossoms. With very little encouragement, it will bloom nearly constantly.

Sharing the top of the list is *B. Encanto 'Lana'*. (This plant, more commonly known as *B. 'Lana'*, is one of several from the Encanto grex. A grex name is a group name for all the hybrids from the same parents. Several

cultivars from the Encanto grex were named, such as 'Lana', 'Green Coral', and Encanto #14. This Lee hybrid, an 'Elizabeth Lockhart' seedling, has dark, silver-splashed leaves and blooms profusely with rose red clusters from spring through fall. Several offspring of *B. 'Lana'* have also become favorites among cane growers. *B. 'Nokomis'* is probably the most widely grown of these, with light green, silver-splashed leaves that sparkle beneath dusky pink clusters of bloom from spring through fall. Margaret Lee received the Robinson Medal for *B. 'Nokomis'* in 1984.

Two other *B. 'Lana'* seedlings are *B. 'Kristy'* and *B. 'Osota'*. While these plants are classified as Superbas, their growth is much shorter and more compact than the rest of the group. They are excellent for flowers with limited space and are excellent bloomers.

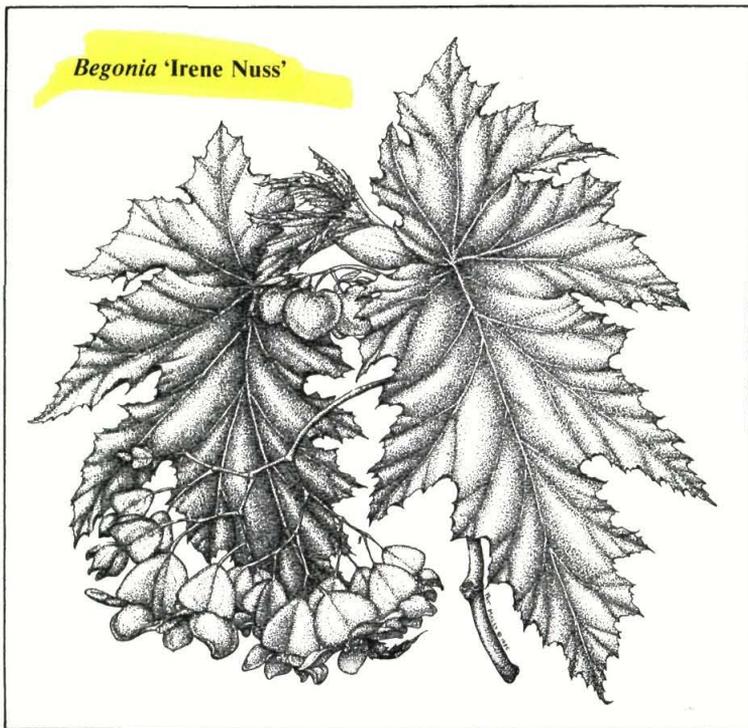
The members of the Phantom grex are unusual Superba canes. Both parents are species (*B. lubbersii* × *B. leathermaniae*) so there was not much variation among seedlings. While *B. Phantom* canes do tend toward bottom bareness and do not bloom as profusely most Superbas, they are well worth growing. The dark green leaves have an unusual silver splashing right down the center, which is especially evident when grown under lights or on new growth. The pink-tinted white blossoms are absolutely immense.

A less known Lee hybrid is *B. Encanto #14*. Its leaves are the lighter green shade of *B. 'Elizabeth Lockhart'*, its parent, but wave and undulate beautifully. The edges of the leaves tend to take on a pink color in good light, and the profuse pink blooms accent this. It tends to be taller, with longer internodes than *B. Encanto 'Lana'*.

Belva Kusler's *B. 'Sophie Cecile'* (*B. sceptorum* × *B. 'Lenore Olivier'*) has long been a favorite of cane growers with its dark green, deeply cut leaves and silver markings. This one is a shy bloomer unless given plenty of sun. Belva selected from the same cross beautiful 'Ester Albertine', which I favor over

Artist Pat Maley shares her aesthetic appreciation of cane begonias. Her address is 7384 White Oak Drive, Placerville, CA 95667.

Begonia 'Irene Nuss'



'Sophie Cecile'. The light green leaves are deeply cut and waved, and it is profusely covered with light pink blossoms much of the year. Also from Belva Kusler we have *B.* 'Marguerite DeCola' with flaring dark green leaves and clusters of rose pink blooms.

Irene Nuss has been one of the most prolific cane hybridizers to date, and she is still going strong. Besides her namesake plant, she has contributed many other outstanding Superba canes for our growing pleasure. *B.* 'Pink Jade' is almost as widely grown as *B.* 'Irene Nuss', and just as good a grower and bloomer. It has darker green leaves and deeper pink clusters of flowers, however. *B.* 'Ken Lau Ren' is similar in leaf shape and color, but its profuse blooms are brilliant coral red.

Two of Irene's earliest hybrids, both registered in 1969, are 'Kentwood' and 'Hannah Serr'. *B.* 'Kentwood' (*B.* 'Elizabeth Lockhart' × *B. scepstrum*) is a stately, tall, large-leaved cane, easily growing to six feet or more. It usually does not bloom until midsummer, and the deep pink blossoms are quite fragrant. *B.* 'Hannah Serr', named for Irene's mother, has

deep coral pink blooms and is fairly easy to keep low growing.

There are numerous other Nuss hybrids; 'Kent Brandon', 'Regis Way', 'Kenillu', 'Jumbo Jet', and 'Bonanza', to name a few, and more are on the way. One that has received a lot of attention in recent years is *B.* 'Silver Mist'. It has fast become a favorite, with very wavy, medium green leaves, very heavily splashed with silver, and immense panicles of pink blooms.

I'll end this Showcase with one more Irene Nuss hybrid, *B.* 'Alice N'. This one is a virtual unknown, not yet widely distributed, but it will soon be a favorite of many. A cross of 'Kentwood' and 'Lenore Olivier', *Begonia* 'Alice N' is a real eye-catcher. The leaves are quite large, to 12 inches, and almost black with silver splashings. It blooms easily and profusely with large clusters of rose red, deliciously fragrant blossoms. Any cane grower who has seen it wants it.

In mild winter areas, Superba type canes are also magnificent in the landscape, for they add much in both size and color.

INCREASING A BEGONIA COLLECTION

Vegetative Propagation

Dorothy Patrick



Wanda Macnair demonstrated techniques for handling cuttings.

Wanda Macnair's seminar at Miami on begonia propagation contained something for everyone from the absolute novice to the experienced grower. That's not surprising when you find out how much experience she has had with this facet of plant growing.

Wanda, president of the Buxton Branch, served as chairman of the greenhouse committee for the Barkley Begonia collection at Northeastern University, and works there every Tuesday and Thursday. She has been chairman of the branch committee on propagation and sales since 1976, and also has taught a class on growing house plants at the Cambridge Center for Adult Education. In all these she has demonstrated a variety of techniques and answered loads of questions. The underlying theme to her entire presentation was: don't close your eyes to a new way of doing things—experiment, and then *do* what works best for you.

Why propagate vegetatively? These are some of the reasons Wanda gave: to ensure the

Dorothy Patrick was show chairman for the ABS Convention in Dallas. Her address is 1023 Elmdale, Dallas, TX 75224.

continuation of a particular variety, especially if it is new to you and your environment; to share with a friend; to contribute to the sale table at branch meetings; to produce for sale tables, in conjunction with your branch, region or national show, 'mini-versions' of the plants you enter in the show; to save the products of pinching and pruning as you shape your plant or seek to force basal growth on the parent plant. "Throw those potential cuttings away? Never!"

She then showed containers in which to root your cuttings, a variety of glass and plastic items, as she stressed the need for humidity in the enclosure of a rootless cutting. A cutting loses water from its leaves through transpiration but cannot take water into its system until its roots form.

Wanda mentioned several well known possibilities for rooting mediums. She stressed using very hot (preferably boiling) water to prewet long-fibered sphagnum moss before using it. Also, she urged the premoistening of any mix you are going to stick cuttings into.

She told a story about being given a cutting while she was at the farm. Finding no mix to put it in, she stuck it in a container of well rotted manure—and it grew into a beautiful plant. A good example of creativity and lack of rigidity!

Water as a rooting medium was mentioned, but its long-term disadvantages were brought out: the metabolism of the cutting changes to enable it to draw oxygen from the water, and it often suffers shock on being moved into soil after it is rooted. At Northeastern University they keep a "growth chamber" in readiness for times a cutting needs to be put down when there is not time for their regular procedure. It is simply a box with plastic over the front, containing moist long-fibered sphagnum moss. Regardless of what medium you use, she recommended the addition of gardener's charcoal to keep your closed container sweet.

Wanda does not feel that rooting hormones are necessary for the successful propagation

of begonias, although a secondary effect of using them is that they contain a fungicide. For users she had two precautions: do not use too much per cutting, and do not dip your cutting into the hormone jar. Rather, shake a small amount onto a dry paper or small glass, and dispose of any that is left over after you are through. This prevents both contamination and moistening the stock jar.

Good sanitary measures are important as you cut from one plant, then another. Your pruners, knife, single-edged razor blade or scissors can be sanitized after each cut by moving them through the flame of a cigarette lighter or match; or they can be dipped into an alcohol or bleach solution.

It is so easy to forget tomorrow what you know today. Wanda's suggestion: Make labeling, with plant name and date, a habit.

A temperature of 70 degrees may be ideal but Wanda doesn't let that stop her—Wanda propagates all year round. Covered containers prevent temperature fluctuations. In the winter it is helpful to have bottom heat, which can be provided with a heating cable tape. Those who have fluorescent lights can set a cutting box on top of the fixture for warmth until the cuttings are rooted, then move the box into the light.

Cuttings need bright light. If you put your covered container in direct sunlight, though, you will have cooked cuttings! Her suggestions to avoid the problem: put a cutting into some moistened medium in a plastic bag, close the bag with a clothespin, and clip it onto your fluorescent fixture or tape it to a north window which receives no sun. Depending on the plant and the time of year, rooting should take place in from one to four weeks.

Summing up, Wanda stressed that using a loose, light mixture is second in importance only to not overwatering your medium.

After this general information, Wanda went through some of the horticultural divisions of begonias, and gave specifics for each.

Thick-stemmed: Lay down any length stem in a shallow trough in the medium, and it will root at all leaf nodes. This is a version of the mallet cutting.

Semperflorens: There will be no leaf bud in the axil where a bloom stalk has been; so wait until the plant is ragged-looking after heavy blooming, then cut it way back—discard the prunings in this case— and wait for new growth to take tip or stem cuttings for rooting.

Canes and shrublike: As with semps, avoid a cutting that has had a bloom stalk. When doing stem cuttings on these, put several nodes into the medium. This will tend to produce roots up and down the stem. Trim large leaves down to reduce transpiration. It is unlikely that either type will produce new starts from just a leaf cutting.

Mallet cuttings from either type begonia will produce new plants. A mallet includes a leaf, its petiole, and a small section of the stem to which the former are attached. Sink it snugly, but not deeply, into the medium. The junction of the stem and petiole is where the leaf bud is.

Rhizomatous (including rex): There are several ways to propagate these. A better plant develops from a leaf, but rhizome cuttings root faster. When using rhizomes, use two pieces in one pot. Face them in-opposite directions with the cut ends as far to one side of the pot as possible to allow more room for the growing end. Soft pinch the new unfurled leaf of a freshly rooted rhizome for more fullness. Cut your rhizome from the parent plant at a sharp angle for more rooting area, and partially cover that end with barely moist medium.

Leaves definitely need to be protected from drying (for example, in a covered clear box) while rooting. Use the whole leaf of a small-to medium-sized rhizomatous begonia by inserting into the medium just the petiole (leaf stem), or the petiole and the base of the leaf. For a large leaf just cut out the inner portion (the hub) of the leaf—roughly in a circular shape—leaving it attached to its petiole and put it down to root. With the outer portion which has been trimmed off, loosely form a cone shape, with the cut edges even. Hollow a space to insert this in your medium to a depth of about one inch, then loosely fill the hollow center of the cone with the medium.

(Continued on page 16)

BEGONIA CLASSIFICATION

Tamsin Boardman



Mildred Thompson explained the horticultural classification system at Miami Convention.

Just imagine, if you will, having the Thompsons' *Begonias: The Complete Reference Guide* stretched out on your lap. But with a difference: there are colored illustrations on every page—sometimes several—and Millie Thompson is right beside you, explaining the classification system, occasionally dropping hints about cultivation, answering all your questions.

That's what it was like in Miami at the ABS convention, "Begonia Stars Over Biscayne Bay," during Millie's seminar. We in the audience were guided through the intricacies of classification by means of a walk through the Thompsons' Begonia Museum, with slides of individual plants serving to demonstrate why each was placed in its category.

Before beginning the slides, Millie explained the "why" of classifying begonias: simply put, knowing which type of begonia you have simplifies caring for it and growing it successfully. Botanical classification, done

Tamsin Boardman served as publicity chairman for the Dallas convention in 1984. Her mailing address is Box 249, Roanoke, TX 76262.

by botanists and taxonomists, deals with plant parts; botanists recognize three genera in the family Begoniaceae, with eighty divisions, but the divisions are of no practical use to the grower. Horticultural classification groups by similar growing characteristics, because plants with similar characteristics have similar growing requirements.

Millie began her work in horticultural classification because she wanted to grow better begonias. She built on previous work by Liberty Hyde Bailey, who in 1914 divided *Begonia* into fibrous rooted, tuberous, bulbous, and rhizomatous; Carl Fotsch, who in 1933 introduced the grouping "semituberous"; Charles Chevalier, author in 1938 of *Begonias* (available in translation from the ABS Bookstore); and the various ABS classification systems, updated in 1969. In spite of all the work that has been done, classification remains imperfect at best: what, for example, are we to do with the likes of *B. aconitifolia*, which has characteristics of both the canelike and tuberous groups? Millie is not really satisfied with putting it in with the canelikes.

From canelike to trailing-scandent, here is a very brief summary (without, alas, the colorful slides) of how Millie described *Begonia* types:

Canelike: characterized by erect or semierect smooth bamboolike stems with swollen nodes; space between nodes usually long and even in length; do not branch easily, send up shoots from base; flowers usually pendulous and large.

Shrublike: bushy; shoots at base; branch freely; stems usually flexuous with internodes deviating in direction from each other; most are seasonal bloomers.

Thick-stemmed: thick stems, even when young; rarely branch; large—many reach 6 feet even in pots; suitable for bonsai; not enthusiastic bloomers.

Rhizomatous: characterized by rhizomes; bloom midwinter into late spring.

(Continued on page 24)

BEGONIAS OF YESTERYEAR

Tamsin Boardman



Joy Logee Martin recalled outstanding begonias that she has grown and known at the family greenhouses in Connecticut.

One of the delights of the Miami convention was the chance to hear Joy Logee Martin tell of the early years of Logee's Greenhouses in her seminar on "Begonias of Yesteryear." The famed nursery, which now carries over 800 varieties of plants, began in 1892 in a small private greenhouse loaned to Joy's father, William D. Logee, by his step-grandfather. A lemon tree William Logee planted still grows there today.

The nursery has grown tremendously. In 1920 an additional 100 x 20 ft. were added, and in 1972 a new greenhouse was built especially for begonias. Begonias, especially the hard-to-grow rex begonias, have also found a home in the 80 x 30 ft solar greenhouse built in October, 1984.

Among the very earliest begonias grown were *B. nitida*, discovered in Jamaica in 1777 (Joy told us that the species grown in different areas of the island vary, and that the flowers are fragrant only in the early morning); *B. dregei* (Africa, 1880); *B. socotrana* (Socotra, 1881), which is very difficult to grow; *B. froebelii* (Ecuador, 1874), with rich red flowers and bulbs which last only three years; *B. grandis* ssp *evansiana* (China, 1804); *B. sutherlandii* (South Africa, 1868); and *B. 'Weltonensis'* (*sutherlandii* × *dregei*: Clark, 1864).

Tamsin Boardman is Third Vice President of ABS and director of the Southwest Region.

Favorites among the early begonias were the trailing-scandents, grown in hanging containers: *B. solanathera*, *B. scandens*, *B. glabra*, and *B. radicans*. Many were known by different names than those assigned today: *B. radicans*, for example, has been called *glaucophylla*, *procumbens*, *limminghei*, and *limmingheana*.

Most begonia fans know that "Beefsteak" refers to *B. 'Erythrophylla'*, but how many can identify "crow foot", "pond lily", and "nasturtium leaf"? These were early names for *B. heracleifolia* (Mexico, 1930), *B. 'Erythrophylla'*, and *B. goegoensis* (Sumatra, 1882).

A big boost to the Logee begonia collection came in 1935, when Joy's sister Mary Ellen visited southern California and the Rosecroft Gardens of Alfred D. Robinson, who told her to take cuttings of anything she liked. Boxes and boxes of named begonias arrived at Logee's shortly thereafter!

Other influences on the collection were T. H. Everett of the New York Botanical Gardens, who served as first president of the Eastern Branch (now the Buxton Branch), and W. D. Holley of the University of New Hampshire, who gave the Logees the double flowered *semperflorens* he had developed — because he didn't want them! The Logees developed all of their famed double flowered semps from these "rejects," and gave many of them fairy tale names: Snow White, Bo Peep, Cinderella, Curly Locks, Goldie Locks, Jack Horner, Lucy Lockett, Robin Hood, and, last of all, Mother Goose, the fabulous mini-semp with bronzed leaves and tiny white ruffled flowers.

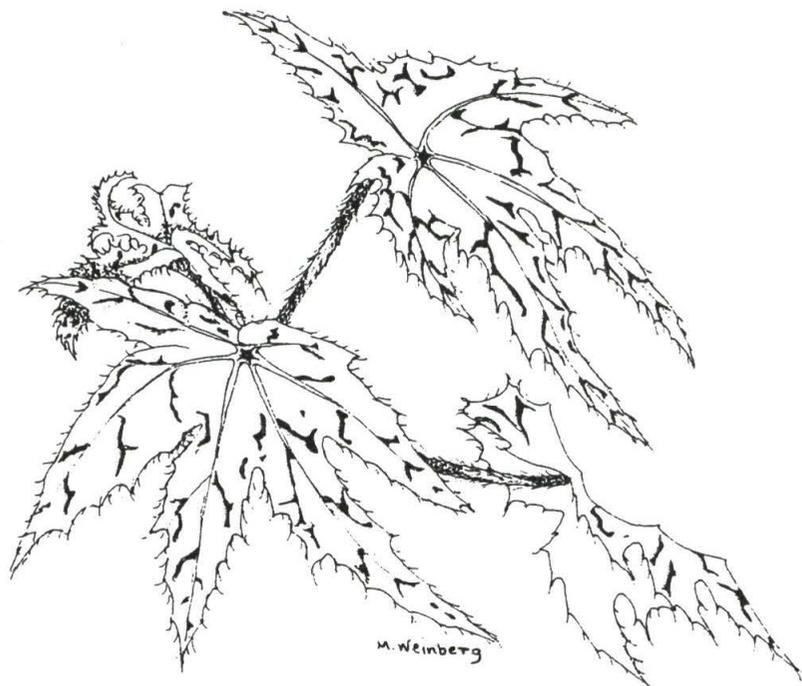
Joy also passed on some growing hints about several of the begonias she mentioned. *B. solanathera* has a resting period, and must not be overwatered; *B. glabra* seeds easily and is an aggressive grower in its native habitat (Venezuela, Costa Rica, Peru). *B. goegoensis* requires very high humidity. Species grow better from seeds than from cuttings. *B. venosa* (Brazil, 1899) should be cut back, can toler-

(Continued on page 23)

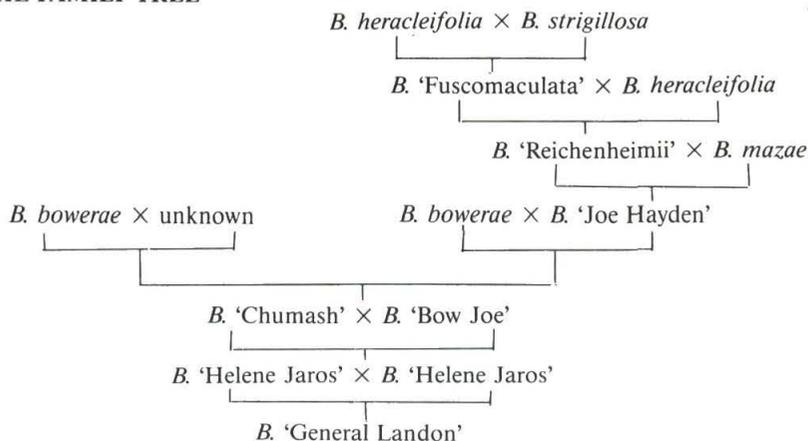
GROWING BEGONIAS

BEGONIA 'General Landon'

Mary Weinberg



THE FAMILY TREE

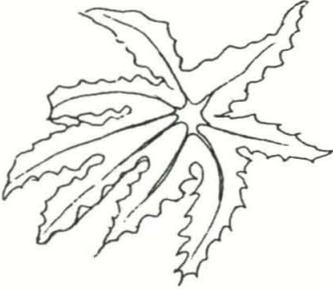


Mary Weinberg writes about her begonia growing experiences every month for the Chicago Begonian. She lives at 1527 W. Highland Ave, Chicago, IL 60660.

Begonia 'General Landon' is a hybrid made by self-pollinating *B. 'Helene Jaros'*. Kit Jeans was the hybridizer in 1977, and it was registered July 14, 1979. Her description appeared in the *Begonian*, September 1979:

BEGONIA 'GENERAL LANDON'
LEAF SHAPES OF RELATED PLANTS

B. heracleifolia

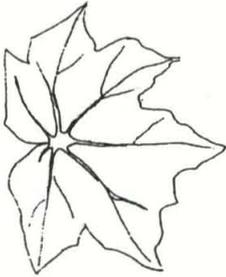


B. strigillosa

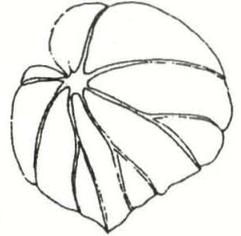
B. 'Fuscomaculata'



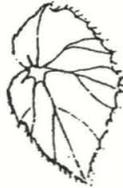
B. 'Reichenheimii'



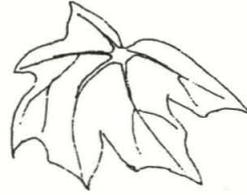
B. mazaе



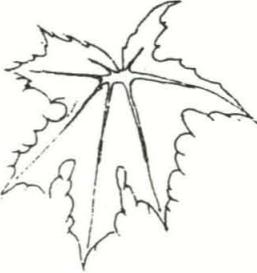
B. bowerae



B. 'Joe Hayden'



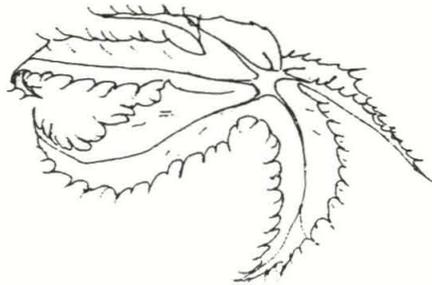
B. 'Chumash'



B. 'Bow Joe'



B. 'Helene Jaros'



M. Weinberg

B. 'General Landon', rhizomatous. Leaves are yellow green with chocolate brown hash marks, cleft with overlapping basal lobes, smooth and succulent, 4'' x 4'', with 6 pale green veins and ciliate margin; petioles red, hairy; stipules yellow, chartaceous. Flowers pink, 3/4'', with 2 male and 2 female tepals, blooming in spring.

B. 'General Landon', unlike its difficult parent, is a vigorous grower and is distinguished by deeply cleft, vividly patterned leaves.

I started my plant from leaves received about three years ago. It first bloomed in September of the following year, and bloomed continually until the following March. I cannot account for its blooming cycle other than to say that I grow most of my plants under lights, which may or may not have something to do with it.

The interesting leaf shape of *B. 'General Landon'* caused me to investigate its parentage. I found that *B. 'Helene Jaros'* served as both father and mother. The leaf shape of parent and offspring was similar, but leaf color was not, so I decided to pursue the ancestry of 'General Landon' as far back as I could go to see what plants contributed to its unusual markings and color.

The results of that search are shown on the family tree I drew. *B. 'General Landon'* inherits the dark pigmentation arranged like hash marks from three ancestors, *B. strigilosa*, *B. mazaе* and *B. bowerae*.

New Begonia Introductions

Continued from page 17

looking for new parent plants. New species now being discovered will add to the parent pool.

The slide presentation closed with a few pictures of the begonias (and bromeliads and tropicals) in the O'Reilly's garden.

*Author's personal tip: watch the Barkley Branch members in Oklahoma. They are producing some truly magnificent hybrids. Dorothy Caviness's large, silver-splashed cane took top honors at the Branch show last March.

CULTURE

Light: Likes a bright situation, morning sun or late afternoon sun will do no harm. If grown in a light garden, the brightest area will be fine.

Temperature: Comfort range between 65 and 75 degrees, but can take cooler and warmer temperatures with no sign of distress.

Humidity: Does not require high humidity.

Water: Water when growing medium is dry to the touch.

Growing Medium: The mix recommended in Thompson *Begonias* is fine (2 quarts screened sphagnum peat moss, 1 quart horticultural vermiculite, 1 quart coarse horticultural grade perlite, 1 tablespoon ground limestone). Otherwise it does not appear to be fussy. Be sure the mix drains well.

Vegetative Propagation

Continued from page 11

Many plantlets form from the cut edges, quickly forming a new plant.

As an alternative to forming a cone, cut the outer portion into pie-shaped wedges, being sure there is a major vein in each wedge. Sink the wedges into the medium at a slant.

For confetti cuttings (just like it sounds), cut a rhizomatous leaf into tiny pieces, sprinkle them thinly on top of the medium, and cover. Some should root, some may not. An easy way to make one leaf go a long way, and its fun!

I have saved until the last, and therefore out of its place in the seminar, the information with which I was most impressed. That is the concept of "scraping". Use it on rhizome cuttings, or on single or multiple mallet cuttings of canes, shrubs, or thick-stemmed begonias. Use a sharp-edged instrument to lightly scrape the outer surface of the part which is going to be in contact with the medium. Give it just a short while to begin to callous, and then proceed.

Wanda's seminar loses a lot in the written word, for in being there you feel as though you have witnessed a symphony performance as she orchestrates her talk with her hands! Neither can her enthusiasm show in the medium of print.

NEW BEGONIA INTRODUCTIONS

Tamsin Boardman

Thelma O'Reilly has served ABS as chairman of the awards committee, co-director of nomenclature, chairman of the nominating committee, member of the research committee, at-large director (since 1982), and as a *Begonian* contributor. In 1980 she won the Eva Kenworthy Gray Award for twenty years of writing about begonias. She has collected and grown begonias, is a judge and a hybridizer herself. In Miami she spoke on "New Introductions: Past, Present, Future."

Before presenting a colorful slide show of begonias which had won the title of "Best New Introduction," Thelma explained that the ABS system of registering new begonias is only 35 years old, and still evolving; the single most important criterion for a new *Begonia* to gain registration is distinctiveness, which counts for 75 points. A *Begonia* must be good to be registered, and the winner of the new introductions division is the cream of the crop for that year.

The Inglewood Branch, hosts of the 1956 national convention, were the first on record to include a "New Introductions of Distinction" division in their show. Twenty years later in San Diego there were for the first time separate classes for new introductions, and now there are two divisions, one for professional growers and one for hobbyists.

Among the early winners were *B. 'Madame Queen'* by Beth Bath (1957), *B. 'Universe'* (1969—Thelma didn't mention the hybridizer, so I looked it up: it was one Thelma O'Reilly), and *B. 'Carousel'* by Ruth Pease.

Winners at San Diego in 1976 included *B. 'Bill Cook'* by Bob Cole and *B. 'Fairyland'* by Leslie Woodriff. Other outstanding new begonias that year were Goldie Frost's *B. 'Whirlwind'* and Woodriff's *B. 'Dryad'*.

Later winners were Doug Frost with *B. 'Margaret Taylor'* (1977), Leslie Woodriff with *B. 'Madame Butterfly'* (1978), and in New York Logee's beautiful *B. 'Calico Kew'* (1979). The New York convention was also the site for the introduction of Woodriff's *B. 'Winkie's Vivid'* and Logee's *B. 'Oliver Twist'*.



Thelma O'Reilly has worked for a long time with new cultivars as a member of the ABS nomenclature committee.

1980 saw the introduction of *B. 'Midnight Sun'* by Byron Martin of Logee's Greenhouses, which won with a record 99 points.

Martin Johnson, with *B. 'Connee Boswell'*, and Patrick Worley, with *B. 'Quito'*, took the honors in 1981, and both won again in 1982 in Santa Cruz, Martin with *B. 'Jelly Roll Morton'* and Patrick with *B. (glabra × U003)*. 1983 saw Patrick Worley take the prize again in Riverside with *B. (deliciosa × floccifera)*, while Mabel Corwin won the best new introduction by a hobbyist for *B. 'Lolomi'*.

What do we look for in the future? Thelma mentioned two plants she knows, *B. 'Cuyamaca'* and *B. 'Harbison Canyon'* and she suggested we watch the work of the Frosts, Pat Maley, and Bob Ammerman whose new cultivars she has previewed. Bob's *B. 'Pat Maley'*, *B. 'Brown Sugar'*, and *B. 'Ada Perry'* were singled out for praise. Kit Jeans' *B. 'Maxine Wilson'*, which won best new introduction at the Southwest Region's 1979 Get-Together, was another impressive begonia.*

Is there anything left to do in the future? Thelma suggests studying the registers, and
(Continued on page 16)

Clayton M. Kelly Seed Fund

Joan Campbell, director

B. annobonensis: J-F 1

Shrublike species from Cameroon with wide, hairy leaves and white blooms showing a distinct six-winged ovary.

and April 1981, for pictures and comments on these semituberous plants. They are favorites of many growers, and starting from seed is a good way to build your collection.

B. cavallyensis J-F 2

Epiphytic species from Africa with bare leaves and white blooms. Epiphytic begonias have been described in the *Begonian*, April and May, 1980.

B. ulmifolia J-F 8

Thick-stemmed species from Trinidad, named for its hairy, elm-shaped leaves. It blooms freely in late winter with white blossoms.

B. chlorosticta J-F 3

Very unusual and popular shrublike species from Sarawak. The foliage is distinctive and blooms are white. This plant is pictured on the cover of the *Begonian*, January 1973, when it was referred to as "ex-Kew species".

B. U155 J-F 9

B. U156 J-F 10

B. U158 J-F 11

B. U159 J-F 12

B. U161 J-F 13

Four different rhizomatous species collected by Roberto Brin near Las Cascades and one (U161) near Madden Dam, Panama.

B. engleri J-F 4

Shrublike species from East Africa with wide, hairy leaves and rose pink blooms on red peduncles. Charles Chevalier wrote, "well liked in America for its handsome leaves." See *Begonias* by Chevalier for a detailed description.

This completes the current Panamanian collection offering. I'd like to have comments and observations from growers of these plants. I've had one report of variation in the seedlings and mature plants of *B. U150*, so it may be of hybrid origin. Aid both the Seed Fund and Nomenclature Unidentified Project with sketches, photographs, and short notes. Ultimately it will help all growers.

B. humilis J-F 6

Small annual species with triangular leaves collected by Dr. Tracy McLellan in Trinidad. See the *Begonian*, Sept-Oct 1985, for related article. One seldom hears of begonias which are annual plants. Try it and see what it does in cultivation.

This is a good time to order and start tuberous species seeds. I have several kinds on hand. Bulbils will be offered in a later listing.

B. homonyma J-F 5

Semituberous species from South Africa has white blooms. Green leaves less parted than others of the "maple leaf" types. Seldom goes completely dormant. It is known to many growers by its synonym, *B. caffra*.

All packets of seed are \$1.00 this month. J-F 2 and J-F 3 are limited in supply, so please list a substitute when ordering. "Growing From Seed" pamphlet is 25¢. Orders from U. S., Mexico, and Canada need 45¢ over seed price for postage (55¢ if over 12 packets are ordered). Overseas orders require \$1.40 for postage. Send checks or money orders in U. S. funds made payable to Clayton M. Kelly Seed Fund. Mail to **Joan Campbell, 814 NE Honey House, Corvallis, MT 59828.**

B. partita J-F 7

Another of the semituberous species from South Africa. Blooms are white. Leaves are more parted than others of the maple leaf type. See the *Begonian*: March 1974

BEGONIA QUESTION BOX

Mabel Corwin

QUESTION: I have a plant of *Begonia paulensis*. I want to start new ones as soon as possible. It has three nice leaves. I have read that you can't start it from a leaf. I have it in a glass bowl. Do I just wait until it gets a new shoot? OHIO

ANSWER: I don't believe you can start your *B. paulensis* from a leaf. It is a rather difficult plant to grow. You should be able to start it from a cutting. This means you will have to wait until the plant has several stems. This is the way I like to start it: I gently lift the plant from the pot and break away one stem, root and all. Then I place the plant back in the pot, adding a little more mix to fill the pot. I pot the rooted stem in a smaller pot and water carefully. There is less danger of rotting this way.

QUESTION: What is the best way to handle cuttings you receive in the mail? Sometimes they are quite wilted. OHIO

ANSWER: When I receive cuttings in the mail I like to place them in a glass of water, and then place the whole thing in a large plastic bag. I close this tightly, and leave overnight. Some growers submerge the cuttings in a pan of water for a few hours, then close in a plastic bag and leave overnight. It takes several hours for the cuttings to become crisp and turgid again. I seldom lose a cutting this way.

QUESTION: I have three plants in my greenhouse that I purchased last spring. They have not been potted up. I feel the pots are too small and they are in need of some fresh mix. Can I move them to larger pots now (November) or must I wait until next spring? CALIFORNIA

ANSWER: As long as your plants are in the greenhouse where you can control the watering, I would go ahead and pot them up now. Be careful not to overwater while the days are short.

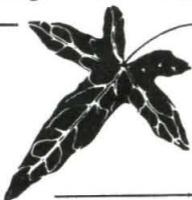
Most of my begonias are grown outside with only shade cloth covering. I never pot up during the winter months, even if the rain sometimes washes some of the mix from the pots. I start potting up early in the spring when I see signs of new growth. However, those in the greenhouse are potted up whenever I feel they need it.

QUESTION: I have a shrublike begonia that I don't know how to handle. The center of the plant looks fine, but all the stems around the outside of the plant have lost their leaves. There is new growth at the tips of these bare stems. Can I propagate those tips, and what do I do about the bare stems? CALIFORNIA

ANSWER: I think the tips will make good cuttings. I would cut the bare stems all the way back to the soil level. In the spring I think you will find new growth will start at the base and the plant will fill out again.

The first thing I do when pruning cane and shrublike begonias is cut the old canes out completely. Then I cut back the remaining stems or canes as necessary to shape the plant. This usually results in lots of new growth from the soil and makes a fuller plant. I cut out the old canes at any time, but do the final pruning just before the new growth starts in the spring.

Send questions about begonia growing to **Mabel Corwin, 1119 Loma Vista Way, Vista, CA 92084**. Include a stamped, self-addressed envelope; you'll get a prompt reply.



THE AMERICAN IVY SOCIETY

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.

ROUND ROBIN NOTES

Mary Ellen Taback, director

Mention of **propagation techniques** brings many responses from the robins. Albert Weatherhead, England, roots all begonias but rhizomatous in water. He makes sure to pot when the roots are 1/4 to 1/2 inch long. **Water roots** are considered brittle, but he thinks the rooted cuttings grow faster than those that are soil rooted. Betty Tillotson, CA, thinks cuttings that are water rooted do not make as sturdy a plant as those started in soil unless they are planted soon after the roots start to show.

To separate water roots Dora Lee Dorsey, FL, suggests dipping the water roots into dry vermiculite or pasteurized compost before potting. This allows the roots to separate and spread apart in the soil in the pot. If this does not separate them enough, she suggests spreading them gently with a toothpick.

Pauline Chambers, FL, uses a clear glass jar for water rooting *semperflorens*. As the roots form she adds perlite gradually until there is just enough wet perlite surrounding the cutting to support the roots and still allow easy removal of the cutting. Vitamin B-1 and fertilizer are added as the cuttings grow. She says that semps with delicate or soft stems do not root well in water.

Russ Hammer, TX, tried **air layering** using a cutting of *B. 'Osota'*. He stripped the leaves from a section of woody stem. It was not new growth, but not old wood either. He cut a shallow notch *very carefully*, placed a small wad of moist long-fibered sphagnum moss at the notch and encircling the stem. Then he wrapped the moss with plastic wrap and taped both ends tightly. When he saw roots forming at the surface of the moss, he cut the stem below the wrap, took off the plastic, and potted the cutting with its moss and all.

He believes it should work on shrubby types and thick-stemmed begonias, too, although the process may not have frequent application for most growers. The advan-

tage is that if the layering does not "take", you have not lost the original cutting and you may have another try at a different place on the stem. Russ thinks layering might succeed on *B. 'Muddy Waters'* which is so succulent that rooting is difficult in soil.

Moving from water to air to soil mix, we have a **seed starter** recipe from Pauline Chambers, TX: Screen, then premoisten one and one-half parts Jiffy Mix. Add one part finely crushed perlite and one part fine vermiculite. Sterilize by watering with solution of Ortho Garden Fungicide (50% Captan included), then tightly closing the container of the mixture, and letting it stand for twelve hours before using.

How do you **separate young seedlings** when they become crowded? Doug Hahn, KY, drops an entire mass of seedlings from a height about six or eight inches to the counter top and finds that the individual plants can be pulled apart rather easily.

Two related tips on rooting cuttings come from, first, Bob Moore, FL. He has **success rooting cuttings** in the same medium and in the same terrarium as the mother plant. The second from Charlene Franklin, TX, recommends keeping the same soil for rooting, using it repeatedly. She reports that the growth hormones build up in the soil, resulting in **faster rooting and healthier cuttings**. Bob Ammerman, CA, agrees.

Soilless mixes have become the thing to use but among the Robins there is some nostalgia for the use of genuine **dirt-type** soil. Both Rhodora Buss, IA, and Kathleen Herr, OH, remember how well their plants grew in all-purpose potting soil. They find the soilless mixes less satisfactory. Elaine Ayers, OH, reports that a soil-based mix containing organic fertilizers of blood and bone meals as well as cottonseed meal and Knox gelatin, with frequent watering, has produced excellent bloom on canes under lights.

The topic of **building membership** arises frequently in the Robins. In some areas *Begonia* means *semperflorens* in the summertime in beds outdoors, and that is all it means. How can the public be made aware of the riches of the Begoniaceae? A good idea came from new member Philip Roe, IL. He grows cane begonias in the east window of his pet store. Another idea is the building of collections by volunteers in city conservatories. The members of the Robin on Canes deplore the lack of labels or mislabeling of public collections, but feel that both private displays such as Philip's and public ones in conservatories spread the word.

There is much interest in **species growing**. Some experiences from the Robins: Ruth Wills, OK, finds that *B. prismatocarpa* can grow tall and scraggly looking, and so can the variegated form. When overgrown it grows so tightly packed that you have to pull it apart in small clumps. It will die if not thinned out. Several growers report that *B. prismatocarpa variegata* will lose its variegation. Joyce Smith, VA, thinks this might happen if it is kept too warm or fed a fertilizer with too much nitrogen.

Joyce is growing *B. subscutata* in a shallow 11-inch bowl which contains chopped moss, a piece of treefern, and a chunk of cork bark. The plant is rooting into the treefern with a firm grip and has also fastened into the cork bark through some moss. She plans to sever the rooted sections to see how they will survive in the new medium.

Arline Peck, RI, observes that the best way to root *B. venosa* is to let the cutting dry a bit before putting it down. *B. peltata* is similar, and is called the "succulent begonia" sometimes. Note: *peltata* was renamed from *incana*.

If you are not in a Robin, you might still contribute to some of the ideas that the Robins circulate. Just drop your Round Robin Director a line. Meanwhile, consider joining a Robin. We have several openings. The new Unidentified Species Robin is flying and has one more opening. There are

also openings in Cacti and Succulents and in Greenhouses.

All members of the ABS may participate in the flights, wherever they live. Foreign members are especially welcome. To join a flight, write to Round Robin Director, Mary Ellen Taback, 151 Shoe Lane, Newport News, VA 23606.

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STUDY OF CENTRAL AMERICAN SPECIES PUBLISHED

Carrie Karegeannes, Nomenclature Director

Tulane University has published a thorough study of 26 Central American species of *Begonia* by Kathleen Burt-Utley, "A Revision of Central American Species of *Begonia* Section *Gireoudia* (Begoniaceae)," *Tulane Studies in Zoology and Botany*, vol. 25, no. 1, July 5, 1985.

The 131-page issue—illustrated with line drawings, maps, and tables of comparisons—makes detailed observations on relationships within and between sections of *Begonia*, on distribution of species in Central America, and on habitats in which they are found, noting the effects of conditions on the way they grow. Insights are given into the similarities and differences in plant habit, hairiness or lack of hairs, leaves, bracts, inflorescences, capsules, and seeds.

A key to the species by traits precedes the full treatment of each species, including several new to us and a number long grown by ABS members, among them *Begonia manicata*, *B. conchifolia*, *B. plebeja*, *B. stigmosa*, *B. nelumbifolia*, *B. multinervia*, *B. involucrata*, and *B. thiemei* (On the last, see

Begonian 49:111-118, September-October 1982). Some of Dr. Burt-Utley's conclusions on old puzzles may surprise us. She also lists the hundreds of herbarium specimens studies and the literature referred to.

Dr. Burt-Utley, whom ABS members may know as Kathy, lived in Costa Rica three years with her husband John Utley, also a botanist, who was studying orchids. Members of the ABS Potomac Branch may remember her slide talk based on experiences there. She also did research in Mexico. And she studied herbarium specimens on loan from all over the world with Dr. Lyman B. Smith in the U. S. Herbarium at the Smithsonian Institution for a year and a half, before receiving her doctorate from Duke University. She is now in the Department of Biological Sciences at the University of New Orleans.

Copies of the monograph may be ordered for \$5.50 (payable to Tulane University) from: Editor, TSZ&B, Department of Biology, Tulane University, New Orleans, LA 70118.

NEW CULTIVARS

In the November-December 1985 issue, the photos of two new cultivars were interchanged. They are reprinted here to prevent future confusion.

***Begonia* 'Ada Perry'**

No. 892—*Begonia* 'Dr. Jim' x 'Cachuma' seedling 'Ada Perry'

Rhizomatous cultivar with 12 and over, orbicular green leaves palmately parted into 5 or 6 deep, ovate, acuminate lobes, the basal lobes overlapping. The leaves are lightly fluted and slightly bullate, with a hint of dark stitching on the irregularly toothed margins. The upper surface is covered with

very short, rough white hairs and palmately crossed by 7 to 9 light green, barely hairy, depressed main veins. The underside is light green and bare except for red scaly hairs on the prominent, pale creamy green veins. The long, thick, ridged petioles are thickly ringed with coarse, red, white-tipped scaly hairs, or fimbriate scales, and carry a heavy collar of red scaly hairs at the top, also white tipped. Blooming in the spring, pink flowers in dichotomous cymes on 12" to 15" peduncles have 2-tepaled, 2" male flowers and 2-tepaled, 1" to 1½" females. The lobes of the leaves on 'Ada Perry' are more deeply cut than on *B.* 'Cachuma', and the leaves more fluted. 'Cachuma' does not show as much marginal stitching. Ori-



Begonia 'Ada Perry'

nated in 1979 by Robert J. Ammerman, 1770 Foothill Drive, Vista, CA 92083; first bloomed in 1980; first distributed in 1980. Tested by Edna Francis, San Diego, CA. Named in honor of the late Ada Perry, long-time garden writer for the *San Diego Union*. Registered Aug. 15, 1985.

***Begonia* 'Brown Sugar'**

No. 893—*Begonia* Mexican species x 'Dr. Jim' 'Brown Sugar'

Rhizomatous with huge, orbicular, palmately lobed, dark green, smooth leathery leaves marked by a star burst of 8 to 10 heavy, pale green veins and fiery, deep red reverse. New leaves are the color of dark brown sugar until half mature. Mature leaves reach far beyond 12" across, with the 6 broadly triangular, acute lobes somewhat angulate on their margins, the 2 basal lobes overlapping. On the red underside, the pale veins are prominent and slightly hairy. Petioles are 18" to 24 long, red spotted, and thickly hairy; stipules are small. Light pink, 2-tepaled, 1½" to 2" flowers are borne in dichotomous cymes on 12" to 18" peduncles in the spring. Originated in 1979 by Robert J. Ammerman (address above); first bloomed and distributed in 1980. Tested by Ingeborg Foo, Vista, CA. Registered Aug. 22, 1985.



Begonia 'Brown Sugar'

Begonias of Yesteryear

Continued from page 13

ate sun, will flower continuously, has a fragrant nutmeg odor, and sets seed easily.

B. inciso-serrata (The Phillipines, 1859), *B. imperialis* (Mexico, 1859), *B. xanthina* (Himalaya, 1852), *B. scharffiana* (Brazil, 1888), *B. metallica* (Mexico, 1876), *B. hispida* var. *cucullifera* (Brazil, 1953), *B. kellermanii* (Guatemala, 1919), *B. dichroa* (Brazil, 1906), *B. venosa* (Brazil, 1899): so many of the beautiful begonias we grow today, and their hybrids, have been disseminated by the Logees of Logee's Greenhouses. Joy's talk was fascinating and well done—and surely the enthusiastic applause at its conclusion must also have been in recognition of the years of dedication by an entire family.

BEGONIA CATALOG OFF THE PRESS

The first volume of the *Catalog of Registered Cultivars of the Genus Begonia* is ready for distribution. It contains complete information about the first one hundred cultivars. Most of this data was compiled by former nomenclature department director Rudolf Ziesenhenné from data submitted to the department.

Copies will be sold through the ABS Bookstore for \$4.00 (including shipping and handling). California residents must add 6% state tax. Make checks payable to ABS and send request to:

Bob Bailey, Bookstore Manager
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Begonia Classification

Continued from page 12

Rex: characterized by ornamental foliage; flower sporadically; many are rhizomatous; all are hybrids.

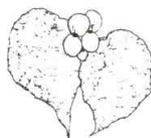
Tuberous: characterized by tubers or tuberlike formations; dormancy or semidormancy; semituberous bloom sporadically, tuberous species and tuberhybrida bloom summer, Hiemalis and Cheimantha bloom winter.

Trailing-scandent: characteristically trail, climb, or both; branch easily; stems long and flexuous; bloom seasonally.

At the end of the all-too-short hour, the Thompsons handed out a 20-page booklet summarizing their classification system, which included drawings of flower types; leaf shapes, bases, and margins; plant parts; lists of begonias for easy growing, for terrarium growing, for hanging baskets; and recipes for potting mixes. Most exciting of all, the Thompsons brought a plant for each participant. Many were very rare and unusual begonias.

Charles Chevalier (whom Millie referred to earlier) wrote in 1938, "Is it possible now to create a horticultural grouping which would naturally give entire satisfaction: This is very difficult, if not impossible..." (p. 19). He would surely have stood up and cheered at the end of Millie's seminar! And then he too would have joined the excited audience elbowing for his gift *Begonia*.

Begonia Buttercup



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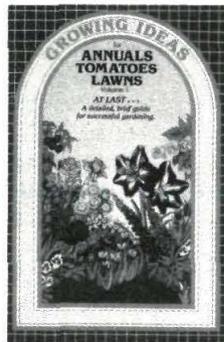
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ABS NEWS

IN MEMORIAM



Carleton M. L'Hommedieu

Carleton L'Hommedieu, ABS research director from 1967 to 1978, died in July 1985. A resident of Oakdale, New York, he had had a nursery business of his own, was a technical assistant in floriculture at the Planting Fields Arboretum of the State University of New York, and was curator of the orchid house at the Arboretum. His first efforts for the ABS were articles for the *Begonian* on adventitious growth and propagation. Later he wrote research reports faithfully.

He managed the Question and Answer Project, arranged for grants for several student projects, and supervised the lengthy library research projects. He solicited funds to support these projects.

When the students submitted the results of their arduous combing of literature for *Begonia* citations, he resigned as Research Director and began a lonely and lengthy consolidation of the results despite his failing eyesight. The files have been turned over to the Nomenclature Department. His leadership in promoting research increased the stature of the American Begonia Society.

Aislee Russel

Aislee Russell, a founding member and president of the Houston Branch, died late last fall.

Esther Passet

Esther Passet, who died of a respiratory illness last fall, served as advertising manager for the *Begonian* for three years starting in 1975. She was a member of the Westchester and San Joaquin Branches.

FIFTH LETTER READY FOR MEMBERS-AT-LARGE

Issue No. 5 of the Members-at-Large Newsletter is now available. To receive it, please send a self-addressed, stamped envelope to Thelma O'Reilly, director.

Learn about the new committee project, "Welcome Wagon," for members who request the newsletters. Issues one through 4 are still available. Each issue requires one envelope.

ABS CONSTITUTION

The ballot-counting committee chairman announced that the results of a small balloting showed that all changes were approved by the membership vote. The new provisions of the American Begonia Society were declared in effect. A copy of the entire Constitution and Bylaws as revised was sent by the secretary to each branch director, regional director, and national board member. Any member who wants a copy must send \$1.00 to cover postage and handling costs with his request to Parliamentarian Ed Bates.

ABS BOOKSTORE

PERSONNEL & ADDRESS CHANGES

The ABS Bookstore has a new manager. When Bobbie West resigned because of her job and other commitments, the post was divided into two parts as it had been formerly. Bob Bailey will handle only book sales, and Julie Panntaja will manage the sale of back issue of the *Begonian*.

Bob's address on the inside covers list is incorrect and will be changed at the next opportunity. The correct address is:

Bob Bailey, Bookstore Manager
10241 Gould Street
Riverside, CA 92503-1628

MINUTES OF THE BOARD OF DIRECTORS' MEETING

October 27, 1985

The board meeting of the American Begonia Society was held at the Naval Station Commissioned Officers Mess, San Diego. President Margaret Lee called the meeting to order at 1 p.m.

Treasurer Eleanor Calkins reported a balance as of September 30 of \$11,945.60 in the checking account and \$28,666.84 in the savings account.

Margaret Lee proposed a list of appointments for approval. (The inside front cover reflects the verified appointments, with exception of John Ingles as membership secretary.)

The minutes of the annual meeting, held in September were corrected to read: Thelma O'Reilly has organized a list of the duties of officers and chairmen. She will give the list to President Bob Ammerman, along with a list of suggestions and necessary updates, which he can pass along to the new president for action.

Committee reports were read from nomenclature, round robins, branch relations, and membership directors.

The proposed constitution and bylaws for the Fort Lauderdale area branch was accepted and a charter will be issued. Eleanor Fisher-Bender is the organizer of the group. The Board also approved the Rubidoux branch's constitution and bylaws changes. The Eastern Regional group will be sent its charter.

Business Manager John Ingles reported that he has filed six required tax forms. The sales tax report and taxes will be handled in January.

A letter was read from Scott Hoover requesting funds for a research and collecting trip to Costa Rica and Panama to take place in January/February 1986. A discussion of the value of the trip showed the following benefits: since Hoover is becoming known in the botanical field, both he and ABS benefit from the association; ABS supports research that no one else is doing; ABS receives seed of new species and fresh clones of species now in cultivation. The board approved a grant of \$500.00, with the stipulation that Scott donate seeds to the Kelly Seed Fund.

Margaret urged all committee chairmen to send monthly reports to keep her and the board informed.

John Ingles proposed that funds received from the Riverside and Dallas conventions earmarked for conservation be transferred to a special account for that purpose. Board approved.

Thelma O'Reilly reported that the third Members-at-Large newsletter was almost ready to be mailed.

Convention Chairman Bob Ammerman requested that the start-up fund be increased from \$1000 to \$1500 to cover printing that will be necessary. Board approved.

Editor Phyllis Bates apologized for those delays she was responsible for in getting out the last two issues of the Begonian. She also stated that several things happened over which she had no control. Convention coverage will have to be split into several issues because the entire Constitution and Bylaws and proposed

changes will appear in the September-October issue. This is the first complete printing since 1976. Phyllis requested funds from the catalog fund to have the first group of registered cultivars printed. Board approved printing 1000 copies at approximately \$1500. Mabel Corwin and Thelma O'Reilly were appointed to the publication committee.

Board approved \$20.00/month allowance for the business manager.

Bob Ammerman reminded the board that a site is still needed for the 1987 convention.

The meeting adjourned at 4 p.m.

Jeannette Gilbertson, secretary

MEETING CALL

The next board meeting will be held on March 2 at Quail Botanical Gardens, the Ecke Building, Encinitas, Calif. All directors and other board members will be notified by the secretary, Jeannette Gilbertson. Others who wish to attend should contact her for information. The meetings are open to all members.

PHOTO CREDITS

Tamsin Boardman 12, 13, 15.

Lynda Goldsmith 5, 6, 7.

Dorothy Patrick 10.

NEW APPOINTMENTS

John Ingles has been appointed membership secretary of the ABS. He has been updating membership records and attempting to solve various problems that have arisen recently. Pearl Benell resigned the post due to serious illness.

Also appointed to fill positions were Mabel Corwin, branch relations; Bob Bailey, bookstore manager; Julie Panntaja, back issue sales; Marion Paris, auditing chairman.

When contacting the various departments of the ABS, be sure to check the inside front cover to be sure that you are addressing the current director.

SPEAKERS LIST

Muriel Perz will soon revise the list of speakers for branch programs. The list contains many Californians, and she emphasizes that the service is for all branches so she would be pleased to add names from all regions. When writing to her, be sure to include complete details such as topics of programs, fee (if any), how far you are willing to travel, etc.

AMERICAN BEGONIA SOCIETY

Founded January 1932 by Herbert P. Dyckman

ABS 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.

ABS Services

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

AT-LARGE MEMBERS - Members who do not belong to branches are represented at board meetings by the members-at-large director. To find a branch in your area or to start a new one, contact the branch relations director for help.

BOOKSTORE - See information in this or next issue.

JUDGING DEPARTMENT - Mail order course for a member who wishes to become an accredited begonia show judge, \$10. Also available: a booklet on point scoring (\$2), the old (unofficial) classification booklet (\$2), information on fuchsia and fern judging, and other requirements to become a judge. Add \$1 for postage and handling on all orders and 6% tax for California residents.

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

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

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

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

SLIDE LIBRARY - See information in this or next issue.

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

ABS Bookstore

Growing Begonias. Eric Catterall, 1984. Hard cover \$17.00

Begonias:1980. Japanese text by H. Arakawa with 431 excellent color photos. Paperback. \$25

Begonias in Color. Text by Yuji Murotani, color photographs by Hideaki Tatsumi. With English translation. \$12.50

Les Begonia. Chevalier's classic 1938 study of the *Begonia* as translated by Alva Graham from the French in 1975. Illustrated. Paperback. \$5

Begonia. Misono, 1974. Japanese text with 302 good color photos identified in English. Hardcover. \$30 English translation with no photos. Paperback. \$5.50. Order both for \$34.

Ferns. How to identify and grow 84 common ferns. Color photos. \$4.50

Mother Nature's Secrets for Thriving Indoor Plants. Fundamentals of indoor gardening. Color photos and information on 341 house plants. \$5

Buxton Check List. Reprints of original and supplements. \$20

ABS Show & Convention Guide. Compiled by Thelma O'Reilly. \$2.50

Pamphlets. Begonias From Seed. 35 cents each, with book order 25 cents. Culture of Begonias, 75 cents each, with book order 50 cents.

All prices include shipping in the continental U. S. California residents add 6% sales tax. Send check or money order in U.S. currency payable to American Begonia Society.

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