



The BEGONIAN 

May/June, 1990

The BEGONIAN

ISSN 0096-8684

Publication of the American Begonia Society

American Begonia Society

Founded January 1932 by Herbert P. Dyckman

Aims and Purposes

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

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

To standardize the nomenclature of begonias.

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

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

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

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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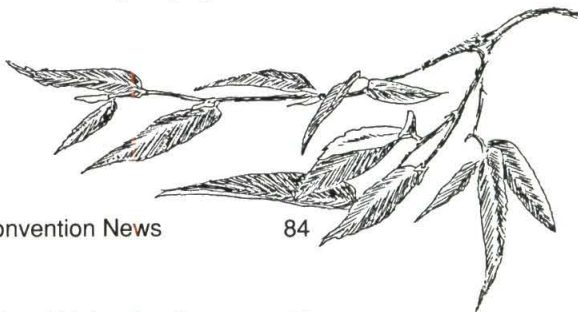
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COVER PHOTOS: In the Rainforests of Malaysian Borneo

Front - *B. burbidgei* in its cloud forest home

Back - unknown begonia

Both photographs are by Jacques Jangoux , who takes us along on a visit to the National Parks of Malaysian Borneo, starting on page 85.



IN THIS ISSUE

Begonias Olé! Convention News 84

Articles

Begonias

in the National Parks of Malaysian Borneo 85

Variations: Turning a New Leaf 90

Begonia Fever Epidemic 95

Begonias to Grace Monterey 96

Adopt A Plot 98

Return to Earth 99

"Call Me Fred" 100

Eastern Region Judging School 105

Regular Features

In the News 103

Bulletin Board: ABS News 104

In Memory 105

Question Box 106

Coming Events 107

Seed Fund 108

Conservation News 111

Round Robin Notes 112

Around ABS 114

Minutes 117

ABS Services 118

Short Notes

SWR Barkley Research Grant 103

Corrections, Additions 103

B. polygonoides

KIT JEANS MOUNDER



**ABS National Convention
San Antonio, Texas
May 16-20, 1990
Vénganse todos!**

¡OLE! News

Dedicated to Informing Begonia Lovers Everywhere What's Happening
at the American Begonia Society Convention in San Antonio, Texas
May 17-20

Panama's Brin to Invade U.S.

San Antonio - Conservationist **Roberto Brin** of Panama has been spotted moving northward towards Texas. The charismatic Brin, who has been known to captivate audiences without firing a shot, has a rallying cry of "Save the Begonias!" which proves irresistible to anyone within hearing distance. High level sources expect his arrival in Texas in mid-May, and predict he will address his die-hard begonia-loving followers on Saturday night, May 19, at a gala banquet.

Harrell Survives Begonia Attack

Elgin - **Marie Harrell** of Elgin, plant sale chairman for **Begonias Ole!**, was discovered yesterday covered by begonia leaves and vines. The plants had taken over her greenhouse, lath house, farm house, and invaded the pastures. Livestock have been moved to neighboring farms for their protection. Unconfirmed reports of similar outbreaks of begonias taking over homes and gardens have come from nearby San Antonio.

Interviewed in the intensive care unit, Marie said her clippers just weren't enough to keep up with the verdant growth of thousands of begonias. "Only an infusion of thousands of begonia buyers can save her now," reported experts at Southwest Regional Hospital.

Swarms in Future

Luckenbach - Texans already unnerved by predictions of killer bees headed their direction are now warned of an expected invasion of begoniacs. Advance scouts have been spotted in the Hill Country around this small town, and larger numbers are expected in San Antonio around mid-May. "Begoniacs have become sophisticated in recent years," says a researcher in the Texas Dept. of Agriculture. "Recent reports have them traveling by car and tour bus. Nurseries and botanic gardens are particularly at risk of invasion, and even home gardeners and greenhouse owners are threatened." The Department concedes that damage done by begoniac swarms is minimal, consisting mainly of pinched begonias, and does not advise spraying.

Crystal Ball Sees Strange Events

San Antonio - A psychic, who refused to give her name, warns of strange atmospheric conditions coming in May that will produce peculiar reactions. Center of the swirling confusion will be the **Holiday Inn**, near the airport.

"I see everything turning inside out," said the psychic. "Gardens will be indoors, and people will have plants instead of arms, and they'll be sitting in a seminar room doing odd things, like thinking they're in Malaysia following a guide named **Don Miller**, and listening to a **Kit Mounger** ask where the begonias are, and, strangest of all, a **Thelma O'Reilly** crying 'U numbers! U numbers!' And in the midst of the confusion is one **Tom Keepin**, trying to restore order by hollering 'Put begonias in the garden!' Still others will be drinking tea with **Robins** and meeting **MALs** (whatever that is!)." Asked if there were any danger to the general populace, the psychic replied, "No, hon, but great vibes! I think I'll go myself."

Begonias

in the National Parks of Malaysian Borneo

Photos and Text by Jacques Jangoux

There has been plenty of news in the last couple of years about indiscriminate logging in Malaysia, especially in Sarawak, where nomadic Penans who depend on forest products for their subsistence have seen the destruction of their habitat. This is true: Malaysia is, like other tropical countries, destroying much of its rainforests and depriving native people of their traditional way of life.

On the other hand, Malaysia has set up several National Parks to preserve some of its rainforests, and is actively promoting tourism in these Parks, with facilities such as lodges, trails, and guide services. In October and November, 1988, I visited four of these National Parks, plus a forest reserve in Sarawak and Sabah, the two Malaysian states on the island of Borneo (the remainder of the island belongs to Indonesia and Brunei).

Bako National Park, the first park I visited, is reached in half a day by bus and motor boat from Kuching, the capital of Sarawak. Its vegetation ranges from mangrove to lowland rain forest to tropical heath forest and scrub, called *kerangas*, on nutrient poor soils. In the *kerangas* I saw three species of the carnivorous pitcher plants *Nepenthes*, which supplement their deficient nutrient intake by digesting proteins from insects. I did not find any begonias.

Magnificent Gunung Mulu National Park, my second stop, is an example of exuberant tropical nature at its best. Its varied topography, geology, and vegetation consist of alluvial plains with their vegetation cover of lowland tropical rain forest, and limestone and sandstone mountains covered with montane rain forest.

A visit to Gunung Mulu National Park starts obligatorily at Miri, a town reached by

a short flight either from Kuching, the capital of Sarawak; or from Kota Kinabalu, the capital of Sabah; or by road from the Sultanate of Brunei, a small country forming an enclave between Sarawak and Sabah. In Miri one must get three permits: from the police, from the Resident (Sarawak is administratively divided into Divisions, each headed by a Resident), and from the Forestry Service. I understand that this plethora of permits results from the blockade of logging roads by natives and the subsequent international uproar about logging on native lands - the Sarawak government doesn't want to have witnesses wandering about, or, especially, ecological and native rights activists inciting the local population to resist logging. This is a good reason to have a local travel agency handle your trip: they will go through the red tape for you. Agencies also have their own accommodations and guides. If you go on your own, you will have to bring along and cook your food. Surprisingly, the services of the agencies are inexpensive.

Going from Miri to the Park involves first a short car ride to the Baram River, then three express boats on the Baram and Tutoh Rivers (inside these boats are provided with rows of seats like buses, and some are air-conditioned and have video: American wrestling or Chinese police movies). Finally a longboat, which is a large canoe equipped with an outboard motor, takes the visitors on the Tutoh and Melinau Rivers to Park headquarters. The trip takes a full day. On the way one sees rafts of logs towed by tugboats and barges loaded with logs. Hills along the river banks are scarred by abandoned logging roads.

I spent the first two days visiting caves in the limestone formation, exploring trails in lowland rain-forest on alluvial soil, and getting acquainted with the leeches which lie on the forest floor, awaiting the passage of a mammal; they creep upon your shoes in a loop-stretch motion, then move up your socks onto your legs, where they suck your blood. Once full, their bodies swollen with blood, they will let themselves drop off. You keep bleeding for a while, staining your clothes, as they have injected you with an anti-coagulant. They are not painful, and they carry no disease, but they are repulsive. Insect repellent gives good protection, but occasionally one sneaks its way up to an unprotected part of your body.

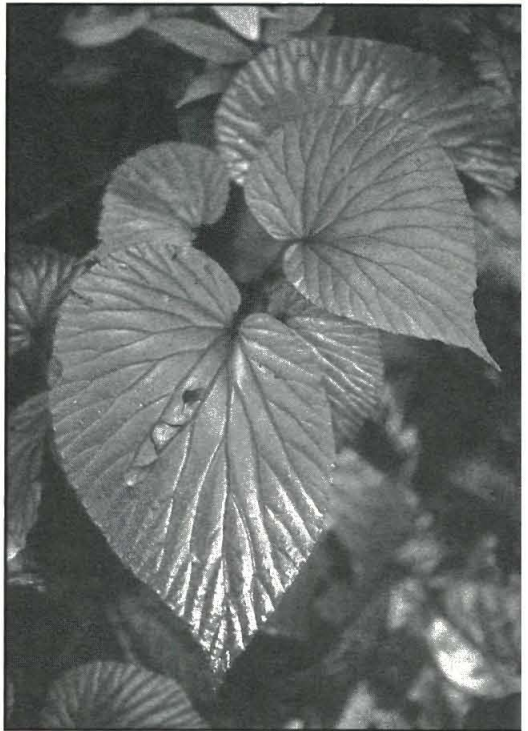
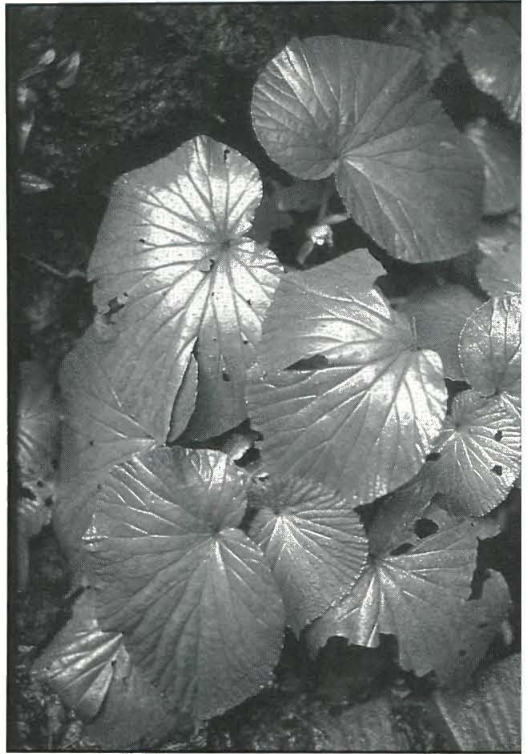
1

Among the rocks that had accumulated at the base of the limestone cliffs, I found the first two begonias of this trip: one with large, shiny green leaves (photo 1, above right), the other with purplish leaves with a satiny surface (photo 2).

According to Martin Sands of the Royal Botanic Gardens at Kew, all the begonia species found at Gunung Mulu National Park are still undescribed; therefore they are unnamed.

On the third day I took a long-boat up the Tutoh River to see mixed dipterocarp forest on hills in the southern part of the Park (dipterocarps are trees of several genera and many species belonging to the family *Dipterocarpaceae*, which is dominant in most south-east Asian forests). We stopped at a Penan settlement to get a guide, as this was outside the normal tourist circuit and the Park and agency guides did not know the trails there.

2



The Penans are nomadic hunters and gatherers. They get their subsistence entirely from the forest, of which they have a profound knowledge. Some, like this group, are now settled.

The undergrowth in this forest was characterized by the presence of numerous *Licuala valida* palms typical with their palmate, circular leaves divided in wedge-shaped segments. Here I found the third begonia, sharing the forest floor with *selaginella* fern (photo 3). I found that begonias are often associated with *selaginella*, having the same high humidity requirements.



3



4

The next three days would be rich in begonia discoveries. I was going to climb Gunung Api, a mountain on the side of which spectacular limestone pinnacles can be seen. The first day was spent in going to the foot of the mountain, first by longboat up the Melinau River, then on foot for over two hours through lowland forest on alluvial soil.

In this forest alone I found 6 species of *Begonia*. First, toward the beginning of the trail, was a stunning large stand of a begonia with erect stems about 1 meter tall and with racemose inflorescences bearing inconspicuous flowers and immature pods (photo 4, and back cover).

Close by grew a few plants of a smaller species with medium-size leaves and large immature seed pods (photos 5a and 5 b).

5b: close-up of seed pods



5a



6

Further along the trail was a small plant with deep purple leaves (photo 6).

The fourth species, not in very good shape, had green and silver variegated leaves (photo 7).

Toward the end of the trail I found first an isolated plant, then a dense cluster of a begonia with elegantly lanceolate leaves and small white flowers (photos 8a and 8 b).



7

to be continued:

*in the next issue, more spectacular begonias
in the national parks of Malaysia!*

8a



8b



Variation: Turning a New Leaf

by Tracy McLellan,
with Mose Fadeem

Among the seemingly endless features of *Begonia*, leaf variation is one of the most striking. The leaves of different *Begonia* species and cultivars appear in a wide range of sizes, colors and patterns, surface textures, and, most interesting to me, shapes. Many other groups of plants sharing the shaded, moist tropical habitats of begonias - *Peperomia*, *Passiflora*, *Philodendron*, many gesneriads - also display a similar range of diversity in form. As in *Begonia*, the structure of the flowers is fairly uniform, while originality in leaf shape is pronounced.

What allows plants to diversify into many different forms and then maintain them? Why are plants that live in shade in tropical forests so variable? These questions are of fundamental interest not only to biologists, but to naturalists and plant enthusiasts at every level. As tropical forests are being destroyed, it is important to understand these questions and search for answers. Variation is one of the requirements of evolutionary change, and understanding the sources of variation will help render intelligible how new species are formed. Our knowledge could become crucial in a changing world climate.

My own studies on naturally occurring variation are of a twofold nature: the genetic production of variation, and the visible shapes that ensue. I became fascinated with the diversity in *Begonia* nearly twenty years ago. I realized a few years ago that they would make ideal subjects for a study of the origins of variation, precisely because they are so diverse and also because they are easy to cross.

I have examined development of leaves of different shapes in several varieties of *Begonia dregei*. Recent taxonomic work in this group has indicated that several species and varieties, including *B.*

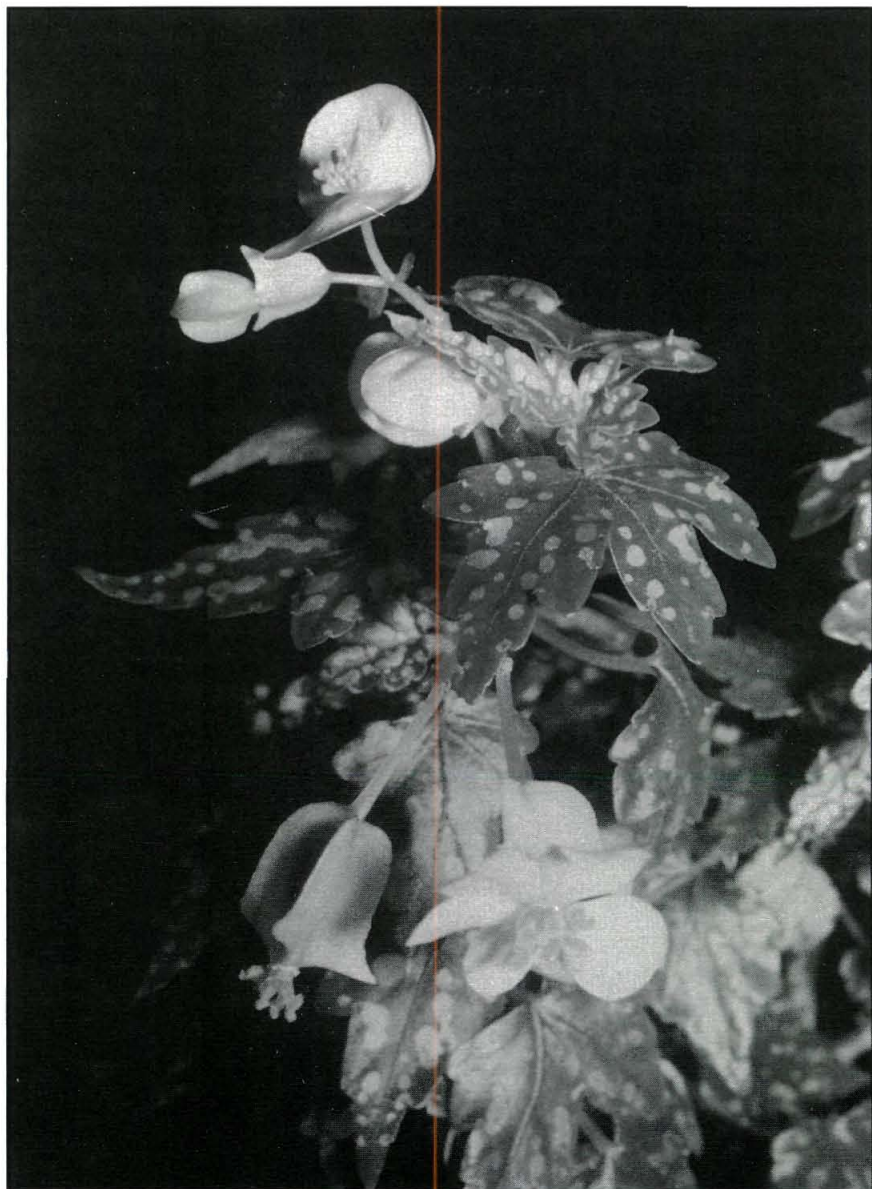
natalensis, *partita*, and *suffruticosa*, are synonymous. They are similar in the structure of their flowers and in the expanded base of the stem, or caudex, which has given them the horticultural classification "semituberous".

When these plants are grown from seed, the base and the first few nodes of the stem expand to a rounded mass; plants grown from cuttings will also develop this sort of stem base, but not usually as round in shape as that of seedlings.

In spite of the similarities of flowers and stems, the shapes of the leaves vary widely in this group - from ovate with smooth margins to deeply incised leaves with large teeth, and then there are the tri-lobed narrow leaves of *B. partita*.

Differences in leaf shape result from differences in development that occur even before the leaves start to grow. When leaves first begin to form at the sides of the growing tip (apical meristem) of different varieties, they already differ in size and shape. Large tips give rise to more oval leaves and smaller tips to more incised leaves. Shape differences then become accentuated as different parts of a leaf grow at different rates. There is no simple equation to describe shape and development, but there are certainly some distinct differences among varieties of *B. dregei*.

I have compared the shapes of seedling leaves in several varieties of *B. dregei* in order to consider whether variation within individuals reflects a larger pattern among groups of individuals. Anyone who has grown *Begonia* from seed has probably noticed that it is hard to tell from the first leaves of a seedling just what the plant is going to look like - the leaves all look alike. The first true leaf in seedlings is small,



A plant of *B. dregei* obtained from the Glasgow Botanic Gardens that retains silvery spots, usually found only on seedling leaves, even when it is flowering

green, oval, symmetrical, and has smooth margins. A gradual transition takes place through a series of about 15 leaves to arrive at a stable adult leaf shape. The leaves become more deeply incised, tips of the lobes become more acutely pointed, and the number of small teeth on the margins increases. The leaves become progressively

larger, but in some varieties smaller again. Color changes are evident, from plain green in a first leaf to a redder shade and then gradually back to green as the plants get to flowering size. And, of course, several varieties display the silvery reflective spots on the upper surface of seedling leaves, a familiar sight to *Begonia* growers.

In a comparison of seven variables, one of them, *B. dregei* "Glasgow" (obtained from the Glasgow Botanic Garden in Scotland) produces adult leaves that are similar to the juvenile leaves of other varieties. It seems likely that the unusual characteristics of this plant have arisen by the retention of juvenile traits throughout its life. *B. princeae*, donated to these studies by Joan Campbell, also displays a combination of these traits, as do some of the hybrids of the different varieties of *B. dregei*. I think that this may represent a general mechanism for the origin of new characteristics in plants by the retention of juvenile traits in the adult. I am pursuing this avenue by crossing plants with juvenile traits in the adult foliage, to see how this is controlled genetically.

The major focus of my research now is the analysis of crosses made between various strains of *B. dregei*. Most of the plants I have been studying have been in European botanic gardens for unrecorded periods and have probably been self-pollinated many times. They seem to be very homogeneous genetically. When self-pollinated, their offspring are very uniform and similar to their parents; this does not mean that each strain should be recognized as a separate species, however. I have made crosses between most pairs of strains and then taken one of these offspring and self-pollinated it as well as making backcrosses with both of the original parent strains. Offspring in the second generation are the most informative about inheritance of leaf shape and development. I have been



B. sutherlandii is a tuberous species from Africa with distinctive orange flowers

studying the shapes of fully grown leaves, rates of growth of their parts during development, and the size of apical meristems where the leaves originate. The purpose is to determine what aspects of shape and development are found together in the hybrids. If different traits are found together, it is evidence that they might be determined by the same genetic process. If traits are found to be independent of each other in their distribution among the crossed plants, it means they are probably caused by different genetic factors.

My preliminary observations indicate that leaf shape is determined by multiple genes, and that those genes that determine the large scale shape of the leaves (the degree of incision between lobes) are to some extent independent of those that determine the small-scale shape (the small teeth on the margin). The involvement of several genes in the determination of leaf shape is the reason why unusual shapes, such as that of *B. partita*, are not always recovered in hybrid offspring. The second generation of crosses, especially of a backcross to *B. partita*, is much more likely than a first generation cross to have plants with the unusual shape, because a greater number of those genes will occur together.



Plants with leaves of this distinctive shape, originally called *B. suffruticosa* var. *bolusii*, have been found only near the town of Port St. Johns in South Africa

I have also begun to cross *B. dregei* with several other closely related species, such as *B. sutherlandii*, *geranioides*, *sonderana*, and *socotrana*, and will try others when I can get the plants. In this way I hope to characterize genetic differences between species and compare them to difference within species. It is of great interest to know whether variations between and variations within species have the same basis.

My trip to Africa to collect plants and to study natural populations of *Begonia* is scheduled for January to March, 1991. I want to find other species in sections *Augustia* and *Rostrobegonia*, those that are the most similar to *B. dregei* in floral structure and

those most closely related evolutionarily. Most of these plants have leaves similar to *B. sutherlandii*: elliptical with rounded dentate margins and acute apices. The most interesting species is *B. tayloriana* from Tanzania. It has deeply incised leaves and is the only species in these two sections other than *B. dregei* in which this shape occurs (see figure 1).

There are several species known to grow in Malawi that would be worth collecting, including *B. rumpiensis* with fleshy fruit. As far as I can tell, many of the species from East Africa are known only from their original collections, and there have been no further published studies of them. The Dutch, who have worked so hard on African *Begonia*, have not collected much in East Africa and did not have these species in cultivation when I visited Wageningen a few years ago. Besides the hope of re-discovering species not currently in cultivation, there is always the possibility of discovering new species. I will collect seed from any *Begonia* that I find, for my own studies and to be distributed to supporters.

Another reason to go to Africa is to look closely at natural populations of *B. dregei*. I wish to find out if plants with differently shaped leaves grow together in the same place and cross, or if they are isolated from each other in uniform populations. Nearly the entire range of leaf shapes in *B. dregei* has been found near a town on the coast called Port St. Johns. I plan to find them and see whether the different forms actually cross with each other in nature.

It is pertinent also to examine the environment, especially the amount of light, where the plants live. The major explanation for the adaptive significance of differences in leaf shape is that rounder leaves are more efficient at collecting light and therefore can live in more shaded environments. Those leaves with highly dissected margins will not heat up as much and should be able to tolerate areas with more light. Therefore, the density of the

canopy over the plants is an important factor determining their survival.

B. dregei is usually found along streams or on rocky outfalls in shaded understories of forests. Sometimes it is found near the beach. But that is all I have been able to find out about its distribution or its environment, so it is necessary to go there to look for myself. This sort of work needs to be supported by observations in the field. I can produce crosses in the greenhouse, but field study is required to discover which one is likely to occur in nature and to flourish sufficiently to generate a new species.

I can use some financial support for this trip. If the ABS, its branches, and individuals members are willing to enter into this exploration with some funding, I shall do everything I can to return your investment by sharing further knowledge of *Begonia* through future articles in the **Begonian** and by providing supporters and the Seed Fund with my finds, that we may all help to understand and preserve African *Begonia* species.

Dr. Tracy McLellan's address is Department of Biological Sciences, University of California, Santa Barbara, CA 93106.



Note:

Contributions to aid Dr. McLellan's research on African *Begonia* may be sent to Treasurer Eleanor Calkins, 910 Fern St., Vista, CA 92027. Make your check to American *Begonia* Society, and write "Research, McLellan trip" on the lower left side. Contributions are tax-deductible.

A Begonia Fever Epidemic! How to Achieve One

by Helen Spiers

So you, you, and you have begonia fever! You are certain of the diagnosis because the symptoms are all present. You must have every begonia you see. Yes, even the limp-wimp dying of neglect in the supermarket is rescued. When you talk with another begonia lover (pray it's not long-distance) the conversation runs on as you barely allow your friend the courtesy of completing a sentence before you breathlessly cut in about *your* begonias.

You're really infected with the begonia fever! You covet every catalogue from which you may order more begonias, and relish the invitation to visit a nearby begonia friend from whom you are certain to receive cuttings and leaves.

Topping the list of your midnight reading materials are begonia reference books and back issues of the **Begonian** (current issues, for sure, are read in entirety upon arrival). Understand, reading is reserved for midnight simply because all other waking hours are devoted to making certain *your* begonias are the best!

When the word "robin" is mentioned do you picture a bird? Or does the word "flight" conjure up beautiful thoughts of a trip to your favorite vacation spot? Certainly not! All infected begoniacs know a robin or a flight is a very special communication from other infectious begonia people from whom you receive a "shot in the arm" of wonderful information and tempting challenges.

Now tell me: how can those of us who have succumbed completely to begonia fever refrain from spreading its joys to others? It's so contagious! Sooo let's have a begonia fever epidemic! Let it begin with you! Oh, yes, one person can start an epidemic. Some suggestions for infecting others are listed below.

1. *Enthusiastically share* your growing hobby with friends and neighbors. Begonias make such lovely gifts, especially when accompanied by brief instructions for care. Begonias are universally grown; they "speak" in all languages and can say, beautifully, "I love you", "I care", "I understand", "I'm sorry", and "You're special." When a friend is down, a begonia can give that needed lift. Spread a lot of happiness by sharing your begonias. Who knows how many will catch the fever?

2. *Seize every opportunity* for placing begonias before the public. A begonia on the desk of each secretary in an office sparks much interest and challenge. It has been my personal privilege to observe secretaries compete vigorously in growing of plants. Coffee breaks become study groups. (Secretaries in the building where I worked learned to arrive early on Monday mornings and stop by for coffee first because on the table they knew there would be plants with a sign "just lookin' for a home". One problem did arise, however; the bosses learned to come even earlier than their secretaries!)

Also, you may place begonias in the office of your doctor and dentist, in restaurants, libraries, city hall. So what if you become known as the begonia person - you can be certain the epidemic is spreading.

3. *Placing begonias in classrooms* of our schools is especially rewarding. Doing so sparks interest of both teachers and students. Our children are our hope for continuing the begonia epidemic. One great experience for me was providing pots, soil, cuttings, and guidance for planting for a group of special education students whose teachers had struggled to get funds for a greenhouse for the kids. The observance of

a new leaf was truly a highlight of the day for the entire group. How rewarding!

4. *Gladly accept invitations* to speak and provide workshops for garden clubs. Begonia lovers are there, and they need to be with begonia people, too.

5. *Send your begonias to church!* Why not provide a beautiful begonia for the worship service and other church related activities? Cutting and planting guidance given children in Vacation Bible Schools provides another way of involving future begonia lovers.

6. *Combine your growing expertise with other hobbies* you may have. A person who makes pottery or other types of plant containers may use begonias for display or sale. I did this at a recent arts and crafts show and was invited to speak to a garden club.

7. *Invite interested people* to visit your greenhouse or yard. Of course, they do not leave empty-handed, and with their plant comes the "sermon" on growing begonias.

8. *Call in* questions and comments to your local radio gardening talk show. Your questions and comments as well as those of the talk show host will reach many people.

9. *Host a cutting party* when your plants need cutting back. Invite friends and neighbors. Strive to bring in new persons to infect. Please, don't forget the children; they love playing in dirt and watching plants grow. It is never too early to start them on growing begonias.

Let your imagination create more ideas for spreading Begonia Fever!

Helen Spiers lives at 1423 Lasky St., Houston, TX 77034. Watch out! She's infectious! In the next issue Helen will make suggestions on what branches can do to spread that wonderful Begonia Fever.



Spreading the word:

Begonias to Grace Monterey

A collaboration between the Stanley Smith Horticultural Trust, Monterey Peninsula College, and Technical Editor of the **Begonian** Mose Fadeem is taking shape on the central coast of California. The Trust has funded a grant proposed by Mose and the college to distribute 600 cane-like, shrub-like, and a few rhizomatous begonias among private and professional gardeners in the Monterey Bay area. Bob Hamm has been propagating the plants, 31 varieties in all, and delivery is set for early May.

Begonias in these classifications are rarely seen in Monterey gardens, which are otherwise known to support eclectic styles with a wide variety of plants. Mose believes some begonia varieties can do well in this climate, but that few gardeners are even familiar with their existence: "Most don't know what they are, and it's time they become acquainted."

Gardeners who accept the plants agree to cultivate them outdoors in open soil, observe their development over the next 18 months, and feed back information. The State Parks Department has expressed an interest in planting some in the unique adobe gardens in their care, which are open to thousands of visitors throughout the year (see "Monterey's Historic Adobe Gardens by K. Mose Fadeem, American Horticulturist, August, 1989).

Mose, whose official title is Program Director, will be documenting developments in the several hundred gardens expected to participate and be available at any time for consultation. By fall of 1991 the data will be compiled, shaped into magazine articles, and submitted to publications. A special series of articles is slated for the **Begonian**.

"It's hands-on horticultural research," explains Mose, "which seems to me a good way to get more 'plain dirt' gardeners involved with begonias while testing the plants' gardening potential. We can't hot-house everything forever, and success in open gardens might increase longevity for some varieties. Also, if gardeners get interested, they might want to see more and know more."

Plants selected for this project were chosen for their potential size, fast growth, and ability to impress in an open garden. However, the literature remains vague about many traits, and some guesswork was involved. Timing and availability in needed quantities also played an immediate role. Some of these Begonias are stalwart classics and have been around a long time, others are quietly finding their way to this distinction. Several might prove less than ideal for the conditions, but then these are the sorts of things the project will explore.

Canes: *B. angularis*, *macduffieana*, 'Sophie Cecile', 'Rose' (also known as 'Hazel's Front Porch'), 'Lucerna', Hannah Serr', 'Irene Nuss', 'Pink Jade', 'Pink Shasta', 'Madame Butterfly', 'Rhapsody', 'Sylvan Triumph', 'Osota', 'Crystal White', and 'Marguerite De Cola'.

Shrubs: *B. luxurians*, 'Rudy's Luxurians', 'Ginny', 'Drostii', 'Mrs. Fred T. Scripps', 'Quinebaug', 'Gene Daniels', 'Froncosa', 'Darlene Fuentes', and, for hanging baskets, *B. coccinea x echinosepala* and 'Eunice Gray'.

Thick-stemmed: *B. reniformis*.

Rhizomatous: *B. richii* hort., 'Lotus Land', 'Manacris', and 'Page 13'.

In addition to the gardening project, Mose will be conducting an Independent Studies Program for a select group of students of ornamental horticulture at Monterey College. The students will be given a one year membership in ABS, attend meetings of the local Monterey Area Branch, and meet once a month for discus-

sions. Special trips to gardens and greenhouses of expert growers in the area are also planned. The group will conduct their own research with *Begonia* among other students in the Horticulture Department. Mose hopes to establish some new standards for future specialty studies at the college.

While this program is somewhat elaborately designed with the advantage of grant funds, Mose suggests that all ABS branches might seriously consider sponsoring membership for several students from nearby colleges each year.

In future articles Mose will fill us in on climate conditions of the area, which are cooler than southern California and more like the northwest coast but with considerably less rainfall. All ABS members are invited to participate in this project by carefully describing their own experience with these plants outdoors. The more information we have, the more thorough the articles will be. Write to Mose Fadeem, 319 1/2 English Ave., Monterey, CA 93940.

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Adopting A Garden Plot

by Cathy Moon

Although I have grown begonias outdoors in my garden for over 10 years, the picture above is not of my home garden. It is my adopted plot in Ault Park, one of Cincinnati's parks. The Park Board Volunteers (of which I have been president for 3 years and a member for 16 years) is an organization that helps support the Cincinnati Park Board. We run a Gift Shop, Information Desk, and Tour Program at Krohn Conservatory.

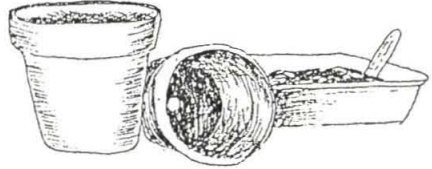
The Adopt-A-Plot is also one of our projects. Our volunteers plant and maintain about 30 plots which used to be formal rose gardens. These are meant to be educational gardens showing visitors ideas for their gardens. The plots include, besides begonias, ivies, cacti, roses, herbs, and many other plants.

The Park Board volunteers fund a part-time gardener to do whatever maintenance each gardener wishes. The gardens have a watering system run by the employees. I prefer to do my own maintenance. The Park Board maintains any nearby trees, shrubs, and grass; they also till the beds for those of us who start over each year. Some plots have perennials, so these do not require yearly replanting.

I propagate and grow the begonias for my plot under lights and in my greenhouse during the winter, and plant them out over the summer. Before the frost Park Board employees dig them up and move them to Krohn Conservatory.

My plot usually has about 60 varieties and is approximately 6' X 20'. It gets more

sun than I would like, and the plants usually take a couple of months to get over their sunburn. I am especially fond of large-leafed begonias - so most years my plot (and my home garden) will include Begonias 'Samson', 'Freddie', 'Earl-ee-bee', 'Irene Nuss', 'Sophie Cecile', and 'Esther Albertine', among others. With all the plants, I plant directly in the ground and either take cuttings or keep a stock plant for the next year. This is my way of making Cincinnati a tropical environment.



Return to Earth

by Bob Dalgaard

For several years, my husband and I have made a late winter pilgrimage to Logee's, which always gets the horticultural juices flowing. We were glad that we got the opportunity to visit the Thompsons' Begonia Museum as a side trip (in its final year). Someday we would like to see some of the impressive public and private begonia gardens of Texas and California that we read about in the **Begonian**.

His toes curled in the black soil. It was marvelous to feel the good cool earth beneath his feet again. Tenderly he bent down and crumbled a piece of sod between his fingers. A man was a fool to leave the land!

He thought of the city with a loathing. All it brought him was unhappiness and sorrow; but that was over. He was back to his first love - the earth.

Cathy Moon lives and grows at 8035 Remington Road, Cincinnati, OH 45242

For a while he was motionless in silent contemplation: a prayer of thanksgiving rose from his heart. Once more he was part of nature and not just a shadow in the city.

A voice called, "Dinner's ready." Slowly and reluctantly he took his feet out of the flower pot.

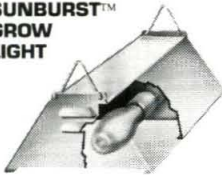
*Ruth Hurd submitted this "example of today's living" which she cut from an old **Begonian** - she doesn't know the date. Bob Dalgaard, Minnesota, is not listed as an ABS member now, but if you know him please tell him we have enjoyed his article, again.*

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“Call Me Fred”

A tribute to Fred Barkley

by Lynda Goldsmith (with the help of many others)

When Rosemary Cronk, a new member of Oklahoma’s Barkley Branch, addressed Dr. Barkley by his title, he said, “Just call me Fred.” In spite of his sweet and unassuming manner, Rosemary was unable to follow his suggestion because she was too much in awe of his many accomplishments. Similarly, that gentle demeanor lead to some surprise when Louie Sullivan, charter member of the branch along with the Barkleys, later learned of Dr. Barkley’s international reputation as a botanist and promoter of begonias. Indeed, that characterization, the coupling of true modesty with outstanding achievements, matches the impression of almost everyone in the American Begonia Society who knew Fred Barkley.

It was at an ABS national convention that I first met Fred (I shall call him that here). That conversation was my first, and he was the first person I met there. His slight

figure, rosy cheeks and twinkling eyes, and soft voice gave no indication of his stature in the botanical and begonia worlds. By the next time I saw him, at a Southwest Region Get-Together in Dallas, I knew who he was and, because I had already met him and got past the shyness I would have felt at approaching such an authority, I had my questions ready! And what a joy for me to discover that, being a natural teacher, he loved answering those questions and kindling a novice’s interest. The next day he sought me out to give me autographed copies of several of his publications I had referred to during our talk.

The members of the Barkley branch were lucky enough to have the participation of Fred and his wife Elizabeth (also a botanist) from the founding of the branch in 1979. They recall his deep knowledge of begonias, his patience in sharing that knowledge, and his love of the plants them-

selves. Dorothy Caviness once asked him which begonias he thought the prettiest, and he replied that he had never seen an ugly one. He loved to educate, and would bring a fish tank full of begonias to the branch's annual show. One of these was always *B. bogneri*, the "grass begonia."

Although Fred had worked on other plant groups in his earlier years (including poison ivy!), he was almost single-minded in his later devotion to begonias. Merrill and Kathlynn Calvert remember inviting Fred and Elizabeth to see their azaleas one spring when they were especially beautiful. But on the patio near the azaleas were several hanging baskets of begonias. "Do you know," say Merrill and Kathlynn, "he didn't even see the azaleas." Ruth Wills, who visited with Fred shortly before he died, says he was still talking about spreading the knowledge of begonias.

Any member of the society who went to Fred for help in specific matters got it. He shared ideas with Gil Estrada on improving relations within the society; he corresponded with Thelma O'Reilly concerning the origin of *B. U029* (*B. 'Mystique'*), and with Rudolf Zieshenne about various taxonomic problems over the course of 15 years. He helped Scott Hoover obtain funds so that Scott could accompany him on a field trip to South America; that was while Scott was still a college student, and look what that first collecting trip with Fred has led to!

Fred played an important role in the publication of the 3-volume Thompson Begonia Guide in 1976. Millie Thompson says that he gave her the pat on the back that made it possible to go ahead with publishing in spite of her doubts. "Publish it even if there are mistakes," he said. He served Millie as a consultant all through the final stages, always available and never belittling any question, no matter how naive Millie suspected it might be.

Although the 1974 Barkley-Golding Species of the Begoniaceae has been somewhat superseded by the Annotated Species List by Jack Golding and Carrie Karegeannes that is Part II of Begoniaceae by Smith et al (1986), it is still an invaluable reference for those who try to make some sense out of the diversity of this group and need to know what section a species belongs to, as are his several other publications on the sections of begonias. Joy Porter points out that until the first edition of the Species of the Begoniaceae, which Fred authored in 1972 and the Buxton Branch published, "amateur students of *Begonia* had nothing of that sort available to them unless they had access to some large university library. Even then there was no collation of such information."

Jack Golding says that he first became associated with Fred by suggesting corrections to the first edition. Jack wondered if he, an amateur botanist and mechanical engineer by profession, should properly be correcting the work of a botany professor. Jack says Fred told him that "because of their teaching duties professors often did not have sufficient time for all the detailed study and research they desired. Amateurs who made an in-depth study of a particular subject could sometimes contribute even more than the professional botanist." Jack goes on, "He urged me to continue with my work with the nomenclature and taxonomy of begonia. He assured me I was qualified and expressed his appreciation of my suggestions and corrections to his *Begoniaceae* species list. In fact, he further encouraged my work by asking me to proof-read the second edition of the list, and then a few weeks before its publication he made me its co-author. He encouraged others to work together with him on many projects, but always shared the honor with them in the published reports."

A glance down the list of Fred's publications confirms Jack's observation: many of these were coauthored by Fred's students. It was suggested that this list of

publications be included here, but that would be quite impossible - the list fills seven single-spaced pages!

Before the lucky people in Oklahoma gained Fred as a member, he filled the mentor role for many in the Boston area, both students at Northeastern University, where he was a Professor of Biology before he retired in 1974, and members of the Buxton Branch of the ABS. Joy Porter says "He encouraged his botany students to concentrate their interest on begonias, and he brought many fresh new faces to the Buxton branch. One of these students was Kamil El Tigani from the Sudan. Soon after Kamil received his doctorate (his thesis was on inflorescence and flower development in *Begonia*) and returned to Africa, he encouraged Fred to accept a teaching post at the University of Khartoum." Joy thinks it was less than a year after their arrival that "Fred had a heart attack and he and Elizabeth returned to Oklahoma. Subsequently he made several nostalgic trips to South America."

Fred's love of begonias was rivaled by his love of travel, particularly to Central and South America. During these travels as well as on collecting trips in the United States and Iraq, he collected some 38,000 herbarium specimens. And of course he enjoyed sharing his adventures with other plant lovers. Joy recalls, "At the Southwest Region Get-Together in Arlington, Texas four or five of us were so entranced with his tales of begonia hunting we moved out to the patio when the hospitality room door was locked at 12:30. We weren't exactly bright-eyed and chipper the next morning after talking begonias until 3 a.m."

The same evening of begonia talk led Kit Jeans Mounger to name one of her hybrids *B. 'Dancin' Fred'*. She remembers his story of a plant-hunting expedition in Mexico, when the weary professor and his students were relaxing in a cantina after a day in the field. One of the students challenged Fred to dance with a pretty young

girl - on the table top! Fred did. Kit enjoys the mental image of the quiet unassuming scholar dancing on the table.

After retirement to Oklahoma, Fred came back to spend a summer at Northeastern, where members of the Buxton Branch worked on the Barkley collection two days a week. It was the year Michael Kartuz was clearing out his greenhouse in preparation for his move to California. At Fred's urging the group of workers would go to Mike's greenhouse at least once a week to look for treasures. At summer's end, Joy, remembers, "When Fred was leaving for the airport I asked if he had packed a *B. froebelii* seedling I had given him and he patted his raincoat pocket. Then I realized why he looked so strangely plump and lumpy - all his pockets, even his shirt pocket, were filled with small, wrapped begonias."

It was Fred's relationship with his students at Northeastern that most impressed Evelyn Cronin. She tells us, "Fred sought teaching positions in other countries deliberately because he so enjoyed the experience. From these various universities he selected the best students and encouraged them to seek higher education in the States. Fred's graduate students never quite understood how they chose *Begonia* as their thesis topic. If you were befriended by Fred at the start of your graduate studies, your field was *Begonia!*" He acted, Evelyn continues, "as a surrogate father to many youngsters from impoverished countries. He was instrumental in bringing to Northeastern an interracial mix, in particular students he met on his begonia-gathering safaris. Northeastern has a strong work-study program. Students can work for six weeks after three months of study, and then return. This helps ensure living expenses. I remember on a chilly fall day meeting one of his recently arrived students dressed in his complete wardrobe, a white shirt and lightweight slacks. When I commented to Fred that I had met his newest import from Colombia and that he looked chilly, Fred said: 'I get them here,

pay their living expenses for six months, and buy them warm clothing. From then on they are on their own.' From my personal observation his help was constant, scholastically as well as financially. Fred's own meager wardrobe consisted of a well-worn tweed jacket, gray slacks, immaculate white shirts, and a knitted tie. He was a truly selfless man."

As if afraid she hadn't made the point strongly enough, Joy Porter wrote across the top of her page of reminiscences, "**Fred loved begonias.**"



SWR to Offer Barkley Research Grant

The Southwest Region, ABS, is establishing a research grant in honor of its native son, Dr. Fred Barkley. The \$1,000 grant is designed to follow his lead in encouraging research in *Begonia*, and will be offered annually (funds permitting) to botany and horticulture students. Donations to the grant fund are welcome, and may be sent to SWR treasurer Martha Curry, P.O. Box 1232, Weatherford, TX 76086, marked "Barkley research grant."

The **Dr. Fred A. Barkley Research Grant** will be given for the first time at **Begonias Ole!**, the National Convention in San Antonio.



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IN THE NEWS...

Flower & Garden magazine lists three begonias in its "New Elite Container Plants '90" section, B. 'Pink Parasol' and two fragrant tuberous begonias, 'Fragrant Nectarine Rose' and 'Fragrant Apricot'.

The tuberous begonias are crosses by **Howard Siebold**, offered commercially for the first time. B. 'Sweet Dianne' (ABS registration #921) is offered for sale in the catalog of Jackson & Perkins (page 3). It is, however, listed under the name "Nectarine Rose Begonia." Spring Hill Nurseries offers another cultivar under the name 'Fragrant Apricot' (p. 51)

CORRECTIONS, ADDITIONS

Please make two corrections in the March-April issue:

1. Writing B. 'Dancing Fred' instead of B. 'Dancin' Fred' was an editorial error in the article "Two for Summer" by Esther Nagelberg. Apologies to Esther, who had it right in her article.
2. On page 46 Thelma O'Reilly's address should be 10942 Sunray Place, but was given as 10492.

*The begonia pictured on page 32 of the January-February issue is not B. U049. Doug Jensen grew the plant from seed harvested from U049 and distributed as U049; but the resulting plant is quite different, probably a hybrid with U049 as the seed parent. For a color picture of B. U049, see the cover of the March-April, 1986 **Begonian**. There is an article on this fascinating begonia on page 42 of the same issue.*

Quick! Check your mailing label - if it says 5/90 or 6/90 your membership is about to expire - and we don't want to lose you. *Please renew, now!*

BULLETIN BOARD

Appointments:

Book Store - Anita Ruthenberg, 1016 W. Arlington Ave., Fort Worth, TX 76110

Public Relations/Special Advertising - Russ Richardson, 1854 Chancery Lane, Chamblee, GA 30341

Research - Houston Knight, 13455 Hadley St., Whittier, CA 90601

HELP WANTED

Bright, enthusiastic, dedicated, capable? Committee Chairs are needed for three ABS Committees.

The **Long Range Planning** committee helps coordinate convention times and locations, and may be involved in any other long-term ABS project.

The **Speakers Bureau** keeps a list of members willing to present programs for branches, garden clubs, garden centers, etc. **Begonia Back Issues** chairman keeps and sells back issues of the magazine.

Contact President Jeannette Gilbertson if you can help out.

Elections Reminder

Nominating Committee Members are Glennis Crouch, Houston Knight, and Wanda Macnair.

May 3 is the deadline for additional nominations to the slate of officers. Nominations may be made by a petition signed by at least 15 members of the ABS, and delivered to the Secretary at least 90 days before the end of the fiscal year.

Ballots will be mailed to all members by June 16, and must be returned by July 21.

Please vote!

MAL Newsletter #16 Ready

ABS members who do not belong to a branch have their own newsletter, published three times a year. The newsletter is available to any Member at Large who sends a self-addressed, stamped, legal size envelope to MAL Director Thelma O'Reilly, 10942 Sunray Place, La Mesa, CA 92041

Palos Verdes: New Branch

Welcome to the newly formed Palos Verdes Branch! President is Brad Thompson, 715 W. 220th St. #45, Torrance, CA 90502. Meetings will be held at the South Coast Botanical Garden, 26300 Crenshaw Blvd. on the Palos Verdes Peninsula at 7:30 p.m. on the first Monday of each month.

Begonia Uniques Wanted

We're planning a dynamic **Begonia Boutique** at our National Convention in May. We are especially interested in begonia oriented, hand-crafted items such as: stained glass, applique, quilting and needlework of all kinds, ceramics, carpentry, carvings, decoupage, T-shirts, aprons, containers, refrigerator magnets, stationery, postcards, buttons, artwork, anything unique - one, ten, or a hundred.

Are you an amateur inventor? Craftsman? Now is your chance to shine - design something and make a dozen extra for the **Boutique**. Perhaps your branch could meet and put something crafty together. If you cannot attend the National, you can send your creations to Pam Lee, 1424 Holcomb Rd., Dallas, TX 75217, or to Anita Ruthenberg, 1016 W. Arlington Ave., Fort Worth, TX 76110.

We hope to see you all with your beautiful creations in San Antonio in May!

Begonias Olé!

Jacksonville Branch Hosts Successful Judging School for Eastern Region

by Mary Bucholtz

One of the goals of the Eastern Region is to increase the number of accredited begonia judges and spread the knowledge of the diversity of begonias.

In September, 1989, Potomac Branch initiated a judging school in conjunction with their annual show. Continuing the education, Palm Beaches Branch hosted a weekend judging school in February co-chaired by Charles Jaros and Frances Hunter. Thirty-nine attended, with 22 aspiring to become judges. We were especially pleased to have National Council judges in attendance, eager to learn the ABS judging system. This will introduce them to the benefits of ABS, and improve the quality of begonia judging in their shows.

Maxine Zinman, Kit Mounger, Charles Jaros, Mary McClelland, Janet Welsh, and Mary Bucholtz presented various phases of judging information.

A Mini-Show gave candidates the opportunity of a hands-on experience in show mechanics, including classification, entry, and placement. Both judges and candidates participated in the point scoring process. Then came the most difficult assignment - defending the point scoring.

The relaxed, informal atmosphere stimulated give and take among the group. Even though the main focus was education, there was plenty of time for socializing and acquisition of new begonias. Friday evening a rare plant auction followed a sumptuous buffet prepared by the host branch. Throughout the weekend there were begonias and other shade-loving plants available.

We are all grateful for the opportunity to be together and share knowledge and experiences. It is from these exchanges that we grow and continue our enthusiasm for our begonias.



IN MEMORY

The horticultural world lost an important person in the passing of **Bob Addison Cole**. Born December, 1930, he left us on January 19, 1990.

His broad scope of life activities included a great inventiveness in fine arts and crafts. He made numerous collecting trips to areas such as Mexico, Venezuela, Thailand, and Borneo. He was a constant supporter of numerous plant groups and donated large blocks of begonias, orchids, bromeliads, and other genera to help with the establishment of the Huntington Botanical Gardens' Jungle Garden. He also established begonia collections of both species and hybrids at two botanical gardens in Hawaii (recently destroyed by hurricane, these collections are being replaced by private contributions).

Bob made approximately 130 begonia crosses, according to R. Ziesenhenne, although he only registered a selected number. One of his crosses now being patented is a breakthrough breeding of a rex cross which produced hardy landscape begonias with more ornamental foliage than the old cane types. He also achieved great success in hybridizing orchids.

Plans are now underway to establish a memorial garden for his hybridizing work.

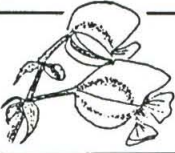
His greatest assets were his warm and selfless giving nature, his humor, his tireless instructive sharing of botanical information, and his analytical and scientific work. These are all part of his legacy to all of us in the plant world. - Leo Milan

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QUESTION BOX

Mae Blanton

ABS Horticultural Correspondent

Question: How do you "root prune" a begonia to put it back in the same size pot?
TEXAS

Answer: Water the plant the day before transplanting it. Remove it from the pot. With a sharp, clean knife, slice from 1 to 3 inches from the bottom of the root ball; the amount you cut depends on the size of the container. Slice about 1/2 inch off on four sides. In a clean container of the same size, put 1/2 to 2 inches of fresh mix in the bottom so the plant will sit lower in the pot. Reset the root ball and fill in with new mix, a little higher than the old soil level for most begonias.

The exception would be rhizomatous begonias, where you don't want to cover the rhizome. If the rhizome is partially buried or flush with the soil level, remove a bit of the topsoil clinging to the rhizome and replace it with fresh soil, being careful not to disturb too many of the larger roots.

Prune the top of the plant to lessen the shock. Water your plant and set it in a protected place away from drafts for a few days to help it recover.

Question: I grow under light, in windows, and in terrariums. One problem that repeats on rhizomatous begonias and especially maple-leaf types is that the older leaves hang down over pots and the stems gradually become very flat. New leaves coming along in the middle of the plant are very small. Does this sound like the plants got too dry at the root ball? I used to overwater and may be too cautious now. What mix do you generally use? ILLINOIS

Answer: It is quite possible that you are not watering enough. It is easy to check the root ball the day after you water. Gently turn the pot upside down and, supporting the top of the root ball with your hand, tap it out of the pot to examine it thoroughly to see if it is completely dampened; then replace it in

the pot. Let the top inch of the soil mix dry before re-watering.

I assume you are feeding your plants regularly. It is possible that the humidity around your plants is too low. If you don't run a humidifier, try trays of damp pebbles or peat moss under plants, or run a vaporizer in the room. Be sure the plants have adequate light.

I like a light, loose mix so I buy a good potting mix composed mainly of peat moss with vermiculite and perlite. I usually add coarse perlite to make it drain very well, using more for the rhizomatous begonias and less for the larger canes. In my terrariums, I grow some begonias in long, unmilled sphagnum moss and others in a light mix consisting of mix marketed for African Violets, extra perlite, and horticultural charcoal. I have found that some begonias will grow for months in a mix of vermiculite and perlite if fed occasionally with weak (1/4 strength) fertilizer. A bit of charcoal in this mix helps to neutralize salts. Superthrive added to water now and then helps give much needed trace elements and hormones.

Question: On 5 or 6 of my cane begonias some of the leaves have what looks like long scratches. On the backs of a lot of the leaves there are brownish spots, and some corkiness on the stems. On B. 'Nora Hanson' some leaves in the apex look almost as though they were stitched on a sewing machine and are brown in the stitches with a slight pucker. A few look as though a punch was used on the leaf, a completely round 1/2" hole. What can I do to keep this from getting out of hand? OHIO

Answer: Several of us in this area have noted this same problem. One member sent several leaves to Texas A&M for diagnosis. One leaf with the symptoms came back labeled "no disease." Another with

similar symptoms came back with a diagnosis of bacterial disease.

This bacteria can stay dormant within the plant until hot weather/high humidity cause the symptoms to appear. The experts recommend adequate spacing, careful watering, and cultural practices (general cleanliness, removing spent flowers and leaves). Spraying with copper-bordeaux mixture should be tried on one or two plants at first. If no damage occurs after a wait of 2 or 3 days, spray the rest of your plants. Do not take cuttings from infected plants.

There is much information on insect pests and their control, but very little information on diseases that infect begonias and their prevention and/or cures. Hopefully, someone will study this subject and write up the results for publication.

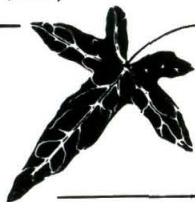
Do you have questions about growing begonias? Write Mae Blanton, 118 Wiloak, Lake Dallas, TX 75065 for a prompt solution.



Coming next issue:

More Malaysian begonias!
Convention reports!

Update on the U numbers, in full color!
(We can save money by printing our first-ever color issue at the same time as we print the next set of four covers - that's why the U number report is delayed until the July-August issue; we apologize for keeping you waiting. And to those of you who wrote that the editor's name and address have been wrong for the last four issues, we hope to get that corrected in the next set, too.)



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.

COMING EVENTS

OLE!

May 17-20: ABS Convention 1990, Begonias Ole! At the Airport Holiday Inn, hosted by Southwest Region.

June 1: Jacksonville Branch Show. Contact President Robert Brownlee, 7041 Ridge Trail Rd., Keystone Height, FL 32656 for more information.

July 21-22: Westchester Branch Show & Sale, from 10 a.m. to 7 p.m. on Saturday and 11 a.m. to 6 p.m. Sunday. Fox Hills Mall, Culver City. For more information call (213) 821-5242.

July 28-29: San Francisco Branch participates in the Tanforan Shopping Center sale and show.

August 24-25: San Francisco County Fair Flower Show, with preview Thursday evening, August 23. San Francisco Branch will participate.

Convention in Australia

Start planning now to attend the Second Australian Begonia convention, March 29-April 1, 1991, at the Freeway Hotel in Perth, Western Australia For further information, write Dr. John Mills, 20 Rivett Way, Brentwood WA 6153, Australia.

Deadline for next issue is May 15.

CLAYTON M. KELLY SEED FUND

May-June 1990

Diana H. Gould, Seed Fund Director

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

All packets of species seed are \$1 each, and all packets of hybrid seed are 50c each; a pamphlet on growing from seed is 25c. All orders must be accompanied by check or money order payable ONLY in U.S. funds, and made payable to the CLAYTON M. KELLY SEED FUND.

Cost of mailing in the U.S., Canada, and Mexico are: 1-12 packets of seeds, 55c; 13-24 packets, 70c; 25-36 packets, \$1.15; 37-48 packets, \$1.45.

Foreign mailing costs are: 1-12 packets of seeds, \$1.30; 13-24 packets, \$2.10; 24-36 packets, \$3.10; 37-48 packets, \$4.10.

Two sets of planter dishes with free instructions in one mailer costs 77c. If ordered with seed and sent in one mailer, the cost of 2 sets of planter dishes and 1-12 packets of seed is 90c; 2 sets of planter dishes and 13-24 packets cost \$1.07; 2 sets of planter dishes and 25-36 packets cost \$1.42; 2 sets of planter dishes and 37-48 packets cost \$1.75.

CALIFORNIA RESIDENTS PLEASE ADD 61/2% SALES TAX TO ALL ORDERS.

Please send your order and payment to:

Ms. Diana H. Gould
9940 Falcon Meadows Dr.
Elk Grove, CA 95624
U.S.A.

Notes on Seeds Listed:

Germination times for this issue's selections range from 11 to 77 days, so please be patient. Unless otherwise noted, these selections have not been offered during the past 3 years.

The Seed Fund would like to thank **Phyllis Bates, Roberto Brin, June Davis, Lynda Goldsmith, Jan Goodwin, Pat Sage, Phil Seiden, Steve Wells, Johanna Zinn,** and

all of our anonymous donors for their generous donations. **Thank you!**

Thick-stemmed

B. cavallyensis (West Africa, Ivory Coast) has medium, bare leaves with white flowers tinted pink, and *B. valida* (Brazil) has large bare leaves, is tall-growing with fragrant white flowers. *B. vitifolia* (Brazil - do not confuse with *B. reniformis*) is not as tall, but does have the large, green bare leaves and white flowers.

Semperflorens

This issue's selections include *B. cuculata* var. *arenosicola* (Argentina and Paraguay), with no information supplied, and *B. wallichiana* (Mexico) which is a *schmidtiana* type with pink flowers.

Trailing-scandent

Offered are *B. mazae*, *B. mazae* var. *nigricans*, and a third *B. mazae* variety; *B. mazae* has fragrant pink flowers and the last variety has white flowers and is endemic to Mexico. *B. polygonoides* (Tropical West Africa/Congo; MJ 87) is noted for its profuse white flowers and *B. thelmae* (Brazil; formerly known as *B. U009*) also has white flowers.

Shrub-like

B. humilis var. *porterana* (Brazil) has medium, bare leaves with white flowers, and *B. odorata* (Lesser Antilles/Guadeloupe) also has medium, bare leaves but flowers are fragrant and white. *B. metallica* (Brazil; MJ 87) has wide, hairy leaves with pink flowers, while *B. U010* (Puerto Rico) has small, glossy, closely set lobed leaves with white flowers. *B. listada* (Brazil; SO 88) has white flowers with pink hairs, and may require terrarium care in some areas. *B. olsoniae* (Brazil), which may also require terrarium care, is a miniature, compact type with

distinctive foliage and light-pink, ever-blooming, profuse white flowers. Also from Brazil is *B. paleata*, again a miniature compact type with distinctive foliage and profuse white flowers.

Rhizomatous

B. bowerae (Mexico) has small leaves with pink-tinted flowers; *B. cathayana* (China) is a terrarium species with distinctive foliage, large leaves, and light orange flowers; *B. crispula* (Brazil) is a terrarium species with distinctive foliage, medium leaves, sparse white flowers; *B. ficicola* (Nigeria) is a terrarium species with distinctive foliage and yellow flowers.

Of the next three species, all upright rhizomatous types, joined at or below the soil line, *B. hatacoa* (India) is the least known. It has spear-shaped green leaves with reddish-brown on the back side and white flowers. *B. hatacoa* 'Silver' has the same leaves with silver splotches and *B. hatacoa* 'Spotted' is almost the same except for the white spots on the leaves.

B. hydrocotylifolia (Mexico; MA 88) is a small-leaved species with profuse rose-pink flowers. *B. pringlei* (Mexico) has small lobed leaves. *B. prismatocarpa* (Tropical West Africa) is a terrarium species with distinctive foliage and profuse orange/yellow flowers.

B. rex (India) is a very special species because it is the "mother" of all of our rex cultivars. It comes from the Himalayas and has large green-patterned leaves with no spots and medium pink flowers.

B. versicolor (China) is a terrarium species known for its distinctive foliage; it has medium-sized leaves and sparse pink flowers. I have been growing my plant in sphagnum moss in a plastic licorice can. It loves high, difused sunlight to enrich its coloration, but do be careful of sunburning.

B. U003 (Brazil) also has distinctive foliage and is a terrarium species with large dark green leaves whose pustulated surface is distinctively marked with lighter green radiating from the center and edged in red; it has white flowers. B. U106 (Panama; MA 89) is a terrarium species with medium

green, shallowly lobed, cordate leaves, with red hairs along the margins. B. U114 (Panama) has an open sinus with long drip points. B. U258 (Mexico) has green leaves with long internodes, and grows to one meter in height.

Unclassified

Most of the following arrived with little or no data: *B. bartonea* hort (Puerto Rico) is a terrarium species with distinctive foliage, low-growing with green leaves overcast with an iridescent sheen, and has tiny pink flowers. B. U074 (Philippines) is a terrarium species with a creeping habit and leaves variably marked. Its stems, petioles, and peduncles are rose-colored, and it requires strong light to bring out its intense color. B. U245 is from Scott Hoover's expedition to Ecuador. B. species RB 403 and RB404 are from Panama; one is a named species, the other has a U# assigned, and as soon as the identifications arrive we will let you know what they are. B. U262 is from Peru; I have no data for it. B. U263 from Yaxchilan, Chiapas, Mexico was collected on the Rio Usumacinta, along the border with Guatemala, and also comes with no data. The last of the species listing is a collection of spills offered as B. mixed species.

Hybrid seeds offered this issue are from B. 'Silver Jewel', B. 'White Chandelier', a B. rex seedling crossed with B. 'Super Curl', a B. rex cultivar Ziesenhenné hybrid crossed with B. 'Grape Fantasy', mixed rex hybrids, and mixed cultivars. Please order by name listed.

Note: hybrids do not come true from seed. While some crosses produce seedlings with similarities, others come up with wildly differing siblings. Should you find one that is really spectacular, you as the grower are entitled to name it and apply for registration.

Almost all of this issue's selections are in extremely limited supply and will require germination times in excess of 50 days.

Regarding the November-December 1989 offerings of *B. peruviana* and B. U049, a letter from Thelma O'Reilly advises that "*B. peruviana* is the original incorrect name attached to B. U049, which has the narrow, hairy leaves described; *B. peruviana* is glabrous." The data I gave you was; "*B. peruviana* (Peru) narrow hairy leaves with white flowers and pink hairs; B. U049 (Brazil), an angel-wing type with dark green, velvety leaves which are sometimes bronzed on top, with a red/purple velvety texture on its underside, leaf size approximately 2" x 8", with white flowers, which may grow up to 3 feet high under ideal circumstances." (For a color picture of B. U049, see the **Begonian** cover, March-April 1986.) I can only offer you the seed and descriptions that are sent me. When no descriptions accompany the seed, all I can do is research the name that you submit to me in hopes that it is correct. The odds are that the descriptions will NOT match the plants that grow from the seed. When this happens to you, please send me the description of the resulting plants so that I may submit corrections for all of us.

The **1990 Convention Listing** is ready and will be sent with your seed order, or may be ordered from the Seed Fund Director (please enclose stamped, self-addressed legal-size envelope).

I would like to apologize for any inconvenience caused to you as a result of my recent move to Elk Grove. Thank you very much for all of your warm wishes and most generous support.



CLAYTON M. KELLY SEED FUND

Species Seed
\$1 per packet

- B. bartonea* hort.
- B. bowerae*
- B. cathayana*
- B. cavallyensis*
- B. cuculata* var. *arenosicola*
- B. crispula*
- B. ficicola*
- B. hatacoa*
- B. hatacoa* 'Silver'
- B. hatacoa* 'Spotted'
- B. humilis* var. *porterana*
- B. hydrocotylifolia*
- B. listada*
- B. mazae*
- B. mazae* var. *nigricans*
- B. mazae* variety
- B. metallica*
- B. odorata*
- B. olsoniae*
- B. paleata*
- B. polygonoides*
- B. pringlei*
- B. prismatocarpa*
- B. rex*
- B. thelmae*
- B. valida*
- B. versicolor*
- B. vitifolia*
- B. wallichiana*

B. U003
B. U010
B. U074

Hybrid Seed
50 cents per packet

B. U106
B. U114
B. U245
B. U258
B. U262
B. U263

Please order by name listed:

B. 'Silver Jewel'
B. 'White Chandelier'
B. rex seedling x B. 'Super Curl'
B. rex cv. Ziesenhenn
hyb. x B. 'Grape Fantasy'
B. mixed rex hybrids
B. mixed cultivars

B. RB403
B. RB404
B. mixed species

Conservation News

Good News:

Martin Johnson reports that the plant material Scott Hoover brought back from Malaysia and Thailand was in very good condition. Ninety packets have been sent out to expert growers, and the seed is being cleaned and prepared for distribution. Scott reports Thailand was particularly rich in begonia species.

Saving the Begonias:

Different Approaches

1. Natural Preserves and Parks

Establish and preserve safety zones for plants and animals. See the article on page 85 to learn about Malaysia's efforts. Did you know that Costa Rica leads the world in per capita expenditures for conservation?

Non-profit organizations that support this approach include **World Wildlife Fund, Nature Conservancy, Rainforest Alliance, Rainforest Action Network**; all have affiliates world-wide, and all can use donations (addresses are available at your local library, and donations are tax-deductible).

2. Extractive Reserves

Establish and protect areas where only *non-consumptive uses* are allowed. For example, Brazil nuts may be harvested but timbering and burning are not permitted.

Cultural Survival, a non profit organization, works with native peoples to market rainforest products. Some American companies that support their work by contract-

ing to buy rainforest products are **Ben & Jerry's Ice Cream** and **Rainforest Crunch** (a nut brittle). Rainforest Crunch donates 40% of its profits to protect rainforests. The idea behind extractive reserves is that rainforests can provide employment and sustenance indefinitely for many people if left as they are; destroyed, they bring only a quick profit to a few. Cultural Survival also seeks donations (which are tax-deductible).

3. Collecting

Collect specimens and seeds of endangered rainforest plants before the rainforest are destroyed. ABS and you, the members and branches, have supported several collecting trips. More are planned.

4. Cultivation

Keep species alive in cultivation as they are becoming extinct in the wild.

ABS' Seed Fund is a major hope for survival of begonia species, and the Director is especially interested in seeds which have not been listed in the last three years because those are the ones most likely to be rare in cultivation. All members can help by sharing seeds and plants.

Maybe, someday, we can move on to:

5. Re-establishment

Re-plant begonias in their homelands, in safe sanctuaries, so that future generations can see these most varied and beautiful plants in their native habitat.

But, as Scott Hoover says, "First we have to get the plants," and, as Diana Gould adds, "We have to share and grow the seed and distribute the begonias."

You are the key.

HONOR ROLL

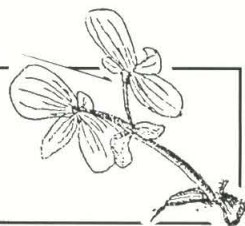
of Contributors
to the Conservation Fund
for Scott Hoover's
Malaysian Expedition

Eleanor Werman
Phil Mudgett

Orange County Branch
New South Wales Begonia Society

ROUND ROBIN NOTES

Margaret Coats, Round Robin Director



The bitter cold weather in all sections of the country just before Christmas was the predominant subject in all the Robins. However, most report unusually warm weather throughout January and February, so there must be justice after all.

Brad Thompson (CA) had trouble determining whether seed was good, in spite of the fact he knew about the rolling method, and wanted to find a more definitive method. After having failed twice with seed from his own crosses, he got a microscope. Brad says you can see immediately if the seed is good. He now has 200 seedlings that might never have happened had he not investigated a different approach.

Howard Siebold (CA) has had many years experience in growing from seed. He is of the opinion that the mix used for germination really isn't as critical as other details such as using distilled water for the first month and using sterile pans. He cautions others in the tuberous Robin to check their stored tubers about once a month. Mold on the surface of a tuber indicates that rot has begun. Cut the rot out and you might possibly save the tuber. Howard feels that 45 degrees is an ideal temperature for storing tubers, and if humidity is low he recommends misting the surface of the mix in which the tubers are stored often enough to prevent the tubers from drying out.

Lynda Goldsmith (VT) reports that many of the U numbers she is growing were collected by Roberto Brin in Panama and many closely resemble each other in foliage. Her young plants from his collections are just coming into bloom for the first time, so she will soon be able to compare them. She is of the opinion that perhaps Roberto might have collected different populations

of the same species and each got a different U number. Lynda agrees that giving different numbers to each population collected is the correct thing to do; however, she says she will certainly be disappointed if she winds up with a lot of duplication. Bob Hamm (CA) feels that, as fast as habitat is being destroyed, we CANNOT count on being able to go back and re-collect species from the wild. He, therefore, is working on growing some of the rarer species and U numbers for free distribution to botanic gardens. With this plan, he hopes we can keep some of the begonias from being lost forever.

Maybe you have had the same experience with B. U192 as Charlotte Kuhnle (OR). She grew this plant in her greenhouse for two years and it never had leaves over the size of a dime. After she put it into a terrarium, the plant is developing very large leaves. Members of the species Robin agree species begonias are apparently an acquired taste - sort of like caviar.

Bob Hamm (CA) had a few comments about seed planting during winter..."some seed is photoperiodic and tends not to germinate under short days. This is why some species will take seven days one time, 103 the next. They sit until conditions suit them. Second is temperature; although the house may be 70 degrees, a seed flat will often be 5 to 10 degrees cooler, and many of the warmth lovers simply will not germinate at lower temperatures. I have this problem under lights for some varieties at this time of year. Even though days are warm, the cool nights keep the seed dormant until warmer conditions occur. Watering with chill tap water can also slow germination. And last, while most begonias will germinate from fresh seed, a few seem to

have built-in time delays and will not germinate for a while. This may be an adaptation to prevent germination at the wrong time of year. Even tropicals have to deal with wet/dry conditions in nature.”

When you get ready to share cuttings of your plants with friends, here’s a tip from Bob. Make sure the cutting has a few growth buds, for if you give your friends cuttings that have bloomed at every axil the resulting plant will not branch even if pinched or cut back, and will never make a decent plant.

Lillian Oberlies (KY) used to order her cuttings in September or later, but came to the conclusion that they were in a dormant period since she had such bad luck at rooting them. She also found they seemed to rot in the cold and in wet rooting mix.

In one of the general culture Robins, the subject of hybridizing was discussed. These good tips came from the expert, Mabel Corwin (CA). She finds the weather has a lot to do with whether the male flower has pollen. The best way of testing is to take the bloom in one hand with the petals folded back, and flick it gently on the thumbnail of the other hand. Do this in good light. You will see the pollen fly! Mabel says the best time to pollinate is when the female bloom is about three days old. The petals will be slightly folded back. If you pollinate and the female flower falls off after a few days, then the cross did not take. The flowers must hang on until the stem is dry. Mabel likes to hybridize using one species and one hybrid, as the species gives stability while the hybrid gives variety. She says when you cross two species, the seedlings will all be the same or similar, and will often be sterile.

Charlotte Kuhnle (OR) comments that if plants are allowed to get too crowded in terrariums, stems and leaves tend to lose substance. She advises uncovering terrariums periodically to let some fresh air in, and she gives an occasional light feeding.

A couple of tips from Rita Sendic (NJ) of the mini—begonias Robin: she has found that her begonias do not like a change in soil mix. She suggests using the same mix when repotting your plants, and says you’ll see a difference. Rita also uses one drop of Superthrive per gallon of water as a foliar spray once a week. She finds it gives her plants a new depth of color and vigor.

If you have been thinking of joining a Robin or two - **DO IT NOW!** You will be greatly rewarded with new friends with a common interest. Not only can you learn from them, but they can learn from you and some of your experiences. All it takes is a post card telling me what interests you and how many Robins you would like to join. **DO IT NOW!**

To **DO IT NOW!** write:

Margaret Coats
11203 Cedar Elm
San Antonio, TX 78230



Do you have a question about growing begonias, indoors or out? Write ABS' horticultural expert Mae Blanton, 118 Wildoak, Lake Dallas, TX 75065 and let her solve your problem!

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AROUND ABS

Notes from our Newsletters

Congratulations to Monterey Area Branch, age 19, San Francisco Branch, 51, and Orange County Branch, 50! San Francisco celebrated with cake, balloons, and singing "Happy Birthday to us." Orange County has a second reason to celebrate: for 50 years they met in Palm Park, which suffered earthquake damage in 1988; now they're moving back to a beautiful new building on the old site, to begin their second 50 years where they started.

East Bay Branch will be presenting an annual award in memory of long-time member Martin Boyd, who died in January of 1989. The first recipients of the Martin Boyd Trophy are Ilo and Glenn Maynard.

Since Martin Boyd's death, his collection of tuberous begonias have been cared for by Howard Siebold. Now comes word that the collection will go to the Conservatory at Golden Gate Park.

Potomac Branch is busy preparing to host the 1991 national convention in Washington, D.C. They're concentrating on the U numbers, and on growing as many as they can for the show and sale.

There should be lots of B. U253 - Johanna Zinn grew and passed out seedlings to the members at the February meeting, and the newsletter editor asked for reports: "How are they doing? Are they putting out new leaves? Do they like a warm sunny spot? Are they still in a contained atmosphere? Are they still alive?"

The branch is also promoting interest in begonias, and in membership, by printing flyers on growing begonias to be available at the U.S. Botanic Garden and other appropriate place: "We know there are more begonia growers out there - we just need to get the word out to them."

Across the country in California, Rubidoux Branch reported that speaker Jim Saulinger "made some of us cringe by

ripping begonia leaves and then just stuffing them into propagation flats" - but the plants he brought to share were beautiful. He also reminded his audience that begonias are only weeds in their native conditions. Would that they grew like weeds for us!

Garbage cans and Riots Department:

In March Rubidoux had Houston Knight of Orange County Branch as a speaker on rex begonias. "Not to tell secrets," said Rubidoux Begonia Gazette editor Dianne Scott, "but I've heard that Houston has even taken leaves thrown in the trash and made them grow."

Houston is an editor too (of Begonias Begorra! for Orange County, and for Whittier Branch also), and he reported that Rubidoux has fine meetings: "A near riot was caused by the plant sales at this club." Sounds like a plant sale at a national convention, doesn't it?

"If you cannot create a tree, plant a seed." This uplifting thought comes from the Palomar Planter. Credit for the quote goes to A. Upfield.

Can a calendar help you grow begonias? Yes, says the B-line, newsletter of the Alfred D. Robinson Branch: bring your calendars to the next meeting, and mark down what should be done to care for canes - at the appropriate time it should be done! Clever.

What else do you need to grow begonias? Some suggestions from newsletters follow:

Environment: Contrary to what most people believe, tuberous begonias are not in the true sense of the word shade lovers. The more sunlight a begonia receives without burning, the larger and more abundant the flowers will be. The key words are "without burning." Experiment with a few pots by putting them in an area with a lot of

sunlight. If the leaves begin to burn, move them to an area with less sunlight.

Watering: The most common mistake made in growing begonias is overwatering. The amount and frequency of watering is dependent on: size of plant, size of container, type of soil, and weather conditions. Water well but only when the surface of the soil is drying out. Do not allow the soil to become soggy. Dropping of buds is usually a sign that the soil is too wet.

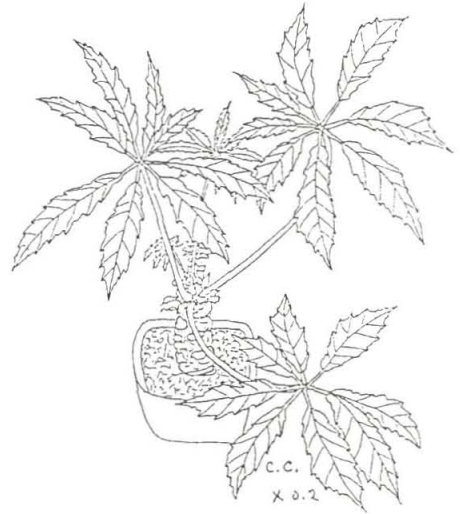
- from The Potting Shed, Edna Stewart Pittsburgh Branch, editor Pete Hale.

Clean pots: Buy two similar pots for your specimen plants and when it is show time the plants can be slipped into the clean pots.

Grooming: Proper grooming tools such as tweezers, scissors, nippers, etc. are best made of stainless steel, and one suggested source is the Carolina Biological Supply Co. The address can be obtained at your local library and a copy of their catalog sent for.

- from the Palm Beaches Branch newsletter, editor Esther Nagelberg.

The Shade House, newsletter of the Garden Grove Branch, features a "Plant of the month." In March it was *B. carolineifolia*, with a lovely drawing by Connie Cole:



B. carolineifolia is a rhizome-erect species from Mexico. It was first described by Regel in 1852. It grows very large and has compound leaves, as shown in the drawing. It has pale pink flowers with dark pink spots, and blooms in February or March. The description in Logee's catalog says the leaves are green covered with brown fuzz, similar to "Woolly Bear" (*B. subvillosa* var. *leptotricha*).

AMERICAN BEGONIA SOCIETY CONVENTION 1990



S A N A N T O N I O

Moving?

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

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:

Martha Curry
P.O. Box 1232
Weatherford, TX 76086

BEGONIA CUTTINGS AND PLANTS

Send \$1 for expanded 1990 list. Kay's Greenhouses, 207 W. Southcross, San Antonio, TX 78221.

BEGONIAS (a specialty), plus Gesneriads, Peperomias, Succulents, Perennials and more. Informative Quarterly Newsletter! New plants each issue! \$4 (1 yr.) (Canada \$6, Overseas \$8) to: **UNUSUAL PLANTS**, 10065 River Mist Way, Rancho Cordova, CA 95670.

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. Foreign orders \$5 additional for shipping via Surface Mail.

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

"VICKI'S EXOTIC PLANTS" Beautiful Begonias, Episcias, and Hoyas. Large variety of each. Please send \$1 for list to 522 Vista Park Dr., Eagle Point, OR 97524.

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Clovis, NM 88101 U.S.A.
payable in U.S. funds

MINUTES OF THE BOARD OF DIRECTORS' MEETING

January 28, 1990

The Board of Director's Meeting of the American Begonia Society met January 28, 1990 at Quail Gardens, Encinitas, California. President Jeanette Gilbertson called the meeting to order at 8:00 a.m. John Ingles led the Flag Salute. Robert Foo read the Aims and Purposes of the Society.

Nineteen members were in attendance.

A letter of resignation from Michael Ludwig was read. His resignation was accepted with regret, and President Gilbertson praised Michael's work for the Society.

The Minutes were read and corrected to state Eleanor Calkins WILL send a letter to Frank Green." Minutes approved as corrected.

Treasurer reported \$13,711.45 in checking and \$37,971.26 in savings as of December 31, for a total of \$51,682.71.

Special reports

Publications Committee: Tamsin Boardman reported lower typesetting costs for the **Begonian**. Branches needing extra copies for shows may request them from the editor or from Bob Bailey. Complimentary copies are sent to botanical gardens, and Logee's and North Haven Gardens each give out 25 a month.

Finance Committee: Arlene Davis read a report of the Finance Committee meeting January 27, 1990. Present were Arlene, Jeannette Gilbertson, Eleanor Calkins, Tim O'Reilly, and John Ingles. The ABS is financially sound, there are no plans for raising the dues. John Ingles gave out a three page financial analysis showing where operating funds come from and go to. Ways to earn extra income were also discussed. It was moved and seconded that \$25,000 be transferred from savings to a one year certificate of deposit for a greater yield. Motion carried.

Nominating - President appointed Wanda Macnair, Glennis Crouch, and Houston Knight to the nominating committee.

Awards - Nominations for awards must reach Rudolf Ziesenhenné by March 20, 1990.

Book Store - Bob Bailey reported 15 Green and Lower books were ordered and paid for, 15 Growing Begonias were ordered, and 300 "Culture of Begonias" pamphlets were printed. Queensland placed a large order. Cash on hand \$43.27.

Business Manager - John Ingles reported that the sales tax has been paid. The new edition of the Buxton Checklist can be ordered now; costs will be between \$30 and \$35 including postage.

Membership - John Ingles has sent the zip code

list to branches. He will send an area list free to any member wanting to know if there are other members in his area. As of December 31, 1989, there were 77 Life Members, 133 Institutions, and 1395 dues-paying members.

Seed Fund - Diana Gould sent a report.

Conservation - Martin Johnson and Don Miller received a donation of \$100 from New South Wales.

John Howell completed the fifth draft of the ABS Conservation Statement outlining conservation goals and guidelines for conduct of collectors. Thelma O'Reilly read the statement to the members present.

Historian - Norma Pfrunder brought newsletters from many branches to show what branches are doing.

Judging - There will be a judging school at the San Antonio Convention. Maxine Zinman was appointed as Judging Chairman.

Members at Large - Thelma O'Reilly sent out nine copies of newsletter #15. A donation for the Color Fund was received from Hikoichi Arakawa. Roberto Brin of Panama is well. Thelma will retire after writing one more newsletter. She is looking for a replacement; please contact her if you are interested.

Nomenclature - Carrie Karegeannes received one application for registration of a new begonia cultivar, and one request for a registration form. A plant used for hybridizing was received from Portugal for identification. Jack Golding continues research for the future supplement to Begoniaceae.

Research - Paul Tsamtsis resigned. His resignation was accepted with regret. The Sacramento Branch donated \$51 for the Research Fund.

Research Project - Dr. Richard Macnair spoke about a proposed research project to be done with the Barkley Collection at Northeastern University. Arlene Davis moved and Houston Knight seconded that we earmark \$3,000 from the Research Fund for this project. Motion carried.

Round Robin - Margaret Coats sent a report that 22 Robins went out in October, 1989, including 2 to Australia, 1 to England, and 1 to New Zealand. In November 9 were sent, including 1 to the Netherlands.

Convention 1989 - The proceeds from the San Francisco Convention were \$4,186.18.

Show Entries - Barkley and Sacramento Branches have requested the artwork for entry tags for their shows.

Slide Library - \$30 was received.

Correspondence - Letters from Frank Green, Maxine Zinman, Tim Last, Russ Richardson, Carrie Karegeannes, and Wanda Macnair were

discussed.

Old Business Houston Knight had requested printing guidelines for growing begonias for new members. Tamsin Boardman and John Ingles reported the Publications Committee would look into reproducing the Begonia Handbook put out as a special edition of the **Begonian** in July 1980.

Thelma O'Reilly gave a brief report on Tracy McLellan's trip to Africa, and urged member donations.

Publicity - A letter from K. Mose Fadeem suggested that each branch should sponsor 3 horticulture or botany students from a nearby college, paying their dues for an ABS membership, supplying them with begonia cuttings, etc. This might generate interest and new members.

\$1000 was allocated for advertising in national magazines. Branches may advertise locally with their own funds.

New Business

On February 16-19, 1990 there will be a home and Garden Show in Pomona. Houston Knight asked for copies of "14 Reasons to Belong to ABS" to be given out at the show. 500 will be printed and sent to Houston.

Motion to order new stationery was seconded and passed.

A new branch is forming at Southcoast Botanic Garden, Palos Verdes, California. Meetings will be held the first Monday of each month at 7:30 p.m. President is Brad Thompson.

Arlene Davis and John Ingles have printed the ABS Constitution in booklet form, available to members for \$1 including postage. Copies will be available at the Convention.

Westchester Branch revised their Constitution and By-Laws. The revision was approved by Parliamentarian Margaret Lee, and accepted by the Board.

Arlene Davis moved and Margaret Lee seconded that ABS reimburse Tamsin Boardman her travel expenses to the Board Meeting. Motion carried.

The next Board of Directors' Meeting will be held at the Convention in San Antonio. Meeting adjourned at 2:45 p.m.

Respectfully submitted,
Ingeborg Foo,
Secretary

Note: The Minutes for the January 27 Board Meeting are condensed because of space limitations. Any member may order the complete Minutes from the Secretary.

ABS SERVICES

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

At-Large Members

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

Bookstore

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

Judging Dept.

Mail order course for members who wish to become accredited judges.

Nomenclature Dept.

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

Question Box

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

Round Robins

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

Seed Fund

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

Slide Library

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

Speakers Bureau

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

ELECTED OFFICERS

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410 JoAnn Circle, Vista, CA 92084

Past President Arlene Davis
157 Monument, Rio Dell, CA 95562-1617

Second Vice-President Joan Coulat
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Secretary Ingeborg Foo
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