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American Begonia Society

Founded January 1932 by Herbert P. Dyckman

Aims and Purposes

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

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

To standardize the nomenclature of begonias.

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

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

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

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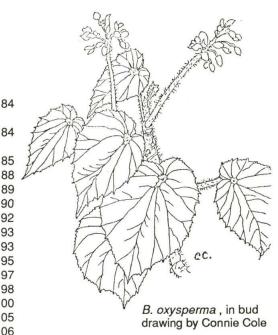
COVER PHOTOS - Growing Begonias Outdoors

Front - A corner of the garden at Barbara Philip's ranch near Santa Barbara, California, is elegant with rex begonias. The photo was taken a few years back by Gene Daniels. **Back** - In Florida's warm climate, begonias even grow as ground covers. In this photo taken at Daisy Plant Farm by Thelma O'Reilly, B. 'Brown Jewel' takes over a wall. The begonia is a Paul Lowe hybrid - see his article on page 89 about growing begonias in the ground in Florida. And watch for an article on Daisy Plant Farm, coming soon.

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Dates to Remember

July 12: deadline for submitting names for ABS' top awards. Send your nominations, with reasons why you think the award is deserved, to Awards Chair Rudolf Ziesenhenne, 1130 N. Milpas St., Santa Barbara, CA 93103. See March-April 1991 **Begonian**, p. 61, for list of qualifications and previous recipients. July 21: deadline for voting for ABS

officers. Your ballots will be mailed in June - please vote! September 12-15: ABS Convention,

Alexandria, Virginia

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Exploring the World of Begonias

The Potomac Branch is busy preparing to be your host for the 1991 National Convention. Carrie Karegeannes is lining up excellent seminars which will focus on the unidentified species. The convention schedule, show schedule, registration, etc., will be sent to every member in April - so watch for this important packet of information!

The site of the convention, the Old Colony Inn, is in Alexandria, Virginia at 625 First Street. The ballroom where the show will be held is located on the ground floor just off the main lobby. A covered dock is just steps from the ballroom and plants can be brought in easily. The plant sales rooms - there will be two rooms - are directly across the hall from the ballroom. Bring plenty of money so you can buy lots of begonias and begoniana. The seminar room is next to the plant sale rooms - again, very convenient. by Barbara Nunes

The Old Colony Inn has been enlarged and renovated recently. Renovated rooms are in the old courtyard with parking in front of the rooms. New rooms are in the main building. There is plenty of parking under the hotel and nearby. We have obtained special rates for the convention, Thursday through Sunday evening.

The hotel offers complimentary limousine service to National Airport and to the subway or metro system. Our metro is relatively new, fast, reliable, clean, and safe; it opened in 1976 and portions are still under construction - the line to Alexandria and the airport are finished, however, and in use, and will take you to the Pentagon area and across the Potomac River to museums and the capital.

Come, explore the world of begonias with us. We look forward to seeing everyone there!

Barbara Nunes and fellow Potomac Branch members are excited about hosting their first National Convention and hope to see you in September! Barbara's address is 6025 Greeley Blvd., Springfield, VA 22152. Watch for your convention packet, coming soon!

Barkley Begonia Collection Homeless

According to Greenhouse Committee members, the Barkley Begonia Collection has never looked better. In January about 100 new species were added from Lynda Goldsmith's collection.

Sadly, though, by the time the **Begonian** reaches members, the begonias may have no home. At press time the Northeastern University greenhouses, home of the collection, are scheduled to be closed down by April 15. Members of Buxton Branch, who have for many years donated

by Wanda Macnair

volunteer hours to help care for the collection, are searching frantically for a temporary home for the collection and for muchneeded funds for rental and maintenance of approximately 1500 sq. ft. of bench space.

Donations to help the Buxton Branch keep the Barkley collection intact may be sent to branch treasurer Phyllis Podren, 40 Dummer St., Brookline MA 02146. Please mark check "for Barkley Collection".





Canes of Englund

Since Don Englund moved to the Monterey Peninsula in 1971 he has developed a fine reputation as a grower of tuberous begonias. Less known, except among ABS branch members, is his creative hand in the cultivation of canes.

text & photographs by K. Mose Fadeem

His work with canes began in earnest about 10 years ago after he built his first greenhouse. Large inflorescence, everblooming qualities, and stately, elegant leaves of the Superba types attracted his attention, and he set about not only

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"He observes with focused attention and curiosity the habits of every one of his plants, and understands the limitations of his facilities..."

Don's greenhouse

growing them but exploring their habits as well. Over the years he has carefully studied the literature, noted the experience of others, and grown a wide variety of canes, from which he eventually selected those with characteristics compatible with the space and conditions he can provide, as well as aesthetic charms.

The central California coastal climate makes it easy for many begonias to thrive - a limited range of temperatures with few if any extremes, somewhat on the cool and humid side. Don's 8' by 18' hand-built redwood and fiberglass greenhouse, largely devoted to cames, ranges from 45-50° to 75-80° F. with a freeze once or twice a year and an occasional brief hot spell when temperatures rise to 90°. The floor is dirt, usually damp from watering, with cement squares forming a path down the center. "A cane that can keep reasonably small, whatever its potential growth," says Don, "might find a home here. It depends how much room is required. It can get tall if it doesn't spread too much." Most of Don's shrubs elbowed their way out of the greenhouse several years ago into the open garden.

Varieties that characteristically bloom when young have a potential shot at the valuable space in the greenhouse..."That way, if they are large-growing, I can keep them smaller and still enjoy the flowers."

Another quality important to Don is good basal branching. He observes that pruning may or may not be necessary to induce basal branching. If a cutting is started properly, with branching nodes buried in the propagating media, basal branching will occur quickly and pinching or pruning is not needed. Some canes do little or no branching until they reach near maximum height.

"When canes start out, the lower nodes are branching nodes. As they grow taller, the nodes tend to alternate in patterns of flowering and branching. At a certain height, according to variety, the nodes tend to flower exclusively. Cuttings at that point are of little value, as they will root but never produce basal growth of new canes."

When Don does major pruning in early spring he cuts back each of the canes at least to their highest branching node. For aesthetic purpose he may cut back further, or remove a cane altogether. Other than that, he does little pruning unless it's to help shape a plant or keep an errant cane from interfering with others.

Don comments that he has seen more examples of poorly cultivated canes than of any other type of begonia. Perhaps poor canes are more noticeable because a "badly cultivated cane is quite unsightly." This translates into a lot of stem with few leaves and flowers. "After flowering or branching at a node, the leaf will fall naturally; but inappropriate watering, lack of nitrogen, or dramatic changes in temperature can also cause leaf drop."

During winter months a few of Don's canes find their way into the house, where they do well in south windows. "Moving canes to a different environment (as from greenhouse to house) often results in dropping of flowers after 24 hours. Longer periods may cause leaves to drop as a plant adjusts to changes in temperature, humidity, and light."

It is my observation that Don Englund's extraordinary success with canes and other begonias is due primarily to his persistent and meticulous study of individual plants well beyond the fundamental dictates of horticulture. He observes with focused attention and curiosity the habits of every one of his plants, and understands the limitations of his facilities. The results mirror this energy, not in a particularly showy way, but in the health and vigor of his plants. His plants are a good example of the adage that you get out what you put in.

Begonian Technical Editor K. Mose Fadeem lives at 319 1/2 English Avenue, Monterey, CA 93940.



begonias around the country

A Haven in Summer

by Lana J. Seely



These pictures of my summer lath house were taken in the summer of 1987, which seemed to go on forever. It was so hot, and I had to mist my plants several times a day. The lath house measures about 10' x 10', which seemed quite adequate when it was first built. Now it is too small.

In one of the pictures is our Sheepdog, who had just waded through the pond to cool off. He spends his most of his time right in front of the lath house as long as I'm in there taking care of my plants - which is most of the day! I fixed it up so that I have all the amenities: a chair, coffee pot, portable TV. I love it all so much. My husband is building me a greenhouse this year, and I can hardly wait for it to be finished. As it is, I have so many plants indoors we can hardly turn around. I grow quite a few under lights, and have recently included Rex begonias. I am also trying my hand at growing begonias from seed, and have joined the Round Robins.

Lana J. Seely joined ABS in January, 1990, but has been growing begonias for much longer (as the tuberous beauties in her photos attest). Her address is 21600 N. W. Gilkison Rd., Scappoose, OR 97056.

Growing Rhizomatous Begonias in the Ground in Southern Florida

by Paul Lowe

Southern Florida has a climate unlike that of most of the country. Here Semperflorens are grown mostly as annuals during the cool season, reaching their peak in February. Tuberous begonias will not survive our summer heat. Among the distinctive big and colorful-leaved types for the beginning hobbyist, rhizomatous begonias are best suited as low growing landscape plants. Some will do quite well when grown under favorable shade conditions in properly prepared beds.

Select Suitable Varieties

Some of the rhizomatous begonias that can be found locally and that do well here are:

B. 'Erythrophylla', known as "Beefsteak", which has large rounded leaves with a bronzy top surface and reddish color underneath.

B. 'Ricinifolia', which has very large leaves resembling those of the castor bean plant. Its stem is reddish colored and delicate pink flowers emerge on an extended stem. *B. nelumbifolia*, which has large, rounded leaves that look like those of a water lily and produces large white flowers.

Other interesting rhizomatous begonias suitable for outdoor growing can be seen at the Mounts Botanical Garden, 351 N. Military Trail in West Palm Beach in beds planted by the West Palm Beaches Branch of ABS.

Prepare the Beds

While some begonias do well in halfday, morning sun, it's a good idea to select a bed location that is shady.

If nematodes are a problem in your area, treat in advance. Three weeks before planting till the area well (about the depth of a garden spade or shovel head). Rake level and treat with a nemacide; the soil should be moist before application. Mix the material exactly as directed on the con-

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tainer. Drench the soil well. After application lay plastic sheeting, available at garden shops and hardware stores, over the treated area and cover edges with soil to make it air tight and wind resistant. Remove the cover after 48 hours. Do not plant for at least 3 weeks, which allows time for the gaseous material to evaporate from the soil.

The bed should be raised about 6" above soil level. Use treated timbers or concrete blocks. Fill to the top with cypress mulch (preferred for its acid properties) to provide the good drainage important for growing all begonias.

Planting

Carefully remove the plant from the container, avoiding damage to the roots. Set it in a nest in the mulch, filling in around the plant with a good potting mix. Pile mulch back around the plant to cover the root area.

Watering and Feeding

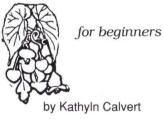
The bed should be kept damp, especially in summer, but never sloppy wet. Plants should be fertilized monthly using any good quality soluble or liquid fertilizer at half strength. This allows a constant level of nutrition.

The Occasional Freeze

Florida offers warm weather most of the time, but we do get an occasional freeze. Suggestions for dealing with the shock of low temperatures were given by H. Alton Lee in the November-December 1990 **Begonian**.

ABS members in southern Florida call Paul Lowe "Mr. Begonia". He is the father of numerous hybrids, including B. 'Brown Jewel', shown on our back cover. His address is 5741 Dewberry Way, West Palm Beach, FL 33415.

My Friend the Begonia



I have many friends in the plant world, and among them the begonia is special. There are the Cane-like begonias (sometimes referred to as "Angel Wings"), the Shrub-like, the Thick-stemmed, the Rhizomatous (one of which is the plant commonly referred to as the "Beef Steak" begonia) and the very special and beautiful Rexes. Also, there are the Semperflorens (wax-leaf) and the Trailing-Scandent (hanging basket types).

There are those who think begonias other than the Semps are just too hard to keep alive; they say they can't grow them. If you will allow me, I would like to help you learn the joy of growing beautiful begonias.

One of the first steps is proper soil. Begonias need a light soil that drains well. For the beginner I recommend purchasing a good potting mix.

Most begonias will come to you in 2" or 4" pots. Do not transplant them until the roots have reached the edge of the pot; then use a pot 2" larger. I use as shallow a pot as I can find for a small plant that is growing.

As the plants grow, repot, increasing the size of the pot by 2" only. I do not allow my plants to become rootbound. When the plants are growing I repot as soon as the roots reach the edge of the pot. I also use Superthrive (a hormone and vitamin preparation) when taking cuttings or repotting: 10 drops per gallon of water. This mixture cuts down on shock and gives the roots the stimulus they need to produce a strong, healthy plant.

An east or south window is excellent for growing the Cane-like, Shrub-like, or

Rhizomatous. Use a saucer or bowl, place some gravel or stones in the bottom. Add water (but not to the top of the stones). Set your plant on top of the stones. This will create humidity, and begonias love humidity.

If you are growing a Rex use the same method, but place your plant in a north window.

As your plants grow they should be fertilized regularly with any good fertilizer, following the instructions on the fertilizer box. I like to use Peters 20-20-20, 1/4 teaspoon per gallon of water. I am always very careful to measure the fertilizer, and also sprays, accurately.

One of the most important things to remember about growing begonias is "DO NOT OVERWATER." Let the top of the soil become dry, but not to the extent of letting the plant wilt. I'll repeat: do not overwater.

If you have a basement, and you would like to grow more begonias, buy some fluorescent work lights and hang them over the plants. The lights should be about 6" to 8" above the plants.

After all danger of frost has passed, you may want to take your plants outside. Be sure they are in filtered light, either under a tree, on the north side of the house, or on a covered patio. However, Rex begonias do not tolerate the extreme heat we have in Oklahoma and must stay indoors in the air-conditioning.

You should bring your plants inside the last of September or the first of October.* Remove all bad leaves, and wash the plant with Ivory soap (the liquid used for dishes) and water (proportioned 1/4 teaspoon per gallon of water). After you have cleaned your plants, spray with Safer's Soap (a non-toxic insecticide), fertilize, and replace in the winter home. Do not fertilize again until the first of January. This allows them a resting period.

The most common problem with begonias is mildew, which is caused by fluctuations in temperature at night below 65 degrees. There are many good fungicides on the market; one very good one is Funginex.

We grow in a greenhouse with a thermostat set at 70°, which drops to 60° at night. We are able to maintain 60% humidity. A furnace provides heat in the winter, and we have a large evaporative cooler to provide cooling and humidity during the summer. Our Rexes are grown beneath the benches, the Canes on the shelves above the benches, and the Rhizomatous and the more delicate Shrubs on the bench surfaces.

I am very particular about not crowding the plants, and try to space them so the leaves do not touch. After the show in the spring most of them are severely pruned.

I do hope you have as much pleasure with your begonias as I have had with mine.

*dates are for Oklahoma City; adjust for your area

Kathyln Calvert, justly famed for her incredibly lush and beautiful begonias, has won a houseful of blue ribbons and trophies. Her article was written as a handout for the Barkley Branch show & sale in May, 1990. Kathyln's address is 11201 Draper, Choctaw, OK 73020.

COMING EVENTS

May 3-5: Southwest Region Get-Together, "Begonias, Oklahoma Style." Holiday Inn NW 39th, Oklahoma City. Packets were mailed in February. For more information contact Chairs Linda & Mike Clemons, 3512 N.W. 65th Terrace, Oklahoma City, OK 73116.

May 5-8: Symposium, "Biology and Conservaton of Epiphytes". Contact Elizabeth Strange, Marie Selby Botanical Gardens, 811 South Palm Ave., Sarasota FL 34236; or call (813) 366-5731.

July 20-21: Westchester Branch Show and Sale, Fox Hills Mall, Westchester, CA.

July 27-28: San Francisco Branch Show & Sale at Tanforan Shopping Center, San Bruno, CA.

August 23-25: San Francisco Branch participates in San Francisco County Fair.

September 12-15: American Begonia Society National Convention, Old Colony Inn, Alexandria, Virginia. Theme is the "U" numbers. Convention Chair is Barbara Nunes, 6025 Greeley Blvd., Springfield, VA 22152.

Deadline for next issue is May15

C

Last Minute Notice

New president of Jacksonville Branch is Ed Harrell, 1628 Broward Rd., Jacksonville, FL 32218. The Jacksonville Branch will hold a show and sale May 24-25, 10 a.m. - 8 p.m. at Roosevelt Mall, Roosevelt Blvd. at San Juan Ave. "Begonia Mania" will be the theme.

program review by Melissa Jones

De-mystifying pH

Does the symbol pH confuse you when you read a garden article that states the soil should have a specific pH, such as 6.5-7.0? What is the author really talking about?

A simple explanation of the symbol pH is that it is a scale that measures whether the soil is acid or alkaline. If the pH is lower than 7, the soil is acid (sour) and above 7, it is alkaline (sweet). The smaller the number, the more acid the soil; the higher the number, the more alkaline the soil.

To understand why we are concerned about the acidity or alkalinity of soil, we need to know what nutrients plants require. There are five major nutrients: nitrogen, phosphorus, potassium, calcium, and magnesium. There are a number of minor nutrients; the most important are iron, copper, zinc, cobalt and manganese. All nutrients are taken up though the roots of the plant; but in order to be absorbed by the roots, the nutrients must be dissolved in water.

The various nutrients are combined with other elements in the soil; and, depending on the pH of the soil, nutrients may or may not be in a chemical combination that will dissolve in water. Generally, the major nutrients are combined with other elements that will not dissolve in water when the soil is highly acidic (low pH). Most of the minor elements are in combinations that will not dissolve in water if the soil is alkaline (high pH).

The ideal soil pH for most plants is between 6.0 and 7.0 (slightly acid). At this pH range the major nutrients are in compounds which dissolve well in water and are therefore available to the plant. The minor nutrients will be available to a lesser degree. Any deficiency of the minor elements can be supplied by fertilizers which contain trace elements. The fertilizer package will list the minor or trace elements as either sulfated (such as copper sulfates) or as chelated compounds (such as chelated copper). Chelated elements are preferred, because they dissolve in water more easily than the sulfate forms.

Most soiless mixes, such as Pro Mix, are acidic. To decrease acidity, mix dolomite lime* with the soil. This will raise the pH (decrease acidity), providing two major nutrients: calcium and magnesium. The lime should be mixed thoroughly with the soil, as it dissolves slowly. If the soil is alkaline, it can be neutralized with sulfur. Alkaline soil in a pot can be corrected by watering with a solution of 1 oz. iron sulfate to 2 gallons water.

Measurements of pH can be made by the use of several types of pH papers. These are available at garden supply stores. These papers will give relative pH readings. If more exact readings are required, County Agriculture Agents will make the measurement on a precision instrument (this service may or may not be free, depending on where you live). There are a number of pH meters advertised in garden catalogs, which sell for about \$20. While these claim to give a precise number the author questions their accuracy.

A number of garden books were surveyed to determine the ideal pH for begonias. Surprisingly, a wide range of suggestions were found. However, the consensus was a range of 6.2 to 6.9 (Research Director Houston Knight recommends a pH range of 5.2-5.7 for begonias).

*Use only dolomite lime, which is really a calcium—magnesium mix, not builder's lime.

Melissa Jones wrote the report above, based on a program given for the Edna Stewart Pittsburgh Branch by Pete Hale, for the branch newsletter <u>The Potting Shed</u>.

VIDEO REVIEW: Russ Richardson reviews

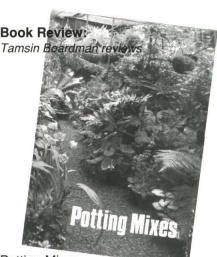
Begonias - The Easy Way produced by G. LeRoy Kensrud Garvid Productions P.O. Bx 66038 Portland, OR 97266 \$13.95, plus \$2 shipping in U.S. available fron the producer

If you're looking for material for your Branch program, consider a new video by Garvid Productions, featuring Ms. Spike Klobas. At a recent Atlanta Branch meeting it received high praise.

Although there are a few things that are said with which some of us would not agree, in general Ms. Klobas does a good job of discussing her plants. She certainly raises some fine begonias, which show well in the video.

I had been hoping for videos about begonias - this one is a start. Mr. Kensrud regrets that he didn't know about ABS when he produced the video, but promises he'll do a "voice over" naming ABS and giving the address for more information on future editions, when the present stock is sold.





Potting Mixes Kevin Handreck et al Soft cover, 6 1/2" x 9 1/4" 48 pages, color cover Black & white photographs a CSIRO publication, Australia. 1985 Available from the ABS Bookstore, \$8 (postage included)

The ambitious goals of this booklet are to help the reader choose the best potting mix, learn to modify the mix for special needs, and make his own mix; learn to feed and water plants for successful growth; prevent root disease; and find and treat the cause of plant problems quickly. Just that short list gives an idea of the scope of the book, which obviously goes far beyond discussing the ingredients in potting mixes.

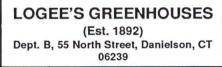
Kevin Handreck is a researcher in plant nutrition for the Commonwealth Scientific and Industrial Research Organization of the Australian government, chairman of a committee setting standards for potting mixes sold throughout Australia, and senior author of <u>Growing Media for Ornamental</u> <u>Plants and Turf</u>, a horticultural textbook. An ABS member, he has written for the **Begonian** and delivered a seminar at the 1989 Convention in San Francisco. Of special note is the fact that he is an avid grower of begonias, and, judging from the slides shown in San Francisco, a very successful one. The author's scientific background guarantees accurate, timely information about the interaction between the physical and chemical properties of potting media and water, nutrients, pots, temperatures, air circulation, pH ratios, mineral supplements, re-potting, and salinity and toxins; his own experiences with growing plants means that the information will be relevant to the hobbyist.

What is remarkable is that even the most complicated topics are covered in concise, readable terms that are easily understood. Line drawings by Pam Brinsley and many black and white photographs accompany the "how-to" descriptions. This does not mean that the booklet is aimed only at the beginner; the seasoned grower will find much that is useful, and there are formulas and tables that will appeal to the more scientifically inclined.

Products mentioned and photographed in the book are, of course, Australian ones. While knowing Australian potting soils is not useful in this country, the discussion of the ingredients in the products and of their properties can be helpful in evaluating similar products here.

Planned to help in growing ornamentals in containers, <u>Potting Mixes</u> is not aimed specifically at growing begonias. But ABS members can find a wealth of useful information packed compactly in this easy to use booklet which covers its ambitious goals admirably. Try a careful initial reading or two, and apply the suggestions that are new to you; then use the booklet for reference as problems appear. Your begonias may rise up and say thanks!

BEGONIAS, GERANIUMS, EXOTICS FERNS, OXALIS, CACTI, HERBS new Full Color Catalog...\$3.00



IN MEMORY

Long-time members of Sacramento Branch will remember **Ada Jursch**, a past president, who died in 1990.

Della Wehren, who retained her San Francisco Branch membership even after moving to Durango, Colorado, passed away last year.

In the News...

The February issue of <u>Horticulture</u> carried a delightful article by **Tovah Martin**, "Heavenly Begonias". Color illustrations by Bobbi Angell of the heavenly "angel wings" accompanied the article.



The Begonian

A Little Salvage Operation

Report on the Species List Project Seminar by Kit Jeans Mounger

Wellsir, you all want the good news - or the bad news?

The good news is that the Fort Worth Botanic Garden has volunteered their facility to become a species bank for the *Begoniaceae*. As far as I know, this is the first official offer of assistance ABS has ever gotten. Hopefully this will spark more interest in the culture and preservation of begonias among the Garden's young interns, botanists, volunteers, and visitors.

We need all the help we can get, for now comes the bad news. In our initial survey of the source lists which a few of you have sent me, the lists I've pried out of Selby Gardens, Atlanta, Chicago, Fort Worth, San Antonio, and Wanda Macnair's perseverance with the Barkley Collection at Northeastern, we find a total of 188 species being grown in this country - out of a possible total (compiled by Jack Golding and Carrie Karegeannes) of 1541! That's an underwhelming 12%. If you crank in the species currently being offered by the Seed Fund. the total soars to 15%. I have received 20 lists in all, and that's about 12%, too. However, from scanning these lists myself, I can see some alarming trends. For instance: nobody is growing B. bowerae. Or confessing to. And this is one of our old standbys.

Most of this information comes to you courtesy of Kingsley Langenberg of Waukegan, Illinois. King has volunteered to take all the lists I have gotten and crank them into a computer program for ABS. But I get ahead of my story.

I'll give you a little background. The Hunt for Species is a project that just sort of evolved, like teenaged mutant turtles. It started with an article I wrote for the Southwest Region Leaflet in August, 1988, called "Where Have All the Flowers Gone?" At the time, I had just re-started my collection and hybridizing, and it didn't take me long to realize that in the years I had been concentrating on other things, the species I coveted for themselves and the ones I wanted for prospective parents were no longer out there. This motivated me to start searching for the reasons - and the species. There is no one reason that I can discern. I think growers and hobbyists simply held onto what they could and assumed that others, the more rare and difficult ones, were out there somewhere. Nobody knew for sure, because that sort of information has not ever been compiled. And it's not been easy to come by the scant information I've gleaned so far.

I started with old copies of the Begonian. They weren't much help. The contributors to the Seed Fund were rarely listed; Dr. Doorenbos has retired, others have just sort of faded away. People I queried were mostly busy with their own projects - and I quickly found that EV-ERYBODY hates to make lists! Soon I was also enmeshed in frustration. In the old Begonians I could rarely get past the Seed Fund listings. They fairly made my mouth water. I wanted to sit down quickly and order all of them before they were gone. It didn't do a thing for my morale to realize they were ALREADY gone. I wanted those golden oldies for my salvage operation. When's the last time you saw B. xanthina, griffithii (now annulata), picta, socotrana, or even staudtii or quadrialata? All these species have been listed in the Seed Fund in the past (I want to add a footnote here, giving credit where credit is due: Bob Hamm is the only commercial grower I know who starts rare and odd begonia species and makes a concentrated effort, on a regular basis, to distribute them as widely as possible).

But I've again wandered from my tale. I became concerned - as many of you have - with planetary habitat destruction in general and begonia habitat destruction in particular. And it became increasingly difficult for me to keep burying my head in the sand. However, when I wrote the article, I'd just gotten married. I was working hard to build my glass studio, and was restarting my collection on the fringes of all this "necessary" activity. I knew what we needed to do, but like most agitators of this stripe, I had no intention of doing the job myself. I was just too busy. Frank Green, of the Buxton Branch, however, quickly volunteered to be the gatherer of the source lists as I'd suggested in the article. Ah. success! Then, when my guard was down, he very cunningly asked if I would crank all this material he gathered into my computer, as he was computerless ... Thus I was led down the garden path. Soon I was spending a lot of time at my little Apple, which I confessed in The Rambler (newsletter of the Eastern Region) was too primitive and just not up to cranking out the sort of information I needed from the lists that had started to come in. (Actually, it wasn't the computer itself, if you must know. In reality, the Apple's operator is about as computer-literate as a box of bricks.)

Enter King Langenberg, who IS computer-literate. He offered to take over the task of devising a computer program which would store the lists in alphabetical order, tell who was growing what species and where - and draw conclusions from this information which might enable us to get back some of what we had lost - or at least see what we need to do to salvage the rest.

For instance, from this small initial sampling King was able to tell me "Of the species on the list you sent, 79 are listed once, 58 twice, 39 three times - and *B. listada* is the only one listed more: 5 times." If this

doesn't alarm you, it should. (We do not yet have lists from some of our best growers, so things might not be quite as bleak as they appear at this point in time).

I realize that most begonia addicts prefer to grow the hybrids. We are a twolegged species of pack rat. We love to collect things. We like to add new and different things to our collections...we've always room for one more begonia..right? Well, I'm sure you are all aware that without the species - and an influx of newer species to cultivation - there won't be any new and different cultivars. The species are our base. And the greater the gene pool, the better chances of survival. So while we might be relieved to learn that Rudy Ziesenhenne has caraquatatubensis. the fact of the matter is, we need to have that species in wider distribution to ensure its survival. But you knew that.

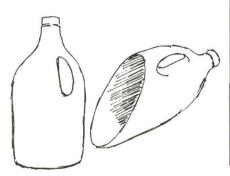
Harry Luther, my boss at Marie Selby Botanic Gardens, is a walking encyclopedia of botanical information. I asked him a question which had been nagging at me for some time. Why, I asked, is it that begonias grow at high altitudes, in swamps, on many continents, and have evolved to fill all kinds of different niches - but Europe and America north of Mexico have none of them at all? Harry answered my question in one word. "Glaciation," he said. The last Ice Age wiped out all our begonias. It seems we had them; the whole world was a warmer place then. But the glaciers and the severe cold pushed our evolving species into extinction.

Natural extinction, of course, we can do nothing about. That's kind of like death and taxes. But manmade extinction is another matter, and will not go away if we ignore it. The federal government has no Bureau of Begonias. There's no seed bank, no research centers, no grants for preservation, no endangered lists...Nosir, the government is NOT concerned about begonias. And this means, if we're to save as many species as possible, we're going to have to do it ourselves - a situation not unlike the one remarked on by that eminent philosopher Pogo the Possum, who said, "We have met the enemy, and he is us."

I think my next step will be to publish in the **Begonian** a list of the species which have been lost to cultivation. If I do, sure as God made little green *polygonoides*, someone is going to write and say "Hah! Kit, you goofed. *B. bracteosa* is still being grown. I know because I have it in my collection..." At that point, I'm going to smile slyly to myself and scribble down another addition to my source lists. There's more'n one way to kill a cat than chokin' it on butter. If I can't get people's lists one way, I'll get 'em another...That's why all the doors to this room are locked and guarded and nobody can leave until...

As a result of this seminar, B. bowerae has been located; the species list project has been endorsed by the National Board and placed under the Conservation Committee; and several more lists have come in. Is yours among them? Kit is offering a bribe: in exchange for your species list, she will send 4 postcards with begonia drawings (2 species, 2 hybrids). Send your list to Kit at Rt. 1, Box 319, New Johnsonville, TN37134, or to Kingsley Langenberg, 2141 N. Bonnie Brook Lane, Waukegan, IL 60087.

Recycle!



a bleach bottle makes a scoop

Species List Update

February, 1991

Number of known begonia species: 1550.

Added are *B. soli-mutata* (Brazil; described by Dieter Wasshausen, **Begonian**, Nov.-Dec. 1990) *Begonias malachosticta, imbricata, cauliflora, kinabaluensis, amphioxus, erythrogyna* (Sabah, Malaysia; described by Martin Sands in the Kew Magazine, May 1990), and *B. ravenii* (Taiwan; discovered by Dr. Ching-I Peng, mentioned in the Missouri Botanical Garden Bulletin).

Number of begonias ABS members are growing and have reported to the Conservation Committee: 188

Number of begonia species for which seed is available from Seed Fund: 325

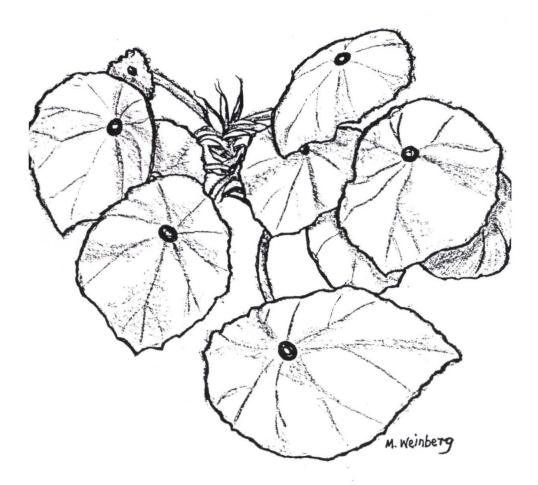
Number of species in the begonia species bank at the Fort Worth Botanic Gardens: 357.

Input from each and every member is needed to make this project a success. Help! Send the list of species you are growing to: Kit Mounger, Rt. 1, Box 319, New Johnsonville, TN 37134, or to Kingsley Langenberg, 2141 N. Bonnie Brook Lane, Waukegan, IL 60087.

Have you added species to your list? Lost a few? Do you have interesting notes on growing any of the species? Please update your list this year, and send it to King; let's keep our information current.

SPOTLIGHT ON:

Begonia conchifolia var. rubrimacula



by Mary Weinberg

B. conchifoliavar. rubrimacula Golding, formerly known as B. 'Zip', was originally acquired from Longwood Gardens by Sylvia Leatherman. It was thought to be a native of Brazil.

In 1973 Jack Golding found that B. 'Zip' had been found growing next to *B. conchifolia* in Costa Rica, not Brazil, and came to the conclusion that B. 'Zip' is a variety of *B. conchifolia*. He named it *B. conchifolia* var. *rubrimacula* (see **Begonian**, August 1973, pp. 173-179, 188-190). The most obvious difference between *B. conchifolia* and *B. conchifolia* var. *rubrimacula* is the characteristic red spot where the leaf joins the stem. It should be pointed out, though, that Rudolf

Ziesenhenne still considers it to be a specific cultivar hybrid and refers to it as *B. conchifolia* 'Zip'. It is found labeled simply 'Zip' also.

An interesting sidelight is that some years back while purchasing seeds for my vegetable garden I noticed a B. 'Emerald Isle' among the houseplant offerings. The description sounded interesting, so I purchased seed. The packet that arrived contained 10 coated seeds. I planted them in May, putting the container under lights. Two weeks later 6 seedlings were up. They developed rather quickly, and next February two plants had tiny pink flowers. The leaves of B. 'Emerald Isle' are very close in appearance to those of *B. conchifolia* but lack the red spot; I believe B. 'Emerald Isle' to be *B. conchifolia*.

B. conchifolia var. *rubrimacula* is rhizomatous, with a medium sized, leathery, shiny, entire/subentire, bright green peltate leaf. It has a red spot where the stem joins the leaf (which is what distinguishes it from *B. conchifolia*) and sparse brown downy hairs on the underside of the leaf and on the stem. Flowers are pink and appear in winter or very early spring. From the very first this plant was recognized by hybridizers as having great potential. There are 46 crosses listed in the Thompsons' <u>Begonias</u>: <u>The Complete</u> <u>Reference Guide</u> (published in 1980).

CULTURE

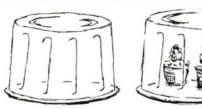
B. conchifoliavar. rubrimacula is a very easy plant to grow. It does not require the high humidity of a terrarium, nor any special potting medium - it will do quite well in whatever you are using for most of your begonias.

Water: watering should be done carefully, as overwatering will cause loss of leaves.

Light: This plant does beautifully in the light garden. Leaves are a nice bright green and the red spot seems to be much brighter and larger. If the plant is kept in natural light, I would suggest not putting it in direct sunlight as this will cause the leaves to fade to a pale green.

Artist/writer/begonia grower Mary Weinberg lives at 1527 W. Highland Ave., Chicago, IL60660. Her article first appeared in the <u>Chicago Begonian.</u>

Recycle!



a cake container makes a hothouse



more "odd things begonias do"



B. 'Essie Hunt'

left: full plant in flower

right: a leaf in flower

below: the shortest of the three flower stalks



Flowering Leaves

In January, 1991, a specimen of B. 'Essie Hunt' at the Fort Worth Botanic Gardens entered the world of abnormal leaf behavior - in triplicate. While producing plenty of bloom on nice, long (16"-18"), normal stems arising from the rhizome, Essie also put forth three flower stems which arose from leaves. Two of the stems were 4" long, and the third 1 1/2" in length.

All three of the flowering leaves appeared on the same rhizome; normal leaves and bloom stalks were growing between the odd ones. There did not seem to be any appreciable difference between the leaves which produced flowers and those which by Tamsin Boardman

did not - sizes, colors, shapes were similar, and the red "star" outline characteristic of this hybrid appeared on both normal and unusual leaves. It might be important to note, however, that B. 'Essie Hunt' usually has crested, swirled leaves; this plant was a bit less "fancy" than the norm.

K. Mose Fadeem has written about the appearance of miniature plants perched precariously atop bloom stalks of rhizomatous begonias ("The Little Martian', **Begonian**, Nov.-Dec. 1989; "The Little Martian Chronicles", Nov.-Dec. 90), and Merry Bruns' article in the March-April issue told of a similar occurrence. There have also been descriptions of leaves and even entire plants arising from the leaves of rex begonias (see Dr. Bryan B. Bowes' article "Epiphyllous Buds on Intact plants of Begonia rex 'President', **Begonian** Sept.-Oct 1990, and "Notes on Epiphyllous Growths", Nov.-Dec. 1990).

The Essie case differs from all of these in that there are flowers but no leaves and no plantlets. So despite her unusual flowering, Essie cannot be accused of phyllomania, the crazy production of leaves. Is this phenomenon then related to the others? Circumstances and genetics suggest it is.

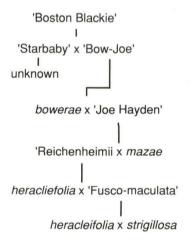
Mr. Fadeem's research turned up some factors that may be involved in unusual plant growths: ethylene gas, and hormones involved with flowering. The greenhouse where Essie resides is heated by gas, including some unvented open gas heaters used during times of extreme cold (the temperature in the month preceding had been as low as 15°); and the appearance of the unusual growths came at the time of flowering.

Another clue to the question of why plants produce abnormal growth is supplied by Thelma O'Reilly in "Report on Phyllomania-Adventitious Growths" (**Begonian**, July 1972), which stated that *Begonias manicata*, in *carnata*, and *heracleifolia* are foremost among species that parent hybrids producing anomalies. Sure enough, B. 'Essie Hunt' is a result of a crossing of *B. conchifolia* var. *rubrimacula* x *B. manicata aureo-maculata* 'Crispa' (Mae Blanton, 1974).

This is not, incidentally, the first time B. 'Essie Hunt' has showed variability. It was also at the Fort Worth Botanic Garden, a few years back, that 'Essie Hunt' mutated into a variegated form that has been registered as B. 'Glennis Crouch'.

Only a week after Essie put forth her flowering leaves a second plant, B. 'Silver Surf', produced a leaf with a flower stalk. In this case, a tiny (1/3" long) stem rose from the leaf, topped by two minuscule, so far unopened male flowers. Other flower stalks on the plant ranged in length from 1" to 11". The flowering leaf arose from the point where a normal flower stalk joined the rhizome, and there is only one flowering leaf, not three. Otherwise, the two occurrences are quite similar. The plants involved were on the same bench in the greenhouse. but not in close proximity. No other plant on the bench has shown any disposition to flower from its leaf

A quick look at the genetic heritage of B. 'Silver Surf' shows that it is a cross of B. 'Mini-Silver' x B. 'Boston Blackie' x B. 'Hiro' (Patrick Worley, 1983). Parentage of B. 'Mini-Silver' is unknown. But the background of the other two parents is interesting:



B. 'Hiro' is a cross of *B. manicata* var. *aureo-maculata* 'Crispa' x *B. ludicra..*

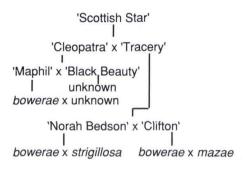
Thus it appears that B. 'Silver Surf' is, as it were, a cousin of B. 'Essie Hunt', both offspring of *B. manicata aureo-maculata* 'Crispa'. 'Silver Surf' has, moreover, *B. heracleifolia*, also implicated in unusual growths, in its background - not once, but twice.

An interesting discovery is that the parentage of these two begonias involves species which originated in Mexico. (The exception is B. conchifolia, from Costa Rica - not so very far away; more on this species p. 98.) B. phyllomaniaca, named for its crazy leaf producing habits, is also from Mexico. Might there be, somewhere back in the mists of time, a genetic connection between these Mexican species? Might the possible sharing of genetic material among these Mexican species have a centuries-later Romanov effect on inbred offspring? Certainly the species involved are changeable in nature, as evidenced by the number of variations found (for example, B. manicata var. manicata. B. manicata var. aureo-maculata. B. manicata var. manicativiridi. B manicata var. ocozocoautlaensis, B. manicata var. peltata; the 'Crispa' variety, I think, appeared in cultivation).

Speculating along these lines led to more questions: is Mr. Fadeem's B. 'Red Planet' related in any way to 'Essie Hunt' and 'Silver Surf'? Is there a genetic connection between his high-life plantlets and the flowering leaves in Fort Worth?

The answer is affirmative. 'Red Planet' was a 1969 cross by MacIntyre of B. 'Scottish Star' x 'Zip'. 'Zip' has since been determined to be none other than the Costa Rica species, *B. conchifolia* var. *rubrimacula*, seed parent to 'Essie Hunt'.

Reaching further back reveals that 'Red Planet' has *Begonias bowerae* (three times), *mazae*, and *strigillosa* in its parentage (see diagram, next column). If those names sound familiar, it is because all are Mexican species and all are found in the background of B. 'Silver Surf'. However, none has been singled out as suspect in abnormal growths among offspring. There are no other species found in the 'Red Planet' family history, although the word "unknown" appears twice so we can't be sure that all its seed parent ancestors are from Mexico.



Curioser and curioser. What about the background of other plants mentioned in "The Little Martian Chronicles" as producing unusual growths? Francis Michelson and Leslie Hatfield thought the labels on their plants were in error, and Joan Campbell knew her plant only as an "unidentifed begonia with indications of *manicata* parentage"; in these cases genetic research is stymied. But June Davis' B. 'Surfing' has as its seed parent the nowfamiliar name of *B. manicata* var. *aureomaculata* 'Crispa', and here's the background of its pollen parent, B. 'Bokit':

> 'Bokit' I 'Bowtique' x 'Tiger Kitten' I unknown

kenworthyae x bowerae

Note that the other known species ancestors are also begonias from Mexico.

Let's add one more odd begonia to our list, and assume that Merry Bruns is correct in deciding that her New York cousin to the Little Martian (see **Begonian**, March-April 1991) is in fact B. 'Geometry'. Take a look at the genetic background of this 1972 cross by Shigemi:

"Geometry' | heracleifolia var. nigricans x 'Chumash' ________ bowerae var. nigramarga x unknown

The Begonian

If Ms. Bruns is correct in her iidentification and the theory outlined here is valid, then it is no wonder that her begonia is producing odd growths.

Coincidences may be simply coincidences. It is not unusual, for example, to find *B. bowerae* in the background of any rhizomatous begonia. Tremendously popular since its discovery in 1950, *bowerae* has been used in literally hundreds of cultivars (see Rudolf Ziesenhenne's article in the **Begonian** of Dec. 1981, listing 583 of its offspring - and that was nearly ten years ago). *B. manicata* and its varieties are almost as popular.

Nonetheless, offspring of the begonias mentioned may bear watching - especially in gas-heated greenhouses, especially in the early spring.

Tamsin Boardman is a greenhouse volunteer at the Fort Worth Botanic Gardens. Her address is Box 249, Roanoke, TX 76262.

Just a few years back, finding ancestors for begonia cultivars or the home countries of species would have involved months or years of letters, copies of documents from abroad. possibly translations from Latin. Today anyone with Begonias: the Complete Reference Guide: the Smithsonian Institution's Begoniaceae; and the Revised Edition of the Buxton Checklist can whiz through begonia backgrounds with ease. Thank you to authors Millie & Ed Thompson; Dr. Lyman Smith, Dr. Wasshausen, Dieter Carrie Karegeannes, Jack Golding; and John Ingles, Jr. for all your research and hard work, which makes researching backgrounds easy.

Recycle!



margarine tubs make nice shallow pots



"Explore the World of Begonias"

1991 American Begonia Society Convention

September 12-15, 1991

Old Colony Inn Alexandria, Virginia

BULLETIN BOARD

Election Schedule

Nominating Committee members Arlene Davis Ingles, John Howell, and Charles Jaros will present a slate of officer candidates to the President by **April 3**.

Additional nominations may be put on the ballot by petition, signed by at least 15 members of ABS and received by the secretary by **May 3**.

Ballots will be mailed out **June 17**, and must be returned by **July 21**. The Ballot Committee will count ballots on **July 22**.

New officers will be installed at the National Convention in September.

Quick! Check your mailing label: if it says 5/91 or 6/91 your membership is about to expire. Please renew! We don't want to lose you!

Speakers Bureau

The ABS Speakers Bureau maintains a list of members willing to speak at branch meetings, garden clubs, or other meetings across the country. Chairman Muriel Perz would like to update the list.

If you would be willing to present programs on begonias, please send your name, address, and <u>phone number</u> to Chairman Muriel Perz, 2943 N. "H" St., San Bernardino CA 92405.

MEMBERS AT LARGE: Newsletter #19 Ready

To receive the Members at Large newsletter, send a stamped, self-addressed leagl-size envelope to Kit Mounger, Rt. 1, Box 319, New Johnsonville TN 37134.

DIRECTORY UPDATE

New President of **Monterey Area Branch** is **William Shramm**, 17 Calera Canyon, Salinas, CA 93908. Branch meeting time has changed to 7:30 p.m., the 4th Wednesday of January, March, April, May, July, September, October; in February the branch holds a dinner meeting, in August a picnic, and a joint November-December meeting is held the 1st Wednesday of December.

South Bay Branch meets the 2nd Friday of each month at the Dana School Cafetorium, 135th and Aviation Blvd., Hawthorne, California.

MEMBER INPUT WANTED!

Awards Committee Wants: nominations for ABS top three awards. See requirements, last issue, and send your nominations to Rudolf Ziesenhenne, 1130 N. Milpas St., Santa Barbara CA 93103 by July 12.

Conservation Committee Wants: lists of species grown by members. Send to Kit Mounger, Rt. 1, Box 319, New Johnsonville, TN 37134 or Kingsley Langenberg, 2141 N. Bonnie Brook Lane, Waukegan, IL 60087.

Nomenclature Committee Wants:

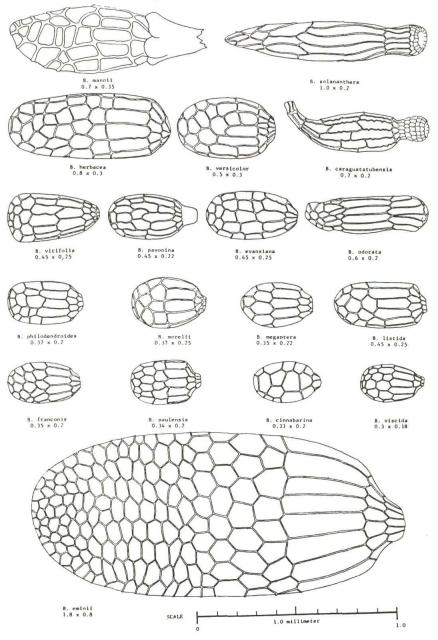
photos and information on "U" numbers members are growing. Send to Thelma O'Reilly, 10942 Sunray Place, La Mesa CA 91941.

Research Committee Wants: ideas on subjects for research, and members who are interested in carrying out research. Contact Houston Knight, 13455 Hadley St., Whittier CA 90601.

Slide Library Wants: slides! relating to begonias - 1 slide, a whole program, or anything in between. Send to Charles Jaros, 2621 NW 23rd Ct., Miami FL 33142.

Begonia Seeds Amplified

Seeing begonia seeds for the first time is always a shock: they're so tiny, and, like little specks of dust, they all look alike. How could they produce such an infinite variety of growth patterns, leaf shapes and colors, flowers? The answer, of course, is that all begonia seeds are not alike, as these drawings made of seeds seen through the microscope reveal. The plate is reprinted from an article by Philip G. Seitner in the March, 1972 **Begonian**.



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Aussies who take begonias seriously

ABS members who take begonias seriously will recognize the names of Australians Mickey Meyer, Bernard Yorke, and Hazel Burley. Back in February, 1980 they and their hybrids were featured in a Begonian article by Kit Jeans (now Kit Jeans Mounger). Barry Mann of Queensland, Australia, has sent a photo of the three friends and an update on their activities.



Mickey Meyer (left) is a current member of the American Begonia Society, the New South Wales Begonia Society and the Australian Begonia Society. She remains a very keen collector and still produces many spectacular hybrids.

Bernard Yorke (centre) is a member of the Queensland Begonia Society. He still hybridizes, though perhaps not to the extent of some 10 years ago.

Hazel Burley (right) dropped out about 10 years ago when her late husband's illness caused them to sell their home and move to a retirement villa. However, with the formation in 1988 of the Queensland Begonia Society, she came back to the fold and now grows a very fine though limited collection of begonias at her villa and again dabbles in a little hybridizing.

Barry Mann lives at 49-51 Goddards Road, Yamanto 4305, Queensland, Australia.



QUESTION BOX Mae Blanton, Horticultural Correspondent

Question: How should I propagate these new begonias I recently bought? They are Begonias 'Red Planet', 'Nightmare', and 'Burle Marx'. MO

Answer: All three can be propagated by leaf or tip cuttings. One method is to cut a medium sized leaf with stem about 1" long (or less), place it in a rooting medium of moist vermiculite/perlite mix or damp long sphagnum moss in a styrofoam cup with drainage holes, and cover it with a blownup plastic bag secured to the cup with a rubber band; placed under fluorescent lights or in a window with good light but no direct sun, the cutting will usually root promptly and throw up a cluster of small plants.

The one called 'Burle Marx', also known as B. U003, has been identified as the species B. *soli-mutata*.

Question: I have trouble rooting stem and leaf cuttings of *B. tomentosa*. What am I doing wrong? MO

Answer: This variety will root better for me when the fuzz (or hairs) are gently rubbed off the portion of the stem that is going into the rooting mix. The rooting mix should be kept BARELY moist to keep the cutting from rotting. Good air circulation will help, too.

Question: My terrace has a west exposure and gets sun from 11 a.m. until sunset. What begonias besides the semperflorens could I possibly grow out there? NY

Answer: Many of the cane-like and shrublike begonias do well here in Texas with several hours of sun if protected from the strongest sun during the middle of the day. The secret to success with this is to start exposing the plants to the sun very early in the season to let them get used to it gradually. In your area this might mean protecting during cold nights for a while.

Never let water stand on the leaves when the sun is shining on them.

Some varieties to try are: Begonias 'Preussen', 'Jean Pernet', 'Richmondensis', 'Catalina', 'Ginny', 'Pink Jade', 'Kentwood', 'Irene Nuss', 'Sophie Cecile' and others of the Superba type, 'Sylvan Triumph', 'Perfectiflora', 'Christmas Candy', 'Pinafore Sport', 'Elaine'.

There are two branches in your area. Why not join one of them and get acquainted with other begonias growers nearby? (See the last issue for addresses of presidents.) They could give you valuable information from their experience of growing begonias. I would appreciate a report from you next fall!

Question: I grow begonias under lights in my north-facing apartment.

1. With lights set on 14 hours a day all year, how will plants know when spring, summer, winter, etc., are upon us?

2. All the books say to fertilize in their season: March, October. Does this ruling change when plants are grown under my conditions?

3. What do I do if a power outage occurs for several hours?

4. If the temperature drops down to 45°-55°, what effect will this have on the plants?

5. Will cold drafts bother them as well? CT

Answer: WHEW!

1. Many plants grown under lights actually know no season unless you change the time the lights are on. Some people do this in the winter, switching to an 8 or 10 hour period for a couple of months to induce the photo-sensitive begonias, such as the rhizomatous types, to bloom. Other growers do not care whether plants bloom or not and do not bother.

2. Plants grown under lights need to be fed regularly as they seldom slow down on growing unless they are the type that goes dormant for a period of time. Most growers feed 1/2 strength with every watering, flushing plants about once a month with

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clear water to eliminate any salts buildup. 3. A prolonged power outage will not adversely affect the plants because in nature plants experience long periods of dark, dreary days. Just do not water during this time.

4. Temperatures of 45°-55° over a short period of time should not harm most types of begonias, although they should be protected from a prolonged spell at this temperature range.

5. Some begonias are sensitive to cold drafts, but which ones can be learned only by research and experience. One that I can think of is *B. bartonea* hort ("Winter Jewel").

A big "THANK YOU!" to those who enclose a stamped, self-addressed envelope for my answer. It helps me and ABS a lot! - Mae Blanton

Question about growing begonias? Write Mae Blanton, 118 Wildoak, Lake Dallas, TX 75065 and get help from an expert!





The Indoor Gardening Society of America, Inc. Dept. B 944 S. Munroe Rd., Tallnadge, OH 44278 Dues \$15 a year *INDOOR GARDEN* issued 6 times yearly. Seed exchange, round robins, cultural guides, slide library.

JUDGES' CORNER

Maxine Zinman, Judging Chair

Congratulations to the following new judges: Robert Griffith Francis Santoro Julie Crocker Constance Oliver Annette Sechen Laurie Patterson

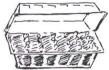
Bill Voss is advanced to Junior Judge.

There will be a Judging School held at the National Convention in Alexandria, Virginia, with the first session on Thursday, September 12. If you are interested in registering for the Judging School, please contact Maxine Zinman, Rt. 1 Box 73, Boyce, VA 22620.

If you are planning on attending the National Convention and would like to judge or clerk, please contact Judging Chair (address above).







a salad container makes a seed tray

CLAYTON M. KELLY SEED FUND NOTES

Diana H. Gould, Seed Fund Director May-June, 1991

Germination times for the selections in this issue range from 6 to 69 days, so please be patient. Unless otherwise noted, these selections have not been offered during the last three years.

The Seed Fund thanks Phyllis Bates, Roberto Brin, Michele Cole, Jackie Davis, Lynda Goldsmith, Jan Goodwin, Jake Hafer, Eiichii Kawamata, Naomi Lynch, Evie McDuff, Joy Porter, Pat Sage, and our anonymous donors and the international exchanges for making this offering possible.

The 1990 Convention Listing will be sent free with all seed orders, or you may order it by sending a stamped, self-addressed envelope to the Seed Fund Director. About 85% of the begonia species on the Convention Listing are still available.

Sorry for any inconvenience caused because we have not moved yet; I will have to advise further at a future date.

Notes on Seeds Offered:

Shrub-like

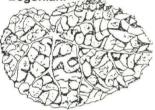
B. bracteosa (Peru) has bare, medium, green leaves and rose-colored flowers; *B. echinosepala* (Brazil) has small, bare, narrow green leaves with red veins and fragrant white flowers. *B.*

Volume 58 May-June 1991

estrellensis (Central America) has small, bare leaves with pinkish-white flowers. B. engleri (Tropical Africa) has wide, hairy leaves with rose-pink flowers; B. epipsila (Brazil) has medium, bare leaves with bright pink flowers. B. heydei (Central America) has narrow, hairy green leaves with pink-tinted white flowers. B. holtonis (Colombia) has small, darkgreen, bare, leathery leaves with white flowers; B. humilis (Brazil) has medium-sized, bare green leaves with white flowers: Β. incarnata (Mexico) has small, bare leaves with fragrant rose-pink flowers.

B. kellermanii (Guatemala) has felted, hairy, green leaves, green petioles and stems, and fragrant, pinktinted white flowers; B. luxurians (Brazil) has large, bare, green leaves with fragrant yellowish-white flowers. mollicaulis (South B. America) has wide, velvety green leaves, top and reverse, with white flowers. B. obscura (Brazil) has smooth, waxy, olive-green leaves with red veins and red undersides, red stems and petioles, and white flowers. B. peltata (Central America) has felted green leaves with white flowers; B. sanguinea (Brazil) has thick, leathery, medium, bare, green leaves with red reverse, red stems and petioles, and white flowers. B. tomentosa (Brazil) has felted, hairy, green leaves with tiny white hairs on the reverse and pink flowers with white edges and red backs.

B. U014 (Argentina) has small, narrow, satiny leaves flushed with red reverse and a low spreading habit with bright orange flowers. B. U169 (Mexico) is described on p. 56, March-April 1991 **Begonian.**



unusual leaf of *B. gehrtii* from a drawing by Mary Weinberg

Rhizomatous

B. carrieae (Mexico) has velvety, puckered, unusual surface, medium green leaves, stems, and petioles; large lobed leaves; and white flowers. *B. crassicaulis*, endemic to Guatemala, goes dormant and loses its leaves before blooming from the bare rhizome in early spring.

B. deliciosa (Borneo) is joined at or below the soil line, with erect stems and fragrant. light-pink flowers. *B. gehrtii* (Brazil) has distinctive foliage, large, medium-green puckered leaves, and white flowers. *B. hatacoa* 'Spotted" (India) has its rhizome joined at/ below the soil line with erect stems, lance-shaped, medium, green leaves with large white spots, and white flowers. *B. heracleifolia* (Mexico) has large, medium-green parted leaves with fragrant pink-tinted flowers; *B. kenworthyae* (Mexico) has green, cleft leaves and white flowers.

Botanists consider *B.* macdougallii and *B.* macdougalliivar. purpurea, both from Mexico, the same species, and more properly named *B. theimei*; both have giant, compound leaves and greenish white flowers, but leaves are redder on the variety labeled purpurea.

B. nelumbifolia (Central America) has large green peltate leaves and white flowers with deep-pink edges. *B. pinetorum* (Central America) has mediumsized green leaves and pink flowers (see the **Begonian**, March-April 1990, pp. 62-3 for a photo and description of the confusing nomenclature history of this begonia). *B. plebeja* has an erect rhizome and greenish-white flowers.

B. quadrialata (equatorial Africa) is an unusual tall form of this species believed not to be in cultivation in the U.S., has medium-green large leaves, grows very tall, and has yellow flowers. It was sent as a gift by a very dear friend. It is very difficult to pollinate unless you have two unrelated species.

B. tayabensis (Philippines) I have no data for.

B. leathermaniae drawing by Kit Mounger

B. U003 (Brazil) is now known to be a new species named B. soli-mutata (see Begonian, November-December 1990, pp. 217-220, which includes color photo); its distinctive foliage features dark green leaves with a pustulated surface, with light green radiating from the center of the leaf. Terrarium care is required. In higher light it casts a brownish overtone, while in lower light brings out brilliant greens. It has white flowers. This seed has very poor germination: it takes over 50 days to germinate at 30%, and I have a very limited supply on hand. Please use extreme care.

2

KIT DEARS MOUNDED 199

<u>Cane-like</u> *B. coccinea* (Brazil) is intermediate height, with coralred flowers. *B. leathermaniae* (Bolivia) growstall, stately, with great elegance, and has darkgreen leaves splotched with silver; flowers are white.

B. salicifolia (Brazil) grows to intermediate height, has green leaves with white spots and red undersides, green stems and petioles, and white flowers. B. U007 (Philippines) has silverspotted green leaves. B. U095 (Peru) rows 3-4 feet high, rarely branching; has bright green leaves sized 3"-4" x 6"-8", with prominent red spots at the leaf petiole junction: reverse is flushed with orange red; flowers are scarlet.

The Begonian

Semperflorens

B. cucullata (Brazil) has white flowers, and *B. hirtella* (Brazil) has thick, waxy, puckered, medium-green leaves with white flowers.



B. dipetala drawing by Mary Weinberg

Thick-stemmed

B. dipetala (India) has hairy, medium-sized green leaves and fragrant white flowers. B. egregia (Brazil) has large, long, hairy green leaves and white flowers. B. johnstonii (Tanzania) has bare, medium-sized green leaves and pink flowers. B. ludwigii (Ecuador) has trunk-like, non-ramified stem with creamish-white flowers, B. pilifera, considered by botanists to be the same as B. sericoneura (Central America) has trunk-like. non-ramified stem and fragrant white flowers. B. reniformis (Brazil) has large, hairy, medium-green leaves and white flowers. B. U188 (Peru; has been known also as Chavez 1701) has large, hairy, very sticky green leaves and white flowers. B. U241 (Ecuador) may be *B. maynensis*.

Trailing/scandent

B. fagifolia (Brazil) has rough-surfaces, mediumgreen leaves, white flowers, and takes over 50 days to germinate at about 40%; it is in very limited supply. *B. glabra* (Central America) has medium-green leaves with green reverse that is slightly brushed with red; green stems and petioles; white flowers. *B. solananthera* (Brazil) has medium green leaves and fragrant white flowers with red centers.

Tuberous/Semi-tuberous

B. gracilis var. *martiana* (Mexico) is a tall-growing, green, shimmering leaved species with fragrant rosepink flowers. *B. grandis* (China) and B. U236 (Ecuador) came in without descriptions and are in very limited supply.

Classification Unknown

B. U160, tentatively identified as *B. filipes* (see March-April 1991, p. 55 for description), and B. U246 (no description).

I am glad to be able to offer something in each of the classifications for this issue. I am sorry, however, that I am all out of B. mixed rhizomatous cultivars. (Yes, that is a hint for donations!) Thank you all for your most generous support.

Help still needed with "mystery" species contact Seed Fund Director if you would like to journey into the unknown through begonia seeds

CLAYTON M. KELLY SEED FUND LISTING

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 US funds to The Clayton M. Kelly Seed Fund.

Costs of Mailing:

U.S. only: 1-12 packets, 99c; 13-24, \$1.35; 25-36, \$1.71; 37-48 (2 cans), \$2.30; 49-60, \$2.66. Canada only: 1-12 packets, \$1.10; 13-24, \$1.46; 25-36, \$1.82; 27-48 (2 cans), \$2.35; 49-60, \$2.71.

Mexico only: 1-12 packets, \$1.15; 13-24, \$1.51; 25-36, \$1.87; 37-48 (2 cans), \$2.50; 49-60, \$2.81.

All other international mail: 1-12 packets, \$1.85; 13-24, \$2.68; 25-36, \$3.68; 37-48, \$4.68; 49-60, \$5.68.

Two sets of planter dishes, in US only: \$1.20

Two sets & 1-12 packets, \$1.80; and 13-24, \$2.40; 25-36, \$3.00; 37-48, \$3.60; 49-60, \$4.20.

These mailing costs include the costs of postage, mailers, and glasine seed envelopes.

CALIFORNIA RESIDENTS PLEASE ADD 6 1/2% SALES TAX TO ALL ORDERS.

Please send your order with payment to:

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

Species Seed

\$1 per packet

B. ludwigii

B. luxurians

B. mollicaulis

B. obscura

B. pinetorum

B. quadrialata*

B. reniformis*

B. sanguinea

B. solananthera

B. soli-mutata*

B. tayabensis

B. tomentosa

B. U007

B. U014

B. U095

B. U169

B. U188

B. U236

B. U241

B. U246

B. salicifolia

B. peltata

B. plebeja

B. nelumbifolia

B. lyman-smithii

B. macdougallii var.

B. macdougallii (theimei)

B. pilifera (sericoneura)

purpurea (theimei)

- B. bracteosa
- B. carrieae
- B. coccinea
- B. crassicaulis
- B. cucullata
- B. deliciosa
- B. dipetala
- B. echinosepala
- B. egregia
- B. engleri
- B. epipsila
- B. estrellensis*
- B. fagifolia*
- B. fischeri
- B. gehrtii
- B. glabra
- D. yiabia
- B. gracilis var. martiana
- B. grandis*
- B. hatacoa 'Spotted'
- B. heracleifolia
- B. hevdei*
- B. hirtella
- B. holtonis
- B. humilis
- B. incarnata
- D. incarnala
- B. johnstonii
- B. kellermanii
- B. kenworthyae
- B. leathermaniae

*extremely limited supply

- Hybrid Seed
- 50c per packet mixed canes mixed Frillies mixed rex mixed semperflorens mixed shrubs mixed tuberhybrida mixed Mickey Meyer hybrids



Question: Why were there no candles at the San Francisco Branch birthday party?

Answer: Because the cake couldn't hold 52 candles. Happy Birthday, San Francisco Branch!

While in some parts of the country winter losses are mourned, members in other areas are dreading summer's heat. Editor Esther Nagelberg of the Palm Beaches Branch newsletter noted one October that summer had been particularly hard on her rhizomatous begonias:

"Two of my blue-ribbon plants literally faded away, and I experienced feelings of frustration and helplessness.

"However, in thinking about what happened, I have decided on two courses of action. First, since I also grow some plants under lights, I will take at least two cuttings from those plants that experience has shown me will not survive in the shade house, and I'll grow them under lights in airconditioned comfort. As long as they are small I can accommodate them on the plant stands and then, when the weather cools, I can put them in the shade house. In that way, hopefully, I will not lose them altogether.

"Second, I will not toss the seemingly expired begonias until I am sure that they will not revive. On occasion I have been lucky and new growth develops. One way to test that possibility is to check on how firm the rhizome is. If it is soft and mushy, however, don't bother to wait. It's a goner."

Some time back then-editor Houston Knight in the Orange County newsletter gave an unusual reason to support the Seed Fund by collecting those tiny begonia seeds from your plants: as a tax deduction! Considering that IRS allows deductions for donations to a qualified non-profit organization (which ABS is), Houston suggested that begonia seed is actually an expensive commodity. Here's his price list:

Quantity	Market Value
1/64 ounce	21.50
1/32	38.95
1/16	73.50
1/8	140.00
1/4	265.00
1/2	495.00
1 ounce	950.00
and the	The second se

- all the way up to \$3,800 for 4 ounces. Furthermore, he suggests the rarer seed might be worth still more. We always knew begonia seed was precious - if Houston's right, it's worth considerably more than its weight in gold.

Often meetings don't go quite as planned - interruptions and distractions are almost guaranteed. But how many branches have had an experience like Potomac's meeting at Ruth Ihara's home in December?

"At our last meeting we were diverted from begonia business by the large herd of deer which come to feed in Ruth's backyard. They were almost close enough to touch. Ruth tells us the male deer are in hiding and seldom come anyway. We were surprised to see deer so close during the hunting season. They must know they are safe at Ruth's place."

Beauty of a different sort was a treat for Knickerbocker Branch members back in October. Howard Berg discussed the history of picturing plants in drawings, prints, and other media. As illustration he brought two tables full of rare plant books, catalogs, and framed prints from his and Barbara's collection. Many are quite old and valuable. Howard explained that the paper used in those days contained fibers not easily affected by time or humidity; the colors in prints over 100 years old were bright and vivid. The Bergs donated four rare prints to the Branch.

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Troubled by whiteflies? From the Palomar <u>Planter</u> comes news that the tiny Encarsia wasp may be a reliable natural control. Recent tests with wasps imported from Italy and Israel and released in San Diego County gave good results.

Drought continues to plague California. One suggestion for making the most of the water available comes from the <u>La Begonia Barbarena</u>: "...when we water the potted plants under the trees and shrubs shading them, the latter get the excess water draining from the plants."

Perhaps it has to do with yearning for spring. Poetry burst into print in several newsletters in late winter. Some samples:

"I rinse my pots in alcohol, The soil I use is sterile, If any bugs should venture near. They do so at their peril. With pesticides, insecticides, And other banes systemic, I spray and dust and disinfect Against all ills endemic. 'Mid proper light and TLC, My plants grow healthy, lush. 'Til overnight a fungus rot Reduces them to mush. At times like this I'm half-suspecting I should have stuck to rock collecting." - by A. Byron Greenberg, from the Westchester Branch Leaf Cuttings*

*found in House Plants & Porch Gardens magazine, Sept. 1978

"I've found when growing begonias There's lots of things to know Like how much you need to water To get your pants to grow Like which plant food is the best Or how much sun they take But the really most important thing Is the kinds of friends you'll make." - from the Garden Grove Branch newsletter Keeping that last warm friendly thought in mind, enjoy what the South Bay Branch <u>Begonia Leaf-let</u> had to say about hugging:

"Hugging is healthy. It helps the body's immune system, it keeps you healthier, it cures depression, it reduces stress, it induces sleep, it's invigorating, it's rejuvenating, it has no unpleasant side effects, and hugging is nothing less than a miracle drug.

"Hugging is all natural: It is organic and naturally sweet, and contains no pesticides, no preservatives and no artificial ingredients and is 100% wholesome.

"Hugging is practically perfect: There are no moveable parts, no batteries to wear out, no periodic checkups, no monthly payments and no insurance requirements, and it offers low energy consumption and high energy yield while being inflation proof, nonfattening, theft proof, nontaxable, non-polluting and of course, fully returnable."

by Myrtle Baldwin, sent by Evelyn Isaac

"Returnable" is one of the words associated with recycling, a conservation effort that is really catching on across the country. A popular motto these days is "Reuse, Return, Recycle." Gardeners have done this for centuries - witness the compost pile. Now that conservation is "IN" Bill Voss remarked in the Eastern Region <u>Rambler</u> that once he was known as a pack rat; now he's a conservationist. Isn't it interesting to find ourselves in the avant-garde of trendiness?

Scattered throughout this issue are drawings showing recycling ideas from the Palomar Planter. We hope you find some useful.



Recycle!

clear plastic cups make incubators



ABS BOOKSTORE

BOOK LIST

THE BEGONIA BOOK

A facsimile edition of Eva Kenworthy Gray's classic begonia book of 1931, reprinted in 1986. The first book about begonias published in the United States. Contains growing, propagation, and fertilization information as she knew it. Describes many old time begonias. 50 pages, some pictures. Softback. \$4.50

BEGONIAS

Bill Wall, A Wisley Handbook, R.H.S., 1988. An excellent guide to growing foliage begonias. See Phyllis Bates' review in September-October 1989 Begonian.

64 pages, 44 color photos. Softback \$7.50

BEGONIAS

Uemura, a Green and Flower Book. 131 pages, 171 pictures. Written in Japanese; however, pictures have English titles. Published by Shaeffer by Seikatsu-sha. \$13.00

CATALOG OF REGISTERED CULTIVARS

Published by ABS, lists the first 100 registered cultivars of the genus begonia. Listed is each cultivar's background, its parents, originator, references in the Begonian, tested data, and complete description. 47 pages with index. Softback. \$4.50

CONSTITUTION AND BY-LAWS OF AMERICAN BEGONIA SOCIETY

A must for all branch libraries and officers. \$1.00

GROWING BEGONIAS

Eric Caterall, 1984. From a complete survey of species distribution through complete cultural information for both tuberous and non-tuberous types, this is a beautiful and invaluable guide for the beginner and expert alike. 132 pages, 16 color photos, 154 b/w photos, 22 line drawings. Softback. \$19.00

GUIDELINES FOR NATIONAL CON-VENTIONS AND ANNUAL SHOWS.

Thelma O'Reilly. Approved by Board of Directors July 15, 1982. A must for branches, also for chairpersons of National Convention. \$3.00 Order of 5 or more \$2.50 each

LES BEGONIAS

Charles Chevalier, 1938. Written in French and translated into English by Alva Graham in 1975. This book has pictures, some in color, and contains a botanical study of begonias. General ideas on culture and information on different types of begonias. 165 pages, softback. \$6.00

POTTING MIXES

Kevin Handreck et al, published by CSIRO Division of Soils, Australia, 1985. This book covers the basics and provides tehcnical information for the serious grower. Covers watering, fertilizers, salinity, pH, and mixing your own soil. 48 pages, softback. \$8.00

REVISED BUXTON CHECKLIST

John Ingles, Jr. 1990. A listing of all the cultivars included in the original check list in 1937 and its three supplements (1958, 1962, 1967) plus those found in other sources. Current as of May 1990. Species and "U" numbers are not included. Softback, 481 pages. \$35.00

SONGBOOK

Published by the Mae Blanton Branch. A collection of songs about begonias (yes, reallly). Great to add some pep to your monthly meetings! \$1.50

TERRARIUMS FOR BEGONIAS

Mae Blanton. A booklet on terrariums and the best begonias to grow in them \$1.50

UNIDENTIFIED BEGONIAS LISTING

Thelma O'Reilly, 1991. All the U-numbers, and the information currently available about them. List, 11 pages. \$1.50

1991 ROSTER

Complete ABS membership list, current as of Jan. 1991 \$7.50

PAMPHLETS

BEGONIAS FROM SEED

4 pages.	
Individual copy	\$.50
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12 pages.	
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Recycle!



a cola container becomes a mini-terrarium

Help Available from ABS

Begonias won't behave? Horticultural Correspondent Mae Blanton (118 Wildoak, Lake Dallas TX 75065) will answer questions on growing begonias.

Want to form an ABS Branch? Douglas Hahn, 7736 Stonehill Dr., Cincinnati OH 45230 will send you a list of members in your area, and help you get organized.

Isolated from other begonia growers? Join the Members-at-Large Committee. Send a stamped, self-addressed legal-size envelope to Kit Mounger, Rt. 1, Box 319, New Johnsonville TN 37134 for the MAL newsletter.

Want to make begonia friends all over the world? Join a Round Robin, Contact Pat Sage, 1635 Lanoitan Ave., National City CA 91950.

Giving a program? Writing a paper? Research Librarian Lorra Almstedt may be able to locate the facts you need. Her address is 1965 Celeste Lane, Fullerton CA 92633

Can't find books on begonias? ABS Bookstore has them! See Bookstore listing preceding this column.

Need programs for your branch? Slide Librarian Dan Haseltine, 6950 W. Nelson St., Chicago IL 60634 can recommend a program or two (small rental fee and postage). Speakers Bureau Chair Muriel Perz. 2843 N. "H" St., San Bernadino CA 92405 can help you locate a speaker.

Branch libraries are entitled to a complimentary copy of each Begonian: write John Ingles, Jr., 157 Monument, Rio Dell CA 95562-1617 to be added to the mailing list. Requirement: Branch Librarian must be an ABS member.

Overprints of the **Begonian** to be given away at shows are available to branches for cost of postage. Contact Tamsin Boardman, Box 249, Roanoke, TX 76262.

BEGONIAN MINI-ADS

lini-ads are a service to our members. he charge is \$1 per line per insertion with minimum of \$4. Payment must accomany order. Make checks payable to ABS nd mail to:

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

EGONIA CUTTINGS AND PLANTS. end \$1 for expanded 1991 list. Kay's ireenhouses, 207 W. Southcross, San intonio, TX 78221.

EGONIAS: THE COMPLETE REFER-NCE GUIDE by Mildred L. and Edward J. hompson. 884 pages, 850 illustrations 165 in color). Culture, classification, and istory. \$20.00 to ABS members. To order utographed copies write: THE HOMPSONS, P.O. Drawer PP, outhampton, NY 11968. BEGONIAS: 984 UPDATE \$6.75. Prices include hipping. Foreign orders \$5 additional for hipping via Surface Mail.

OUTHWEST REGION, ABS: Annual Getogether, show, sale; monthly newsletter. 1embership \$7, family \$10. Send to Marie 1arrell, 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.

BEGONIAS. Unrooted cuttings. Many new additions to collection, including many Lowe hybrids. SASE legal size for list. Paul Lowe, 5741 Dewberry Way, West Palm Beach, FL 33415.

BEGONIAS (plants & cuttings), plus a wide range of succulents, peperomias, hardy perennials & more. 1991 list, including updates & newsletters, \$4. Wholesale collections for clubs, retailers available. UN-USUAL PLANTS, 10065 River Mist Way, Rancho Cordova CA 95670-3186.

BEGONIAS, TROPICALS, & EXOTIC PLANTS. Many varieties in 3" pots or larger. Catalog \$1 (refundable).....or The Tropical Gazette - quarterly full of info, discounts, & specials. 1 yr. subscription \$4. Send to: Sunshine State Tropicals, P.O. Box 1033, Port Richey FL 34673.

VIDEO: "GROWING BEGONIAS - THE EASY WAY". Veteran Begonia grower shows how in this 30 minute VHS video. \$13.95 plus \$2 S&H to Garvid Productions, P.O. Box 66038, Portland, OR 97266.

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MINUTES OF THE BOARD OF DIRECTORS MEETING

January 20, 1991

On January 20, 1991 the Board of Directors Meeting of the American Begonia Society was held at the home of Ingeborg Foo, 1050 Melrose Way, Vista, California. There were 16 members present.

President Jeannette Gilbertson called the meeting to order at 11:15 a.m. Margaret Lee read the Aims and Purposes.

Minutes of the November 18, 1990 meeting were read and approved.

<u>Treasurer's Report</u>: As of Dec. 31, 1990: Checking accounts, \$3,934.36; savings accounts, \$41, 035.52; total \$44,969.88.

Committee Reports

<u>Finance Committee</u> met January 19. Postage increase may necessitate an increase in 1st class and foreign surface mail charges. Other ways to increase income were discussed. ABS is looking for a CPA to do the yearly audit.

<u>Awards</u> - Leslie Hatfield and Alice Ordway were appointed to the Awards Committee.

<u>Back Issues</u> - John Ingles will do an inventory. Houston Knight has offered to transport the Back Issues to new Chair Betty Tillotson.

Bookstore - Balance Sept. 10, 1990: \$343.87; sales, \$810.88; expenses, \$862.93 (includes return of \$400 advanced by ABS); balance Dec. 18, 1990: \$291.82.

Branch Relations - \$75 was allotted for Director's expenses.

Membership - As of Dec. 31, 1990: 84 Life members; 135 Institutions; 1,403 dues paying members.

Seed Fund-Income, \$464.69; Expenses, \$48.04. A check for \$316.61 was sent to the Treasurer. Seeds for USSR should arrive in April, seed from New Guinea possibly in May. Thelma O'Reilly is sending U# information to Seed Fund Director Diana Gould.

<u>Conservation</u> - Resignation of co-chair Martin Johnson was accepted with regret and thanks were given for all his efforts for ABS. Members at Large - Kit Mounger has sent out her first newsletter. Six will be sent annually, at expense of \$40 each. Board voted to fund expenses.

Northwest Region - 68 members. Newsletters will be sent soon.

 $\underline{\text{Research}}$ - Houston Knight reports good response to research notes. Cal Poly has been contacted .

<u>Publicity</u> - Russ Richardson is redoing the "Fourteen Reasons to Join ABS" and is making posters for branches to place in nurseries. The Board voted to send \$25 for postage and phone calls.

Round Robins - Margaret Coats has sent her final report. Thank you, Margaret.

<u>Slide Library</u> - Board voted to send \$100 to Charles Jaros for new programs. Video tapes were discussed.

<u>New Award</u> - Millie Thompson suggested that ABS give a new award for literature. Board voted to approve the award, which will be in the form of a parchment. Past chairmen of the Awards Committee will decide on the rules for this award. <u>Nominating Committee</u> - Charles Jaros and John Howell were appointed to the Nominating Committee, with a third member to be appointed as soon as possible.

Branch Reports: Palos Verdes will hold a plant sale. Westchester is getting ready for a show. Astro and Dallas Branches will participate in home & garden shows. San Miguel is studying U numbers.

Next Board Meeting: March 17, 1991, at Fullerton Arboretum on campus of California State, 11 a.m.

June Board Meeting will be held in Santa Barbara, California.

Palomar Branch was thanked for the lunch and Ingeborg was thanked for hosting the meeting. Meeting adjourned at 3:10 p.m.

Respectfully submitted,

Ingeborg Foo, Secretary

Note: Minutes are condensed because of space limitations; any member may order a copy of the complete Minutes from the Secretary.



THE AMERICAN IVY SOCIETY

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