

July August 1987

*The* BEGONIAN

# The BEGONIAN

ISSN 0096-8684

Publication of the American Begonia Society

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

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

**American Begonia Society**—P. O. Box 1129, Encinitas, CA 92024-0990

**Membership**—Subscription, dues, circulation inquiries, and address changes: John Ingles, Jr., 8922 Conway Drive, Riverside, CA 92503; (714)687-3728

**Editor**—Phyllis Bates, P. O. Box 502, Encinitas, CA 92024 (619)436-1419

**Advertising Manager**—Marion Paris, 4793 Soria Drive, San Diego, CA 92115; (619)287-0738

**Circulation Manager** Toni Baker, 6475 50th Street, San Diego, CA 92120; (619)582-7516



## American Begonia Society

Founded January 1932 by Herbert P. Dyckman

### Elected Officers

President ..... Margaret Lee  
1852 31st Street, San Diego, CA 92102  
Phone (619)239-3196

Past President ..... R. J. Ammerman  
1770 Foothill Drive, Vista CA 92084

First Vice President ..... Arlene Davis  
923 E. Francis Street, Corona, CA 91719

Second Vice President ..... Charles Jaros  
2621 NW 23rd Court, Miami, FL 33142

Third Vice President ..... Tamsin Boardman  
Box 249, Roanoke, TX 76262

Secretary ..... Jeannette Gilbertson  
410 JoAnn Circle, Vista, CA 92084

Treasurer ..... Eleanor Calkins  
910 Fern Street, Escondido, CA 92027

### Appointed Officers

Awards Committee Chairman ..... Michael Ludwig  
7007 Mt. Vernon Ave. Lemon Grove, CA 92045

Audit Committee ..... Marion Paris  
4793 Soria Drive, San Diego, CA 92115

Ballot Counting Chairman ..... Ronnie Nevins  
1913 Aspen Circle, Fullerton, CA 92635

Begonian Back Issue Sales ..... Julie Panttaja  
8969 Hope Ave, Riverside, CA 92503

Bookstore Manager ..... Bob Bailey  
5190 Mission Blvd, Sp.90, Riverside, CA 92509

Branch Relations Director ..... Douglas Hahn  
7736 Stonehill Drive, Cincinnati, OH 45230

Business Manager ..... John Ingles, Jr.  
8922 Conway Drive, Riverside, CA 92503

Clayton M. Kelly Seed Fund Director ..... Joan Campbell  
814 NE Honeyhouse, Corvallis, MT 59828

Conservation Committee  
Co-chairman ..... Scott Hoover  
718 Henderson Rd, Williamstown, MA 01267

Co-chairman ..... Martin Johnson  
959 Glennan Drive, Redwood City, CA 94061

Consulting Begonians Dir ..... Charles J. Jaros  
2621 NW 23rd Court, Miami, FL 33142

Corresponding Secretary ..... Jeannette Gilbertson  
410 JoAnn Circle, Vista, CA 92084

Judging Department Director ..... Juana Curtis  
4107 Taos Drive, San Diego, CA 92117

Historian ..... Norma Pfrunder  
3484 Jefferson St., Riverside, CA 92504

Members At-Large Director ..... Thelma O'Reilly  
10942 Sunray Place, La Mesa, CA 92041

Nomenclature Director ..... Carrie Karegeannes  
3916 Lake Boulevard, Annandale, VA 22003

Parliamentarian ..... Edgar Bates  
554 Arden Drive, Encinitas, CA 92024

Public Relations Directors  
..... Howard Berg  
16 Highview Terrace, New Canaan, CT 06840  
..... Tamsin Boardman  
Box 249, Roanoke, TX 76262

Research ..... Charles J. Jaros  
2621 NW 23rd Court, Miami, FL 33142

Research Librarian ..... Lorra Almstedt  
1965 Celeste Lane, Fullerton, CA 92633

Round Robin Director ..... Margaret Coates  
11203 Cedar Elm, San Antonio, TX 78238

Show & Convention Advisor ..... Bob Ammerman  
1770 Foothill Drive, Vista, CA 92084

Show and Convention Chairman ..... Gilbert Estrada  
7914 Springer, Downey, CA 90242

Show Entries Chairman ..... Michael Ludwig  
7007 Mt. Vernon Ave, Lemon Grove, CA 92045

Slide Librarian ..... Dan Haseltine  
6950 W. Nelson Street, Chicago, IL 60634

Speakers Bureau Director ..... Muriel Perz  
2141 W. 29th St., Long Beach, CA 90801

## INSIDE THIS ISSUE



ABS News	88	Notes on Unidentified Species	100
Beautiful Introduction: <i>B. taiwaniana</i>	89	Round Robin Notes	101
Begonias and Extinction	91	Newcomer's Notebook	104
Getting Together on a Name: <i>B. 'Boomer'</i>	95	Begonia Portraits	106
Pretty Things Come in Small Planters	97	Honor Roll	109
		ABS News Minutes	109 110

## On the Cover: Blossoms of *B. paulensis*

Eileen King, photographer

Barbara Nunes, reporter

At the 1986 Potomac Branch Show at the Botanic Gardens in Washington, D. C., Eileen King, a professional photographer, took a picture of the inflorescence of *B. paulensis*. The plant was grown by member Genie Kate, owner of the Great Falls Greenhouse in Great Falls, Virginia.

*Begonia paulensis* was discovered in the 1850s in St. Hilaire in the province of Sao Paulo, Brazil. It is a stately and handsome begonia with orbicular, large, and glistening green leaves.

*B. paulensis* is horticulturally classified as rhizomatous, distinctive foliage, unusual surface and/or unusual foliage, large leaved. The leaves are peltate, entire, shiny medium green, eight to nine inches long, and six inches across with white sinus and prominent veins. These radial veins are joined by cross veins which form circles; the overall effect gives an inter-

*Barbara Nunes was chairman of the 1986 Potomac Branch Show. Her address is 6025 Greeley Blvd., Springfield, VA 22151.*

esting spider web appearance. The leaf blade has short white hairs all over the surface. The under surface is apple green with red hairs. The leaf petiole is light green and covered with pinkish hairs. There is a small collar of red hairs at the Junction of blade to petiole. New leaves appear quite red on the back due to concentrated red tomentum. When light shines through a new leaf, the spider web pattern on the leaf surface appears to be outlined in red and the leaf bordered with the same color.

The flowers form in panicles on long upright peduncles. The petals are white and are covered with red hairs which give them a pink cast. The male flowers with hairy sepals and hairless petals open first and are gone by the time the female flowers are mature and ready to set seed. The ovary of the female is three cornered and covered with fleshy maroon colored hairs. The flowers are 1 1/2 to 2 inches across. The plant in the cover photo was in bloom in September. This species is generally considered difficult to bring to maturity.

## ABS NEWS

### NEW TERM STARTS

Officers for the 1987-88 year will be installed at the ABS National Convention in Long Beach on Saturday, August 29. Several new chairmen will be announced after their appointments are ratified by the Board of Directors.

All national board members should submit a brief summary of the work accomplished during the past year to the ABS secretary.

Whether branch or national, the retiring officer should turn over to the new appointee all the records and property that belong to the office. The secretary (branch or national, whichever is appropriate) should be given an inventory of the property at the time.

Many officers received copies of the *Begoniaceae: Key and Annotated Species List*. These reference books were intended to assist the recipients in carrying out their duties and to make them available for the general use of the ABS, not as personal property.

### BACK ISSUES

Bob Bailey, present manager of the ABS Bookstore, will also handle requests for back issues of the *Begonian*. Julie Panntaja resigned, effective at the July Board of Directors' meeting, and the Board immediately ratified Bailey's status. Many boxes of Back Issues will be transferred to his safekeeping so he can fill requests.

### NEW EDITOR ANNOUNCED

Tamsin Boardman, of Roanoke, Texas, will assume the post of ABS Editor, effective with the September-October issue. Phyllis Bates resigned at the July 19 meeting.

Phyllis will be sending her files to Tamsin or returning certain materials to contributors upon completion of this issue. During the past year, contributors' did not always receive their courtesy copies. Some clever detective work by Lynda Goldsmith disclosed that, on several occasions and by mistake, various pamphlets on insurance, etc. were sent by the mailer using the ABS

labels. If you were entitled to copies, contact either Tamsin or Phyllis.

### MORE CONTRIBUTIONS SOUGHT FOR SCOTT HOOVER'S TRIP

The time is drawing close for Scott Hoover's departure for an extended stay in the "Begonia territory" of Ecuador. Because he will stay longer than on previous trips, he will require greater amounts of supplies and services and greater financial assistance. He will continue his studies of *Begonia stomata* as well as photographing and inventorying species and searching for seeds, tubers, etc. For the first time, he has made arrangements to send cuttings for propagation.

Martin Johnson, cochairman of the Conservation committee, urges all members to support Scott. He reminds ABS members that our Society is an important beneficiary of the information gained as a result of the field study. ABS benefits from the association with the other organizations which are also involved in Scott's expedition.

It does not matter if your donation is small—it does matter if we can show that a good proportion of our members are truly interested in learning more about begonias and support the effort. Please send donations to the ABS Conservation Fund now.

### NEW MEETING SITE

The Pinellas County Branch now meets at the Suncoast Botanical Gardens, 10410 125th Street, Seminole, Florida, on the third Tuesday of the month at 7:30 p.m.

### MAL NEWSLETTER READY

The next newsletter is ready for the active network of members at-large. Chairmar Thelma O'Reilly will send your issue or receipt of a stamped, self-addressed envelope. Address your request to MAL, c/c Thelma O'Reilly, 10942 Sunray Place, L2 Mesa, CA 92041.

# A BEAUTIFUL INTRODUCTION

## *Begonia taiwaniana* Hayata

Mildred L. Thompson



*B. taiwaniana* var. *albomaculata* hort.

It is always a thrilling experience for me when I receive seeds of a species that I have neither grown nor seen previously! On January 24, 1984, I received seeds of *B. taiwaniana* from Yi Shan Shui, a friend in Taiwan. To my knowledge, this Asian species has never been grown in this country before. My excitement intensified when the seeds germinated and grew into healthy plants and I noticed that I had two forms of this species from the same packet of seeds; one form had green leaves without markings, and the other form, which Yi Shan Shui labels *taiwaniana* var. *albomaculata* hort., had prominent white spots scattered on the green leaves.

### History

*B. taiwaniana* was first collected in October 1905 in Tappansha, Taiwan at 3138' by S. Nagasawa and in October 1906 on Mount

*Mildred Thompson enjoys research on the Begonia species. She observes them growing at the Thompson Begonia Museum on Long Island, NY. Her address is P.O. Drawer PP, Southampton, NY 06890.*

Morrison, south central Taiwan at 6500' by T. Kawakami and U. Mori. These specimens were the ones used in 1911 by B. Hayata to name and describe this species. The original citation can be found in the *Journal of the College of Science*, Imperial University of Tokyo, Volume 30, Article 1.

### Natural Habitat

In 1977 Tang Liu and Ming Jou Lai in the *Flora of Taiwan* wrote that *B. taiwaniana* is found in woodland undergrowth in the southern portions of Taiwan, an island off southeast China. Liu and Lai also reported the places in Taiwan where *B. taiwaniana* has been collected by various collectors: Nantou, Koahstung (southwest coast), Pingtung, and Taitung (on southeast coast). The altitudes were not mentioned.

In all areas of the island, the rainfall is 40 inches or more; in the mountains there can be five times that amount. In the southern portion, winters are warm to hot, and the summers are hot and humid; however, temperatures fall as altitude increases.

## Description

*B. taiwaniana* is a rhizomatous species with erect branched stems about 2 feet tall on my plant at the time of writing. The leaves of one form, *B. taiwaniana* var. *albomaculata* hort., are medium olive green and are covered with white spots of different sizes, the other form has plain medium olive green leaves; both forms have a satin sheen. The undersurface of the leaves is light green and heavily tinted red. The mature leaves on my plants of this species measure 5 1/2'' x 7''.

My plants started flowering in early June and will probably continue until October. The inflorescences are few flowered; the flowers are white, tinged pink. The male flower has four tepals, two narrow and two larger obovate ones. The female flowers have five tepals, four of which are nearly equal and one decidedly more narrow. There are three styles forked at the tip, and the stigma is shaped like a corkscrew. The fruit has three unequal wings.

Botanically *B. taiwaniana* has been placed in the section *Petermannia*. Other species in this group share similar flower characteristics: *augustae*, *boisiana*, *borneensis*, *breviramosa*, *cumingii*, *incisa*, *isoptera*, and *serratipetala*.

## Cultural Requirements

I have been growing this species in the same way as other begonias that are classified as rhizomatous with the rhizome being jointed at or below the soil with erect stems.

I have found that lightly filtered sunlight (the amount of filtering depends on the intensity of the sun's rays in the grower's geographical location) or very bright light without direct sunlight is best for good foliage color. The growing conditions are fairly humid with at least 55% relative humidity all year. The temperature has been a minimum of 58° all year; in the winter, the thermostat is set for 65°, but temperatures elevate to 90° or more in the summer. I have found these conditions successful. From the conditions described for the natural habitat, I would assume that in cultivation it prefers warm temperatures, although it has performed well in the cool temperatures. For a strong plant with good foliage color, it is imperative to fertilize regularly. I have

observed that the foliage of this species will tend to fade more readily than others if it does not receive proper light and fertilizer at regular intervals.

*B. taiwaniana* has been growing in our usual begonia potting mix in a moss-lined wire container, but a few plants were put into clay pots; the moss-lined container was more satisfactory. This species appears to have characteristically slightly leggy growth; it is, therefore, best to never overpot it and for good symmetrical appearance to keep it slightly potbound. It is necessary to stake some of the younger stems to train the plant; some of these stakes can be removed as the stems mature and grow sturdy. I prefer not to have stakes on the mature plant because they detract from the interesting growth patterns of the rhizome and stems.

Propagation has been accomplished in several ways. Growing from seeds is the best method; germination is excellent. I prefer to use a long-fiber moss-perlite mix for leaf wedges, and a vermiculite-perlite mix for stems; both methods have been satisfactory. There is, however, a tendency for the leaves to rot so care must be taken to avoid excessive moisture during propagation.

This is another exciting new species to grow and add to your collection! For avid begonia growers, the anticipation of a new species—waiting until someone can share it and the finally growing it—is a wonderfully enchanting experience. You will certainly enjoy *B. taiwaniana*. Thanks to Yi Shan Shui for sending seeds to us. I have been sharing this species with others around the country as small plants have become available.

*This report appeared in the Easter Regional Begonia News in July 1985. The seeds of this species were offered in the See Fund (Begonian Nov-Dec 1986, p. 160), the incorrect photograph was inserted into this issue. It is hoped that the appearance of both the proper photograph and the full article will assist readers in making the correct mental connection and entice them to try this species.*

# BEGONIAS AND EXTINCTION

*Phyllis Bates*

Not many people in the world believe that the bulbs of *Begonia socotrana* are valuable. The island of Socotra where they are found is in the Indian Ocean off the eastern coast of Arabia. The small spheres occur in rocky outcroppings and sandy soil. The little plants that arise each year from these bulbs have round green leaves from four to seven inches in diameter. The leaves look rather like nasturtium leaves. The male flowers are between one and two inches in diameter and have four rose pink flat petals around a cluster of golden yellow stamens. The female flowers are smaller and have six narrow pink petals. Its most prized characteristic is to bloom during the short days of the year.

The species was brought into cultivation by Dr. Balfour in 1880. By 1883 the first hybrid was made, a cross with a tuberous hybrid that bloomed in the summer. The genes of *B. socotrana* prevailed and the offspring carried the same trait of winter blooming. These were the first Hiemalis (winter) Begonias. The Hiemalis begonias quickly became valued for their winter blooms. In 1955 an improved strain was formed, and you all are aware of the great commercial success of the Rieger begonias.

In cultivation *Begonia socotrana* continues to pass along its pretty pink color and winter blooming characteristics. The population of the parent species on Socotra has steadily declined, chiefly because the bulbs are nibbled by the grazing goats. (There is no natural protective device in the bulbs to ward off the goats.) It would be a sad event if the species were lost and no more hybrids could be made. *B. socotrana* may well have become extinct in the wild.

Over the past several years there have been many articles in prestigious magazines and newspapers, numerous television shows, and various speeches by biologists all of which point out the destruction of many world

habitats and the loss of life on the earth. Most of these presentations are concerned more with the loss of animal species than plant species. Few people realize that we have lost perhaps 200 animal species since 1500 A.D., but we lose about twice that number of plant species EACH year. Wild plant habitats are being wiped out to create housing or agricultural fields, and with them go the species plants. The general public can relate to a fuzzy caterpillar much more readily than it can to a plant.

Extinction is not a new, present day phenomenon, but a continuing process at low level of about one to four families per million years. True extinction occurs when a species dies because it is unable to adapt to natural or unnatural changes in the environment. There is another natural process, sometimes referred to as false extinction, in which the plant or animal adapts to the changes, but in doing so evolves into a new species. The old species is gradually phased out of existence. Most of the extinct biological families and species that we know about from written records in the more recent times and from fossil records of eons past. Fossil records show that there were at least four great peaks of extinctions corresponding to vast changes on the earth. There are some philosophers and biologists who believe that the earth is undergoing a fifth wave of mass extinctions, the chief cause of which is the great increase in human population.

The situation is not simply numbers of persons although many of the causes are related to it. Weather changes, erosion, fires, floods, volcano eruptions, exploitation of forests, demand for wood, covering the earth surface with buildings and roads of impervious materials, the introduction of herds of goats or cattle into new areas, the development of superweeds such as lantana or kudzu vine. All have taken their toll in the changing plant populations.

Some of those who study the situation feel that, if we are indeed in the midst of a great wave of extinction of which the principal cause is the increasing human popula-

*Phyllis Bates is interested in the species of begonia. This was basis for her seminar at the 986 Convention in San Diego. Her address is P.O. Box 509, Encinitas, CA 92024.*

tion, then any effort to prevent extinctions is futile. In their eyes man will prevail at all costs to other species on the earth. The ultimate result of this will be the extinction of humans themselves.

A second group feels that, although human needs will have to be met, the fact that man can recognize the problem gives him a means to solve the problem and certainly the responsibility to make that attempt.

Why save plants? Plants feed the world. All plants are food for something else. Begonias are seldom thought of as human food, though they apparently are eaten in limited numbers in some circumstances, but they are food for insects and possibly fish in streams near their tropical habitats. Have you ever seen a photograph of an entire *Begonia* plant in the wild that didn't have holes chewed in the blades?

In addition to food, plants provide the means for animals' protection and comfort, for shelter and clothing. For man, in addition to the basic needs, plants are the source for many medicines, fuels, and the supply of basic chemicals for our complex world. Dr. Charles Calvin of U. C. Berkeley won a Nobel prize for his recognition of living plants as alternatives to fossil fuels and chemical sources. His research disclosed a tropical plant that contains diesel fuel. The gopher plant yields from 10 to 20 barrels of oil per acre. Few plants have been examined for their potential non-food use, and the *Begonia* may fit into one of these uses someday even if there are none apparent today.

One last reason for preserving plants is the natural instinct for aesthetics. Humans surround themselves with greenery. They plant trees, grass, flowers. Psychologists suggest that man needs the color green for his mental well being. (Perhaps animals do also.) Humans surely enjoy air purification, natural air conditioning, and the sight of plants.

Those who feel that an enormous effort must be made to conserve species take these reasons very seriously. There are many people working today to conserve plant species, more than there were say, ten years ago. Yet the habitats continue to disappear.

Let us consider some of the things that are being done to save species. Setting aside parks

and wild preserves has gotten plenty of attention. The establishment of botanical or zoological gardens to save specimens is a similar effort. Another means of preservation is to replace the species elsewhere in the world, i.e., when the swampy European habitats of the Aldrovanda, a relative of the Venus flytrap, were drained and the species was threatened with extinction, plants were sent to the Union of South Africa where they are have naturalized.\* Exchanges of seeds and information between various professionals in the botanical and horticultural field can be extremely helpful.

Where do begonias fit into the plans to save species? *Begonia* are unlikely to have a high priority in general conservation efforts. *Begonia* is not a genus that seems to be a significant food source and its medicinal values appear to be slight (although possibly unknown). Its justification for existence at the present time is based on its aesthetic value. The example of the Alovanda—of people caring enough to save a species of unknown worth—is encouraging when considering *Begonia*.

A negative consideration is the fact that even when a plant does get recognition, it might not continue to get support. Plants experience cycles of acceptability. I have seen at Quail Botanical Gardens the decline in value of several plant groups simply because one or more members of the staff does not have an interest in it.

ABS members have good examples of their own. An ABS branch will adopt a conservatory or public garden and put in a collection. The collection remains in good condition only as long as the members care for it. In Balboa Park, there was a nice begonia display. When the City gardeners had complete charge, it declined because of the need for care at appropriate times. And when funds for upkeep were cut, the plants almost disappeared. (The Alfred

*\*After the seminar, Martin Johnson related a similar situation with B. masoniana. It had become extinct in the wild and there were no specimens in the Singapore Botanical Garden. The species has been replaced by seeds from other areas.*



D. Robinson branch came to its rescue, along with a very caring Park Staff member.) The City of San Diego cannot be faulted any more than any other agency; a similar situation existed at Los Angeles Arboretum, as our former ABS president John Provine explained in his banquet speech to ABS a few years ago. Public opinion controls the funds for these operations. Apathy on the part of branch members in maintaining these collections does not help the cause of *Begonia*.

The Barkley Collection at Northeastern University had fallen into disarray until the Buxton Branch under Joy Porter attempted to revive it and get seeds from it. The function of displays in public gardens must be considered primarily as a means to interest people in *Begonia*. Any saving of species as a result of such collections is a bonus, and I applaud the efforts of the Alfred D. Robinson and Buxton Branches.

I must add that there has been an encouraging change in emphasis in the role of botanical gardens recently. More and more these gardens have perceived their role as potential conservators and have been fighting for funding to realize that effort. Many botanical gardens apparently are paying more attention to the establishment of gene pools or seed banks.

At this point we need a definition—a gene pool refers collectively to the parts of plants (usually seeds or spores) that are capable of reproducing various traits of the species. A gene bank is the gathering of genetic material for safe guarding it. The ABS has a sort of gene bank in its Seed Fund and collectively in the gardens of its members.

The role of the plant societies is extremely important in conservation efforts and often unrecognized. The large companies tend to grow species of plants which will be useful in producing hybrids that are good marketable crops. Charles Legerwood who has been in the seed business for four decades decried the loss in numbers of species and varieties now available. He is concerned that the smaller gene pool will lead to famine some day. With so few species to interact genetically a plant disease could wipe out a whole food source. The backyard gardener used to save the best of his

crop for the next year's planting. This practice is being encouraged as a means of saving many delicious species. The amateur gardener and the plant society member who preserve the variety in the plant families are participants in conservation. The fact that ABS members grow the species and maintain the different clones is very important to the survival of *Begonia*.

Several things have happened recently that have impressed me with a need to say something about conservation and our *Begonia* gene pool.

1. While she was still Seed Fund Director, Joy Porter wrote about the potential problem the ABS faces in maintaining its seed fund. For years, Dr. Doorenbos has furnished seeds for the Clayton M. Kelly Seed Fund. He will be retiring. Since *Begonia* have been phased out as a research subject at Wageningen, this will no longer be a source of seeds.

2. Commercial sources look to the ABS for a gene pool. Although they maintain libraries, it is very difficult to gain information from any commercial source. The backyard gardener has real power in growing and handling seeds.

3. Many people assume that governmental agencies or educational institutions are the most appropriate groups to operate gene banks. Actually these groups are unreliable over the long haul because their funding priorities are not permanent. They can only be partners in the effort.

4. I read an article in the *Singapore Garden Journal* that surveyed the plants on the Malay Peninsula. It contains information about the soil and geography of the peninsula. Although primarily an article about ferns, it lists the species of plants that grow in the limestone areas. I scanned the list for begonias and found *B. curtisii*, *foxworthyi*, *ignorata*, *kingiana*, *nurii*, *phoeniogramma*, *debilis*, and *guttata*. All of these are listed in Barkley and Golding's checklist, but I do not know if any more than one or two of them are still in existence.

5. Having just completed the first part of the *Begonia* Catalog, I was aware that many of these registered *Begonia* are probably not being grown any more. Many of the early registered hybrids are species crosses and these

could be remade if the species still exist.

6. Recently when the question of aiding Scott Hoover arose there was hesitation and some question of the need to continue to support his collections and research. If our own members do not realize the need to continue to add to the gene pool, even limited amounts of fresh clones of the same species, ABS has an education job to do for its members.

7. Last year I visited the "gene pool" of the Rancho Santa Ana Botanical Foundation. There is in the Garden a special building with controlled conditions for saving seeds of California natives (many of which are endangered). The staff continues to grow the natives, collect judiciously in the wild, replant and collect seeds, and furnish seeds for replanting in the wild.

8. An effective way to store seeds over a longer range of time is possible and its use is becoming more widespread. It is possible for most kinds of seeds and spores to be dried/frozen for thousands of years and still remain viable. I have been aware of freezing seeds for some time and know that the technique is not impossible for the ordinary person to manage. I have wondered if the technique would be effective in handling *Begonia*.

The American Begonia Society can take steps to strengthen its conservation efforts and increase its effectiveness as a plant society and *Begonia* repository:

1. Recognize that probably nobody else cares about *Begonia* as more than we do and begin to **make efforts to conserve** them ourselves. If offers of cooperation come our way, utilize the source of assistance.

2. Find out **what resources we do have**. Can we determine which of the species on our many lists are still in cultivation? Continue to search for seeds of species. Do we have a registry of who is growing which species?

3. Push for more **information about the conditions** that are favorable to each species' growth. It is not sufficient to say that a begonia grows in the shade. What is the soil like? How much rainfall does the area receive? Demand the pertinent notes from the collectors.

4. **Establish a gene bank** for our treasures. Learn more about the techniques for preserving seeds over longer periods of time and

begin to store even "weedy" species in the attempt to perfect the method and establish a better seed bank.

5. **Interest and educate the young**. Pass along techniques of propagation, seed production, and maintenance to more new growers.

6. Find a "Begonia Buddy" with whom you can share information and seeds as a **safe-guard**, so you can obtain cuttings if something should affect your plants. The two of you will strengthen and encourage one another's conservation efforts.

7. Require something of the members in the society. Perhaps we should have junior members who are learning to grow plants. By the end of a second year of membership, a full-fledged member ought to be able to contribute seeds back to the seed fund from a couple of species he enjoys. Everyone ought to be an active **Species Keeper**.

For additional reading about this subject, I suggest *Plant Extinction: A Global Crisis* by Harold Koopewitz and Hilary Kaye, published in 1982 by Stonewall Press, Washington, D.C., which includes the information about *B. socotrana* and some of the thoughts on plant extinction.

## Join the NATIONAL FUCHSIA SOCIETY

MEMBERSHIP \$12.00 per year  
includes monthly FUCHSIA FAN  
The new A to Z on Fuchsias abridged version  
\$6.95 plus \$1.00 shipping (CA residents add 42¢ tax)  
Mail to: National Fuchsia Society, Dept. B  
P.O. Box 4687, Downey, CA 90241

## Pacific Horticulture

The color illustrated quarterly

for keen gardeners

\$12 a year

(\$14 Canada & Mexico,

\$16 elsewhere)

P.O. Box, 485, Berkeley, CA 94701

# Getting Together on a Name: *B.* ‘Boomer’

George Fix’s Begonia  
By Bob Hamm

Have you ever wondered how begonia varieties originate when they are not deliberate hybrids? Here is the story of one such plant.

Five or six years ago while visiting George Fix in Dallas, I was shown a seedling George had grown from seed he received as “Brazil Species” (Unidentified Species 003). The seedling was not *B. U003*, however—it was a thick-stemmed plant with growth and leaf shape similar to *B. vitifolia* but with coloration that suggested *B. U003*. I told George it looked like a hybrid of *U003* and he changed the label to “Brazil Species Cross.”

Well, the plant thrived, and because of its attractive coloration along with George’s great generosity to fellow Begoniaholics, it started to spread across the Southwest Region.

The plant proved to be very hardy, tolerant of hot, dry summers, low humidity, and even growers who occasionally forget to water. It also came through winter greenhouse temperatures in the mid-30s with flying colors and, in addition, proved to be pest and mildew resistant. It also blooms for a long period with white bloom spikes. The only problem with this plant is its inability to tolerate wet conditions.

This hardiness, coupled with the attractiveness, kept this plant distribution spreading, and, as it did, the inevitable happened. Its name went through transformations. First, someone dropped the “Cross” and it reverted to “Brazil Species.” Then someone added “George Fix” to designate the source. Then the “Brazil Species” was dropped and it was distributed as “George Fix.” So it now has four names, none “official.”

This plant deserves to be grown for its coloration and ease of growth. It is a good beginner’s plant and is good for dry climates. I have talked to several South West members about this plant and we’ve tried to unravel the name question. Mae Blanton suggested we all adopt “George Fix” as the name.

It is very possible that this cannot be offi-

cially done. The plant has been around five years or more. It is a very distinct plant not easily confused with others.

I would be very interested in hearing from anyone growing this plant on what name you have it under and your comments about it.

## Editor’s note:

Bob’s article, submitted in early March, probably would have been published and the story ended at this point—unless others corresponded with him—if I had not remembered that strange cross of *B. vitifolia* x *B. U003*. Was this the same variety that was present from time to time at the Palomar Branch meetings?

Mabel Corwin has that behemoth *B. vitifolia* in her lath house which we “locals” all connect mentally with Mabel. I wondered if the seed had been sent to the Seed Fund by Mabel. Mabel said that this was simply not so. Mabel reminded me that a plant of the cross had been entered in the 1986 Convention Show as *B. ‘Boomer.’*

At this point Mabel Corwin wrote the following:

## Story of ‘Boomer’

By Mabel Corwin

In 1980 I planted seed of the Brazil species then known as the Burle Marx begonia, later designated *B. U003*. My records are not complete, but I believe the seed came from the December 1979 Seed Fund listing on page 303.

As the seedlings grew it was obvious they were not the species that I had ordered. A few had leaves that were mostly white, one was pink. These plants were small and somewhat deformed. They never did grow normally, and gradually I lost all of them.

The rest of the seedlings were all alike. They were strong, upright growers, with thick stems. The leaf texture was rough with some of the coloration of the Brazil species.

Other growers who saw the plant felt it was a cross of the Brazil Species with *B. vitifolia*. This seemed logical as it does have the characteristics of both of these species.

In 1981 I shared these plants with other growers. I don't care much for the hybrid and gave all of my plants away. However, others were very enthusiastic and they kept urging me to give it a name. So in 1985 I named it *B. 'Boomer'* because of its size and rapid growth.

Now it seems to be widely distributed in California. Surely other growers must have planted seed from the same batch and had the same results as I did.

**Editor's note:**

I sent a copy of Bob Hamm's article to Nomenclature Director Carrie Karegeannes. Carrie immediately referred me to Thelma O'Reilly, who, in December 1981, had sent her colored slides of the plant which she (Thelma) had taken. The subject was one of Mabel Corwin's seedlings that Thelma had then been growing for almost a year. Carrie also suggested that I attempt to trace the original source of the seed.

Joan Campbell did not find a record for the source of this seed. Linda Miller was Seed Fund Director at the time of distribution, December 1979. The source will remain unknown unless a member happens to read this and recalls submitting the seed to the Seed Fund.

Thelma called immediately with a group of names of persons whom she knew were concerned with this plant Bob Cole, Bob Dodd, and Ian Robertson. I immediately sent letters to these growers who were sources for further distribution of the plants: Bob Cole and Bob Dodd replied.

Bob Cole phoned to say that the plants he distributed were cuttings from a plant grown by Helen Shortt from the original Seed Fund offering. He was sure the plants he had from Helen Shortt fit the description of our problem plant. Bob had shipped plants to the Barkley Branch show and sale in 1985. Apparently a plant label marked "Via HS" was interpreted as *B. 'Via'* and these plants were sold with this name! One purchaser seemed to have read "Via" as "Ria" and so two additional names were added to the list!

Bob Cole stated that the hybrid was not his and he had no interest in it, and that begonias with the name 'Via' or 'Ria' should be relabeled as soon as a name was decided upon.

## Some Observations

By Bob Dodd

Yes, I have the George Fix plant *B. U003* crossed with *B. vitifolia*. That's what we have taken to calling it around here. I acquired the plant from Dorothy Caviness in 1984.

I got the Cole version 'Via' in a shipment of plants he sent to our plant sale in March 1985...when the time came to prepare my plants for the 1986 show, I looked at both of them. The one from George was larger, but they were indistinguishable from each other otherwise... Ian Robertson visited with both Thelma O'Reilly and me in the spring of 1986. He could have gotten cuttings from me, and I had called it "Via". We thought at the time that Cole had just gotten around to naming the plant... It seems likely that the plant Ian Robertson is growing is actually Cole's "Via".

At the San Diego Convention, I saw a plant called *B. 'Boomer'* that also seems identical on the show table and at Mabel Corwin's house. Without being told, I assumed again that this was the plant that George Fix had been growing...

**Editor's Note:**

Having investigated the matter for previous use of name, dates of earliest publication, etc. finally it was determined the earliest registration would prevail. Bob Hamm wrote that he would not be registering the plant.

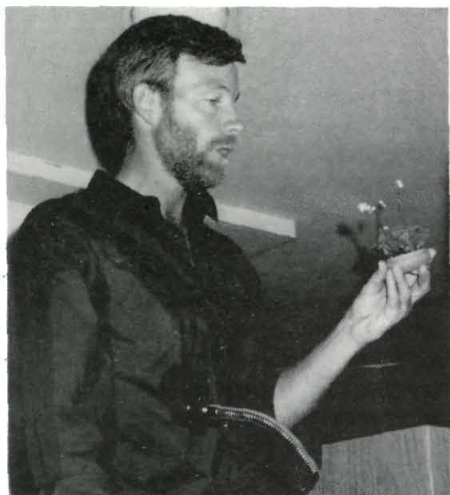
Since the name of George Fix has not actually appeared in a dated publication, and was used informally in connection with this plant, it is hoped that his name can be used in the future in association with a worthy plant to honor him for his generous spirit and constant support of the Southwest Region, the ABS and Begonias.

Mabel Corwin registered *B. 'Boomer'* with the ABS Nomenclature Department. To complete this story of *B. 'Boomer'* one final step remains, and that is self pollination to examine the offspring for resemblance to the presumed parents of the hybrid.

Contributors to this story were Bob Hamm, P.O. Box 160903, Sacramento, CA 95816; Mabel Corwin, 1117 Loma Vista Way, Vista, CA 92084; and Bob Dodd, 5400 NW 32 St., Oklahoma City, OK 73118.

# Pretty Things Come in Small Planters

Presented by Don Miller



Don Miller is a graduate of Louisiana State University and is a horticulturist for North Haven Gardens in Dallas. He was president of the Dallas Branch. His address is 1005 Mt. Auburn Ave, Dallas, TX 75223-1533.

This article is based on the program presented at the 1987 Southwest Regional Get-Together. Don Miller brought numerous live examples of miniature begonias and a group of his own color slides to illustrate the seminar subject.

When he first began growing begonias, about 15 years ago, Don Miller aimed to grow really big begonias, such as *Begonia goegoensis* with leaves two feet across and *B. 'Freddie'* with leaves 3 feet across. Although he practised all the techniques he knew and "fed them three times a day, put them to bed early, misted the leaves, played classical music to soothe them, and even whispered in their ears," he still didn't achieve his goal. He came to the conclusion that he just wasn't going to get big begonias and completely reversed his plans to concentrate on growing small begonias.

This turned out to be an advantage since his present growing space at home is quite limited: he can keep many more plants. He is able to accommodate more than 50 plants under

a four-foot fluorescent fixture. His collection contains both begonias that are naturally small and those that can be dwarfed by pruning and/or holding back water and fertilizer.

The principal parent of miniature begonias is a Mexican species, *B. bowerae*, discovered by Mac Dougall in 1948. It has been included in at least 800 named cultivars. *B. bowerae* is sometimes called the "eyelash begonia". Its flowers are white or sometimes very light pink. This rhizomatous species also appears as a variation, *nigra-marga* which has brown markings along the leaf margin and some brown on the leaf itself. Both variants can be grown successfully in a "dry terrarium" where the humidity is high, but the soil moisture is low. The plants are seldom fertilized, and Miller takes tip cuttings to keep the leaves small.

Also good parents of small begonias are *Begonia dregei*, *suffruticosa*, and *partita*, all semituberous species of African origin. These have small leaves and can be maintained as small plants. Growing conditions have to be maintained at an even level as the offspring tend to go into dormancy if stressed or shocked.

Two tuberous species used as parents are *B. morelii*, and *sutherlandii*. These African species show white and orange flowers, respectively.

*B. solananthera*, a trailing plant, is kept dwarf by treating it somewhat like a bonsai, pruning the roots periodically and watering only sparingly. Eventually it will expire after 2 or 3 years, so it is advisable to start new tip cuttings periodically.

Other species that are naturally small and pass this trait to their offspring are:

*B. boisiana*, shrubby, small leaves, from Indochina

*B. bogneri*, tuberous from Madagascar, good in sphagnum moss in a terrarium

*B. prismatocarpa*, and its variant, 'Variegation', yellow flowering, vining type, great in a terrarium

*B. thelmae*, trailing plant with small colorful leaves, white flowers



Don Miller displayed begonia miniatures in a terrarium and on table top (page 99) at the

South West Region's 1987 Show. Photographs by Eleanor Calkins.

*B. dregei* and its hybrid 'Lacy Dregei', good bonsai subjects

*metachroa*, much used in hybridizing

*polygonoides*, small-leaved hanging plant, African

*serratifolia*, one Miller is experimenting with to try to keep small, likes moisture, lots of light, dies when temperatures exceed 100°.

There are lots of miniature rex cultivars, so *B. rex* must be included in the list of parents species for this group, although the species is not small. Quite often a rex cultivar rather than the species is the parent. The resulting plants usually exhibit colored, patterned leaves. Possibly the smallest begonia of all is a rex cultivar, *B. 'Peridot'*, a sport of 'Wood Nymph'.

The following *Begonia* cultivars are small or adaptable:

'Smidgens', white to light pink flowers

'Midnight Twister', natural leaf of medium size can be kept to 1 1/2" by dwarfing, spiral leaf

'Five and Dime', Worley hybrid, natural mini, silver, semispiralled leaf, white flowers

'Small Change', grayish silver leaf with ruffled margin, stays very small

'Yutum', *B. aridicaulis* hybrid

'China Doll', leaf to 2 across

'Little Darling', old hybrid, leaves to 2", greenhouse care

'Libby Lee', very small naturally, little brown eyelash

'Little Joe', offspring of 'Libby Lee'

'Butterscotch', small rounded leaves with coppery sheen, high humidity in terrarium or greenhouse

'Tiger Kitten', fairly small, old cultivar, greenhouse

'Royal Lustre', Bernard Yorke hybrid, used widely as parent

'Whirlwind', spiral leaf, red mottling, does not need terrarium

'Red Doll'

"Pink African Violet Begonia", cross of *B. socotrana* and *B. herbacea*, roots from leaves, is winter blooming, stays small

'Dryad', *B. dregei* crossed with possibly 'Bokit', goes dormant if stressed, replot to force active growth

'Granada', Worley's upright rhizomatous, white to pink flowers

'Wood Nymph' and 'Exotic Peridot', closely allied to 'Peridot' need "dry soil" terrarium care

'Red Planet'

'Enoch'

'Bowtique', tight compact plant

'Red Spider', rhizomatous, patterned leaf

'Gay Star', medium plant that can be made smaller

'Amber Meyer', a little cane type

'Mini Merry', mini rex, good light and cool temperatures enhance color

'Ruby Dew', a Worley mini rex hybrid

'Merlin', offspring of *B. morelii*

'Granny', old cultivar, small rex cultivar

'Tiny Gem', small, can be grown in a basket

Don included directions and hints for growing miniature begonias within his commentary on the specimens. He grows his plants under fluorescent lights, with the plants begin about 12 or so inches from the tubes. This could be done as well on a windowsill where the sunlight does not fall on the plants. Those species that require high humidity are placed in a terrarium with soil moisture carefully maintained at a dry-moist level. Mildew and pests have posed no problem. The terrariums are washed and sterilized before use, and plants in them are constantly groomed, with all debris being removed immediately.

Don contrasted the method for dwarfing with horticultural practices at the nursery where he works. When conditions in the spring are ideal, temperatures are moderate to warm, the light is good and the air moist, then

all the plants will grow vigorously to fill containers as rapidly as they can. The plants grow larger and the roots spread accordingly. The leaves continue to expand in size as long as the plants are not rootbound. Once a plant becomes rootbound and its vigorous growth is stopped, it is extremely difficult, or often impossible, to bring it back to vigorous growth. High temperatures also cause plants to stop growing vigorously.

In creating and maintaining miniature begonias, Don reverses those principles. Small plants and tiny leaves are the result of infrequent feeding, low moisture, root pruning, and root crowding. Plants which might otherwise grow to medium size become dwarfed. As a rhizomatous type grows taller than desired, the plant can be removed from the pot, the lower half of the rootball sliced away, and the plant replaced in the same pot. Newly emerging leaves will be smaller in diameter than normal. Miller uses Promix, a standard commercial potting mix.

The plants are frequently shaped by taking tip cuttings, a practise which tends to keep

Continued on page 107



# Notes on Unidentified Species

## Changes, Corrections, Questions

Thelma O'Reilly, project director

Make these changes in the margins of affected issues so you will be aware of them if you refer to them in the future.

### April-May 1986 issue page 48.

Seed Fund offering M-A 10 should be *B. U188*.

Correct the spelling of *B. paleata* within the text under the heading for *B. acida*.

### April-May 1986 issue, page 53.

Insert the word *pedicel* after '3/4"', in the right hand column, line 13.

### April-May 1986 issue, page 56

In the description of *B. U047*, the succulent stems grow to *3 feet high*, not three inches.

In description of *Begonia U049*, collected by the *late* Ralph Spencer, on line 13 the margin should be described as *finely ciliate*. On line 14 change *dentate* to *crenate*, and insert *lanate* before *quickly drying* on line 16.

Information about the Unidentified Begonia Species has been printed in the *Begonian* in the issues indicated:

U001 - U032, February 1981

U033 - U049, March-April 1986

U050 - U062, July-August 1984

U063 - U079, November-December 1984

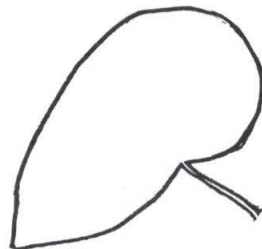
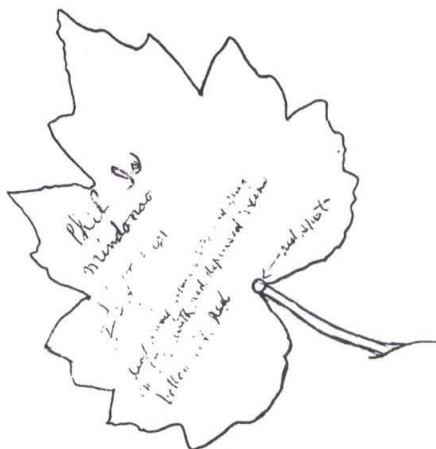
U080 - U087, July 1982

U088 - U089, November-December 1984

*Begonia U061* has been lost. The seeds collected never developed into mature fruiting plants, and no distributions were made.

*B. U057* is a new collection of the same species as *B. U040*. It is however, a different form of the species and this is why it was given a separate U-number. The correct name of the collection site is the Wawai River vicinity.

Thelma O'Reilly would like to hear from anyone who is still growing a large leaved plant known as 'Sledding'. This *Begonia* was grown by Lyle and Diane Madsen, who lived (and perhaps still may live) in northern California.



MADAGASCAR

The files include two mystery drawings of begonias. The leaf outline drawings, here greatly reduced in size, were submitted to Phyllis Bates while she was in charge of the Unidentified Species Project. The name of the person was separated from the drawings. If you recognize the drawings and can furnish some information about them, please contact Thelma O'Reilly.

Notes accompanying the leaf with the smooth margin indicate that it came from Madagascar, is silver and pink on upper surface with pink blooms.

The notes on the drawing with the lobed margin indicates that the begonia was collected on Mindanao in the Philippines, grows to 2 1/2 feet tall, red spot where blade joins

Continued on page 107



## ROUND ROBIN NOTES

Margaret Coats, Director

*This month we say farewell to Mary Ellen Taback, who has been director of our Round Robins since the fall of 1985. She and her husband have plans to travel, and she says the robins can't just nest while they fly on their way to exotic places. Keeping all the flights organized and preparing the column for the Begonian is a time-consuming job, and she did it faithfully and well. We wish the Tabacks much pleasure in their journeys.*

Part of the enjoyment in the Robins comes from the varied experiences of growers in different parts of the world. **Greenhouse grower** Frances Hoffman, NY, uses a strong malathion solution to water the pebble floor of her greenhouse at housecleaning time to rid it of sowbugs, snails, and slugs. Meanwhile, Glennis Crouch, TX, is using mothballs to repel armadillos, while Chris Giordano, NY, fights off gypsy moths on what she describes as their favorite begonia, *B. luxurians*.

If you are building or remodeling a greenhouse, here are some ideas: Art Sackentruther, CA, rates glass as the number one glazing material with Filon fiberglass second. Art has found a new ventless type of heater which he thinks will solve many cold weather problems common to the greenhouse growers.

Carl Walker, Jr, of New York recommends that you have *no* built-in stands or benches. A good maximum-minimum thermometer is a good investment and worth its cost. He also advised that a plant that is doing well in one spot be left there, as a greenhouse has varying microclimates.

A good cane for the greenhouse is *B. 'Hannah Serr'* agree several members. Charlotte Kuhnle describes it as very vigorous with enormous blooms. Betty Tillotson's choices are the well known favorites, 'Looking Glass', 'Irene Nuss', 'Aya', 'Sophie Cecile', and 'Barbara Ann', while Russ Richardson prefers 'Guy Savard' and the low-growing *B. 'Ken Lau Ren'*. Another low-growing cane, *B. 'Lois Burke'*, is Dan Paulson's choice. A

profuse bloomer, he notes.

Hang *B. procumbens* and *B. solanandra* near the top of your greenhouse, advises Frances. The high light encourages early spring bloom. *B. procumbens* enjoys early morning sunlight for Glennis, and does not bloom well without it.

**Propagators** will benefit from the book *Secrets of Plant Propagation* by Lewis Hill. It is published by Storey Communications, Inc. in Pownall, VT 05621. Art Sackentruther recommends this. Meanwhile our members offer some tips they find worthwhile. Before sowing your seed, water your sowing mix with weak fertilizer solution, advises Arlene Peck, and you will have stronger seedlings. Another grower suggests very gentle mist-spraying with such a solution as soon as you note green growth. Do not "push" a plant you are trying to set seed on by using unusual amounts of water or food, cautions Rhodora Buss, because you could lose the entire plant. Test your seed for viability to predict its success by rolling it on tilted paper, and checking its roundness with a magnifier.

When starting **rex begonias** from leaf cuttings in a prop mix, cut the stems to about 2"; and insert them far enough so that the joint between the petiole and leaf is just resting on the mix surface. A necessary rest period for rexes begins with an overall lightening of the color intensity of the leaves, notes Rhodora. This occurs frequently after a bloom period. The very cool temperature of late fall will produce full dormancy, but if you put the rex into a terrarium before this occurs it will continue to be beautiful all winter.

Elaine Ayers reminds us to pinch the blooms off weak plants to encourage stronger growth.

Joan Campbell quotes Rudolf Ziesenhenné: the Mexican tuberous species produce either bulbils or flowers but not both. *B. sandtii* is an example. Plant the bulbils in February, reports Joan.

If your seedlings are struggling against

the competition from algae on the surface of their growing medium, here are three suggestions: Joan uses 50% alcohol spray or Physan to control the algae. Others use a small implement to stir the soil surface, while Howard Siebold transplants the seedlings every six weeks.

Keep your pollen in the refrigerator until you need it. Both Martin Johnson and Charline Franklin agree that heat has an adverse affect on the viability of pollen.

Joy Porter reports that *B.* 'Texas Star' produces quantities of good seed, a note of use to hybridizers. "You can put 'Lenore Olivier' in almost any cross and be assured of having a flat of canes that are interesting," says Bob Dodd. He reports that Dorothy Caviness produced a cane with a double curl at the sinus.

Antitranspirants prevent mildew and also help blooms stay on longer, observes Charline.

Dan Haseltine and Mabel Corwin compared notes on *B.* U014 and Logee's Argentine species. Dan finds that the Argentine species is a shorter plant with more branching and more shoots from soil level, and smaller leaves than U014. Mabel says that U014 was assigned to the plant designated in the trade as "Argentine species," so Logee's plant must be another form of the same species. She selfs it every year with no problem, but it does not seem to cross well. She is working toward a stronger form of the plant.

Ruth Wills crossed an orange tuberhybrida with a cane. "Every one came out tuberous," she reports.

Semperflorens fanciers Janette McCombs and Pauline Chambers both successfully root semps from just a leaf. *B.* 'Orococo' roots for Glennis Crouch from both stem cuttings and leaves. She attributes its ease of leaf-rooting to its rhizomatous parent, *B.* U003.

Are *B.* 'Wood Nymph' and *B.* 'Peridot' the same? asks Ruth Wills. Mabel's answer is that 'Peridot' sports, and all three, 'Exotic Peridot', 'Wood Nymph', and 'Peridot' itself are the same, sometimes all appearing in the same planting.

Members frequently have problems with rex begonias. Betty Tillotson writes that rex cultivars should be treated like the rhizomatous begonias (which they are!): keep them cool and beware of overwatering. The only reason for putting them into a separate show division is that the brightly colored foliage would make unfair competition with other rhizomatous in a show.

**Summertime hints:** If you put your plants outdoors during the summer months, Elaine Ayers offers this time saver. She fills a 32 gallon trash can with water to which is added the manufacturer-recommended amount of 20-20-20 fertilizer. When her potted plants need water, she uses this solution. When it rains, any excess salt buildup is drained from the roots.

Several members cut up old nylon hoses to stuff into the drainholes of pots sunk into the ground for the summer. This allows the pot to drain but prevents pests from entering the pots. Another member uses pots with many holes and finds that slipping the pot into the foot-ankle part of the hose screens the entire set of openings.

Tuberous **begonias** sprout better if they are given a cold treatment for at least two weeks before the planting date. Store them in the refrigerator advises Ken Mackey, New Zealand. If the brittle stalks of the tuberous sprouts snap off, they can be rooted in water under lights, even if they are thick as a thumb, says Elaine Ayers.

Cutworms which attack tuberous begonias planted in the ground can be controlled by Diazinon, reports Howard Siebold. Lindane will handle the grubs of the root weevil, while Orthene will take care of the adults.

Be careful in your use of the time-release fertilizers in hot weather, as the release occurs only when soil temperatures are above 50°F, and increase rapidly as the temperature increases. It is possible to cause fertilizer burn on a hot day. The release of the fertilizer from the encapsulated pellets is not affected by soil acidity or water, only by temperature.

**Terrarium** growers enjoy *B. aequata*, (*B.* U075). This species is like a very tiny ivy, running everywhere in the bowl, writes Arlene Peck. *B. chlorosticta*, far from tiny, does best for Kathleen Herr in a terrarium. Priscilla Beck's experience is that *B. chlorosticta* must be kept growing rapidly at all times. She does not recommend cutting it back.

Check the pH of your terrariums occasionally, advise both Frances Hoffman and Charlotte Kuhnle. Keep it between 6.5 and 7.0. If outside those limits, throw out the old mix and put in new.

Unidentified species U074 needs a terrarium in Perth, Australia, where Robin member Ian Robertson lives. It also prefers subdued light. Dora Lee Dorsey grows *B.* U074 under lights but not under cover; it trails and blooms all winter for her enjoyment.

**Unidentified Species** growers enjoy *B.* U003, the Best of Show winner at the San Diego Convention in 1986, but this plant causes trouble to many. It is difficult to start from single stem cuttings, requiring the use of a terrarium. Although it is a thickset, compact, shrublike begonia, it must be treated as if it were rhizomatous. Between the nodes are woody stems, points out Thelma O'Reilly, not rhizomes. *B.* 'Boomer' was once confused with *B.* U003, but 'Boomer' is a hybrid of *B.* U003 with *B. vitifolia*. A color photo of U003 is the cover of the Feb. 1981 *Begonian*. U-numbers run from 001 to 217 so far, Thelma reports, with some of these begonias having been identified.

**Greenhouse** growers welcome the new saucerless hanging baskets. They are perfect for plants that like to stay slightly moist, like Achimenes and Kohlerias, notes Carl Walker, Jr., although Aeschynanthus does not like them. Carl describes his easy-do white fly catchers: make a hole in the bottom of a bright yellow plastic drinking cup. Put a twice-bent wire thru the hole and add a hanger. Then cover the outside with sticky stuff. Hang several around your greenhouse and you are on your way to controlling the pests.

Did you know ABS has a **Gesneriad** Robin? Mary Simon of that robin recommends *Streptocarpella* as "everblooming treasures." Elaine Ayers grows some of her difficult mini-sinningias in a terrarium, with very good results.

A few months ago a robin took up the topic of **edible begonias**, which we reported on. Recently Martin Johnson and Mary Weinberg told about the tea made in China from *B. fimbriatipula*, and the pickled tubers of *B. picta*. Erich Steiniger reminded us of the *Begonian* article by Scott Hoover in the Sept. 1980 issue about medicinal uses. Erich has a Brazilian book of 1971 advising various begonias, mostly prepared as teas, for use as diuretics or for lowering fevers.

Bob Moore has an ingenious friend who saves repotting his **rhizomatous** begonias as they grow larger in the following manner: he overpots as if the plant were its mature size. Then he inserts vertically thin strips of plastic about 1 1/2" away from the existing root system. As the roots grow, he moves the plastic strips further away from the roots, adding more strips as his circle grows larger. The strips are inserted close together, fooling the plant into thinking it is in a smaller container. Rhizomatous begonias store water in that rhizome, hence the need to avoid overwatering. Keep them all on the dry side, reminds Bob, especially the fussy ones like *B.* 'Cathedral'.

**Holdovers** are those lovely specimens the grower refuses to see go dormant or die in winter. A greenhouse or lighted area lets many a semperflorens flourish all winter. Marvin Kahr digs his semps in late October, puts them into a washtub, and packs soil around them. They overwinter in the basement in a semidormant state, with occasional moisture added and the light low. When new pink shoots appear in spring more light is given and soon the plants are ready to go outside again. Marvin lives in Iowa. Dora Lee Dorsey says that the only semp her fellow Floridians overwinter is *B.* 'Charm'. All the others grow quickly from seed.

Continued on page 107

# NEWCOMER'S NOTEBOOK

By Jim Whistler

## The Medium is the Means

I'd guess that most Begonia hobbyists, like nurserymen, grow their plants in containers. Oh sure, a great many semps and tubers are set directly into the garden bed each year, and some canelike varieties, too. The begonias we want to have in our greenhouses, in our living rooms, plant rooms, patios, and light tables grow in pots or baskets.

In the early days of begonia culture, the grower used garden soil in these pots. Eva Kenworthy Gray, in *The Begonia Book*, recommended leaf mould and sand in equal proportions to which she added "old rotted cow manure." She either baked or scalded the mixture with boiling water. Not many people want to do that in their kitchens today.

A whole new group of products were developed in the trade to cope with the problems of obtaining, storing, and handling these ingredients. Somewhere along the way, hydroponic gardeners proved that plants would grow in a nutrient bath. New substances began to replace compost and humus and well-rotted cow manure. Such ingredients as peat moss (a bog plant), perlite (a crushed mineral heated until it explodes), vermiculite (heat-expanded mica rock), and styrofoam pellets were found to be useful to support the roots, to transport nutrients, to provide drainage and air.

A mixture incorporating some or all these non-soil ingredients is often called a *potting medium* (*plural=media*). Modern media are tidier than these early potting soils and practically odor free.

One definition of *medium* given in the dictionary is "an intervening substance through which a force acts." Thus this word avoids the question of the potting mix and source of the ingredients. A medium may be potting soil, or soilless mix, or a combination of both.

A lot of research goes into concocting a commercial planting mix (ask the kids in Ag classes) and the stuff in the bag is touted to

grow a variety of plants. I haven't found one that seems exactly right for begonias. Personally, for my begonia collection I like to use Unigro, Loamex, or Supersoil with perlite and sometimes vermiculite added. The amount of perlite is as high as 35% or as low as 10% so that I can water all the plants at the about same frequency. It's not an iron-clad method, alas.

## Trailing and Scandant

The classification system for our begonias is based on the idea that varieties of the similar growth structure will be competing against one another in our shows. Each cane-stemmed begonia is judged with other cane begonias, and there are likewise groups for the tuberhybrida, the rhizomatous, semperflorens, and several other groups.

A second advantage to the classification system is that the begonias in the same class tend to benefit from the same sort of care.

The trailing-scandant group is one that keeps me guessing, however. I have no particular gripe with the trailers that hang or grow downward competing against the scandant begonias that climb or clamber upwards. Sometimes the begonia will either trail or climb depending upon circumstances—or the determination of the grower.

But I sure wish, now that there are a lot more of these types to consider, that the folks who are growing and writing about them would mention that a begonia is naturally scandant and therefore needs support for its wandering stems or that it is really drooping, with a need for space to cascade.

It would have saved a couple of now dead plants of *B. thelmae* [Ed: see the Seed Fund] to know that it is scandant and doesn't trail. I have an unlabeled climber that doesn't want to hang—and if I ever find out what it is, I'll tell you it's scandant, and not trailing-scandant.

## A Rex Begonia

It's a hard-hearted grower who doesn't want to have rex begonias. Especially beginning growers. Experienced growers who avoid rexes are likely to be defeated and bitter. Yes, emotions tend to enter into the growing of rexes.

For satisfaction at the outset, try the rex, *Begonia* 'Lady Frances Jean'. She's a good-looker, and she grows as if she read the directions for handling rexes. What's more *B.* 'Lady Frances Jean' has been in cultivation for a long time and still keeps turning up with blue ribbons in the shows. Get a couple and enjoy having a rex around the house.

## Begonia Pots

I've been accumulating a stack of little pots that once held begonias. The begonias have long since been moved to larger and larger containers. Before the weather gets chilly, I plan to soak them in water in the sunshine—taking advantage of the sun to warm the water. The tough customers will get action with a brush. I wash all of them in bleach solution, about a cup to a pail, and stack them when dry on the shelf. This should get rid of any algae and other undesirable gunk.

When the new seedlings are ready to transplant next spring, I'll be glad I did this. It's really best to get to this task immediately but somehow the little rascals need to move to bigger pots before I have time to clean all the small ones they vacate.

When I tried to buy new pots this spring, I found it hard to locate some of my favorite size and style pots, so it's important to take care of them. The tiny ones were the hardest to find.

Ed. Note: This column was "bumped" from an earlier issue when the Seed Fund contained *B. thelmae*. You can see *B.* 'Lady Frances Jean' on the cover of the March-April issue.

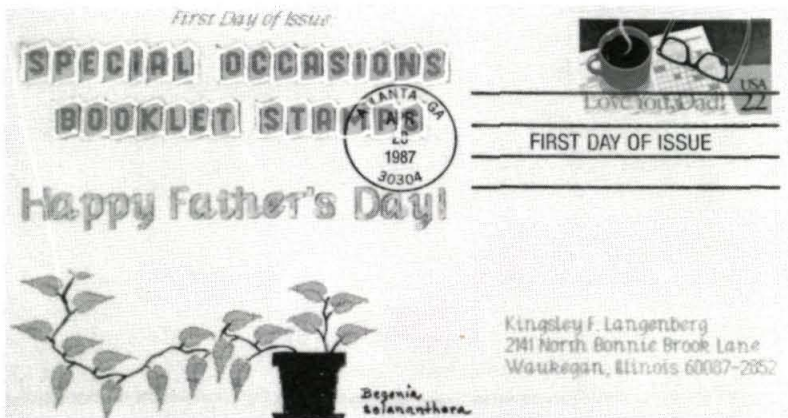
---

## TERRARIUM SOURCE

Mary Smithe, Wyoming, Mich., answered the appeal for terrariums: I have a couple terrariums (16" and 20"). They have sturdy plastic pedestals to stand on the floor and the large plastic globe, with rotating vent on top, comes apart in halves for easy access; they cost in the range of \$20. I saw some in a store locally, so you can contact the Sales Department of Lawnware Products Inc., Morton Grove, IL 60053 (no street given).

## FIRST DAY COVER

King Langenberg combined his hobbies, growing begonias, collecting first day covers, and using his computer, to produce this envelope with *Begonia solanthera* for a special Father's Day stamp issue.



## BEGONIA PORTRAITS



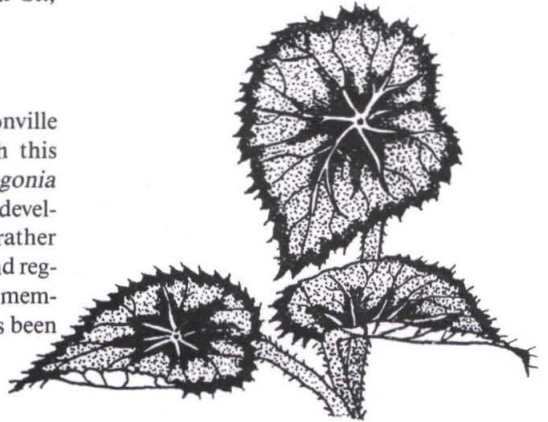
### *Begonia* 'Southgate'

Bob Cole of the Plant Shop's Botanical Gardens wrote about and photographed his hybrid. His address is 10087 Topham St., Reseda, CA 91335.

### Unnamed Seedling

Ed and Mary Harrell, of the Jacksonville Branch, have printed stationery with this drawing of an unnamed seedling of *Begonia* 'Dancing Girl'. This canelike plant was developed in 1978 by self pollination. It is rather surprising that it has not been named and registered since it is a great favorite with the members of the Jacksonville Branch and has been a frequent awardee at their shows.

—Eleanor Calkins



### *Begonia* 'Southgate'

This cultivar was named for the city that hosted the ABS Board of Directors' meetings for many years. It is a cross of *Begonia conchifolia* var. *rubrimacula* and an unidentified Costa Rican species that Rudy Ziesenne introduced with the number 3842 some years ago.

A strikingly handsome rhizomatous plant, *B.* 'Southgate' has bright green peltate leaves with a red central dot and some red veining. The petiole and the veins on the upper side of the leaf are covered with a buff-colored mat of hairs. The petioles reach 10'' and have a stocky appearance. Thus the flowers are well above the foliage. The flower spike and the stipules are covered with the same buff-colored, velvety mat. The bracts are edged in bright rose. A profusion of buds bursts forth pink in color, but as the flowers open the first blossoms are white trimmed with bright green and the ones following are pink, a delightful thing to watch.

The plant is easy to grow and to propagate. It should be a good shade garden plant for warm climates and a good window and house plant otherwise, as it is full and showy.

#### The Indoor Gardening Society of America, Inc., Dept. B

944 S. Monroe Rd, Tallmadge, OH 44278  
Dues \$10 a year. **INDOOR GARDEN** issued  
6 times yearly. Seed exchange, round robins,  
cultural guides, slide library.



#### GROW GREAT FERNS

Annual membership \$15.00  
LAIFS Journal with Fern lessons, Robins,  
Spore Store, Books, Educational programs.

#### Los Angeles Int'l Fern Society

P.O. Box 90943, Pasadena, CA 91109-0943

## Round Robin Notes

Continued from page 103

Her tuberous "Non-stops" are put into small plastic bags along with a little peat moss, says Frances Hurley of Chicago. She keeps an eye on them all winter, giving a little water if they dry out. The bags take up less space than pots would.

To one member's complaint that "buying a Rieger is like buying a fresh-flower bouquet," another member suggests that he keeps his Riegers going all winter. In early October he lets the plants go almost dry in a cool place. In mid-October he takes cuttings to start under lights. By the following spring there are nice plants ready to burst into color.

Elaine Ayers overwintered tubers by two common methods, leaving some to dry in pots and digging and storing others. She found that the ones stored in their pots continued to bloom until January. Placed on their sides in the greenhouse for storage, this year's growing season found them outperforming those that had been dug and stored in the basement. The tubers of the latter, however, had become twice the size of the pot-grown tubers. Beryl Orchard finds the survival rate better if tubers are left in their pots rather than stored in peat.

Here is a challenge for those of us who have freezing winters: *B. vitifolia* will grow up to ten feet tall, says Mabel Corwin of So. Calif.

**Are you a member of a robin. If not, you are missing out on a lot of fun. There are openings in almost all topics, with a critical need in Growing Under Lights, Photography, Midwest Growers, Rexes, Research, and Odd/Rare/Unusual Begonias.**

**Margaret Coats  
Round Robin Director  
11203 Cedar Elm  
San Antonio, TX 78230**

## Pretty Things in Small Planters

Continued from page 99

leaves small, and the cuttings are rooted as new plants as insurance against losing a species. His tools are small scissors and toothpicks or other items appropriate to the size of the plants. Don collects small planting containers — bonsai pots, teacups, other decorative items — and tries to suit the style of the plant to its container. Some of these have drainage holes, but often they do not. This is where Don's skill as a horticulturist is revealed. He is able to judge the water requirements so he neither underwaters nor overwaters, a skill he has honed through experience. Maintaining the collection of miniature begonias has become an challenging, absorbing routine.

## Notes on Unidentified Species

Continued from page 100

petiole, blade shows small silver spots on green on upper surface with red depressed veins, bottom side red.

There is a possibility that these drawings were sent by a non-member plant collector from the Los Angeles area who had traveled to the Far East. If you sent these drawings, or know of the collector, or are growing these begonias, please help so we can straighten up the confusion and print the next group of unidentified species.

## BEGONIA QUESTION BOX

*Mabel Corwin answers questions about begonia growing. Items of general interest are printed to assist others. Write to Mabel Corwin, 1119 Loma Vista Way, Vista CA 92084. Include a stamped, self-addressed envelope for a prompt personal reply.*

### ANTONELLI BROTHERS

2545 Capitola Road  
SANTA CRUZ, CALIFORNIA 95060  
22-page color catalog \$1.00

## THE EDITOR SPEAKS

There is something you can do for the ABS that will take only a few minutes of your time. You can send seeds of your *Begonia* species to the Clayton M. Kelly Seed Fund. There is no Seed Fund listing in this issue because the weather is hot and this is not the best time to mail seeds.

There is a good possibility that there will be no Seed Fund listing in the next issue either, unless you, the members, respond to the pleas of Joan Campbell with donations of seeds. Dr. Jan Doorenbos has been supplying large amounts of seeds to the ABS for the purpose of propagating the species in many geographic locations. Dr. Doorenbos has retired and can no longer continue this practise.

If you have been a member of the ABS for more than a year, you have a debt to repay in kind. You have gotten begonias from seeds from the Seed Fund, either directly or indirectly. Now, choose a species or two which you have grown successfully and produce seeds for your Seed Fund. This has been a wonderfully successful part of our organization for many years. Please help to continue its operation. A few seed pods is an easy way to pay for the pleasure you get from growing begonias.

Speaking of seeds, I hope that all ABS members will contribute to Scott Hoover's expedition expenses. For some people, the trip means access to seeds and only that. They are unhappy if no new exciting undiscovered easy-to-grow species result. They do not want the same old things.

However, the gains of the trip do not lie only in new plants which we all love, but also in what we gain for the future: new understandings of the nature of plants, a better sense of the climatic conditions of the original habitats, the potential new hybrids, the

challenge for discovering what will make the "difficult" species more manageable, and the ultimate gain of retaining *Begonia* as a viable species on the earth.

Martin Johnson has been writing letters to individuals asking for contributions for the Conservation Fund. Big gifts are necessary and welcome, but a lot of gifts of \$5.00, or even \$2.00, can indicate that you support studying and saving *Begonia*.

Martin Johnson was honored last year with the Herbert P. Dyckman Award because of the seeds, plants, and literature he has introduced from the Philippines. I personally know that Martin has spent a lot of money gathering these plants. Not always as a purchase price, but in postage, exchange plants (other species which he must buy, wrap, and mail), books, magazines and scientific literature, not to mention time and effort. His gifts to the Society have been free to us. Martin is busy at trying to help Scott and to build up a seed bank.

Not everyone has the ability and the opportunity to go on collecting trips and spend the time afterwards interpreting what they find, but we can assist by supporting those who can carry out field studies.

I am grateful to Tamsin Boardman for assuming the editor's chair. Personal matters have made it very difficult to adhere to any sort of schedule during the past several months. I look forward to being able to participate in some other way at a later time when I am able. My thanks to those whose support made being ABS Editor a great experience.

## NOTICE

Mention of a product in the *Begonian* does not constitute an endorsement of that product by the Society, its officers, or the author of the article. The ABS assumes no responsibility for reader's use of methods described.



## 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.



# Honor Roll of Contributors

TO SCOTT HOOVER TRIP

The American Begonia Society

James Newbold

Martin Johnson

Mary Ellen Taback

Sadore and Alice Gold

San Francisco Branch

Australian Begonia Society

Connecticut Branch

Hikoichi Arakawa

Ian Robertson

Elizabeth Hahn

Mabel Corwin

Barbara Philip

Buxton Branch

Palomar Branch

## ABS NEWS

### ABS SPECIAL FUNDS

During the past several months the ABS Board of Directors has received several inquiries regarding spending funds in our savings accounts for purposes other than that for which they were intended.

Over the years, the ABS Board has established various funds for specific purposes, so the funds would not be used for routine expenses.

As an example, the Catalog Fund is to be used for the publication of the Catalog of Registered Cultivars. The first volume of the catalog was published last year, listing registrations 1 to 100, at a cost of \$1550.51.

At the present time the various dedicated funds have the following balances:

Life Membership	\$12,134.02
Convention Account	3,333.48
Catalog Fund	11,442.88
Research Fund	3,868.00
Conservation Fund	724.73
Total	\$31,503.11

These funds are increased through interest paid by the bank, through donations from members, and from contributions from proceeds of various projects, for example, the occasional special plant sales at the Conventions. Since 1980, these funds and the checking account for the general fund have been earning interest.

John Ingles, Jr  
Business Manager

### THE BEGONIA BOOK

The price of *The Begonia Book* is \$5.00, shipping costs included. This little volume is a replica copy of the first book on begonias published in the United States. Eva Kenworthy Gray was its author. Order from the ABS Bookstore, Bob Bailey, manager.

### BUXTON CHECK LIST

The ABS Bookstore now has copies of *The Buxton Check List* available for \$20.00, postpaid. California residents must add sales tax. Supplements are included.

### BRANCH DIRECTORY REVISION

If your branch listing is incorrect or outdated, send the revisions to the ABS Secretary, not the editor. It is the duty of the branch secretary to keep the national secretary informed of changes.

Jeannette Gilbertson, ABS Secretary  
410 JoAnn Circle, Vista, CA 92084.

### SLIDE LIBRARY WELCOMES ADDITIONS TO ITS PROGRAMS

Slide Librarian Dan Haseltine will welcome 35mm slides of begonias. You may send individual slides or several slides or an entire program set. Please identify the plants, owners, locations, etc., as slides with no data are not useful to others.

## MINUTES OF THE BOARD OF DIRECTORS' MEETING

May 3, 1987

The board meeting of the American Begonia Society was held at the Corona Steak House, Corona, Calif. President Margaret Lee called the meeting to order at 11:30 a.m. Aims and Purposes were read by First Vice President Arlene Davis. Minutes of the March 15th meeting were approved as mailed.

The treasurer's report showed a balance as of Apr. 30, 1987 of \$16,765.71 in checking, and \$33,322.82 in savings.

Business Manager has been asked by different branches if the ABS has insurance to cover branch shows. We do not at the present time because of the difficulty in obtaining such coverage and high cost. It will be checked into further. John was asked to prepare a short article for the *Begonian* to explain what the funds in the various savings accounts are designated for. The \$33,322.82 is not all available for spending; certain amounts must be maintained, for example, for life memberships.

Conservation director Martin Johnson reported through board members that all seeds he had received have been distributed. Martin has sent out plants by Parcel Post to find out how long it will take and how the plants do to simulate how long it will take Scott Hoover to mail back the cuttings and plants he will be sending after his next trip.

Scott Hoover has requested funds for his January 1988 trip to Ecuador. Board pledged \$500 to be sent in September, money to come from the Conservation Fund, as long as the fund does not go below \$500. If so, the rest will be taken from the general checking fund. In addition, any individual or branch may also make a donation to support Scott's trip, and these will be forwarded.

Convention preparations are moving along. There has been one mailing to announce the dates and place and solicit donations for plant sales and trophy fund. There will be another mailing in early June with all details.

The editor reported the March-April issue of the *Begonian* is due to be mailed and most of the May-June copy is prepared. Phyllis complimented Tamsin Boardman for the fine job she has been doing with publicity. Houston Knight of Whittier Branch sent the editor a list of possible research projects. The list will be sent to new Research Director Paul Tsamtsis. One suggestion was that the ABS find a source for terrariums and send them out to branches and members. Cal Mil plastics is willing to manufacture plastic bubbles on special order. Matter was tabled for further investigation. [A query on feasibility of action was included with the minutes sent to branches.]

The judging chairman has received letters and remarks that the judging course is outdated and hard to follow. She requested that the course be revised. Board appointed a committee to do so. No more courses will be sent out until the new one is ready.

Members at-large newsletter #8 has been sent out.

As of May 1, 1392 dues-paying members, 83 life members, 109 institutions make up the roster.

Nominating committee presented a slate of candidates for office for 1987-88: President, Arlene Davis; First Vice President, Michael Ludwig; Second Vice President, Charles Jaros; Third Vice President, Bob Dodd; Secretary, Jeannette Gilbertson; Treasurer, Eleanor Calkins. The Constitution and Bylaws permit additional candidates by petition only.

Round Robin Director Mary Ellen Taback sent her final report. Margaret Coats, her replacement, sent her first report. Seed Fund Chairman Joan Campbell sent a check to the treasurer for \$519.16. The Slide Librarian Dan Haseltine sent a check for \$100.00 for the period October through February.

The board renewed membership in the San Diego Floral Association. The search continues for the Curtis prints mentioned in the March minutes.

The meeting adjourned at 3:00 p.m.

Jeannette Gilbertson, secretary

### MEETING CALL

The next board meeting will be held at the Corwin home, 1119 Loma Vista Way, Vista, CA on July 19, 11 a.m. It will be a pot luck luncheon. Please RSVP.

## BEGONIAN MINI-ADS

Miniads are a service to our members. Miniads are \$1 per line per insertion with a minimum of \$4. A line is 36 characters including punctuation and spaces. Payment must accompany order. Make checks payable to ABS

### NEW BEGONIAS, PERENNIALS

And much more! Lists + quarterly newsletter. Send \$3 to Robert Hamm, P.O. Box 160903, Sacramento, CA 95816

### CUTTINGS—BEGONIAS, GESNERIADS

& succulents, List \$1.00. Mary's Indoo Gardens, 77 56th Street SW, Wyoming, MI 49508-5738.

### BEGONIA CUTTINGS & PLANTS

Send \$1.00 for list. Kay's Greenhouse. 20' W Southcross, San Antonio, TX 78221.

UNROOTED BEGONIA CUTTINGS. Bromeliads, orchids, ferns, & oxalis. List \$1 Paul Lowe, 5741 Dewberry Way, West Palm Beach. FL 33415.

## 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 regards to kinds, propagation, and culture of begonias and companion plants.

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

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

## ABS Services

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

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

To find a branch in your area or to start a new one, contact the branch relations director for help.

**BOOKSTORE** - Books about begonias and back issues of the *Begonian*.

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

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

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

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

**SEED FUND** - The Clayton M. Kelly Seed Fund offers seeds of begonia species and cultivars by mail. New 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.

## ABS Bookstore

**The Begonia Book.** Eva Kenworthy Gray, 1931. Facsimile copy of the first book about begonias published in the United States. \$4.00.

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

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

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

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

**Mother Nature's Secrets.** Fundamentals of indoor gardening. Illustrations of 341 houseplants in color. Paperback. \$5.

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

**Guidelines for National Conventions and Annual Shows.** \$2.50. Order of 5 or more to same address, \$2.00 each.

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

**Begonian binders.** Keep your issues together. No repunching. Black. \$5.25 each.

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

Bookstore Manager . . . . . Bob Bailey  
5190 Mission Blvd. Sp.90, Riverside, CA 92509

**The Begonian.** Individual copies of back issues more than a year old. Price depends upon year. Write for information to Back Issue Sales.

Begonian Back Issue Sales . . . . . Julie Panttaja  
8969 Hope Ave, Riverside, CA 92503

### Branch Directory Revisions

Send names and addresses of group officers, meeting place and time, and other information for the list of affiliated groups to the ABS Secretary. Keep your listing current.

### Mailing Notice For Those With New Addresses

Issues sent by Third Class Mail are not rerouted to a new address unless the recipient has arranged for this service with the Post Office. The issues are destroyed, and the ABS pays for the notification of the new address if it is available. If the member misses an issue for failure to notify the Membership Secretary, he may purchase it from the ABS Bookstore.

# SPOONIT<sup>®</sup>

"GETS THINGS GROWING!"

Gives exceptionally fast results when used on flowers, ferns, shrubs, trees and lawns. May be used for foliar feeding.

get 1 lb. for

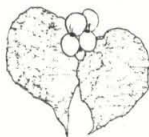
**\$4.25 pp**

MORRISON'S  
Orchard Supply

680 Jones Street, Yuba City, CA 95991 (916)673-8053



Begonia Buttercup



**KARTUZ GREENHOUSE**  
1408 Sunset Dr., Vista, CA 92083  
(619) 941-3613

Open Thurs. thru Sun., 9 a.m. to 5 p.m.

Begonias, gesneriads, flowering tropicals,  
including our exclusive introductions.

**Catalog \$2.00**

## BEGONIAS

REX BEGONIA SEED  
RUDOLF ZIESENHENNE

\$1.00 per pkt plus 20¢ postage  
Calif. residents add 6% Sales Tax

1130 NORTH MILPAS STREET  
SANTA BARBARA, CALIFORNIA 93103

BEGONIAS, GERANIUMS, EXOTICS  
FERNS, OXALIS, CACTI, HERBS

New Full Color Catalog—\$3.00

**LOGEE'S GREENHOUSES**

Dept. B, 55 North St., Danielson, CT 06239

## "Schultz-Instant"

ULTRA PURE CONCENTRATED ALL PURPOSE LIQUID PLANT FOOD

### EASY DIRECTIONS

"7 drops per quart water  
Every time you water,  
Every thing you grow."

Available at your store or send:  
\$1.85 for 5½ oz., \$3.20 for 12 oz.,  
\$4.70 for 28 oz., (Includes Mailing.)



## "Schultz-Instant"

ULTRA PURE CONCENTRATED ALL PURPOSE SOLUBLE Fertilizer

### EASY DIRECTIONS

"¼ teasp. per gal. water  
Every time you water,  
Every thing you grow."

Available at your store or send:  
\$3.20 for 1 lb., \$12.50 for 5 lb.,  
\$46.00 for 25 lb., (Includes Mailing.)

© 1983 A. Y. Schultz By the makers of "Plant Shine"  
Mfg. by SCHULTZ CO., St. Louis, MO 63043 U.S.A.



American Begonia Society  
P. O. Box 1129  
Encinitas, CA 92024-0990

Address correction requested

Non Profit Org.  
U.S. POSTAGE  
PAID

Permit No. 180  
Encinitas, CA