

Monthly Publication of the American Begonia Society



Founded by Herbert P. Dyckman January, 1932

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Views expressed in this magazine are not necessarily those of the Editors, the Society or its officers.

BEGONIA PICTA

By Ganesh Mani Pradhan, West Bengal, India

When Mrs. Thelma O'Reilly first wrote to me enquiring about my orchids, I said to myself, "Ah, more business". Not that she didn't buy my orchids, but after the 2nd or 3rd letter, she had me completely sold on the begonia idea too, with a subscription to the *Begonian* as a great bonus! Before I go on to some begonia talk, let me tell you folks what a great magazine you have in the *Begonian*. I hope I will be able to send writeups regularly for publication.

I live in Kalimpong, up in the northeast Himalayas at an elevation of about 4000 ft. above sea level. Begonias grow like mad here. We have about 15 species of begonias growing wild here from the low tropical areas at about 200 ft. elevation right up to the more temperate regions at 8000 ft. elevation above mean sea level.

The entire area of the northeast Himalayas comes under the influence of the southwest monsoons which bring in rain laden winds from June through September. Approximately 90% of the total annual rainfall comes during the monsoon period. So, the period from June through September (summer) is a wet and

humid period throughout which the relative humidity is at almost the saturation point. The corresponding winter and early summer periods, that is from November through March, are relatively rainless, dry and cold, with just some occasional isolated rain showers. Thunderstorms and hailstorms during April and May herald the approach of the monsoon months. Thus we have a warm, wet summer growth period and a cold dry winter rest period at least as far as begonias are concerned.

Begonia picta is a very common species of our area. It has small tubers . . . the largest about one half inch in overall size. The entire plant, about 10 inches tall, has plain as well as variegated leaves. We find Begonia picta making its home on humus covered rocks, bare loam ledges, rock crevices and dark rock caves and of course, by the banks of small mountain streams. The tubers which have remained dormant throughout winter spring into life around the end of March or early April. During the periodic thunder showers before the monsoons, the surrounding growing substratum is sufficiently moistened to keep the vegetative growth going. By June/

AIMS AND PURPOSES OF THE AMERICAN BEGONIA SOCIETY

The purpose of this Society shall be:

TO stimulate and promote interest in Begonia and other shade-loving plants;

TO encourage the introduction and development of new types of these plants;

TO standardize the nomenclature of Begonia;

TO gather and publish information in regard to kinds, propagation and culture of Begonia and companion plants;

TO issue a bulletin which will be mailed to all members of the Society; and

TO bring into friendly contact all who love and grow Begonia.



B. picta in the native habitat. This photo and the cover photo were taken by Ganesh Pradhan, who is an orchid dealer.

July, the plants are looking happy and green and glossy. The first flowers are seen by mid July; however, August seems to be the peak blooming season right through to September with occasional late bloomers that bloom in October too! When populations of Begonia picta are in flower, it is often not possible to see the surface on which they are growing . . . the leaves cover it all and lend a beautiful background for the rose pink flowers. Of course, Begonia picta always grows in more shaded situations and where the populations have established on more exposed places, the leaves are a rather yellowish green color. Honeybees are really busy at this time and literally crawling over the flowers and effecting pollination. Seed capsules mature quickly and are dry and brown by November. By December the plants die down and any indication of a Begonia picta population is just evidenced by some dry capsules on an equally dry peduncle. Seeds are dispersed through minute cracks along the capsule seams and the surrounding area sees a bigger Begonia picta population the following year.

Some of you begonia lovers are going to scream when I write this but *Begonia picta* makes a delightful pickle! Locally known as "makkarhajé" the succulent stems are peeled, cut into small pieces and mixed with tomato, mint and onions, it tastes delightful. The stems thus used are sour and lend acidity to the pickle.

I have not tried cultivating Begonia picta yet but I guess it would do pretty well in a coarse mixture of sand, leaf mold and some fibrous loam. The maximum summer temperature around here gets to the 90's (F) occasionally but averages around 75F to 80F with the winter low at 40F and average around 50 to 55F. However, a dry winter rest would be necessary or the tubers might rot. In fact, the tubers could be taken out from the growing medium and stored outside in a cool dry place and planted out again in spring.

Hope these notes are of some use and interest to you, readers, and look out for more begonia pickles from the Himalayas in the future.

BEGONIA PICTA VIA SEED

By Thelma O'Reilly, San Miguel Branch

Ganesh Pradhan was overwhelmingly generous with *B. picta* seed he collected and sent to me in the fall of 1974.

I planted a pinch of this seed immediately in a plastic liner, enclosed the liner in a covered clear plastic container and placed it under an indoor fluorescent light.

As most seed from India has been difficult or impossible for me to germinate, I was amazed four days later to see the liner completely covered with a mat of green. The rapidly growing seedlings required transplanting within three weeks.

The strongest twenty seedlings were chosen to fill a plastic pony pak which was enclosed in a plastic bag and placed under lights. My space is limited for seed growing so with much reluctance I discarded the unchosen.

The seedlings survived and acclimated as the plastic bag was slowly uncovered from the pony pak. It was fascinating to watch the development of texture and pattern on the lovely leaves. Now the reason for the name of B. picta (derived from the Latin word pictus meaning colored, painted) became obvious. From twenty young plants seven developed beautiful colored markings on the foliage. Of these seven, three showed such intense purplish-black markings that I chose them for transplanting together in a four-inch plastic pot.

Strangely, a f t e r removing the three choice seedlings, those remaining in the pony pak seemed to mourn their loss and quickly deteriorated. Within two more weeks there was not a leaf or stem remaining, just wee solid tubers about the size of young green peas.

The choice seedings grew happily together until they completely filled the pot with four-inch stems and three- by four-inch leaves. By March, using a lens, I was able to detect what appeared to be flower buds forming. At this time I also noticed a few limp leaves. Hoping this was a natural occurrance and not approaching dormancy, I kept a constant vigil. Within another week I was sadly looking at a pot of soil that held three tubers the size of large green peas.

In May I moved the pony pak of tubers to the outdoor greenhouse hoping the warmth and humidity would encourage a new growing cycle. When September brought no signs of new growth, I placed them under the bench where they received the full benefit of misters (hoping to simulate the monsoon conditions). Occasionally a tuber became exposed and I recovered it with potting mix. The tubers have nearly doubled in size so underground growth is occurring. Today, after carefully checking the remaining tubers, I was happy to detect that one of them has three slender sprouts!

A quick check on the three dormant potted tubers which remained indoors shows that they have in-

(Continued on Page 22)

THE GEE IN FUNGI IS SOFT

By Burnell Yarick, Glendale Branch

The latest frontier in biology is a new ecology. It deals with crops and soils and wind and rain and climate and farmers and history and chemistry and hunger and failure. The ecology of soil organisms is an emerging science.

Any planter mix is a battleground of countless millions of organisms. They eat each other, they destroy and suppress each other with endless chemical warfare. Most of our antibiotics are derived from soil microbes as a part of their artillery. To begonia growers, there are the bad guys and the good guys.

Most soil organisms are able to survive in the soil and to obtain their energy by decomposing the nonliving organic matter. Such microflora we call saprophytes.

Fungi thrive on the care usually given to begonias, the high organic matter, the fertilizer, the frequent watering, and the porosity. But a small group of organisms, called pathogens, the bad guys, are able to enter a living root and become parasites. The most active ones enter the vascular tissue and very foolishly kill their host. The more sensible ones merely weaken the host and it becomes the non-entry in the show.

Most of the pathogens of begonias are fungi. *Rhizoctonia solani* shows up most frequently in my research on sick plants. Bacterial and viral infections are rare indeed. The list of hosts of *R. solani* is endless. It is a voracious feeder and shows itself most frequently as one of the dampoff fungi of seedlings. Other fungi that appeared in my cultures were

Alternaria, Verticillium, Pythium or Phytophthora, although they might not have been pathogens.

Under a microscope *R. solani* looks like a small, colorless, branching plastic tube with hardly any cross-walls. The base of each sidebranch has a characteristic notch. There are no known spores for this fungus. Instead, for dispersal, on a warm, humid day the fungus wafts forth a strand into the air. This lasso without a loop, called an aerial form, will enter anything it touches, living or dead. The only resting stage is called a sclerotium, a knotlike thing that can survive up to five years in the soil.

In the laboratory *R. solani* will grow rapidly over the PDA (potato-dextrose-agar) medium showing only concentric daily rings like fine white cotton. In the greenhouse the fine white threads, called mycelia, of the aerial form may be seen as fine spider webs at the base of small begonia plants or cuttings. The mycelia may ring a leaf, jump along the margin, turning it brown, or sweep over a leaf, first on the hairs. A slight mist will show it better, or a dust.

The aerial form of *R. solani* is particularly evident. Within hours it consumes the cotyledons of begonia seedlings. It looks just like telephone wires.

So far, everything is in favor of this fungus *Rhizoctonia*. It eats anything living or dead. It thrives on the begonia climate. But there are some bright spots, some do's and some don'ts, for the gardener.



Burnell Yarick at seminar, ABS Convention, September, 1975.

Photo by Gene Daniels

Except for newly germinated seedlings, all plants possess some physiological defense mechanisms that an intruder must overcome. Thus a parasite has a more complicated internal physiology than a mere saprophyte and it is more vulnerable to attack. It is well known that in any sterilizing treatment of soils, whether it be gas, steam, heat, or chemicals, all the pathogens are killed long before the good guys. It behooves a begonia grower, therefore, to keep the plants as strong and as healthy as possible. Allow strong light; avoid overcrowding, and avoid deficiencies of water and nutrients. Reduce he inventory of poor, weak, and lackluster plants because on a given day they may contaminate the entire green house with the aerial form of Rhizoctonia.

I am convinced that most of our greenhouses and soils in the gardens are contaminated with various strains of pathogens, not all active. In my experiments benlate was magnificent in its control of fungi. Some growers now spray the foliage and irrigate with it regularly. It is a systemic material that is absorbed by the roots and is conducted throughout the plant by the vascular system. But it is of short duration and is ineffective against the water molds, as *Pythium*.

The emerging break-through in this new soil ecology is the recognition that antagonism is present in some soils to suppress the pathogens. These antagonists are the good guys: some bacteria, pseudomonads, actinomycetes, and their chemical artillery. Thus the entire cycle of cultural management should be directed toward the encouragement of the antagonists and the suppression of the pathogens.

The antagonists require oxygen and organic matter, hence the need for porosity in the soil. With waterlogged conditions, the mechanism of antagonism fails and a pathogen will rise up and enter the closest root. I once raised B. versicolor from a leaf given to me by Ruth Pease. It remained beautiful, completely sealed and unopened in a bubble for over a year. But this was too long; it became weak and Rhizoctonia suddenly "woke up," coated the entire inner surface of the bubble, and killed the plant. Strangely, this fungus actually lives on the surface of orchid roots as a symbiant called a mycorrhiza; it assists the orchid in the acquisition and the digestion of food. But when the orchid becomes weakened the friend on the roots turns pathogenic and invades its host for the kill. Such mycorrhizal relationships exist in most plants throughout the world; without it the plants fail.

Never re-use even a small dab of potting mix because it may contain millions of resting pathogens. To make it safe is difficult and expensive. It must be fumigated or steamed to just barely kill the pathogens, and then mixed with safe, fresh material to guarantee that the mass is thoroughly saturated with a microflora that is antagonistic to the pathogens of your area. To over-sterilize a batch of mix will also destroy the antagonists and create a biological vacuum which the first pathogen "can take over without firing a shot."

Eventually there will be available a universal antagonistic microflora that can be bought in a package and used in potting mix to guarantee freedom from pathogens. Such claims have been made for years but to my knowledge no products have survived the rigors of laboratory testing.

A test for a batch of potting mix is to simply germinate some seeds in it. Pathogens love them and we all know damping-off.

On theoretical grounds, a potting mix should not be stored in plastic bags unless it is very dry. If stored with any moisture, the anaerobic decomposition will most certainly destroy any antagonism that might have been present. The cinnamon fungus is sweeping Australia because the soils possess no antagonism to that pathogen.

Our members lose thousands of begonias each year and the root research to my knowledge is nil. We need a Root Round Robin and a dozen interested growers willing to clear off a table top and roll up their sleeves. The only expense of any magnitude is a compound microscope. The rest is rather simple, a stove-top pressure cooker, a little glassware, etc. I shall furnish the procedures. We need to identify the bad guys, inoculate plants, and learn to encourage antagonists in our mixes. This is our only hope.

This new frontier, the biological control of soil pathogens, is slowly and quietly unfolding. The world's food hangs in the balance.

Those who are interested in this topic may consult the latest text, "Biological Control of Plant Pathogens," W.H.Freeman & Co., 1974, excellent reading but it is written for research workers. The authors are Baker and Cook. The reference list contains about 670 authors and the index covers about 10,000 lines. The word begonia is not listed.



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ROUND ROBIN NOTES

More and more members of the A. B. S. are being added to the ranks of those enjoying the friends they make and the knowledge they gain through the Round Robin program. Why don't you write me and join the fun, too?

One of the biggest woes reported in the RR Flights is the difficulty most members are experiencing with the beautiful, but difficult to grow, rex begonias. Several of the members in one of the rex flights listed some varieties that were easier to grow than others for them. B. 'Helen Teupel' appeared most often in the lists—perhaps some of you will give it a try. try.

On the other hand, the new hybrid B. 'Buttercup' (B. ficicola x B. prismatocarpa is being very much enjoyed by several robins. Gordon Lepisto, Minnesota, grows his in very coarse bark chips, which is fertilized once a week with a weak fertilizer solution. He grows it under lights (with cool white tubes) which are on for 13 hours a day, and Gordon says the plant is always in bloom.

Pat Morrison, Oregon, also grows B. 'Buttercup' under lights, which she leaves on for 16 hours per day. She grows it in a closed bubble bowl placed about 12 inches from a 2-tube fluorescent fixture. Pat also feels B. 'Buttercup' likes to be cool—like B. prismatocarpa, so she keeps it on the bottom shelf of a stand in her plant room.

Art Sackenruther, California, told in a flight on Bowls and Terrariums that when he moistens moss to use in his terrariums, he uses a half-strength plant food mix such as Spoonit, Ra-pid-gro, or Hyponex in the water, and then squeezes out as much water as he can. He also likes to put a few pieces of charcoal in the bottom of the terrarium, then the moss.

Nancy Cummins, Kentucky, was having trouble with *Sinningia hirsuta* until she saw a huge one, with many blooms, that had been wicked. She got two, wicked both with pieces of nylon stocking in Cool Whip bowls. She says they're really growing.

Yvonne Wells, Texas, tried moving her plant of *B. paulensis* to where it would get a wee bit more light than it had been getting, hoping to hurry up the bloom a bit. She said that little extra dab of light wilted the leaves, and turned one to mush overnight. She was really shocked, as there wasn't that much light difference. It seems to really like and need total shade — she put it back in the usual spot and it was fine the next day.

Janice Caffey, Texas, broke a fairly large piece of stem from her B. 'Bessie Buxton' on a day that she was in a hurry to get to work. She wrapped some damp sphagnum moss around the end of the broken stem, put some plastic wrap around it, and stuck it in an empty pot. A few days later, when Janice unwrapped the stem to give the cutting to her mother, she found it already had a lot of long roots.

Here's an idea from Tommie Demers, New Hampshire, for you who grow indoors. "I have a plant room in my basement. I have six lights with wooden benches underneath topped with plastic trays which are filled with marble chips. Over these I use half-inch hardware cloth for the plants to sit on. The water in the trays helps the humidity. The lights are on chains for easy lowering, and are on timers."

Ann Bello, New Jersey, also shares a hint for all of us who are running out of space for plants. Her husband put fluorescent lights under her plant benches, and Ann puts fishtank terrariums on the floor directly under the lights.

With the price of potting soil going up constantly, here's a hint from Mike and Helen Michelson, Florida, about how they make their own. "I use a 30-gallon garbage can and fill it with well-decayed leaf mold from a compost pile. I pour about 8 gallons of water to which has been added one-fourth teaspoon of Neagon 70 to each gallon of water. It takes about 8 gallons to cover the compost in can. I put the lid on and let it set about two months. After that amount of time has gone by, I put the contents into large wash tubs . . . elevated 3 feet from the ground. The tubs have holes punched on all sides and in the bottom to let out excess water, and to let the bacteria re-enter the soil."

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Finally, here's a cute hint from Eleanor Hollis for all of us who tend to over-water. "Since I'm having trouble with rot and have to watch out for over-watering I've been using "Eleanor's Diaper Method," and want to tell you about it. After watering you place the pot on paper towels or paper napkins. When one gets wet you "change" it until it finally stays dry. The paper acts as a blotter pulling out the excess moisture."

Join the fun — drop me a note to get into the Round Robin program.

Debi Miller 919 Hickory View Circle Camarillo, California 93010

HELP!

Pearl Benell, who handles all the orders for the Clayton M. Kelly Seed Fund, reports that she has had many letters without return addresses. Please be sure to put your name and address on the inside of your correspondence as well as on the envelope so she can answer you promptly.

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RESEARCH EXHIBIT

By M. Carlton L'Hommedieu, Research Director

This display at the Eastern ABS Convention in Boston represents adventitous growth, mutations and the research project at Rutgers University. The posters are illustrative of the work being done. On the table are plants with adventitious growth: B. 'Templinii,', B. 'Fairy', B. 'Phyllomaniaca', B. hispida cucullifera, and B. 'Lenore Olivier', the last being a hybrid seedling that was exposed to 2-4-5T. Also on the table were examples showing adventitious plantlets growing from leaf

stem cuttings, leaf disc propagations and the comparison of stem cuttings with leaf cuttings. Descriptions, keyed to the display, were arranged separately so that all plants and photos could be identified. (See article on Adventitious Growth, page 14.)

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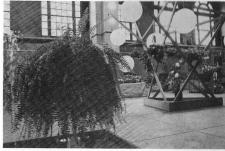
ABS EASTERN CONVENTION



B. 'His Majesty' - Betty Fennell



Knickerbocker Branch Display



View of Hanging Plants



Fern Greenhouse - Michael Turchan



B. 'Silver Jewel' - Corliss Engle



Artistic Planter - Corliss Engle



Photos by C. Engle

B. 'Mathild' - Corliss Engle

BOSTON, MASS., SEPTEMBER, 1975



B. Rex cultorum - Corliss Engle



B. olbia - Corliss Engle



Unknown rhizomatous Evelyn Cronin



B. 'Charm' - Corliss Engle



B. 'Chantilly Lace' - Fred Ritzau



China, hand painted - Elizabeth Schaefer



B. 'Maxwelton' - Betty Fennell

NOTES ON ADVENTITIOUS GROWTH

By M. Carleton L'Hommedieu, Long Island

Most begonia plants that have shown proliferation have been hybrids of three species: *B. incarnata*, *B. manicata* and *B. heracleifolia*. However, this is not the only way that plantlets have appeared on the leaves of begonia plants.

At the recent begonia convention in Boston, the Research Department had an exhibit showing many begonia plants with the proliferation on the leaves and stems. Through the courtesy of Dr. Harriet Creighton, we were fortunate to have one of Belva Kusler's hybrids that became exposed to the herbicide, 2-4-5T. This is a selective chemical used on lawns to eradicate certain weeds. I used the word "exposed" in referring to the herbicide as I understand that the plants were affected by the fumes from 2-4-5T

The plant at the exhibit was a seedling of B. 'Lenore Olivier'. This was one of many that Belva Kusler sent to Dr. Creighton in order to have her study this phenomenon caused by a chemical. Some of the plantlets were large enough to transplant.

This unusual reaction of the begonia plants to the 2-4-5T fumes raises many questions for scientists to explore. Will plants that are propagated from seed of *B*. 'Lenore Olivier' still show the proliferation and is it possible to eliminate this factor by selective breeding? Will all types of begonias respond to this chemical

in the same way that *B*. 'Lenore Olivier' did?

If any of our readers have seen proliferation on begonia plants other than those whose parentage is attributed to the *B. manicata*, *B. incarnata* or *B. heracleifolia*, I would be glad to hear about it.

There is another point of interest on this same subject. It is now believed that the hooded formations on the leaves of *B. hispida cucullifera* are not true leaves. These formations along the veins of each and every leaf of this begonia are a regular formation of the leaf. They do not develop further to make plantlets or petioles and when detached they do not grow into plantlets.

POSSIBLE CURE FOR GENE DEFICIENCY

An experiment has apparently indicated that solutions of the nucleic acid DNA (deoxyribose nucleic acid) may sometimes correct gene deficiencies in plants. L. Ledoux and R. Huart reported in the May 3, 1974, issue of *Nature* that they had soaked seeds of an enzyme-deficient plant in a solution of DNA containing the genes for production of the missing enzyme. The DNA apparently was taken into the new plant and passed on to its offspring, which no longer showed a deficiency of the enzyme.

CONSTITUTION

of the American Begonia Society

January, 1976

ARTICLE I. NAME

Section 1. This organization shall be known as the American Begonia Society and shall be conducted on a non-profit basis. The main office of this Society shall be within the Couty of Los Angeles, California.

ARTICLE II. PURPOSE

Section 1. The purpose of this Society shall be:
To stimulate and promote interest in begonias and other shade-loving plants;
To encourage the introduction and development of new types of these plants;
To standardize the nomenclature of begonias;
To gather and publish information in regard to kinds, propagation and culture of begonias and companion plants:

companion plants;
To issue a bulletin which will be mailed to all members of the Society; and
To bring into friendly contact all who love and

grow begonias.

ARTICLE III. MEMBERSHIP

Section 1. All persons who are interested in begonias shall be eligible to membership, subject to the approval of the Board of Directors. The Board of Directors may revoke the membership of any member for just cause.

Section 2. There shall be three classes of membership in this Society, known as Annual, Life, and Honorary.

Annual Members. Annual members shall have all the usual privileges of membership, and shall pay dues of an amount stated in the Bylaws. Annual Membership shall be for one year from date dues

are paid.

Life Members. Life members shall have all the usual privileges of membership. The payment of fifty dollars (\$50.00) shall entitle any person to Life Membership and Life members shall be exempt from any further payment of dues. Life Memberships shall not be subject to cancellation or refund of any part

of dues for any reason.

of dues for any reason.

Honorary Members. Any person whom this Society shall deem worthy of the honor may at any Annual Meeting be elected an Honorary Member by a two-thirds vote of the members present; and such election shall specify whether such Honorary Membership is Annual, terminating at the next Annual Meeting, or for life. For each person elected an Honorary Life Member, fifty dollars (\$50.00) shall be transferred from the current funds of the Society to the Life Membership Fund. Honorary Members shall have all the usual privileges of membership and shall be exempt from the payment of dues.

Section 3. Each Annual, Life or Honorary Member shall be entitled to one vote on all matters brought

shall be entitled to one vote on all matters brought before the Society. Membership shall cover the immediate family, except that only one member of the family shall receive the official publication and exercise the right to vote, unless additional dues are paid.

ARTICLE IV. OFFICERS

Section 1. The officers of this Society shall be: President Emeritus, President, Past President, three Vice Presidents, Treasurer, Secretary, and one Director from each Branch Society.

Section 2. The President Emeritus shall be Herbert P. Dyckman, Founder and First President of this

Section 3. The following officers shall be elected Section 3. The following officers shall be elected biennially in August by ballot: President, First Vice President, Second Vice President, Third Vice President, Treasurer, and Secretary. Each member of the Society is entitled to one vote. All officers shall serve for two years and be installed at the appropriate Annual Meeting. No elected officer named in this section may succeed himself in the same position. Section 4. A Director shall be elected biennially by each Branch Society to assume office and be installed with the remaining National Officers re-ferred to in Section 3 hereof, and shall serve two

years.
Section 5. All remaining officers shall be Directors to serve as heads of departments, and shall be appointed biennially by the President, subject to the approval by a majority vote of the Elective Members of the Board of Directors.
Section 6. Any appointed officer may be relieved of his office for just cause, and/or for the good of the Society, by a majority vote of the Elective Members of the Board of Directors.

ARTICLE V. BOARD OF DIRECTORS

Section 1. The Board of Directors shall consist of the Section 1. The board of Directors shall consist of the President Emeritus, the seven officers elected by the entire membership of the Society, the Branch Directors—one elected by each Branch Society—and the Department heads appointed by the President.

ARTICLE VI. MEETINGS

Section 1. There shall be an annual meeting of the Society at a time and place to be designated annually by the Board of Directors.

ARTICLE VII. BRANCH SOCIETIES

Section 1. Any group of seven or more members of this Society who wish to affiliate themselves to forward the work and purposes of the Society may be organized into a Branch Society, and upon approval of the Board of Directors shall be issued a Charter. Section 2. The Charter of any Branch, upon approval by the majority of the Board of Directors, may be suspended, and after due hearing before said Board, upon action of a majority of the Board, may be withdrawn. withdrawn.

ARTICLE VIII. FUNDS

Section 1. The current funds of the Society shall be expended only upon order of the Board of Directors.

Section 2. Neither the Board of Directors, nor anyone delegated by them, nor any of the officers, shall incur any debt or liability in the name of the Society beyond the available or maturing funds in the hands of the Treasurer, excluding money and securities

held for a specific purpose.

Section 3. All monies received for Life Memberships shall be invested by the Treasurer as may be directed by the Board of Directors, and only the interest accrued therefrom shall be used for the current expenses of the Society.

Section 4. The fiscal year shall end on July 31.

ARTICLE IX. AMENDMENTS

ARTICLE IX. AMENDMENIS
Section 1. Amendments to this Constitution may be initiated by a two-thirds vote of the members present at any Annual Meeting. Such amendments shall then be submitted by mail to the membership in accordance with Section 2 of this Article.

Section 2. The Membership Secretary shall mail a ballot covering the proposed Amendment to each member of the Society within thirty (30) days after the Annual Meeting at which the Amendment was initiated, with the request that the member vote upon said Amendment and mail his ballot to reach the Secretary within sixty (60) days after the Annual the Secretary within sixty (60) days after the Annual Meeting at which the Amendment was initiated. If two-thirds of the votes cast are in favor of its adop-tion, the Amendment shall be declared adopted at the next meeting of the Board of Directors, when published in the official publications of the Society.

ARTICLE X. RULES OF ORDER

Section 1. Robert's Rules of Order Newly Revised shall govern the conduct of all meetings and the decision of all questions not specifically covered by this Constitution and Bylaws.

ARTICLE XI. ADOPTION OF CONSTITUTION AND BY-LAWS

Section 1. This Constitution and Bylaws shall be subject to the same rules of adoption laid down in Article IX concerning Amendments, and upon adoption shall go into effect, superseding all former Constitutions and Bylaws, when published in the official publications of the Society.

BYLAWS

ARTICLE I DUTIES OF ELECTED OFFICERS

Section 1. The President shall preside at all meetings of the Society and of the Board of Directors; shall appoint the heads of the various Departments with the exception of the Editor; and shall have general supervision of the affairs of the Society. The President shall be an ex-officio member of all committees,

except the nominating committee.

Section 2. The First Vice President shall perform the duties of the President in the absence of the latter, or whenever the President is unable to perform the duties

whenever the President is unable to perform the duties of his office, and such other duties as are assigned to him by the President.

Section 3. The Past President shall be the Chairman of the Finance Committee. This committee shall consist of the Past President, Treasurer, and Business Manager, and shall submit an annual budget for the approval of the Board of Directors at the first meeting of the Board of Directors following the Annual ing of the Board of Directors following the Annual Meeting of the Society. Any proposed expenditure in excess of \$50.00 shall be submitted to the Finance Committee for recommendation before being voted

Committee for recommendation before being voted upon by the Board of Directors.
Section 4. The Vice Presidents, in the order of their seniority, shall perform the duties of the President in the absence of, or the disability of the President.
The Vice Presidents may be assigned by the President the duties of one of the appointed officers outlined under Article II of these Bylaws.
Section 5. The Directors elected by each Branch shall attend the meetings of the Board of Directors of the American Begonia Society when possible, shall make such reports and recommendations as will further the interests of the Society, and shall file an annual written report of the Branch activities with the Secretary of the American Begonia Society at the last regular meeting of the Board of Directors prior to the Annual Meeting.

Section 6. The Treasurer shall receive and account for all monies of the Society and shall pay out the monies under the directions of the Board of Directors. monies under the directions of the Board of Directors. He shall file bond in such surety company and in such sum as the Board of Directors may determine. He shall make, to the Board of Directors monthly, and to the Society annually, a report of all receipts and disbursements. The annual report made by the Treasurer shall be presented at the Annual Meeting of the Society and shall be accompanied by a report of audits made by an audit committee of two members appointed by the President.

Section 7. The Secretary shall keep the records of the proceedings of the Society and of the Board of Directors, shall conduct necessary correspondence, and shall have charge of the records of the Society, such basic records as are necessary for the

and shall have charge of the records of the Society, except such basic records as are necessary for the proper functioning of the various departments and offices. The Secretary shall condense the minutes of the regular Board meetings, and shall transmit them to the Editor for publication in The Begonian, not later than the first day of the month following the regular meeting of the Board of Directors.

ARTICLE II. APPOINTED OFFICERS AND THEIR DUTIES

Section 1. The officers to be appointed by the President as Directors to serve as heads of Departments shall be as follows: Business Manager, Membership Secretary, Research Director, the Clayton M. Kelly Seed Fund Director, Nomenclature Director, Public Relations Director, Librarian, Chairman of Speakers Bureau and Slide Library, Chairman of Flower Show

Committee, Historian, Chairman of the Committee of Awards, Chairman of the School for Judges, Parliamentarian, Circulation Manager, and such other heads of Departments as shall hereafter be established by the Board of Directors.

the Board of Directors.

The Editor shall be selected by an editorial board consisting of the President who shall act as chairman, the First Vice President, the Past President, and two others chosen by the President. The Editor shall serve as a member of the Board.

Section 2. The Editor shall have charge of the Publications Department and shall, under the direction of the Board of Directors, prepare and issue such publications as the Board of Directors and Society shall authorize and shall perform such other duties as the Board of Directors shall require of him. The Board of Directors shall determine his allowable expenses. expenses.

Section 3. The Business Manager shall act as business agent for the Board of Directors and for the Publications Department; shall act as advertising manager for the official publication and shall perform such other duties as the Board of Directors may require of him. The Board of Directors shall determine his allow-

able expenses if any.

Section 4. The Membership Secretary shall receive all dues, which shall be deposited immediately with all dues, which shall be deposited immediately with the Treasurer; keep an accurate roster of the membership of the Society; and have charge of the mailing and selling of back numbers of the official publication, less than one year old; and of the sale and distribution of all other special bulletins and directories. The Board of Directors shall determine his allowable expenses.

Section 5. The Research Director shall have charge f the Research Department; of arranging for the

of the Research Department; of arranging for the testing of begonias in test gardens in different locations throughout the country; and of collecting information relative to the culture, propagation and housing of begonias and companion plants.

Section 6. The Clayton M. Kelly Seed Fund Director shall have charge of the importation of seed of new begonias and companion plants, and the distribution of the same to the membership. The Board of Directors shall determine his allowable expenses.

Section 7. The Nomenclature Director shall have charge of determining and establishing correct names of species and established varieties of begonias; of approving and registering all newly developed horticultural varieties of begonias; and shall cooperate with the Editor in the publication of the results of his work. his work.

Section 8. The Public Relations Director shall have charge of the Public Relations Department; of contacting prospective members; promoting and assisting in the formation of new Branch Societies; and seeing that the affairs of the Society receive the fullest

publicity.

Section 9. The Librarian shall establish and maintain a circulating library for the use of the officers and members of the Society; shall preserve three copies of all publications of the Society; and shall have charge of the mailing and selling of all issues of the official monthly publications over 12 months old. The Board of Directors shall determine his allowable

expenses.
Section 10. The Chairman of the Speakers Bureau and Slide Library shall provide lists of speakers and a slide library for the use of the Branches.
Section 11. The Chairman of the Flower Show Committee shall prepare show schedules and encourage begonia shows and the use of begonias in flower Shows, and maintain a register of the American Begonia Society trophies.

Section 12. The Historian shall maintain a complete

Section 12. The Historian shall maintain a complete history of the Society.

Section 13. The Chairman of the Committee of Awards shall be the representative of this Committee on the Board of Directors. The duties of this committee are outlined in Article V of these Bylaws.

Section 14. The Chairman of the School for Judges

shall have charge of the instruction and examination of potential begonia Judges, and will accredit those qualifying, the names of whom shall be submitted to the Board of Directors with his regular monthly report.

Section 15. The Parliamentarian shall see that all proceedings of the meetings of the Society and the Board of Directors are conducted according to the Constitution and Bylaws of the Society and where a

question is not specifically covered there, Robert's Rules of Order is to be cited by him.

ARTICLE III. BOARD OF DIRECTORS

ARTICLE III. BOARD OF DIRECTORS
Section 1. The Board of Directors shall be the
administrative and executive body of this Society;
shall transact all business of the Society between
annual Meetings; arrange for Annual Meetings and
any special meetings; establish and appoint such special committees as may be necessary to promote the
objectives of the Society; approve the establishment
of Branch Societies and issue charters to them; and
make such regulations as may be necessary for the
good of this Society.
Section 2. The Board of Directors shall meet at
least four times a year and/or monthly on call of the
President, or in his/her absence by the First Vice
President, the time and place to be published in the
official publication.

official publication.

ARTICLE IV.

DEPARTMENTS AND COMMITTEES

Section 1. The activities of the Society shall be divided into Departments and Committees under the charge of officers elected or appointed for such department or committee.

Section 2. The Department Directors may recommend

the appointment of such special officers, assistants, or

specialists as may be necessary to properly conduct the affairs of their departments. Section 3. Each Department Director shall make a report at the annual meeting and such other reports as may be required by the Board of Directors.

ARTICLE V. COMMITTEE OF AWARDS

Section 1. The Committee of Awards shall consist of six members and the Nomenclature Director. Two of six members and the Nomenclature Director. Two members will be appointed yearly for a three year term by the President, subject to the approval of the Board of Directors. In the event of a vacancy it shall be filled by appointment by the President subject to approval of the Board of Directors, for the balance of the unexpired term. The President shall appoint the Chairman of the Committee of Awards.

Section 2. The Committee of Awards shall study each year the system of ratings and awards and make its recommendations of general policy to the Board of Directors.

Section 3. The Committee of Awards shall receive

Section 3. The Committee of Awards shall receive

Section 3. The Committee of Awards shall receive and study carefully the reports of the judges and on the basis of this study shall make its recommendations to the Board of Directors.

Section 4. The Committee of Awards shall grant the awards of the American Begonia Society, including the Alfred D. Robinson Memorial Medal, the Eva Kenworthy Gray Award, and such other special awards as may be established and approved by the Board of Directors, subject to such regulations as the Board of Directors may adopt.

ARTICLE VI. ANNUAL DUES

ARTICLE VI. AINNUAL DUES
Section 1. The dues of annual members shall be determined by the Board of Directors of this organization at necessary intervals of not less than one year through a majority vote of the Board of Directors including proxy votes of branch representatives not present at the initiating meeting. Members in arrears thirty days shall be dropped from the rolls of the Society and their names removed from the mailing list of the official publication until the arrearage has been paid. been paid.

ARTICLE VII. ELECTIONS

Section 1. The President shall appoint, not later than 150 days before the Annual Meeting, a nominating committee of three, who shall be President or Past Presidents of Branch Societies. This Committee, not later than 90 days before the Annual Meeting, shall report to the Board of Directors at least two nominations for each elective office to be filled at the Annual Meeting.

Section 2. Additional nominations may be made by Section 2. Additional nominations may be made by a petition signed by at least fourteen members of the Society, if made and delivered to the Secretary at least 80 days before the Annual Meeting. Section 3. An official ballot containing the names of all nominees shall be mailed to each eligible voter at least 30 days prior to the Annual Meeting. Section 4. Eligible voters shall mail their ballots to the Secretary of the Society not later than 14 days

prior to the Annual Meeting. Only ballots received seven days prior to the Annual Meeting shall be counted.

Section 5. The Secretary shall deliver the ballots on the seventh day preceding the Annual Meeting to a committee of three members appointed by the President. This committee shall count the ballots and make an immediate report in writing to the Secretary of the results of the election, together with the ballots cast, after which all candidates shall be notified of the results of the election, immediately by the Secretary.

Section 6. Vacancies in office, either elective or appointive, shall be filled by appointment by the President, subject to approval by a majority vote of the Elected Members of the Board of Directors.

ARTICLE VIII. QUORUM

Section 1. Fifty members shall constitute a quorum for the Annual Meeting or any special meeting. Section 2. Fifteen members of the Board of Directors shall constitute a quorum for any Board Meeting.

ARTICLE IX. BRANCH SOCIETIES

ARTICLE IX. BRANCH SOCIETIES
Section 1. Any member of this Society may affiliate with any Branch Society provided he meets the requirements for membership in that Branch.
Section 2. Each Branch Society shall have a Constitution and Bylaws, both of which shall be approved by the Board of Directors of the American Begonia Society; it shall require that one member of each family maintain membership in the American Begonia Society; it must include among its officers a President, a Secretary, and a National Director, each being a different person; it may determine its own officers, other than those specified above; it may make additional qualifications for membership; it may determine the manner in which its local activities shall be financed; and it may determine its own activities and meetings provided that those activities and requirements in no way conflict with the National Constitution and/or Bylaws.

Section 3. Each Branch Society shall file with the Secretary of the American Begonia Society a copy of its Constitution and Bylaws and all subsequent amendments.

amendments.

amendments.
Section 4. Each Branch Society shall file with the Membership Secretary of the American Begonia Society the names and addresses of all new members, together with their dues, as received.
Section 5. Each Branch Society shall furnish the Secretary of the American Begonia Society with the names and addresses of all officers of the Branch immediately following elections.

ARTICLE X. PROPERTIES

Section 1. All properties and physical assets of the Society are under the control of the Board of Directors.

Section 2. Approval must be obtained from the

Section 2. Approval must be obtained from the National Board before the disposal of any property of the Society. This shall apply to material going to individuals as well as institutions.

Section 3. Each officer, whether elected or appointed, shall be responsible for a complete accounting of Society properties through equipment lists, book lists or inventory of other Society properties to the First Vice President at the time accounting for the year is closed, prior to the Annual Meeting.

ARTICLE XI. AMENDMENTS

Section 1. Amendments to the Bylaws may be initiated by a majority vote of the members present at any Annual Meeting or special meeting called for this purpose, or by a two-thirds vote of the Board of Directors. Such amendment shall then be submitted by mail to the membership in accordance with Section 2 of this Auticle.

by mail to the membership in accordance with Section 2 of this Article.
Section 2. The Membership Secretary shall mail a ballot covering the proposed amendment to each member of the Society within thirty (30) days after the amendment is initiated, with the request that the member vote upon said amendment and mail his ballot to reach the Secretary, within sixty (60) days after the meeting at which the amendment was initiated. If two-thirds of the votes cast are in favor of its adoption, the amendment shall be declared adopted at the next meeting of the Board of Directors when published in the next issue of the official publication of the Society.

STANDING RULES

1. The President shall employ on an hourly basis

The President shall employ on an hourly basis such clerical or typing assistance not obtainable on a voluntary basis necessary to keep the correspondence current, the necessary equipment to be supplied, through rental or purchase, by the Society.
 All correspondence involving complaints shall be referred to the head of the department concerned for the preparation of a reply to be returned to the president for approval, typing and signature. Letters of an abusive nature shall be referred to the President who will confer with his Public Relations Director and the Society's attorney, if necessary, for appropriate action.

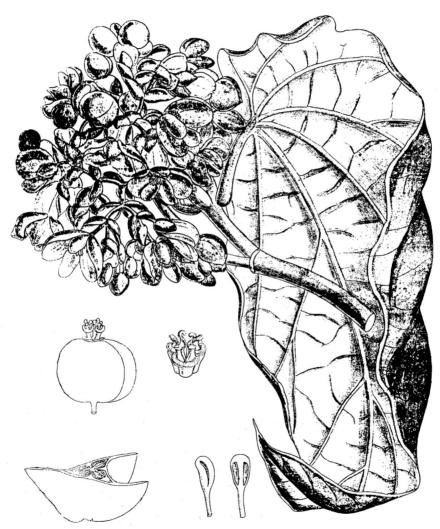
3. The First Vice President shall be included in

3. The First Vice President shall be included in planning and policy making during his years of service as a method of training.

4. The Treasurer shall be responsible for the preparation of all reports required under Federal, State and local laws pertaining to financial matters and employment taxes; the Finance Committee shall assist the Treasurer in this task.

assist the Treasurer in this task.

5. All heads of departments other than Library and Show Funds, shall transmit to the treasurer at least once a month, not later than the 18th, any funds. A uniform form or forms shall be issued by the Society to the department heads to record the transactions. A negative monthly report from the department head will indicate no receipts or disbursements.



B. DICHROA SPRAGUE

Drawing from: Curtis's Botanical Magazine, January, 1912. (drawing greatly reduced in size)

t. 8412 Figs. 1 and 2, anthers; 3, a female flower, the perianth segments removed; 4, stigmas; 5, ovary in section: — all enlarged.

B. DICHROA SPRAGUE

By Mildred L. Thompson

Reprinted from Begonia Gems, Long Island Branch Newsletter

In 1906 Ad. Lietze discovered B. dichroa in Brazil. The species was sent to Haage & Schmidt, well-known commercial horticulturists of Erfurt, Germany. In the following year when the newly discovered species had flowered, it was sent to Kew Gardens in England where it was named and described by T. A. Sprague. This description appears in Bulletin of Miscellaneous Information 1908 of the Royal Botanic Gardens, Kew.

B. dichroa is described and beautifully illustrated in the Curtis's Botanical Magazine in January, 1912. The following is the description as it appears in this magazine:

"Description. — Herb, tall, with minute scattered beaded glandular hairs on the young shoots and inflorescence, otherwise glabrous. Leaves in young plants rhomboid-elliptic, semicordate, acuminate, 4-5 in. long, 2 in. wide or rather wider, blotched with white; in full-grown plants ovate-oblong, sharply acuminate, base semicordate but very oblique, 8-nerved with the lowest pair small and inconspicuous, higher up with the nerves again pinnately 3-5-nerved on each side, 9-12 in. long, 4½-5½ in. wide, margin slightly undulate; deep green above, somewhat polished, pale beneath; petiole 3/4-2 in. long; stipules ovate, sharply acuminate, 1 in. long, 7 lin. wide. Peduncle 11/4-21/2 in. long. Dichasium manyflowered, the male flowers terminal, the female axillary. Bracts cymbiform, ovate when outspread, obtuse, 5-7 lin. long, 4-5 lin. wide, pink like the rachis. Male flowers pedicelled, about 10 lin. long. Perianth-segments 4, pink, the outer pair wide obovate, obtuse, nearly 1 in. long, 3/4 in. wide, the inner pair oblanceolate, rounded, ½ in. long, 2-2½ lin. wide. Stamens inserted on a convex raised receptacle; filaments short; anthers obovoid-oblong very short, their cells convergent towards the base. Female flowers sessile or shortly pedicelled. Perianthsegments 5, pink, the two outermost wide obovate, obtuse, 7 lin. long, about 5 lin. wide, the innermost oblong, rounded; 31/2-4 lin. long, barely 2 lin. wide, the remaining two intermediate in size and form. Ovary 3-celled, about 8 lin. long, at first white, ultimately with a purplish tinge; wings 3-3½ lin. wide; placentas 2-partite, their lamellae bearing ovules on both faces. Styles shortly united at the base, under 3 lin. long, bifurcate, their arms very short and helicoidly twisted, the stigmatic papillae extending downwards beyond the point of bifurcation."

The botanical classification places B. dichroa in the section Knesebeckia of the genus Begonia of the family BEGONIACEAE. In 1972 Dr. Fred Barkley in Begoniaceae: The Genera, Sections and Known Species of Each lists 34 species in the section Knesebeckia. A few of the well-known species listed in this section are as follows: B. falciloba, B. incana, B. incarnata, B. ludwigii, B. olbia, and B. pedata. The species listed in this section originally came from Central and South America.

The horticultural classification in the *Thompson Begonia Guide* is "cane-like, all others, low [generally under 2 ft. at maturity]." Presently there are over 30 species and hybrids listed in this classification many of which are favorites and are well-known. The large majority of

the low growing cane-like begonias have the same cultural requirements as *B. dichroa*.

The value of using B. dichroa in hybridizing was recognized very early because this species is not only a prolific seed-bearer but it blooms profusely all year with large clusters of orange flowers. We find some hybrids using this species were developed as early as 1917 at the Botanic Gardens at Liege. In this country the Robinsons of Point Loma, California, were probably the first to recognize the fine qualities of B. dichroa. In 1938 the Robinsons developed the following three outstanding hybrids: B. 'Di-Anna,' B. 'Di-Erna,' and B. 'Di-Another well-known fa-Shasta.' vorite, B. 'Rubaiyat,' resulted from seed of B. dichroa that was collected by Mrs. A. H. Gere in 1940 at the Montalvo Gardens in San Diego, California. In 1940 B. 'Connie Bower' was developed by Constance Bower. Leslie Woodriff introduced the very well-known basket plant, B. 'Orange Rubra' in 1947, and in the following year D. Nesbitt developed B. 'Orange Parade.' Rudolf Ziesenhenne, the nomenclature director of the American Begonia Society, introduced three hybrids which resulted from B. dichroa. They are as follows: B. 'Pink Supreme,' B. Rose Supreme,' and B. 'Scarlet Supreme.' Belva Kusler, the very well-known hybridizer of today, used this species extensively in her hybridizing work and as a result several very fine hybrids were developed. Among them are B. 'Anna Christine, B. 'Lenore Olivier, B. 'Laura Engelbert,' B. 'Jeanne Fleetham,' and B. 'Gigi Fleetham.'



B. dichroa in present cultivation.

Photo by Ed Thompson

B. dichroa is fairly easy to grow because it is not too demanding. It can be grown within a wide range of temperatures and humidity. However, it will grow best when the temperature range is between 60° and 70°, and when the humidity is between 40% and 60%. A lot of sunlight is required for this begonia to be vigorous and to bloom well. It can be grown outdoors in the summer in most geographical areas provided it is protected from the strong mid-day sun. In the winter this begonia can be grown in the greenhouse where it will receive plenty of sunlight preferrably in a hanging container which is hung from the roof of the greenhouse. The fluorescent light gardener will find no difficulty with this cane-like begonia because it is low growing and it grows slowly. If it is placed under the center of the tubes at the usual distance from the tubes, it will thrive and bloom continuously. For those who enjoy windowsill gardening B. dichroa will be a colorful addition all year in in the sunny windows. (Northern locations.)

As with all other begonias B. dichroa should be fertilized regularly with a complete balanced fertilizer (organic or inorganic). Spraying with a broad spectrum insecticide and fungicide should also be done to prevent disease and pest problems. It is far easier to prevent problems than it is to correct them.

B. dichoa is an excellent begonia for growers with limited growing areas because it remains low. It can also be enjoyed when grown in a hanging container because the stems naturally droop very gracefully. However, the stems can be staked so that it can be grown in an erect fashion. This begonia does not branch very readily and this sometimes necessitates occasional pruning of the longer stems to force new shoots at the base of the plant. This will also insure a full plant.

TUBEROUS BEGONIA SEED

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- 4-5 weeks prompt delivery

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USDA RELOCATES ITS PLANT PERMIT OFFICE

Travelers or importers wishing to bring foreign plants, soil, or plant products (fruit or vegetables) into the United States now must send their applications for federal permits to a new address.

After 30 years in Hoboken, N.J., the five-person permit-issuing office of the U.S. Department of Agriculture (USDA) has moved to Hyattsville, Md. The move consolidates manpower and record-keeping Hyattsville.

James O. Lee, deputy administrator of the Animal and Plant Health Inspector Service of the USDA, explained that permits are required under federal regulations designed to protect America's plant life from destructive foreign plant insects and diseases.

"To prevent loss of their property at U.S. ports of entry, persons intending to import soil and plant products should find out in advance whether a permit is required, and the other conditions of entry," Mr. Lee cautioned.

For information and permits, write to: Permit Unit; USDA, APHIS, PPO; Federal Building, Rm. 638; Hyattsville, Md. 20782.

The Los Angeles Fern Society announced that it has increased its Bulletin to 20 pages monthly and has discontinued the Fern Annual. The two-page monthly lessons will continue.

Routh's Greenhouse (see back cover) requests 25c to cover mailing costs for plant list.

GROWING NEW HYBRIDS

By Gordon Lepisto, St. Paul, Minnesota

At present I have flat upon flat of begonia seedlings encased in sterile zip-loc bags. Obviously I cannot grow all of them to maturity. All the seedlings are from my own crosses, mostly rex cultivars, and have produced their first true leaves. This means they are about $\frac{1}{2}$ inch high, very crowded together and ready to be thinned and transplanted out of the flats. This is a job that I don't relish much as it is tedious and time consuming. Nevertheless, the job must be done and I shall settle down to the task. Here is my method for proceeding:

First I will take a small flat, crowned with hundreds of seedlings, a large magnifying glass and a pair of tweezers. These are my only tools. Out of the group only a dozen or so will be saved — all the rest will be discarded. I look for healthy, strong growth or perhaps for a dwarf, slowgrowing seedling.

Using the glass and the tweezers, I carefully lift the seedlings out of the medium as I try not to break the delicate tap root. Once the tap root is broken, the small plant is gone.

I then transplant the small begonia in its new medium in a small individual styrofoam pot. I place this uncovered on my light bench close to the cool-white fluorescent lights. Hardening off the seedlings is not necessary in my plant room because the humidity remains at near 90% at all times. (Note: it is crucial that

the planting mix be moist at all times, at this stage.)

After about a week I will start a frequent, mild fertilizing program and the seedlings will grow very rapidly from then on.

It takes about two years for a rex begonia to mature. Before that time however, I will watch for variation in growth patterns and will destroy many plants for various reasons such as abnormal growth or look-alike appearance. Those kept to maturity are usually of strong growth, of easy propagation, appealing to the eye and appealing to the begonia enthusiasts who will grow them eventually.

BEGONIA PICTA VIA SEED

(Continued from Page 5)

creased in size and resemble hazelnuts.

My seed was shared with two ABS Branches, several friends and the Seed Fund. It would be interesting to hear about their experiences, especially if they succeeded in flowering their tubers.

I am preparing to plant more seed of *B. picta* at three-month intervals and hope the new year will bring me flowers of these delightful, delicate treasures from Ganesh Pradhan, my friend in India.

Plantsmith (Back cover) has a new address: 1924 Plymouth Street — Dept. T, Mountain View, California 94043.

REPORT OF THE RESEARCH DIRECTOR

M. Carleton L'Hommedieu, Research Director

Donations to the Research Fund for the first quarter were received from the following:

Long Island Branch, Sept., Oct., Nov. \$ 30.00 Shade Garden, Texas 10.00 Seed fund, Sept., Oct. 60.37 Total receipts \$100.37 Balance on hand, Sept. 1 485.05

Balance on hand, Nov. 24 \$585.42

Mr. M. L. MacIntyre, our Research Committee member in England, went on one of his periodic trips to Glasgow and Edinburgh the first part of October. On his visit to Glasgow he took some of his new hybrids. He also took some hybrids that came from Maurice Mason and Dr. Doorenbos, and some plants he had grown from seed of the Seed Fund. At Glasgow there is a house devoted to *Begonia*, both species and hybrids. It is a circular house with benching all around and a large circular bench in the middle. Mac's new hybrids were displayed in the front row so they must be unusually good.

Mac visited the Royal Botanic Garden in Edinburgh on the second day. The Royal Garden at Kew and at Edinburgh are run by the Government, whereas other botanic gardens are run by the municipal authorities. The Royal Gardens grow only species (the others grow hybrids as well). They have to grow a selection of all known species of plants, so the selection of any one species is limited. Mac has many species that Edinburgh does not have but cannot take because of lack of space. In the Library at Edinburgh, they have a complete collection of Curtis Botanical Magazines and most of the early books on botany. Mac was able to see a color illustration of B. daedalea, a beautiful plant, but nothing like the plant grown here as such. It is perhaps not in cultivation today.

Beautiful illustrations of the Royal Botanic Gardens were in the brochures that were on the Research Display at the ABS Convention in 1975. They were sent to me through the courtesy of the Curators at the Gardens.

Correspondence from our Canadian member, Dr. Grant McGregor, has not been received because of the Canadian mail strike.

Rudolph Ziesenhenne is preparing a Hybrid and Cultivar Catalog and Carrie Karegeannes has been helping with the Begonia Species Catalog. The material for this catalog and the Cultivar Catalog is being researched by our Library student, Ann Councill. She sends xerox copies of materials that give complete information regarding specific Begonia hybrids and species. Both of these catalogs will be invaluable to our members.

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REGISTRATION OF BEGONIA CULTIVARS

Note: The American Begonia Society is the International Registration Authority for cultivars of the genus *Begonia*. Information regarding registration may be obtained from ABS Nomenclature Director Rudolf Ziesenhenne, 1130 N. Milpas St., Santa Barbara, CA 93103.

No. 475 — Begonia (B. ludwigii X B. 'Popenoei' semidouble Fls.) 'Rudy'

This thick-stemmed, brittle begonia with 18" stems, is set apart from other lobed-leaved begonias by the stem which is thick and very easily broken because of lack of woody tissue. The leaves are greensilver flecked and zoned, uneven egg-shaped, multilobed, 12"; margin sawtoothed, texture medium, dull, 8-nerved; petioles 8", stipules long triangular, browning and remaining. Flowers are pinkish outside, white inside; winter-blooming on 12" stems. Originated in 1946 by Rudolf Ziesenhenne, 1130 N. Milpas St., Santa Barbara, CA 93103; first bloomed and distributed 1947. Registered June 5, 1975.

No. 476 — Begonia (B. Inglewood' X B. barkeri K & W) 'Serenata'

Developed in 1946, this rhizomatous begonia first bloomed in 1947 and was first distributed in 1947 by the developer, Rudolf Ziesenhenne, address above. Leaves are deep

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brown, red below, very unequal heart-shaped, 6x5"; margin 7 shallow lobed; texture smooth, thick; 9-nerved; petioles 7"; stipules drying and remaining. Blossoms in March, pink, roundish petals. Registered June 5, 1975.

No. 477 — Begonia (B. pinetorum X B. liebmanni) 'Milpas'

Rhizomatous begonia distinguished by thickness of multi-toothed leaves and unusual color pattern, under lights being black streaked with green; sometimes old leaves being kidney-shaped. Originated by Rudolf Ziesenhenne, address above, in 1947, first year bloomed, and first distributed in 1948. Leaves are dark green with red coming through from the back; very thin tomentum; unequal heart-shaped, abruptly pointed; 6x5"; margin doubletoothed, large and small, large tooth at end of veins; texture very thick, back pilose, brown; nerves, 9, lighter than leaf; petioles grooved, streaked red, brown-woolly; stipules long triagular keeled. Flowers are pink; male obovate \(\frac{1}{8} \times \frac{1}{8}'', 2 \text{ petals; female roundish 3/4 x 5/8", three

A translation by Alva Graham of LES BEGONIAS

by Charles Chevalier (Original in French)

Price \$10 — Calif. residents add 6% tax. Distribution through the ABS Library.



petals; arranged in cyme on 10" stem; February to March. Registered June 5, 1975.

No. 478 — Begonia (B. scandens cardifolia X B. coccinea) 'Delores'

This cane-like plant has leaves unlike other cane or scandens types; thick; almost round, very uneven heart-shaped; $5\frac{1}{2} \times 4\frac{1}{2}$ "; margin undulate-sinuate; with thick texture of B. coccinea; 8-nerved; 13/4" petioles; stipules long-triangular, drop quickly. Flowers are pale pink, darker at the margin; oblong 1" male, 4-petaled; female 5-petaled; blooming in equally divided cyme on 3" stem; February through May. Originated by Rudolf Ziesenhenne, address above, in 1964; first bloomed and distributed in 1975. Registered June 5, 1975.

No. 479 — Begonia (B. 'Cumbre' selfed) 'Tondelayo'

The fasciated erect stem of this rhizomatous begonia, wide with growth developing along the upper edge, distinguishes it. The green leaves have a dark area along the margin, are roundish, 9-lobed, 3 x 3"; margin is saw-toothed, finely ciliated; texture is medium; nerves 9; petioles somewhat flattened; stipules widely triangular. Flowers are pink, roundish, $\frac{1}{2}$ ", two-petaled, arranged on a raceme on 5" stem; blooms February-March. Originated by Rudolf Ziesenhenne, address above, in 1973; first bloomed and distributed in 1975. Registered June 5, 1975.

No. 480 — Begonia (B. Lindleyana' X B. hidalgensis ['Dayii']) 'Art'

With leaves similar to the pollen parent, this rhizomatous begonia's

leaf underside is covered with long, brown hairs. Medium green with 7 reddish nerves, the leaves are very uneven heart-shaped; 4 x 3"; margin is sinuate, obscurely-toothed, woolly; thick textured; petioles 3½" with reddish, woolly hair; stipules triangular, drying quickly. Flowers February to April, deep pink, round 1", two petaled, arranged on 7" cyme. Originated by Rudolf Ziesenhenne, address above, in 1973; first bloomed and distributed in 1975. Registered June 5, 1975.

No. 481 — Begonia (B. 'Mac-Dougall 318' X B. bowerae nigramarga) 'Marga'

The procumbent stems, dividing and rooting, of this cane-like trailer, entirely hairy with long straight hairs, and beautiful medium-green leaves contrasted with red petioles and stems, create a unique appearance, the stems reaching $1\frac{1}{2}$. Leaves are unequal heart-shaped, $5 \times 31/5''$; margin double-toothed, 5shallow-lobed, red; texture medium, dull; seven-nerved; petioles 6" with long red hairs; stipules, long triangular, quickly drying and remaining. A shy bloomer with few white to pale pink flowers, inverted eggshaped, 1x7/16", two-petaled, the plant blooms from February to April, flowers arranged in a raceme on an 11" stem. Originated by Rudolf Ziesenhenne, address above, in 1973; 1975. Registered June 5, 1975.

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	cupped, roundish leaves with inconspicuous hairs. Erect clusters of
	white flowers. Plant has tendency to trailper pkt. 1.00
Ja	3 — B. mollicaulis: Shrub-like, with velvety, oval leaves, green over and
	under. Stems are juicy. Very easy grower, to 2 ft. high but does not
_	branch easily. Flowers pink or whiteper pkt50
Ja	4 — B. pruinata: 1864; Costa Rica. Leaves broadly oval, glabrous, glisten
~	as if thinly iced with silver. White flowersper pkt. 1.00
Ja	5 — B. richardsiana: A semi-tuberous species from Africa, with tubers
	resembling a small potato. Low growing, tiny thin textured leaves,
	deeply cleft. White flowers. Very succulent growth, goes partially
To	dormantper pkt. 1.00 6— B. solananthera: Scandent, trailing, leaves rather small, broadly oval,
Ja	
	glabrous. Flowers in pendant racemes, white with crimson blotch. A very free-flowering and handsome plantper pkt50
Ta	7 — B. venosa: Upright, up to 3 ft. Leaves broadly oval, covered on both
Ja	sides with white appressed hairs. Magnificent membranous bracts.
	Flowers yellowish white, in dense panicles. Grows slowly, and does
	not branch. Blooms late spring and summer
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NOTE ON B. MORELII

I believe Dr. Irmscher must have intended "mm" rather than "cm" for the measurements of the male tepals in his description of *Begonia morelii* in the December *Begonian*, p. 295. The description of the male tepals would thus read:

Tepals 4, the 2 exterior almost circular or broadly oval, 7-9 mm long, 7-8 mm wide, the interior ones elongated to linear, 5-7 mm long, 1.5-2.4 mm wide.

And the Latin:

Tepals 4, duo exteriora fere orbicularia vel late ovalia, 7-9 mm longa, 7-8 mm lata, interiora elongata ad linearia, 5-7 mm longa, 1.5-2.4 mm lata.

— C. Karegeannes

A NEW BRANCH

By Gordon Lepisto

The Twin Cities Branch of the American Begonia Society was initially organized last July at the home of Alta Mae Asplund, Minneapolis, Minn. We have a charter membership of twenty.

These very energetic people, after three meetings, have put together a monthly newsletter, plant sales table, lively talks and demonstrations, and a Begonia-of-the-Month discussion at each meeting.

Our first plant showing has been scheduled for next April. A good deal of credit for our initial success goes to Alta Mae, our president and Patrick Worley, vice president, who is also editor of the *Minnesota Begonia Review*. Other officers include Pat Burdick, secretary; Al Bruhn, treasurer and Gordon Lepisto, rep. director.

Meetings are held on the first Thursday of each month at members' homes. Our expanding membership will soon dictate a permanent meeting place.

Out of state membership subscription to the newsletter is \$4.00 per year, sent first class from: Patrick Worley, 2740 Lyndale Ave. So. Apt. #2, Minneapolis, Minn. 55408. We welcome Branch newsletter exchanges.

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IN MEMORIAM Marion Thompson

The Elsa Fort Branch has lost a valuable member. On July 16th members of the Elsa Fort Branch learned Marion Thompson had died. Elsa Fort Branch, the first interacial group in the American Begonia Society, was Marion's brain child. She, along with some help, organized it twenty-five years ago.

Marion was a resourceful and indefatigable worker who motivated the group to accomplish projects we never dreamed we could do. For example, we exhibit in the Philadelphia, Pa. Flower Show, which is one of the largest in the country. A year ago because of illness she wanted to resign. We made her an honorary member, with life membership in our group, and kept in close contact with her. The group can never be the same without her.

Happy New Year
to all our friends.
May all your plants be
super in '76.
Santa Barbara Branch

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Greater Rochester Branch

The Greater Rochester Branch was chartered last spring with 9 members. This group has met on the third Sunday of the month in various members' homes.

Mrs. Leonard Franklin, the Branch President, is enthusiastic about tuberous begonias and found that other members of the group also felt these varieties were especially suited to their growing conditions. Most members are operating fluorescent light set-ups and greenhouses to extend the growing season beyond the hot and humid summers. It was this common interest that prompted the group to adopt as a project the propagation of tuberous begonias from seed from the Blackmore and Langdon strain (from England). Many of the tiny plants were placed with area gardeners, in addition to the ones which the Branch members continued to grow for observation and appreciation.

Other programs of the fledgling group included a presentation on rex begonias and the viewing and discussion of the Thompson slide-tape presentation.

Interested growers in the Greater Rochester area should contact Mrs. Thea S. Tweet, Secretary, for information about future meetings.



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SMALL BRANCH HOLDS BIG SHOW

One hundred forty-four plants were awarded honors in the Santa Clara Valley Branch Show, which was held in September at Mayfield Mall. There was a large variety of species and cultivars on display. The theme of the show was: Welcome to Begonia City, very appropriate since the show was visited by many non-members. Joe McMahon, Marguerite de Cola, and Bee Keesey won the largest number of ribbons. The trophy winners were:

NOVICE SECTION:

THE GOLD TROPHY for best rex cultivar, to Joe McMahon for B. 'Fireflush'

THE STEPHANIE LOUISE ANDERSON TROPHY for best tuber-hybrida, to Joe McMahon for *B. multiflora* 'Mini' (Red)

THE MAYFIELD MALL TRO-PHY for best cane, to Joe McMahon for B. 'Rubaiyat'

THE LIANA HUGHES MEMORIAL TROPHY for BEST OF SHOW, to Chuck Anderson for *B*. 'Lulandii'

AMATEUR SECTION:

THE LEE TROPHY for best semperflorens, to Peggy Lynn for B. 'Calla Lily'

THE PEGGY LYNN TROPHY for best rhizomatous, to Peggy Lynn for *B. masoniana* (Iron Cross)

THE MAYFIELD MALL TRO-PHY for best cane, to Charles Sayers for B. 'Peggy Lynn'

THE TOM OLIVER TROPHY for BEST OF SHOW, to Marguerita DeCola for *B.* 'Sophie Cecile'

CONDENSED MINUTES OF THE BOARD MEETING OF THE AMERICAN BEGONIA SOCIETY OCTOBER 18, 1975

President Margaret Ziesenhenne called the meeting to order at 7:30 p.m. at Mercury Savings Building, Long Beach, California. Following opening services, silent prayer was offered on announcement of the passing of Burnell Yarick's son.

Mrs. Ruth Pease was appointed Acting Secretary. A quorum was announced. Minutes of the meeting of the Board at Midtown Motor Inn, Boston, on September 26, 1975, were called for. The legality of the meeting was questioned; Historian Betty Tillotson moved and it was seconded and carried that Public Relations Director Yarick Inform the eastern branches and officers who took part that the legality of the meeting was under consideration.

The Treasurer's report from 9/1/75-10/15/75 was read by the Acting Secretary; questions were raised by board members which the President will take up with the Treasurer upon his return. A letter from the San Francisco Branch

Board was read and filed.

The removal of the ABS general checking account from the Security National Bank in Santa Ana to Ventura was questioned. It was explained that this was for the convenience of the new treasurer and would be brought up under New Business. It was moved by Mr. Yarick, and seconded and passed that financial business be settled by the Finance Committee. Bills which had been presented to the Finance Committee and forwarded to the Treasurer for payment were read by Gilbert Estrada, Business Manager. Walter Pease moved, and the motion was seconded and carried, that the payment of the bills be validated.

First Vice President Charles Richardson moved that a minimum of two officers' signatures be required on each check; motion seconded; Historian Betty Tillotson moved to amend the motion that the four signatures should be those of the President, Treasurer, First Vice President, and Secretary of the ABS; motion to amend seconded and carried; motion as amended carried. Mrs. Tillotson moved to validate the moving of the ABS checking account from Security Pacific National in Santa Ana to the Buenaventura Center Branch of the same in Ventura; motion seconded and carried.

Mr. Pease, Finance Committee Chairman, gave the budget report and read the proposed budget for the year 9/1/75 to 8/31/76. Motion to accept the budget was made by Mrs. Tillotson, seconded and carried

and carried.

Members-at-Large Chairman Richardson reported receiving a request for a charter from the North Dallas Branch at the Goleta Convention. Several other proposed branches are being considered according to Branch Relations Director, Evelyn Cronin. He asked Branch Representatives who wished names of ABS members not affiliated with a branch in their vicinity to contact him.

Mr. Estrada explained his 9/10/75 bill for expenses covering June and July invoices. He had picked up printing plates, a metal file cabinet and old trophies from John Provine; the garage space in Culver City was subject to a raise in rent to \$25, so he had located a more secure storage space for \$21 per month at American Storall, 198 W. Artesia, Bldg. 19, Compartment 13, Long Beach and a check for \$252 for 11/1/75-12/31/76 had been advanced; he moved that the expenditure and the 13-month contract be validated; motion seconded and carried.

Mr. Estrada called attention to the fact that there is no insurance on the ABS circulating library; he will inventory the library with the help of Lydia Austin and Mrs. Estrada, and also inventory the property in the storage space in the near Two thousand envelopes imfuture. printed without a street address for general mailing by officers and 100 charters had been ordered from Kandid Litho Co. He has been asked to have a few copies of the membership roster made for use of officers needing an up-to-date list. Discussion ensued regarding the printing of membership rosters for general use: a committee to look into this matter was recommended.

The Mercury Savings Room had been offered to ABS without charge for use from 7 to 9:30 p.m. Mr. Estrada reported that he had been informed by telephone that there was no contract with the Southgate Auditorium, and had written the auditorium officials in this regard. He then read the Membership Secretary's report.

Estrada moved that \$7 of every \$10 received by the library for the sale of Chevalier's Les Begonias, translated by Alva Graham, for the first 500 copies sold, be sent to Mrs. Graham to repay the cost of underwriting printing the book. Motion seconded and carried.

Mr. Yarick asked for newspaper and radio station addresses to assist in publicizing the ABS and its activities.

The Editors' report was read by Mabel Corwin, Advertising Manager: ABS ownership statement would appear in November issue; only color transparencies would be considered for future covers; would mail two copies of Begonian to those who contribute articles and pictures; would list presidents' names in-

stead of secretaries' in Branch Directory if Branches so desire; price of back issue of the **Begonian** set at 75c to cover cost of mailing. Mrs. Corwin said an advance in advertising rates had been recommended; full page, \$80; half page, \$40; quarter page, \$25, and \$10 per inch, with a discount given on four or more consecutive runs. Mrs. Corwin moved that the rates be adopted; motion seconded and carried. To date 17 branches have sent in Christmas ads.

Mrs. Tillotson moved that a list of officers' phone numbers be compiled; officers are asked to give their phone numbers to the President; motion sec-

onded and carried.

Show Chairman Fred Burgess reported an income of \$1,557.50 from the 1975 Show, which is not a final figure.

Motion was made by Margaret Lee that Mrs. Eugene (Betty) Cooper of Alfred D. Robinson Branch be appointed 1976 Show Chairman upon the completion of Mr. Burgess's activities as 1975 Show Chairman. Seconded and carried.

1976 Show and Convention will be held in San Diego last weekend of August, being the weekend prior to Labor Day.

Librarian Lydia Austin reported a balance of over \$1700 in the Library Fund; \$1500 is being sent to the Treasurer to be deposited in the general fund.

It was moved and seconded that the Circulation Manager be given a monthly check in advance for second class mailing of the **Begonian**. Motion passed.

Mr. Barnett moved that a vote of thanks be given Alva Graham for underwriting the cost of printing Les Begonias; seconded and carried unanimously.

Finance Committee Chairman Pease moved to raise the current dues to \$5; seconded; motion carried with negative votes from the following branches; Whittier, Orange County, San Gabriel, Rubidoux, and Garden Grove; a standing vote revealed 22 for and 5 against the raise. It was noted that a ballot had been sent for the \$7 dues as passed at the Board Meeting in Boston to all Branch Representatives not in attendance; a ballot will also have to be mailed for approval of the \$5 figure if the Boston meeting is invalidated.

Mrs. Lee moved that the meeting of the Board of Directors be returned to South Gate Auditorium until a suitable location is found for all concerned. Estrada was asked to look to the possibility of meeting the fourth Monday of each month at Mercury Savings in Long Beach, rather than Saturday evening; motion seconded and passed.

Mr. Barnett moved that the entire balance except \$10, of the Special 1974 Show Fund, including the travel fund, be transferred to the general fund; seconded and carried.

Meeting adjourned about 10:30 p.m.

CONDENSED MINUTES OF THE BOARD MEETING OF THE AMERICAN BEGONIA SOCIETY NOVEMBER 24, 1975

Meeting called to order at 7:30 p.m., November 24, 1975, at South Gate Auditorium by President Margaret Ziesenhenne; flag salute led by Secretary R. Rose; aims and purposes read by 3rd Vice President P. Mc Grath; roll call showed 16 officers, 11 Branch Representatives present.

Minutes of meeting of 7/28/75 read; correction to show Minutes approved at this meeting were those of 6/23/75; minutes approved as corrected. Minutes of 10/18/75 read and corrected. Vote of 9/26/75 not considered "official"; Walter Pease noted meeting was not "illegal" per the minutes, but action at the meeting was invalid because of lack of

quorum; minutes approved as corrected. First VP Charles Richardson read letters from Evelyn Cronin, Branch Relations Director, and Corliss Engle, Northeastern Public Relations Director both did not consider the east coast meeting a national board meeting but an informal meeting.

Secretary Rose read a letter of appreciation to Ziesenhennes from the Monterey Branch.

Barnett asked if ballot regarding increase of dues to \$5 had been sent out; the President said they would be sent immediately.

Research Director C. Hommedieu's re-

port was read by Richardson.

Editor E. Bates moved that cost of printing the newly-amended Constitution, Bylaws and Standing Rules be approved for January issue; motion seconded and carried. North Long Beach Representative Sullinger moved to authorize printing of next four color covers for Begonian; seconded and carried.

Bates moved that permission be granted to Alice Clark for use of copyrighted material in old Begonians; seconded and carried. Possible publication of new book with 40 color plates of Mrs. Clark's paintings, costing about \$8000 for 1000 copies, was brought up; a committee of four, Bates, Yarick, Corwin and Estrada, was appointed by the President to look into the possibility of ABS assuming promotion for the Clark book, which she will finance with the possibility that, after her costs are recovered, proceeds will go to the ABS Barnett was asked to check with a copyright attorney concerning the renewing

of copyrights of the Begonian. McGrath stated that date and time of Board meetings should be printed regularly in the Begonian.

Treasurer J. Porter gave his report; stated difficulty in making financial reports was experienced because some officers make deposits to bank without reporting to him and he is unable to allocate deposits until monthly bank statement is received; Barnett said receipts totaled \$4038.45: Bates noted error in reported cost of printing the Begonian.

Advertising Manager Corwin reported Horticulture contract had been mailed 11/23/75 for 3 months, cost \$70.50; response to increased rates has been mixed; suggested new classified advertising section in the Begonlan and moved for approval; motion did not pass as there was concern that ads would not pass as there was concern that ads would not pay at suggested price; further study on price to be charged will be made by Mrs. Corwin. A motion to limit classified advertising to non-commercial advertisers was withdrawn.

Nomenclature Director R. Zlesenhenne reported 518 cultivars have been registered and 263 have been typed for cata-

Yarick reported resignation of Herbert Warrick as Public Relations Director for Northwest: M. Ziesenhenne reported resignation of Phyllis Setford, Australian Public Relations Director, during the summer; the resignations were accepted with regret; letters of appreciation were to be sent by Yarick.

Membership Secretary J. Garinger read portions of a letter acknowledged to be from a former officer of ABS to persons unknown regarding the Service which mails the **Begonian** each month; Pease moved a vote of confidence and a gen-eral show of support be given Mrs. Gar-inger for the fine job she is doing, mo-tion seconded and carried unanimously amid applause.

Branch Representative L. Hansen read the report of the Balloting Committee: James Dodge, Barbara Philip, and herself; the changes in the Constitution and Bylaws initiated at the September 6, 1975 ABS Membership Meeting passed with the needed 2/3 majority.

Judging Course Director M. Lee read her report and promised additional information at the next meeting.

It was moved by Daniels that Old Business and New Business be brought up first at the next meeting; motion seconded and carried.

The next meeting will be held the 4th Monday in January at the South Gate Auditorium unless notice of change is given.

Rochelle Rose, Secretary

CALENDAR

Ian. 8 — Westchester Branch -Slide program, "Gesneriads and How to Grow Them", Lucille Kaytis speaker and supplier of plant table. Note change of normal date, 7:30 p.m., at 8020 Alverstone Ave., Los Angeles.

Jan. 23 — Redondo Branch — 7:30 p.m., at Dana School, 135th Street and Aviation Blvd., Hawthorne, CA. Speaker: Ronnie Nevins will demonstrate planting a terrarium.

Jan. 26 — ABS Board of Directors Meeting — South Gate Auditorium, 7:30 p.m.

Jan. 27 — Miami Branch — 8 p.m. at Simpson Memorial Garden Center, 55 S.W. 17 Rd., Miami, Fla. Auction of begonias and shade plants.

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