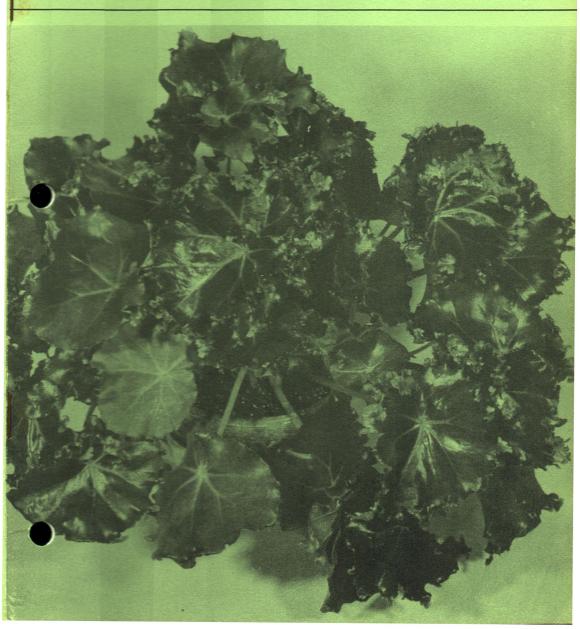
**REGULIAN Garden

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Views expressed in this magazine are not necessari-

ly those of the Editors, the Society or it officers.

ACROSS THE PRESIDENT'S DESK

TAKE TIME

Uretta Hinkhouse

Take time to think . . . and meditate.

Take time to play . . . and celebrate.

Take time to learn . . .

from those who teach,

Take time for God ...

His strength beseech.

Take time to pray...

for faith and right,

Take time to read . . . seek wisdom's might.

Take time to weave... life's pattern bright.

Take time to know . . . your friends aright.

Take time to dream . . . the future plan.

Take time to serve . . . your fellow man.

Take time to love... God's noblest gift,

Take time for faith . . . that will uplift.

Take time to praise . . . let all fears cease.

Take time . . . and work for lasting peace.

The above thoughts are submitted with the hope that by next month the many unhappy people will be thinking more kindly about *The Begonian* and its problems.

COVER PICTURE

Begonia 'Bunchi' Brilmayer photo.

It seems necessary to stress again that we are not professionals with a business staff to take over in cases of emergency. It is a labor of love. The Circulation Manager works late into the night many times to get the magazine ready for mailing. The delay has caused her problems. The Membership Secretary also spills the midnight oil trying to keep the records up to date. The Advertising Manager has her problems, for advertisers should receive full value for their patronage. With the delay in the magazine, the Seen Fund Administrator has been caused much inconvenience. All these things your President regrets most sincerely.

Postal delivery we can do little or nothing about. The magazines are bulk mailed and all go out at the same time.

We beg your indulgence awhile longer.

Thank you, Margaret B. Taylor President

PUBLICATION NOTICE

All material for publication — articles, notices, photographs — should be sent to the Editor, preferably five weeks before date of publication. Deadline is the first of the month preceding month of publication.

Advertising copy and inquiries should be sent to the Advertising Manager.

AIMS AND PURPOSES OF THE AMERICAN BEGONIA SOCIETY, INC.

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* and companion plants;

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

TO issue a bulletin which will be mailed to all members of the Society; and to bring into friendly contact all who love and grow Begonias.

BEGONIA BASICS

By Elda Haring

Insect Pests and Diseases

To recognize the insect pests and diseases of begonias is difficult not only for the beginner but also for many of us who are experienced and who should have a sort of sixth sense where our plants are concerned. If a plant looks sickly and unhappy our first instinct is to attribute the damage to insects or fungus disease. However, the plant could be suffering from over-watering or under-watering, from lack of or too much humidity, an over-abundance of fertilizer, or excessively high or low temperatures.

Sometimes we are over-concerned about our plants. For instance, I have had really knowledgeable people ask me about whitish or silver spots that appear on the new leaves of some of the canes. Since these are arranged in a definite pattern and do not smudge when rubbed with finger tips it should be obvious that this is a natural condition, but in our anxiety we fail to use common sense. Beginners have not yet developed a "seeing eye" and this Begonia Basic is being written with the hope that it may help them to recognize danger signals.

There is a bewildering array of materials on the market to combat insect and disease damage to plants. Many of these are toxic and consequently poisonous to humans and pets. They may be used with great caution *out-of-doors* but, in my opinion, none of these materials should be used on indoor plants. Beginners, especially, should not use these dangerous chemicals. Some begonia va-

rieties are severely damaged by the use of some of these products. I consider the only really safe insecticides to use indoors are the aerosol bombs specifically intended for house plants and which contain no other chemical than pyrethrin or rotenone, or both, neither of which is toxic to humans or pets when used acording to directions. For my indoor plants I use the aerosol Ortho Indoor Plant Insect Spray according to directions. The can is held eighteen inches from the plants and several 20 second spurts is all that is needed. This mist kills the insects. Do not wet the leaves with aerosol sprays. Ingredients in the bomb will damage or "freeze" the foliage if sprayed until material drips from the leaves.

There are other methods that can be used to keep down the insect population indoors. When purchasing a plant never choose one that has signs of insect damage or looks unhealthy. If leaves are curled under or puckered or distorted in any way do not buy it unless you have a place where it can be isolated for some time. Most of you do use sterile packaged potting mixes which do not harbor insects nor encourage the build-up of insects. Small infestations can be kept in check by washing plants off with a stream of lukewarm water at sink or tub. I have sugested many times in these pages that a plant infected with the persistent white fly or mealy bug should be thrown away as they both spread rapidly through a collection and are almost impossible to eradicate when well established. I would recommend this drastic treatment whether you are a beginner or an experienced grower.

Insecticides containing malathion and lindane that are effective against insects must be used with great caution and strictly according to directions. Most of them were formulated for use on ornamentals in the outdoor garden and it is not advisable to use them indoors. However, if you do use them in the home or greenhouse, be sure that ventilators or windows are open. The operator should wear a respirator, glasses, and long sleeves, and should shower immediately after spraying and consign clothing to the washer. These toxic chemicals are absorbed through the skin and can cause damage to lungs, liver and kidneys. Rather than take a chance, my advice to beginners is —do not use them indoors.

Much has been said in favor of "systemic" poisons. These are used in powder form mixed with the soil or in solution sprayed on the plant. The plant takes them up into the cells and insects, sucking or chewing on stems or leaves, are poisoned. These are extremely poisonous to humans, pets, and wild life and although they might be convenient and effective I cannot recommend their use either for indoor or outdoor use.

If you have been caring for your plants properly by promptly picking off dead leaves and blooms, washing them off frequently, and using the aerosol promptly upon the first evidence of any insects present, there should not be any buildup of insect populations in your collection and no necessity for using strong and dangerous poisons.

The most common insect pests and

diseases that the begonia hobbyist will encounter and recommendations for their eradication are listed here:

Mealy bugs. These are soft-bodied insects resembling tiny pieces of cotton or fluff and usually appear where the leaves join the stems. They can be killed individually by dipping a cotton swab in alcohol and rubbing them off and then washing foliage with a warm soapy water solution, rinsing with clear water. Use aerosol bomb several times over a period of ten days to two weeks to destroy any newly hatched insects. My advice is to dispose of an infected plant immediately before your entire collection becomes infected.

Aphids. Aphids known to most people as "plant lice" are pinhead size and may be black, green, brown, or pinkish. These sucking insects cluster along plant stems, leaves, blossoms, and buds. Leaves feel sticky from their secretions and sometimes curl under. Wash the plant with warm soapy water which will kill those adults present. Any eggs remaining will hatch over a period of days, but the use of the aerosol spray three times a week for a period of two weeks will rid the plant of this pest.

White Fly. White flies are tiny insects about 1/16 of an inch in size. Mature insects fly when leaves are touched but are so small they can easily be missed unless a severe infestation is present, in which case I would destroy the plant. This persistent insect is one of the most difficult to control. The young do not fly but suck the juices of the plant. Use aerosol spray every other day for

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THE BEGONIA COLLECTION IN THE HERBARIUM OF THE FUNDACIÓN MIGUEL LILLO

By Fred A. Barkley

Department of Biology, Northwestern University, Boston (Member Buxton Branch A.B.S.)

Argentina is particularly fortunate among South American countries for its excellent institutions for the study of botany, the Darwinian at San Isidro, the Natural History Museum of La Plata, and the Foundation Miguel Lillo at Tucuman, as well as the departments of botany at the various National Universities, and in their federal agencies.

Much of August was spent at the Fundación Miguel Lillo of the Universidad Nacional de Tucumán (Argentina), where I was doing some research on the Anacardiaceae. With my interest in *Begonia* I kept watching for them while doing field work, but August is, unfortunately, midwinter in Argentina, so I found no Begonia.

The herbarium of the fundación is one of the largest in South America, so naturally I looked at its collection of *Begonia*. While there was a good collection of foreign specimens, time forced me to limit my observations to the Argentinian specimens. I thought it might be interesting to point out some of the statistics concerning the collection.

The Begoniaceae of Argentina have been studied by Smith and Schubert*, and at least one specimen of each species and variety had been

The most abundant species is Begonia micranthera Grisebach, the typical variety of which is represented in the herbarium by 83 specimens from the provinces of Catamarca, Jujuy, Salta, and Tucumán. varieties B. micranthera hieronymii Sm. & Sch. and M. micranthera fimbriata Sm. & Sch. each were represented by 17 specimens, and from the same provinces. B. micranthera nana Sm. & Sch. was represented by 9 specimens, all from Tucumán. These were all from altitudes between 600 and 3,000 meters, but mostly at 2,000 meters.

Begonia boliviensis A. DC. was represented by 43 specimens from the provinces of Jujuy, Salta, and Tucumán, while the 11 specimens of *B. boliviensis volcanensis* Sm. & Sch. all came from Jujuy. This species grows at 1,500 to 2,500 meters, but mostly about 1,900 meters.

Begonia parodiana Sm. & Sch. was represented by only 6 specimens, all from Salta.

Begonia tafiensis Lillo was represented by 19 specimens, from Catamarca and Tucumán.

Begonia subvillosa Klotzsch is found wild in Argentina only in the province of Misiones. This was represented by 7 specimens. Misiones

annotated by them, except for one newly-found *Begonia* which comes from an isolated canyon in Jujuy (and which has been sent to Dr. Smith for his determination).

^{*} Lyman B. Smith & Bernice G. Schubert. Revision de las Especies Argentinas del Genero Begonia. Darwiniana 5: 78-117. 1941.

Lyman B. Smith & Bernice G. Schubert. Una Nueva Begonia Argentina. Lilloa 23: 143-146. 1950.

is a warm, humid, and low-altitude area.

Begonia rubricaulis Hook., the only rhizomatous species in the collection, was represented by 24 specimens from Jujuy, Salta, and Tucumán. This grows mostly from 1,000 to 2,000 meters altitude. The variety B. rubricaulis volcanensis Sm. & Sch. was represented by only two specimens, both from Jujuy. These have short, almost corm-like rhizomes.

Begonia cucullata Willd. is the most widely distributed species in Argentina, represented by specimens from the provinces of Buenos Aires, Corientes, Chaco, Entre Rios, Formosa, Jujuy, Misiones, Salta, and Tucumán by a total of 53 specimens. The variety B. cucullata hookeri (A. DC.) Sm. & Sch. was represented in the herbarium by a single specimen from each, Misiones and Formosa. B. cucullata is a fibrous-rooted species similar to the cultivated B. semperflorens. It obviously is not too sensitive to altitude.

The species *Begonia descoleana* Sm. & Sch. is similar in many regards to *B. cucullata*. It was represented by only three specimens, all from Misiones.

Begonia peltata A.DC., and the other species listed by Smith and Schubert from Argentina, Begonia hassleri C.DC., B. brasiliensis Klotzsch, B. maculata Raddi, and B. fruticosa A.DC. were not found represented among the Argentinean specimens in the herbarium. Two Paraguayan species that one might hope to find reresented, B. fiebrigii C.DC and B. obovatistipula C.DC., were not found.

The Fundación Miguel Lillo is a

noted biological research institute, as yet under fifty years since founding. It has a very excellent library and, besides a botanical institute, has institutes of zoology (including entomology) and geology. It furnishes the courses in the natural sciences for the National University of Tucumán. I had spent the years from 1949 to 1951 working in the Fundación, so it was very pleasant to be able to go back for the summer.

SOILS

By E. E. McWhorter Columbia, S.C.

Once you have decided to try begonias, you should first consider what type culture they prefer.

Of the many soil mixtures I have tried, the one which I have found to be most successful is a soilless mixture consisting of two parts peat moss, one part vermiculite, one part Perlite, and one part Redi Mix. This mixture appears to be more satisfactory than those containing clay, sand, saw dust, and the like.

This soilless mixture allows the air to flow freely among the roots and permits excellent water drainage.

The mixture should be well dampened when used. The peat moss used should be screened to remove the larger particles and break any clumps. I never allow the soil to become completely dry because it is almost impossible to rewet.

The main reason I use a soilless mixture is the lack of ideal top soil. A friend using unfumigated soil found it infested with nematodes. He had to destroy all of his plants, remove the soil, sterilize his green-

(Continued on Page 83)

WINNOWING BEGONIA SEEDS

By Philip B. Seitner

Ideally, the harvesting of begonia seeds is a simple matter of shaking the matured and dried capsule, openings down, over a receptacle. Unfortunately, the conditions encountered in seed gathering often fall considerably short of ideal, to which field collectors and hybridizers will testify. Thus, for various reasons, the harvest is often composed of seeds mixed with tissues of the shattered capsule and other debris. Even under the best conditions, the harvest invariably includes some proportion of mummies of unfertilized ova and aborted seeds; not infrequently, the yield from a promising capsule proves to consist only of such material.

Separating any crop of free, dry seeds from vegetative debris mixed with it (winnowing) provides distinct advantages. Certain of those advantages apply little, but others apply especially to begonia seed crops. As background for describing a procedure, it seems appropriate to give recognition to the following objectives in winnowing crude harvests of begonia seeds:

1. Greater control and accuracy in apportioning the viable seed crop and in evenness of distribution in sowing the seeds.

 Facilitation for determining the volume of viable seeds harvested —or in determining whether any of the material consists of mature seeds.

3. Reduction of contamination when sowing seeds. (Chaff, being primarily of quickly decomposing organic material, provides foci

for fungus growth, increasing the potential for fungal overgrowth and risk of seedling loss. Absolute asepsis in seed sowing is not impossible but is generally impractical; nevertheless, all reasonable measures should be taken toward reducing introduction and growth of fungal contaminants.)

4. Improvement of storage control. Although probably of little significance in the case of begonia seeds, winnowing of agricultural grain crops reduces storage volume and provides better control of storage conditions such as moisture content and storage temperature and contamination.

The obvious challenge in the sorting of chaff from begonia seeds derives from the small dimensions of the seeds. Some years ago, I was confronted with a large harvest of Begonia evansiana seeds, which was proposed for apportioning and distribution to plant societies. With a determination to extract every last seed, some of the capsules had been literally thrashed in an excess of zeal, ending with what seemed a hopeless mass of debris. An initial separation of the more coarse particles was attempted by spreading the mixture on a sheet of paper and sweeping across it the edge of an index card held off the surface just high enough to permit seeds and smaller particles to remain behind.

In the course of this exploratory effort, it was noted that, when lifting the paper on which the crop mixture was spread, the shifting of some of the particles was that of a rolling movement and it was apparent that those particles were the mature seeds. Taking advantage of that observation, a separation was accomplished in a surprisingly short time, ending with a residue of virtually debris-free seeds. As simple and perhaps obvious as the procedure is, it nevertheless seems worth documenting with specific directions, sparing future begonia seed collecting novitiates from re-solving the identical problem.

The material to be separated (or a reasonable portion of it, if there is a very large volume) is placed near one end of a sheet of white paper or card; the surface character of ordinary $8\frac{1}{2}$ " x 11" typing paper serves well, but a sheet of heavier stock may be preferred. The sheet is then carefully but firmly grasped, at each of the side edges, between the thumb and middle finger of each hand, leaving the index finger of each hand free. The end with the material on it is lifted slowly to provide a slope of only a few degrees. The slope can be increased as necessary. Generally speaking, the shallower the slope that will induce the seeds to roll, the more chaff will cling to the paper surface and remain behind. A light tapping on the side edges of the sheet with the free index fingers is enough to send the mature seeds rolling to the bottom of the slope. It is convenient to provide another sheet of paper to receive them as they drop from the lower edge, but a receptacle of another type could be used. In a short time, the operator will be able to determine the appropriate angle of the slope and vigor of the tapping for the particular material at hand. It may be desirable to repeat the process one or more times, each time beginning with the product of the previous sort, until the seeds are as free of chaff as seems pratcical. A good hand lens is adequate for judging at what point the winnowing product consists solely of seeds. If the initial mixture contains many chaff particles larger than seeds, a preliminary separation with a fine mesh screen is useful, but not essential.

Seeds of most begonia species, while not spherical, are circular in cross section, will therefore roll, and are particularly amenable to this technique. Seeds of a few species have shapes reducing or preventing the tendency to roll (Begonia caraguatatubensis, e.g.). The results of a trial with such seeds suggest that the technique can nevertheless be used succesfully for their winnowing, if a little more time consuming, based less on the seeds' rolling than on their specific gravity being greater than, and their surface character different from, other particles in the mixture.

One final admonition: Winnowing a harvest of non-viable, aborted seeds can succeed only in separating the largest mummies from the smallest. Under such circumstances, when no fully developed seeds are present in the mitxure as a basis for comparison, it is not only the novice who may occasionally be deluded to believe the separation product represents mature seeds, although it is true that an experienced eye is useful in this judgment. In such a situation, comparing measurements of the winnowed product to the known size of mature seeds of the species would assist in resolving the uncertainty, but only a germination test provides ultimate confirmation.

REGISTRATION OF BEGONIA CULTIVARS

Note: The American Begonia Society is the International Registration Authority for the genus Begonia. Information regarding registering Begonias appeared in the December 1967 and August 1968 *The Begonian*. Forms may be obtained from Rudolf Ziesenhenne, Nomenclature Director, 1130 N. Milpas Street, Santa Barbara, California 93103.

No. 295—Begonia ('Immense' x mazae nigricans) 'Carousel'

Originated by Ruth Pease, 8101 Vicksburg Ave., Los Angeles, Ca. 90045 in 1962, the name being first published in the A.B.S. Classification Guide in July, 1969. A lobed-leaved rhizomatous begonia first creeps and then becomes erect; the tip-acuminate leaves 7" x 5", velvety emerald green, black venation, with light-yellow green emanating in ray form into the middle of the leaf from sinus; petioles 7"-9". Flowers are pink, ovary red-dotted, each petal 1/2" across, rising from axils of 7"-9" flower stem; dichotomous at first, then branching again and again; prolific blooms from May to August. Registered Sept. 8, 1971.

No. 296—Begonia ('Immense' x mazae nigricans) 'Carousel' grex Rudy Illions'

A rhizomatous begonia, creeping, has 6" x 4" lobed leaves with chato-yant texture; veins black, 6" red-hair-like petioles, green brown, yellow green with red spot at sinus, from which short rays emanate. Developed in 1962 by Ruth Pease (see No. 295 above) and first distributed in 1971. Name appears in A.B.S. Classification Guide of July, 1969. Registered Sept. 8, 1971.

No. 297—Begonia ('Immense' x mazae nigricans) 'Carousel' grex 'Esther Illions'

A creeping rhizomatous which then grows erect, with $61/2'' \times 5''$ lobed leaves with slightly haired black green color, blushed dark red on the back; sinus is prominent yellow-green, with light yellow green emanating in ray form into middle of leaf. Flowers light pink, almost white, red dotted, appearing red above the foliage; blooms May. Originated 1962, distributed 1971 by Ruth Pease (see 295 above.) Registered Sept. 8, 1971.

No. 298—Begonia (sceptrum seedling x 'Elaine') 'Raindrops'

A cane-like begonia plant 2' to 4' tall; leaves 9½" x 3½", broader in humid area; margin almost entire, slightly wavy; thin rubbery texture, color dark green, noticibly marked with silver-white spots. Flowers are rose-pink, 4-petaled male 2" across, arranged dichotomously on a 3½" red stem; blooms September. Originated by Ruth Pease (see No. 295 above) in 1964, distributed 1971. Registered Sept. 8, 1971.

No. 299—Begonia (metallica x hispida cucullifera) 'Magic Carpet'

A shrublike, hairy, 2' tall begonia, having uneven heart-shaped leaves with three main lobes, 8" x 5", green with pinkish red on veins in back and leaflets on tops of leaves in the veins. Flowers beginning September, pink as *metallica* on 5" stems. Originated 1964, distributed 1971 by Ruth Pease (see No. 295 above). Registered Sept. 8, 1971.

No. 300—Begonia ('Kentwood' x 'Lenore Olivier') 'Irene Nuss'

Large coral-pink flowers in large

clusters with satiny shades of green foliage set this superba-type cane apart from others. Leaves are lobed, slightly wavy, 7" to 12" x 4" to 7", margin serrated, texture firm; veins green raised underneath; petioles 2" to 3"; stipules, typical cane; new foliage reddish with many silvery markings. Flowers, male, 2" when open; female have very large wings, 1" from center, 5-petaled, 2" across when opened; fragrant; rises from leaf axil in pendulous cluster on 3" stem; blooms April to December. Originator: Irene Nuss, 6429 Riggs Place, Los Angeles, Ca. 90045. Registered Oct. 4, 1971.

No. 301—Begonia ('Kentwood' x 'Lenore Olivier') 'Kent Brandon'

This superba-type cane begonia was developed in 1965, first bloomed in 1968, and was first distributed in 1971 by the originator, Irene Nuss (See No. 300 above), being first shown in the National A.B.S. Show, Whittier, Sept. 1971. Showy, delicate pink flowers against deep green foliage, the plant supports three clusters of bloom per stem at a time; the two-toned delicate pink flowers, male, a 11/2" open; female, 3-celled, 5-petaled, in cupped position, very fragrant, having as many as 60 blooms in a cluster, April through December. Lobed leaves are slightly wavy, with margin serrated, smooth, firm, veins green, raised on underside; color deep-red underneath, top chatoyant deep green. Registered Oct. 4, 1971.

No. 302—Begonia (sudjanae x goegoensis) 'SuGoGo'

Originated by Harold W. Howard, 3736 W. 108th St., Inglewood, Ca., in July, 1968, this plant first bloomed in 1969 with delicate apple blossom pink blooms, the male 3/4" like

goegoensis, female small, large wings giving illusion of butterflies in flight. Held in clusters on 14"-22" stems rising from rhizome, the flowers are on the plant almost all the time from one year on. Leaves are round, peltate, but with a point, 6"-7" x 8"-9"; finely serrated with few fine hairs, puckered, light green; veins green; petioles 15"-18" from rhizome are sparsely hairy; color, chatoyant, medium to light green, lighter on edge. Registered Oct. 4, 1971.

No. 303—Begonia 'Curly Fireflush' x versicolor) 'Silver Firecolor'

Developed July, 1968, first blooming in 1969, this large-leaved rex was featured on the cover of the 5/71 The Begonian. Originated by Harold W. Howard (See No. 302 above) the plant has some spiral leaves, round to a point, $9\frac{1}{2}''-13'' \times 7''-10\frac{1}{2}''$, finely serrated, texture hirsute, veins red on back, red to green on top; petioles 15"-17" from rhizome, branching like B. "Curley Fireflush"; stipules small, red, fall off when brown; leaf color dark green center, light silver wide band out to dark red 1/2" margin; entire leaf and stem covered with red hair. Flowers shell pink when open, entire bud cluster covered with red hair giving velvet texture; male bloom 21/4" wide when open, female 2"; stem rises from leaf node, dichotomous, usually eight flowers per stem which is 5"-7", all year from first year. Registered Oct. 4, 1971.

No. 304—Begonia (olsoniae x listida) 'Oh No'

Originated by Thelma O'Reilly, 10942 Sunray Pl., La Mesa, Ca. 92041, from A.B.S. seed fund offering of July, 1969, this shrub-like, hairy narrow leaved begonia first bloomed in 1970 and was first distributed in

1971. The leaves are angulate, assymetrical, 2"-3" x 4"-5", margin dentate, texture satin-velvety, with pink hairs on both sides; veins are banded chartreuse green; petioles are reddish green, covered with white hairs; stipules are large, brown-green, hairy, persistent; leaf color greenish brown top, dark maroon under, char-

treuse stripes along veins. Flowers 3/4", white, flushed pink, red hairs outer side, nodding on slender peduncle, in clusters on 3"-5" flower stem; blooms late spring to early fall. Habit of growth is upright, then becoming lax—excellent basket or wall pocket plant. Registered Nov. 1, 1971.

BEGONIA SHOWS QUESTIONS AND ANSWERS

By Ruth Pease Judging Course Director

We will answer your questions on preparing show schedules, exhibiting, and judging begonias in this column. In this way we hope to help others who may have pondered the same questions.

Question from Ohio: I am helping to prepare a show schedule for a show to be held in May. I was asked to include a class for tuberous begonias. They have been planted recently and will not be in bloom at the time of the show. I believe tuberous begonias should be in bloom when exhibited. Am I correct?

Answer: Yes. Tuberous begonias are grown and shown because of their beautiful blossoms. In the A.B.S. Point Scoring Systems for begonias, 30 points out of a possible 100 are set aside for Quantity of Flowers in scoring tuberous begonias.

Question from Long Beach, California: Are points deducted when begonias not in bloom are entered in the show?

Answer: This depends largely on what time of year the show is held. In the Southern California area it would be strange to see a semperflorens begonia entered in the Annual Show (held around Labor Day) not in bloom. On the other hand, it is rare and unusual to find many of the rhizomatous or Rex begonias in bloom at that time of year, although we have seen such plants on occasion.

For this and other reasons judges are required to know their plants, to be growers. They must take into consideration the class of begonia being judged, its particular variety. If the plant is known to bloom during another time of the year, NO points are deducted. Page 15 of the A.B.S. Point Scoring System for Judging begonias includes a statement: "The presence or absence of flowers calls for special consideration as few begonias are everblooming. If it is an off-blooming season for a plant, no points should be deducted for lack of flowers."

Question from San Diego, California: How does one entry receive so many trophies at one Annual Show?

Answer: This is a familiar ques-

tion. Due to the structure of the show schedule and list of trophies, there are many overlapping awards.

The Special Committee appointed by President Margaret Taylor is reviewing such problems, trying to find solutions to this one and others concerning the show rules and the show schedule as well as the awards.

Results of the committee's findings will appear in future issues of *The Begonian*.

Question from Orange County, California: I visited the Annual Show last September and plan to enter the show in 1972. I have been growing begonias for only two years. Do I enter as a Novice Grower?

Answer: The rules state: "A Novice Grower is one who is entering this show for the first time. Each exhibitor will compete in his own Division except for certain Specific Awards."

If you wish to compete for certain trophies, you may wish to consider entering into competition as a Grower. Make certain you understand the rules and the show schedule. They will appear in an early issue of the magazine.

Address judging and show questions to:

Mrs. Ruth Pease Begonia Shows, Questions and Answers Column 8101 Vicksburg Avenue Los Angeles, California 90045

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ADD A LITTLE ZING

By Edith Howard

Is your Branch losing a little of its 'Zing'?? Here is what the West-chester Begonia Branch did about this in 1971. It not only stimulated more enthusiasm and added 'Zing' but also brought members closer together with their many questions and answers.

At the January, 1971, meeting we started what we called an 'Enzyme Project'. (See The Begonian for May and June, 1971.) Each member was given a kit containing a bottle of enzymes, a medicine dropper, a white plastic pot and a black plastic pot each planted with four Begonia semperflorens seedlings, a folder with instructions about using the enzyme, and on which to record all data such as growing conditions, watering, enzyme watering, transplanting data, etc. The black pot was to receive only water and the white pot was to receive enzyme water.

There were six different enzymes used and we had groups of six members using the same enzyme. For our plant study a member from each group brought in his plants each meeting for discussion. Members were not told what enzymes were being used until the end of the project in July. At this meeting all plants were brought in and discussed and then all were told the enzyme each group had been using. We felt the group using banana enzyme had the best results with their B. semperflorens seedlings. We also noted that the groups using the albumin and camellia flower enzymes also had reasonably good results.

We had at least 85 per cent complete the project which we considered very good. We had four new members join in January so they, too, could be in on this project using enzymes. One member also wanted to try it on ferns and gave a report about this at a later date. Another member tried enzymes on gesneriads.

As our project was just getting started we had one member move to Nebraska, taking her plants and kit so she could continue the project. We were told later by another member that on his way home from the January meeting he had to make a sudden stop with his car and on arriving home found his little seedling plants upside down on the floor, so he had to do a fast repotting job. Still another member continued although quite discouraged with the progress her plants did not make. What more can you ask than this?

All enjoyed doing this project so we immediately started a new project in July. We called this our 'Leaf Project'. Members were given enough mix for their black and white plastic pots, and begonia leaves of the same plant. They had their folders and enzymes, and instructions were basically the same. One pot was to receive water, the other pot was to receive enzyme water.

The begonia leaves given out for this project were B. 'Abel Carriere', B. listada, B. 'Silver Star', B. Zeebowman', B. 'Norah Bedson', B. boweri nigra marga, B. 'Cleopatra', B. 'Beverly Jean', B. 'Lady Gay', and B. 'Carousel'. It was interesting to see how this project developed. Most members put their leaves in the small plastic pots then set them inside of

a plastic shoe box and kept a lid on the box.

This time of year many plants were preparing to go into dormancy during winter. The leaves of B. 'Abel Carriere' were very quick to put out plantlets which grew very fast. Members were amazed at the growth. Very slow in starting was B. distada, taking over two and one-half months to show plantlets.

At the July meeting when this project started it was explained that many leaves would die off by the time the plantlets start. Other leaves would continue to be firm, especially when they put out plantlets at the end of the stem. When they grew in this manner and the plantlets were well established, the leaf could then be cut off and replanted.

When the members brought in their 'Leaf Project' for discussion it was interesting to see that several had replanted their original leaves to start more plantlets. All members brought in their 'Leaf Project' in November as this was to conclude this project. When asked if they liked doing these projects as a group the response was unanimous. Needless to say, we started a new project at our January, 1972, meeting.

Our members live in widely separated locations and grow their plants in a variety of lath and glasshouse conditions, also in tube houses and under filon. This is interesting as it shows how plants compare when grown under these various conditions of heat, cold, and humidity.

Try a project in your Branch. It is fun, educational, and an interesting way to acquire more plants, plus adding a little 'Zing' to your meetings.

RESEARCH REPORT

At long last I have found a university that will be working on a project for us. It is a project that should be of interest to most of our members: the propagation of cane begonias by leaf cuttings.

Rutgers University has found that it is possible to influence bud initiation by the application of synthetic analogs of growth hormones. They think that they have the techniques and expertise to make a significant contribution to the understanding of factors which control adventitious bud growth in begonias and how to manipulate them.

Dr. Moser, Assistant Professor of Floriculture at Rutgers University, will be the principal investigator of this project. A graduate student will be working on this problem under the direction of Dr. Moser, and his research responsibilities will be primarily to this project. Dr. Moser states that this will be an excellent work project for a student studying for a Master's degree. The preliminary work will be started immediately and will be carried on over a period of one to two years.

Progress reports will be submitted in September, 1972, and June, 1973, or as significant results are obtained. A final report at the end of the project will be submitted for publication in *The Begonian*.

A letter has also been received from Cornell University in answer to my inquiry concerning research with begonias. They have a group of graduate and undergraduate students working in the field of tissue culture as a means of rapid propagation and have been working with the rex begonia. They would welcome financial support which would stimulate this work. However, I had to reject their plea for financial support since the Rutgers project has greatly depleted the Research Fund.

I want to thank the Branches and individual members that have made this research possible and for their patience and confidence in my ability to achieve the type of research that should prove of interest to most of our members. However, there is no guarantee that a positive result will be obtained. But that is what research is all about. It is a case of searching and searching with no absolute guarantee of finding what we may be looking for.

M. Carleton L'Hommedieu Research Director

SOILS . . .

(Continued from Page 75)

house, and begin again. He learned the hard way and we can all learn from his mistake.

If you use soil, I would suggest that it be sterilized by one of the following methods: steam, baking in an oven at about 180° for 45 minutes or, if you wish, a chemical sterilant such as Methyl Bromide may be used to sterilize a larger area. If the chemical material is chosen, the package directions should be followed very carefully.

Therefore, by using this soilless mixture, I can be relatively certain that my growth medium is free of disease and insects from the beginning. This is necessary in order to grow healthy begonias.

In the next article, I will recommend some begonias for beginners.

CLAYTON M. KELLY SEED FUND

No. 1-B. 'Colorvision'

Rex from Germany. All of the popular colors and color combinations. Beautiful is the best way to describe them. \$1.00 per pkt.

Please note: From Germany we have received generous amounts of the Multiflora type begonia seed, which can still be sown for summer and fall blooming, either in beds or containers, and will stand more heat than the larger types. They can be grown outdoors in beds and require no staking. Take advantage of this offer as it will be the last for this season.

No. 2-B. 'Mrs. Helene Harms'

Double canary-yellow flowers produced in great abundance on bushy dwarf plants. Price 50 cents per pkt.

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Flowers are very large, open with yellow fluffy centers. Foliage is darkish, which makes a pleasing contrast to the dark rose blooms. Price 50 cents per pkt.

No. 5-B. 'Sleeping Beauty'

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Semperflorens begonias are very popular with growers who appreciate the long-lasting qualities of these versatile and colorful plants. We offer only the best and guarantee you will be delighted with them.

No. 1-B. cathayana

Offered in The Begonian for January but someone may have neglected to see it or new members will appreciate having seed of this exotic We have a great many seeds, a statement that we can seldom make. B. cathayana is a native of China. It grows erect, shrubby, 40-60 cm. high. Stems succulent, round, reddish-brown, covered with soft white hairs. Leaves asymmetric, hanging down, about 20 cm. by 12 cm. asymmetric cordate more or less lobed and dentate, ending in a point, velvety, dark, olive-green, with a light green area which becomes white toward the center, deep purple, velvety veins, covered with soft hairs, mainly at the margin and beneath. The lower side of the leaf is very red with A beautiful reticulate venations. species requiring greenhouse care with plenty of warmth and humidity. Price \$1.00 per pkt.

No. 2-B. plebeja

Rhizomatous species. Leaves green with black markings. Small white flowers in winter. The seeds distributed as 'Panama' sp. rhizomatous is similar but without black markings.

No. 3-B. paranaensis Brade

Belongs to the Pritzelaia subgenus. Brazil sp- Medium growth, with thick stems, large leaves with dentate margins Huge white flower clusters in early spring. Price \$1.00 per pkt.

No. 4-B. limmingheiana

Pointed Shiny green leaves on many cascading stems. Coral-red flowers in close clusters in winter. Provide

warmth, brightest light, good soil. Price 50 cents per pkt.

No. 5-B. evansiana

China. Tough species that will take almost any kind of situation. Large green leaves, red beneath; pink flowers in abundance. A good outdoor bedding begonia that springs up from tubers in early spring. Price 50 cents per pkt.

No. 6—B. palmaris

ADC Mexico. Stems erect, petioles to four inches long; leaves roundish, to eight inches long, usually palmately lobed, sometimes merely oncecleft between the base and the tip, slightly green, slightly hairy above and on the nerves beneath, margins toothed and ciliate. Flowers in dense axillary clusters. Price 50 cents per pkt.

Correction: Begonia number 11 in *The Begonian* for January should be *B. valida*. Seeds are still available at 50 cents per pkt.

Begonia number 8 should be *B. diadema*. No seeds at this time.

Please send requests for seed to:
Mrs. Florence Gee
Seed Fund Administrator
234 Birch Street
Roseville, Calif. 95678

BASICS . . .

(Continued from Page 73)

two weeks to kill young as they hatch. Scale. Scales appear as black or black or brown dots on the underside of leaves and sometimes on stems. They have hard shells when mature and they also suck the juices of the plant. When present the leaves often feel sticky. Mature scales can be washed off, using a soft brush and soapy water or by scraping off with the thumbnail. There is a crawling

stage when the insect bodies are soft and the aerosol bomb used once a week for several weeks will keep them under control. If a plant is badly infested discard it at once.

Spider Mites. Spider mites, often refered to as "red spider," are minute insects that suck plant juices. Leaves slowly turn yellow then small webs show on the underside of leaves, after which leaves turn brown. A forcible spray of water dislodges some of the mites. Wash with soapy water and rinse with clear water several times weekly. A severely damaged plant can be cut back sharply if desired but the recommended treatment should continue for one or two weeks.

Fungus diseases. Of the fungus diseases the one most prevalent on some begonias is mildew. This is evidenced by the appearance of a whitish dust on leaves or stems which will smudge when rubbed. Commercial growers use Karathane or Mildex in their greenhouses as a mildew preventive. However, as these materials are also toxic I cannot recommend their use for beginners. Mildew can be checked by dusting with Ferbam or Fermate. The dust is charcoal gray and very unsightly. If I have a plant showing signs of mildew I mix up a mixture of Ferbam and water according to directions on the container and, holding the plant upside down, I dip stems and leaves in the mixture. If the plant is badly infected, I cut off to about one inch of pot level and treat with Ferbam and let it grow anew.

Use this method also on plants on which the leaves and stems develop a grey mold known as Botrytis blight. Badly infected plants usually cannot be saved and should be destroyed.

CANE-LIKE BEGONIAS OUTDOORS

In talking to a begonia group in Long Beach recently, Rudolf Ziesenhenne, nomenclature director of the American Begonia Society, described cane-like begonias which may be used in outdoor gardens in California's coastal regions, such as Santa Barbara.

Classified cane-like because the stems are straight and nodes spaced regularly up the stem, the plants like warmth, but prefer having cool roots; along a wall or near a chimney the plants with roots in the shade will reach for the sun where they bloom profusely.

Cane-like begonias need ample plant food, preferably some every week. Like most plants, begonias need more water in winter than in summer because water applied during the up-to-80-degree winter day will be lost through surfaces during the night. The unhappy-looking begonias is one whose moisture-evaporation has not been replaced by regular watering, Ziesenhenne stated.

If a cane begonia is well fed, the stems will not be seen because the leaves will cover it with shingle-like





precision. Ziesenhenne recommended the use of leaf mold as a source of elements needed for plant growth, with good garden soil for weight. In the soil mix Ziesenhenne recommended use of animal fertilizer with the addition of Mag-Amp if the grower wishes year-long growth, it being a slow-dissolving chemical fertilizer.

Lime is always required in begonia soil; Ziesenhenne learned from Thomas MacDougall, his plant explorer, that his new Mexican begonia species are always found where there are outcroppings of limestone. The speaker recommended oyster or egg shells for furnishing this element, although dolomite lime may be used.

The first tall cane, Begonia maculata, was found in 1819 in Brazil and has been much used in hybridizing since then, although the low-growing B. coccinea, with its brilliant scarlet blossoms, was discovered in 1774, also in Brazil; this plant grows best as a basket plant.

B. 'Annabelle', a hybrid made in 1922, is outstanding under artificial light where the six-foot plant with spotted leaves seems to glow with pink flowers. B. 'Richard I', a hybrid of the late Elsie M. Frey of Santa Barbara, bears fragrant blossoms on six-foot stems.

Ziesenhenne recommended that cane-type begonias be planted in the ground, where possible, as the water supply is steady and they will grow to their maximum height. Canes may be pruned anytime; they have a thick root system which sustains a reasonable amount of shock. B. 'Corallina de Lucerna', an 1892 cane-like hybrid, is particularly good planted out-

doors and has the largest of reddish flowers in geat inflorescences, with dark-green leaves; they will grow to six feet if desired.

Cane-like begonias have a variety of blossom color—white, blush pink, salmon, orange, red (light, medium, and dark), and rose. Some will grow to eight feet if they are carefully watered and fed.

ROUND ROBIN NOTES

Flights are full of new notes: on propagating by cuts, on the results of different mixes in growing from seed, on the size a certain begonia will grow under lights or in a greenhouse, on what begonias are being grown in bowls, and on comparing notes on certain begonias to see if they are the same as when they were grown years ago.

Yvonne Wells of Texas reported that in late January her *B. violaefolia* suddenly started to grow. *B. subnummularifolia*, in a bowl, has bloomed constantly for two years. Several members in a flight reported that the leaves of this begonia rolled for them but Yvonne writes that they never rolled for her. She feels that hers grows better when it is not under fluorescent lights.

Yvonne's favorite is *B. aridicaulis* and she has a jar full of it. In her hot Texas summers her *B. versicolor*, growing in a 12-inch glass bubble bowl, likes it in her home with the air conditioner better than in the greenhouse. It doesn't like to be moved around.

Dorcas Redleff of Washington writes that she does not put her seed pans in her greenhouse, but keeps them under fluorescent light in her

home. She thinks the fluorescent light is constant in intensity and the temperature is constant, too. Dorcas lets her seedlings get good-sized before she moves them into a potting mix. She still uses Jiffy 7's crumbled and moistened in her seed pans as she has had the best germination with that mix.

Dorcas also does some bowl-growing. She has *B. versicolor* seedlings coming along under lights. The largest one has five leaves. The fifth leaf began to show *B. versicolor* markings. She has B. 'Silver Swastika' growing in a bowl and showing new leaves. Also, *B. masoniana* is growing from a leaf cutting put down last August. In a much larger bowl, she has young plants of B. 'Zee Bowman', B. 'Beatrice Haddrell', and B. 'Bow Chancee'. B. 'Zee Bowman' is outgrowing the others and will have to be removed from the bowl.

If you wish to join this very interesting part of begonia growing, tell how you grow begonias and your choice of flights. Write to:

Anita Sickmon Round Robin Director Route 2, Box 99 Cheney, Kansas 67025



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REPORT OF MONTHLY MEETING OF BOARD OF DIRECTORS

The regular meeting of the Board of Directors of the American Begonia Society was held on February 28, 1972, in the South Gate Auditorium, with President Margaret Taylor presiding.

The minutes of the January meeting were approved with the following correction: a donation of \$100.00 by Rudi Ziesenhenne brought the catalog fund to the total of \$765.15.

The treasurer reported receipts of \$1,332.17 and disbursements of \$1,675.86, leaving a balance of \$867.46.

The membership secretary reported 56 new members and 95 renewals; a total of 1.951 members.

The circulation manager reported 2,756 **Begonians** distributed.

The advertising manager reported receipts of \$66.35.

At the business manager's request, a motion was made and carried that a file cabinet be purchased for the treasurer's use.

The judging course director reported that a new class for judges will begin March 3. A Begonia Show questions and answers column will begin in the April issue of The Begonian.

The nomenclature director reported that he is getting results from his efforts to get people to register their begonias. New registrations will be reported in **The Begonian**.

The research director reported that a decision was made to give a grant of \$600.00 to Rutgers University for research on the propagation of cane begonias by leaf cuttings.

The round robin director reported that eight flights came through and a new flight on growing miniature begonias was launched.

The ideas committee chairman reported that Burnell Yarick has been appointed Convention Committee Chairman. He also suggested that an emergency committee be appointed to take the place of the editor if an emergency arises. Motion made and carried. The ideas committee recommended that the constitution and by-laws be printed in The Begonian; that advertising in various magazines be brought up to date; that reasons for the need of a raise in dues be published in The Begonian.

The Orange County Branch extended an invitation to the Board to hold its April meeting at the Colonial Terrace Room in Westminster. The invitation was accepted for Sunday, April 23.

Irene Grannell, Secretary



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*Platycerium Fern Facts \$4.95 by Wendy Franks	
*The Tuberus Begonia \$10.80 by Brian Langdon	
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3rd Saturday, Homes of Members Mrs. Hebert Hurley, Secy. 11 Woodland Rd., Lexington, Mass. 02173

CONNECTICUT BRANCH
4th Sunday of each month
Mrs. Priscella Beck, Secy.
R D No. 1, Box 121, Mystic, Conn. 06355

DALLAS COUNTY, TEXAS, BRANCH 3rd Monday, 10 a.m., Members' Homes Mrs. George W. Hopkins, Secy. 1619 S. Beckley Ave., Dallas, Texas 75224

EAST BAY BRANCH

2nd Thursday, 7:45 p.m., Willard School Telegraph at Stuart, Berkeley, Calif. Miss Carol E. Orpin, Secy. 428 Norvell Street El Cerrito, Calif. 94530

EASTSIDE BRANCH

4th Wednesday, 7:30 p.m. 590 116th Avenue N.E., Bellevue, Washington Grace Fisher, Secy. 770 Monroe Ave. N.E., Renton, Wash. 98055

EL MONTE COMMUNITY BRANCH

3rd Friday, Members' Homes Mrs. Gladys Máttuket, Secy. 1801 Azalea Drive, Alhambra, Calif. 91801

FOOTHILL BRANCH

3rd Thursday, 8:00 p.m.
First Methodist Church, Marshall Hall
3205 D Street, La Verne, Calif.
Mr. Robert I. Wilson, Secy.
544 Fountain Drive
Mirc Lown. Calif. 01752 Mira Loma, Calif. 91752

FORT, ELSA BRANCH

1st Saturday, 1:00 p.m. Miss Lola Price, Secy. 628 Beach Ave., Laurel Springs, N.J. 08044

GLENDALE BRANCH

2nd Tuesday, 8:00 p.m. Glendale Federal Savings, 401 N. Brand Mrs. Frances Perkins, Secy. 3712 Revere Ave., Los Angeles, Calif. 90039

GREATER BATON ROUGE BRANCH Mrs. Charles H. Smith, Secy. 4177 Flannery Rd., Baton Rouge, La. 70814

HOUSTON TEXAS BRANCH 2nd Friday, 10:00 a.m. Garden Center, 1500 Herman Drive Mrs. B. A. Russell, Secy. 5926 Jackwood, Houston, Texas 77036

KNICKERBOCKER BRANCH

2nd Tuesday, 7:30 p.m. Horticultural Society of N.Y. 128 West 58th St., New York Miss Margaret Huger, Secy. 505 East 82nd St. New York, N.Y. 10028

LONG BEACH PARENT CHAPTER

3rd Sunday, 1:30 p.m. Great Western Savings and Loan Bldg. 6300 East Spring St., Long Beach, Calif. Mrs. Paul E. Powell, Secy. 3031 Shakespear Dr., Los Alamitos, Calif. 90720

LOUISIANA CAPITAL BRANCH

1st Friday, Sear's Garden Center 6201 Florida St., Baton Rouge Mrs. John Blythe, Secy. 1823 Madras Drive, Baton Rouge, La. 70815

MESOUITE BRANCH

Mrs. Billie Lyles, Secy. 928 Calle Reale, Mesquite, Texas 95149

MIAMI BRANCH

4th Tuesday, 8:00 p.m. Simpson Memorial Garden Center Mrs. Marie Evans, Secy. 610 63rd Drive, Hialea, Florida 33012

MISSOURI BRANCH

3rd Friday, 11 a.m., Member's Homes Kansas City, Mo. Mrs. Glenn Lucas, Secy. Kansas City, Mo. 64109

MONTEREY BAY AREA BRANCH
4th Wednesday, 8:00 p.m.
Lighthouse and Dickman Sts., New Monterey, Calif.
Frederick Bell, Jr., Secy.
P.O. Box 527, Pebble Beach, Calif. 93953

NORTH LONG BEACH BRANCH 1st Tuesday, 7:30 p.m. 525 Ocean Blvd., Long Beach Barbara Welty, Secy. 4741 Hazelbrook Long Beach, Calif. 90808

ORANGE COUNTY BRANCH
2nd Thursday, 7:30 p.m.
Lions Club, Walnut St. and Garden Grove Blvd. Garden Grove, Calif. Mrs. R. L. Nevins, Secy. 1913 Aspen Cicle, Fullerton, Calif. 92631

PHILOBEGONIA BRANCH

2nd Friday, Members' Homes Mrs. Anne Stiles, Secy. East Delaware Trail, R.D. No. 2, Medford, N.J. 08055

PORTLAND BRANCH

Mrs. Lavene Jenkins, Secy. 9920 S. W. 53rd Ave., Portland, Oregon 97219

REDONDO AREA BRANCH
4th Friday, 7:30 p.m.
R. H. Dana School Cafetorium
135th St. and Aviation Blvd., Hawthorne, Calif.
Mrs. Margaret Buell, Secy.
18500 Mansel Street Redondo Beach, Calif. 90278

RHODE ISLAND BRANCH
1st Saturday, Homes of Members
Miss Marcella Flynn, Secy. 7 Fairfield Ave., East Providence, Rhode Island 02914

RIVERSIDE BRANCH

2nd Wednesday, 6:30 p.m. Dales Recreation Center 3936 Chestnut Street, Riverside, Calif. Mrs. Margaret K. Elmore, Secy. 3935 McKenzie, Riverside, Calif. 92503

ROBINSON, ALFRED D. BRANCH 3rd Friday, 12 noon, Homes of Members Constance D. Bower, Corr. Secy. 1609 W. Lewis St., San Diego, Calif. 92103

SACRAMENTO BRANCH
3rd Tuesday, 8:00 p.m., Garden Center
3300 McKinley Blvd., Sacramento, Calif.
Mrs. Betty Tillotson, Secy.
3912 Wildrose Way
Sacramento, Calif. 95826

SALINE COUNTY BRANCH OF KANSAS 4th Monday, 2:00 p.m., Homes of Members Mrs. Jesse Harper, Secy. Route 3, Salina, Kansas 67401

SAN FRANCISCO BRANCH
1st Wednesday, 8:00 p.m., Garden Center
Golden Gate Park, 9th Avenue and Lincoln Way
Mr. Allen Sweet, Secy.
303 La Serena Way, Sonoma, Calif. 95476

SAN GABRIEL VALLEY BRANCH
2nd Friday, 8:00 p.m.
Los Angeles State and County Arboretum
501 N. Baldwin Ave., Arcadia, Calif.
Mabel Anderson, Secy.
16609 Cypress St., Covina, Calif. 91722

SAN MIGUEL BRANCH
2nd Wednesday, Porter Hall, 7:30 p.m.
University & La Mesa Blvd., La Mesa
Mrs. George Bayse, Sr., Secy.
2347 Langmuir St., San Diego, Calif. 92111

SANTA BARBARA BRANCH 2nd Thursday, 7:30 p.m. Santa Barbara Museum of Natural History 2559 Puesta Del Sol Mrs. Helen Yost, Secy. 888 La Milpita Rd., Santa Barbara, Calif. 93105

SANTA CLARA VALLEY BRANCH 3rd Thursday, 8 p.m.

Member's Home Elisabeth Sayers, Secy. 369 Ridge Vista Ave. San Jose, Calif. 95127

SEATTLE BRANCH

3rd Tuesday, 7:00 p.m. Calvary Lutheran Church 7002 23rd Ave., N.W. Mary Sanderman, Secy. 13045 37th N.E., Seattle, Wn. 98125

SHEPHERD, THEODOSIA BURR BRANCH

Tist Tuesday, 7:30 p.m.
Y.M.C.A. Bldg., 5200 Telegraph Rd., Ventura, Calif.
Mrs. Bernie Crosby, Secy.
231 Bethel St.
Ventura, Calif. 93003

SMOKY VALLEY BRANCH 4th Thursday, 7:30 p.m., Members' Homes Mrs. Henry Flaherty 606 South Third, Salina, Kansas 67401

SOUTH SEATTLE BRANCH
4th Tuesday, 7:30 p.m., Wm. Moshier Field House
430 South 156th Burien
Sally Harding, Secy.
11632 1st Ave. S., Seattle, Washington 98168

TARRANT COUNTY BRANCH
2nd Monday, 10:00 a.m., Members' Homes
Mrs. R. M. Bennison, Secy.
Rt. 2, Box 155 Dickinson, Texas 77539

TEXAS STATE BRANCH
4th Thursday, Sabine National Bank Bldg.
Port Arthur, Texas
Mrs. R. J. Wilson, Secy.
4620 Evergreen St., Port Arthur, Texas 77640

TEXASTAR BRANCH

3rd Thursday, 10 a.m., Garden Center 1500 Herman Dr., Houston, Texas Mrs. V. O. Harman, Secy. 306 Cody, Houston, Texas 77009

WESTCHESTER BRANCH
1st Thursday, 7:30 p.m., Westchester Women's Club
8020 Alverstone St., Los Angeles, Calif. Barbara Mack, Secy. 424 Oregon St., El Segundo, Calif. 90245

WESTERN PENNSYLVANIA BRANCH
2nd Wednesday, 11:00 a.m. every other month
Pittsburg Garden Ct., 1059 Shady Ave., Pittsburg, Pa.
Mrs. Irene Fediacko, Secy.
125 Arlington Ave., Butler, Pa. 16001

WHITTIER BRANCH

1st Thursday, 7:30 p.m. Palm Park Community Center 5703 South Palm Avenue, Whittier Miss Anne Rose, Secy. 14036 Ramona Drive, Whittier, Calif. 90605

WILLIAM PENN BRANCH

4th Tuesday, Noon Homes of Members Mrs. Murdock Davis, Secy. 256 Broughton Lane, Villanova, Pa. 19085

CALENDAR

April 18 — Seattle Branch: 7 p.m. Program "Potting Methods and Materials."

April 28—Redondo Area Branch: Muriel Perz will speak on "Begonias We Love."

May 4—Westchester Branch: John Lee will speak on "Epiphyllums."

April 29-May 21 — Santa Barbara Branch of A.B.S. is sponsoring an Old-fashioned Begonia and Shade Plant Garden in conjunction with a Decorator Showcase House 1732 Santa Barbara Street, Santa Barbara. Open daily 11 a.m. to 4 p.m. Lunch upon reservation. Tickets, information: URC, 777 Camino Pescadero, Goleta, Calif. 93017. May 11 — 32nd Anniversary shared dinner and meeting, Santa Barbara Museum of Natural History, 2559 Puesta del Sol Rd. Dinner 6:30 p.m. Meeting 7:30 p.m. Speaker Sylvia Leatherman.

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