

PREFACE

TO THE

MIMEOGRAPHED REPRODUCTIONS

OF THE

MONTHLY BULLETINS

OF THE

AMERICAN BEGONIA SOCIETY

for

January through December

of

1937

February 12, 1968

This 1937 set of reproduced bulletins of the early American Begonia Society covers the fourth year of publications for the members of that era. It is the last full year of bulletins in the mimeographed form. The regular printing press form of bulletins began in July, 1938. The first six months of 1938 were, however, also in the mimeographed form but the pages were arranged differently so the members could fold them into a smaller size. This arrangement still left much to be desired for the expanding Begonia Society. The real answer was found in a new bulletin format and the use of a regular form of letter press printing.

Our present ABS Board has also authorized the reproduction of the mimeographed issues of January through June of 1938. This work will be completed within the next few weeks and the copies will be forwarded to Mrs. Lucile Wright, our ABS Librarian, for whatever method of distribution is decided upon by the Board. The reproductions will be made in the same form as the preceding four years.

The information in this full set of the bulletins for 1937 is very valuable in a cultural sense. All articles were written by experts and the whole field of shade plants was covered very thoroughly. In addition, from an administrative standpoint, these publications of 1937 also seem to furnish a splendid comparison with our present day problems and procedures.

We have made lots of progress over the years but after examining the following list of early procedures it appears that we have not initiated as many new ideas in recent years as we should have:

1. The installation ritual for officers was already established.
2. The plant table and plant auctions were already working nicely.
3. Members were bringing special plants to the meetings for discussions and exhibition.
4. They were also selling cultural bulletins for special groups of plants.
5. Leaf mold was already firmly established as the basic soil medium.

6. Difficulty with crushed and broken begonia seed had already been found to be due to rough handling. The use of immature seed pods was also found to give poor or useless seed.
7. More members were building greenhouses to get better environments for their plants.
8. The programs for their meetings were already of high quality.
9. The early editors were, as they are today, having trouble getting enough money to publish the bulletins of the Society.
10. Hydroponic gardening had been evaluated and found uneconomical.
11. Plants, insects, and insecticides were all about the same as today.
12. The problems with light, heat, humidity, ventilation, fertilizers, etc., were already recognized and being handled about the same as today.
13. Irradiation of begonia seeds was already being studied.
14. Garden tours were well organized and even better attended than today.
15. Hybridizing was also a very active part of the early pleasures with begonias.

Thus, it is quite surprising and enlightening to find that we spend a major part of our time today just learning what our predecessors in plant culture have already done. We should take advantage of every bit of cultural history and try to go forward in new plant fields. We should read all ABS bulletins frequently.

Happy Reading and
Studying to all,

Elizabeth and Herbert Warrick.

Bulletin of

THE AMERICAN BEGONIA SOCIETY

Vol. 4.

JANUARY 1937

No. 1.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

JANUARY MEETING

The first meeting of the year will be held on January fourteenth at the Community Hall, corner of Lime Avenue and Ninth Street, Long Beach, California, at seven thirty o'clock.

The program will include: The celebration of the fifth birthday anniversary of the Society; Reports of the 1936 officers and committees; Installation of the newly elected officers and directors; An exhibit of begonias, and a talk by Mr. Hans von Hofgaard on "Begonias I saw in Europe".

A fine Rex Begonia has been donated and will be sold.

THE DECEMBER MEETING

The last meeting of the year 1936, held on December tenth, had the largest attendance of any in the history of the Society. It was also one of the most successful.

The educational program included an exhibit of winter-blooming begonias in flower, described by Mr. H. P. Dyckman, and instructions by Mr. J. Paul Walker, for the construction of various types of propagating frames equipped with bottom heat. He used a cross section model to illustrate his talk.

The social features were more elaborate than usual and partook of the festivities of the Holiday season.

A large Christmas tree, beautifully decorated and lighted, was prepared by Mrs. Liedler and Mrs. Drant. The plants for exchange gifts, in gay Christmas wrappings, grouped about its base added to its attractiveness. This annual feature, the exchange of gifts, was, as usual, supervised by Mrs. Palstine.

In the delightful program, Mrs. Palstine presented Miss Lola Pettingill, harpist, in several selections; Miss Jean Fischer, in two solos, accompanied by Mr. Frederick Shaffer; Miss Roberta Schwab in two humorous readings and in piano solos. To the accompaniment of Miss Pettingill on the harp, Mrs. Palstine whistled "Rochelle".

The sale of donated plants added ten dollars to the expense account of the Long Beach meetings.

Refreshments were served and each of the 135 persons present received an artistic favor, the handiwork of Mrs. Mary Congdon.

The following officers were elected for the coming year:

Mr. Tom H. Smith, President
Mr. J. S. Williams, Vice-President
Miss Phyllis Cole, Secretary-Treasurer
Mrs. H. D. Heinley, Corresponding Secretary
Mr. C. M. Kelly, Bulletin Editor
Mr. M. B. Dunkle, Research Editor

OFFICER LIST (cont'd)

Mr. H. P. Dyckman, Director
Mr. W. S. Bell, Director

Financial Statement of the American Begonia Society for 1936:

Accounts Receivable:

Cash on hand January 1, 1936		\$32.59
1936 Membership Dues	\$254.55	
1937 Membership Dues	<u>64.00</u>	318.55
Sale of Bulletins		34.95
Sale of Plants		83.75
Advertising		10.75
Donation		8.50
Miscellaneous		<u>10.11</u>
		\$499.20

Accounts Payable:

Printing Bulletins	\$222.90	
Refreshments	72.02	
Stamps & Envelopes	61.59	
Miscellaneous	<u>45.88</u>	<u>402.39</u>
Balance on hand		\$96.81

Refreshment Fund

Proceeds from sale of plants		
	\$83.75	
Disbursements	<u>72.02</u>	
Balance on hand in fund of		
National Society	\$11.73	\$85.08

Edna D. Ziesenhenne.

ANNUAL REPORT OF THE RETIRING PRESIDENT by M. B. Dunkle

The past year has been exceptionally successful for the American Begonia Society. This, in a measure, has followed the foundations laid in previous years, but is even more due to the efficiency and harmony of the officers and committee members, and to the interest and participation of the ever increasing host of active members. The cooperation of such members as Alfred D. Robinson, Frank Reinelt, Mrs. Bessie Buxton, Hans von Hofgaarden, Mrs. H. L. Weitz, P. E. Hatch, J. A. Hayden, Mrs. Charles Patterson, Mrs. Winifred Young, J. S. Williams, Lester Woodriff, and many others contributed to the successful activities of the Society.

The active membership at the end of this year is 325, a growth of 156 during the year. This growth has been due to the interest of our meetings, the excellence of our bulletin, and to the work of our membership committee under the chairmanship of Mrs. Tom Smith. The meetings have been well attended, over 135 in December, which shows conclusively the work of the Program Chairman, J. Paul Walker; the reception committee under the direction of Mrs. O. P. Palstine, and the refreshment committee under the leadership of Mrs. Ruby Liedler. The records and expenditures of our Society have been looked after by Miss Edna Ziesenhenne with exceptional competence.

The bulletin is the one great undertaking that vitalizes and unifies the activities of our Society. C. M. Kelly has made the bulletin of this year an outstanding success. He has literally combed the world for material, which perhaps explains the spread of our membership to all parts of the United States and elsewhere.

The growth of the Society locally has made it necessary to provide a hall for

ANNUAL REPORT OF THE RETIRING PRESIDENT (cont'd)

meetings. This fact, together with the year-round schedule of meetings and the enlarged bulletin, has put a difficult financial burden upon a society supported by the small membership fee of one dollar. Nevertheless, this dollar was set aside for the expenses of the bulletin editor and corresponding secretary. All other expenses of our local meetings have been met by other means under the management of H. C. Roque and Tom Smith. There is, happily, a surplus of \$85.00 in the National Fund, and \$11.73 in the Local Fund to be carried ahead to next year.

The high lights of this year include a variety of events that can only be hinted at by the following examples. Roy Berry introduced his new hybrid Van-Ex and presented twenty plants to the Society. The Begonia Society has affiliated with the National Horticultural Society. A new constitution has been adopted to provide the framework for an effective national organization and it is hoped that several local branches will be formed this coming year to extend the social advantages of such meetings to groups of members who cannot regularly attend in Long Beach. Among the many interesting garden visits of this past summer, the trip to Ventura and Santa Barbara, where we met new friends, and the trip to San Diego where we contacted old ones, stand out best in memory.

The most important undertaking of the year was the holding of the first Begonia Show. This was most admirably planned by the show chairman, J. N. Nutter, and the success of this first show should furnish inspiration for a larger and even finer show next summer. Another new undertaking, under the charge of H. P. Dyckman, is the commencement of the accurate cataloging of the thousand of Begonia varieties. Hopes of action toward a municipal lath house was also secured from our City Manager for the coming year.

Personally, the past year has been rich in new friendships and interesting in new activities; and the retiring President only fears he has gained more than he has given.

A MESSAGE FROM THE NEW PRESIDENT

Looking over the roster of members of the American Begonia Society one notes that the interest in begonias is universal. There are members in all parts of North America, in Asia and Europe. So we conclude that the growing of begonias is not only a "Royal Hobby" but an universal one.

We are always pleased to add new names to our roll. It will always be the intent of this society to give all the help possible to all members, whether we contact them directly or reach them through our bulletin or through correspondence.

In turn we feel that there must be the fullest cooperation between the officers and members, to the end that we shall be a happy and successful organization. We are drawn together by a mutual interest in making life more beautiful; we come to worship at the shrine of nature.

It is the hope of your president that this will be a year of growth, good fellowship and increased knowledge.

Tom H. Smith

NEW MEMBERS FOR JANUARY

Mrs. Lena Graham	Box 428	Pacific Beach, California
Mr. John B. Pickard	310 City Bank Bldg.	Syracuse, New York
Mrs. T. E. Fagan	Beldon Hill Road	Wilton, Connecticut
Mr. & Mrs. Henri Levy	155 "G" Street	Oxnard, California
Mrs. Mable Anderson	334 Platt Street	Long Beach, California
Mrs. Caroline Green	324 Mira Mar Ave.	Long Beach, California
Mrs. Leon D. Fletcher	1103 Cedar Avenue	Santa Monica, California
Mr. J. G. Jefferson	320 W. Redondo Blvd.	Inglewood, California
Mrs. James Monks	415 Prospect Avenue	Hartford, Connecticut
Mrs. Harry Tabor	Cuttingsville	Vermont

NEW MEMBERS (cont'd)

Mrs. Robert F. Brinton	The Lindens	Westchester, Penn.
Mrs. L. Landfield	St. Helena	California
Mr. H. Linwood White	53 Poplar Street	Danvers, Massachusetts
Mrs. Hugo Landecker	584 Funston Ave.	San Francisco, California

SEED MUSINGS by Alfred D. Robinson

This is the season of the year which more than any other brings on the SEED fever and those with gardens and many without even a flower pot are infected and carry home packets with those intriguing pictures and cultural directions on the back. Far be it from me to try and impugn those directions but they are not the "last word" on the subject; that will never be written so long as the old world goes round.

Begonia seed is the Club's chief care, as it should be. Among the members are very successful culturists whose technique varies considerably; and their experience dictates the warning to think carefully before abandoning a method that has proven successful for an untried one.

I do not presume to give a complete schedule from seed to bloom, but only to make observations along the way.

Leaf mold is firmly established as the basic soil medium, but the use of various sterilizing agents is increasingly questioned. A dean among plant men on the Pacific Coast put the matter succinctly thus: "Anything strong enough to kill the enemies in the soil will also kill my friends and I have a dead soil". The foremost experimental station in England says: "Excessive heat in sterilizing is very detrimental".

Some failures to sprout seed are due to the lack of SURFACE moisture for LONG ENOUGH to start germination. I have had good results from leaving the pan to soak for twenty-four hours AFTER SOWING. Here is the reason for the glass over the pan and also for Mr. Geo. Otten's method of sowing on a thin layer of soil spread on a brick partly immersed in water.

Many disappointments can be avoided by submitting seed to a microscopic test. Good seed will appear plump and smooth on the edges, easily distinguished from the chaff. All plump seed will not grow, but I have never had any that were not plump do so. In the absence of a microscope the seed can be placed on a stiff piece of paper and held at a slight angle when a series of light taps with a pencil will roll the good seed away from the rest.

I have found only two exceptions from the prevailing model for begonia seed, which is a squat bottle effect, and those were Luxurians and Glaucophylla Scandens, which were long and thin, somewhat like carrot seed with the curl.

It is not difficult to germinate good begonia seed--it is much harder to get it--but it is a puzzle to grow the seedlings afterwards (at least for me); and I am flirting with the idea of using more feed in the soil. Of course this does not apply to the tuberous or bedding sections which are rugged and cheerful.

I have seed sown now in four soils. (1) Half and half Swedish peat and a sandy red soil known locally as Camp Kearney -- no plant food in this. (2) Our compost of leaf mold, cow manure and Camp Kearney in equal parts. (3) A very fine powdery soil from under the usual leaf mold. (4) A black peaty soil from a mountain lake, presumably rotted tule. These plantings are too recent to talk about results.

SEEDING TUBEROUS BEGONIAS by Mrs. Verna L. Schath
Written exclusively for American Begonia Society.

With the past season's tubers tucked away until spring, we again turn our attention to seed planting; thus we start the begonia cycle again.

We are very fortunate this year to be able to purchase begonia seed grown in the United States. This insures us fresher seed and I feel sure it is of higher

SEEDING TUBEROUS BEGONIAS (cont'd)

quality than imported seed, which many times has come to me crushed and often a total loss.

Seed should be planted between January first and February fifteenth, and can be germinated in any small seed bed or hothouse where a temperature of 65 or 70 degrees can be maintained.

I will try to describe my propagating or seeding house. It was a woodshed originally. First we put in windows; then built benches all around and installed a small water heater. We piped the benches for hot water, with cold water return, and filled the benches with sand. A thermostat regulates the heat and a bell rings when the temperature is below 60 or above 80 degrees. A four inch pipe with a control holds a water supply. An inch pipe from this runs outside the building permitting the water to overflow if it should start to boil or get too hot. A float valve, such as is used in a chicken water pan, controls the water supply. Unless the weather is extremely cold, the temperature varies only two or three degrees. It was fun building this house and adding the contraptions for heat control. It is inexpensive to build and operate.

In preparing the soil for seed planting, a mixture of leaf mold and peat is heated in the oven or on top of the stove to sterilize it, which kills the germs, fungi, worms and eggs that may be in it. It is ready for use when cooled.

Good drainage is important, so place broken crock or coarse sand in the bottom of the seed pan. Fill in with the sterilized mixture, the top one-fourth inch of which should be sifted very fine; sow the seed and set the pan in water--rain water if possible--and allow to soak from the bottom until the soil is thoroughly saturated. Drain well and place in the seeding house; cover with a pane of glass and darken with a newspaper. Seed will germinate in five to seven days. It should be watched very carefully and brought to the light gradually as soon as the seed sprouts and shows white. The seedlings soon grow spindling if given insufficient light.

If a hothouse is not available, seed can be sprouted as follows: After planting the seed in a pan, as described above, place the pan in a warm, sunny spot during the day, and at night put it inside a larger pan, the bottom of which has been covered with one or two inches of sand, and cover it all with a glass or paper. Now put the larger pan over or near the pilot light on the gas range, so located that the proper temperature will be maintained. The point is to keep the seed warm at night and not allow it to become chilled at any time. It may take from ten to fourteen days for the seed to germinate this way. (By this method I raised my first begonias ten years ago).

When the third leaf appears prick out the seedlings into flats filled with a bottom layer of one and a half inches of coarse leaf mold and peat, topped with one fourth of an inch of the same, finely sifted. The little plants are more easily planted in this fine soil. Place the flats in a greenhouse and keep an even temperature of from 65 to 70 degrees. Cover with a glass in evenings and remove it as soon as the sun appears in the morning. Be careful in removing the glass not to let the moisture on the glass drip on the seedlings.

Weak liquid manure will help the seedlings along after they get about one and a half inches high. They should be ready to plant outdoors from about May first to fifteenth, and start to bloom June fifteenth, if the seed has been planted the first two weeks in January.

DO IT NOW by H. P. Dyckman

In Southern California it is now lath house-cleaning time. So the thing to do now is to "tidy up". Remove dead and fallen leaves. Trim fibrous begonias--the trimmings can be used for cuttings--bottom heat is best. Prune fuchsias heavily, if it has not already been done.

Add a generous layer of leaf mold about begonias that are planted in the ground. Dig in leaf mold and fertilizer in tuberous begonia beds.

DO IT NOW (cont'd)

Renovate and fumigate propagating frames. Why not install an electric soil heating unit?

Plant seeds of tuberous begonias for early flowering plants.

The compost heap--turn it over and wet down.

And--wash pots.

Consult "Cultural Hints" in January '36 bulletin.

SECOND NOTICE

Memberships in the American Begonia Society are issued for the calendar year. Each member should consult his membership card and if it is not for the year 1937, showing his dues paid for this year, renewal should be made immediately. We must discontinue mailing the bulletins to those members in arrears. The annual fee of \$1.00 should be mailed to Miss Phyllis Cole, 271 Kennebec Avenue, Long Beach, Calif.

Remember we have a special cultural bulletin on Fibrous Begonias at fifteen cents and a revised one on Tuberous Begonias for ten cents. In it are advertisements of reliable growers and dealers of tuberous begonias, all of whom are members of the Society.

There are a few complete sets of the monthly bulletin for 1936 for sale at \$1.00 each. Order any of the above bulletins of Mrs. H. D. Heinley, 5722 Lewis St., Long Beach, California.

Bulletin of

THE AMERICAN BEGONIA SOCIETY

Vol. 4.

FEBRUARY 1937

No. 2.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

FEBRUARY MEETING

The next meeting of the Society will be held at the Community Hall, Lime Avenue and Ninth Street, Long Beach, on the evening of February eleventh, at seven-thirty o'clock.

Mr. J. Paul Walker, has arranged the following program:

A discussion of the Heating of Small Greenhouses, by Mrs. T. H. Smith.

Instructions for the Care of Frosted Plants, by Mr. H. P. Dyckman.

Mr. Carle Tasche will tell of the use of a new product, Huminal B, in the culture of begonias. A limited number of samples will be distributed.

JANUARY MEETING

The high lights of the program presented at the first meeting of 1937:

Mr. Von Hofgaarden's account of his recent European trip.

Presentation, under the direction of Mrs. O. P. Palstine, of a history of the Society, in pantomime; scenes depicting the organization and first meetings; presentation of the early officers; and the reading, by Dr. W. B. Davis of excerpts from the records.

The installation of the officers for 1937.

Celebration of the fifth birthday anniversary of the Society, with the cutting of a large, handsome cake, decorated with tuberous begonia flowers, the artistic creation of Mr. and Mrs. Nickel.

THE BIG FREEZE

From all sections of California come reports of severe damage and loss of begonia plants due to the unprecedented low temperatures during the most of the month of January.

In the colder locations, protection by covering the plants; and by firing of heaters was not sufficient to prevent complete loss of plants; even large specimens, in exposed places were killed.

One commercial grower by covering with newspapers and cloth, supplemented with heat from coal oil heaters, saved a large stock, including small Rex and fibrous plants, in the ground and on benches in pots, all inside lath houses, with a temperature of 26 degrees. This covered stock shows no frost damage while uncovered plants, even old ones, nearby, were frosted. Other growers without this protection lost all plants in three and four inch pots, at the same temperature.

Most commercial growers, especially those with greenhouses, have saved sufficient stock for propagation, so no varieties should be completely lost. While stocks for sale will be limited there should be enough for replacement purposes and representative growers announce that there will be no advance in prices.

The first, lighter frosts may have demonstrated that some varieties of begonias are slightly more resistant than others, but all succumbed to the continued and increased cold. One grower thinks the hairy leaved varieties are hardier.

It seems advisable to do no pruning for some time, though soft, rotting leaves and stems that have fallen on other parts of the plants should be removed to prevent

The Big Freeze (cont'd)

spread of decay. Water very little until growth starts.

This has been a discouraging experience for lath-house gardeners. A tragic one for begonias. They couldn't take it. We think that the growers will not lie down so easily but will go forward with plans for more and better begonias and lath-houses.

NEW MEMBERS

Mrs. Harold B. Alford	R. D. #92	Kennebunkport, Maine
Mrs. Philip D. Macbride	5825 Sixteenth Ave. N.E.	Seattle, Washington
Mrs. W. J. McMurray	16 Hillway Avenue	San Francisco, Calif.
Mrs. W. J. Van Valkenburgh	2349 N. Catalina St.	Los Angeles, California
Mrs. Esther Pfeiffer Ewoldsen	Big Sur	California
Mrs. H. P. Dyckman	2105 East Sixth St.	Long Beach, California
Mace Taylor, Jr.	520 East Esther St.	Long Beach, California
Mrs. R. W. Monroe	205 South Poplar St.	Brea, California
Clarence Wright	1517 East Fourth St.	Long Beach, California
Mrs. Albert M. Thomas	Dickerson	Montgomery Co., Maryland

The advice and instructions given in the following article by Mr. Ernest K. Logee, of the North Street Greenhouses, Danielson, Connecticut are for those of our members who are growing begonias as house plants, where the weather conditions are more severe than they are here in Southern California. We are sure that our Eastern members will profit by these and other cultural notes we expect to have from time to time from this authority.

Mr. Logee was awarded a silver medal for his splendid exhibit of Rex begonias at the fall flower show of the Massachusetts Horticultural Society in Boston.

CARE OF BEGONIAS DURING THE WINTER by Ernest K. Logee.

Begonias, being moisture loving plants, are taxed to the limit of their endurance in most homes during the long winter months. Some begonia lovers provide unusual methods for supplying humidity. Air-conditioned houses, steam and hot water heat with special water pans, some installed in the heater and others on the radiators, are very beneficial in creating a moist atmosphere. A novel method was a shallow copper pan covered with pebbles, installed in a large bay window. Water could be kept in this at a level below the pot so the plants would not have wet feet. In this way perfect humidity was obtained and the begonias grew vigorously.

At the present time experiments are being carried on with a new product called the Water Mat. These mats are scientifically prepared to soak up water from a saucer (which must be kept filled at all times) and to evaporate it and furnish a uniform supply of moisture about the plant. This is not new, but just another method of safeguarding a precious plant during the winter when one must deal with house conditions.

Begonias that have grown well during the summer and fall should never lack water in the winter; neither is it good for plants to be kept soaking wet all the time. If a potted plant is watered too much, air cannot get to the roots to make a healthy growth. It is stated that plants get 98% of their nourishment from the air and water and only 2% from organic matter.

This is the time of the year when plants are just left to grow. If a little time is given to feeding it will help to keep begonias from dropping their leaves. The sap is drained from the lower leaves to supply nourishment for the new growth. Feeding with liquid manure is very beneficial. If this is not done, a teaspoonful of Vigoro, Loma, sheep manure or any good fertilizer should be used at least once a month. Plants in small pots should be fed every two weeks.

THE WATER TREATMENT by Alfred D. Robinson

Recent release of results of experiments at the State University and by individuals elsewhere with the growing of plants in water tanks has brought the usual

THE WATER TREATMENT (cont'd)

crop of absurdities in the press and in the minds of the casual plant-minded. One press item visualizes the passing of the dirt farmer - perhaps we should have said his drowning - pointing to a crop of 3000 bushels of potatoes to the acre, deduced from the yield from a small tank; but nothing was said about the enormous expense in preparing and caring for an acre under this method. The dirt farmer need not worry at present and can go on resting in the lap of the government, but WCE to the taxpayer if the Brain Trust hears of this water treatment.

This is not a new thing; there is an oak TREE in Europe that has lived and thrived for many years with only a tank of water chemically treated to support it. The same theory makes for the success of the tulip industry in Holland where the roots go into water. Asparagus and celery find the same conditions in our California peat lands. In these lands in Orange County I saw harvested at the same time 100 bushels of white corn and 200 sacks of potatoes. The corn grew sixteen feet and made harvesting something of a problem. Water was so near the surface that in plowing the furrow horses frequently bogged down though wearing peat shoes. A large oak at Rubicon Springs near Lake Tahoe sat astride a huge rock with its roots running down a rock slide into the river. There was no soil in evidence.

At Pescadero I met a clump of five finger fern with two foot fronds forming a mat on a rock slope nourished by a curtain of bare roots that fell down a sheer rock slide three feet into the stream.

This is not to belittle the work done with the water treatment, but is to emphasize the tremendous importance of water in our plant culture. We know that our plants, even roses, cannot gnaw bones like a dog, but can use plant food only in solution, so that in soil culture the fundamentals are the same as in the water treatment. However, and this is extremely important with the water treatment it might be possible to feed positively and persistently, instead of using the feast and famine method which seems to be one of the real defects of our soil cultivation customs.

I understand that for twenty-five cents a bulletin detailing this water method can be obtained from the Department of Agriculture, State University, Berkeley, California, so it would be absurd for me to give a garbled account here.

Reports are flying around of a shortage in the tuberous Begonia crop owing to poor growing conditions last summer. A word to the wise should be sufficient -- but WHERE are the WISE?

(Another pamphlet on this subject giving chemical formulae and cultural directions can be obtained from Dr. Arthur C. Pillsbury, 1147 Keith Avenue, Berkeley, California, price twenty-five cents. He also offers for sale the dry chemicals, mixed ready to use. C. M. K.)

BEGONIA MULTI-FLORA NANA by Frank Reinelt

The small-flowered tuberous begonias are gradually regaining their popularity, having been put in the background for a number of years by the large-flowered varieties. Some sources offer as novelties the same varieties which were old timers when I started to learn gardening twenty-three years ago.

Very little improvement has been made in this class since then, some of the novelties introduced in the last few years have comparatively too large flowers, having departed from the true small multi-flora type, yet being too small for the large flowering types.

The charm of the best representatives of the multi-flora lies chiefly in their dwarf, bushy growth and the abundance of flowers. The individual flowers do not exceed an inch or two in diameter. Their form is poor if compared to the large flowering types; however this is not a disadvantage, as they are used more for color effect than for individual flowers. For bedding purposes, or as pot plants for the commercial florist, they should be of considerable value.

In Europe they are used extensively for bedding in full sunlight. This has gained for them the reputation of being sun-proof (which cannot be said of them

BEGONIA MULTI-FLORA NANA (cont'd)

under California conditions). In Europe, I have grown successfully all types of tuberous begonias in full sunlight. The explanation is that the comparatively cloudy and rainy weather during half of the growing season; and high humidity which protects them from burning during the sunny weather. The California sun is far too strong for them to feel entirely happy in its rays; and although I have seen large commercial plantings in open sun, they were successful only during a period of foggy weather. As soon as sunny weather prevailed, the plants burned and were sorry looking individuals, although from a distance they still presented a pleasing color effect. Personally, I think all tuberous begonias should be grown in partial shade, as only there do they develop best. We have other flowers for sunny locations. Why try to grow begonias in full sun when it can't be done.

During hot weather, the multi-flora does not show burning from sun, as much as do the large flowered varieties. This is chiefly because the flowers are small. They suffer in proportion to their size but the damage naturally, is not as noticeable as it would be on the large varieties. The leaves are narrow and curl up to protect themselves against strong evaporation. The little plants have a bushy habit, shading their own root systems. In partial shade, they will grow luxuriantly and form a brilliant carpet—simply covered with bloom.

There is no reason why they should not be used extensively for borders or color effects in public parks and large private estates. Also for florists' trade, they should be a very welcome addition as pot plants. They will stand much more abuse than the large flowered varieties, and transport well.

At present there is no source of supply in the United States, and until the stocks imported under special permit are sufficiently enlarged by propagation, they cannot be obtained in quantity. Their parentage is rather obscure. They seem to be chance seedlings from the crossing of the double tuberous begonias in their early stage of development.

All varieties of the multi-flora have to be propagated vegetatively by cuttings, for, although they form seed if pollinated, it does not come true to form at all. For instance, on self-pollinating the yellow variety, Helene Harms, we secured some seed which produced a variety of seedlings of very mediocre quality, hardly any two alike in form or color. While Helene Harms is double, all the seedlings from it were single, none being of the true multi-flora type. On the whole, they were the worst bunch of mongrels I have ever seen.

The best standard varieties under my observation are still the old-timers. Helene Harms, still the leader in the field, has a perfect growing habit with masses of yellow blooms. Identical, except for color, is Madame R. Galle, which is a good apricot. Another good apricot is A. J. Bard. Commander Felise and Madame Hulot have a slightly drooping habit, inherited probably from some basket parentage. Until some better varieties are raised, they are the only two in rose and pink. Fire-flame is the best crimson-scarlet. The varieties Graf Zeppelin and Flamboyant are identical with it. These two do not possess the heavy branching habit of the true multi-flora. However, they are quite sturdy growers and are very effective for bedding. A slightly larger flowered variety but quite promising is G. Eysser, in a deep salmon shade.

Cultural requirements of the multi-flora type are practically the same as those of other tuberous begonias, with the exception that they will succeed under less favorable conditions.

TUBEROUS BEGONIA CULTURE by Mrs. Verna L. Schath

If early blossoms are desired, bulbs should be started during the middle of February. They can either be planted in pots, or started in flats and later transferred to five inch pots, and then to seven or eight inch ones. It is necessary to have a greenhouse or other warm place to start the bulbs at this time of year as it is too cold out in the open or in a lath-house. Any bulbs that show sprouts should be planted in flats in leaf mold and peat, and transferred later when good roots

TUBEROUS BEGONIA CULTURE (cont'd)

have formed.

Work up the ground in begonia beds and add manure and bonemeal, if you have not already done so. Turn over the soil you have set aside for potting, adding peat and new leaf-mold if it is necessary. Keep it moist at all times.

Plant begonia seed not later than February fifteenth to be assured of blooms on your plants in July.

DO IT NOW by H. P. Dyckman

Complete your PLANS now for the summer begonia campaign. WORK will soon begin. Here in Southern California, these plans may include the replacement of frost killed plants with new ones.

Start cuttings of fibrous and Rex begonias in heated propagating frames.

Look over the begonia tubers; those showing sprouts should be placed in flats in leaf-mold and then kept in a warm place, until growth is well advanced.

The next few weeks is an ideal time for planting begonia seed -- all types. To succeed in this requires close attention to details. If you have "that infinite capacity for taking pains", you should succeed, -- given fertile seed. Both patience and care will have to be extended to the seedlings. Directions, as given in our special cultural bulletins, should be carefully followed.

Refer to the Monthly Hints in February bulletins of '35 and '36.

THIS AND THAT

Begonias are on the air - from Coast to Coast. At least -- on January eight Mrs. Bessie Buxton spoke on the subject "Begonias", over WOR, on the Atlantic Coast, on the Radio Garden Club program, an extension service of the New Jersey State College of Agriculture, Rutgers University, and here on the West Coast, at Los Angeles, over KFAC, Mr. Leslie Woodriff talked on "Tuberous Begonia Culture". Both broadcasts were local, and both speakers are members of the American Begonia Society. We have already received inquiries through Mrs. Buxton's reference to the Society.

Growing in a shop in Pacific Grove, California, are ten or twelve plants of the begonia, Mrs. Townsend, an old time beefsteak variety. The pots containing these plants are placed on a high shelf near the ceiling, and their rhizomatous stems, well covered with large, long stemmed leaves trail down to a length of four and a half and five feet. (Had to see 'em to believe it) The owner says that the oldest of these plants are over forty years old. On these the leaves are only on the lower foot of the long root-stocks. The plants are never repotted; instead, the top soil is removed occasionally and replaced with new. Believe it or not!

Are you planting begonia seed? If so store away some rain water -- its very cheering to begonia seedlings. They like their drinks soft and straight -- no stimulants, by way of chemical cocktails for the little ones. Rain water, fresh and straight from the sky, seems to have vivifying qualities that other water does not possess. Even distilled water, though softer than most, is often slightly alkaline.

Leslie Woodriff, now associated with his father and brother, announce their new location on Manchester at Inglewood Avenue, Inglewood, California, where they will construct lath-houses and a greenhouse for tuberous begonia growing. They will have at least seven of the adjoining lots in hardy lilies. Most of these will flower the first year and should bring out some fine new types, as they are mostly hybrids.

They have seed of mixed cross types and three distinct seasonal types of Formosanum, one to flower in June from small bulbs, one to flower in July, and another from August to December -- first year from seed. Seed at 25¢ per pkt. Will have plants in April, May and June.

They also have tuberous begonia bulbs, under one inch size, 75¢ per dozen,

THIS AND THAT Leslie Woodriff (cont'd)

1 to 1½" at \$1.00; 1½ to 2" at \$1.25 and over 2" at \$1.50 prepaid. Mostly fine double mixture.

WITH THIS ISSUE THE BULLETIN WILL BE DISCONTINUED TO THOSE WHO HAVE NOT SENT IN THEIR MEMBERSHIP DUES FOR 1 9 3 7.

Bulletin of

THE AMERICAN BEGONIA SOCIETY

Vol. 4.

MARCH 1937

No. 3.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

MARCH MEETING

The next regular meeting of the Society will be held at the usual place, the Community Hall, corner of Ninth Street and Lime Avenue, Long Beach, California, on the evening of March eleventh, at seven-thirty o'clock.

The Culture of Begonias in Nutrient Solutions will be discussed by Mr. L. S. Wessels, who will tell us of his experiences using this method; and Mr. M. B. Dunkle, will present some of the scientific aspects of the problem.

FEBRUARY MEETING

In the scheduled talk by Mrs. T. H. Smith on the Heating of Small Greenhouses, she recounted her experience during the recent cold weather here in Southern California. She asserted that a heated greenhouse should be an accessory in every begonia garden as an insurance against loss from an occasional cold spell. Materials construction, cost and heating problems were discussed. The installation of a vented gas heater of water jacket type was suggested as a satisfactory solution of the latter.

ONCE IN TWENTY-FOUR YEARS by Alfred D. Robinson

Shall we be "loyal" Californians and looking everywhere but at our poor frozen plants say, "It is nothing" or stick to our Begonias and see if the freeze of January can teach us anything? I stay with the Begonias.

Day after day I have visited with the dying and dead, and have tried to fit cause to effect. I go down one walk and think I have found something, only to traverse the next to find I was mistaken. So I warn against conclusions based on single or limited examples. Like the women grinding at the mill (see the Good Book), of two plants, similar in variety, in size and not a foot apart, one was taken and the other left. At first it seemed possible that the degree of moisture in the soil might be the explanation but it was not. Other theories were propounded and rejected.

These conclusions still stand: The cold struck down and from the South, and even a light cloth cover might have been an adequate protection -- this is deduced from seeing plants under tree ferns and even the skeleton branches of a wisteria, showing little ill effects; the higher the lath ceiling the better the protection-- this because the low house suffered most though it has always been considered and has been scheduled by the thermometer, as warmer; stuff up on three foot benches suffered equally with that on the ground.

The most resistant varieties were Mrs. W. A. Wallow (conspicuously), the Haageana and Fruticosa groups. The Feastii group just jellied, though Scharffiana both in pots and baskets came through with very little damage, though on the coldest morning its leaves were stiff as a board. Poor Rosea Gigantea, a real winter bloomer, was massacred. Strangely enough the Manicatas stood it better than the Feastii group. The Ricinifolia tribe were cut back to the rootstock, perhaps killed and in places Verschaffelti suffered. A great many ferns were hard hit.

It is difficult if not foolish to formulate a detailed protective program

ONCE IN TWENTY-FOUR YEARS (cont'd)

because a killing freeze occurs so seldom in our bailiwick, the last that hurt Rosecroft was in 1913, just twenty-four years ago. How can we prepare for an event that far away with the certainty that ere then all kinds of improved protective measures will have been discovered. ONE THING WE CAN DO, and that is if we have lath houses and grow begonias have also A PROPORTIONATE SPACE UNDER GLASS. This will not be wasted, freeze or no freeze. The glasshouse at Rosecroft saved its neck, though unheated and the thermometer registered below forty.

Now let us grow more and better Begonias.

It has been the pleasure of several of our members to visit the garden of Mr. and Mrs. B. O. Wills, 356 N. Branciforte Avenue, Santa Cruz. It is lovely and approaches perfection. Mr. Wills uses tuberous begonias -- over five thousand of them -- in wide beds in front of shrubs that outline his spacious grounds. They are of the double camellia type in many colors.

Being an expert hybridist, Mr. Wills grows his own tubers from seed he produces. It is his endeavor to obtain better and more uniform shades; better form and sturdiness in the camellia type rather than new varieties. Certainly no amateur on the Pacific Coast is more successful.

In a large glasshouse he grows several hundred tuberous begonias as pot plants, and a like number of Lloydii in baskets, all of unexcelled quality.

Mr. Wills gives us cultural ideas in the following article. We appreciate it and the invitation he and Mrs. Wills graciously extend to the members of the Society to visit their garden during the flowering season.

SUGGESTIONS ON TUBEROUS BEGONIA CULTURE by B. O. Wills

In analyzing our troubles, it is obvious that our failures are either in the bulbs themselves or in our method of growing them. If the bulbs are responsible, we should discard them. The present day market is very well supplied with bulbs and seedling plants that should give excellent results. If it is in the way we are trying to grow them, I find the easiest rule to apply is, "they like best that climate and condition that I like best". This rule can be summed up as follows:

Atmospheric conditions; not too hot -- not too cold; not too dry -- not too wet; not too sunny -- not too shady. Not close, never drafty.

Soil conditions; not too light -- not too heavy -- porous with good drainage. Not alkaline -- not too acid; not too wet -- never dry.

Fertilizer conditions; not over fed -- not underfed. Well nourished at all times.

In growing tuberous begonias in pots, the following points must receive careful attention; soil mixture, size of pot, drainage in pot, depth of planting bulb, then uniform watering and uniform feeding.

In selecting a location for the potted begonias, especially applicable to greenhouses, these points are of utmost importance: Ventilation, temperature, moisture in the atmosphere, and the light conditions. We must always guard against over-crowding, which is our common fault.

Tuberous begonias should never be neglected in any detail. You cannot place a bulb in a pot of soil, then set it aside with the idea that if it is watered occasionally it will respond with a magnificent display of eight inch blooms like those that can be seen in the greenhouses at the Vetterle and Reinelt hybridizing gardens near Santa Cruz. It simply cannot be done that way. However, if we follow our growing instructions carefully, giving close observation to the necessity of creating their growing needs, we should all be able to get excellent results.

I do not consider the tuberous begonia a happy house plant. Atmospheric and light conditions are generally against it. Some sun rooms and sun porches correct these conditions to a certain extent. There is a new late fall or winter blooming hybrid, now in the experimental stage at the Vetterle and Reinelt gardens, which is proving to be an excellent house plant and very happy in even a rather dark room.

I am an advocate of growing in quantity for best results. In the growing of a

SUGGESTIONS ON TUBEROUS BEGONIA CULTURE (cont'd)

few plants, I always feel that I have to be too much of an expert to have them all perfect specimen plants. In growing many, the faults of the few are generally over balanced by the excellent specimens in some of the others.

In experimenting to find a happy location for them in the garden, I suggest using seedling plants. These can be obtained during the month of May, weathered, hardened and ready for planting in the garden. They should receive careful attention as to water and protection from the sun until they have become well established.

We are always glad to welcome to our garden any of the members of the Begonia Society who are in the vicinity of Santa Cruz during the begonia flowering season.

DO IT NOW by H. P. Dyckman

Provide good circulation of air in the begonia house, whether it is of lath or cloth; it will help to prevent the spread of decay which may develop as warmer weather follows the cold and rains of the winter.

Add a generous top dressing of leaf-mold about those begonias that are established in the ground; cut out old wood.

Seed of tuberous begonias planted now will produce late fall flowering plants. Watch the tubers and as they sprout plant in flats of leaf-mold and peat. Complete cultural directions are in the special tuberous bulletin.

Cuttings of fibrous types can now be started in unheated propagating beds; Rex leaf cuttings also. Bottom heat will still speed them up.

CONTROL OF BEGONIA PESTS by Ernest K. Logee, Danielson, Conn.

Begonias are subject to many insect pests. Most of us know this and would like to know more of their control.

Thrips are one of the worst of the enemies. If you have root thrip, along with several other kinds, you are sure to have a hard time to keep your plants in good condition. A pyrethrum base spray is considered effective and safe. A rotonone spray is also good. Some double acting sprays have both, and kill sucking insects by contact and chewing ones by stomach poisoning. Evergreen has the advantage of leaving no stains or bad odor. To-no-cide has the odor of naphthalene or moth balls, and when put on the soil of pot plants is a preventive of all kinds of bugs.

Aphids always have begonias on the menu. Tobacco in any form is effective in fighting them. Most of the thrip remedies will also control aphids or green fly.

Mealy bugs are a serious menace to some begonias. They are one of the most difficult pests to kill. When a good spray contacts their bodies, they just shed a coat and continue their devastation. To have the best effect, a second spraying is necessary in a day or so, followed by a third within a week. A natural control is the persistent use of water. Spraying every other day for two weeks with water under sufficient pressure to dislodge the bugs from every part of the plant is a good method to use in combating these pests.

White flies seldom attack begonias, but here is a good remedy if they do.

Place a dormant rhubarb root in a pot nearby and watch results.

Slugs are a nuisance but not a serious pest except on begonias grown out-of-doors. One cup of brown sugar mixed with one teaspoonful of paris green is a good poison bait. Air-slacked lime sprinkled on the ground early in the evening will kill on contact. Soot, also, is a repellent.

TUBEROUS BEGONIAS CULTURE by Mrs. Verna L. Schath

Young seedlings from seed planted in January should now be ready to prick out into flats of leaf-mold, the top layer of which should be sifted very fine. The small seedlings will prick out more easily if the soil about them is very moist. After they are transplanted, cover with panes of glass and place on the ground under the bench for a day or so; then bring them to the light, but keep from the direct rays of the sun. Keep the soil damp, but not too wet; use rain water if possible.

TUBEROUS BEGONIAS CULTURE (cont'd)

Tubers that are intended to be planted directly in the ground should be kept in a cool dark place to retard growth. It is too early to plant them out now.

If it seems packed, add leaf mold and peat to the soil in beds intended for tuberous begonias. Turning it over will help to fluff it up.

For potting mixture, if you have not already prepared a compost, use about two parts of coarse leaf mold, one part peat and one part sand, mixed well. A little blood and bone, or steamed bone meal should be added.

Watch the bulbs and if they start to sprout, plant them in flats or in four-inch pots, repotting in larger ones as they become root bound. If the tubers are two and a half inches or larger, start with five-inch pots, transfer to seven and finally to eight-inch ones. Be sure there is always good drainage.

The tubers of the trailing varieties (Lloydii) show their eyes earlier than others; watch them closely.

Do not water the flats or pots; just sprinkle them to keep them moist. Over watering early will sour the soil and stunt the plants, turning the leaves brown and causing the buds to drop or form imperfect bloom.

That choice tuberous begonia of last season -- do you want more exactly like it this year? Duplicates can be had by taking cuttings (the method will be explained later as the time for it approaches), or by division of the tuber -- a simpler and perhaps a surer way. It can be done like this: when the eyes of the tuber begin to sprout, cut it up, leaving one eye to each piece; cover the cut surface with sulphur, charcoal or Semesan and allow to dry a few days. Then place these divisions in flats of leaf mold or peat, the same as if they were whole tubers. The eye should be above rather than below the surface of the leaf mold. Keep damp and in a warm place. Pot them when well rooted, having sprouts three or four inches high.

NEW MEMBERS

Mrs. Theodore Gruenbaum	316 West Chew St., Olney	Philadelphia, Penn.
Mrs. Frank Lasher	Pine Plains, Rt. #2	New York, N. Y.
Mr. Franklin G. Keeler	Mitchell, Ontario	Canada
Mrs. L. P. Rothwell	Rt. #1 Box 689 Lakewood Village	Long Beach, Calif.
Miss Della Bean	1038 E. Main Street	Ventura, Calif.
Mrs. Kate E. Wadell	760 Richman Road, Stapleton P.O.	Staten Island, N. Y.
Mrs. Linda C. Achey	615 Eighth Street	Huntington Beach, Calif.
Mrs. Walter J. Seymore	Holualoa, N. Kona	Hawaii
Mr. Carl Tasche	3615 Avalon Blvd.	Los Angeles, Calif.
Mr. Fred A. Adams	745 Marion Street	Denver, Colorado
Mrs. J. E. Paul	R.D. #1, Box 502	Santa Ana, Calif.
Mrs. Wm. C. Byron	151 Franklin Street	Newton, Mass.

Mrs. Margaret C. Gruenbaum, of the Green Tree Flower Gardens, 316 W. Chew St., Olney, Philadelphia gives us in the following article the message on "Begonias" she broadcast over station KYW (Philadelphia) on December, thrity-first, 1936.

BEGONIAS by Margaret C. Gruenbaum.

If the culture of potted plants is an inspiration and a pleasure to you, there is much in store for you, if you should become interested in making a collection of unusual varieties of Begonias. In this genus of plants the Creator has given us much that is both beautiful and unusual.

There are about five hundred species, classified as to their root systems into four groups -- bulbous, tuberous, rhizomatous and fibrous rooted -- and thousands of varieties. The cactus and passiflora, or passion flower, are remotely related to the begonia; from this fact you will understand why the soil in the pots of these plants should be on the dry side.

In unusual Begonias, the foliage is the main attraction. The flowers of all of them are similar and the blooming period is for three or four months. The female flowers are those that have the three wings, with four or five petals sitting on top.

BEGONIAS (cont'd)

The male flowers frequently appear on the same stem, but do not have the three winged seed pod. The colors of begonia flowers are white, pink, red, or yellow. Yellow is confined to the tuberous rooted ones.

Begonias as a whole are not fussy plants and what a joy they are when they are healthy and respond to our care and attention. They are shade loving plants, growing under trees and shrubbery in their native habitat. This explains, why as house plants, they should be grown in north or north-east windows; and as they derive much of their food through the leaves, a moist atmosphere is to their liking.

A conservatory or flower room is ideal, of course, but undoubtedly the majority of us have our potted plants on the window sills. In any location unless it is in the kitchen, spray the plants two or three times a week. The misty spray of a perfume atomizer is ideal, but do not spray them until the water drips. Just make sure that each leaf has a good drink, and that there seems to be plenty of moisture on the foliage to be absorbed. Do not spray while the sun is shining on the plants nor should it be done at night. Night watering or spraying seems to encourage mildew and decomposition where the plant and soil meet, and other unsatisfactory conditions which are the result of a lack of the sun's rays.

In this locality, Philadelphia, and for a radius of a hundred miles, the sun from December first to February tenth will not harm begonias, but after the early part of February its rays are much too intense, and if you keep your begonia plants in a sunny window, place a glass curtain between the glass and the plant, or pull down the window shade after ten o'clock in the morning. Better still put them in a north or north-east window. Begonias like the direct light but they are not fond of being moved here and there. The sun shining on a plant through the window pane is just the same as shining through the glass in a greenhouse, but in the home one does not have the moist atmosphere of the greenhouse. Let me say that deep sills are ideal for your window garden but weather stripping around the window frame is not to the liking of potted plants. The air leakage around the ordinary wooden frame gives the change of air so beneficial to potted plants, and though they do not like a draft, they do appreciate fresh air.

Now as to soil conditions: The begonia plant sends fine hair-like roots to the top; so for this reason it is not advisable to cultivate the soil in the pots of your begonias. In so doing you disturb and break these fine roots and the circulation of the plant is damaged. When you observe these roots it is well to cover them with leaf-mold; if that is not available, peat moss or sphagnum can be used. To use ordinary garden soil for this purpose, is not good practice.

(To be continued in the next Issue.)

THIS AND THAT

The "way" of the begonia fan may at times be hard and uncertain. Success is not always assured. Now and then a specimen develops temperament. The greater the difficulties surmounted the greater the thrill of success. And we repeat -- Growing begonias is a royal hobby -- ask the man who grows 'em.

How long will begonia seed retain its vitality? We have the report of the fertility of begonia seed twenty years old. This seed had lain in the pods of dried specimens in a herbarium and when collected and planted, sprouted and grew -- so it is said.

Perhaps those who have recently become members of the Society will be interested to know that there are a few complete copies of the bulletin for 1936 for sale. Price \$1.00 per set. Special cultural bulletins on tuberous and fibrous begonias are also available. For any of these ask or write Mrs. Heinley, Cor. Secretary, 5722 Lewis Street, Long Beach, California.

Bulletin of
THE AMERICAN BEGONIA SOCIETY

Vol. 4.

APRIL 1937

No. 4.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

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All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, Calif.

THE APRIL MEETING

The April meeting of the Begonia Society will be held in Long Beach in the Community Hall, Lime Avenue and Ninth Street, on the evening of the eighth, at seven-thirty o'clock.

Mr. Frank Reinelt, of the Vetterle and Reinelt Hybridizing Gardens of Capitola, California, will be our speaker. This firm is the largest grower of tuberous begonias in the United States, and their gardens are the mecca of flower lovers. They have been very generous to our Society, giving us helpful information, cultural instructions, and advancing our interests through the gratuitous notice, in their catalogue, of our activities. Mr. Reinelt is in constant demand as a speaker before garden clubs, and we are very fortunate to have him come to us and tell us all about tuberous begonias.

THE MARCH MEETING

At the last meeting Mr. Wessels gave a report of his experience in growing tuberous begonias by the soilless method. His results have been reasonably successful, though undertaken experimentally and without complete instructions. A simplified formula of five chemicals was used and his plants grew vigorously and developed large flowers of good texture and color; the leaves indicated the lack of some necessary nutrient as they were not dark green.

Mr. Dunkle summarized information on the subject gathered from many sources. He compared formulas, gave directions for the construction of tanks and wire baskets, and suggested cultural methods. He cautioned against too great optimism, as the system is still in the experimental stage and should not be undertaken commercially without adequate knowledge of the technique required.

(We will be glad to refer inquirers to sources of information.)

DO IT NOW by H. P. Dyckman

Headlines this month in this department:

REPOT

FEED

START CUTTINGS

When the warm days of April start new growth on potted begonias, it is time to reward them with fresh soil; transfer to larger pots if necessary--porous soil always, heavier for fibrous.

That frosted plant that is starting some new growth: tap it out of the pot, wash off the soil from the roots and repot with new soil to which a little fertilizer has been added. Place in the dark a few days.

Stimulate plants growing in the ground with a dressing of compost and a light application of fertilizer.

This natural growing season is the ideal time to start cuttings of fibrous and Rex. A satisfactory soil mixture for this purpose is sand and leaf-mold, half each.

DO IT NOW (cont'd)

Tubers which have sprouts two inches long can now be taken from the starting flats and potted, using the soil mixture recommended for tuberous begonias.

BIG NEWS FOR REX FANS

Mr. Roy Berry, who puts the "go" into begonias, especially the Rex varieties, has given to the Society several packets of seeds of his choice Rex crosses. His seed is not ordinarily for sale. While this limited quantity lasts, dollar size packets are offered for fifty cents each; proceeds to help defray the expenses of the Long Beach meetings.

Send mail orders to Mr. T. H. Smith, 3601 East Broadway, Long Beach, Calif.

Mr. George Otten, of Seaside, Oregon, author of the book "Tuberous-rooted Begonias and Their Culture", sends to us the following useful landscaping suggestions:

After the winter has passed and its unpleasant effects are but a reminiscence, we look forward again to the enjoyment of the floral display of our gardens.

The lovers of tuberous begonias are starting their tubers for this summer's flora now, and at this time I should like to express a few thoughts on how to arrange begonias to be more attractive and pleasing to the eye.

Last summer I saw a garden where the owner had about one thousand tuberous begonias in full bloom, the plants and flowers of which would favorably compare with those of the best European growers. All of those plants could be seen at one glance. I admit the first sight was magnificent—then the show was over. If there had been some vistas arranged, so that from one part of the garden there had been a certain view and from another part an entirely different picture and monotony would have been relieved. It could be arranged easily by planting annual foliage plants in groups. I prefer annuals, as there should be a different scheme for another year.

I have in mind a group of ornamental foliage plants and name some according to their height: Cannabis gigantea (hemp) 10-15 feet, Wigandia caracasana 9-12 feet, Zea japonica fol. varg. (variegated corn) 8-10 feet, Ricinus Zanzibariensis 8 feet, Caladium escalantum 5 feet, Perilla nankinensis (flowers have to be pinched back) 3-3½ feet, Cineraria maritima or Centaurea candidissima 1¼ feet. Then border them with a group of blue lobelia (there is no blue in begonias) or with multiflora tuberous begonia Frau Helene Harms, or with Fireflame.

If you have a mixture of colors in begonias, see that the darker shades are in the rear and the lighter ones in front; this will intensify the perspective.

Of course, it depends entirely upon the area of the grounds in what proportion these foliage plants should be used in order to be in harmony with the whole.

Geo. Otten

BEGONIAS by Mrs. Margaret C. Gruenbaum

Continuation of an article by Margaret C. Gruenbaum, of the Green Tree Flower Gardens, 316 West Chew Street, Olney, Philadelphia, given in the March Bulletin on her broadcast over station KYW (Philadelphia) on December 31st, 1936.

If you want your begonias to have beautiful leaves and plenty of flowers at their blooming period, keep them pot bound. Frequently after the purchase of an unusual begonia the first remark the new owner will make is something to this effect: "Well, the first thing I had better do is to change that to a larger pot". A begonia plant is pot bound when it can be tapped out of the pot, with the soil retaining the shape of the pot and showing a carpet of roots over more than three quarters of the exposed surface of the soil. Sometimes a potted begonia which has been sitting on moist pebbles or moist soil, when lifted up will show a cluster of roots from the hole in the bottom of the pot. This does not necessarily mean that it is pot bound, but the plant should be tapped out and these roots placed inside the pot; never break these roots off, they are very necessary to the plant.

Begonias demand a very light soil, particularly those planted in three and a

BEGONIAS (cont'd)

half inch pots or smaller; for these use one-half leaf-mold and one-half sand. For plants in four or five-inch pots use one-half leaf-mold, one-quarter sand, one-quarter good garden loam, where six-inch pots and larger are used, the soil should be one-half leaf-mold and one-half sandy garden loam. With all of your potting mixtures, use a generous amount of powdered charcoal; and a fertilizer (15-30-30 formula) is very beneficial. If there is any question as to whether the soil mixtures contain worms, aphids, etc., it is well to bake it; this will sterilize it and will be worth the trouble.

A word about leaf-mold: when this word is used in connection with begonias, it means leaf-mold, not humus; not peat moss; not sphagnum moss, but leaf-mold; and to use it as Mr. A. D. Robinson expresses it "in a rather coarse condition".

Always wash a pot before using it; if possible pour boiling water over it inside and out. If convenient, it is well to allow a clay pot to absorb as much moisture as it will before using it. This can be accomplished by letting it lie in water prior to cleansing it.

If you have the deep window sills spoken of previously, the temperature will be about what begonias like. If you have a flower room or conservatory, regulate the temperature from 55 to 65 degrees, 70 and above is too warm.

"LET THERE BE LIGHT" by Alfred D. Robinson

I do not seem to be able to get away from the seed, not that I want to so very badly. Now it is two gentlemen named Flint and McAlister that have started me off once again. These two are professors attached to the Bureau of Plant Industry at Washington and the Division of Radiation and Organisms at the Smithsonian Institute, which, with the natural assumption that there is at least a leaven of Scotch in the partnership, should be a sufficient introduction to insure careful consideration of their findings, even though they strike at one of our most cherished ideas in seed sowing, that of working in the dark till germination starts. We all know the almost universal admonition "keep in the dark till the seeds begin to germinate"; it has been regarded as axiomatic. Now the experiments of Messrs. Flint and McAlister carried over two years seem to point to the possibility that this old "Wheeze" has been overdone.

They found that exposure to light gave good germination with seeds that would not start in the dark. The experiments were made with lettuce seed, and I here interpolate a question: Why has there apparently been no experiment with Begonia seed? Mendel monkeyed around with peas, and DeVries ran to chickens, being interested in their combs. It is hard for me to drop from Begonias to lettuce, peas, and chickens. But let me here make a quotation from the article that was the source of my information on this subject. "A little more than two years ago, Mr. Flint discovered that certain lettuce seeds which failed to start growth under ordinary conditions would germinate in twenty-four hours if soaked for an hour or longer and exposed to sunlight or the proper kind of artificial light. First the physiologists adopted the practice of soaking the seeds before making the germination test. This seemed to help in breaking the dormancy. In the soaking process, the seeds were generally exposed to a diffused light for a short time. This suggests that light might have something to do with germination. Subsequent tests showed that light did play an important part in starting the seed growth." Although much more of this article might be better worth quoting verbatim than giving my interpretation of it, I shall not continue, as from this point the scientific view point and phraseology intrude, and there must be some in the Begonia Club who have as little training along these lines as myself.

The length of exposure to light varied from sixty seconds for sunlight to ten minutes under an ordinary Mazda light. The experiments continued to determine if the various light rays made a difference and it was found that the orange and red gave the best germination, while the violet and blue actually retarded it. There was also a tie-up with chlorophyll absorption.

I should not have presumed to ask for consideration through picking other mens'

"LET THERE BE LIGHT" (cont'd)

brains had not the result of these experiments had a direct bearing on my own experience in several instances, which I believe I have recorded, but shall venture to refer to again. On several occasions where seed has failed to germinate under the usual technic "in the dark", I have placed the pan to soak for hours, in a quite strong light, with the result that perfect germination occurred in a very short time. I have always placed the "benefit" to the soaking but now am willing to believe the exposure to light may have been a factor. I am now desirous to try orange and red light.

I am asking the editor to let the following pass, being prepared to pay for it as an advertisement:

Report reaches us that in many quarters it is said "Rosecroft" was wiped out by the freeze". This is not true; we suffered severely but had under glass representatives of our entire collection of Begonias and we propagated all winter, so that we cannot wholesale except to a limited extent, we can take care of our retail customers, and hope to see our old patrons during the summer.

Rosecroft Begonia Gardens
530 Silvergate Avenue,
Point Loma, California

A LETTER FROM A MEMBER

A new member, Mrs. Ewoldsen, of Big Sur, California, gives this answer to an inquiry in the bulletin:

In a recent issue of the bulletin, some one asked about Rex begonia culture in lath houses for Central California. I live in Monterey County, which, I think, is central. I live on the coast which is milder, probably, than other sections.

I have a small lath house with a few Rex begonias in it. The benches are about three and one half or four feet high, and I plant my Rex under these benches so they are in the shade. As a protection from the wind, I tack burlap around the lower section of the lath walls from the ground to the benches. This of course cuts out the light from the outside, and the Rex leaves all face inward. Some are not as well colored here as in my greenhouse, but all grow well.

Growers differ as to whether to root cuttings in sand or in a leaf-mold mixture. Since often I do not have time to do the work at the correct time, I have combined these two cutting mediums very successfully. I fill the lower part of my cutting flat with a moderately rich growing mixture; the upper part is filled with clean sand. Cuttings are so inserted that the base of the cutting is just a little above the growing mixture. Thus the roots start in sand but soon reach a nourishing soil. Perhaps some other grower would like to try this.

EXCERPTS FROM "DIE BEGONIEN", Karl Albert Fotch, author. Published by Eugen Ulmer, Stuttgart, Germany. Price \$4.00. Permission to print the following has been granted the American Begonia Society, but no re-print is allowed in another or separate pamphlet. Translation by Rudolph Ziesenhene.

7. The Begonia in Saga and Folklore. Continued.

We read further (Pieper: Volksbotanik, 1897, S. 395): "The very formation of Begonia leaves has to some people a meaning as to who is master in the house. If the right side of the leaf is stronger, it is proof that the (Page 238) man is head of the household; on the other hand, if the left side has a stronger growth, the wife has control of the household." However, one must take into consideration that the leaves on a begonia stem never grow all right-sided or left-sided for they alternate so that a right-sided leaf always follows a left-sided leaf and visa versa. The same author writes (Pieper: Volksbotanik, 1897, S. 395) "Young married people should not raise any begonias for that is apt to disturb the peace of the household." Believe in it, if you will!

EXCERPTS FROM "DIE BEGONIEN" (cont'd)

In plant-symbolism we seldom find Begonias mentioned. However, we can mention here that John Ingram in "Flora Symbolica," (Page 345), defines the Begonia as the symbol of deformity, which might be accounted for through the slanting leaves.

Linne had picked out an excellent description when he gave the name Obliqua to represent the first Begonia in his System, for the obliqueness of the leaf of the many representative of this genus (with very few exceptions) is a peculiar characteristic which attracts one's eye. With a few species, for instance the small, slender-leaved Beg. herbacea, Vell. or the large-leaved Beg. ricinifolia, A. Dietr., the absolute obliqueness is not instantly noticed; but it is still easy to recognize by accurate observation. Such species as Beg. rex, Putz., Beg. manicata, Brongn., Beg. discolor, R. Br., Beg. maculata, Raddi and also others of a different kind which are distinguished one from another by the layman as the slanting leaf is unmistakable. The designation, Slanting Leaf, (Dutch: Scheefblad, Danish: Skavblad) is, therefore, very suitable but the term, Begonia, is more commonly used than Slanting Leaf; People who employ no botanical names use it habitually.

In the professional literature and also in folklore treatises, we sometimes find names which may be either borne by the whole genus or again designate only single species. We will, of course, not forget to differentiate here between the names that are only a translation of the Latin-botanical description and are of no special interest to us as we are only concerned here with the moods and descriptions of the people concerning these plants.

In the English language we find the excellent designation, "Elephant's Ear" applied to the entire genus and in German the equivalent, "Elefantenoehr". In itself this name can only be applied to large and wide-leaved species; Beg. incarnata, Link et Ottois, however, especially designated by this. For the last species a Danish writer uses also the designation "Judasohr" (Judas' Ear), which name is even found included in a pocket dictionary. The same (Page 239) species is called "Winter-Begonia" in Denmark, because it brings forth its flowers in winter.

NEW MEMBERS FOR APRIL

L. Van Dusen	603 Myrtle Avenue	Inglewood, California
Mr. & Mrs. T. W. Carlile	967 Rose Avenue	Bellflower, California
Dr. Arthur J. Hook	1012 Fulton Street	Fresno, California
Harold Riches	3417 W. Slauson Ave.	Los Angeles, California
Gordon Baum	2335 West 103rd St.	Inglewood, California
Mrs. Katherine Day	5855 Myrtle Avenue	Long Beach, California
Ethel S. Gripper	821 Summit Drive	So. Pasadena, California
A. W. Dreier	7201 Luella Avenue	Chicago, Illinois
Dr. F. J. Elias	Morgan Park	Duluth, Minnesota
L. E. Day	2602 Aiken Avenue	Los Angeles, California

Bulletin of
AMERICAN BEGONIA SOCIETY

Vol. 4.

MAY 1937

No. 5.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE MAY MEETING

The next monthly meeting of the Begonia Society will be held on the evening of May thirteenth at the Community Hall, Ninth Street and Lime Avenue, Long Beach, California, at seven-thirty o'clock.

Mrs. Charlotte A. Rodenburg of Santa Monica will be the speaker. She will exhibit several varieties of new fibrous seedlings of exceptional promise. Some of these plants, and a large specimen for the major prize, will be donated to the society for the plant sale.

This will be an opportunity for those who attend the meeting to get a choice new begonia of a sort never offered for sale.

REPORT OF THE APRIL MEETING

More than one hundred and sixty enthusiastic begonia fans attended the April meeting in response to the announcement of the appearance of Mr. Frank Reinelt, of the Veterle and Reinelt Hybridizing Gardens, as the speaker of the evening.

Mr. Reinelt's endeavors are directed toward the improvement of tuberous begonias by hybridizing and selection; the firm produces these improved varieties in large commercial quantities—over a million a year.

In his talk, he explained the method of hybridizing to develop and perpetuate the habit of forming double flowers; and told of an improved winter bloomer destined to be an outstanding success. It is a socotrana derivative with greater hardiness than others now obtainable, such as Gloria de Lorain, Lady Mac, etc. As a house plant it is more tolerant of living-room conditions. It resulted from a cross of socotrana (winter bloomer) and a double tuberous (summer flowering) and has foliage like the former and clusters of double flowers of good size. It blooms from September to February and must be propagated from cuttings. The plants should be dried off in February, kept at a cool temperature and watered again in April or May to stimulate growth. During the fall months it requires heat—not below 55 degrees at night. When placed on the market two years hence it will prove a sensation.

We also had the good fortune to be addressed, but all too briefly, by Mr. Norvell Gillespie, garden editor of Sunset Magazine. He extends an invitation to our members to attend the meetings of California Horticultural Society when in San Francisco. Monthly meetings are held on the third Monday of the month. Prominent horticulturists and garden authorities are speakers, and rare plants are exhibited.

Mr. H. G. Hamilton brought greetings from the members in Ventura, California, and Mr. A. Toulouse, of Laguna Beach, who has been testing the effects of X-rays on plant growth told the group something of his experiments.

Flowering azaleas, one donated by Mr. and Mrs. G. C. Johnson, and a wonderful hanging basket of five-finger Maidenhair ferns, the gift of Mr. and Mrs. H. L. Weitz, were sold for the benefit of the entertainment fund.

Begonia plants were exhibited; also a reproduction of a colored illustration from an 1875 issue of Revue Horticole, which was sent to us by Mrs. H. H. Buxton, of Peabody, Mass. It pictured three improved types of *B. incarnata*, crosses made by M. Schmitt, of Lyons, France. The varieties are Mme. Fanny Giron, orange-scarlet

REPORT OF THE APRIL MEETING (cont'd)

flowers; Mme. Thibaut, salmon; and Caroline Schmitt, with white bloom.

SUMMER GARDEN TOURS

The first of this season's garden tours will be held on Sunday, May twenty-third. The gardens of Mr. and Mrs. Geo. C. Johnson, 1012 Passons Blvd., Rivera; Mr. and Mrs. H. B. Lewis, 300 Burke Street, Rivera; and Mr. and Mrs. E. P. Saunders, on Orr and Day Road, south of Telegraph Road, near Norwalk will be open from two to four o'clock.

The flower show of the North Long Beach Garden Club, at which several of our members are exhibiting, will be held the same date, at the Houghton Park Club House.

Mr. Walker, Program Chairman, requests those members who can open their private gardens during the summer to submit the dates on which they desire the society to visit them.

OUR MANY COLORED EARTHS by Alfred D. Robinson, Point Loma, California.

For many years I have had and used a Testing set to determine the relative acidity or alkalinity in our so varied soils, and something over a year ago acquired another that claimed to further disclose their make-up and give the low or the high of plant nutrient content. It was never used until lately for reasons of no interest to a Begonia Club. It is a fascinating array of dropper stoppered bottles numbered from 1 to 18, glass test tubes and funnels and other gadgets and at first glance seemed to have been much misrepresented as The Simplex. It proved in practice easy of operation. It does not pretend to an exact analysis but gives the high and the low and something of the middle.

I am writing this because, presuming my tester reliable, many of us have been accepting traditional values of our soils that are very inaccurate.

I have heretofore spoken of the various soils that have been used at Rosecroft and I purpose to record what Simplex says about them.

Our native Rosecroft soil which I have times without number labelled as being salt is nothing of the kind. It is alkaline, has a low nitrate content, a high potassium test, a little magnesium, no phosphorus, calcium, manganese chlorides, sodium of iron. Its main deficiency is humus. The sample taken was from a gopher hill where no irrigation had taken place at least for twenty years.

The red sandy soil from Camp Kearney has a little magnesium, is high in potassium, nothing else not even iron and we have always imagined the red color indicated iron. It may be the minority, who ascribed the color to burning, were correct. It should be remembered that the test is for solubles and here may be a lot of insoluble iron.

A sample of very powdery soil from beneath the top layer of leaf mold from the mountain area had a medium low nitrate test, a little magnesium, was high in potassium but lacked everything else. This in use was not only no good but actually harmful being too fine and packing badly.

A kind of blue black peat from the bottom of a mountain lake, apparently rotted tulle, was high in nitrates, had some phosphorus, magnesium, a little manganese chlorides and iron and lots of potassium. This has proven our best for seed planting and wonderful for Azaleas and Camellias. It tests quite acid, unfortunately it is not available in quantity at any time and not at all now that the lake is full.

Our compost of leaf mold, Camp Kearney and cow fertilizer with a liberal sprinkling of charcoal is high in Nitrates, potassium and Ammonia, medium in phosphorus and magnesium with a very little calcium and chlorides.

Growing tests would emphasize the importance of Nitrates. Only those soils with a high content of this have given worthwhile results, and show why Floranid, as a fertilizer, has given us such satisfaction, - it is 46% nitrogen.

I find in an English magazine a notice of a material called Bacpeat, this is thus promoted:- "Many soils today are seriously impoverished. They lack Humus. GOOD STABLE MANURE IS DIFFICULT TO PROCURE. Bacpeat is peat treated scientifically

OUR MANY COLORED EARTHS (cont'd)

with BACTERIA and turned into a concentrated organic "manure". We have peat on our market impregnated with chemical plant food. We find warnings to growers to mix STABLE MANURE with their soil after sterilizing to replace bacteria. The answer would seem to be don't discard the good old animal manure because of a few weed seeds or what not. The cow fertilizer stays in our compost, we find the smell reassuring.

THE ANNUAL BEGONIA SHOW

The Board of Directors is formulating plans for the begonia show to be held the last part of July. They hope to surpass the exhibit of last year, and appeal to all members to assist in making it a success. Plan to make an individual exhibit. Details in next month's bulletin.

TUBEROUS BEGONIA DIRECTIONS by Mrs. Verna L. Schath, Redwood City, California.

Seedling plants should be large enough now to be planted outside into beds which have been made porous by the addition of peat and leaf mold. Place the plants eight inches apart, water well and keep them moist. If they are to be raised in pots, transfer to three inch ones and shift to the next size as the plants grow. Use broken crock or gravel in the bottom of the pot and a coarse potting mixture -- leaf mold, peat and sand.

In two weeks fertilize with Vigoro, (it has no unpleasant odor), using two teaspoonsful to each plant. Fish meal, blood, bone or Gaciota may be used but as they will burn tender plants BE SURE THEY DO NOT TOUCH THE ROOTS. Apply these in a trench three inches away from the plants, a teaspoonful to each, cover and water well. Dissolve one teaspoonful of Vigoro per quart of water, and apply this solution once a week-- a quart to twelve plants the first month, a like quantity to six thereafter. Liquid manure is not recommended as its food value varies. Water the plants in the morning. The ground is chilled and growth retarded by late afternoon watering.

ROOTING TUBEROUS BEGONIA CUTTINGS by Mrs. Schath.

For a period of seven years I have been successfully rooting tuberous begonia cuttings by the following simple method.

The materials needed are: three-inch pots, one-half pint mayonnaise jars, dampened sand, peat and begonia potting soil.

Place one inch of peat in the bottom of the pot, then an inch of coarse sand. The end of the cutting should be sunk in the sand one-fourth of an inch and the pot filled to within one-fourth of an inch of the top with potting mixture, and well firmed. Set the pot in a pan of water until thoroughly soaked. Then remove it, fill the pot with water and place a tightly fitting mayonnaise jar on top. The water will drain out making a vacuum in the jar, which is the secret of the success of this method.

The potted cuttings should be placed on the ground under the bench in the greenhouse in a dark, cool spot. Sprinkle the tops of the jars lightly once a day or oftener if it is warm, but do not water the pots themselves for three or four weeks. As long as the vacuum is not broken the cuttings will remain green and firm and will callous over. At the end of three or four weeks, submerge the pots in water with the jars still in place; and when thoroughly soaked, return to the place under the bench for another week, when the jars may be removed. A week later bring the cuttings, which should now be rooted, gradually to the light. A very weak liquid plant food should be given once a week.

The cuttings can be started in a flat, instead of in pots, with a jar over each. However, the peat and sand are likely to become too wet from the daily sprinklings, and some of the cuttings will rot.

Cuttings rooted early in the spring when planted out in the ground will develop

ROOTING TUBEROUS BEGONIA CUTTINGS (cont'd)

tubers of good size by fall. Those started late should be grown in flats and permitted to remain in them until the following spring, and then replanted after they have sprouted.

It is best to plant freshly cut cuttings before taking others. If it is impossible to plant it immediately, it should be placed in cold water to keep it firm. Never plant a wilted cutting. They root readily in the spring or fall; during July and August the weather is too warm.

BEGONIA NOTES FOR MAY by Ernest K. Logee, Danielson, Conn.

Begonias can be rooted now. Fibrous types should be cut back severely. New sprouts which come from the base of a plant tend to make a stronger and more shapely specimen. Tip cuttings from old wood will root in pans of sand or peat. A large glass bowl or pyrex dish makes an excellent container. Cover with glass for uniform humidity and keep at a temperature of 65 or 70 degrees. Care must be taken not to keep the cuttings too wet. At the end of two weeks, keep slightly on the dry side to encourage healthy root growth.

Rex begonias will show new growth. Dry the plant somewhat; shake off all old loose soil, repotting in the same, or smaller, container if the root system will permit. Use as small a pot as possible when repotting. The roots of plants reach out to the side of the pot, leaving a ball of soil in the center that the roots do not use when too large a pot is used. Leggy plants can be set deep to encourage root growth up the stalk. When new roots are well established, take the plant out of the pot and cut off the old stump, repotting the new stalk with new roots. In this way the plant receives no setback.

A new discovery to promote root action has been made by Dr. P. W. Zimmerman of the Boyce Thompson Institute for Plant Research. Cuttings will root with astonishing vigor when treated with this solution. Of fifty substances tried, indolebutyric acid and naphthalene acetic acid are the two found most effective. To carefully make a cutting below a leaf joint is no longer necessary, as these chemicals will stimulate root growth any place along the stem.

It is manufactured by Merck & Co., Rahway, N. J., and sold under the trade name, Hormodin A.

DO IT NOW by H. P. Dyckman, Long Beach, California.

Tuberous begonias: Those that have developed sprouts three inches long should be potted or planted out in the ground. Pinch off the buds on any that are farther advanced, so the plant may develop more vigor before flowering.

Fibrous and Rex: Continue to make cuttings of both.

Old plants in pots may need repotting and new soil.

Work over the hanging baskets--new moss, fresh soil.

THIS AND THAT

BEGONIA BOLIVIA - Our introduction of Begonia Bolivia was made last year when we received from the East, a small plant, so named. It looked interesting from the first, for its leaves were grayish and faintly "peppered" like those of Peltata, although much thinner in texture and not peltate. For the first few months, growth was slow and we fancied the leaves would remain small like those of the plum tree. But as the season advanced up shot our new plant and leaves grew accordingly. At present, Bolivia is three feet tall and has some leaves the size of saucers. We have not been favored with its blossoms yet but will wager they will be small and white. All growth is soft and rather elastic, not tending to make propagation easy. In fact so far, all cuttings have rotted before rooting. Our Eastern members should be able to tell us more about this variety.

Constance D. Bower, San Diego.

A WATER SOFTENER - Do you have poor luck raising begonias? Perhaps the water

A WATER SOFTENER - (cont'd)

you use contains too much calcareous or alkaline matter. Soft water is essential for success. Rain water is ideal.

There is now for sale a mechanical water softener, which, when installed in the water system, delivers pure, soft tap water in any quantity. Its mechanism is electrically controlled and requires no attention.

We are told that the success attained with azaleas and rhododendrons in Golden Gate Park, San Francisco, is attributed largely to the use of water softened by this device. It should be equally useful to begonia growers who have hard water to contend with.

Details may be obtained by writing to the Permutit Co., 330 West 42nd Street, New York City.

BEGONIA UNIFOLIA, ROSE - Growing in the Canyon de la Mano, near Iguala, in the State of Guerrero, Mexico, a section noted for its wealth of plant life, is a peculiar tuberous begonia having only one leaf. It is named B. unifolia, Rose.

It grows abundantly on the vertical marble or limestone cliffs of the canyon, the large, round leaves held so slightly above the ground that they often lie upon it. From the point where the stem joins the leaf, a flower stem rises carrying three or four small flowers and one or two imperfect leaves. There is another begonia resembling it--B. monophylla, listed as a native of New Spain (Mexico-Central America)--also tuberous and developing large flowers and tubers nine inches in diameter.

B. unifolia was observed in its habitat by Mr. Eric Walther, of Golden Gate Park, San Francisco on a recent trip to Mexico and was mentioned by him in Plant Hunting in Old Mexico, in the January National Horticultural Magazine. The Report of the Missouri Botanic Garden, 1904, gives a photograph and a botanical description of it.

This Report also says, "This species--B. unifolia, Rose--belongs to section Huszia, which Klotzsch regards as a genus separate from begonias. Group Huszia is that to which the so-called tuberous begonias--some under cultivation--from South America, belong."

CIRCLE LETTER - When I first began with begonias I was primarily interested in their flowers, and especially in the length of their blooming season. A begonia which bloomed most of the year was prized the most. As I gain experience I appreciate more and more the decorative value of handsome durable foliage and shapely habit of growth. Of course when one can get both handsome foliage and long blooming season that is just fine; but if I had to choose between a begonia with handsome foliage and a good habit which blooms for only about three or four months, and another variety which blooms for nine months but has indifferent foliage and scrawny habit, I would choose the first.

If I were preparing a scale of points for begonias, I would allot more points for vigor than for anything else. Next would come handsome, durable foliage and shapely habit of growth. I would place flowering third. A vigorous begonia of almost any variety is a joy to contemplate, while a weak specimen of handsome variety is a sorry sight.

Montana.

NEW MEMBERS

C. C. Wilkins	1005 Second Avenue	Seattle, Washington
Miss Joy Logee	45 North Street	Danielson, Conn.
Mrs. Henry Flaitz	Box 206 R. R. No. 2	Ojai, California
Miss M. P. DePont	Rosehill	Aiken, S. C.
Celestine Breen	115 Pacific Ave.	Mineola, Texas
Mrs. Elsie Norton	329 E. 56th Street	Long Beach, California
Miss Alice Nuvell	20 Percy Road	Lexington, Mass.
Mrs. P. V. C. See	389 Aqueduct Street	Akron, Ohio

Bulletin of
AMERICAN BEGONIA SOCIETY

Vol. 4.

JUNE 1937

No. 6.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE JUNE MEETING

The Begonia Society will meet in the Community Hall, Ninth Street and Lime Avenue, Long Beach, on the evening of June tenth, at seven-thirty o'clock.

Members attending will have the pleasure of participating in a world tour and visiting foreign botanical gardens through the medium of motion pictures, which were taken and are to be exhibited by Mr. and Mrs. R. E. Ross, of Newport Beach.

Another feature of the program will be the showing of a Rex begonia—Fireflush of the helix type, by Mrs. Wepper, of the Wepper Begonia Gardens, Inglewood. She will briefly discuss its history.

And of course the plant sale: no sale -- no refreshments!

GARDEN TOURS

The garden tour scheduled for June will be held on the evening of Thursday, June seventeenth and will include the following home gardens:

Open from seven to nine o'clock:

Mr. and Mrs. Glen E. Collins, 4116 East Sixth Street
Mr. and Mrs. M. B. Dunkle, 4543 East Colorado Street
Mr. C. M. Kelly and Miss Kelly, 285 Park Avenue

Open from eight to ten o'clock:

Mr. and Mrs. J. S. Williams and Miss Jewell, 2034 Florida Street
Mr. and Mrs. T. H. Smith, 3601 East Broadway
Mr. and Mrs. W. F. Boice, 3 Sixty-fourth Place

Tentative dates for other summer tours:

Sunday July eleventh, Rosecroft, Point Loma, California
Sunday August first, Ventura and Santa Barbara.

THE BEGONIA SHOW

The second annual begonia show will be held at the Agricultural Center, 1300 East Twenty-third Street, Long Beach, California, on August 21st and 22nd under the management of Mr. M. B. Dunkle.

It is the purpose of the Society to have placed on display a comprehensive assortment of begonias of various classes, together with allied plants suitable for lath-house culture, for the inspection and pleasure of the general public, in an effort to extend the interest in begonia culture. Exhibits will be both educational and artistic, and will be accepted from commercial and amateur growers. They may be placed as individual exhibits or as part of the collective group of the Society. The items of expense and competition will be eliminated, as there will be no admission charge or entrance fee; the exhibits will not be officially judged nor will there be prizes or ribbons awarded. Your co-operation as an exhibitor and worker is needed to assure the success of the enterprize. Report to the show manager in what capacity you will help.

THE MAY MEETING

Notes from the talk on Cuttings, by Mrs. C. A. Rodenburg: Many fibrous begonias can be propagated from leaf cuttings in the same manner as Rex varieties; more shapely plants result from this method, though a longer time is required. Such varieties as Verschafelti, ricinifolia, sunderbruckii, rubella, the manicatas, Jessie and Templinii root readily in this way; with care probably all fibrous could be so propagated. In making Rex cuttings, less space is required if V-shaped ones are used and placed upright in the rooting material, rather than laying the whole leaf flat on the soil—a consideration with commercial growers. Use full grown leaves that are not too old and lifeless. Leaf-mold, sand or a mixture of both may be used in the propagating bed.

Following her talk, Mrs Rodenburg exhibited a collection of new, un-named fibrous plants which have exceptional merit. They were grown from seed gathered from metallica, chiala and Haageana plants that grew in a group in her lath-house and had cross fertilized. They were of the hairy type and resembled others of this class, but differed sufficiently to warrant further propagation and observation. The Rodenburgs donated a large specimen of Scharffiana and several seedlings of the coral rubra grown from seed from Hawaii. The sale of these and lily bulbs, donated by Leslie Woodriff, added substantially to the entertainment fund.

Another exhibit of plants was that of Mr. Dyckman's, which included three-inch seedlings of the South American species, the seeds of which were sent to us by Dr. Goodspeed of the University of California, and which have not been classified but are fibrous sorts; and specimens of the following crosses—Pearcei X Lesoudsii; Evansiana X Rex, Mrs. Moon; and Kathi, Mrs. Gray's cross Coralline Lucerne X palmata.

A NEW BRANCH

A branch of the American Begonia Society has recently been organized at Ventura, California, with Mrs. H. L. Weitz as President and Mr. H. G. Hamilton, Secretary. Twenty persons attended the first meeting held in the beautiful lath-house garden of Mrs. Weitz. In the list of new members in this issue of the Bulletin are several affiliating with this thriving Ventura group.

BEFORE BEGONIAS WERE CHICKENS by Alfred D. Robinson, Point Loma, California.

Before I fell in love with Begonias I had a severe attack of Chicken fever, and Rosecroft Barred Rocks achieved some fame in the Shows from Los Angeles to New York. I mention this here because though the chickens were even less self-supporting than the Begonias, they did show me why so many successful hobbies prove so much more expensive than original estimates, and this is in the nature of a warning to fellow victims of Begoniaitis, if not too far gone.

The key to the puzzle is in that little poem about fleas, how from the largest to the smallest they bite one another. As I write, on my desk is the latest copy of the trade paper to which I subscribe. It is an opulent journal full of advertising, and I always read that much more carefully than the regular reading matter for it is the real reason for the publication; and if I were to buy all the nostrums, gadgets and plant material featured therein that practically guarantee to make me rich and happy, it would cost more than the plants produced, could possibly make. I know this because though my chickens worked early and late, regardless of laws of men or chickens, they never did catch up with the total of the bills contracted. When I finally realized this I analyzed my poultry journal advertising columns and found that the real money in the chicken business was in selling to the chicken man things for the chickens; and not in what the chickens might do for their owner.

Now this might easily be the case, I might say is the case, with the garden in its different phases. Plant material is not necessarily the most costly item, but if one is not armed with a good coating of sales resistance this is but an initiation fee. When the Spring fever brings on a gardening complication, just watch the store windows and see how many things there are that one little garden should have, and the deuce of it is, that most of them are useful. Then regard the intriguing garden costumes and furniture. Is it any wonder that the garden budget is like most others

BEFORE BEGONIAS WERE CHICKENS (cont'd)

large and small, hard to balance; and the effort to do so means buying the plants that are cheap rather than those that are really desired.

Knowing all this and remembering my chicken sickness I still allow myself to buy a few gadgets, a few plants, much seed, of a purely speculative value, because in spite of my early Victorian upbringing I love to take a chance. This Spring I fell for an automatic sprayer. I think what caught me was the feature of its loading like a gun with a cartridge, for I used to love to shoot, and within a week saw a much better affair at half the price. I could have had several Begonias with that other half.

Now I come to the real meat of this nut. Good gardens, good Begonias, etc., can be raised with very little aid except intelligent labor; all these so lauded and recommended aids need not be on hand. There are very successful gardeners and Begonia culturists whose boughten aids are confined to a trowel, spade, a rake and a pair of shears. They sow seed in small boxes that served their time as containers for other things, they save tin cans that held their meals, they collect leaves and clippings and make their soil and then go out and take prizes at the shows. The satisfaction they get out of this is something the gadget and nostrum ridden never approach. I know; I have raised a California wildflower patch this year with a dollars worth of seed, a rake and a hoe and sweat-yes! lots of sweat, as the weeds hearing that it was to be a wildflower patch regarded it as a special invitation. But you should see those wildflowers blooming!

IN QUEST OF THE UNUSUAL A Report of the Seed Fund. by C. M. Kelly.

In reading of the travels of adventurers into those countries of the tropics where begonias grow as wild plants, one seldom sees any reference made to the observation of these plants in their forest homes--even though the traveler be a naturalist or plant explorer. They have eyes for obscure fungi and ancient dinosaurs, but only occasionally report a begonia. The species of this family of plants which is so widely distributed throughout the warmer sections of the world must often be encountered; but probably are so inconspicuous among the riot of exotic flora as to escape attention.

It is difficult for the common garden variety of begonia fan, unfamiliar with botanical phraseology, to get a thrill from a scientific description of the rarest of begonias; while a passing allusion in a travelogue of a foreign country to the commonest sort, if it be one unknown to him, arouses a desire to go to similar places and bring 'em back alive.

We recall reading, in a National Geographic Magazine, of a horseback traveler in Northern India on his way to Kashmere remarking on the mammoth begonia plants overhanging the trail, which must be the species listed in Hooker's Flora of British India as *B. gigantea*. Guenther in "A Naturalist in Brazil," a very remarkable book, reports seeing there a climbing begonia with scarlet flowers. Dr. Merrill, head of the Arnold Arboretum, told Mrs. Buxton an intriguing tale of a similar one he observed in the Philippines, a climber with great clusters of scarlet flowers, *B. oxycantha*. Also Mr. Lancaster, an orchid collector of Costa Rica, in response to our letter of inquiry, writes of finding *B. imperialis* in that country near the Panama boundary, though in isolated specimens. Bailey's Cyclopedia in its botanical description of *B. Baumanii* adds this much of human interest concerning it: "It grows in the high, moist valleys of the Andes of Bolivia, forming large tubers eight or nine inches in diameter which are eaten by grazing stock".

All of this, together with the colored illustrations in Curtis' Botanical Magazine, of many begonias unknown to today's begonia culturalist, picqued our curiosity and kindled an urge to become a plant and seed collector. With a fund of \$33.00 contributed by several inquisitive arm-chair explorers, all members of the society, we started on a world tour--conducted to our destinations by the United States and International postal systems at from three to five cents per trip--seeking seeds of any of the species of begonias that are not in cultivation in this country.

IN QUEST OF THE UNUSUAL (cont'd)

We soon find the undertaking filled with delays and disappointments. Many letters of appeal for assistance are sent to many places and the results of two years of endeavor are here summarized:

First were purchased from a commercial seed-house in India, three packets of seed. These were *B. Josephii*, *B. Jalapher* and *B. rubrovenia*, all Himalayan species unknown here. The *Josephii* seed germinated well; the others indifferently or not at all, and the seedlings for the most part promptly died. Mrs. Buxton has succeeded in growing a few *Josephii* plants and carrying them through the first winter. These are a tuberous sort that become dormant during the cold months.

In exchange for seeds of some of the native plants of California and those of some of our cultivated varieties of begonias, we received from the Botanical Gardens of Buitenzorg, Java, packets of seed of the following begonias: *globra*, *isoptera*, *roubusta*, *heracleifolia* and a very few seeds of *goegoensis*. Most of the seeds of this lot were well filled and fertile; and several persons have sturdy seedlings growing from them. They are not Java species.

Then there came from Nepal, India, seven packets replacing a larger order lost in transit. These included: *xanthina*, *picta*, *Cathcartii*, *sikkimensis*, *laciniata*, a tuberous kind un-named and a packet marked, "double flowered species". It was a severe disappointment that these seeds failed to germinate, for in the lot were species of especial interest. *Xanthina*, *laciniata* and *picta*--if it is the one referred to in old records as *pictifolia*--are all progenitors of our modern Rex varieties. *Sikkimensis* grew well enough, but was so like "a common bedder" that it seemed worthless. Descriptions of it say it differs from the *semperflorens* in that it has a thickened rootstalk.

A member who lived in Mexico City had offered to collect for us the seeds of the native species of begonias that he came across while on frequent journeys through the mountain districts; and in April '36 forwarded several pods gathered in Northern Puebla. These seeds were infertile, possibly gathered too green, and did not germinate.

From Dr. T. H. Goodspeed of the University of California, who in 1936 headed a botanical expedition to the West Coast countries of South America, we received seed of five species of fibrous types collected in Peru and Argentine. The plants from which some of this seed was taken were found growing among the rocks and debris of the ruins of ancient Inca city of Macchu Picchu high in the Andes. None of these packets were marked with the names of the species, only with the collectors numbers which were: 1456, 1653, 1456, 1773, and 1794. All proved to be fertile except the last; and seedlings from them are now growing lustily. Later in May '37, two more packets, each containing very few seeds were received from him. They were planted immediately and five or six seedlings of each are being carefully nursed.

Early in January '37 there arrived from Burma, India, two packets of *B. Roxburghii* and a larger one marked "mixed Himalayan species". *Roxburghii*, a fibrous type said to have white flowers, germinated splendidly, the seedlings being quite vigorous. But the mixed sorts, while sprouting readily, seem possessed of temperament and need a bit of coaxing.

There soon followed another lot from Nepal--*Josephii*, *satrapin*, *megaptera*, *rubro-venia*, *picta*, *laciniata* and a packet marked "begonia species". Some of these were duplicates of those in the first consignment but germinated no better.

B. Baumanii, the Bolivian of the large tubers and fragrant flowers, was finally obtained--from Germany and not from its native land. These young ones are coming along after a late start.

Rex seed from the crosses of Mr. Berry were the last to be distributed and with that the season's work will cease.

Many of the packets received contained such small amounts of seed that it was not always possible to give a portion of each kind to all the contributors to the fund. However, we have made as equitable a division as we could. In all, above thirty kinds were obtained. A record has been kept of those sent each person, and we request each recipient to make a complete report of his experience with the seed.

IN QUEST OF THE UNUSUAL (cont'd)

This should be done near the end of the present growing season.

Of the original fund, there is a balance on hand of \$11.00; and there is no need of additional contributions from the present participants until this is expended. If other members now wish to join the group interested in this activity of the society, they may do so by sending in a small contribution to the fund and they will share in any seed we may be able to secure in the future. Although we have several letters of inquiry yet to hear from, we are not very hopeful of securing much more seed. Commercial seed firms do not stock them, and seed collectors have not been located outside of India. To succeed in getting any others of the 400 species, it seems that it will be necessary to abandon the easy-chair method and really send someone on field trips for them -- an undertaking of too great expense, of course.

In the following letter the writer explains why some of the seeds referred to in the preceding article germinated so poorly. The pictures which accompanied the letter and which so conclusively prove the point, will be displayed at the June meeting. They will be mailed upon application to anyone for inspection.

BEGONIA SEEDS by Dudley Wadsworth, Westport, Connecticut.

Something over a year ago we received from a very reliable English seed house a package of Rex Begonia seeds. These we examined under the microscope and found that there was not one whole seed in the lot, all being broken, cracked, crushed, and mixed with small bits of pericarp. When several packages were later received from the American Begonia Society, we were naturally suspicious and subjected them to the same scrutiny, finding that most of them were good but with some notable exceptions. We made a prognosis on each lot, sowed them and germination proved our prognosis to be remarkably accurate. Then another lot came in and the same proceeding was followed and our predictions were not nearly so accurate, there being absolutely no germination from two packages which we had said ought to have produced a few plants. It has been our practice to sow most of the seeds in a package but to reserve a few for later sowing in case the first lot failed to germinate or suffered an accident of any kind. At the first examination we simply open the package, placed it on the stage of the microscope and if enough good, whole seeds were visible even though considerable trash could also be seen, we made a favorable prediction and proceeded with the sowing. After the complete failure of our two lots we went back and made a more careful examination of our reserves and were amazed at the deplorable condition of the seeds. In making the second examination, we spread the seeds on a watch glass, so that they were more clearly visible and lighted them as is customary in dark field microscopy. We then photographed these seeds through the microscope and are enclosing herewith the results, making some comments on the back of the prints, all of which ought to help clear up the mystery of why begonia seeds so often fail to germinate, an experience which at least some of the members of the society must have suffered.

A careful examination of these photographs will show, in spite of the poor quality of the photographic work, that what are purported to be begonia seeds are more parts of seeds, broken seed coats, bits of pericarp, etc., from which no germination can be expected. This is so apparent in some lots that it should have immediate attention from the society. It seems a great pity to bring seeds from South America, India, Java - halfway around the Earth - and have them in such condition when the growing time comes. Here is a lot of *Baumanii* just received from Brazil among which we can find only two that can possibly germinate - all the rest are broken! And what a lot to breed from - exceptionally large tubers with fragrant flowers - a master find for the geneticist and plant breeder.

All of this aroused our interest as to how these fine seeds "got that way" and we have gone back and examined some of our own seeds, the result of hybridizing experiments, finding no such calamity among them. We are enclosing photographs of our own seeds as well as one of five normal tuberous seeds somewhat more highly

BEGONIA SEEDS (cont'd)

magnified so that those who do not have a microscope available may know how they really look. This difference between the seeds the Society has so kindly supplied us and our own suggests some careless handling on the part of the society's collectors or those in charge of them after they arrive in America. We suspect that the collectors are principally responsible for broken seeds from the fact that so many bits of pericarp are included in a package of seeds. This probably comes from the common habit of taking the entire capsule between the thumb and forefinger and rolling it until it is entirely broken after which the seeds are shaken loose. This is a perfectly natural proceeding for one who does not understand how delicate these minute seeds are, and the fact that our own seeds, handled differently, show no such percentage of casualties leads to our conclusion. It has been our practice to carefully open the capsule with tweezers and to remove the seed with a fine soft brush, thus avoiding any injury. The damage that may be done by the rolling process is easily conceivable, but there may also be another factor. Our own seeds are, of course, never shipped but the society, we think, ought to give consideration to damage that may occur in the mails. Packed in hard paper and subjected to the strenuous handling that all mail receives, these tiny seeds may be seriously injured even though they are enclosed in a substantial envelope. We suggest a cotton or other soft pad to protect them and to prevent them rolling around in the packages. Note the rough surface of begonia seeds and consider how they may be damaged by simply rolling over each other. Obviously they must be handled with the greatest care.

THIS AND THAT

MORNING WATERING vs EVENING WATERING. In growing tuberous begonias in the cool coastal sections of California we must be careful about over watering. Do not be misled by a pot that seems dry in the evening.

In my two years experience, I have observed that plants having seemingly a dry soil at night are somewhat moist the following morning. So, to have watered at night would have been a mistake. In the evening, the plant has completed a day in the heat and wind, and much moisture has evaporated on this account. The pot and soil are warm, ready for the night, so let the plant sleep in peace; to water would be to chill it and retard growth and bloom. But next morning give it a good bath and wash its face; and it will receive the same stimulating experience you yourself feel under like treatment.

At night much less moisture is required; and I believe there is sufficient in the pot to meet its needs. Excess water is very harmful. In the morning one is not deceived by a dried out top soil, but will positively know the condition. If the soil then seems dry, water is doubtlessly needed.

H. G. Hamilton, Ventura, Calif.

BEGONIA CATHAYANA. Considering its nativity, one is not surprised "That for ways that are dark - And tricks that are vain - This heathen Chinese is peculiar". Anyone attempting to grow it is soon made aware of its peculiarities. And these of our members who have recently been trying to induce seedlings of the tribe of "mixed Himalayans" to show a little enthusiasm for life are convinced that all orientals of the begonia family are much alike.

CLIMBING BEGONIAS. Speaking of the climbers--alba scandens at Rosecroft clings to a concrete wall much like an ivy.

DO IT NOW. A potted begonia that is slow in recovering from frost damage may be revived by shaking it from the pot, washing off the roots, cutting off the decayed portions and repotting in fresh soil. Healthy, vigorous plants can now consume an extra meal--feed them liquid manure or a good commercial fertilizer.

Cut back tall "bedders" to make them bushy.

Still time for cuttings and late seed planting.

H. P. Dyckman.

NEW MEMBERS

E. Burnett	R. F. D. No. 2	Albany, Oregon
B. F. McBurney	2220 Channel Drive	Ventura, California
R. E. Hull	P. O. Box 714	Yakima, Washington
Mrs. Albert Jewell	2227 E. Villa Street	Pasadena, California
Miss Agnes McFarlane	1634 N. Ventura Avenue	Ventura, California
Mrs. Thomas Hardy	Box 214 R. F. D. No. 2	Ojai, California
Beatrice Hesso	130 McKinley Place	Monrovia, California
Joseph Rich	136 "E" Street	Oxnard, California
Mr. & Mrs. W. D. Monmonier	210 E. McFarlane Dr.	Ventura, California
Mr. & Mrs. Bunnell	133 N. Katherine Dr. P.O. Bx. 552	Ventura, California
Mrs. W. A. Gregory	352 North "J" Street	Dinuba, California
Worth A. Brown	Brown Bulb Ranch	Capitola, California
Mr. Taylor Brown	3683 Louisiana	San Diego, California
Mr. J. W. V. Steele	Rt. 1, Box 555 Cor. Wright & Ocean	Garden Grove, Calif.
E. H. Gaggin	846 Oftrom Avenue	Syracuse, New York

Bulletin of

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JULY 1937

No. 7.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE JULY MEETING

The next regular meeting of the Begonia Society will be held at the usual place, Community Hall, Ninth Street and Lime Avenue, Long Beach, California, on the evening of July eighth, at seven-thirty o'clock.

Mr. Dyckman's Adult Education class in gardening will give a demonstration of seed-bed soil preparation, seed sowing and the making of cuttings.

The book, "How Plants Get Their Names", by L. H. Bailey, will be reviewed by Miss Lena Higgins.

THE VENTURA CLUB MEETING

The July meeting of the Ventura Branch of the American Begonia Society will be held at the home of Mr. and Mrs. Francis, 606 East Poli Street, on the twenty-fifth of the month, at seven-thirty p.m.

Mrs. H. L. Weitz is President and Mr. H. G. Hamilton is Secretary of this organization.

GARDEN TOURS

SAN DIEGO: The annual pilgrimage of the Society members to Rosecroft Begonia Gardens, the home of Mr. and Mrs. Alfred D. Robinson, 530 Silvergate Avenue, Point Loma, will occur on Sunday, July eleventh.

Mr. Robinson will address the guests at eleven a.m. Take picnic lunches which may be eaten at Rosecroft. The garden of Miss Constance D. Bower, 2412 "L" Street, San Diego, and that of Mr. and Mrs. Fewkes, 4453 Montalvo Avenue, San Diego, may be visited either enroute or during the afternoon. Miss Bower has cactii and succulents and the Fewkes a fine assortment of begonias.

VENTURA AND SANTA BARBARA: The program chairman, J. Paul Walker, has arranged a trip for Sunday, August first, to Ventura and Santa Barbara. The list of gardens to be visited in Ventura and the itinerary will be given, at the next meeting, to those planning to make this trip, or may be obtained of President T. H. Smith, 3601 East Broadway, Long Beach.

An early start and conformity to the schedule outlined must be made in order to complete this lengthy tour. The gardens of the Ventura members are to be visited before lunch. Assemble at Sea Side Park with picnic dinners promptly at twelve o'clock; hot coffee will be furnished by the hosts; bring your own service, cups and spoons. At one o'clock sharp the journey on to Santa Barbara will be continued. There visit the Rex gardens of Mrs. Worden and Mrs. Murphy, 1224 East Montecito Street and then on to 1130 North Milpas Street, where is located the lath-house of Mr. and Mrs. Rudolf Ziesenhenné. From there, at three o'clock, the group will be conducted on a tour of one of the fine estates of Santa Barbara, that of Mr. Geo. E. Hume, where tuberous begonias are extensively used as a landscape feature.

THE SECOND ANNUAL BEGONIA SHOW

This exhibit will be placed in the lath-house of the Signal Hill Agriculture

THE SECOND ANNUAL BEGONIA SHOW (cont'd)

Center, 1300 East Twenty-third Street, Long Beach, and will be open to the public on August 21st and 22nd from ten a.m. until six p.m. each day.

The Society invites everyone interested in begonias and kindred plants to exhibit and attend this show. There will be no admission charge or fee for entering exhibits. There will be no prizes or awards. Orders may be taken for later delivery, but no plants may be sold on the school property. Each individual plant should be clearly labeled with its name and that of the exhibitor.

Contact Mr. M. B. Kunkle. 4543 Colorado Street, Long Beach, for further particulars and entry blanks.

SOCIETY ACTIVITIES DURING JUNE

There was a large attendance at the June meeting. The program, including the moving pictures taken by Mr. and Mrs. R. E. Rose, was presented as scheduled, with the added attraction of the display of two newly named Rex Begonias -- The Duke of Windsor and The Duchess of Windsor, the prized possessions of Mrs. O. P. Palstine.

Many delighted visitors were received by the hosts and hostesses of the Long Beach evening garden tour of June, seventeenth. We will not attempt to describe the beauties and attractions of the several gardens -- each has its individual charm.

Those who made the trip on Sunday afternoon, June, twentieth, to the orange grove home of Mr. and Mrs. Heineke, of Santa Ana, will never cease to dream of the beauty of the marvelous display of tuberous Begonias Mr. Heineke has demonstrated as no one else that by the use of a specially constructed lath and cloth house, this class of begonias can be as successfully grown in Southern California as in other more moist sections. His standard tuberous varieties can scarcely be excelled. The begonia house was only one of many attractions of this beautiful garden.

THEODOSIA BURR SHEPHERD - CALIFORNIA'S FIRST BEGONIA COLLECTOR.

by Myrtle Shepherd Francis, of Ventura, California.

It may be of interest to the members of the Begonia Society to learn that Theodosia Burr Shepherd, founder of the flower seed industry of California and collector of rare plants, was a begonia enthusiast.

Gardening in Southern California in the early seventies was a problem. Water was hauled from river and sold at two bits (twenty-five cents) a barrel, so water for washing clothes was limited and baths sketchy - some people taking a dip in the ocean in lieu of the Saturday night scrub. Yet even under these adverse circumstances Theodosia Shepherd managed to grow a garden. The Chinese house-boy protesting every step of the way, was made to empty all water from washing clothes and dishes on various plants; the two children, aged four and six, were trained to empty their wash basin on a thirsty plant "so Mama's flowers would not die." Mrs. Shepherd and her husband did likewise, and thus conserving every drop of the expensive fluid, she made the beginnings of the garden which in later years was to become famous.

Loving plants as she did it was but natural that they gravitated to her and in a short time this garden in the dusty little Mission town of San Buena Ventura seemed like a great bouquet. It supplied flowers for weddings, funerals and entertainments. All who asked went away with full hands.

Space does not permit me to tell in this short sketch how Theodosia Shepherd accumulated her collections of begonias and of her entry into commercial horticulture.

In the late 70's slips of the weedy greenish-pink and greenish-white semperflorens begonias were given her; and later she acquired *Hybrida multiflora*. The two forms of flowers on the same stem and the delicacy of their petals excited her interest; and she was eager to possess the other varieties which she heard were growing in Dr. Dimmock's garden at Santa Barbara. She was happy indeed when on a visit to this garden she was given cuttings of *Odorata alba*, *Edmondsoni* and *Evansiana* whose delicate panicles of bloom enchanted her; and she determined to own every variety possible of this flower that had captured her heart. It must be remembered

THEODOSIA BURR SHEPHERD (cont'd)

that there were but few nurseries in California at that time, flowers being distributed by exchange between friends.

Though dressmaking and millinery were the only businesses proper for women to enter, Theodosia Shepherd had the temerity to go into the flower seed and plant business, notwithstanding the protests of relatives and friends; and 1884 found her in possession of a tiny greenhouse with a handful of plants, mostly begonias potted in tomatoe cans whose tops she had melted off on the kitchen stove. She also grew smilax seed and calla tubers for the eastern wholesale trade, but most of her business was still carried on by exchange.

Theodosia Shepherd's Plant and Seed Business had so grown by 1889 she issued her first "Catalogue of Rare Plants" but no copy of it is now in existence.

Her garden had become so widely known it was listed by Frank Wiggan, Secretary of the Los Angeles Chamber of Commerce as one of the "Show Places of the South." Lath houses were filled with begonias, great bushes of them grew in shady places and semperflorens bordered paths. Visitors were amazed at the display of these delicate plants. Many articles about them appeared in eastern periodicals and people made special trips from Los Angeles and Santa Barbara to see "Mrs. Shepherd's famous begonias." Their popularity was established and the begonia became the fashionable flower. Great bushes of *Odorata alba*, *Gilsoni*, *Fuchsoides coccinea* and *robusta* filled the gardens of Ventura and the town was known as the "Home of the Begonia."

Mrs. Shepherd listed twenty-four varieties of fibrous begonias and many unnamed Rex and tuberous rooted ones in her 1891 catalogue, *Gigantea Rosea* being her novelty for that year.

She sent to England for tuberous seed and to Germany for seed of Rex varieties.

Though she loved this flower so dearly she realized that it had great possibilities for improvement and with that desire in mind she made the following crosses, *Rubra* by *Glaucophylla scandens* and *Rubra* by *Glorie de Jouy*, which was said to be a cross between *Subpeltata* by a *Rex*. The results of these crosses were extraordinary, far beyond Mrs. Shepherd's expectations and she announced to a representative of the Los Angeles Express who was visiting her garden, that she would surprise the world with her begonia seedlings which then had just bloomed for the first time. They were so beautiful and different that they achieved immediate popularity and were an added attraction to the famous garden. Visitors came from all parts of the world and Mrs. Shepherd shipped plants to England, New Zealand, Australia, Algeria and Hawaii. So great was the demand she was unable to catalogue them until 1902.

In "The Land of Sunshine" for February, 1901, she thus described *Marjorie Daw* "The original *Marjorie Daw* of Aldrich's charming story was only a beautiful dream girl, but our *Marjorie Daw* is a living reality, a dream come true; not a happy coincidence, but a creation demanded, planned for and developed. A large well established plant sends out strong shoots from five to ten feet high, giving quantities of handsome foliage similar to *Rubra* and bearing great numbers of racemes of large salmon-pink flowers. A specimen in my greenhouse is fifteen feet high and fifteen feet across with over one hundred and fifty racemes of flowers at the time of writing."

In her 1902 catalogue she said of her *Rubra Glorie de Jouy* cross: "Words are inadequate to describe the beauty of these splendid begonias in my greenhouse and lath houses. They are of the Otto Hacker, President Carnot types but superior in every way. They are tree-like sending up numbers of strong canes with large rosy-bronze serrated leaves, red underneath and sometimes spotted silver. The heavy racemes of large flowers range in color from bright coral to pale pink." Fair *Rosamond*, *Beatrice* and *Daphne* were the finest of the many seedlings which this cross produced.

Mrs. Shepherd was a frequent speaker at horticultural associations and women's clubs. Her talks on begonias illustrated with blooming branches were received enthusiastically by both the Friday Morning and the Ebell Clubs of Los Angeles. The

THEODOSIA BURR SHEPHERD (cont'd)

creator of these flowers never failed to receive an ovation wherever she spoke.

Though Mrs. Shepherd's health was failing she continued to work with her favorite flower and issued her 1906 and last catalogue. In it she listed sixty-three varieties of fibrous, nine Rex, nine Semperflorens and many tuberous rooted begonias, exclusive of her own productions. Her new seedlings all of which were a distinct addition to their class were: "Tree begonias," "Hebe," and "Rubra Bamboo" from "Pink Rubra"; shrubby varieties, "Incarnata California," "Sylvia," "Dearest Mae"; semi-double semperflorens, "Cherry Blossom," "Apple Blossom," "Arbutus," "Spring Beauty," "Snowdrop," "Anemone," single Semperflorens "Sea Shell," "Cloudlet," "Brilliant," "Zella Fay," (this last a most unique flower, bright orange petals with white center) "Rex," "Tourmaline," "Amythest," "Silver Cloud". The Rex, Mrs. Shepherd, was a seedling raised by her friend Mrs. Hutchinson, of Fillmore.

It is regrettable that only one of Mrs. Shepherd's begonias still bears the names she gave them. All others have been renamed by specialists to suit their fancy. Marjorie Daw, however, was so greatly publicized that no one has had the temerity to appropriate it as his own.

Theodosia Shepherd was greatly saddened before her death by the loss of her large plant of Marjorie Daw which was attacked by root rot. It was but the beginning of the disease that in time affected all of her begonias. Plant pathologists and inspectors were consulted and everything possible was done to save them but without success, for at that time little was known about diseases of the begonia. In a few years the famous collection was gone and eventually all plants about the town succumbed; and Ventura ceased to be "The Home of the Begonia."

TREATING PLANTS BY X-RAYS by M. B. Dunkle, Long Beach, California.

Among many experiments to change and improve the characteristics of plants and animals we find that treatment with X-rays is rapidly assuming an important place. Many of our leading Biologists have produced quite startling results through the use of this method. In ordinary crossing or hybridization, we can normally expect only accentuation of existing characteristics or new combinations of previously existing characters. After treatment by X-rays, entirely new characteristics have been produced in both plants and insects. Color, rate of growth, size of plant, characters of both foliage and flower, have all been radically altered.

This work has been based on the fact that the reproductive cells carry definite patterns of heredity. It is believed that each individual characteristic of the parents is transmitted to the offspring by tiny particles, called genes, found in the nucleus of the cell. These genes have never actually been seen but they are believed to be large and complex molecules in the chromosomes. When these genes are struck by highly charged electric particles, or by penetrative rays, it is assumed that their structure is altered, and this in turn changes the characteristic they transmit to the offspring. We know that certain sudden unexplained changes or mutations are produced from time to time in nature. It is thought that these mutations may be produced by certain solar, cosmic, or electrical rays or waves. By treating plants with the intense field of an X-ray apparatus we are merely trying to speed up the slow evolutionary process of nature.

The Research Department of the American Begonia Society has instituted certain experiments along this line with begonias and lilies. Pollen, seeds, tubers, seedlings, and plants have been treated with various exposures to 200,000 kilovolts at 5 milliamperes. Exposures have varied from 45 seconds to 5 minutes. It is yet too early to report any results, but by the close of the summer some results may be expected.

In working with begonias several conditions must be kept in mind. As most begonias are hybrids considerable variation must normally be expected in seedlings, so that it is best to work with true species, as then any deviations from type can be ascribed to the effect of the X-rays. While certain changes may be expected if the tuber or whole plant is treated, it seems probable that the most permanent and

TREATING PLANTS BY X-RAY (cont'd)

most decided changes can be produced by treating the pollen or the ovules of the female flowers. Changes that are conspicuous enough to be noted will probably be produced in only a small percentage of the plants. Again, unlike work in hybridization, the results produced are entirely a matter of chance, and no definite results can be predicted. Probably as many undesirable results will be produced as desirable ones.

This work has been made possible through the donation by Dr. W. E. Hart, of the use of his X-ray equipment, and the co-operation of his technician, Mrs. Margaret Corcoran, who has made the exposures.

Further reports will be made in the Bulletin as the experiment progresses and results, if any, can be noted.

THIS AND THAT

ATTENTION - NEW MEMBERS! The complete set of twelve bulletins for the year 1936, containing much valuable information, may be purchased of Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California, for one dollar per set. She also has a special cultural bulletin on tuberous begonias for sale at fifteen cents and one on fibrous begonias at ten cents.

A TIP TO TRIPPERS - We suggest that the members while on vacation trips call on our commercial and other members who reside in the section they are touring. A complete list of the members and their addresses will be found in back bulletins.

BEGONIA GRACILIS - We are advised by a correspondent in Mexico City that he can collect for us the tubers of a begonia which grows there plentifully, in the pedregals (lava beds), at an altitude of from four to eight thousand feet.

This plant, he says, has an upright stem, grows to a height of twelve to fifteen inches, bears rose colored flowers, "like *semperflorens*", and is called there *Doncellas*. We have seen other references to this begonia classified as one of the group named *B. gracilis*.

Mrs. Carrell, of Fullerton, California, gives us this excerpt from *Mexican Plants for American Gardens*, by Cecil H. Matschat. "Unexcelled for summer bedding, such as lawn beds and borders; for window boxes and fine pot plants, is *B. gracilis*, which covers the pedregals with beautiful blooms of bright rose-pink. This tuberous variety, *carne de Doncella*, has smooth almost unbranched stems with pale green, heart-shaped leaves. If planted in full sun, the beds must be kept moist. The bulb-lets in the axils may be used for propagation and the tubers stored in winter".

From Bailey's *Cyclopedia* we learn that *B. gracilis* (meaning graceful is known as *bi-color* and *diversifolia*. It is tall and seldom branched; leaves are shiny heart-shaped and thinly scattered along the stems; flowers are pink, borne on short stems. Other varieties are *annulata* and *Martiana* or hollyhock begonia, which grows five feet high.

The cultivated bedding types of begonias are often catalogued in a most confusing way as a *semperflorens* and/or *gracilis*. Because of the obscure and complex parentage of these bedders it seems uncertain whether or not *B. gracilis* enters into their family tree. If so, the characteristic of forming bulbils in the axils of the leaves, which is a habit of the species, has been lost. Perhaps the term *gracilis* is applied to the more graceful ones of the bedding types, and *semperflorens* (ever blooming) to the more floriferous ones, and has no reference to parentage. Give us your ideas.

BEGONIA IMPERIALIS - Who is growing the three types of *Begonia imperialis*?

Smaragdina is the plain, light green; *imperialis* is brownish-green with light green irregular bands along the nerves. Variety *maculata* is said to have brown leaves with green blotches.

We grow a begonia answering the description of *imperialis*, but it carries the name of *imperialis* var. *maculata*. We have grown *smaragdina* also.

BEGONIA IMPERIALIS (cont'd)

A number of years ago, one of the imperialis type was catalogued by a firm as Otto Forster. We grew several plants of it, but cannot remember whether they were truly mottled or were the green banded or a veined type we now possess.

Constance D. Bower.

NEW MEMBERS

Mr. A. N. Waldron	2356 Eucalyptus Ave.	Long Beach, California
M. A. Bonato	200 Peninsula Ave.	Burlingame, California
Mr. and Mrs. Glen D. Willey	20 N. Ventura Ave.	Ventura, California
Mr. Howard Irwin		Summerland, California
Miss Lucy Lovell	290 Temple Avenue	Long Beach, California

Bulletin of

AMERICAN BEGONIA SOCIETY

Vol. 4.

AUGUST 1937

No. 8.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE AUGUST MEETING

The next regular meeting of the Begonia Society will be held at the usual place, Community Hall, Ninth Street and Lime Avenue, Long Beach, California on the evening of August 12th, at 7:30 o'clock.

Mr. M. B. Dunkle will conduct a symposium on Rex Begonias.

Mrs. Rodenburg will tell us what she thinks about the idea of planting according to the moon.

If you have a Begonia you are unable to identify, bring it down and Mr. Dyckman will tell you what it is.

THE SECOND ANNUAL BEGONIA SHOW

Don't forget the date August 21 - 22. Come to the next meeting prepared to tell the Show Manager just how much space you can use. This is your show - Help the Show Manager, Mr. M. B. Dunkle, 4543 Colorado Street, Long Beach, California, to make it a great success.

GARDEN TOURS

Sunday, August 15th, from 2:00 p.m. to 5:00 p.m. the following gardens will be open for members and friends of our Society to visit:

Mrs. R. E. Ross, 1028 Ocean Front, Newport Beach, California

Mrs. Wm. McKay, 202 - 7th Street, Balboa, California

Mrs. Winifred M. Young, 1618 East Central, Balboa, California

Mrs. H. Cordoza Sloan, 503 Coast Boulevard, Corona del Mar, California

AT THE LAST MEETING

In addition to the announced program, we had at the July meeting a display of thirty varieties of Rex begonia leaves, which were sent for identification to the Society by Mr. Ernest K. Logee, of Danielson, Connecticut. It was his desire to check the names by which these varieties are known there with those used in California. The leaves were shipped via air-mail, with the stem of each leaf sealed in a tube of water, and they came through in perfect condition.

I DO NOT KNOW (Sunday July 11th)

One thing we DO KNOW --and that is, that the charm of Mr. Robinson's annual talk to the Society shares equally with the beauty of Rosecroft in the attraction to which our members respond in making the yearly pilgrimage to Point Loma. It is the great who can say they do not know! Mr. Robinson in a talk entitled I DO NOT KNOW, dispensed wisdom in the entertaining fashion in which he so greatly excels. The lath garden was, as ever, a glorious display of bloom, and as such, we believe its beauty is unsurpassed anywhere. Well deserved praise was given by Mr. Robinson to his assistants, Mr. Hudson and Mr. Simpson.

A stop at the Fewkes' Montalvo Gardens was both profitable and pleasurable. An unbelievable transformation has been accomplished since the late freeze. Beautiful forms were an outstanding feature.

I DO NOT KNOW (cont'd)

No less enjoyable was the call at the garden of Miss Constance Bower, where a large collection of cacti, specimens of rare begonias and thriving seedlings were seen, (And what plant wouldn't respond to the winning personality of Miss B!).

Altogether, WE DO NOT KNOW when the Begonia Society has had a more delightful day.
F. Kelly.

MEMBERSHIP LIST

We would particularly like to have the out-of-town members, who are not present at our meetings, let us know if they would be interested in obtaining a list of the entire membership at the price of fifteen cents.

PLANTS FOR HANGING BASKETS by Mrs. C. A. Rodenburg, Santa Monica, California.

The use of many varieties of plants in hanging baskets brings much color and greenery into our patios and lath-gardens. They add a great deal of charm and individuality, and if well grown and properly selected, are real assets for the beautification of any place in which they are used. Many highly decorative containers are now to be found in the sales places. These help to emphasize the beauty of the trailing plants.

A knowledge of the requirements of plants as to soil conditions, watering and feeding, are necessary if we are to grow these trailers successfully. One should be sure to have a good friable potting soil, and not to try to see how many plants can be crowded into one small container. The amount of soil used is able to take care of only so much root growth. Plants suspended in the air as a rule will require more water than those in pots on a damp surface. A tiny plant should not be put into a large basket because it may not be able to care for so much moisture and may die. Plants in baskets should be fed regularly for best results.

In an article for the bulletin some month ago, I wrote of begonias that could be grown successfully in baskets. I will now continue by telling of other plants which make good trailers.

Two very hardy fern-like plants which make abundant growth are *Asparagus plumosus*, with lively lacy foliage and *A. Sprengeri* or Emerald Feather, with long feathery fronds. There is also another asparagus type with finer foliage which is especially good. *Asparagoides* (smilax) is another of this family having long, trailing, bright glossy green foliage, very easily grown either as a trailer or as a climber. The Boston Ferns, lace ferns and many other house ferns make very attractive baskets. For real beauty none of the ferns equal the Maiden-hair types; *Adiantum O'Brieni*, a very hardy one is most useful because of its sturdy growth. Others have more delicate leaves and several have larger ones. If conditions are right for growth, ferns add a beauty that nothing else can supply.

Kenilworth ivy (*Linaria cymbalaria*) is a quick growing plant with small, light green, rounded cordate leaves, and has numerous lilac-blue flowers with yellowish throats. It is a dainty, lovely plant, good for window boxes, baskets and rockeries. It seeds very readily and comes up without any special attention.

Then we have a number of small leaved ivy plants, having dark green leaves, either bordered or splashed with white. These make long runners and are hardy growers. *Nepeta glechoma* (ground ivy), commonly known as Wandering Bess, is of trailing habit. It has a round leaf resembling that of a geranium, light green edged with white. This is the most attractive one; but there is also a darker leafed variety without the white edge. They are both wonderful growers. They will fill a basket and trail to the ground, rooting when the soil is reached. If not restrained they will continue to root at the joints, making a solid carpet.

Another group of trailing plants having about the same manner of rapid growth is commonly called Wandering Jew (*Tradescantia*). *T. viridis* has plain green leaves but *T. viridis variegata* has variegated, white and green ones, with occasional leaves all white. *T. zebrina* has a dark bronzy-red foliage; another very similar one has larger leaves, a thicker silky foliage, and is the most beautiful of them all. These may be successfully grown in water, and have been in great demand for

PLANTS FOR HANGING BASKETS (cont'd)

bubble bowls.

A common little plant called both strawberry begonia and strawberry geranium (*Saxifrage sarmentosa*) is useful as a trailing plant and attractive in large or small containers. The tiny new shoots, hanging on their thread-like stems from the mother plant, attract much attention. It has sage green foliage, veined with white, a reddish underside to the leaves and it sends up tall sprays of pale pink flowers. The plants are of the easiest growth, will stand neglect and mistreatment, so may be grown successfully in spots not desirable for other plants.

A hardy plant known as the cigar or firecracker plant (*Cuphea ignea*), has rather long narrow flowers, tube shaped, of bright red, with a dark ring and white mouth. The plant grows rather shrubby but with a little tipping back can be trained to make a well shaped basket. Another of this family has larger flowers with more brilliant coloring and is semi-trailing. A plant similar to *Cuphea ignea*, but one which may become either a climber or a trailer, is the Minnetta vine. Its flowers are very interesting, having a bright scarlet tube with a striking yellow tip.

We have three trailing plants belonging to the Campanula family. *C. isophylla alba* is a trailing species with large, pure white, star-shaped flowers. Another with smaller foliage and not as trailing, has blue flowers. This one is not so good for a basket but makes a good ground cover. A third one has light gray velvety foliage, and a lavender-blue flower. This and the white one have been in demand for baskets and are very lovely during the blooming season.

LOOKING FORWARD by Alfred D. Robinson

We should not forget that a real gardener has always two major operations. One the care of the plants that are making the show and the other preparing for the future exhibit.

In revelling in the gorgeous display of the tuberous Begonias, staking, dis-budding seed pods and generally attending to their wants one must remember these will depart in the Fall and that other Begonias and plants will be needed to take their place. Gardening is not the creation of one seasonal display, however wonderful it may be, but the arranging for a succession of garden pictures, possible in this climate of Southern California, of covering the entire year.

Those winter or early spring blooming Begonias such as the manicatas and the *Feastii* group should now be repotted and kept in the shade. Last season the freeze was very severe on this class and they are only now really showing signs of activity. They bloom so profusely that they forget to make leaves and have to take a rest. They are among the best of the Begonias for house and porch plants. *Jessie* and *Templini* also are very early bloomers and now is the time to get them ready.

In selecting certain begonias as winter bloomers I would not be understood to bar others for experience has shown that cuttings started in the middle of the year will make blooms in the winter if given the protection of a glasshouse or placed in a window.

There is one practice the general Begonia grower has not yet adopted and that is pinching back or pruning his plants. The majority of the Fibrous are on the weedy or straggling side. This need not be as they accept training cheerfully. Nice bushy plants with good bloom can be had even with the tallest growers if they are taught to behave by judicious restraint. Pinch them before the wood hardens, they make the new side growths much more quickly from soft wood. This is true also in making cuttings, and a warning should be issued against the making of cuttings from any plant that is below par, unless of course it be an only one.

A good gardener does not allow his specialty to run away with him. There are other desirable plants besides Begonias, complementary ones. Your cineraria and primula seed should be in because you want these in bloom early and out of the way of the Begonias coming on in the late spring. Pansies also and Violas if you think it worthwhile to raise them from seed instead of buying them in flats. Remember

LOOKING FORWARD (cont'd)

that these are cool weather children and the job is to keep the little things cool in our hot season and yet not have them get woody.

Now when you are fussing with this seed don't forget the tuberous, if they are to continue to bloom they must be fed and disbudded. Disbudding means the removal of the seed bearing blooms which come at the side of the male (double) flower. Primulas prefer a sandy loam to sprout their seed, go lightly on the leaf mold.

FEEDING YOUR PLANTS by Verna Schath

By the time this bulletin reaches our members, no doubt you have all had the thrill of seeing your first begonia burst into bloom, especially so if you raised or purchased seedlings. Due to the cold and long winter we had, the begonias have been very slow in blooming this season. I don't know of anything that thrills me more than seeing my first seedling burst into bloom. It's hard to try and describe this feeling, but I am sure there are other members who have felt this also. The variety of blooms that one can get from a small package of seed is what makes begonia raising so interesting.

Don't think now that your begonias are blooming that you can forget about them and sit back and take it easy. They must be fed to produce large flowers and develop a healthy bulb for next season.

Let's first take the begonias growing out of doors in your garden. They can be fed with blood, bone, Vigoro, Gaviato, fish meal, Brands Pigeon manure or any complete plant food. About one teaspoon of any of the above to a plant is sufficient. This should be worked into the ground in a trench at least two inches deep and two inches away from the stem of the plant. The ground should be moist and watered immediately after applying the food. Also the evening is the best time to apply the food. If you are trying out any new food - Please follow directions. Remember a little applied often is better than a lot applied all at one time. Fish meal, of course, is used mostly by the commercial grower and is considered to be the best all purpose food to use as it develops bulbs, plant and flowers, but due to its strong odor is often times set aside for some other food. However, you will find very little odor develops if it is trenched in and completely covered.

Last year I set aside two beds and to one I added 1 teaspoon Vigoro to the plant every four weeks, to the other I used Vigoro in a liquid form one teaspoon to a quart of water once a week and doing about eight plants to a quart of liquid. I had wonderful foliage and large well developed plants and very clear colored flowers, but the bulbs did not develop as large as those I fed fish meal. However, I can sincerely recommend Vigoro either liquid or placed directly in the ground for the amateur grower who is growing for pleasure only and wants lovely flowers. After all the bulb formation doesn't have to worry you as a commercial grower who wants to produce large bulbs for the market.

Remember never place any fertilizer on top of the ground, as when you water the fertilizer will run and if it touches the stem may burn it and cause a rot which will destroy the plant.

Then, of course, there is liquid manure which can also be used about once a week, but I feel a commercial fertilizer or plant food gives the best results, as you have the analysis on the package and the results will be the same year in and out. If manure is too fresh it may burn the roots and if it is too old it has no value. The liquid manure should be at least two weeks old before using.

For plants in pots I would recommend liquid feeding all together once a week and always at night as the plant roots can absorb it better then. In using a liquid the roots get the food more gradual and even then giving them an application and food direct once a month. A strong application like this may burn the roots. You can tell if this has happened, the leaves will turn brown around the edges and finally dry up and drop, sometimes the whole stem gets burned.

Any balanced plant food that is soluble in water is good. Liquid manure and Vigoro are both fine. About eight 6" pots to a quart of liquid. I have also used

FEEDING YOUR PLANTS (cont'd)

Pokon with fine results especially so on my trailing varieties.

Remember also that begonias like to be damp but never too wet. If your ground is wet don't water that day, but let the ground dry up a little and water the following morning early. Begonias grow at night, so always try and keep your ground as warm as possible by never watering late in the afternoon.

With begonias, like anything else use your own good judgement. If your system satisfies you at present by all means stick to it. The above methods have proven most satisfactory to me.

THIS AND THAT

The special cultural bulletin of Rex Begonias will be ready for printing in a few weeks. Commercial growers who may wish to have a short announcement of their business should send in their copy at once. A charge of one dollar for a quarter page will be made. Forward copy to Mr. M. B. Dunkle, 4543 Colorado Street, Long Beach, California.

Two new but well tested root growth hormones are now available. Hormodin can be obtained from Merck and Company, Rahway, N. J. and Auxilin from the Pennsylvania Chemical Corporation, 76 Beaver Street, New York City, or from any Montgomery Ward Store. We are informed that many of the larger commercial seed houses have Hormodin for sale in small vials.

DO IT NOW by H. P. Dyckman

In a garden there is always work to be done. But at this season, when our plants have attained their best growth, the gardener may perhaps relax a bit, sit back and from his easy chair enjoy the results of his earlier labor. So do THAT now! And while sitting, plan for the display of fall and winter flowers.

Keep the air humid by more frequent watering.

Rex begonias are in show condition and many fibrous varieties are in gorgeous flower. These and the tuberous also, will respond to judicious feeding.

NEW MEMBERS

Mrs. C. E. V. Draper	3822 Albatross Ave.	San Diego, California
Mrs. C. L. McKain	318 W. Robinson Ave.	San Diego, California
Mr. David Simpson	Box #30	Point Loma, California
Mr. and Mrs. W. J. Kenecht	1623 Thompson Blvd.	Ventura, California
Mr. and Mrs. R. A. Atmore	Route #1	Santa Paula, California
Mr. H. W. Badstubner	Route #1, Box 822	Hawthorne, California
Mrs. Edmund J. Levine	41 French Ridge	New Rochell, New York
Mrs. M. S. Wellman	4607 Colorado St.	Long Beach, California
Mr. and Mrs. H. R. Morris	1232 Buena Vista	Ventura, California
Mr. G. L. Dyer	1798 Rose Avenue	Long Beach, California
Geo. McDowell	11000 Burl Avenue	Inglewood, California
Miss Winifred Earl	99 Main Street	Binghamton, New York
Mr. and Mrs. Edward Birdsall	2045 Florida Street	Long Beach, California
Mr. Rock Commings	Rt. 1, 4205 Hollister	Santa Barbara, California
Florence M. Kindall	543 East 19th Street	Long Beach, California
Mrs. Nora E. Powles	1033 Rosewood	Inglewood, California
Mrs. Mary E. Crump	1082 E. Santa Clara	Ventura, California
Mrs. Lillian Whitehall	30 Encinal Way	Ventura, California

Bulletin of

AMERICAN BEGONIA SOCIETY

Vol. 4.

SEPTEMBER 1937

No. 9.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE SEPTEMBER MEETING

The Begonia Society will hold its September meeting on Thursday evening, the ninth, in the Community Hall, Ninth Street and Lime Avenue, Long Beach, California, at 7:30 o'clock.

Mr. M. B. Dunkle will make a report of the second annual Begonia Show which was held on August 21 and 22, and other members of the society will tell of their summer vacation trips.

THE VENTURA MEETING

The monthly meeting of the Theodosia Burr Shepherd Branch of the Begonia Society will be held on the evening of September tenth, in the Coca-Cola Building, Thompson Boulevard, Ventura, California. Mrs. H. L. Weitz, 955 East Front Street, Ventura, is president.

Mr. W. J. Kenecht will talk on Fuchsias.

GARDEN TOURS

The Society will conduct a garden tour on Sunday, September the twelfth, to Santa Monica, where the lath-house garden of Mr. and Mrs. W. H. Rodenburg, 1111 Yale Street, and the Oriental Garden of the Bernheimer estate, Sunset Boulevard, (one block from the ocean) will be visited. Hours 2 to 5 p.m.

On Tuesday evening September 21, the gardens of the following members will be open from 7:30 to 10.

Mr. and Mrs. H. D. Heinley, 5722 Lewis Street, Long Beach, California

Mr. and Mrs. H. P. Dyckman, 3762 Falcon Avenue, Long Beach, California

Mr. and Mrs. Hugh Hixson, 1831 San Marcus Street, Compton, California
(Near Orange Avenue, north of Main Street)

REPORT OF THE BEGONIA SHOW by President T. H. Smith

The second National Begonia Show, which was held on August 21-22, was a success both from the flower lovers point of view, and from the fact that we had some two thousand visitors.

The exhibit was lovely. It was held on the grounds of the Signal Hill Agriculture Center in the arched roofed lath-house which is sixteen feet high and has 5000 square feet of floor space.

Begonias and associated plants which flourish under similar conditions were banked on a four foot bench entirely around the inside of this enclosure. Among these were: Plants from other lands. hanging pots with plant streamers fifteen feet long, lovely floribundas, semperflorens and lacy ferns; a blanket of tuberous begonia blossoms in many colors; dainty Saintpaulias, which always attract the eye, peered out from many places; and an educational exhibit of soils, cuttings, leaf

REPORT OF THE BEGONIA SHOW (cont'd)

starts, intended to demonstrate to interested visitors that begonia culture is simple and easy.

Down one side of the center walk was a table filled with individual plants, including specimens of the calla lily begonia, prunifolia, davisii, fulgens, unnamed Mexican fibrous types, the multiflora Helene Harms and Fire Flame, the rare and petite Dawn, socotrana, Neely Gaddis, flowering Duchartrei, lobata variegata, fine plants of standard Rex varieties and many others.

Facing this was an equally lovely display featuring coleus in a variety of colors, huge leaved Rex, numerous kinds of fibrous in flower and a special showing of plants native to Mexico. This bed was bordered with pots of lobelia. Overhead were baskets Lloydii and fuchsias, and others of semperflorens and ferns.

In early spring we feared for the success of the show but the cold seemed only to have made our plants more lovely -- proving that beauty can come from chaos and success is born of despair.

Great credit is due the show manager and his committees for capable handling of the many details of the exhibition. Their efforts and the willingness of the members to bring their plants and arrange artistic displays are responsible for the results of this most satisfying accomplishment.

NEW FIBROUS BEGONIAS OF MERIT by Mrs. Ella Fewkes, Montalvo Gardens, San Diego, California.

Two years ago we planted scharffiana seeds. After they germinated one plant reared itself above the rest of the tiny specks, and as they continued to grow, this one developed twice as rapidly as the others.

We began to notice that it was not just like the rest of the seedlings, and by the time it was ready to be moved from the seed flat we knew we had something entirely different.

Of course it was guarded, pampered and examined the last thing at night and the first thing in the morning. It was finally included in our mother stock, and in virgin leaf mold, it grew in a year into a plant five feet high and about four feet around. Then we held our breath wondering what the bloom would be like. In due time it flowered and -- were we thrilled to discover it to be deep pink in color! As it developed into maturity it exceeded our wildest hope with its magnificence. The leaves are identical with scharffiana in form but are not as hairy or thick. They average twelve inches in length and seven in width; dull dark green, hairy on the upper side and dull dark red and hairy underneath; veins, prominent. The blooms a large cluster of flowers on a long stem are deep pink where each flower joins its stem shading off to a lighter pink at the edge. The flower is also hairy. This begonia we have named Loma Alta.

Approximately three years ago we procured seed of Digswelliana which were planted with a prayer that something would come which would be better than the parents. Kismet may be responsible; Allah, or perhaps our guardian angels, heard the prayer for the offspring proved to be far beyond our fondest expectations.

All of the seedlings were alike. The plant is a vigorous grower although rather hard to root from cuttings. It attains a height of eighteen or twenty inches. It has a bad habit of spreading, but four sticks and a bit of soft string will control it and a sharp fingernail to clip the terminal leaf will cause it to stay lower and put out more laterals. The grand thing about it is that it is never without bloom. We have had plants only three inches high flower.

The serrated leaf is approximately three and a half inches long and one and a half wide, it is shiny, hairy and medium green and on the back are red hairy veins.

Blooms are single and abundant; the seed pod is deep pink bordering on red, petals shell pink, yellow center averaging one and a half inches across; male flowers, shell pink.

We named this Fewkes' Digswelliana, but it is generally known as Improved Digswelliana.

NEW FIBROUS BEGONIAS OF MERIT (cont'd)

The above successes encouraged us to try our luck with Incarnata last year. Unless this variety had plenty of heat during the winter it would pout, and ten to one, die. Our eastern members have the advantage of conservatories, while we here in the Southwest do not need a glass enclosure for most of our begonias. Therefore when we have a weakling among our lot we try to improve its hardiness.

Our new seedling of Incarnata is a great improvement. The seeds came up like grass and the plants developed with unbelievable rapidity. In the course of seven months, we transplanted them to four-inch pots with four or more stalks to a plant. When winter arrived, (we might say with a vengeance heretofore unheard of in these parts) the specimens we kept for mother stock reached a height of three feet. As in the case of Digswelliana, it is an all the year bloomer, whereas the original plant flowered only from November until about February.

Five of the plants survived our unusual winter, which seemed a miracle because the stem is very succulent and looks tender.

The leaves are serrated, averaging six inches long and two and a half wide; smooth, shiny green, with occasional white hairs on the upper surface, smooth, gray green, with raised veins having a tendency to be red, below; blooms are single, two wide petals deep pink, and two narrow ones shell pink, yellow center.

We are also very proud of this seedling and recommend it for your collection.

BEES IN MY BONNET by Alfred D. Robinson, Point Loma, California.

I am considering the bumble bee, after neglecting him - except for casual intervals - for many years. Perhaps I should mention that one of those intervals was when my assistant essayed to eject a colony from a lumber room and received a sting on the nose with results that could not be ignored. Now that colony is back again, considerably grown, and is proving me somewhat of a liar, only because I had forgotten my own slogan "I do not know", and had so many times stated that "Bees and other insects do not work in begonia blooms as they have no honey". My defense is that I thought this was true until this year when bumble bees in numbers have been present in the lath-houses and very busy in a bed of the Vernon type begonias. They visit other begonia bloom but only make short stays while they work unceasingly with the Vernons.

At first I thought here is the explanation of the good germination of Vernon seeds without any hand fertilization. But further study showed that the bees were interested solely in the male flowers, gathering pollen, and if they were a fertilizing agent it would have to be because they kicked up pollen dust. I don't want to get intimate with these yellow banded buzz saws but I should like to know why they frequent my begonias when the honey bees (there are plenty around) ignore them.

In my musing I am taken back to the days of my first boarding school and a fellow pupil, a dark peculiar chap named Carpenter, who tolerated me because I was small and intensely interested in his doings, which, like those of Bret Hart's Heathen Chinees were peculiar. I see Carpenter sitting on a mossy bank excavating with his bare hands the nest of some bumble bees and they did not appear to resent it - in fact seemed to rather enjoy it.

I was discussing this latest bumble bee visitation with a neighbor who had recently been keeping warm in Indio and there he had conversation with a date expert who explained the difficulty of hand fertilization on the tall palms, and he wondered if the bumble bee might not be the answer to the palmist's prayer.

Recently I received a visit from a dapper Horticultural Inspector who was bubbling over with enthusiasm for zinc, which he claimed had been discovered to be the element our orchards, citrus in particular were lacking. He communicated some of his interest to me and I began to search my floral papers for the zinc panacea for my troubles, knowing that it must shortly appear in the advertising columns. Surprisingly, I have not found it, but I did come across a statement about experiments with the use of zinc, and they seemed to prove that great care and moderation had to be exercised in its application or toxic conditions resulted. So for the present I am forgetting zinc, but you can do as you like.

BEES IN MY BONNET (cont'd)

As to the bumble bee, reflect on this childhood jingle:

"Oh take care of the bee, and mind which way he flies,

For if you don't take care of him, he'll sting you between the eyes". --

-- or possibly on the nose.

TUBEROUS BEGONIA CULTURAL NOTES by Mrs. Verna Schath, Redwood City, California.

At this season there is little to do in the tuberous begonia garden except keep the plants moist, and all dead leaves and flowers removed. Liquid fertilizer should either be given regularly, or about the middle of September, a small amount of plant food should be worked into the soil.

Recently I have been asked about the care of blooming seedlings and also concerning the use of fish-meal as a fertilizer.

First about the seedlings: Many persons have said that they have purchased seedling or potted plants with very large flowers only to have the flowers drop off, and the next buds develop into blooms much smaller than the original ones. This type of begonia likes a cool, moist climate, and in such an environment produces hardy plants and large flowers. When moved from this condition to a warm dry one, such as we have on the peninsula here in San Mateo county, or about Los Angeles, the plants will react unfavorably.

In buying a blooming tuberous begonia, consider the quality of the blossom rather than size only. Those with smaller flowers can be moved more easily. It is best to cut off the flowers from a seedling plant that is to be transplanted (you can enjoy them as cut flowers), and thus assist the plant to adjust itself to the new location. In two weeks when well established, begin feeding it with liquid fertilizer, applying it once a week. One teaspoonful of Vigoro dissolved in a quart of water may be used safely. A little given often is better than larger doses less frequently.

Regarding the fish-meal: Some of the ways that have been recommended to use it are: dig it into the soil before planting; place it in the hole where the plant is to be set; and sow it on top of the soil around the planted seedlings. Used in the first two ways the roots of the plant are likely to be burned, which condition will show in the edges of the leaves turning brown, the flowers falling off, or the whole plant drooping. When scattered over the soil it is apt to be washed away by the irrigation water, or to contact the stems of the plants burning them -- perhaps killing the plant. So while fish-meal is rich in plant food it takes an experienced person to use it successfully. For the amateur I recommend a good balanced plant food such as Vigoro.

THIS AND THAT

SPECIAL BULLETINS. Rex begonias, their propagation and culture, a special bulletin of the Society, prepared by M. B. Dunkle, is now complete and for sale at 15¢. It is issued as a pamphlet, uniform with the other two cultural bulletins, one on tuberous begonias at 10¢ and the other on fibrous at 15¢. Order them of Mrs. H. D. Heinley, 5722 Lewis Street, Long Beach, California.

B. Gracilis. Through the co-operation of Mr. C. R. Benton of Mexico City, the Society has secured fifty tubers of the Mexican gracilis species of begonia, known there as Carne de Doncelle. The plant is said to grow twelve inches high and bears rose colored flowers on its single upright stem.

The tubers arrived, after passing through the quarantine office at Washington D. C. in splendid condition, and will be grown by Mr. H. P. Dyckman, subject to inspection, for the customary two year period and when released will be for distribution among interested members of the Society.

THE HIMALAYAN TUBEROUS. Miss Constance Bower's Himalayan tuberous begonia has been identified, by Mr. Robinson, from pictures and descriptions in Curtis' Botanical Magazine, as *B. Picta*.

THE HIMALAYAN TUBEROUS (cont'd)

This Begonia was described in the December '36 bulletin. At this season it is at its best; its beautifully colored leaves seemingly to really be painted as its name implies.

A LETTER FROM INDIA. We quote from a letter recently received from G. Ghose & Co. of Darjeeling, India, the firm from whom we got begonia seeds last year. "It might interest your society to know that we are going to collect seeds from very distant places in Eastern Bhotan and S.E. Tibet. Any begonias found in these localities will also be collected in addition to those we usually collect in the Sikkim Himalayas. Recently the writer has been to the Tista Valley to find out how begonias grow in their native habitats, and met with three kinds in the hot tropical valleys".

We have placed an order with them for seeds of all the species of begonias they are able to collect.

This firm has for sale the seeds of many other rare, interesting and beautiful flowers, which they gather in the Kashmir and Sikkim Himalayas in Northern India. Some of these, such as primulas, iris, impatiens, etc., in addition to the begonias, might be suitable for lath-house culture here in Southern California. A long list of orchid seeds is also included. (This condensed catalogue is on file with the bulletin editor.)

UNUSUAL BEGONIAS. Mr. Rudolf Ziesenhenné, of Santa Barbara, has young plants of several South American tuberous species including: Davisii, Froebelii, Bolivensis, Pearci, Baumanii, and Fulgens. Davisii is particularly attractive with scarlet flowers held well above the foliage. He also has plants of an Indian tuberous species which has leaves twelve inches long, with the texture and color of those of Braziliensis. Other interesting seedlings seen in his lath-house are those of some of the European multiflora types -- LaFayette, Bertinii hybrids and the named variety "Kuppergold".

OUR MAILING LIST. We now are mailing out about 350 copies of the bulletin each month. In response to inquiries concerning our society and its activities we have added to the mailing list:

Dr. Darel Cejp, The Botanical Institute, Charles University, Praha, Czechoslovakia.

The German Consul, Los Angeles, California.

The requests for our literature probably result from the publication of the name of our society in the Chronica Botanica, a new book, published in Holland, in which is listed the names of institutions, organizations and societies that are devoted to various phases of plant science.

NEW MEMBERS FOR SEPTEMBER BULLETIN

Mr. and Mrs. Ben Mason	112 South Hemlock	Ventura, Calif.
Mr. Marion R. Walker	R. D. No. 2, Box 328	Ventura, Calif.
Mr. and Mrs. E. A. Wade & Nellie	Route # 2, Box 208	Ventura, Calif.
Walter C. Gregory	25 Beech Tree Lane	Pelham Manor, N. Y.
Donald Dickison	440 Third Street	Cloquet, Minnesota
Eleanor Lunsford	2640 E. State St.	Long Beach, Calif.
Ernest W. Badstubner	15427 Larch St. Box 188	Lawndale, Calif.
Alice Eastwood	Academy of Science	
	Golden Gate Park	San Francisco, Calif.
Jessie Jenkins	3615 Cerritos Ave.	Long Beach, Calif.
J. T. Hansen	3224 E. 8th Street	Oakland, Calif.
Mrs. Ed. C. Wagner	136 W. 4th Street	Garberville, Calif.
		Humboldt Co.
Samuel E. Scragg	1137 24th Street	Santa Monica, Calif.
Frank Smith	425 Allyger Street	East El Monte, Calif.

NEW MEMBERS FOR SEPTEMBER BULLETIN (cont'd)

Mr. & Mrs. J. M. Colley	Rt. 1, Box 107	Santa Paula, Calif.
Mrs. L. Zerell	626 Alameda Street	Azusa, Calif.
R. E. Haylett	133 Roswell Avenue	Long Beach, Calif.
O. G. Robbins	1604 So. Date Ave.	Alhambra, Calif.
Mr. and Mrs. Jack Birdsell	685 East 43rd Street	Los Angeles, Calif.
Long Beach Seed Co.	220 East Broadway	Long Beach, Calif.
Floyd B. Brades	2147 W. Compton Blvd. Rt.1.	Compton, Calif.
A. F. Hahn	Rt. #2 Box 415	Long Beach, Calif.
Mrs. Arthur E. Arnold	694 Elmira Street	Pasadena, Calif.
Mrs. R. Ward	723 No. Irena Avenue	Redondo, Calif.
Miss Alice Nicklow	1300 West 83rd Place	Los Angeles, Calif.

Bulletin of
AMERICAN BEGONIA SOCIETY

Vol. 4.

OCTOBER 1937

No. 10.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE OCTOBER MEETING

The October meeting of the American Begonia Society will be held at seven-thirty o'clock, Thursday evening, the fourteenth, in Community Hall, Ninth Street and Lime Avenue, Long Beach, California.

Mr. O. P. Palstine will show moving pictures and tell about the recent trip he and Mrs. Palstine took to Mexico.

Mr. Leslie Woodriff, of Inglewood, will talk on Curing Tuberous Begonias.

THE VENTURA MEETING

The Theodosia Burr Shephard Branch of the American Begonia Society will hold its October meeting the evening of the sixth in the Coca Cola Building, Thompson Boulevard, Ventura, California. Mrs. H. L. Weitz, 955 East Front Street, Ventura, is president.

Mrs. C. A. Rodenburg will talk on Begonias.

REPORT OF NOMINATING COMMITTEE

Nominations for 1938

President	J. S. Williams
Vice President	Hugh Hixson
Secretary-Treasurer	Mrs. C. J. Drant
Corresponding Secretary	Burdell Bulgrin
Bulletin Editor	M. B. Dunkle
Research Editor	C. M. Kelly
Directors	F. M. Harrison
	Miss Lena Higgins

Constitutional Amendments

The last paragraph of Article VI to read:

A Board of Directors shall be formed, consisting of the elected officers, one representative from each duly organized branch Society, and the retiring president.

Adding a paragraph to Article VI, as follows:

The Board of Directors may appoint honorary directors who shall serve for terms of one year, to act in an advisory capacity to officers of the Society.

Additional nominations may be made as provided for in article VI of the constitution of the American Begonia Society.

A ballot containing the complete list of candidates for officers will be attached to the November Bulletin. The annual meeting of the American Begonia Society will be held on November 11th, 1937, at Long Beach, California, at which time the annual election will be held.

REPORT OF NOMINATING COMMITTEE (cont'd)

The representative of the Long Beach Society on the Board of Directors will be nominated and elected at the December meeting.

MEXICAN PLANTS FOR AMERICAN GARDENS by Cecil H. Matschat.

The following extract from the book of the above title was submitted by Mrs. Florence Carrell, Fullerton, California.

It seems rather strange to see begonias growing wild, although in this section of the country they are so numerous and grow in such glorious profusion as almost to dwarf the other wildflowers, plentiful as they are.

Begonias are very tender plants, those in Mexico growing chiefly in regions where they enjoy a year-round mildness of climate coupled with the moist atmosphere that is so essential to their well-being. As a rule they enjoy half shade, and are impatient of dry or windy situations. Many of the species are excellent glasshouse or window-garden subjects for the North and for the lath-house in the South. The ever-blooming varieties are in great demand as bedding plants, the foliage being very ornamental.

The fibrous-rooted, branching kinds are chiefly winter bloomers, but foliage of many is so attractive that they are used as summer bedders; fresh plants should be kept coming on each year. The rhizomatous types, with the stems running on the ground, usually have extremely heavy ornamental foliage. I am unable to give the definite range of the Mexican species, as the various authorities consulted either give none at all, or else are not in agreement.

Begonia franconis is a hairy annual erect to six inches, with leaves only two inches in length, pale green veined with crimson or rose-pink. The flowers are few, either pink or white, and axillary. This begonia must be grown from seed each year, as the plants may not be carried over successfully. Seedlings of early spring bloom during the summer. B. fuchsioides (listed also as B. fuchsioides coccinea), called in Mexico Corazon de Jesu and Corazon de angel, is a fibrous species with a tall slender stem, two to three feet; if not pruned back heavily, it is a straggly grower and much of its beauty is lost. If kept as a conservatory plant, height may be desired, when grown in beds it should be kept not more than one foot in height. Blooms in winter and early spring.

B. carolineaeifolia has a fibrous stem, thick and fleshy, with the large leaves divided into numerous stalked leaflets; the flowers are small and pink, borne on long stems. B. heracleifolia is one of the best of the summer bedding types. The leaves are hairy, a foot or more across, deeply indented, in some cases almost to the midrib, carried on creeping stems. The flowers are small, white or shell-pink and fragrant.

B. imperialis is usually sold as "Otto Forster" and is a low creeping, hairy plant with gorgeous foliage. The leaves are long, shiny green above with white veining and bronze underneath. The flowers are inconspicuous, about a half-inch across and dead white.

A very showy plant, growing erect, with long pointed leaves notched and lobed, scarlet beneath and spotted above, is Begonia incarnata, ala de angel. The blossoms are also showy, of a deep rose, nearly two inches across, in hanging clusters. Under cultivation B. Manicata runs into various forms. The leaves are large, shining green above and pink beneath. The flowers are insignificant.

VICTOR LEMOINE

A copy of the German Magazine, Moller's Deutsche Gartner Zeitung, was sent to Mr. Leslie Woodriff by the sons of Mr. Victor Lemoine, in answer to his request for information concerning of achievements of their noted father. It contained a lengthy account of the elder Lemoine's work along horticultural lines.

The following is a list of his begonia crosses and introductions appearing in this magazine. It was translated into English by Mr. M. B. Dunkle.

VICTOR LEMOINE (cont'd)

1869. Breeding of the *Begonia hybrida* Duchartrei, a hybrid between *B. Pearcei* and *B. subpeltata*.

1871. Originated *Begonia alata* cocinea, a hybrid between *B. Sedeni* and *B. Veitchii*.

1872. Production of *Begonia* Corail rose, a hybrid between *B. Veitchii* and *B. rosaeflora*.

1874. In 1874 Lemoine surprised the garden world with the first tuberous double-flowered begonia, *Begonia Lemoinei*, which was followed in the intervals of succeeding years by *B. Gloire de Nancy* and a line of double varieties in all colors.

1877. Late in the year Lemoine introduced *Begonia racemiflora* from Mexico.

1879-82. Somewhat late in this period he imported *Begonia Martiana racemiflora* and *Begonia Martiana grandiflora*, which improved through crossing and thrived in the full sun.

1884. Introduced *Begonia manicata aureo-maculata*, and developed *Begonia semperflorens gigantea rosea*, and *Begonia semperflorens gigantea carminea*.

1884-5. In the years 1884 and 1885 Lemoine created through crossing *Begonia semperflorens*, *Begonia Roezli*, and *Begonia semperflorens gigantea*, and soon thereafter *Begonia semperflorens elegans*, a noteworthy bedding plant.

1888. Production of *Begonia argenteo-guttata* (*B. olbia* x *B. albopicta*).

1889. The introduction of *Begonia natalensis* and *Begonia geranioides*. Later in the same year he brought out the double begonia *Lafayette*, and fall-blooming hybrids, crosses between *B. octopetala* and the tuberous varieties.

1890. Introduction of *Begonia Baumanni* with fragrant blooms. Later Lemoine brought out and gave to the public the winter-blooming *Begonias Triomphe de Lemoine* and *Triomphe de Nancy*, both hybrids between *B. Socotrana* and *B. daedalea*.

1891. He introduced *Begonia fulgens*, and produced *Begonias Abondance* and *Corbeille de Feu* for grouped plantings.

1893. In the year 1893 Lemoine brought out *Begonia Floire de Lorraine*, a hybrid between *B. socotrana* and *B. Dregei*, which bloomed continuously from November to May, and which has become widely known and will always be a prime favorite. In the same year came also the production of the *Begonias coronata* and *semperflorens elegantissima*.

1894. Originated *Begonia Haageana* and *Begonia semperflorens elegantissima alba*.

1895. Production of the double fragrant *Begonia odoratissima flora pleno*.

1896. Production of the *Begonias Goliath* and *Mastodonte*.

1898. Production of the *Begonias Vesuve* and the double flowering *semperflorens Boule de Nieve*, and *Triomphe de Lorraine usw.*

1900. Introduction of *Begonia Hemsleyana*. Later produced *Begonia candelabre*, a cross between *B. metallica* and *B. Haageana*.

1901. Production of *Begonias Bronze de Nancy* (*B. Dregei* x *B. olbia*), *Fulgurant*, and *Corail*.

1902. Production of *Begonias Buisson* (*B. diversifolia* x *B. polyantha*), and *Perle Lorraine* (*B. polyantha* x *daedalea*).

1903. Introduction of *Begonia Augustini* from China.

1904. Production of the *Begonias Feu de Bengale* and *Lucifer* (a hybrid between *B. florida* and *B. hirsuta*), and later the *Begonias Bouquet blanc* and *Nuage rose*.

1905. Production of the winter-blooming *Triomphe de l'Est*.

1906. Production of the *semperflorens* hybrids *Globe rouge*, *Globe rose*, and *Globe blanc*.

1907. Production of *Begonia Gambetta*, a new bedding begonia of the *Lafayette* type but with coral-orange colored flowers.

Among the new plants which may be offered in the fall of the year or later is the begonia *Rouge de l'Isle* with scarlet-red flowers and bronze-colored foliage, a plant which surpasses the variety *Lafayette* and which will be cultivated in place of the bedding type.

VICTOR LEMOINE (cont'd)

Among the plants which cannot be released before the fall of 1908 one must mention a winter blooming type, related to Gloire de Lorraine, which came through the crossing of *B. socotrana* with *B. Pearcei*. One of these varieties has carmine-rose colored flowers, which will be one of the most pleasing begonias in the trade. Another novelty has large copper-salmon colored flowers. These varieties are still under observation.

The productions regarded most highly by Lemoine himself are the double tuberous begonias, first produced by him, the long-established *Begonia Martiana grandiflora*, Lafayette, Washington, and Gambetta.

Among the non-tuberous begonias which are ranked in first place are: Gloire de Lorraine, Vesuve, Perle Lorraine, Corbeille de Feu, *semperflorens elegans*, and *argenteo-guttata*.

NEW FIBROUS BEGONIAS (continued from September)

by Mrs. Ella Fewkes, Montalvo Gardens, San Diego, California.

Now we will talk about a rare plant. Its mother was *Ecuadoriensis*, its father -- ?? Both *palmata* and *luxurians* were near and in bloom at the same time *Ecuadoriensis* was. Anyway out of about fifteen hundred seedlings, seven plants were of startling appearance. They had the same characteristics of *palmata* and *luxurians*, i.e., tall growth, stalks which had but few joints, and few leaves except at the extreme tops of the stalks. We promptly took care of this situation by using the finger nail, a very handy accessory to a human with a yen for growing begonias. The first plants got ahead of us because we were not fully acquainted with their habits. The second year we got three cuttings from the one plant. Fortunately these grew, and then we decided to dwarf them when they reached the height we wanted, and the result was that we found to our delight that they threw laterals all down the stem. I wish to say that although this seedling was produced from seeds we gathered here in the lath-house at the Garden, the plants were grown by a friend. We still have a vision of the utter dismay written all over his face when he discovered how many plants he was getting from the small amount of seed we had given him and what was he going to do with 'em in his two by four lath-house! Just the same, the seven unusual plants compensated him for the gray hairs acquired. Each of the seven was slightly different. The one we received is about four feet high. The red-veined leaves have irregular blotches of silver, of no particular pattern, on a vivid green background all entirely covered with white hairs. There are five sharp points on one side of the leaf between which are five small points; the other side has two small points. This, no doubt, gives you a mental picture of extreme one-sidedness; but this is not the case as nature took care of this by the veining. The main veins are decidedly red and very prominent; other veins form a network less prominent. Where these join the main veins they are red, but toward their ends they are gray-green. The color of the back of the leaf is dull red in the center, fading out to gray-green along the edge. Both sides of the leaf have a tendency to be very shiny. The leaf itself is 9" long and 6" wide. The name of this plant is *Silvadore*.

We wish to state that the foregoing description and those given in last month's bulletin are as we find plants here on our premises. Color is something which varies with light condition under which plants are grown. We have seen our handsome stable coralline lucerne with leaves as red as lobsters due to lack of proper nourishment combined with blazing tropical sun. Again, other specimens of the same variety grown in dense shade are so pale and spindly as to appear grotesque. Therefore, on comparison of our descriptions with your plants if they appear incorrect, consider that the differences are owing to conditions of light.

BEGONIA BAUMANNI by Mrs. Esther Pfeiffer Ewoldsen, Big Sur, California.

(*B. Baumannii* is the much sought-after fragrant tuberous species desired for hybridizing purposes. The Begonia Society, after a few years of persistent effort, has recently succeeded in obtaining the seed. Mrs. Ewoldsen was fortunate to pro-

BEGONIA BAUMANNI (cont'd)

cure Baumannii seed a few years ago. She related her experience in growing this interesting plant).

It was four years before the German seedman, Benary, was able to fill my 1930 order for seed of B. Baumannii. The seed had been carefully packed; it arrived in good condition and was planted in the spring of 1935. It germinated well but no plants reached blooming size that season. Each year I have lost some of the little bulbs in storage, which may be because I do not have a very good storage place. Last year only one plant bloomed, but I felt that my efforts were fully rewarded.

The single pink flowers are borne on long stems (12 to 15), well above the foliage. The flowers are from 3 to 4 inches across and while the air is warm they transmit a delightful fragrance resembling that of wild roses. On a warm day, three or four flowers will scent an area 4'x6'x6' which is the size of my "one man greenhouse".

The leaves are rather bronzy in color, reddish underneath, and have red bronze veins. The shape is more spatulate than B. tuberhybrida.

The tubers did not attain the size that I had expected from the description given of them in Bailey's Cyclopedia of Horticulture. This spring, after two years of growth they were little more than an inch across.

Of course I made as many crosses last year as I had pollen to use and from the seed saved I have several flats of small plants, some of which I hope will bloom before the growing season ends. The leaves of many of these plants show the Baumannii characteristics.

GROWING BEGONIAS FROM SEED by Mrs. Eva K. Gray, Pacific Beach, California.

My special hobby is growing begonias from seed; and I find in that pastime a great deal of interest and enjoyment. To get a begonia from seed which shows a departure from the mother plant is thrilling.

I find that begonia seeds germinate best when sown directly from the ripened seed pod, no matter what time of year one plants them. I use shallow crockery seed pans, washing them very clean if they have been used before; if new, they must be soaked for twenty-four hours before using them. The potting soil having been mixed according to the best formula, fill the seed pan and scald thoroughly with boiling water. When the water has drained well away and the soil is still moist, take a very small amount of seed and mix it with clean white river sand, scatter this evenly over the surface and press down lightly; then cover with glass. It will keep moist for almost the length of time it takes the seed to germinate -- from 12 to 15 days if it is fresh. But if the top of the soil shows dryness, either use a fine spray, or set the seed pan in a vessel of warm rain water until the moisture appears on top. It is when the small seedlings come up that watchful care spells success; never keep them too wet; never let them dry out; a happy medium is necessary.

I find that the seedlings resulting from crossing the fibrous with the rex are rather delicate. Although one may get a lovely plant, there is small satisfaction in having to coddle it, if one loses it eventually.

I have seedlings of palmata into the third generation. These seedlings show a diversified coloring and a shape of leaves entirely foreign to the original seed parent. Many of them are rather delicate but are beautiful in leaf coloring. The leaves on these, instead of being deeply cut as in palmata, are more like those of the rubra-type -- that is, they have a smooth, shiny, dark green upper side with edge entire; they are silver spotted; some of the spots running together almost make a silver stripe between the veins. The undersides of the leaves are deep red, not brown-red like some varieties. One notable one has a bright green, heavily blotched leaf, which is shaped much like C. lucerne. It is stronger than the dark green leaved ones. These were from the same seed pod, so the variation of the different ones is very interesting to note. None have bloomed yet so that one cannot tell what the nature of the flowers will be -- whether they will have long drooping panicles, or be like the original palmata.

NEW MEMBERS

Mrs. Alice Firth
Mrs. H. N. Hamilton
Mrs. S. E. Turner
Mrs. Nancy Stoddard
Mrs. M. Artz
Mrs. Frank Powell
Dr. L. W. Wuesthoff
Robert Canterbury
Mrs. L. A. Cavalier
Mrs. A. R. Merklin
Mr. W. S. Sitch
Donald W. Jordan
A. Davis

6803 Plaska Ave.
R. F. D. #2, Box 311
1247 East 100th St.
6829 Bear Ave.
112 N. Friends St.
6312 Walker Ave.

500 Cold Spring Rd.
1233 Laguna Ave.
218-B Roycroft Ave.
2529 Pacific Ave.
6111 Bank America Bldg.
500 S. Rossmore Ave.

Huntington Park, California
Compton, California
Los Angeles, California
Bell, California
Whittier, California
Bell, California
Richmond, California
Santa Barbara, California
Burlingame, California
Long Beach, California
Manhattan Beach, California
Whittier, California
Los Angeles, California

Bulletin of

AMERICAN BEGONIA SOCIETY

Vol. 4.

NOVEMBER 1937

No. 11.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treas., 271 Kennebec Avenue, Long Beach, California.

THE ANNUAL MEETING

The annual meeting of the American Begonia Society will be held on November eleventh in the Community Hall, corner of Lime Avenue and Ninth Street, Long Beach, California at seven-thirty p.m.

At this meeting the officers to serve for the year 1938 will be elected, proposed amendments to the constitution voted upon, and such other matters as may properly be presented discussed.

A ballot giving a list of the nominees for the various offices, and the proposed amendments, together with instructions for voting, are attached to the last page of this bulletin.

Please note that this issue of the bulletin is mailed earlier than the usual date to comply with the provision in the constitution concerning the notices of the annual meeting. NOTICE ESPECIALLY THE DATE OF THE MEETING, THURSDAY, NOVEMBER ELEVENTH.

THE REGULAR MEETING

The regular meeting of the society will immediately follow the annual meeting.

Mrs. Glen Collins will conduct a symposium on Methods of Propagating Begonias during the Winter.

Two or more types of hot-beds will be exhibited.

Plant sale and social hour as usual.

THE VENTURA MEETING

The November meeting of the Theodosia Burr Shepherd Branch will be held in Ventura, California, at the Coco-Cola Hall, on Thompson Blvd., on Tuesday evening, November ninth, at seven-thirty o'clock.

Mr. B. A. Yarick, instructor in the Ventura Junior College, will talk on Ferns. He will be assisted by Mr. Walter Kenecht of the Patio Nursery.

The October meeting of this thriving organization was well attended, the speaker at that time being Mrs. C. A. Rodenburg.

REPORT OF THE LAST MEETING

At the Long Beach October meeting, the 125 persons in attendance were instructed by Mr. Leslie Woodriff, of Inglewood, California, in the methods of curing and harvesting tuberous begonias.

Preceding the showing of the moving pictures taken by Mr. and Mrs. Palstine on their recent trip to Mexico City, Mr. Palstine gave an informative and entertaining talk on Mexico and conditions there as he observed them. Because of a previous residence in Mexico the Palstines can speak authoritatively upon the subject. They report that there is now completed a hard surfaced, high gear road to Mexico City. This with modern hotels is inducing an increasing number of American tourists to visit that country.

A considerable sum was again added to the expense fund of the local society through the sale of plants donated by the following members: From San Diego, Mr.

REPORT OF THE LAST MEETING (cont'd)

and Mrs. Robinson of Rosecroft gave specimens of Lucendro, Breamar and Grace; Mr. and Mrs. Fewkes of Montalvo Gardens, Morgana and Metallica; and Miss Constance Bower, a new seedling of peltata; from Mr. Frank Reinelt of Capitola, two plants of socotrana; Mr. and Mrs. Neels of El Segundo brought a beautiful cascade chrysanthemum; Mr. and Mrs. Weitz of Ventura a potted Rex with ferns; and Mr. Leslie Woodriff donated a bunch of his hybrid lilies. From Long Beach members gave: a flowering cyclamen from Mr. and Mrs. Von Hofgaarden; several nepeta plants from Mr. and Mrs. Heinley; coleus plants from the State Street Nursery; and a quantity of bulbs from Mr. B. C. Bulgrin.

THAT SEED FEVER by Alfred D. Robinson

We have arrived again at the season when the gardening fraternity become MORE seed conscious. The fever, like the common cold and the poor, is always with us but at times it reaches the proportions of an epidemic, and this is one of them. So far no cure has been found but there are palliatives, the best being to ease it along its regular course and that is what I am doing. I am surprised that I dare write on this subject for it has been conclusively proved that others have been more successful with their seed sowing, notably with those collected and distributed by Mr. Kelly; but it has often been shown that failures are more educative than successes and there is my excuse, if any be needed—and thus ends the preamble.

I am forced to conclude that the majority of those who collect seed do very little planting of them. Consider how meager are the details they furnish as to location and medium for growth, and how much disappointment might be avoided if information were furnished, especially as to an analysis of the soil and temperature. In the absence of these a helpful note would be furnished if a list of other neighboring growth, preferably commonly cultivated ones, were added. A matter given too little consideration is the locality, latitude being very important. Seasons begin to reverse at the equator and so seed from plants on the other side of it might be expected to prefer to grow with us in the fall rather than in the spring, not out of doors but where heat and protection simulate spring conditions.

I have noticed that the plants from the only one of the South American seed that germinated well with me, have taken on much more vigorous growth the last few weeks in spite of a very distinct drop in night temperature. It is possible also that if this seed was collected at a considerable altitude (and it was, Macchu Picchu, Peru, having an altitude of 2400 m), the nights would range from cool to cold. This appears to be a species unknown to us and quite promising, and should probably make a winter growth, at least till it gets acclimated.

That lovely movie-like star, Cathayana, has lately started a new growth from its base, and is a fall bloomer. Curtis says this is from Mengtze, Yunnan, China, collected at an altitude of 5000 feet. So again we have the probability of cool nights. I must warn against any expectation of Rosecroft being a supply of this begonia. It has never had more than three plants at one time, and those have had more care than a Dionne quintuplet, and the resultants from crosses have been heart-breaking disappointments. No seed self fertilized has germinated but we are still trying and praying. A cross on Dregei yielded several plants that grow well for a time and then murmuring, "What's the use", folded up. Stumps are still alive; perhaps — a big perhaps! — they may start up again this winter. Another cross with Evansiana planted later are in fact quite small but doing cheerfully, while Evansiana itself is going dormant — and then folks talk about "scientific" breeding!

I wish some of the folks who have grown the foreign seeds successfully would send me some of the soil medium they use for analysis so I could compare it with my mixture.

HOW WE START THEM by Dudley Wadsworth, Westport, Conn.

In a flower pot saucer about six inches in diameter, through the bottom of which a hole has been drilled, equal parts of leaf mold and peat moss are sifted, ordinary wire mosquito netting being used for a sieve. The saucer is filled level

HOW WE START THEM (cont'd)

full with the mixture and then set in water to a depth that does not quite let the water flow over the top and left there for an hour or two, or until enough water has passed through the bottom hole to make the mass soggy wet. It is then set out and allowed to drain, after which it is ready for the seeds. In the draining the soil will have shrunk sufficiently to allow clearance for the growing plant below a cover glass. The seeds are spread over the surface by gently tapping on the package containing them, but they are never taken between the thumb and forefinger and rolled to get equal distribution. The latter can be better accomplished by placing the seeds on a piece of glass and tapping on it, but it is hardly necessary to do so. The saucer is then covered with a pane of glass and set in a propagating bench in the greenhouse, over hot water pipes where a temperature from 65 to 80 degrees is maintained. The bottom of the propagating bench is covered with damp peat moss and the top covered with glass sash over which a layer of cheese cloth is tacked. This insures a relatively moist atmosphere - not too much light and uniform temperature. Once every day the saucer is set in water and left there until the latter just shows on the surface. In from eight to thirty days the seeds will have germinated and after three or four days, or as soon as the cotyledons have attained normal size, the plantlets are transplanted to a deeper earthenware seed pan eight inches square containing exactly the same kind of soil treated in the same manner. They are set in rows about $3/8$ inch apart and left for two or three weeks or until the first leaves are well developed, after which they are again transplanted and put in wooden flats spaced about three-quarters of an inch apart. To the soil in these flats, which is otherwise the same as previously used, a little well rotted cow manure is added or about every ten days commercial fertilizer ("Floramid") is given until the plants attain a size suitable for two-inch pots, when they are again transplanted. The length of time the flats are kept in the propagating bench is determined by the growth and health condition of the plants, and may be quite different with the different varieties. We found, for instance, that the seeds from the Inca ruins at Macchu Picchu, Peru, germinated well and started a vigorous growth but later began to decline. Reasoning that they were indigenous to a mountain environment and probably adapted to a dryer atmosphere than prevailed in our propagating bench, but knowing nothing of their character, we placed them in a shady spot in a well ventilated, skylighted room, and they have improved marvelously - to the point where they have been potted. They have since been placed in a semi-shaded place in the greenhouse and continue to thrive although our sea-level situation is probably not well suited to their ultimate sturdiness.

With the seeds marked "Mixed Himalayan", we were not as successful. Of course, "Mixed Himalayan", may mean most anything in the Begonia world; and with no clue to the ecology of the plants we reasoned as we did with those from Peru, and treated them in the same manner; but they failed to revive after germinating profusely, growing well, and then declining. We still have a few feeble specimens which cannot survive much longer; but we do not know how to handle them further and have about abandoned hope of growing them in this environment.

Roxburghii, Robusta, Globra, Isoptera, and all the others that have been received from the Society that have germinated at all are progressing nicely. There are, however, only 3 goegoensis, 3 sikkimensis, 4 heracleifolia. Satrapin and laciniata failed entirely to germinate and we have just sown our small reserve stock of these. We could count only seven full seeds of satrapin in the microscope while laciniata showed twice that number, but all were exceptionally small, although apparently fertile.

In transplanting these minute seedlings we long ago abandoned the use of tweezers so frequently suggested for this purpose and devised a tool of our own. Placing two fine wires about one-half inch long in a pin vise, we spread the free ends apart slightly to make a narrow V-shaped fork. This we slip under the cotyledons, astride the hypocotyl and lift the plantlet from the soil without the slightest injury to it; then setting it into a small hole pierced in the soil by a $1/16$ inch diameter wire, after which the soil is pressed snugly against the rootlets

HOW WE START THEM (cont'd)

with a clay-modelers tool. One hundred and fifty or more plants can be transplanted this way in an hour; and some thousands have thus been handled with practically no loss from damage.

BEGONIA WESTPORT BEAUTY

An Eastern member of the Society, Mr. Ernest K. Logee, of the North Street Greenhouses, Danielson, Connecticut, has made us a gift of 25 plants of this newest of begonias — Westport Beauty. They were shipped to us by the growers who imported the original stock from Sweden, and they arrived, after a three thousand mile journey across the country, in splendid condition.

This begonia is a fibrous one, seemingly having the habit of growth of the little bedding variety, Bijou de Jardin, but it is much superior having VERY double flowers of a pleasing pink shade. Even these small plants are full of flowers and buds. It gives promise of being an exceptional pot plant. We predict that it will be an instant success with the trade.

So far as we know, these plants are the first to reach the Coast, and we are fortunate and favored to receive them. Our thanks to Mr. Logee.

The Board of Directors has decided to distribute these plants in the following manner: one half will be sold to members living in Long Beach and vicinity, the others to members outside of Long Beach, one plant to a person and orders filled in the order received until the supply is exhausted. Should any plants remain in either lot after November tenth, they may be used to fill orders from the other group.

These plants are small - about 2½ to 3 inches in height - are in good growing condition, and all have flowers or buds. The price is fifty cents each with ten cents additional when sent by mail. Phone or mail your order to C. M. Kelly, 285 Park Avenue, Long Beach.

First come - first served.

THIS AND THAT

BEGONIA NITIDA. The history of the discovery and introduction of begonias into Europe records that the species nitida was the first to reach England, being brought to the Royal Botanical Gardens at Kew by Dr. William Brown. The date was 1777 and it came from the island of Jamaica.

Descriptions of this plant say that it had shining leaves (as the name implies) grew to be one and a half feet tall, and bloomed in August, bearing pink flowers. This species seems to have also been called *B. pulchra*, *B. obliqua*, *B. minor* and *B. purpurea*.

The commercial variety called nitida that we are familiar with has the shining leaves but otherwise fails to meet the specifications of the original one. There is something of a mystery concerning the origin of our nitida, but it is such a charming constant bloomer, with its sprays of delicate white, fragrant (?) flowers, that we welcome it though it lacks proper credentials as to parentage.

Mrs. Mary Congdon, a Long Beach member of the Society, formerly lived in Jamaica, and some time ago wrote to the Hope Botanical Gardens there for seed of *B. nitida*. She now has plants which have shining leaves and pink flowers. The form and growth of these plants do not resemble our modern white flowered nitida, but are similar to some of the bedding types, though the flowers are not as conspicuous as in these hybrids. We hope that these plants may prove to be specimens of the true nitida — the first begonia to be brought to civilization.

AN ORCHID SOCIETY

Those of our California members who are growing orchids, or who are contemplating the culture of either the terrestrial kinds (which should thrive among begonias in our lath-house gardens), or the more exacting sorts that require glass-houses and controlled heat, will be interested in the newly formed Orchid Society of California.

AN ORCHID SOCIETY (cont'd)

One of the purposes of this society is to give to the amateur grower scientific and practical instruction in orchid culture.

Meetings are held on the third Tuesday of each month in Berkeley, California, with exhibitions of orchids and discussions concerning them.

The ORCHID DIGEST, the monthly magazine, is published and sold at twenty-five cents per copy.

Address Mr. Cyril Warren, 2216 Fifth Street, Berkeley, California, for additional information.

THIS AND THAT

ANOTHER TRAVELER REFERS TO BEGONIAS. Contributed by Miss Fackelman, Brea, California.

Time: Mid - February

Place: The Road to Pashpatti (Nepal).

At Marku we left the river and the valley behind us, the trail climbing by a short but extremely steep ascent to a broad and breeze-swept table-land, its gently rolling surface broken by a series of low hills as round and brown as the breast of a Hindu woman. The terrain was almost destitute of trees, but the sides of the road were gay with clumps of scented pink mimosa and there were patches of wild begonias in many colors. Dotting the slopes were a few houses, distinctly Tibetan in architecture, with curiously shaped tiled roofs and pinkish-orange walls.

(Pages 167-168 THE LAST HOME OF MYSTERY)

By -- E. Alexander Powell.

NEW MEMBERS

Murtagh, Mrs. Anna M.	4438 East 4th St.	Long Beach, California
Ledford, Mr. and Mrs. B.	846 Cedar Avenue	El Monte, California
Johnson, Oscar F.	237 Ximeno Ave.	Long Beach, California
Yarick, B. F.	Ventura Jr. College	Ventura, California
Sampson, Earle A.	101 Forest Street	Medford, Massachusetts

INSTRUCTIONS FOR VOTING

Detach the ballot below the dotted line, and either:
Mail it to the Corresponding Secretary, Mrs. H. D. Heinley,
5722 Lewis Street, Long Beach, California, before November eleventh, 1937, or
Bring it to the annual meeting and deposit it in the ballot box.

Mark an X after each name voted for, and Yes or No after each amendment.

B A L L O T

Officers for 1938

For President	J. S. Williams	<input type="checkbox"/>
For Vice President	Hugh Hixon	<input type="checkbox"/>
For Secretary-Treasurer	Mrs. C. J. Drant	<input type="checkbox"/>
For Corresponding Secretary	Burdell Bulgrin	<input type="checkbox"/>
For Bulletin Editor	M. B. Dunkle	<input type="checkbox"/>
For Research Director	C. M. Kelly	<input type="checkbox"/>
For Directors (Vote for two)	F. M. Harrison	<input type="checkbox"/>
	Miss Lena Higgins	<input type="checkbox"/>

Constitutional Amendments

Amend the last paragraph of Article VI to read:

A Board of Directors shall be formed, consisting of the elected officers, one representative from each duly organized branch society, and the retiring president.

Yes _____ No _____

Amend Article VI by adding the following paragraph:

The Board of Directors may appoint honorary directors who shall serve for terms of one year, to act in an advisory capacity to the officers of the Society.

Yes _____ No _____

Bulletin of

AMERICAN BEGONIA SOCIETY

Vol. 4.

DECEMBER 1937

No. 12.

Mr. T. H. Smith, President
Mr. C. M. Kelly, Bulletin Editor

All correspondence, inquiries, requests for bulletins, etc., should be addressed to:
Mrs. H. D. Heinley, Cor. Sec'y., 5722 Lewis Street, Long Beach, California.
All membership fees should be addressed to:
Miss Phyllis Cole, Treasurer, 271 Kennebec Avenue, Long Beach, California.

THE DECEMBER MEETING

The December meeting of the Begonia Society will be held in Long Beach, California, in the Community Hall, Ninth Street and Lime Avenue, at seven-thirty o'clock on the evening of the ninth.

The program has been arranged to partake of the spirit of the Holiday season and will include musical numbers, motion pictures in color, which were taken and will be shown by Dr. W. N. Caseley; and the exchange of plants which is the custom at the December meeting. It is urged that all participate in this feature. Those who do will bring a plant for which they will receive one in return. Each plant should bear a card with the name of the donor.

Also at this meeting the member to represent the Long Beach Branch on the Board of Directors will be nominated and elected.

This being the final meeting of the year the newly elected officers and directors will be installed. This ceremony will be conducted by Dr. Warren B. Davis.

THE VENTURA BRANCH MEETING

The December meeting of the Theodosia Burr Shepherd branch of the begonia society will be held in Ventura, California, in the Coco-Cola Hall on Thompson Blvd., on the evening of the sixth, at seven-thirty o'clock.

The annual election of officers will be held; there will be an exchange of plants and refreshments will be served. Mr. H. L. Weitz, Secretary.

REPORT OF THE ANNUAL MEETING

On November eleventh the annual meeting of the American Begonia Society was held and the following officers and directors for the year 1938 elected:

J. S. Williams	President
Hugh Hixon	Vice President
Mrs. F. J. Liedler	Secretary-Treasurer
Burdell Bulgrin	Corresponding Secretary
M. B. Dunkle	Bulletin Editor
C. M. Kelly	Research Editor
Miss Lena Higgins	Director
F. M. Harrison	Director

The two proposed amendments to the constitution were adopted.

FROM THE PRESIDENT

With December ends another year in the life of the American Begonia Society. This year was ushered in by one of the worst cold spells in the history of California. Those of our members who do not live here in California must have wondered how such a freeze would effect our plants. Rex and fibrous begonias were frozen to the ground. This was the case even in lath-houses. Some few who had heat in their lath or greenhouses saved the plants thus protected. After the freeze the wilted

FROM THE PRESIDENT (cont'd)

plants were cut back as far as frost damage showed in the stems, and left in their usual location. Now -- almost a year having elapsed -- you would not know there had been a freeze. Rexes came back from the roots to be more beautiful than before, and although the fibrous took a longer time to attain the size they had been, they too are growing lovely new shoots. The experience has caused several of our members to build glasshouses with arrangements for heating.

Our society has made its usual growth both in California and elsewhere. We have acquired 190 new members and a new branch society to be known as the Theodosia Burr Shepherd Branch at Ventura. This year the directors and the nomenclature committee gave names to two new Rex Begonias, the Duke of Windsor and Duchess of Windsor. Their pictures and description will appear later in the Sunset Magazine. Through the kindness of one of our Eastern members some of us in California are the proud possessors of the new fibrous Westport Beauty begonia. This plant with its sturdy growth and very double flowers is sure to be a success.

Our second annual show was a great success. The displays were almost entirely made up by our members who are not commercial. The result was a wider variety of unusual plants and more individuality of exhibits. The show made us many new friends and added several new members.

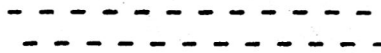
The work of our society is being noted by large growers, botanical gardens, and flower fanciers in all parts of our land, as is evidenced by the letters of inquiry to our corresponding secretary.

Our local meetings have averaged well over a hundred in attendance. We have a plant sale and refreshments at each meeting, with talks on begonias and kindred topics. By our plant sales we have been able to finance our local meetings and leave a good balance for next year's committee. Our bulletin is growing more and more interesting. Next year's editor already has new ideas and aspirations for our publication. We might add that in order not to miss a single issue pay next year's dues now.

It is the hope of the retiring president that this year's growth is only a beginning and that next year we shall grow even more rapidly. T. H. Smith.

REPORT OF THE RESEARCH EDITOR

The cultural bulletins on tuberous and fibrous begonias have been revised, and a new bulletin on Rex begonias has been issued. Other research problems undertaken have been the X-raying of seeds, pollen and plants to stimulate the formation of mutations. It is still too early to report definitely on this. Another problem has been the growth of begonias in nutritive solutions, and the germination of seed in nutritive agar. The nutritive agar method of starting seed has proved very effective in germination, and has produced good plants but is rather difficult for the average amateur to work with. The nutritive solutions have not proved to be an exceptional success. We have so perfected the soil and fertilizer for normal growth that the water culture offers such slight improvement that it is not worth the bother and expense. Negative results are often as valuable as positive results as they indicate what not to do. For lath roofs it has been found that double lath, laid parallel, with the upper lath covering the intervals of lower layer gives the maximum benefit. The two layers should be placed 3/4 inches apart, or less. The diagram shows the lath from an end view.



Report of Municipal Lath House Committee.

The site of the proposed lath-house has been surveyed, and rough floor plans prepared, but the city for the present, is not in financial position to proceed with actual construction. M. B. Dunkle.

REPORT OF THE CORRESPONDING SECRETARY

In carrying on the correspondence of the society, answering inquiries and forwarding additional bulletins we have sent out over four hundred pieces of mail.

REPORT OF THE CORRESPONDING SECRETARY (cont'd)

Many of the communications were from professional people, indicating that the culture of begonias is becoming a "Royal Hobby" with those whose minds are keenly occupied during business hours and who find a pleasant method of relaxation in the growing of begonias.

It has been a privilege to serve the society in this capacity.

Mrs. H. D. Heinley.

REPORT OF THE BULLETIN EDITOR

Volume Four of the bulletin of the American Begonia Society is completed with this number.

A list of the articles together with the names of their authors that have appeared therein is on the last page of this issue.

With the close of the year we are mailing the bulletin to about 370 members. Approximately 100 of these members reside in the Long Beach district, 22 in Los Angeles, and the thriving Ventura branch has 23. 150 bulletins are mailed to members in other sections of California, and 60 go to those of other states. A few copies of the bulletin go to foreign countries and others are sent gratuitously to the libraries of Long Beach and Los Angeles.

The editor wishes to thank the contributors of articles for their generous and willing cooperation.

C. M. Kelly.

REPORT OF THE TREASURER

The financial report computed for the calendar year will appear in the bulletin for January, 1938.

A NEW LIFE MEMBER

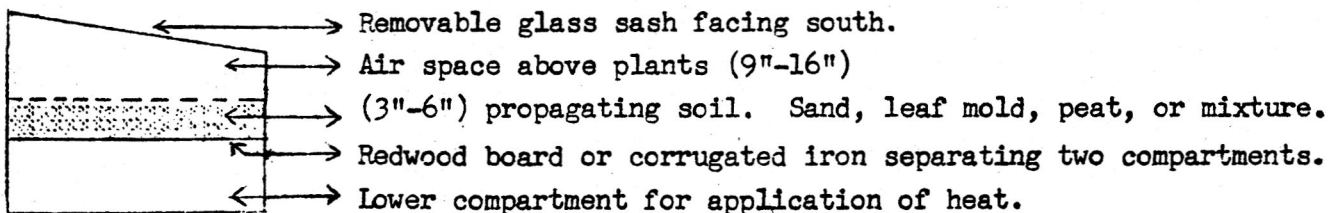
A life membership was presented to Mr. Herbert P. Dyckman in recognition and appreciation of services rendered the society. It was he who proposed the organization of a begonia society in 1932. At his home was held the first meeting and through the first two trying years he served as President.

WINTER PROPAGATION OF BEGONIAS FOR THE SMALL GARDENER by J. Paul Walker, Long Beach.

Many begonia enthusiasts have been looking for new methods of securing earlier and better plants for their gardens. In order to do this plants must be started earlier, and grown to a good size before the average summer grown plant is hardly started. If this is to be accomplished, growing conditions must be produced for the plants during the winter. A few small glasshouses are in use among our members, yet a very few feel that this method is practical for their individual use.

During the past few years several of our members have been experimenting with bottom heated frames and have found them quite practical. Many more strikes have resulted from the cuttings than even under summer conditions, and even seeds seem to germinate better. The seed or cuttings may be started as early as possible after the danger of excessively hot days are over. Cuttings will start in from 2-6 weeks and reach the size of two year old plants within a single season.

The hotbed is easily built, and the cost is much less than that of a glasshouse. The more airtight, insulated and protected the bed is built, the less will be the cost of heating. In all cases good underdrainage is required. Below is a picture showing the plan of a bottom heated type of frame. In case the heat is applied within the soil, the lower compartment is not necessary.



WINTER PROPAGATION OF BEGONIAS FOR THE SMALL GARDENER (cont'd)

Many methods of heating are used. Direct heat from a flame (lamp, gas, stove) may be used successfully, if a piece of iron or the like is used to spread the heat. Hot water is very uniform and low in operating cost, although installation may run quite high. The large electric companies have developed small electric heating home outfits. One of the most successful and also one of the most expensive, consists of running current through a small heat wire enclosed in a flexible lead tube, which is placed at the bottom of the propagating soil. Another type consists of running current through an uncovered heat wire in the lower compartment. One may use a thermostat to insure uniformity of temperature (at a cost of \$7.50 up). Lyon Electric Co. of San Diego is putting out a 'Home Hotbed Heating Outfit' for \$6.00 using a seemingly quite practical breaker instead of a thermostat. Prices range upward.

The operation of the hotbed is similar to a glasshouse. The temperature of the propagating soil should be kept from 60-70 degrees F. The humidity in the air should be high. Fresh air is desirable, especially during the warmer part of the day, when the windows may be opened enough to change the air but not enough to materially reduce the temperature. Care must be taken always to keep the soil moist, but not wet. After the plants have developed roots they may be left in the propagating soil, or transplanted to pots and kept in the hotbed until the outside growing conditions return. When the plants are ready to harden off, the heat may be gradually reduced and the cool air gradually admitted.

MEMBERSHIPS IN THE AMERICAN BEGONIA SOCIETY EXPIRE WITH THE CALENDAR YEAR. THE FEE OF \$1.00 IS NOW DUE FOR THE YEAR 1938. INSPECT YOUR MEMBERSHIP CARD, IF IT IS ISSUED FOR 1937 PLEASE FORWARD PROMPTLY THE FEE FOR THE COMING YEAR TO THE NEW TREASURER, MRS. F. J. LIEDLER, 5858 CALIFORNIA AVENUE, LONG BEACH, CALIFORNIA.

SPECIAL NOTICE

The incoming editor wishes to change the form of the bulletin to a smaller sheet, better in appearance, and easier to file. This will cost somewhat more. He has proposed to commercial begonia growers that they contribute to a commercial directory. If you have not yet been approached in this matter he suggests you send in your copy, not more than five lines, of five or six words each, and your check for \$4.00. Regular advertisements will always be appreciated in helping to meet this added cost.

M. B. Dunkle.

NEW MEMBERS

Sarah A. Savard	421 E. Randolph St.	Glendale, California
Wm. C. Atherton	60 Chestnut Street	Wakefield, Mass.
Dr. Eaton M. MacKay	Scripps Metabolic Clinic	La Jolla, California
Carlton E. Lowe	Lowe's Greenhouse & Nursery	Chagrin Falls, Ohio
Mrs. W. H. Goering	3621 No. 8th Street	Tacoma, Washington
Mr. A. S. Currier	Hollister Ave.	Santa Barbara, Calif.
Claude G. Howard	Rt. 1, Box 11	Kelso, Washington
John Mathews	Box 68	San Leandro, Calif.
W. H. Brazil	1041 Chorro St.	San Luis Obispo, Calif.
E. E. Suits	P.O. Box 53	Ventura, California
Mrs. H. R. Fleshman	827 So. Sappington Rd.	Kirkwood, Missouri

A LIST OF THE ARTICLES IN THE BULLETIN FOR THE YEAR 1937

JANUARY:

Annual report of the retiring President, Mr. M. B. Dunkle.
Message from the new President, Mr. T. H. Smith.
Seed musings. Alfred D. Robinson
Seeding tuberous begonias. Mrs. Verna L. Schath.
Do it now. H. P. Dyckman.

FEBRUARY:

Care of begonias during the winter. Ernest K. Logee.
The water treatment. Alfred D. Robinson.
Begonia multi-flora nana. Frank Reinelt.
Tuberous begonia culture. Mrs. Verna L. Schath.
Do it now. H. P. Dyckman.

MARCH:

Once in twenty-five years. Alfred D. Robinson.
Suggestions on Tuberous begonia culture. B. O. Wills.
Do it now. H. P. Dyckman.
Control of begonia pests. Ernest K. Logee.
Tuberous begonia notes. Mrs. Verna L. Schath.
Begonias. Mrs. Margaret C. Gruenbaum.

APRIL:

Landscaping suggestions. George Otten.
Begonias. (Continued) Mrs. Gruenbaum.
"Let there be light". Alfred D. Robinson.
A letter. Mrs. Esther P. Ewoldsen
Excerpts from Die Begonien. Translation by Rudolf Ziesenhenne.

MAY:

Our many colored earths. Alfred D. Robinson.
Tuberous begonia directions. Mrs. Verna L. Schath.
Rooting tuberous begonia cuttings. Mrs. Schath.
Begonia notes for May. Ernest K. Logee.
Do it now. H. P. Dyckman.
Begonia unifolia, Rose.
Montana circle letter.
Begonia Bolivia. Miss Constance Bower.

JUNE:

Before begonias were chickens. Alfred D. Robinson
In quest of the unusual. C. M. Kelly.
Begonia seeds. Dudley Wadsworth.
Morning vs. evening watering. H. G. Hamilton.
Begonia Cathayana.
Do it now. H. P. Dyckman.

JULY:

Theodosia Burr Shepherd - California's first begonia collector.
Mrs. Myrtle Shepherd Francis.
Treating plants by X-rays. M. B. Dunkle.
Begonia gracilis.
Begonia imperialis. Miss Constance Bower.

A LIST OF THE ARTICLES IN THE BULLETIN FOR THE YEAR 1937 (cont'd)

AUGUST:

Plants for hanging baskets. Mrs. C. A. Rodenburg.
Looking forward. Alfred D. Robinson.
Feeding your plants. Mrs. Verna L. Schath.
Do it now. H. P. Dyckman.

SEPTEMBER:

Report of the Begonis show. President T. H. Smith.
New fibrous begonias of merit. Mrs. Ella Fewkes.
Bees in my bonnet. Alfred D. Robinson.
Tuberous begonia cultural notes. Mrs. Verna L. Schath.

OCTOBER:

Mexican plants for American gardens. Excerpts from book by
Cecil H. Matschat.
Victor Lemoine, his begonia introductions. From Moller's Deutch
Gartner Zeitung.
New fibrous begonias. (Continued) Mrs. Ella Fewkes.
Begonia baumanii. Mrs. Esther P. Ewoldsen.
Growing begonias from seed. Mrs. Eva K. Gray.

NOVEMBER:

That seed fever. Alfred D. Robinson.
How we start them. Dudley Wadsworth.
Begonia Westport Beauty.
Begonia Nitida.

DECEMBER:

The annual meeting with reports of officers.
Winter propagation of begonias. J. Paul Walker.