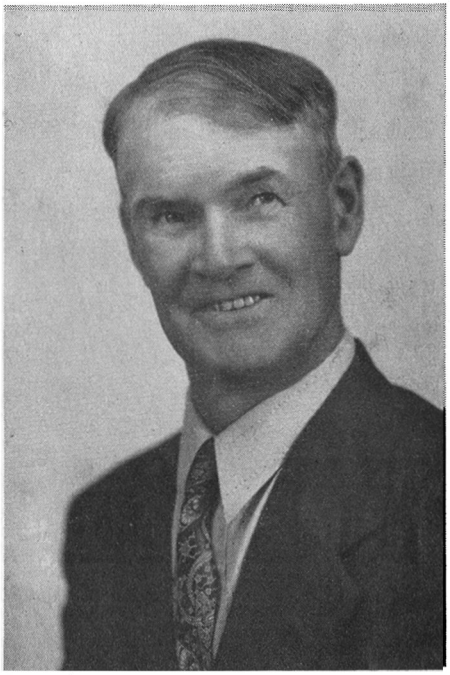
The BEGONIAN

Devoted to the Sheltered Gardens



HERBERT P. DYCKMAN

Founder, American Begonia Society

VOL. XIV—No. 4 APRIL, 1948 FIFTEEN CENTS

Oakland Spring Flower Show—April 26th-May 2nd.

The BEGONIAN

Monthly Publication of the AMERICAN BEGONIA SOCIETY

Founded by Herbert P. Dyckman, January, 1932

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The next meeting of the American Begonia Society Board will be held in the Los Angeles City Hall, Room 55, 7:30 p. m. (4th Monday) April 26th, 1948. Park Lower Garage South Entrance on Main.

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MRS. RODENBURG

One of A. B. S. Founders, Passes

It came to light in mid-March that this famous early Begonian passed away in January of this year, but she had left a specific wish that her passing be not divulged until people might not be grieved and be caused to attend her funeral. She wanted her countless friends to remember her in her shade gardens with her begonias and fuchsias and all the hundred and one other shade plants she grew so splendidly. And thus, we shall remember her, this friendly, helpful Lady of the Begonias. Santa Monica without her will find an important personage missing but if we take to heart what she taught, we shall build a beautiful city with an ever increasing number of lovely gardens. We have much to work with. Legacies left us by such as Mrs. Charlotte Ann Rodenburg, and we are grateful to her—Maria Wilkes.

PRESIDENT'S MESSAGE

In addition to the time of the year, the climatic conditions now make it imperative to give attention to feeding and general overhauling. One source of food stimulant, long unavailable due to war conditions, is again on the market. I refer to nitrate of soda. A lack of understanding how to use this powerful stimulant has deprived many of the benefits derived by its use. Here is a good and safe method: Dissolve one tablespoonful in hot water and stir this into a ten or twelve quart watering can full of water and apply this about the roots, *after* watering. Try this on your ferns. Why do plants go wrong? In nine cases out of ten it is not just because you haven't the special place, house or location, it is mostly because they are not given common sense care, the everyday things that keep plants hale and hearty. Your plants have to suffer in silence and by the time the neglect becomes obvious, it is in many cases too late to remedy. It is not enough to merely know your plants, you must know them enough to love them intimately and realize the significance there may in a drooping leaf, the lack of new growth or an undersized flower.

PLEASE NOTE

The begonia seeds enclosed in my Christmas letter were not B. Nitida var Odorato Alba. The seeds were a good strain of semperflorens-cultorum seeds, with a few rare begonia seed mixed in for interest and variety.

Now that spring is here, and our thoughts turn to that list of plant food, insecticides, seeds, bulbs, plants, materials and equipment for your garden, won't you look over our "ads" for these needs? Have you noticed how many new advertisers we have?

SAN FERNANDO VALLEY BRANCH

This new group is already very active in community activities and hereby invites everyone who can drive out into the valley to attend the flower show and stock exhibition to be held in Canoga Park, 6201 Winnetka Ave., at the Clarence W. Pierce Agricultural School, on April 3 and 4.

THE PETALUMA BRANCH

Arthur C. Mann of the San Francisco Branch was the interesting guest speaker at the February meeting. His subject covered main points of care of the tuberous begonias but his main topic was the care and cultivation of the fuchsia, as it should be grown for show purposes, in its many guises, as well as for the embellishment of the lathhouse. While this Branch has only held three meetings, they number 47 members.

THE FOUNDER OF THE AMERICAN BEGONIA SOCIETY

Biographical Sketch By Mrs. Rose Hixon, Long Beach, California

Herbert P. Dyckman was born of pioneer parents in Aurora, Illinois, on April 11, 1884. He attended Boys' School until, in his early teens, he was faced with the responsibility of assisting his mother in raising and educating his brothers and sisters, ending for a time his own formal education.

The family moved to Livingston, Montana, where they ranched for several years. He was later employed by the Northern Pacific Railroad as assistant yard master. It was in Livingston that he met Miss Gladys De'lavergne and they were married on February 7th, 1912. During the ten years that they remained in Livingston, his gardens of vegetables and flowers became the show place of the town and the surrounding communities.

In 1923 he and Mrs. Dyckman came to Southern California. In Long Beach he found the climate ideal for his horticultural experiments, especially with his begonias. For fourteen years he worked as a mill man for the Century Lumber Company. During these years he studied, taking many new courses in horticulture and perfecting his knowledge on nomenclature, soils and fertilizers, so that when the time came to specialize in growing begonias he would be prepared.

When the Olympic Games were brought to Long Beach, California, in 1932, Mr. Dyckman was chosen as supervisor of the beautification program sponsored by the Long Beach chamber of commerce. For four years he taught in the adult education department of the Long Beach schools and his classes were always popular and well attended.

Mr. Dyckman was continually searching for new plants and information. He and Mrs. Dyckman took many trips up and down the coast visiting various nurseries and private gardens. By 1929 his interest in begonias had increased and he now had a rather large collection of species and varieties. In 1930 and '31 he exhibited begonias at the annual dahlia show in Long Beach, arousing considerable comment and interest in the many spectators.

The following year a few friends and their wives formed a group to study begonias. They met at the different homes to compare notes and relate their experiences. The group was known as the California Begonia Society and Mr. Dyckman was elected their first president. New members were welcomed and their membership grew.

In 1939 Mr. and Mrs. Dyckman took an extended tour through the United States and Canada. Still searching for begonia material, they visited estates, nurseries and botanical gardens of both countries. In New York Botanical Gardens they met Dr. T. H. Everett, who recognized Mr. Dyckman's ability and enthusiasm and in his capacity as an authority on begonia nomenclature aided and worked with Mr. Dyckman solving many problems in regard to begonias.

In 1941 Mr. Dyckman again became president of the Begonia Society, which by now had over 2000 members and had been incorporated under the name American Begonia Society. He has worked constantly in an advisory capacity with both the branches and the national board and is never too busy to help when aid is needed.

We are proud to salute him, on this his birth month, knowing that but for him and his co-workers we might never have participated in this "royal hobby of growing begonias" through the guidance of The American Begonia Society, of which he was the founder.

Founders Month By Popular Vote of Our Members

Through a suggestion offered by Mrs. Alice Clark, our beloved delineator of begonias as they live in our home gardens, Mrs. Louise Schwerdtfeger, our director of public relations sent each branch a letter explaining the benefits and advantages to be gained by such a yearly celebration. In part the letter read as follows:

"The purpose of Founders Month will be: first, to honor Mr. Herbert P. Dyckman, the founder and first president, and those who worked so diligently to organize and develop The American Begonia Society. Second, to present to our members and the world, the history of our founders and their early struggles in giving us a society and a hobby that has brought beauty and pleasure into our lives. Third, a chance to let your immediate vicinity realize that you are truly an "up and going" begonia branch by displaying begonias to the public, especially during your meeting week of Founders Month. Fourth, to let the world know that we are no longer a little begonia club, but through the efforts of each enthusiastic worker, we have developed into a Na-

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THE PASADENA BRANCH

Do not forget the outstanding program being offered by this Branch on Tuesday, April 6th, at Vasa Temple, 2031 E. Villa St., Pasadena. Time, 7:30 p. m. Speaker, Rudolph Ziesenhenne, the begonia specialist from Santa Barbara, Calif. You are cordially invited.

Officers of Pasadena Branch for 1948: Mrs. Lawrence B. Sill, 1872 Queensbury Road, Pasadena 7, Calif., president; Mrs. Alva Graham, 515 El Centro, So. Pasadena, vice-president; Mrs. Frank E. Clark, 2168 Cooley Place, Pasadena 7, secretary-treasurer; Col. C. M. Gale, 40 N. San Rafael Ave., Pasadena, national representative; Mrs. Dorothy B. Sandstrom, 1202 Avoca, Pasadena, membership fees chairman.

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tional organization, and perhaps by the time our plan has been worked out will be international. We already are international so far as our membership is concerned."

July and August have been chosen. Not one month but two. This means that in your own region you will be celebrating Founders Month during the time that begonias will be at their best in the various ways you will choose.

The editor will appreciate having reports of the festivities so that others may hear of them through The Begonian and be thusly inspired to plans of interest and variety each year. We must grow as many begonias as possible that we may be able to stage effective shows. Exhibits that will attract visitors and arouse their enthusiasm to match ours.

One special activity that Mrs. Clark has spoken of for a long time is one carried out in San Diego. Tuberous begonia flowers are taken to the hospitals (libraries and other public places may be included) and with them make joyous intervals enter into the lives of people who are not able to be out in the garden with fingers in the dear old mother earth—helping the great creator—in producing fascinating and beautiful colorful blooms.

JULY AND AUGUST are our months of months then. Let us put our thoughts and ingenuity to work and together make these months gay with BEGONIAS EVERYWHERE.
—Maria Wilkes.

Climate Makes the Difference – A Map Talk On the Homelands of Begonias

By Charlotte M. Hoak

We have a very hazy notion of just why climate makes the difference with plants. As all plants do best in their own habitats, or in habitats which correspond to their native ones, it is necessary to know the exact regions from which our exotic plants come, and the conditions which obtain there, as well as the exact conditions present in the areas to which they are transplanted. This understanding is the key to the successful culture of any exotic.

It is not enough to say that begonias, for instance are "native to tropical or semitropical regions of the earth, and hence require a warm environment," as some authorities on begonias have stated. Begonias come from widely different regions of the tropical and semi-tropical countries of the earth; and, if you analyze these climatic types, you will see that they fall into very marked and characteristic groups.

GROUP 1—The North American Tropical Rain Forest Begonias, such as the outstanding rhizomatous ones with their creeping rhizomes, widespreading leaves, and tall, erect panicles of bloom (see pictures of 12 footers in the tropical rain forest of Mexico) belong here. The species which come to us from Mexico are well known to us, and include such familiar ones as B. caroliniaefolia, B. conchaefolia, B. heracleifolia, B. h. Sunderbruchii, B. hydrocotylifolia, B. imperialis, B. incana, B. Liebmanni, B. manicata, B. popenoei, and many others unnamed and even not yet discovered.

From tropical and semi-tropical South America, we have several groups, which we may number for convenience Group 2, Group 3, Group 4, and Group 5.

In GROUP 2 come the cane-stemmed begonias which are subjected to far different rain-forest conditions than those in Mexico and Central America. To this important group belong some of our most popular begonias with their tree-like growth, varied and colorful foliage, and luxuriant and brilliantly hued pendant inflorescence. They are exemplified by such species as B. coccinea, B. corallina, B. maculata, B. aconitifolia, B. albo-picta, B. undulata, B. olbia, and B. dichroa. B. Teucheri comes from India.

In GROUP 3 where the tropical rain-forest belt drops down into the temperate rain-forest belt, to St. Catherine's Island in Brazil, the homeland of Begonia Scharffiana, we have many of the hirsute types, such as B. Scharffiana, B. Scharffi, B. metallica, B. echinosepala, B. luxurians and B. sanguinea.

Another type, which we may call GROUP 4, is the dominant one of the vast B. semperflorens-cultorum tribe, the original tall, vigorous, and succulent one reaching to the height of three or four feet in its native habitat, B. semperflorens.

Still another important South American group is the one we can for this study purpose call GROUP 5, the high Andean species, which are the direct ancestors of the famous floriferous garden hybrids, known as the B. Tuberhybridas. In this group are found these following important species, such as B. boliviensis, B. Pearce, B. Veitchii, B. rosaeflora, B. Baumanni, B. cinabarina, B. Clarkei, B. Davisii, and B. Froebelii.

Passing to South Africa in the mountain sections of the Cape region, we have a very small group of the tuberous ones as represented by B. Dregeii and B. Sutherlandii, growing in the shaded mountain areas from 3000-5000 feet altitude, with tubers as large as an egg or larger. These differ somewhat from the South American high altitude species! so we call this type our GROUP 6.

Passing over the tropical rain forest species off Central Africa, we come to another section entirely different. This section is in the Indian Ocean on the hot, dry, and barren island Socotra. Here, growing at a high altitude in the shade of granite boulders, we find the only true bulb of this genus, B. socotrana. GROUP 7.

Lastly, we come to the Asian and East Indian, GROUP 8, which is characterized by an entirely different kind of foliage. In the monsoon district of India we find those species which are the rex ancestors of the vast rex-cultorums. In the countries at the foot of the Himalayan mountains, regions of dry cold winters and warm, moist summers, in Nepal, Bhutan, Sikkim, and Asam. B. rex came from this region, and so did B. rubro-venia, B. xanthina, and B. Griffithii. In the high mountain regions of Java, Sumatra and Borneo, we find similar types. From this semi-monsoon district further north and at higher altitudes widely distributed in China, Japan, and the East Indies, we find the hardiest of all begonias. B. Evansiana, which will come up year after year as far north as New York City.

Assignment: Get a world map for your notebook and place in it the various begonia habitats and print in the names of typical species. You will be prepared to consider the second part, recreating the habitat of begonias grown in our gardens.

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REFERENCES

I—Books to Help You Visualize

1. Schimper, Dr. A. T. W. *Plant Geography Upon a Physiological Basis.* The authorized English translation by William R. T. Fisher, B. A. Four maps and 497 illustrations.

2. Matchat, Cecile Hulse, *Mexican Plants for American Gardens.*

3. Goodspeed, T. Harper, *Plant Hunters in the Andes.*

II—Maps to Help You Clarify Your Ideas of Soi land Climate.

1. Schimper's *Plant Geography.* (a) Map 1, The Annual Distribution of Rainfall on the Surface of the Earth (mean annual rainfall in centimeters). b. Map 2, Rain Chart of the Earth, Distribution of Atmospheric Precipitations according to the Season (7 Rain-districts). c. Map 3, Distribution of the Most Important Types of Formations on the Earth's Surface (13 types).

2. Goode's *School Atlas.*

a. North America—pp. 50-51. (Seven maps on temperature, rainfall, seasonal and annual, relief, and vegetation.

b. South America—pp. 100-101. (Seven maps on temperature, rainfall, seasonal and annual, relief, and vegetation.

c. Africa—pp. 136-137. (Seven maps on temperature, rainfall, seasonal and annual, relief, and vegetation).

d. Asia—pp. 146-147. (Seven maps on temperature, rainfall, seasonal and annual, relief, and vegetation).

(Source of blank maps—California Map Co., 610 So. Broadway, Room 120, Los Angeles.

THE FOOTHILL BRANCH

This Branch with a membership of 101 just celebrated its second birthday with a dinner meeting with 140 members and friends within a fairyland of flowers. The plant display, as usual, added to the beauty. The musical program aided the toastmaster, William Heth, Jr., past president, to give everyone a fine evening.

THREE NEW BRANCHES ACCEPTED BY THE A. B. S.

April finds us announcing the acceptance of three new Branches by the National Board of The American Begonia Society.

San Fernando Valley Branch
Los Angeles County, California

The San Fernando Valley Branch was organized under the able leadership of Professor Leroy Chitwood, Past-President of the Santa Monica Branch and now coordinator of the evening classes at the Clarence Pierce School of Agriculture at Canoga Park. The Branch will have a large territory to draw its membership from and with the facilities offered by the Pierce School should build up a strong Society. Their first president is Mrs. J. Butler, an A. B. S. member of considerable experience and a past-president. The officers elected to work with her are Mrs. Nel Schoenbrom, vice-president; Mrs. Frank Ecker, secretary; Mrs. William Ketchum, treasurer, and Mr. Charles G. J. Read, national representative.

To the San Fernando Valley Branch we extend our wishes of good luck and a warm welcome into the A. B. S. family, assuring them our wholehearted support.

Western Reserve Branch, Cleveland, Ohio

To Cleveland goes the distinction of organizing the first Branch of The American Begonia Society in the State of Ohio, and we are justly proud to announce the National Board's acceptance of the constitution and by-laws of the Western Reserve Branch in Cleveland. Drawing their membership from greater Cleveland, a city that is definitely flower-minded and maintains the largest and best organized garden centers of their kind in the world, we can look forward to an active and enthusiastic Branch.

Their first meeting in January was attended by twenty members and the following officers elected. Organizer and first president, Phil Meyer; vice-president, H. V. Woodruff; secretary-treasurer, Mrs. F. D. McCune; national representative, Walter Harbath; member to the executive board, J. E. Tomer. The present membership consists of experienced gardeners, and the group will meet bi-monthly at the Westside Garden Center of Greater Cleveland.

President Phil Meyer has set high standards for the Branch that he has organized and we are sure that through his enthusiastic interest in The American Begonia Society that we will not only have an outstanding unit in the Western Reserve Branch, but that we can expect other Branches in Cleveland that will be sponsored by this advanced group of begonia growers.

Members and officers of the A. B. S. extend their greetings and welcome the Western Reserve Branch, with every good wish for success.

The Sacramento Branch, Sacramento, Calif.

The Sacramento Branch was organized by Mrs. J. L. Ryan assisted by Mrs. Ruth A. Williams, who is to be congratulated upon the efficient manner in which she handled all details of our new Branch in our state capital, Sacramento, California. With twenty-two charter members, the Branch chose Mrs. Williams, 2160 Stacia Way, as their president; Mrs. Gordon Johnson, 1866 Bidell Way, vice-president; Mrs. Thomas Fulton, 2164 Stacia Way, treasurer; Mrs. H. A. Sopwith, 2209 2nd Ave., secretary; and Mrs. J. L. Ryan as national representative.

We are proud to have the Sacramento Branch welcomed as a member of our ever-increasing family, knowing that they will be a worthy addition.—Louise Schwerdtfeger, Director of Public Relations.

MISSOURI BRANCH, Kansas City, Missouri

While our Missouri Branch was organized a year ago with only the necessary seven members, and not more than a dozen different type begonias between us, we now feel that we have gained much in knowledge and practical experience. Even our many failures which resulted in loss, have played a part in our gaining this very small amount of knowledge. We have had success, too, for speaking collectively, we have about one hundred sixty kinds of fibrous—but fewer rex.

Our February meeting was an interesting and inspiring one. Our entire membership, with the exception of two, was present and our guest speakers are well known for their newspaper contributions. Mrs. Fred West conducts the column "Look Out Into Your Garden" in the Kansas City Star; Mrs. Fred Glenn, the fascinating, illustrated article, "Flower Facts and Fancies," also in the Kansas City Star, and Mrs. George G. Swingle of Lincoln, Nebraska, the three-times-a-week column, "Gardening Under the Moon," in a Lincoln paper.

We felt very grateful to Mrs. Swingle, who, while reading her "Begonian" received in the morning mail, noticed our Branch would meet in the afternoon. She decided to come and drove from Lincoln, Neb., to Kansas City, some five hundred miles in four hours, and contacted me just before the meeting was called to order. We were glad to delay a short time, for her to arrive.

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THE DOROTHY PEARSON BARTON BRANCH

The next meeting of this group will take place in the home of Mrs. E. J. Bedtelyon, 1016 Frost St., Flint 4, Mich. 7:30 dessert, at which time there will be an interesting program. The group, now numbering 22, is working seriously on the exhibition of begonias to be staged May 27th at the Y. W. C. A. parlors. Mrs. Barton spoke on the history of the begonia at the February meeting. Through her enthusiasm and splendid influence, the junior league decided unanimously to venture into a tuberous begonia project this season.

THE BELLFLOWER BRANCH

Mrs. Bertie Nicol was the speaker at the anniversary celebration recently. Mrs. Nicol told the interested members and their friends the highlights of the care of the begonia rex cultorum simultaneously demonstrating the method of propagation. "Good drainage is of paramount importance, and leafmold is the main medium in which to grow them. Steer manure 'tea' is a secret to be adopted by all who would like to have healthy and beautiful rexes. Dust or spray for worms or insects according to the advice of our advertisers." Mrs. Nicol has been awarded many prizes for her excellent begonias and she speaks from first hand experience.

The new officers of Bellflower Branch: Mrs. J. W. Jensen, president; Mrs. Marie Hines, vice-president; Mrs. M. Hanson, secretary; Mrs. Zola Jump, treasurer; Mr. Harold Brown, national representative. Congratulations and success to them.

Mrs. J. J. Cooper of Excelsior Springs, Mo., introduced and pointed out interesting facts on nine begonias: aconitifolia, caroliniaefolia, Crestabruchi, involucrata, isoptera, Liebmanni, Margaritaceae, peltata (incana) and Verschaffelti. These begonias were just received from California and we are very proud of them and trust we can have success in growing them. There is very little to be found on their culture and we will appreciate any help or suggestion as to their demands that anyone will give.

The annual flower show sponsored by the Kansas City Garden Club will be held June 5th and 6th. Last year was the first time begonias were emphasized and displayed as a unit at any flower show and the surprise and interest shown by most of the 25,000 visitors was indeed thrilling and gratifying. This June, we want to be bigger and better. Everyone hold a good thought for us, please.—Mrs. Bruce L. Dill, president, 3715 Harrison Blvd., Kansas City, Mo.

RELATIVE HUMIDITY AND PLANT GROWTH

By W. C. Drummond, Hollywood, California

In this discussion of relative humidity, it is not the intention to assume the position of an authority, but to bring before our readers a review of the more important facts kindred to relative humidity and its effects on plant growth. Much of the information contained herein has long been recorded.

The ability of plants to live and mature under adverse conditions, and to adjust themselves to their setting is one of the marvels of nature. Nevertheless, better growth and flowers will be had where all environmental factors of growth are present at their optimum.

All plant authorities agree that correct humidity is a very important factor in plant growth. Due to this close relationship of successful plant growth and humidity, it seems we amateurs should know more about *humidity.* Gardeners, particularly amateurs, are prone to ignore humidity, probably because it cannot be seen, and yet go into the minutest detail of a particular soil mixture or fertilizer. *All* environmental factors of plant growth, as humidity, regularity of watering, light, temperature, air movement; as wind and ventilation, oxygen in the soil, as well as *soil mixtures* and *fertilizers,* etc., work as a *unit* in successful plant growth and none should be ignored. The subject of humidity may at first seem a little technical. There will be a few words and terms to learn, but if we are to know why we sometimes have trouble in growing this or that plant, it would be well to have an understanding of the part played by the all important humidity.

The water vapor that is the moisture of the atmosphere is called *humidity.* The humidity of the air is spoken of in two ways: *Absolute* and *relative humidity.*

If absolutely every drop of water of a given room were collected therefrom and measured were as much as one pint, it would be called the *absolute humidity.* Absolute humidity varies from 3 to 5 grains per cubic foot. It's effect on plant growth is indirect. If, in this same room, containing a pint of water, the air were heated, it would expand. The air would be less dense and it would leave room for more water vapor. By then raising the temperature—say to 100 degrees F. it might be capable of holding one quart of water. Since the room contains only one pint of water, whereas its capacity is one quart of water, it is said to be 50% full of water vapor or correctly stated, the *relative humidity* is 50%. It is this deficiency of one pint of water, or the low relative humidity of 50%, which has so much to do with plant growth. When we speak of humidity we mean relative humidity, that is, the percentage of moisture in the air compared with its capacity to contain and hold water. We also find that for each degree of temperature change the air's capacity to hold water is affected.

For each degree of temperature change the relative humidity changes in the opposite direction about 1½ to 2%; i. e., if the temperature rises the humidity goes down. All the while the absolute humidity remains constant. Relative humidity changes quickly with each temperature change, as, the passing of a cloud or the moving from sun to the coolness of the shade. Absolute humidity remains fairly constant but is increased by rains, moist soil, fog, and from vegetation.

Transpiration and Humidity

Low humidity increases the loss of water by the plant. This loss of water is correctly called *transpiration* but commonly spoken of as evaporation of water by the plant. The rate of transpiration is effected by solar radiation, humidity, air movement as wind, available soil moisture, air temperature, atmosphereic pressure as effected by elevation and the nature of the plant grown. When plants are brought into complete darkness the stomata close and plants cease to transpire. When the light intensity reaches as low as 10% of midday sun, photosynthesis ceases. Photosynthesis is the production of sugar by the plant. The stomata are slit-like openings mostly on the underside of the plant leaf. Shade has the effect of closing the stomata and this, in turn, effects the rate of transpiration by the plant.

The rate of transpiration is also affected by the nature of the plant. Plants which are thick leaved and of compact growth transpire less than those with thin leaves. Those covered with pubescence, as the common mullein, (Verbascum Thapsus) less than those with smooth leaves. Slow growing kinds less than the fast growers. Those with glaucus and pubescent leaves are said to transpire less. The above is generally true, but not always.

Humidity determines to a large extent the amount of water that is needed for growing a plant and to also keep it from wilting. When plants are grown in a humidity less than they are adapted to in their natural habitat, they generally become hard, the lower leaves drop or the plant dies. Xerophytes, as Cacti, when grown in a higher humidity than in nature, most likely will develop disease and die. When plants are grown in a high humidity they need less soil moisture for normal growth, since

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they give off less water—they take up less. Too much soil moisture may cause the plant to rot at the root or stem.

Transpiration has a cooling effect on the leaf. Were it not for this factor, the leaves would quickly burn when suddenly carried into an area of full sun and lower humidity. To avoid burning then, these changes should be made gradually, particularly with seedlings and tender plants.

Transpiration affects the size of the leaf. The drier the atmosphere the smaller the leaf and usually the thicker. Conversely, the higher the humidity, the larger the leaf and longer the internodes. Too high a humidity so reduces transpiration as to retard plant growth. The plant takes up less water, less food from the soil and less carbon dioxide, thereby reducing plant growth. Too high a humidity affects plant growth because photosynthesis, the production of sugar, is much retarded. A higher relative humidity is necessary for seedlings than for established plants.

In periods of drought some plants leaves roll as corn and desert fern (Notholaena standleyi) and many others. This conserves moisture by the plant as they transpire less. Some plants drop their lower leaves while new leaves keep forming. Strange as it may seem, plants also flagg, or wilt, from too much water in the soil. When the oxygen as air, is driven from the soil, by water, the roots are damaged and then they are unable to take up water. The high temperature and low humidity of noonday is a common cause of wilting.

In plant economy, the plant trades water for carbon dioxide. The dry air and carbon dioxide enter the leaf while moistened, air is given off and the carbon dioxide retained. This exchange varies with different plants and conditions. High temperatures greatly increase and low temperature retard transpiration.

While humidity and temperature are very important in the successful growth of plants, the other environmental factors as suitable soil, climate, nutrition, and soil moisture are equally important.

Learn the habitat and requirements of your plant. Does it come from the tropics with high rainfall or the arid part of the world, then try to imitate these conditions. In Southern California, away from the coast, we must learn to increase our humidity for successful growth of some shade plants such as begonias and fuchsias, etc.

The interesting and vital things to be learned are many. We shall try to bring them to our readers as informatively as possible that we may all gain worthwhile knowledge and personal understanding of individual problems. We shall be glad to hear from others on these subjects.

BEGONIAS IN AN EASTERN GREENHOUSE

By Fiffi W. Kline, Member A. B. S. New York Suburban Branch

In the large portion of the U. S. where begonias cannot be wintered outdoors, they are mainly designated as "houseplants." Seldom have I heard it said, that they make an eminently satisfactory "main plant" for a greenhouse.

Most greenhouses are given over to benched material, and only a few pots of plants are usually standing on the shelves.

In my greenhouse everything is grown in pots, and begonias in many varieties are the main crop.

On a recent visit to California I realized how radically a greenhouse differs in the west from our eastern ones. In our long and very cold winters, we need first of all reliable and rather elaborate heating systems, and arrangements for ventilation, which must admit air safely even in zero weather. So a much more substantial building must be erected, and heating and ventilation become critical problems. Water must of course be available and so pipes must run in frostfree lines. So a greenhouse, unless it is a commercial one, becomes rather a luxury item.

I think it takes a few years before you are able to decide what you want to grow in your greenhouse. But once you decide, you must stay with it, for only plants with approximately the same requirements of heat and humidity can be happily grown in one house.

After I had decided to grow begonias which are mainly shade lovers I had to provide protection from the accumulated heat of the sun, which is of course imprisoned by the glass. So I became interested in tropical vines, and they form a lacy roof over the entire house, allowing filtered sunshine to come through, and providing color and excitement with their flowers.

Then there is additional shade provided by tall specimen plants, such as tibouchinas, acacias, datura and monsteras, which hold their leaves over the begonias exactly as if they were parasols. Since all of them grow in tubs or pots, one can shift them about at will, and give them the conditions required.

In this way one can create varying degrees of shade. Humidity is provided by an earthen floor, which is hosed down every morning, but slat walks make it possible to keep one's feet dry. In one corner, near a heating pipe, stands a large drum, which is filled with water, which is then allowed to warm up to the temperature of the house, and only then used to fill the watering cans with which each pot is watered individually. When the weather is very bright, the entire house is hosed down with a fine spray. Thanks to the living green roof formed by the vines and plants, the sun cannot burn holes into the leaves when they are wet.

Contrary to the often advanced advice to discard older plants of begonia, I try to grow them into as big and lusty specimens as I can, and they in turn will give shade to rexes, and other low growing varieties.

Of course there are always propagations being grown, so when a plant has finally reached old age, there are young ones of this variety to take its place.

Propagating is done in a large Wardian case, filled with a mixture of peat, sand and charcoal to a depth of 3 inches. Here leafwedges, and cuttings make their first start, till ready for their first potting. Then they go into one of two miniature greenhouses, where they are protected from draft, and have higher humidity. I find these tiny glasshouses very useful. They were originally sold as toy greenhouses, but would be a boon to many growers of house plants, who must supply extra humidity.

As they leave these shelters and are ready to be potted on, as soon as it is advisable, they go into the smallest size pan, a pot, wider than deep. I am forever replenishing my supply of these in all available sizes. Here the horizontal root system of a begonia can really spread out, and they seem to relish them. Sometimes when a plant has been potted in a regulation pot, and is then shifted to a pan, I find an almost immediate response. Especially the rexes with their creeping rhizomes appreciate the wider space, without having to adjust to the increased amount of moisture which would be found in a pot of the same diameter, but greater depth. When repotting a plant, I use pots that have been soaked in water, of course *clean* pots only.

In the potting room adjacent to the greenhouse there are bins filled in fall with the materials which will be needed all winter. Here I keep oak leafmold, which has been dug in our woods, and screened through a wide mesh. Another bin holds compost, equally screened, peatmoss, sand, and fertilizers, mainly cottonseed meal, bonemeal, pounded charcoal, chemical fertilizers, and all the smaller helps, such as hormone powder, sphagnum moss, lime, soot, and of course tools.

I usually make up a mixture of begonia soil containing mainly sand, peat, leafmold, compost, old manure and cottonseed meal. To

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LETTER FROM WILSON POPENOE TEGUCIGALPA, HONDURAS

Dear Mr. Michelson:

Your interesting letter of 24 October reached me some days ago. So far as I can recall, this is the story on *Begonia popenoei:* The botanist Paul C. Standley of the Field Museum in Chicago spent some months with us at Lancetilla Experiment Station, near Tela, Honduras, back in 1927 and 28. He collected many plants on the mountainsides in that vicinity, and one of them was this new species of begonia which he named for me. He later published the "Flora of the Lancetilla Valley, Honduras" (issued by the Chicago Natural History Museum, at Chicago) in which I believe this plant is described. I had a plant or two in my garden for a while, just as a matter of interest, but am no longer growing it.

I don't very often have a chance these days to collect begonia seeds in the wild but I will keep your interest in mind if I come across anything worth while.

Here is Standley's description from the "Flora of the Lancetilla Valley, Honduras" (Publication 283 of the Field Museum of Natural History, Chicago, 1931):

Begonia popenoei Standl. *Pavana.* Plate LIII. A stemless herb with a rather slender rootstock; leaves long-petioled, broadly ovate, long-acuminate, nearly entire, unequal and deeply cordate at the base, densely hairy beneath; flowers white; capsule with a very long wing along one of its angles. Frequent in wet forest on the hills above Lancetilla; known only from this region.

Plate LIII shows the foliage and flowers. It is an excellent photograph.

Sincerely yours,
Wilson Popenoe.

Escuela Agricole Panamericana

THE EAST BAY BRANCH

Entertained the members of the San Francisco Branch with a program of colored slides shown by Mr. Herbert V. Mitchell, the camellia specialist, supplemented with camellia blooms. Mr. Fred B. Davis also spoke on begonia rex and fibrous types, their care and propagation and illustrated with his own drawings. A full hundred attended this inspired meeting.

THE SAN FRANCISCO BRANCH

The main attraction at the March meeting was the moving picture shown by one of our members, Dr. Paul Gilbert who recently returned from a trip around the world. Dr. Gilbert took pictures of many interesting points he and Mrs. Gilbert visited on this trip. He gave special attention to the oriental temples and gardens, not overlooking the street scenes and landscapes.

The speaker of the evening was Mr. Walter Nessier of the Bungalow Nursery in Colma, who offered the audience to ask him questions pertaining to difficulties experienced by them. In the lively discussion which followed, the speaker gave explicit and instructive advice which solved many a problem confronted by the various members.

Besides our own members and many local visitors, large delegations from the Petaluma and East Bay Branches were present.

The last month was rather a busy one. One of our members, Arthur C. Mann, delivered a talk on fuchsias and begonia culture at the Petaluma Branch. Also in February, a large group of our members, 27 strong, enjoyed the hospitality of the East Bay Branch meeting. Thusly, our local branches are drawing closer all the time.

Another important event last month was a testimonial banquet given by the membership in honor of Mr. and Mrs. William Sharp who are moving permanently to San Diego. They both have played an important part in the success of our branch and enjoyed the love and respect of the entire group for their generosity, sincerity and friendliness.

Mrs. Anne Mitchell, the first librarian, desires to amass an interesting and helpful collection of books for ready reference.

MIAMI, FLORIDA BRANCH WINS LAURELS AT ORCHID SHOW

As you will see by the accompanying picture, our Branch acquitted itself so well that we won the first prize of $50 cash for the begonia rex cultorum and also the third prize of $30 cash for the fibrous begonias entered in the all foliage class of the show. Having done better this year than last, we feel very happy indeed with our progress and feel heartened to proceed to better things yet.

I am enclosing a letter from Wilson Popenoe describing begonia Popenoei which I imagine you will be glad to have for The Begonian.

We hope many of the A. B. S. members will be able to visit our future shows from time to time and that we may have the pleasure of meeting them. I would like to give credit for the very fine work demonstrated in the prize-winning exhibit to the committee who worked with me: Mr. and Mrs. C. Wilson, Mr. Ray Rosengren, Mrs. R. Sacket.

We hope to have some slides of the exhibit to offer to the slide department of the A. B. S.—Francis Michelson, Miami, Florida.

This is part of the begonia and other shade plants exhibited in The Orchid Show at Miami, Florida. Begonia Rex predominate, with a good show of fibrous begonias, a small part only of which appear here, and a backing of tropical foliage such as achieved by monstera deliciosa and beautiful ferns.—*Photo by Unka Dudley, Miami, Florida.*

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this I add whatever the plant may need, and I here confess that I vary this mixture at will. When you have lived with a plant for some time, you acquire a sort of sixth sense for its needs. You have a feeling that a very hairy variety does not want the same fare as a shiny-leaved one, just as they respond differently to exposure when I shift them from one bench to another one.

I also keep a permanent supply of manure water, which I use with an equal amount of a complete plant food such as hyponex, and give to plants which are actively growing or about to come into bloom. When transplanting or potting on a plant, I water it before and after with transplantone, and seems to be oblivious of the process.

I find that though I often hear of Rexes resting in winter, mine do not do so. In fact some are in bloom all through the year. I love them especially, and even if they never bloomed, I could get as much of a thrill from them. In fact I do not know of anything more fascinating than to wander through the greenhouse and look at leaf after leaf, each one so different from the other.

While a greenhouse hereabouts is mainly for the five or six months of winter, I tried for the first time last summer to keep all begonias in it. Outside of a few very large ones as corallina de Lucerne, and Thurstoni, which summered as decorations of a shady porch, all the ones in the greenhouse flourished, especially the rexes. Here they could be syringed daily, and no matter how hot the weather was, they had the proper moisture. Of course measures were taken to provide these proper conditions: lathshades were left on the roof all summer, the ceiling and side ventilators were open, and even the doors at each end could be open, except in high wind. This made virtually an open shelter of the greenhouse. Besiles this, all other plants had been moved outdoors, so that there was lots of open space around the plants.

Some of the hanging basket varieties during summer were hung into the apple trees, where they received filtered sunshine and could be easily hosed off daily.

The tuberous begonias were started in the greenhouse in flats, and stayed there till the weather was warm enough to plant them out. They were sturdy plants 4 to 5 inches high by that time, and we had wonderful performance from all the tuberous ones. Some late starters among them which had not fully matured by fall, were taken into the greenhouse and gave bloom until Christmas.

Another angle of greenhouse culture is scrupulous cleanliness. No aging or wilting leaf is ever left on a plant, or on the floor, There are several trash baskets about, to receive all waste, but these are washed or sprayed with an insecticide, so that whatever may collect in them is made harmless. I also spray the entire house periodically with Wilson's O. K. or the cartridge type of spray, which I then use in combination of nicotine sulphate, arsenate of lead, and rotenone-pyrethrum. This seems to keep sanitation at the proper level. The worst pest I have had to fight are slugs which would just love to devour the rex leaves. But Snarol sprinkled on the soil has done a good job of getting rid of them. While I have never found mealy bug on begonias, a passionvine which I bought, brought them in and bears watching, as well as a large gardenia plant which is host to them. A dose of DDT seems to take care of possible white fly or other pests.

My greatest quarrel with the greenhouse is the time its care consumes, but in return it repays amply with healthy begonias—a treat to the eye, and a never ending stimulus to one's sense of beauty.

APRIL SEED FUND NEWS

Dear Armchair Explorers:

All the Begonia seed in both the Fibrous and the Tuberous pools have been mailed out. If you haven't received yours, advise me. If there are any complaints, or if you are not entirely satisfied and happy with the seeds you received, write and let us have a chance to make things right with you. We want our entire family to be a happy one. Mistakes can easily be made you know. Let us hear from you if all is not right and otherwise. It is my hope that there can be more seed sent out during the year. It is possible that there will be a quantity of Begonia seed from Mexico soon, and perhaps from Colombia as well, if so they will be mailed out as promptly as possible.

Another batch of impatiens seeds from India has just been received. It has now been mailed out to all those with standing credits and a mixed packet to all those who bought impatiens seeds last year. Some seed is left over, these will be put up in mixed packets for 25c each.

Ferns from Spores

Our Armchair Explorers are interested in many kinds of plants. Of course, begonias are our "first love," but next, for a great many folks, come the large family of ferns. Here is the way I start my fern spores. Take a large glass jar, put in a handful of gravel in the bottom, then mix leafmold, some sand and peatmoss, sift coarsely, pour boiling water over this and when cool put into the jar on top of the gravel. Fill to about four inches deep then water lightly to make sure the soil is very damp. Now sprinkle spores of ferns over the top of the soil, water again lightly so that the spores are all moist. Place cover on jar or a piece of glass on top to hold moisture. Place jar in a light warm position and wait patiently. Keep the soil always quite wet, soon you will see the green fern pads and before long the true fronds will be starting to show. Now transplant to flats and cover with a pane of glass, keep warm and moist, later they can be transplanted to pots. It is great fun growing ferns from spores, and many have written of their splendid success, in fact I am very proud myself of my successes. I have dwarf ferns to giant tree fern spores on hand which come from Colombia, Costa Rica, Mexico and New Zealand.

One member in Florida grows rare tropical aroids such as philodendrons, anthuriums, alocasia, etc. He would like to correspond with others collecting this family of plants with the hopes of possibly exchanging. He is Mr. Salvatore Mauro, 2643 N. W. 22 Court, Miami 42, Florida.

Veterans Interested

An interesting letter came from the Veterans Administration Hospital at Hines, Ill., where they operate a greenhouse for the patients as a form of treatment. This group asked for information about our Society and how to become a member of our Seed Fund. We sent them information, Begonians and seeds and have entered them as members. We hope soon to have letters from some of the men telling of their fun in growing plants from seeds. The idea comes to me that our Seed Fund could furnish seed to many of these boys in hospitals all over the U. S. A., this would be doing something fine for the boys as well as advertising our Society of which we are so proud. We who grow plants as a hobby can honestly say that this is the best medicine we have found for forgetting our worries and troubles. Haven't you noticed that folks with hobbies are the happiest folks?

Here is another letter. Mr. John Zweifel who is a teacher in the botany department of the Mayville schools, writes as follows:

Seeds and Students

"I received the seeds from the Seed Fund. My students and I had a great deal of fun planting them and identifying the varieties. We have always had unusual success in germinating seed. From four old automobile windshields we built a terrarium which is placed on a shelf about eight inches above a radiator. Screened leafmold and white sand to a depth of four inches is placed above a cinder base for drainage, and along the side toward the window I have planted six dish ferns. This gives shade, but what is more important, the transpiration of the ferns is a natural regulator of the humidity and I never have any trouble starting either seeds or cuttings here."

"I have the classes conducting experiments in hybridizing and each year we raise a great deal of seed, most of it has various semperflorens type or calla lily as one of the parents. Some are from double parents and we have types now ranging in height from four inches to three feet. We always raise more seed than we can possibly plant and if you could use some of these hybrids for your Seed Fund collections, we would be glad to raise some and donate it to the cause, since you have been most helpful to us in increasing our collection."

"Do you know where I could get leaves of unusual varieties of rex begonias and B. Feasti, B. Bunchi and rhizomatous types? I am anxious to do some hybridizing with these next year. I have an evening class of adults in gardening and last week we went through several

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articles in The Begonian and members of the group expressed an interest in the Seed Fund, and you may be hearing from them before long. Thanks again for all the help you have given me." John W. Zweifel, 322 N. Main St., Mayville, Wisconsin. Does anyone have leaves he could send?

Mrs. Marie Minter who has charge of the Armchair Explorer's Correspondence Club writes that there are now three clubs sailing, and while they have been waiting for new seed they have been discussing last year's seed. Two species have been identified. The Dominica species of 1947 is B. ulmifolia, Colombia No. 1482 is B. Tovarensis.

Please make these corrections on the Key to the 1948 Seed Fund. No. 16 should be B. malabarica, No. 18 B. deliciosa.

We still have available some collections of fibrous and tuberous begonia seeds at $2 each. Other offers this month are: large packets of mixed fibrous seed, 25c; mixed tuberous seed, 25c; 5 kinds of New Zealand fern spores (included are four named kinds of tree ferns) collection for $1.00; mixed gesneria seed, 50c. New lot of Achimene tubers from Mexico, carmine with yellow throat and robusta species at 50c per packet or 10c per tuber. Also bulbils of B. Martiana (hollyhock begonia) for 25c per packet.

Cheerio until next month, your skipper, Florence Carrell, 214 No. Yale St., Fullerton, California.

THE HUB CITY BRANCH

Note the change of address of meeting place: Third Tuesday at the Roosevelt School Cafeteria, 1200 E. Olive, Compton. Mrs. Eloise Scheller is the new secretary.

THE NEW YORK SUBURBAN BRANCH

The scheduled March meeting was cancelled because of weather conditions and changed to Sunday, April 11, 2:30 p. m., at Crestwood Public Library, Crestwood, N. Y.

THE GLENDALE BRANCH

The new officers for the 1948 term are as follows:

Mr. F. S. Moore, president; Mr. Charles Richardson, vice-president; Mr. David Winnans, treasurer; Mrs. Joyce Lorenz, corresponding secretary; Mrs. Gladys Nolan, recording secretary; Mrs. Edna Korts, national representative.

FOOD FOR THOUGHT (AND SHADE PLANTS TOO)

By E. Frederick Smith, Palo Alto, California

The soil must be renew'd, which, often wash't,
Loses its treasure of salubrious salts,
And disappoints the roots . . .

The above lines were written by William Cowper one hundred and sixty years ago and it is still pretty good advice, especially for England and the eastern half of this country where acid soils predominate. But it does not seem to be quite the answer to the peculiar problems we have here in California—and nearly all of the southwestern semi-arid regions, as well—where alkalinity plagues just about every gardener.

Suppose we do follow Cowper's advice and renew the soil with all the "salubrious salts" we think it requires for proper plant nutrition? We then reach for a hose or sprinkling can and soak the plant with the more or less colorless liquid that spurts out of the faucet; stuff that looks like water, and is wet, but is in reality supercharged with very un-salubrious salts like calcium, magnesium, sodium, chlorine, etc., etc.

Continued use of such water throughout a long rainless summer has a very decided effect on the behaviour of plants subjected to this treatment. Soil scientists have a word for it; they call it "fixation," but, like a lot of Sunday words they use among themselves, it doesn't mean much to a dirt gardener like me until it is broken down into ordinary terms. In everyday language it seems to work out something like this: you take a prized plant that you wish to push ahead and make into a fine specimen; you pot it up in a mixture of nice leafmold and loamy soil, and perhaps a generous amount of peat to make it lean to the acid side a little. Then comes the watering—and the beginnings of fixation.

Your plant drinks up quite a bit of the water, and a lot more of it disappears through evaporation, but the harmful salts remain in the soil. In principle it works much the same as your tea kettle; you keep adding water to it all the time and as it boils away it leaves a crust of scale. You can see this scale deposit in the tea kettle but cannot see it in the soil, of course, even though the process is essentially the same. And so the pot of soil that started out slightly acid has become decidedly alkaline after a very few weeks application of questionable tap water.

That is not the end of the story, however; the really sad part picks up right at that point and snowballs straight ahead to calamity. It means that the harmful alkaline salts of the tap water combine with the beneficial mineral food elements in the soil to form an insoluble compound. The food is there alright, but is now present in such an unavailable form that the plant cannot possibly make use of it. It reminds me of the story about the little hen that starved to death while roosting on top of a bag of wheat. The food was there, too, but the bag was tied and so she died. But our plants need not die—if we but heed the warning signal.

The most common signal of distress is a general yellowing of the foliage and failure of the plant in responding to the application of certain types of fertilizer or soil amendments, especially if they be alkaline in nature. Remember that the plant is already suspect as a victim of "alkalitis" (I'll have to copyright that word). If you supply lime, raw bone meal, nitrate of soda or ashes to the soil you will only aggravate an already bad condition.

The recommendation is quite often made to apply aluminum sulfate for acidification; This material can safely be used up to a certain point, but beyond that point an excess of aluminum accumulates in the soil in such amounts that it may become toxic to plants. Sulphuric acid is an excellent material for neutralizing alkalinity but the safety factor is a mighty big argument against its use by anyone not experienced in handling it. One teeny drop on the end of a finger and the nail drops off. (Yes, I learned the hard way—by first-finger experience).

What, then, can we do to make our plants happy? Well, we have several plans to explore, but since space is running out let's narrow it down to two.

Plan 1—Buy, beg or borrow all the books and bulletins possible that deal with the subject of plant foods, and procure small amounts of the fertilizing elements that show the most promise as acid-reacting plant foods. We can try these out separately at first and ,as we gain experience, can then attempt to blend them into balanced mixtures. Through trial-and-error methods we will re-arrange the formula from time to time and eventually—perhaps in five to ten years time—come up with a worthwhile product.

Under Plan 2 we can likewise find an outlet for that experimental urge, but this time we work with the finished products of manufacturers who have already worked out Plan 1 for us. Maybe their product is acid-reacting and maybe it isn't, but at least our plants will quickly tell us whether it is digestible or not. The old "proof of the pudding" adage surely

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CONDENSED MINUTES A. B. S.

National Board meeting held in the City Hall, Los Angeles, Feb. 23rd, 1948, with President Drummond in the Chair.

Board members present: Mesdames Drummond, Wilkes, Bayer, Johnson, Hoak, Jenks, Schwerdtfeger, Hixon, Hartwell; Messrs. Geo. Johnson, Bailey, Walton, Dere, Hixon, Lawrence; Representative Directors from San Diego Branch, Glendale, Pasadena, San Gabriel Valley, Foothill Branch, Santa Barbara, Inglewood, Hollywood.

Reports of Treasurer, Membership Fees, Editor, Advertising Chairman read and accepted as read and filed as part of the minutes.

Flower Show Chairman Mrs. Pinnell, unable to be present at the Board meeting but will have an article in the March Begonian.

Miss Hoak, Chairman Fibrous Begonia, stated there would be an article in the March Begonian on Nomenclature and the correct spelling of descriptive terms.

Grace Bayer, Speakers Bureau, spoke of her work in trying to assemble a kodachrome library and asked for discussion as to how to handle this to make it of service to the Branches. It was moved and carried that Mrs. Bayer be allowed $40.00 to pay for kodachrome and black and white slides to aid in procuring sufficient slides for Branch programs.

Mrs. Schwerdtfeger presented for approval and acceptance Constitution and By-Laws of the San Fernando Branch, Cleveland, Ohio Branch and Sacramento Branch. Accepted on motion, and Charters to be issued.

George Johnson reported letter from Canadian Branch and promised more information about this in the very near future.

Branch Reports – Mr. Hixon for North Long Beach and Parent Branch; Mr. Lust for Foothill Branch, Mrs. Korts for Glendale, Mr. Mueller for Inglewood, Mrs. Weber for Santa Barbara, Mrs. Flynn for Hollywood, Mrs. Bailey for San Diego Branch, Mr. Humble for San Gabriel Valley, Mr. Bailey, Pasadena Branch.

Etta Morant read report of her Committee on plans for celebrating Founders Day. Discussion followed as to time and nature of celebration. Motion by Mrs. Schwerdtfeger "That we make the decision on this matter that each Branch decide whether they want to celebrate in July or August but that Founders month be celebrated either during the month of July or August and that the Editor put a notice in the Begonian explaining Founders week and then it be brought up at the March meeitng and settled." Four Branches favored July.

See your March Begonian for special Branch reports and other pertinent matters. Respectfully submitted, Gonda Hartwell, Cor.-Sec.

March meeting City Hall, Los Angeles, 22nd, 1948.

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includes plants in the eating category.

All the foregoing has been written without particular reference to the shade garden, except that emphasis was given to potted plants. And somehow there is a direct relationship between flower pots and shade so that when we speak of one we take the other for granted. It might well be said that the above comments apply also to plants in the ground to a considerable extent. But it seems so much easier to "disappoint the roots" in a pot than in open ground.

OAK LEAVES – THEIR MANY USES IN THE SHELTERED BEGONIA GARDEN

By Ed Carlson, Berkeley, California

Observe, after a rain, the brown stains left on your sidewalks by our friend the oak leaf. This is nature's form of tannic acid. Government reports show oak leaves to have twice the amount of plant food value over equal amounts of barnyard manure; which often contains thousands of weed seeds.

No real begonia gardener should ever burn oak leaves. He knows that they have real plant food value in their content, nitrogen, potash, and tannic acid and are even more valuable because of the vegetable matter that they add to the soil as they decay and become humus. For humus increases the water holding capacity of the soil and, in its acid reaction, helps break down the mineral elements of the soil. For this reason our forests and nature's gardens thrive without any added fertilizer. Why not observe nature, and follow her teachings.*

To keep acid loving plants, such as begonias, in best condition, maintain a mulch of oak leaves around them at all times. This mulch helps conserve water, keeps the soil cool in summer and warm in cold weather. It keeps the soil from being packed by rain or continued watering.

Oak leaf mold has other virtues. It improves any soil by providing moderate acidity. It not only causes heavy clay soil to become loose and friable, it also supplies much needed drainage in heavy soil.

In our own potted plants and baskets, we are using several inches of oak leaves in the bottom of the containers. This insures drainage and an added food reservoir as the plant roots reach down toward the bottom of the container.

Now during the blooming season, a liquid tea is made from the newly fallen oak leaves, these are kept dry in a bin, for future use, as manure is for liquid manure. This tea is made by adding warm water to the oak leaves in a container and allowing it to stand for several days. It is then drained off and used to water the plants.

Why use dry chemicals that may burn tender roots when nature has given us the oak leaf, to help acidify our soils?

As we all know healthy plants require less spraying and care than ailing plants. We recomend the use of oak leaves to all our begonia and fuchsia friends. Watch nature's magic work in its subtle way, follow her in your garden and you will have more time for garden pleasure.

Ed. Note: Should we not also give the animals of the forests their due in helping to maintain soil fertility in the wilds?

BEGONIA ROUND ROBIN DIRECTORS' NOTES

By Frances Downing, Calera, Alabama

A New York director deduces that *situation* is a prime factor in the successful cultivation of begonias. She tells of a New York member who uses only ordinary garden soil which has been covered with manure each fall. No leafmold, peat, sand, etc., was added. Unusually large and vigorous begonias, impatiens, geraniums and gloxinias thrive in this soil. The plants are summered outside in this hilly section where several trout streams keep the air moist. An ideal situation for begonias. This same director feels that an erroneous impression is given by over stressing the need for soil acidity in the case of begonias. A California member agrees and points out the fact that some of our begonias are native to limestone regions.

Begonias like all plants need calcium but they do not tolerate a strongly alkaline soil. Calcium sulphate may be applied, if necessary, without affecting the pH of the soil.

The Seed Sowing Robin members, according to its director, have learned to cope with localized conditions. Generally speaking a mixture of vermiculite with either sponged peat or leafmold gives best results. Nearly all members have adopted the use of the square fruit jar method as described by Eva Kenworthy Gray in The Begonian. One member asks how to avoid the formation of the crust on the surface of the soil of seedlings. She was advised by her director to add any of the following soil modifiers: coarse washed sand, vermiculite, soil-lite, shredded redwood bark, leafmold or sphagnum moss especially in the top half inch of soil mixture which keeps the soil from quick drying and packing. In any case, members were cautioned against top watering of seed boxes or pans. A sheet of glass tilted over the seed bed, allows plenty of aeration but the condensation of moisture against the glass will conserve moisture to a certain extent.

Some elementary Seed Sowing Robin members experience trouble in growing seedlings after they have been once transplanted. An experienced California director gives courage to these members with the following words: "Seedlings go through two stages in their early growth. The first is putting out the first and second leaves and usually, by the time they are large enough to be transplanted they are going through their second stage . . . the making of root growth. However with some of the seedlings a good deal of trouble can be traced to their period of dormancy. In many cases we are planting the seed in our growing season, when normally, in their own country the seed would be resting. Seeds have lain still as long as four months in my own plantings—to finally start into growth. Some plants acclimate themselves readily to our conditions, others do not."

Members of the Rex Begonia Robins have experienced trouble in propagating new plants from leaves of their begonias. It has finally been concluded that most of the trouble was due to using leaves from indoor all-year plants. Those who used plants which had been summered outdoors had few failures. These begonias hardened up in contrast to those soft and lush-leaved indoor specimens. The latter rot easily during propagation. Multiflora tuberous begonias were successfully grown last summer by two members, one from Canada and the other from Massachusetts. Five of these begonias bloomed until late November indoors.

Tuberous begonias in Missouri thrive beautifully—when planted in granite pans. Vitaloam added to the soil mixture gives good results.

Growers of tuberous begonias from all parts of the country experienced much stem rot affecting their plants last summer. Some of this was due to excessively high humidity. What are other causes? Comments are invited. From experiments conducted by a California member over a period of years in which many tuberous begonia seedlings were used, it is indicated that seedlings of tuberous begonias make the greatest growth of the tuber during the last month before entering the dormancy period.

In discussing various begonias the Robin members find that B. diadema is a prodigious drinker and likes to luxuriate in a warm room while growing during the winter.

B. "it" flourishes happily in California perched on a kitchen window sill, with lovely four-inch leaves. B. Barkeri, or Mexican No. 2, being a rhizomatous type must be planted with creeping stem on the top of the ground, otherwise it will rot if covered over. B. foliosa thrives in an eastern window in Massachusetts. The plant is grown in a well-drained pot sitting in a saucer with a small amount of water to produce moisture but not sufficient to reach the roots in the pot. In discussions of this kind by Robin members scattered all over the country, the special needs of certain begonias are brought to light—which makes the difference between success and failure to the growers who so lovingly care for their plants, but not always with understanding.

FLOWER SHOWS AND EVENTS

April 3-4—Canoga Park Flower Show. San Fernando Valley Branch.

April 6—Rudolph Zeisenhenne speaks at meeting Pasadena Branch.

Meeting Dates and Places

ORANGE COUNTY BRANCH
1st Thursday, April 1st, 7:30 p. m.
Farm Bureau Hall, 353 So. Main St., **Orange.**
Sec.-Treas., Mrs. Ethelyn Morgan, 250 N. Center Orange, Calif.

FOOTHILL BRANCH
1st Friday, April 2nd, 8 p. m.
Woman's Club House, 1003 Azusa Ave., **Azusa**
Mrs. Phyllis Heth, Secretary
228 Bonita Ave., Azusa, Calif.

DOROTHY PIERSON BARTON BRANCH
1st Friday, May 7th
1016 Frost Street, Flint 4, Mich.
Mrs. S. V. Clark, Rec.-Sec.
1919 Zimmerman St., Flint 3, Mich.

BELLFLOWER BRANCH
1st Monday, April 5th, 7:30 p. m.
Washington Street School Cafeteria
Sec.: Mrs. Edna Leistner, 610 Nichols Street Bellflower, Calif.

THEODOSIA BURR SHEPHERD BRANCH
1st Tuesday, April 6th, 7:30 p. m.
Alice Bartlett C. H., 902 E. Main, Ventura, **Calif.**
Mrs. Carolyn Peyton, Secretary
335A So. Evergreen Dr., Ventura, Calif.

PASADENA BRANCH
1st Tuesday, April 6th, 7:30 p. m.
2031 E. Villa Street
Mrs. Frank Clark, Sec.-Treas.
2168 Cooley Place, Pasadena 7, Calif.

SAN FRANCISCO BRANCH
1st Wednesday, April 7th, 7:30 p. m.
American Legion Hall, 1641 Taraval St.
Sec.: Mrs. Walter Ashe, 1855 33rd Ave.
San Francisco, Calif.

HOLLYWOOD BRANCH
2nd Thursday, April 8th, 7:30 p. m.
Plummer Park, 7377 Santa Monica Blvd.
Mrs. Dorothy Behrends, Rec. Sec.
1633 Golden Gate Ave., Los Angeles 26, Calif.

SANTA BARBARA BRANCH
2nd Thursday, April 8th, 7:30 p. m.
Rm. 5, Com. Center, 914 Santa Barbara St.
Santa Barbara, California
Martha Ayersman, Secretary
1120 Olive Street, Santa Barbara, Calif.

INGLEWOOD BRANCH
2nd Thursday, April 8th, 8 p. m.
325 No. Hillcrest, Inglewood, Calif.
Harry B. Fasmer, Secretary
5129 So. Manhattan, Los Angeles 43, Calif.

SAN FERNANDO VALLEY BRANCH
2nd Monday, April 12th, 7:30 p. m.
Pierce Jr. College, 6201 Winnetka Ave.
Canoga Park. Mrs. Frank Ecker, Secretary
21003 Devonshire St., Chatsworth, Calif.

NEW YORK SUBURBAN BRANCH
2nd Sunday, April 11th, 2:30 p. m.
Crestwood Public Library, Crestwood, N. Y.
Sec.-Treas.: Mrs. Norman Hedley
71 Willard Terrace, Stamford, Conn.

LA MESA BRANCH
2nd Monday, April 12th, 8 p .m.
La Mesa Grammar School, La Mesa, Calif.
Sec.-Treas.: Dr. Constance Holmes
133 Prescott, El Cajon, Calif.

NORTH LONG BEACH BRANCH
2nd Monday, April 12th, 7:30 p. m.
Houghton Park Club House
Harding & Atlantic, No. Long Beach
Miss Evelyn Peterson
1414 E. 68th St., Long Beach, Calif.

HUMBOLDT COUNTY BRANCH
2nd Monday, April 12th, 8 p. m.
Lanes Memorial Hall, 1st Christian Church
Sec.-Treas., Margaret Smith, Fortuna, Calif.

RIVERSIDE BRANCH
2nd Wednesday, April 14th, 8 p. m.
Mrs. T. W. Gall, Sec.-Treas.
4518 Bandini Ave., Riverside Calif.

SANTA MONICA BAY BRANCH
2nd Wednesday, April 14th, 7:30 p. m.
University High School, Room 232
11800 Texas Ave., West Los Angeles
Mrs. Denman Bemus, Sec.-Treas.
845 So. Anita Ave., Los Angeles 24, Calif.

SACRAMENTO BRANCH
3rd Tuesday, April 19th, 8 p. m.
Place to be announced. Mrs. H. A. Sopwith, Sec.
2009 2nd Ave., Sacramento 17, Calif.

EVA KENWORTHY GRAY BRANCH
3rd Monday, April 19th
Community House, LaJolla
Tillie Genter, Sec.-Treas.
7356 Eads St., LaJolla, Calif.

LONG BEACH PARENT CHAPTER
Third Tuesday, April 20th, 7:30 p. m.
Robert Louis Stevenson School, **5th & Atlantic**
Cafeteria, Lime St. Entrance, Long **Beach, Calif.**
Mrs. Rose C. Hixon, Sec.-Treas., Long Beach Cal.

HUB CITY BRANCH
3rd Tuesday, April 20th, 7:30 p. m.
Roosevelt Hi Sch. Cafe., 1200 E. Olive, Compton
Mrs. Eloise Scheller, Sec.-Treas.
3586 Imperial, Lynwood, Calif.

PHILOBEGONIA CLUB BRANCH
Irregular Meetings
May T. Drew, Pres.
Box 331, Narbeth, Pa.

SO. ALAMEDA CO. BRANCH
3rd Thursday, April 15th, 8 p. m.
Scout Room, Markham School, Hayward, **Calif.**
Mrs. Dorothy Bayliss, Corr.-Sec.
26706 Monte Vista Dr., Hayward, **Calif.**

PETALUMA BRANCH
3rd Friday, April 16th, 7:30 p. m.
Congr. Church Fireside Room, 5th & B Sts.
Mrs. Cuma Wakefield, Secy.
47 Fifth St., Petaluma, Calif.

EAST BAY BRANCH
3rd Thursday, April 15th, 7:30 p. m.
Willard School, Ward Street
Mrs. E. Carlson, Sec.-Treas.
2130 McGee Ave., Berkeley 3, Calif.

SAN DIEGO BRANCH
4th Monday, April 26th
Hard of Hearing Hall, 3843 Herbert Ave.
Mrs. L. J. Elliott, Sec.-Treas.
3794 Grim Ave., San Diego 4, Calif.

MISSOURI BRANCH
4th Tuesday, April 27th, 2 p. m.
Mrs. Bruce Dill, Secretary
3715 Harrison, Kansas City, Mo.

MIAMI, FLORIDA, BRANCH
4th Tuesday, April 27th, 8 p. m.
Simpson Memorial Garden Center
Mrs. W. G. Coffeen
1742 S. W. 10th St., Miami 35, Fla.

WHITTIER BRANCH
4th Tuesday, April 27th, 8 p. m.
Union High School, Room 19
Lindley Ave. Entrance, Whittier, **Calif.**
Madeleine Hall, Secretary
509 Friends Ave., Whittier, Calif.

MARGARET GRUENBAUM BRANCH
Mrs. W. E. Jones, Sec., Willow Grove, **Pa.**

GLENDALE BRANCH
4th Tuesday, April 27th, 8 p. m.
329 No. Brand Blvd., Glendale, Calif.
Mrs. Joyce Lorenz, Secretary
5227 El Rio Ave., Los Angeles 41, Calif.

ALFRED D. ROBINSON BRANCH
4th Tuesday, April 27th, 8 p. m.
Loma Portal School
3341 Browning St., San Diego, **Calif.**
Louise Gardener, Secretary
3212 James Street, San Diego 6, Calif.

SAN GABRIEL VALLEY BRANCH
4th Wednesday, April 28th, 8 p. m.
Masonic Temple, 506 S. Santa Anita **Ave.**
Mrs. Myrtle Jones, Secretary
132 May Ave., Monrovia, **Calif.**

WESTERN RESERVE BRANCH, CLEVELAND, O.
4th Wednesday, Bimonthly, May 26th, 8 p. m.
Garden Center, 10013 Detroit St., Cleveland, O.
Phil Meyer, Pres., 2153 Lakeland, Lakewood, **O.**

SANTA PAULA BRANCH
4th Thursday, April 22nd, 7:30 p. m.
Memorial Hall High School
Mrs. C. F. Crang
907 Pleasant St., Santa Paula, Calif.

SANTA MARIA BRANCH
Sec.-Treas.: Mrs. Peter Mehlschau

NEW ENGLAND BRANCH
Mrs. M. W. Stewart
224 Armington St., Edgewood, R. I.

Hollywood Garden Club Iris Show—April 17-18.

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