

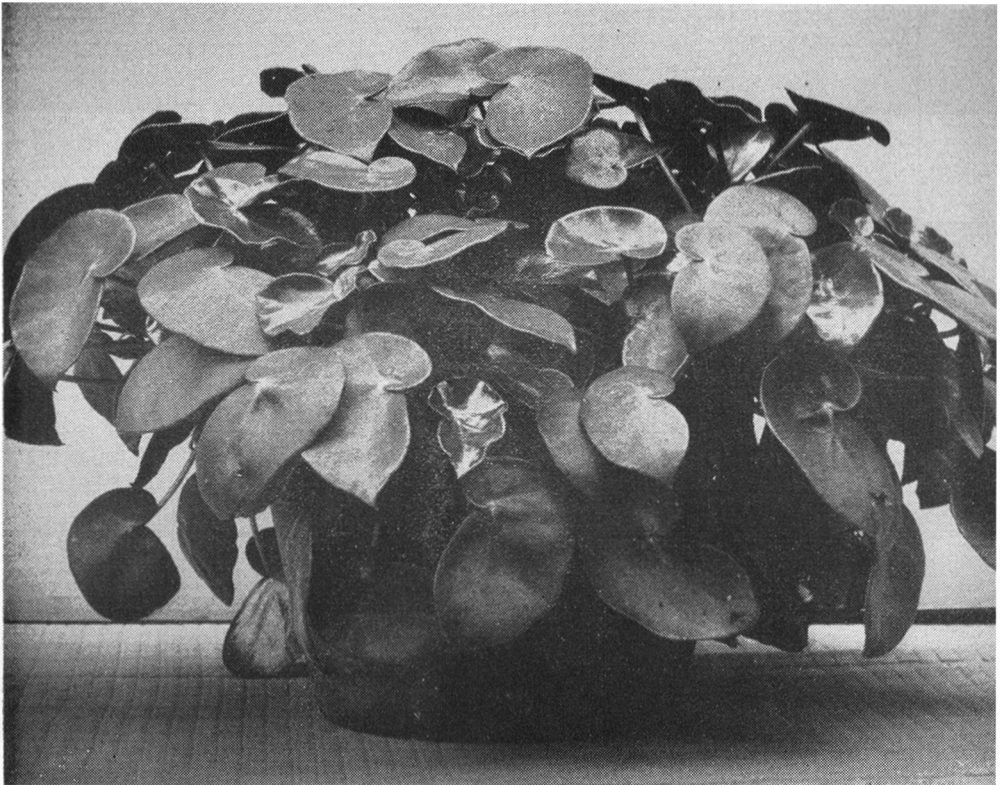
The Begonian

DEVOTED TO THE SHELTERED GARDENS

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Begonia Epipsila

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This Society shall be conducted on a non-profit basis, and its purpose shall be to stimulate interest in begonias and shade-loving plants; to encourage the introduction and development of new types of begonias and related plants; to gather and publish information in regard to the kinds, propagation and culture of begonias and other shade-loving plants, and to issue a bulletin which shall be mailed to all members in good standing.

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Begonias in Europe

WM. MEYN, Horticulturist

Begonias on Roof



Begonia House in Gruba Park, Essen, Germany.

LAST summer we were fortunate to have the opportunity to travel abroad and visit some countries of the European continent. When traveling in a foreign country, quite naturally one is looking for and exploring the field in which one is most interested, be it professionally or as a hobby. For us there was no doubt, our special interests are flowers, parks and nurseries for the beauty as well as to study and to learn something new in the vast field of horticulture.

That was our aim, yet we didn't know what to expect, after all those countries had the terrible war years behind them. Maybe we would find some geraniums, petunias and also roses, but what about begonias, fuchsias and tropical plants. We started with high hopes learned more than we had anticipated.

Arriving in Bremen, Germany, on the first evening during a short walk we made some startling observations. The people in the cities have to do much of their flower gardening in boxes and with potted plants on the window sills or other suitable spots. Really, Europe can be called the land of flower boxes, because one can see them everywhere, on the windows and balconies of the small homes and of the apartment houses; hotels and most public buildings such as railroad stations, city halls, boatlandings, even the piers of some large harbors are not without flowers in boxes, tubs

or in hanging baskets. An odd sight we had during a boatripe through the canals of Amsterdam in Holland. Due to the housing shortage many people have to live in houseboats anchored along the shores of the canals and we noticed that most of these had their flower boxes and collections of potted plants the same as other dwellings.

Now, what kind of flowers did we see in this type of gardening? Geraniums and petunias were plentiful, but by no means predominating, we probably saw just as many or more begonias and fuchsias besides a large variety of other flowering plants as calceolarias, heliotrope, ageratum, even asters. These decorations were always attractive and somehow made such a cheerful impression wherever we were roaming around.

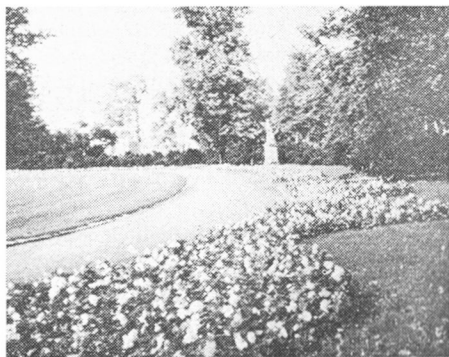
Naturally in the cold climate these flowering plants can only be kept outdoors during the warmer months of the year. What about winter time? We were told that a great number of the tender plants are replaced for the cold season by small conifers and other hardy material, so that the boxes are filled with living things the year round.

Now, let us visit some gardens and parks and look around.

Every city of any size has public parks and many can boast a botanical garden, also the elaborate parks of the many resort towns are famous for their beauty. In no park did we find any lack of begonias, in contrary in the larger ones they were used in great masses, bedding and tuberous begonias. We will never forget the immense plantings of semperflorens in the resort park of Bad Pymont in Westfalia. From the hotel we had a marvelous view of a wide bed with these flowers planted, it was more than a block long between rows of stately chestnut trees and was interspersed by over a dozen fountains. We walked along this begonia avenue and at the end was a little lake again surrounded with begonias. Then, from the distance we were attracted to the concert bandstand and coming closer saw that the front of the podium was terraced with flower boxes which were filled with quantities of the small flowering multiflora tuberous begonias. It was a beautiful view for the audience while listening to the music.

Also we remember very well the long curved beds of thousands of tuberous begonias in the

city park of Kassel, the mass plantings of the same in the "Planten & Bloemen" park in Hamburg, the frugal use of begonias in the amusement park Tivoli and the Botanical Gardens of Kopenhagen in Denmark. And during our stay in Heidelberg in Southern buildings and on the grounds of the old, famous castle. There we admired some excellent displays of many kinds of begonias. But we experienced the biggest surprise in the Gruba Park of Essen, one of the large industrial cities of the Ruhr district. On a nice day walking along leisurely and enjoying the modern landscaping, we suddenly came upon



Mass plantings of tuberous begonias in the city park, Kassel, Germany.

a small house whose roof was entirely planted with red bedding begonias and a band of white ones around the edge, while the walls were covered with small-leaved ivy. This was the most unusual begonia landscaping we saw any place in all our travels. Talking about the use of begonias in landscaping we also have to mention that the people in Europe plant them extensively on the graves in the cemeteries.

For many decades the European hybridizers have made much progress in the development of different types of semperflorens begonias and more is being made constantly. Many of these varieties have found their way into our gardens and now we can understand better, why there is such an interest in these plants in the old country; simply because they use such enormous quantities in their landscaping. The same is true with tuberous begonias. However we must not forget that on account of the cooler climate begonias (as well as fuchsia) can be grown in any location even in full sun, therefore the chances in landscaping with these plants is so much greater.

As for fibrous and rex begonias we came across several outstanding collections in the

Time to Start

Begonia Tubers

IT'S TIME to check the begonia tubers that have been in storage since last season.

Usually they can be expected to show signs of life and sprouting in February and March.

This is nature's signal that the bulbs are ready to be started back into growth. The job is best done indoors or any other spot where they can be protected from frosts.

Place tubers about five inches apart in shallow flats filled with one part leaf mold, one part coarse sand, and one part Canadian peat moss. A friable, fibrous mixture is desired so that it will cling to the roots of the tubers when it comes time to transplant them.

The biggest danger is rot. Dust the tubers lightly with a good fungicide, thus making it possible to get the begonia tubers off to a fast and healthy start. A light dusting does the trick. Apply a couple of tablespoons of the dust in a paper bag, then add the tubers, and gently jiggle up and down so that the fungicide covers the tubers completely.

Set them on top of the soil mixture in the flat. The top is the concave side. Do not cover them. Curiously enough, root growth always starts before top growth. Soon little pink sprouts develop and these gradually unfold into green leaves.

However, up until the growth starts, water carefully. While growing medium should be moist, it should not be soggy wet. The ideal temperature is 60 to 65 degrees. Many green-thumbers find that the back porch or other spot in the house where the water heater is located, provides a warm, even temperature night and day.

It's time to move the started tubers to pots or to outdoor beds when there is a mass of roots, as well as top-growth, three to four inches high. In cold areas, do not set out the plants until all danger of frost is past.

(Reprint from *Better Gardens and Farms Institute Bulletin*, Berkeley, California)

botanical gardens and in some nurseries. Private begonia hobbyists were not so easy to locate and unfortunately we did not have the time to hunt for them.

What we are telling is only a small sample of what we observed in the way of begonias alone. We were astonished over the quantities of bromeliads and the number of so many unusual beautiful varieties, also the popularity

(Continued on Page 86)

Seeds, Seedlings, and Hybrids

By DON HORTON

Seed Sowing

A SEED is a tiny plant packed into a suitcase of easily digested food. It is just waiting for the right conditions to surround it and it will emerge from its suitcase, digest its original food supply, and become an independent plant.

But just what are the conditions that it takes to induce the seed to start germinating? It takes different conditions for different plants, but for most it takes heat and moisture.

The food contained in the seed is enough to supply its needs until it can unroll green leaves and lay out a system of water and mineral absorbing roots so that its own photosynthetic food manufacturing plant can be put into operation.

It can be seen, then, that essentially all we need for growing plants from seed is a planting medium that is moist, warm, and contains minerals to support the maturing seedling. To this must be added a knowledge of special requirements of certain species of plants. An example of this is delphinium's need for chilling before planting.

It is easier to plant most seeds in a flat and transplant into the garden when they are large enough to handle. A very few plants do not transplant well (poppies for example) and should be sown where they are to remain.

The planting medium should be rich in organic material such as leaf mold or peat moss. Organic matter acts as a buffer. It takes up moisture while at the same time facilitating drainage. It then releases the moisture at the proper rate.

Also, in the mixture should be rich loam to help supply nutrients, and sharp river sand or sponge Rok to insure perfect drainage. For most plants a mixture of a third of each of these is satisfactory. For example, one third peat or leaf mold, one third loam, and one third sand. For shade plants, which are mostly acid loving, the loam may be omitted and the organic material increased to two-thirds. One-third peat, one-third leaf mold, and a third or less of sponge Rok or sand is an excellent mix.

Keep fertilizer out of your seed bed. The seedlings are not in need of it any more than

a six months old baby could eat beef steak. Small amounts of fertilizer can be put into the soil mix into which the seedlings are transplanted.

All of the ingredients should be sifted through a quarter inch mesh before mixing. A finer sifting may be required for the top of the flat in the case of very tiny seeds.

The flats should be thoroughly watered before the seeds are put in them. One effective method is to saturate the soil with boiling water eight hours or so before planting them. This not only wets the soil but helps to sterilize it.

When a flat has just been watered, avoid moving it. This has the same effect as digging ground that is too wet resulting in what is called "pudding." Much of the air in the soil is forced out leaving only a hard, poorly drained mass.

When the soil has dried to where it can be worked—moist but not wet—the seeds can be planted. With a flat board firm the soil gently, then with a stick such as a pot label, make shallow depressions in the soil for the seeds. Being careful to avoid the all too common mistake of sowing too thickly, place the seeds in the rows, cover with soil to about three times their depth, and mark the rows.

The final step is to cover the flat with burlap, or with glass and newspaper to keep it from drying out before the seeds germinate. Check periodically, preferably daily, to see if anything has come up. As soon as germination does start, remove the covering.

Watering from the bottom is the safest but harder to manage. Flats can be watered from the top if care is taken not to dislodge the seedlings and any ungerminated seeds.

Spring is upon us and this is the most favorable time of the year for sowing seeds, especially the seeds of annuals. Many valuable plants can be raised inexpensively from seed by following the few simple rules outlined above and by checking any modifications that a few special plants may require. It is not recommended that the seed of begonias and gesnerias be sown in flats (see this column in January 1957, *The Begonian*, for the jar method) but it has been done successfully with the easier kinds.

Long Flowering Cymbidiums

By GLENN H. HIATT, La Canada

THE BEAUTIFUL and exotic flowers of the cymbidium orchids may enhance the landscape over a period of six months, providing the plants have been selected wisely for succession of seasonal bloom. Cymbidiums that bloom during late November and December include *C. "Doreen,"* a striped brown flower with fifteen or more flowers per spike; *C. tracyanum,* striped brown and shaded with green, long lasting on the plant but a poor keeper when cut; *C. "Sicily,"* clear green, large flowers of hard substance, ten to fifteen flowers per spike, will stand slightly colder winter temperatures; many hybrids involving *C. erythrostylum* which produce lighter colored flowers of pink and blush shades, with an upright spike habit, flowers only medium in size and not too good form but very pleasing, especially because of the lighter shades.

January and February blooming cymbidiums include *C. "Erica Sander,"* clear green flowers on an arching spike with as many as twenty five flowers per spike on a large plant; *C. "Doris"* is light tan in color, flowers borne on an upright spike and fifteen to twenty per spike.

Most of the cymbidium hybrids bloom during the months of March, April, and May. The color range includes white, blush, pink, rose, chartreuse, yellow, green, tan, buff, brown, red-brown, and rust. The latter part of May and all of June is favored only with *C. lowianum* and some of its hybrids. This species is characterized by green or green-brown flowers on long arching spikes bearing up to twenty-five flowers per spike. The flowers are striking in color because of the red lip (labellum) contrasting with the green.

All cymbidium flowers last at least two months on the plant and can be enjoyed in the home, patio, lath house or garden for over six months if several plants with overlapping flowering periods are grown. If the plants are more conveniently grown in pots than in the ground, grouping of the plants when in flower at a doorway entrance in partial shade can be very striking. The plants in pots can then be plunged in the ground in a strong filtered light under high trees or large shrubby plants to make new growth and flower spikes for the next season.

The compost (potting or ground mixture) should consist of a large proportion of leaf mold, preferably oak, sycamore, or compost

pile. Some undecomposed partial leaves and small twigs should be left in the mixture to help maintain looseness and aeration. To the above add a small amount of the upper three inches of your garden soil, then some bone-meal. After this mixture has been turned over once or twice, add an *equal* amount of a commercial fir chips obtainable at your nursery or garden supply dealer. Either Ivory Orchid Bark or Forest Humus should be requested.

Some home gardeners either neglect to feed plants at all or have a tendency to overfeed. If the latter is true, the plant may grow with much gusto but not flower. It is important to feed all plants, especially when they must be leached thoroughly each time they are watered. A low nitrogen, high phosphorous and potassium type fertilizer will supply ample food for growth and encourage flowers also. Never permit the compost to get dry, but a soggy wet compost should also not be permitted. Rather, let the compost get just to the moist stage, then soak thoroughly. Feed about every third or fourth watering during the growing cycle in spring and summer.

A strong filtered light, winter temperatures not below twenty-six degrees, ample water, sufficient feeding, and a real interest in the welfare of your plants will result in large plants producing several spikes of long lasting, long flowering cymbidiums.

—B—

Begonia Zugensis Grex

SUSIE ZUG, San Dimas, California, has produced a new hybrid Grex under the name of *Begonia "Zugensis."* It is a cross made with *B. paulensis,* the Brazilian species. The new leaves of the hybrids are covered with the soft red hair of the parent, *B. paulensis.* The leaves—some round, some ovate—others dull or shiny, but always covered with hair; some are peltate or near peltate, puckered or plain; concave or convex; but none with the identical spider web veining of *B. paulensis.* The backs of the many types of leaves vary from green to light red surrounding the veins to a fully red covered back. Such is the varied family from this cross which is producing upright growing plants which have an interesting feature of the new leaves not only popping out of the leaf axil but also along the stems.

Grex, as defined by the *A.H.C. Handbook*

Begonia Diploid Numbers

	X=6	
heracleifolia	24	Mexico
hirsuta	24	Guiana
nelumbioliola	24	Mexico
incana	24	Mexico
haageana	48	Brazil
fuchsiodes	60	Mexico
	X=7	
incana	28	Mexico
socotrana	28	Socotra
Carminata	42	cultivated
coccinea	42	So. America
maculata	56	Brazil
metallica	70	Brazil
gracilis	84	Mexico
	X=9	
dichotoma	36	Venezuela
longipes	36	Mexico
vitifolia	36	Brazil
albo-picta	54	Brazil
angularis	54	Brazil
	X2=13 (diploid 26)	
dregei	26	Africa
evansiana	26	Japan
schmidtiana	26	Brazil
Argenteo-guttata	52	cultivated
Margaritae	52	cultivated

From the *Chromosome Atlas of Cultivated Plants*.

C. D. Darlington and E. K. Janake Ammal
London, George Allen and Unwin, Ltd. 1945
First column—species name

Second column—the somatic or diploid number

Third column—natural habitat

None listed are true diploid species with basic number. All are polyploid.

6 plus 7 is usually sterile, giving one in a million chances of a hybrid.

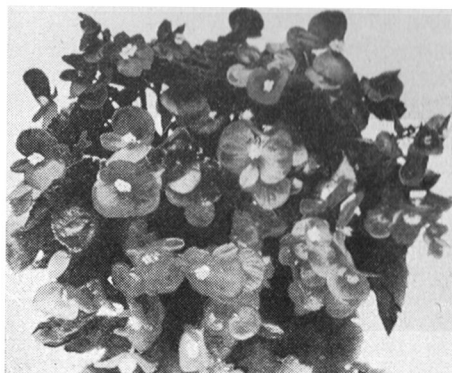
Submitted by MERLE NELSON

for Plant Originators and Registrars, IS A GROUP OF HYBRIDS OF COMMON PARENTAGE REQUIRING A SINGLE GROUP NAME. The term is Latin for 'swarm, flock, company, crowd'. It is used in lieu of a formula, and consists of the collective name for the group followed by the word 'Grex' (abbreviated as 'G.'). This provision was made to cover specifically the situation commonly found in orchids, but also it is intended to be used as appropriate with any other plant group. "Example: the collective name *Cattleya* 'Fabia Grex' covers hybrids of *C. dowiana* x *C. labiata*, of which *C. (Fabia G.)* 'Prince of Wales' is a clone."

Teicher's Semperfloren in Germany

By Editor, TASPO

SINCE the end of the last century, there has been continuous progress in the breeding of semperfloren begonias tending to better growth and more flowers; more resistance to climatic conditions and fungus diseases; and to better seed. All the work in breeding could not be better! There is tuberhybrida, *Begonia* "Kathe Teicher," which originates from *B. semperfloren* and *B. tuberhybrida*. It also can be called the first giant blooming begonia because



Teicher's Rote

its flaming, carmine red blossoms have a diameter of 2¼" (6cm.). This kind which you can find very often in exhibitions of the last years has proved to be extremely resistant toward climatic influences and has excellent blooming power producing big blossoms. It is also a very impressive bedding plant, growing in height to 12" (30cm.). This winter blossoming kind you can grow yourself from seed.

One improvement of *Begonia* "Dazzler" is the novelty of *B. "Teicher's Red,"* which can be considered a substitute for *B. "Red Pearl."* It is of strong, stout (heavy and short) growth, and is a very rich bloomer. Its blossoms are of a bright red color. Their good resistance towards climatic influences and fungus diseases has already brought it many friends.

B. "Winter Fairytale" (Teicher's Original Wintermarchen) is probably in first place. These fast growing and rich blossoming kinds are healthy and very decorative. If you sow

(Continued on Next Page)

Heterosis

PROBLEM: *Producing a hardy, disease resistant floriferous plant.*

Improving the quality of cultivated plants may be done by several methods, the oldest of which is the technique of *selection*, which is a part of all other methods.

It is a known fact that plants of the same species differ among themselves causing different varieties which tend to pass on to their offspring this same variation. Some plants are more resistant to diseases than others of the same species and tend to pass their characteristic on to their offspring. The individual plants which have the greatest degree of the desired qualities are selected from a large group of plants of the same variety or species. Their seed is planted and selection is again made. This process may be continued through several generations until a superior type plant is produced which has one or many of the desired characteristics. This method, *selection*, makes it possible to keep desirable and unusual variations, sports and mutations, and discard the poorer ones. One of the problems of selection is that the plant generation may revert back to the less desirable features of ancestral forms. This selection must be carried on constantly and the production of the superior plant may be slow.

In the self-pollination of a plant which appears strong and resistant to disease, a selection can be made of the offspring and the process can be repeated for several generations until a strong, disease resistant plant with desirable characteristics is obtained. This process of self-pollination and selection of offspring carried on for several generations is called *inbreeding*. Finally a pure line is

established which reproduces itself to a high percentage from seed. This method is quite successful although occasionally undesirable recessive characteristics may appear.

While establishing the pure line of disease resistant and hardy plant, a similar procedure is carried on by the plant breeder in establishing a pure line of floriferous plant. These two pure lines—hardy disease resistant and floriferous—are crossed (hybridized) giving an offspring which is hardy, disease resistant and produces a large quantity of flowers. This phenomenon of marked increase in hardy disease resistance and floriferousness of the two crossed inbred lines is called HETEROSIS or HYBRID VIGOR.

One problem of this crossbreed is that its seed usually are of low productivity or even sterile. If there is germination, these resulting plants do not breed true to the parent type because there is a reassortment of genes in the reproductive process hence the different offspring. The only way to propagate the high quality heterosis plant is by vegetative means or by constantly remaking the cross.

Any desired characteristics can be developed in the pure line by the breeder who has an ultimate goal of quality in mind for his superior heterosis plant. Probably this is most familiar in the development of the hybrid corn. The two lines were high productivity and disease resistance giving quality and high productivity. Yet if the seeds produced by this hybrid are planted, the yield would be very poor, so the farmer must each year purchase fresh hybrid corn seed.

Teicher's Begonias

(Continued From Preceding Page)

the seed in November and December, the plants will blossom beginning in May and can be sold as pot plants for Mother's Day. They are floriferous and will not disappoint one even for a room plant if you give them corresponding care. The cooler the plants are kept, the greater the number and bigger the flowers. They can be cut back easily and are resistant to fungus growth. Seeding in June or July, the begonias will bloom at Christmas, a time when pot plants which are worth their money can be sold easily. There are white, pink and

carmine scarlet red types of *B.* "Winter Fairytales."

At the end we have to mention also Original Teicher's *B.* "Coral," a type of improved *B.* "Luminosa compacta," an excellent pot and bedding plant. This begonia is healthy with as graceful leaf form and is extraordinarily rich with lots of salmon red blossoms. It has proved to be a good winter bloomer.

ED.: Translated through the courtesy of my friends, Klaus and Gerlinde Fehrman.

—B—

Correction by author: "Fluorescent Lighting," Feb. 1957, page 37 third paragraph, 3rd from last line should read: room for added humidity. Humidity reading of 60 is ideal.

Make Believe

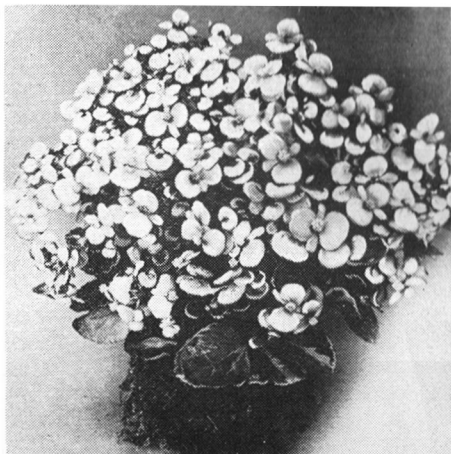
HAVE you ever observed a child reading, then pausing, looking off into space and dreaming? Have you taken a seed catalog or a begonia book, stopping during your reading, to dream of and visualize a plant or plants? All of us at times like to enter the enchanted land of make believe. This time let us venture together on a make believe expedition.

We are entering Germany to meet Mr. Ernst Benary, a man with a well known reputation throughout Europe for his outstanding work with begonias. He tells us, "You will surely know that this most popular flower race belongs in Germany and that every year there are large displays of this plant in private gardens and public parks. But as I know, also in U.S.A. the application of these begonias is constantly increasing, specially because of our heterosis varieties, i.e. F₁ hybrids, are more resistant against heat and rain than the older ones."

What are these heterosis varieties? Mr. Benary has been hybridizing (in Germany it is referred to as breeding) begonia semperflorens. He has many outstanding varieties.

He tells us about his *Begonia* "Dornroeschen" (Sleeping Beauty), heterosis strain. This dark rose begonia is similar to my well known *B.* "Rosenrote"; just as free flowering, it has the same foliage, but the color of the flowers is lustrous carmine and distinctly darker, and the flowers are larger than those of *B.* "Rosenrote." *B.* "Dornroeschen" goes on blooming till the frost. The blooms are not easily damaged by rain and do well even under trees where dropping water at times may become heavy. The novelty belonged to the begonias which I exhibited in Hanover 1951 and in Hamburg 1953 where they earned first places." While I am looking at a colored plate Mr. Benary sent, I note these plants have been massed in a large planting and there is a striking bed of pink framed by green grass in the foreground and in the background is a tree, which looks a lot like our Deodar. *B.* "Dornroeschen" was granted, by the Council of The Royal Horticulture Society, after trials at Wisley 1955, the Highly Commended Award.

Some of the other begonias of Mr. Benary's hybrids to receive awards by this council are: *B.* "Tausendschoen" (Thousand Wonders) with pink flowers which received the Highly Commend Award and *B.* "Rote Tausendschoen" (Red Thousand Wonders) which received the Award of Merit. Two semper-



Begonia Semperflorens Heterosis Tausendschoen

florens highly recommended for massed beds or potted specimens.

Mr. Benary tells us, "My 1955 novelty, heterosis fibrous-rotted, semperflorens *Begonia* "Organdy" is a mixture of F₁ hybrids and represents an entirely new item. It contains ten different varieties and all shades from pure white, delicate pink and rose up to carmine and bright dark scarlet. These varieties are corresponding in their very dwarf, compact character to my well known and favorite variety *B.* "Tausendschoen." All of them are true F₁ hybrids and the heterosis effect is assuring their abundance of flowers, their vigorous and healthy growth, their heat and rain resistance and their long lasting qualities until late in autumn. The most effective, bright color combination is granted in this mixture will be composed according to the formula settled in many years of trial experience. During the whole summer 1955 *B.* "Organdy" was a special attraction at the great Horticultural Exhibition at Kassel. During 1956 it has confirmed and even enhanced the good impression, where ever planted out."

Mr. Benary has sent the A.B.S. a very generous amount of seeds of six of his Heterosis varieties. Plants are being grown from these seeds and we plan to exhibit them in massed beds and potted specimens at the A.B.S. Convention and Show. Perhaps you are a person wanting to bring some make believe

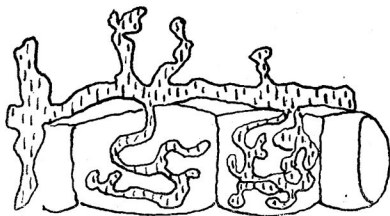
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Fungi---Prevention Is Easier Than a Cure!

By LOUISE CRAMER

IN THE subkingdom of the plant world, *Thallophyta*—plants which do not form embryos, we find both Algae and Fungi. The true fungi (*Phylum Eumycophyta*) one of three divisions of Fungi, comprises about 75,000 known species of plants. The bodies of the true fungi have many filaments called *hyphae* which are usually colorless, but in a mass have a white cottony appearance and are called *mycelium*. This large group of simple plants do not contain chlorophyll, the green coloring matter of the higher plants. In this group is found puffballs, smuts, toadstools, mushrooms, yeast, molds, rusts and mildews. Since these plants lack the chlorophyll necessary to manufacture their own food, they must become parasites living on the food produced by living plants and animals, or saprophytes living on dead material. The parasites do much harm and damage to plants and animals, while the saphophytes are valuable scavengers. Most species are inhibited or killed by exposure to sunlight. They grow most rapidly in darkness or diffused light. They develop best where there is food, moisture and a favorable temperature.

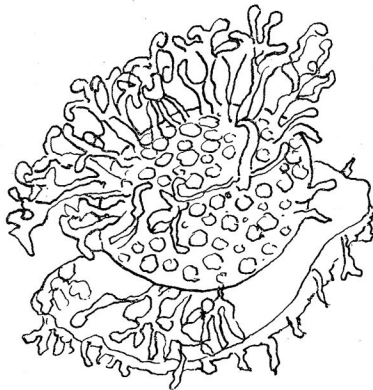
The fungi ranging in size from microscopic plants to giant toadstools, are again divided into three specific classes: *Basidiomycetes*—rusts, smuts, toadstools and puffballs; *Ascomycetes*—mildews, cup-fungi and yeast, and *Phycomycetes*—black mold, downy mildews. Of the last two groups which contain many mildew species, we shall deal.



Phycomycetes—Downy mildew hyphae on leaf surface with the surface cells (epidermal) being penetrated by haustoria.

The *Phycomycetes* or alga-like fungi are both parasitic and saprophytic, branches and without a definite form—a loose cottony mass. They may be water inhabiting or terrestrial. They may be water inhabiting or terrestrial. Some orders cause downy mildew which damage a plant leaf as the hausta invades the cell while the hypha travels on the leaf sur-

face. Other species which live in the soil attack young seedlings, rotting the roots. These soil species also cause damping-off, a disease which attacks stems and roots near the soil line killing the seedling.



Ascomycetes—Powdery mildew in "flower." *Cleistothecium* on leaf surface with hyphae penetrating into cells of leaf.

The *Ascomycetes* is a class of about 30,000 species of great diversity. They are all alike in that they all have a sac-like reproductive structure within which are eight ascospores. At maturity each ascus opens releasing the spores which germinate to form a new fungus plant. Of the order *Erysiphales* of the ASCOMYCETES which includes the powdery mildews we find these plants to be parasitic chiefly on the leaves of the host plant. The hyphae of some are haustoria, penetrating the mesophyll into the epidermal cells and taking food from them. Others in this group form whitish patches on the leaves. Some mildews only cause slight damage to host plants, while some species may cause severe damage or even death to a plant.

With this background into the nature of fungi, it is easy to see that these microscopic plants are carried by water, insects, wind, pets, cut flowers, hands and clothing and are everywhere present. THE GERMINATION OF THE SPORES IS ONLY DEPENDENT ON THE CONDITIONS CREATED BY THE GROWER. No plant lover should blame another if he develops mildew. An *alteration* of the ideal conditions under which the spore does not develop, may cause germination of the fungi. A plant grown outdoors and without any indication of mildew may be found to be covered white the next

day it is was moved into a cool, humid glasshouse.

Good cultural practices are the chief insurance against the harmful fungi. The use of manures (also habitat for fungi) which are too rich in nitrogen or overfertilizing with high nitrogen products, produces plant tissue which is tender and watery and easily attacked by disease. In the greenhouse too much humidity, too low temperature and insufficient fresh air circulation all tend to set up the conditions for fungi germination. Crowding plants cuts down on air circulation. Plants should be watered in the morning so that leaves and stems will be dry before darkness and the lowering of the night temperature. As a safety factor in the maintenance of mildew free plants in addition to good growing practices use a fungicide, insecticide and fertilizer when spraying and do three jobs in one. BE SURE TO READ DIRECTIONS ON SPRAY PRODUCTS.

Supposing you have allowed the conditions to develop which makes a happy growing condition for the fungi and it makes itself known by bursting into flower. First correct the cause, then try to save the plant from destruction. Some people say burn the plant; others say spray with a fungicide containing copper which inhibits the fungi. Dusting with sulfur flowers may control some species of fungi, yet on tender plants it may burn if there is a rise in temperature. Pouring Clorox water—one teaspoonful to a quart, through the potting soil will inhibit the terrestrial growth. When spraying with the fungicide be sure to spray the top and underside of the leaves, the stem, soil and pot inside and out and even the marking tag. Also spray the area where the pot was sitting and surrounding pots and plants. Repeat until fungi is controlled according to spray product directions. If a window grown plant where this dousing is not practical, take the plant or plants to the kitchen sink or bath tub. REMEMBER TO WASH YOUR HANDS BEFORE HANDLING A HEALTHY PLANT IF YOU HAVE BEEN WORKING WITH INFECTED PLANTS. In the greenhouse keep the hose hung up. The soil is a wonderful host for disease which can be carried on the hose laying on the ground and then freely distributed to plants during the watering.

—B—

COPY DEADLINE

All copy for *The Begonian* must be received by the editor not later than the first of the month preceding date of publication.

Do You Know?

By SYLVIA B. LEATHERMAN

Lygodium japonicum also known as *Lygodium scandens*, one of the climbing ferns, is indigenous to East India, East Asia and Australia, needs a hair cut in the spring. In its natural habitat, an area which receives some frost in the winter, not killing freezes, the tops are frosted back and in the spring new growth rapidly grows from the root system. Grown where nature did not intend to place the fern we in turn must provide nature with help. So many have grown this fern and complained of it being so "ratty" looking after the first year.

In the spring cut it completely back down almost to the soil level. This encourages lush new growth. If new growth is showing at the time of pruning, be careful not to injure it. The new growth grows rapidly and results in a lovely specimen in a short period.

If you are growing it as a potted plant when you prune it, wait for new growth to show and then report it. It is a fern that may be divided. Sections may be removed from the parent plant, similar to dividing perennial plants. If the roots are massed, it is wise to cut some of the root system back. Do not repot deeper than it was previously growing.

I have seen this fern grown in several unique ways. At a flower show this fern was grown on an arched trellis in a redwood tub. Next to the inside wall of the tub on two sides a fern was planted. A piece of hardware cloth (wire mesh) had been cut about eight inches wide and five feet long, and bent in a rounded arch. This arch was placed next to the inside of the two ferns. The ferns were trained on this arch. The growth was dense and one had to observe the plant very closely to see the wire.

Another novel method is to grow it on a totem pole. Growing it in our gardens in Southern California it desires some filtered sunlight. I like to grow it next to a lath wall, placing hardware cloth next to the lath will give it a good base to cling to.

Lygodium japonicum can be found described in technical terms which to the general layman are confusing and very seldom understandable. To create a better vision of this fern, I would describe it as a fine stemmed, dainty, fragile, twining plant with fine textured leaves, finely cut and toothed sections, on thin wirey stems, attached to the main climbing stem. The habit of growth reminds me of smilax, the fern twining, climbing and growing similar to smilax.

Himalayan Begonias

By B. N. GHOSE, Townend, Darjeeling, India
A CHARMING little family of pretty flowers is formed by the begonias. It is true that the flowers of the wild ones can hardly be compared with the modern varieties we find in cultivation in conservatories and in our gardens. They are the handsomest of all the many summer flowering plants, possess varied colors and distinct forms. One doubts that the humble begonias we so often gather have become the gorgeous flowers of the florists. Yet they have, by cultivation and careful hybridization. Those wild begonias have intermarried with species found in various parts of the world.

The wild begonias of our glens and dales are either herbs or undershrubs with tuberous or rhizomatous roots, their stems are cylindrical and jointed, generally swollen at the nodes, and they possess watery acidulous juice. They grow in the ground but also are found on rocks or clefts of trees where a little earth has accumulated. The Nepalese call these plants *Manger Kanchey* and sometimes eat the stems. In the cool valleys of Chittagong the natives use the leaves as pot herbs. The taste is pleasantly acid and not unlike sorrel.

In most cases these plants have one half of the leaf smaller than the other, the base forming two rounded lobes. All the parts of the plants are particularly tender and brittle. The flowers grow in auxiliary peduncles branching into a cyme, each of the ramifications of the cyme has a pair of stipules at the base. The flowers stand upon slender stalks. There are two kinds of flowers one having stamens only and the other bearing pistil only.

The stamen-bearing flowers consist of two large obtuse sepals and two to five petals. Both the sepals and petals are similarly colored, and one cannot distinguish the one from the other. In their center there is a round ball of anthers, the filaments of which are united into a common stalk. The anthers are usually club shaped, fleshy yellow bodies, having a curved pollen cell on each side. They discharge pollen grains

The pistil-bearing flowers have a calyx and corolla like the other flower. Beneath the calyx of this flower is a fleshy thick part, usually having three unequal wings, divided into two to four cells containing minute ovules. The ovary is terminated by two to five stigmas each of which has two very much twisted hairy lobes.

When ripe, the fruit is a berry or a thin brown case having three wings of which one is very much larger than the other two. It con-

tains a multitude of small seeds of an oblong form usually covered with a net work, the meshes of which are disposed with wonderful regularity. If a slice were cut off a little below the calyx, it would have quite the appearance of a gothic church window.

Begonias thrive in moist, shady places in the subtropical zones of the world—India, Africa and South America. Our Sikkim begonias also grow in similar climatic conditions. We find that the subtropical region in Sikkim penetrates far into the interior along the banks of the great rivers. Here the summers are warmer and the winters cooler, when compared with regions in similar latitudes. Owing to the humid climate and the absence of excessive cold at any season of the year, and from the dripping nature of the climate of the misty region which extends above 4,000 feet from sea level, begonias are generally found on rocks, stems of trees or growing on the ground. They are all most graceful objects and in the most moist uncultivated valleys, where undisturbed they attain their full luxuriance in small groups. Below 4,500 feet elevation several handsome ornamental species associated with ferns and other herbaceous vegetation are found. Most begonias flower in the summer and have the ordinary habit of shedding their stock or leaves toward the end of autumn and remaining bare till spring.

For ready identification begonias may be divided into five groups.

The first group comprises two species that have their fruits more or less fleshy and round and without the papery wings that are so characteristic of this genus. To this group belongs *Begonia roxburghi*. It has succulent, glabrous stems two feet or more high, with large glabrous ovate leaves, minutely pubescent on the nerves bearing a few white flowers in short cymes near the axils. The fruit is a four celled, four angled, succulent body. The other plant is *B. inflata*. It bears narrow oblong lanceolate leaves on long, erect stems in each branch. Fruit very leathery, three celled and trigonous.

The species falling under the next group all have tuberous root stock, their capsules are three celled with three papery wings of which one is much larger than the other two. Most abundant in this group is *B. picta*. They grow on rocks or in crevices of stone walls. The flowers are rather large and conspicuous and of a pale rose color. The leaves are nearly

equally cordate pilose above and often variegated and very ornamental.

Begonia satrapis is also a very beautiful, small plant bearing bright rose-red flowers on peduncles rising much higher than the highest leaves.

Begonia josephi is a denizen of the misty regions growing as it does, above 5,000 feet elevation and can be easily recognized by its peltate leaves. This plant is vary variable in size and habit, carrying small rose-red flowers.

The much incised and lobed *B. gemmipbra* has its flowers in pendulous cymes. The flowers are white striped with rose and are of medium size. This curious species clothes the moss grown trunks of trees and rocks at 8,000 feet elevation. In some of the axils of the peduncles we find quadrangular cups, neatly and closely packed with small bulbils.

Begonia ameana is a small plant with glabrous leaves bearing few flowered scapes. The styles are persistent *i.e.*, they remain even when the seed is ripe in the fruit.

One other small begonia of this group is *B. ovatifolia*. It has roundish (ovate) leaves about two inches in diameter and grows on steep slopes in the Tista Valley. The peduncles are 4 to 8 flowered, bearing white or rose colored flowers, capsule small with persistent style.

The next group have two-celled compressed capsules, triquetrous, having one broad and two narrow papery wings. These have thick woody root stock with fibrous roots.

The most conspicuous in this group is *Begonia gigantea* which has thick, woody root-stalk bearing stems two to three feet tall, very rarely branched. This is the largest of Indian begonias. The leaves are very unequally, deeply auricled on one side. The peduncles are short, dichotomous with many small white or pale pink flowers.

To this group belongs the very thick rhizomed *Begonia xanthima*, which has ovate leaves and which are unequally cordate. The flowers are of medium size and conspicuously yellow. Capsule has unequal wings, one very much elongated.

The caulescent *B. rubro-venia* with its elliptic, lanceolate, acuminate leaves, can be easily recognized by its rose red veins especially on the under surface of the leaves and by the grayish-white, large irregular patches on the upper surface of the green leaves. The flowers are borne in auxiliary peduncles, usually branched near the top, bearing a few white flowers. Capsule often recurved, about half inch including the wings.

The next group have long creeping root

stock which are neither woody nor tuberous. *Begonia laciniata* bears roundly ovate leaves on long petioles. The leaves are unequally cordate and acutely lanceolate. The peduncles are axillary as long as the leaves, bearing two to six flowers of which generally more than half of them are stamen bearers. There are several varieties, the most outstanding being *B. laciniata* var. *lutea* and bears fine yellow flowers.

The creeping root stock of *Begonia megaptera* is thick and woody and the stems erect. The leaves are unequal at the base. A large number of elongated peduncles rise from the upper axils bearing on each a few large pink flowers. The flowers completely cover the plant and produce a charming effect.

Begonia sikkimensis has thick woody root-stock. When mature it carries a stem fifteen inches high. The leaves are round lobed almost to the very base and the lobes themselves are also incised and lobed. They grow on rocks and shed their stems and leaves at the advent of winter. Very easily recognized on account of their lobed leaves.

Begonia cathcarti has cordate leaves that are acute and glabrous. It is very easily distinguished by the numerous scattered hairs on its stems above 5,500 feet elevation.

The next group is represented by *Begonia rex* which has a fleshy creeping rhizome which is subterraneous. The leaf stalk is round, red in color and setose. Leaves are about ten to twelve inches broad, its surface is rugose or bullate with a metallic luster, having a broad silvery band running all round the leaves about one inch away from the margin. Flowers are borne in erect branching cymes, large, of pale rose color. This magnificent species is the progenitor of numerous ornamental foliaged begonias.

—B—

Use for Coal Ashes

THERE is a large pile of coal ashes which has laid in the lot adjoining my home for about ten years or more. I rooted some hoyo cuttings in water and later planted them in a crock of these ashes and they grew much nicer than those I planted in good garden soil.

I also rooted several Christmas cactus, epiphyllum (orchid cactus) cuttings and some African violet leaves in these ashes and they did better than when I started them in the ground as none of them rotted. I would lose a good many if I planted the cuttings in the

(Continued on Page 91)

Oh, Doctor!

"Oh Doctor, my pretty face was lovely yesterday, but look at it today! My beautiful center petals are all turning brown."

"Yes, Miss Camellia, you have petal blight which is caused by a fungus. The fungi are spread from sclerotia (black seed-like bodies in the petals) which germinate on the ground producing apothecia (red spore masses). The wind carries the spore to the blossom causing this unsightly damage. The entire bloom usually rots from the center outward and the infected blooms do not always fall. I recommend that your gardener pick off all infected blooms immediately and burn them. Also, he should pick up from the ground any fallen and faded blooms which may host the fungi and thus control and even prevent a recurrence of this blight next year. This blight occurs during cool, rainy weather, but will clear up as soon as there is warm, dry weather. It may ruin your flowers, but even in a severe attack the shrub will be uninjured."

"But Doctor, did you see the yellow variegation in my green leaves and the white in my bloom?"

"This, Miss Camellia, is a virus disease which is infectious, transmitted from one camellia to another, usually by pruning instruments. It will not affect you physiologically, except that in the chlorophyll lacking areas of your leaves you will find you are more susceptible to sunburn. You will need protection from the burning sun's rays. Some people think this variegation makes you more beautiful."

"I've lost my buds. What caused this, Doctor? What should my gardener do?"

"Mr. Camellia, you will not be handsome this year, but you could not control the weather. Quick changes in humidity or long periods of high temperature could have caused your condition. Your gardener may have let your surface roots dry out or your feet may have been wet too long due to poor drainage. Maybe you were given a heavy feeding at the wrong time. I prescribe a checking of your growing conditions and a good commercial camellia food or cottonseed meal, feeding beginning in March and ending in August. Some commercial growers believe in a regular light monthly feeding all during the year."

"See how green the veins are in my leaves, yet the leaf tissue appears light yellow green and my flowers are not the best."

"Camellia X, you are suffering from a

mineral deficiency, maybe due to the pH of the soil not being between 4 and 5. This wrong pH locked up in the soil the minerals so they could not dissolve and be available for your good growth and colorful blooms. Tell your gardener to use lime sulfur and aluminum sulfate in the soil to change the pH and again test the soil to see if has been brought into the proper range."

L. C.

—B—

Begonias in Europe

(Continued From Page 76)

of anthuriums. Our floral exploring lasted two months and we were on the go practically all the time, dodging rainy and cold weather at times, but taking advantage of every opportunity to see flowers, observe the landscaping and study horticulture. While the weather wasn't always suitable for a couple of Californians, the whole vegetation seemed to thrive so much better. The lawns, shrubs and trees always looked so rich green, the flowers so fresh, it was the same on the shores of the beautiful Swiss lakes as in the northern countries.

All in all we had the best impression of the land and the people, they earnestly love flowers. This love for flowers reflects itself everywhere you go, it was an air of cheerfulness as if flowers were a consolation for the people after the hard times they had to endure.

For us it all was a wonderful experience.

—B—

Make Believe

(Continued From Page 81)

into real life. If you will check your recent *The Begonian* you will find the Seed Fund offers seeds of these begonias. The above quotes are taken from correspondence the Research Department has had with Mr. Benary. We appreciate his interest and generosity.

SYLVIA B. LEATHERMAN
Research Director

—B—

CORRECTION

The handbook referred to on page 61, *The Begonian*, March 1957, is *The A.H.C. Handbook for Plant Originators and Registrars*, and may be purchased from the American Horticultural Council, Arnold Arboretum, Jamaica Plain, Mass. Send \$1.00 with order.

Round Robin Notes

From Fuchsia Robin

WITH warmer weather on its way the Robins are starting to take on more enthusiasm and are arriving more regular but, that happens every year. As the days get longer and warmer, we all get anxious to be out in the yard working with our plants and so the Robins have more interesting things to discuss with each other.

I am interested in a few more new Robins to get started on their first flight and have openings for some more in Geraniums, Annuals and Perennials, Small Leaf Begonias and have room for a few more in another Beginners Robin about ready to start. The Robins I started last year have been very successful and I am very proud of them. I am trying to locate some of the older Robins which have been lost and may I ask any one who has received a Robin and has not sent it out to please do so. If you cannot write, just mail it to the next member or to me. It will help so much.

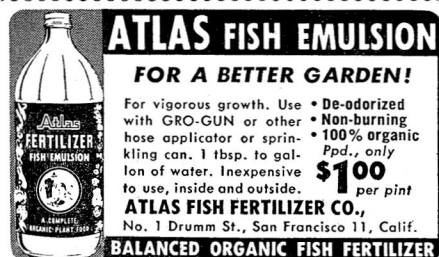
The Fuchsia Robin is doing so well and as spring gets closer there will be much information regarding the growth and care of these beautiful plants and there is an opening for a few more in the Robin.

If you wish to share your knowledge of how to grow plants or if you need some information on plants then you should join a Robin. Just a card to me will be sufficient.

One member of a Robin suggested rooting African violet leaves or other cuttings in colored glass containers. The brown or green seem to work best. She also likes a little charcoal in the bottom of container and a few drops of fertilizer. Plants root very rapidly. If possible, use rain water.

Have you tried pinching your *Begonia* "Mrs. Wallow," *B.* "Templini," *B. manicata* and other similar begonias instead of cutting them. She finds if she cuts them, the stems die back to the ground. Have you ever experienced the same results?

MARIE REED, R. R. Chairman



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"San Leandro" is a very large red with dark shades at top of petals, grows up to eight feet. I have one on the side of my house that is up to the roof and this summer was just a mass of blooms. The plant is very hardy and will take full sun but also does well in part sun. The blossoms comes on the tips of the long branches with as many as 12-15 in a bunch.

It was hybridized by a man here in San Leandro and he gave it to me several years ago for which I thank him very much. Then I like "Swingtime," which is a beautiful red and white double can be used as a standard or it makes a very lovely basket; you would like it either way. The color is so clear white, the red is not so bright as "Molesworth." One of the reds I like very much is "Cardinal." It has a very large double red flower, is a very fine bloomer and can be grown to over six feet but must have a support as the stems are very easily broken. It will also grow in full sun.

MARIE REED, San Leandro

—B—

All of my fuchsia plants are very small but are growing and doing very well (these are my first) I hope I will be fortunate enough to have blooms by Spring. I have found though that pinching must be almost constant as they have tendency to become leggy in a hurry. I'm wondering if this is the case with most varieties, both of mine are upright. I feed with Fish emulsion which is very satisfactory. I wrote the Atlas Fish Co. which was mentioned in the Sept. Begonian and received their literature and find it very helpful. I was very pleased with the way my *semperflorens* germinated. I used the pot-in-pot method and in the beginning covered the seed pot with glass to maintain even moisture. During our last garden club meeting we had a round table discussion and since I was called on to help with the program I chose "Begonias." I planted my seed in September and since germination in my case was very uneven some plants were still too small to transplant while others had already been placed in separate 2½" pots and were about 2" tall. Our members seemed very enthusiastic about the method of planting and the various stages which I was able to show them. I think I will be able to get at least a dozen plants from my seed which is given to new members.

RUTH WILLARD, Houston

Begonia Epipsila

This is a very busy month for fuchsia growers, pruning, transplanting, spraying and starting new cuttings. In this climate we have best success with early December cuttings, they seem to root better and make earlier plants. In taking cuttings be sure the plant has been sprayed a few days before to be sure they are free of insects, otherwise they will not root.

Have been potting some young plants from the sand box. I use cut down milk cartons (2½ in.) use pure sifted leaf mold (¼ in. screen) for the first transplanting, when roots have filled this carton they are transplanted to four inch pots or No. 2½ tin cans using a regular fuchsia soil mix.

I think that San Leandro and Swingtime are two of the best fuchsias. Potentate, Vagabond and Jubilee are also good growers. Red Spider, an old one, is still a winner at the fairs. Marinka, an old one, makes a nice round basket, if properly trained and it needs extra fertilizer to make a show plant. Monstera is a beautiful new red trailer, free bloomer and very dense foilage, in one year one plant will make a full basket with huge flowers. Red Head is a new lovely upright. It is a new shade of red.

VERN DIXON, Santa Maria, Calif.

—B—

Snow, ice and 15° and the Robin flies in and makes me think of spring. Today the snow is all gone, and it's pouring rain and the wind is blowing a gale. Inside my new greenhouse the weather is no problem. My boys finished the greenhouse four weeks ago today, and already it is almost full. It is 9 x 24 leanto on the south side of the garage. How thrilled I was to move my plants into it. Have eight flats of rooted fuchsia cuttings growing, but they are only 12 or 14 varieties. They are all so beautiful, and many visitors admire the tiny pink or red "Firecracker" fuchsias that grow to be a four or five foot shrub here. On the Oregon coast, they do not freeze down in the winter, but for me they have to grow up from the ground every year.

My husband and son brought me a trailer load of wonderful woods dirt from under the fir and maple trees. For the first transplanting of the fuchsias, I use it alone and then feed once a week with manure tea. They are growing fine and I have pinched the tips back once.

You who live in California and can leave plants out all winter are very fortunate. I leave a few in the ground with sawdust or manure over them and do lose some each year.

There just aren't enough people growing the shade loving plants around here yet. To

Begonia epipsila (Cover Picture), collected in Brazil, August 28, 1946, by A. C. Brade, is a parent of the new cultivars, B. "Raythel," Schwerdtfeger, and B. "D'Artagnon," Turner.

Begonia epipsila is fruticose—a small, sub-shrub with an erect, branched, round, woody stem growing in height from 12" to 20". The shiny dark green oblique, ovate leaves are briefly acuminate, cordate and entire. These leaves, though sometimes obscurely angulate, are 3" to 4" broad and 2" to 3½" long, with the red underside covered with a dense, rusty wool. The red cylindrical petioles are from 1" to 3" long. Obtuse, straw-colored, membranous stipules are ½" to 1" long and 4" to 6" broad. The persistent (do not drop) stipules are externally puberulent.

The red woolly peduncles, scarcely longer than the leaves, are 4" to 5" long and rarely 6" long. This species begonia is several times dichotomous and has many white flowers. Membranaceous bracts are sparsely woolly on the outside and are up to .2" long and .5" broad. Two glabrous oblong petals, .3" long and .1" broad, comprise the male flower with 20 to 30 anthers and free filament about .02" long. A five lobed, unequal and oblong petaled female flower is .2" to .3" long, and .1" to .3" broad. The exposed part is sparsely downy. The stile is 3 with a bifurcate stigma, everywhere puberulent and papillose. The three unequal winged ovary is puberulent, at length almost glabrous. The largest wing is rotund and .2" to .6" broad. Her placentae are entire. The capsule, almost glabrous, is subacute at the base, subcordate and indented at the apex and .8 of an inch long. Seeds are cylindrical and obtuse.

Begonia epipsila is an interesting addition to any collection. It is easy to grow if kept on the dry side during the winter. It is a spring bloomer which makes a good basket or wall pocket specimen.

Information translated from "Arquivos do Jardim Botânico do Rio de Janeiro," Vol. VIII, Dezembro de 1948, Rio de Janeiro, Brasil.

Plant grown by Marie Turner. Photo by Bill Givens.

most people it is just too much of a chore to take fuchsias and tuberous begonias up and store for the winter. Most of my close neighbors will buy a few each year and just let the frost kill them and repeat the process the

(Continued on Page 91)

Producing a Show in New England

OCTOBER is the time of year chosen by the New England Branch of the American Begonia Society to stage their annual show. To the growers of the West coast this must seem a little like staging the Summer Olympic Games in the middle of winter, as was the case this year. To be sure, some of our members with proper hothouse conditions exhibit many plants in the Horticultural Society's Spring Flower Show in March, but for most of us our plants are at their best in the fall.

This year we were fortunate in having a hall that was properly lighted so that the plants were seen at their best. The exhibits ran along the wall, with some fine specimen plants adorning the ledges of recessed windows whose drapes were in very good taste and added much to the setting.

The Percy Merry's exhibit was a large one, made up entirely of begonias of all types. These were all sizeable plants and were well displayed. Mrs. Carlo Fronda showed nearly one hundred plants comprising forty begonias, some cacti and other plants. There were some very interesting plants in Mrs. Frederick Kingsbury's exhibit, beside many begonias, alocasias, anthuriums, marantas, miniature hoyas, fuchsias, cacti, dracaenas, tradescantias and a very lovely miniature cyclamen, to name a few.

Another of our members, Mr. Vincent Mason, who also has a keen interest in cacti and succulents, displayed about thirty very beautiful specimens of these plants. Mrs. Ross, of Merry Gardens in Maine, brought fifty-five miniature pelargoniums and an exhibit of twenty-two varieties of semperflorens in full bloom. The latter were placed on a round table producing a very pretty sight indeed. An interesting educational exhibit of begonias in early stages propagated from seed was contributed by Mrs. Guertin of Rhode Island. There were also the classes of specimen plants interspersed with the larger exhibits.

Two growers, non-members, were asked to exhibit. One of these was Mr. Perley's very gay collection of fifty pelargoniums. The other was really two exhibits, a circular four-tiered stand with sixty-three fine saintpaulias and a fifty square foot display of rexes with a few house plants to set them off. These latter were really "the cream" and did Mr. Wallsten proud.

At one end of the hall there was a stage, although at the same level. This was transformed into a patio by Mrs. Alvord giving

the show a setting and a restful place in which to relax. It was very simply contrived by the use of snow fencing for the back and one side of the enclosure, self-supported by a slight undulation. In front of this were lovely salmon geraniums freshly dug from the garden, with potted ivy and ferns, a few tall growing begonias and other plants. Placed diagonally on the third side was a three tiered lath house containing about fifty begonias. Some of the larger ones were placed outside at one end of the lath house which was decorated with euonymus heavily laden with its orange fruit. The interesting feature of this exhibit is that these plants had never been outside the house and, except for their first growing, had not known the benefit of overhead light. These were mostly rex and had their beginning with Mr. Wallsten, so it was most interesting to see that they could compare so favorably with his exhibit of hothouse grown plants. It should have been a source of great encouragement to those who think it cannot be done under ordinary house conditions. *Begonia* "Skeezar," for example, had fifty leaves about five inches long and on thirteen inch petioles.

A nice innovation this year was an invitation class of table arrangements in which four garden clubs were represented by women who had already made fine reputations. These were buffet style and the floral decorations made good use of begonia flowers and leaves.

Perhaps this account does not seem in the least out of the ordinary, but it is. Consider that our small membership is made up of begonia lovers from six states and the difficulties of getting together at all. Consider that, except for the invaluable help of several members, the show was produced by a very few, i.e. six members contributed 400 plants for the large displays, ten members brought individual plants totaling 40; the propagation exhibit and about 150 plants furnished by the two non-member growers. And then consider that this was only a one day show and most of it was set up early that morning. I think it is extraordinary!

CHOICEST REX HYBRID

BEGONIA SEED

New Crop

PRICE \$1.00 PFR PACKET

RUDOLF ZIESENHENNE

1130 N. Milpas St., Santa Barbara, Calif.

Clayton M. Kelly Seed Fund Flight

No. 1. B. echinosepala-Regel—Brazilian species. Tall much branched and bushy. Leaves are comparatively small and finely toothed. The flowers are medium sized and the white petals of the males have large hairs in the middle of the outer side. A picture of a herbarium specimen of this plant appears on the cover of *The Begonian*, February issue. **No. 2. B. incisa**—Philippine species. Delicate and vinelike in appearance; leaves are lacy and dark green with lighter veins; flowers are white. **No. 3. B. cucullata**—Brazilian species—medium smooth leaves, stolens creep a small distance before ascending into erect stems which are purple at joints. Flowers are white and pink tinged in terminal clusters. **No. 4. B. diversas**—Brazil—No description available. We can reasonably assume that it is a Brazilian species. Above are 25c per small packet.

Special seed. B. German type rex. Beautiful multi-colored plants. We hope to have a complete description of these much admired begonias for *The Begonian* soon and suggest the same method of planting et cetera as other rex type begonias. 50c per packet. Close out of Begonia seeds. Here is an opportunity to start a collection of worthwhile plants. **No. 1. B. MacBethi**—Small leaves, flowers white. **No. 2. B. schmidtiana**—Brazilian species. Small bushy plant with olive green leaves and pink flowers. Excellent as a basket subject. **No. 3. Cane type migid.** A mixture of many cane type varieties. **No. 4. B. Credneri** (*B. scharffi* X *B. metallica*) medium, bushy, olive-green, soft white hairy, red beneath. Flowers large, pink bearded. **No. 5. B. Sunderbrucki seedling.** **No. 6. B. ulmifolia.** Leaves elm-like in shape, green, rough, hairy. Flowers white and numerous. 6 packets for \$1.25 or 25c per packet.

Greenhouse plants. Ramondia myconi—Sweet little plant of the Gesneriaceae family found growing in the mountains of Europe. Considered hardy but requires considerable care when grown outdoors. Plants are nearly stemless and are covered with reddish soft hairs. Flowers are purple or bluish-lavender

flat, bell-shaped almost without a tube. Vaguely resembles the popular saint-paulia and is best suited for greenhouse or indoors culture. 25c per packet. **No. 2. Schizanthus.** Butterfly flower. Monarch hybrids. Solanaceae family. Showy flowers in many clusters and a great variety of colors. Best grown as pot plants in the greenhouse but can be grown outdoors where the climate permits. 25c per packet. **No. 3. Gloxinia.** Available in several color combinations, also mixed. **No. 4. Gesneria cardinalis and streptocarpus wendlandi.** 25c each.

Following is a list of seed from the moraceae family commonly known as ficus. While some varieties are grown as trees in tropical climates, they also are grown as house or greenhouse plants. **No. 1 Ficus nitida**—Widely grown as an ornamental or specimen plant. **No. 2. Ficus elastica**—Sometimes called rubber plant. This very decorative plant is used extensively as a house plant. **No. 3. Ficus benghalensis**—India—Banyan. Large leaves and red fruit. **No. 4. Ficus glomerata**—Cluster fig—india—quick growing dense shade tree. 25c each.

Close out sale of semperflorens begonias and other genera. No. 1. B. Semperflorens picotee. Small plant with pink and white flowers. **No. 2. B. Magnifica**—Low growing with orange-scarlet flowers. **No. 3. B. Semperflorens Indian Maid**—Dwarf with dark bronzy foliage with red or pink flowers. **No. 3. B. Semperflorens Loveliness.** England. **No. 5. B. Semperflorens Crown Jewels**—England. **No. 6. B. Semperflorens Gustav Knaake**—Green foliage, red flowers. **No. 8. B. Semperflorens Colombia.** Mixed. Includes red, coral and pink. **No. 9. Canna**—species. Fairly hardy plant. Outdoors in mild climates, greenhouse elsewhere. **No. 10. Erythrina crista-galli**—Brazil. Shrub with crimson flowers. **No. 11. Hibiscus golden bowl.** **No. 12. Stapelia**—Small growing succulent with brown and yellow flowers. **No. 13. Leucospermum reflexum.** Shrub from South Africa. **No. 14. Daubentonia**—Flowering shrub from Australia. **No. 15. Spathodea campanulata**—El Salvador. Shrub also known as flame of the woods. **No. 16. Manihot dulcis.** Shrub with attractive

Round Robin Notes

(Continued From Page 88)

following year. The exhibit at the Fair has increased in size each year, and maybe in time we can have a bigger show. The Spring Flower Show at Gresham is devoted entirely to plants and flowers and for this part of the country is good. However so much of it is made up of such formal plantings, that it doesn't help the average gardener. There was no Spring show this year because of the freeze last winter, but it will be continued next year. There was a small fuchsia display showing how to take slips etc., but only three or four flowering plants as the flower show is so early in the year.

I envy you folks who can go to garden meetings and learn so much first hand. I depend in these Robins and garden magazines. I have been tempted to try and start a garden club out here, but so far that's all I've done is think about it.

WINIFRED SMITH, Oregon

—B—

Is green algae unsightly on the inside glass of your greenhouse? Wipe the glass with a cloth (I like a piece of bathtowel) wrung out of a solution of two tablespoonsful of household ammonia mixed into a quart of water.

B. LESLIE LYNN

"*Begonia Hybrid of Distinction*"
Mrs. Doris Motschman, Originator
(See *Begonian*, Feb. 1957)

\$1.50 EACH F.O.B.

LEATHERMAN'S GARDENS

2637 N. Lee Ave. El Monte, Calif.

foliage and flowers. Semi-hardy. **No. 17. *Cassia fistula***—Golden shower. Attractive tree with handsome flower cluster about one foot long. Flowers yellow appearing before leaves. **No. 18 *Molucella laevis***—Bells of Ireland—Popular plant for floral arrangers. Flowers are surrounded by a sheath of translucent green. May be used fresh or dried. **No. 19. *Ricinus***—Commonly called castor bean. This variety is medium in growth, foliage is deep mahogany red. No green appears anywhere on this plant. Very effective when used for color in the

April Duties

April is a month of glory in the garden. Our gardens are a riot of color. Each tree, flower and shrub has on a new Easter Bonnet. Our main tasks now are to weed, water and spray for aphid and mildew. A very good spray for aphid and other insects is 50% Malathion. Use Captan or Fermate for mildew. Do not forget to add some Epsom salts to all spray material. It will help to keep your plants green and lovely.

Braid the leaves of your Narcissus or Daf-fodils as they are commonly called; fold and tie them down so that they will not be conspicuous as they become dry and brown. Remove the leaves *only* when they have separated from the bulbs naturally. Never cut them off.

RUTHANNE WILLIAMS

From Sacramento *Begonia Leaf*

—B—

Coal Ashes

(Continued From Page 85)

ground, especially the Christmas cactus and the violets.

I do not know how the fresh ashes would work, but this pile has laid so long it is all grown over with grass and has been for several years. I think it would be worth trying the fresh ashes as I read (*The Begonian*, January, 1957, page 21 in the William Penn Branch article) that begonias were growing in pure coke. I saw a beautiful plant of *kenilworth* ivy growing in a crock of old, leached out ashes at the home of a friend so I decided to try them myself.

MRS. WILLIAM HEGINBOTHAM
Saxonburg, Penna.

shrub border. **No. 20 *Vitex***—shrub. Green and variegated forms. The above may be purchased for \$2.00 for entire 20 packets. Single packets 25c.

Correction: In the list of *Begonias* in the February, *The Begonian*, No. 3 should be B. "Mrs. Schinkle" and in the list of other genera February, *The Begonian*, the description of No. 3 *Maurandia barclaiana* should be halberd (spear-like) leaves. No. 1, *March*, *Billbergia pyramidalis* should be urn-shaped.

MRS. FLORENCE GEE, *Seed Fund Administrator*
4315 Berryman Avenue, Los Angeles 66, California

Leaves From Our Begonia Branches

EAST BAY

Officers for 1957 are: pres., Mrs. Doris Clute; vice pres., Mr. Charles Congdon; sec., Mrs. E. H. Ellerbusch; treas., Mr. C. F. Jensen; and nat'l rep., Mr. Stewart C. Smith.

—B—

ELSA FORT

Meeting at the home of Mrs. Marion Jones, Camden, the program, under the leadership of Mrs. Elsa Fort, proved very interesting. Six similar begonias were passed around for us to list their distinctive features. Then we had a discussion of each plant stressing those points which would differentiate it from the others. The begonias studied were *B. "Richmondensis," B. "Catalina," B. acuminata,* Elsie Frey begonia seedling, Cuban begonia species, and *B. "Digswelliana"*—certainly a thought provoking group. As a final step, names were removed, plants shuffled around out of our sight and then we were asked to identify them again. Results averaged about four right out of six! We are indebted to Mrs. Fort for giving us a program which, while fun, provided us with a surer basis of identification of those six puzzlers.

—B—

FOOTHILL

The officers for the year of 1957-58: pres., Mrs. Rodney D. Talcott; vice pres, Mrs. Cecil Houdyshel; rec. sec., Miss Esther Smith; cor. sec., Mrs. C. W. Hall; treas., Mrs. R. N. Weaver; and nat. rep., Mrs. Susie Zug.

—B—

MIAMI, FLORIDA

This branch will hold its annual begonia show, at Simpson Garden Center, 55 S.W. 17th Road, Miami, Florida, Mrs. Lyle P. McEwen is chairman of the show, which is called Springtime in Miami and will feature begonias and other shade plants. The show is open to the public, free of charge, April 24, 2 p.m.—9 p.m. and April 25th, 10 a.m.—9 p.m. This will be a standard show and all garden members are invited to exhibit as well as begonia society members.

Mrs. Ennemoser assisted by Mrs. Florence Grimshawe is in charge of staging and Mrs. Elsie Picot will stage the education exhibit—"Begonias from Seed to Bloom."

There will be two African violet displays;

one by the Little River African Violet Society and the other by Miami African Violet Society. Nancy Price, who wrote the article "Begonias Without Soil" will have a special exhibit of her miniature type of begonias which she discussed in the February, 1957 Begonian. Mrs. L. C. Vaughan, of Palm Beach will display the begonias that belonged to her mother as a *Memoriam* to her mother, Mrs. George F. Webb, who passed away recently. Mrs. Webb was noted for her begonias. She had won many blue ribbons on them as well as sweepstakes and special awards.

New officers for the year 1957 are: pres., Mrs. Gene Ennemoser; vice-pres., Mrs. Lyle P. McEwen; sec., Mrs. Raymond Rosengren; treas., Mrs. Marguerite Robbins; and nat. dir., Mrs. Jesse O. Hyden.

—B—

PHILOBEGONIA

Met at the home of Mrs. Alfred Bailey for luncheon. A study of *Begonia "Odorata Alba"* was made, with a fine blooming plant, to bring out the high lights of its characteristics. A short test was given by Elsa Fort to the group on lesson no. 2 of the A.B.S. judges' course.

—B—

SACRAMENTO

John Paul Edwards showed slides he took on his trip to Mexico. He and Mrs. Edwards covered 5,000 miles of central and southern Mexico by chartered car with an Indian guide driver, taking out-of-the-tourist route areas as much as possible. They took 1,400 colored slides and he showed us many and told us about his trip. Celebrated its ninth birthday with a prime rib dinner.

—B—

SAN FRANCISCO

We are getting into full swing for a wonderful year, inspired by the growing of begonias. It was our pleasure to have Mr. Cal Trowbridge, A.B.S. national president, install our 1957 officers. They are:

Pres., Al Stettler; Vice-Pres., Julian Berner; Sec., Mrs. Louise Allmacher; Treas., Orris Martin; Directors, Dan Buckley and Harold Gaetjen; and Nat. Dir., Don Thomas.

Mr. Albert Wilson, T.V. Garden consultant

and author of "How Does Your Garden Grow?" and "Gardners All in California" featured the use of various shrubs, bushes and trees in garden borders as a back-drop for begonias. This was cleverly illustrated through the use of branches of each of the varieties of trees and shrubs discussed so that the audience could see how effectively they could be used. Throughout his talk, emphasis was placed on the value of proper and timely pruning, and how it would have improved the appearance of the shrubs. He was followed by Mr. Arthur Boissier who told of his methods of starting and caring for tuberous begonias at this season.

The meetings for April and May should both have top ratings. Cliff Lattin, a top-notch Camellia grower is featured, while for May, Roy Hudson, justly famous for his Golden Gate Park Rhododendrons, is scheduled to appear before a joint meeting with the San Francisco Branch of the American Fuchsia Society. In addition to these guest speakers, each meeting has a portion reserved for timely talks on begonia culture by some of our expert growers.

—B—

SAN GABRIEL VALLEY

Mr. Thompson illustrated by demonstration and colored slides the pruning processes for shrubs, emphasizing the easy way with proper tools.

—B—

TREASURE ISLAND

At the home of Mr. and Mrs. F. E. Cheeseborough we had a general discussion on begonias.

Officers for 1957 are: pres., Mr. A. F. Click; vice pres., Mrs. F. E. Cheeseborough; sec., Mrs. Harold Renshaw; treas., Mr. Harold Renshaw; and nat. dir., Mrs. A. F. Click.

—B—

There is a new white or varied shade "flower" growing along the highways of America. Have you become acquainted with it? It is the disposed, most versatile cellulose product of the world—the cleansing tissue. DON'T BE A LITTER BUG.

JULY 26, 1957

8:00 P.M.

REDONDO AREA BRANCH WHOOPEE PARTY

Proceeds to National Convention Fund

25338 Pennsylvania Ave. Lomita, Calif.

Minutes, National, Board Feb. 25

Meeting of National Board of American Begonia Society called to order by President Trowbridge. Opened with Pledge of Allegiance to the Flag and reading of Aims and Purposes of Society.

Secretary and Treasurer's reports read and approved.

Vice President Browne presented bill for 10,650 envelopes \$102.45, 2,000 small letterheads \$21.32. Moved by Bill Walton, seconded by Fred Browne that bills be paid. Carried.

Membership Secretary Walton reported 101 new members, 125 renewing members.

Seed Fund Chairman Gee reported income \$100.00, expense \$15.08, remitted to treasurer \$84.92.

Slide Librarian Anderson reporter 3 sets of slides on loan. Contacting speakers for new list.

Librarian Sault reported books sold 5, Begonias sold 26, books on loan 7.

Advertising Manager Stoddard reported Advertising for February \$60.75. Received and paid to Treasurer \$53.20.

Public Relations Director Moore has received two requests for help in starting new Branches.

Interesting report on Research given by Sylvia Leatherman. Moved by Sylvia Leatherman, seconded by Opal Ahern that Begonian be sent each month to University of Michigan. Carried.

Moved by Frank Coe, seconded by Mrs. Cramer that Mr. Butterfield be sent a check for expenses of Hotel, Taxi, etc. while he was in Los Angeles in regard to Nomenclature Committee. Carried.

Next Judging lesson to be given by Mr. Butterfield at Mrs. Korts home March 16th. Branch reports were given.

There being no further the meeting closed at 10:15 p.m. to meet again March 25th.

Respectfully submitted,
Arline Stoddard, National Secretary

—B—

Are you having difficulty in getting peat moss wet in a reasonable length of time? Emma Carleton says to pour boiling water on it and it will be thoroughly wet in an hour.

Calendar

April 6-14—Azalea and Spring Flower Festival, Descanso Gardens, La Canada.

April 11—Inglewood—Ninth Annual President's Dinner. 6:30 p.m. Rudolf Ziesenhenn, speaker.

April 17—Hollywood—"The Successful Culture of Begonias and Fuchsias," illustrated with colored slides by Pat Burke.

April 18—Foothill Branch—"Camellias" by C. D. Cothran, organizer of Pomona Valley Branch of the Camellia Society.

April 24—Glendale—"Begonias of Europe" in colored slides by William Meyn.

April 26—Redondo Beach—Ortho's new colored film, "The Growing of Beautiful Flowers," shown and discussed by their representative.

Branch Meeting Dates . . .

VISITORS ALWAYS WELCOME AT THESE MEETINGS

AMERICAN BEGONIA

HYBRIDIZERS BRANCH

Called Meetings Quarterly
Mrs. Daisy L. Walker, Secy.-Treas.
2425-A Silver Lake Blvd.,
Los Angeles 39, Calif.

BRITISH BRANCH

F. J. Bedson, Secy.
Kent, England

CENTRAL FLORIDA BRANCH

4th Thursday, 8:00 p.m.
Homes of Members
Mrs. Leo Spengler, Cor. Secy.
15 West Preston Ave., Orlando, Fla.

DALLAS COUNTY BRANCH, TEXAS

1st Thursday, 7:00 p.m.
Members' Residences
Mrs. Ruth Cook
923 S. Edgefield, Dallas 8, Texas

EAST BAY BRANCH

2nd Thursday, 7:45 p.m.
Willard School, Telegraph at Ward,
Berkeley, California
Mrs. E. H. Ellerbusch, Secy.
1051 Ordway, Berkeley 6, Calif.

EL MONTE COMMUNITY BRANCH

3rd Friday, Members' Homes
Daisy Morrow, Cor. Secy.
2821 N. Musgrove Ave., El Monte, Calif.

FOOTHILL BRANCH

3rd Thursday, 8:00 p.m.
La Verne Community Bldg.
2039 Third St., La Verne
Mrs. C. W. Hall, Cor. Secy.
358 E. Arrow Hwy., Upland, Calif.

FORT, ELSA BRANCH

1st Saturday, 1:30 p.m.
Miss Lola Price, Secy.
628 Beech Ave., Laurel Springs, N.J.

GLENDALE BRANCH

4th Wednesday, 8:00 p.m.
Tuesday Afternoon Club, 400 N. Central
Mrs. Cleo Price, Cor. Sec.
377 Myrtle, Glendale 3, Calif.

GRAY, EVA KENWORTHY BRANCH

3rd Monday, 7:30 p.m.
Community House, La Jolla
Mrs. Charles Calloway
1311 Torrey Pines Rd., La Jolla, Calif.

GRAY'S HARBOR BRANCH

2nd Monday, 8:00 p.m.
Hoquiam Public Library, or
Messingale and Rosenear Music Store
Aberdeen, Washington
Mrs. Jessie B. Hoyt, Secy.
1013 Harding Road, Aberdeen, Wash.

GRUENBAUM, MARGARET BRANCH

4th Tuesday, 10:30 a.m.
Homes of Members
Mrs. Adolph Belser, Cor. Secy.
Welsh and Veree Rd., Philadelphia, Pa.

HAWKEYE STATE BRANCH

3rd Friday, Members' Homes
Ruth Anderson, Secy.
Underwood, Iowa

HOLLYWOOD BRANCH

3rd Wednesday, 7:30 p.m.
Plummer Park, 7377 Santa Monica Blvd.
Mrs. Antoinnett Dawson, Secy.
6243 Acacia, L.A. 56, Calif.

HOUSTON, TEXAS BRANCH

2nd Friday, 10:00 a.m.
Garden Center, Herman Park
Mrs. Grant Herzog, Secy.
12601 Broken Bough, Houston 24, Texas

HUMBOLDT COUNTY BRANCH

2nd Monday, 8:00 p.m.
Los Amigos Club, Loleta, Calif.
Miss Margaret Smith, Secy.
P.O. Box 635, Ferndale, Calif.

INGLEWOOD BRANCH

2nd Thursday, 7:45 p.m.
Inglewood Women's Club
325 North Hillcrest, Inglewood, Calif.
Mrs. Hattie Bradford, Secy.
1825 W. 73rd St., Los Angeles 47, Calif.

LONE STAR BRANCH

3rd Monday, members' homes
Mrs. Chester Terry, Secy.
5511 Richmond Ave., Dallas, Texas

LONG BEACH PARENT CHAPTER

1st Thursday, 7:30 p.m.
1925 Maine Ave., Long Beach 6, Calif.
Mrs. Rosa Cox, Sec.
3592 Lewis Ave., Long Beach 7, Calif.

LOS ANGELES BRANCH

4th Wednesday, Homes of Members
Mrs. Glenn Morrow, Secy.
2821 N. Musgrove Ave., El Monte, Calif.

LOUISIANA CAPITAL BRANCH

First Friday, Homes of Members
Mrs. Thos. O. Day, Secy.
4065 Hollywood St., Baton Rouge, La.

MIAMI, FLORIDA BRANCH

4th Tuesday, 8:00 p.m.
Simpson Memorial Garden Center
Mrs. W. C. Gorman, Secy.
2296 Coral Way, Miami, Fla.

MISSOURI BRANCH

3rd Tuesday, 7:00 p.m.
Mrs. Hattie Taylor, Secy.
P.O. Box 25, Raytown, Mo.

NEW ENGLAND BRANCH

3rd Saturday, Homes of Members
Mrs. Lester H. Fox, Secy.
170 Marsh Hill Road, Dracut, Mass.

OCEAN COUNTY, NEW JERSEY BRANCH

1st Tuesday, 12:30 p.m., members' homes
Mrs. Anna Peck, Secy.
23 So. Gateway, Toms River, N.J.

ORANGE COUNTY BRANCH

2nd Thursday, 7:30 p.m.
Garden Grove Grange Hall
Century and Taft Streets
Garden Grove, Calif.
Mrs. Maybelle Woods, Secy.
604 South Helena St., Anaheim, Calif.

PASADENA BRANCH

Meetings on call.
Homes of Members
Col. C. M. Gale, Secy.
40 N. San Rafael, Pasadena 2, Calif.

PHILOBEGONIA BRANCH

2nd Friday, Members' Homes
Mrs. Charles J. Allen, Sec.
Woodside Lane, Riverton, N.J.

PORTLAND, OREGON BRANCH

4th Friday, 8:00 p.m.
Members' Homes
Mrs. Helen Parrott, Secy.
3955 S.E. Kelly, Portland 2, Oregon

RAYTOWN, MISSOURI BRANCH

4th Tuesday, 7:30 p.m.
Homes of Members
Mrs. Mildred Schorr, Secy.-Treas.

REDONDO BEACH AREA BRANCH

4th Friday each month
2308 Rockefeller, Redondo Beach, Calif.
Opal Murray Ahern, Secy.
1304 Poinsettia Ave.
Manhattan Beach, Calif.

RIVERSIDE BRANCH

2nd Wednesday, 7:30 p.m.
Shamel Park, 3650 Arlington,
Riverside, California
Mrs. Ethel Prior, Sec.
4345 5th St., Riverside, Calif.

ROBINSON, ALFRED D. BRANCH

3rd Friday, 10:30 a.m.
Homes of Members
Mrs. Harlie Brown
3233 Tennyson, San Diego 6, Calif.

SACRAMENTO BRANCH

3rd Tuesday, 8:00 p.m.
Mrs. Gordon Long, Secy.
5416 Dana Way, Sacramento, Calif.

SAN DIEGO BRANCH

4th Monday
Hard of Hearing Hall,
Herbert & University
Mrs. Maurice P. Mitchell, Secy.
2329 Bancroft St., San Diego 4, Calif.

SAN FRANCISCO BRANCH

1st Wednesday, 8:00 p.m.
Forest Lodge, 266 Laguna Honda Blvd.
Mrs. Louise Allmacher
1963 45th Ave., San Francisco, Calif.

SAN GABRIEL VALLEY BRANCH

4th Wednesday, 8:00 p.m.
Masonic Temple, 506 S. Santa Anita Ave.
Arcadia, California
Mrs. E. F. Slavik, Sec.
300 Hacienda Dr., Arcadia, Calif.

SAN MIGUEL BRANCH

2nd Monday
V.F.W. Hall at Imperial and Lincoln,
Lemon Grove, Calif.
Ida M. Barker, Secy.
7591 Central Ave., Lemon Grove, Calif.

SANTA BARBARA BRANCH

2nd Thursday, 7:30 p.m.
Girl Scout Clubhouse,
1838 San Andres St.
Mrs. Maria Sanchez, Secy.
1753 Glen Oaks Dr., Santa Barbara, Calif.

SEATTLE BRANCH

3rd Tuesday, 7:45 p.m.
Green Lake Field House
7201 Green Lake Way
Mrs. Carl Starks, Secy.
6116 Greenwood, Seattle 3, Wash.

SHEPHERD, THEODOSIA BURR BR.

1st Tuesday, 7:30 p.m.
Alice Bartlett C.H., 902 E. Main,
Ventura, Calif.
Mrs. Oakley Murphy, Secy.
119 E. Simpson, Ventura, Calif.

SMOKEY VALLEY BRANCH

3rd Thursday of each month
Mrs. A. L. Romeiser, Secy.
1104 South Ninth St., Salina, Kansas

SOUTHERN ALAMEDA COUNTY BR.

3rd Thursday, 8:00 p.m.
Strowbridge School Multi-Purpose Rm.
21400 Bedford Dr., Hayward, Calif.
Mae Bolyard, Cor. Secy.
2425 Thornton Ave., Newark, Calif.

TALL CORN STATE BRANCH

Mrs. Edna Monson, Secy.
South Taylor, Mason City, Iowa

TARRANT COUNTY BRANCH

2nd Monday, 10:00 a.m.
Garden Center, 3220 Botanic Dr.,
Fort Worth, Texas
Mrs. Joe X. Schad, Sec.
3766 W. 4th St., Fort Worth, Texas

TEXAS STATE BRANCH

1st Tuesday night in members' homes
Mrs. William Demland, Secy.
2400 19th St., Port Arthur, Texas

TREASURE ISLAND BRANCH

4th Monday, 7:30 p.m.
Homes of Members
Mrs. Harold Renshaw, Secy.
2521 37th St., Galveston, Texas

WESTERN PENNSYLVANIA BRANCH

2nd Wednesday, 11:00 a.m.
Homes of Members
Mrs. Albert S. Lash, Cor. Secy.
1228 Oklahoma Ave., Pittsburgh 16, Pa.

WHITTIER BRANCH

1st Thursday, 7:30 p.m.
Palm Park Community Center,
1643 Floral Drive
Mrs. Rebecca Olson
714 N. Palm Ave., Whittier, Calif.

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