BEGONIA CULTURE

SAN FRANCISCO BRANCH

AMERICAN BEGONIA SOCIETY

The Branch meets the first Wednesday of each month, S. F. County Fair Building (Hall of Flowers), San Francisco, at 8:00 p.m.

BEGONIAS

The genus BEGONIA was named after Michel Begon, superintendent of Santa Domingo (1638-1710) and a patron of botany.

If a plant is a true begonia, you can identify it by certain characteristics of flower and foliage. The flowers usually grow in branching clusters and each flower is either male or female - not both. A begonia bears separate male and female flowers on the same plant, and it is easy to see the differences between them. The male may have larger petals, but the female flower has a three winged, seed bearing ovary immediately under the petals. As for the foliage of the begonia, the leaves are usually lopsided; the portion on one side of the main vein is larger than the other, and they grow at alternate intervals from the stem.

CLASSIFICATION

Botanically, the genus BEGONIA has hundreds of species, varieties and forms. Because of the ease of hybridization, we can add thousands of specimens, making this one of the most interesting of all plant families, because of the wide variation between the many different species and hybrids.

For classification purposes, begonias have been divided into the following groups: rhizomatous, rex, tuberous, and stemmed varieties, (cane-like, shrub-like, thick-stemmed, and semperflorens characteristics). Since the roots of all begonias are fibrous, our former classification of a fibrous group has been changed to the stemmed varieties.

RHIZOMATOUS BEGONIAS

All begonias with creeping stems are identified as rhizomatous. All have rhizomes which are defined as thickened stems

with relatively short internodes, and usually grow along the surface of the soil, though some varieties do grow erectly, and some grow below the soil surface.

REX BEGONIA GROUP

This is unique, as the plants are grown for the beauty of the foliage. They have been crossed with other begonias, giving many fine hybrids. The leaves vary is size from under three inches to over fifteeen inches, with color and texture variety as well. Some leaves are curled or spiraled - some are not.

TUBEROUS BEGONIA GROUP

The tuberous begonia group includes species and cultivars with swollen underground stems which usually lose their foliage during the winter months. Besides the spectacularly flowered tuberhybrida and hanging basket Lloydi, this group includes dregei-like, hiemalis, cheimantha and the bulbous begonia B. socratana.

STEMMED GROUP OF BEGONIAS

This large group of begonias include the groups classified by the A.B.S. as cane-like, shrub-like, thick stemmed and semperflorens.

Cane-like begonias have bare, long jointed stems with somewhat swollen nodes which give them the general appearance of bamboo. Included are the "Superba" type, "Angel Wing" and "Mallet" type, with highly colored leaves, and trailers such as Ellen Dee, Limmingheiana or Solananthera.

Shrub like plants produce a number of stems from the ground. Some have hairy leaves, some smooth. Examples of shrub-like are "Ramirez", "Medora" or "Argenteo-guttata".

Thick stemmed group have tapering, non-jointed stems with no discernable nodes. Examples are B. "Richard Robinson", dichotoma, or friburgensis. This is a smaller group.

Semperflorens are the everblooming species and hybrids. "Charm" and "Calla Lily" belong in this group, as well as the hundreds of hybrids we use as either bedding or specimen plants.

CULTURAL REQUIREMENTS AND MAINTENANCE

SOIL

Soil for begonias should be slightly acid consisting of loose, well drained ingredients. Additional ingredients may be used for pot culture, including bone meal or small amounts of soil activator. Charcoal may be added to provide drainage and to keep the soil sweet.

In their native habitats, begonias grow in moist, shady places, in forests or among rocks where there is good drainage and ample humus. Oak leaf mold is used successfully in growing tuberous and other types of begonias. As our sources for good leave mold diminish, many growers are using prepared mixes such as the U.C. or Cornell mix. Any potting mixture should be carefully prepared and should be friable, porous and sterile.

CLIMATE AND TEMPERATURE

Since begonias in their native habitats grow under various climactic conditions and altitudes, the range of cultivated begonias is also very large.

It is necessary to find, by experience, which plants will grow well in any given location.

In California, the cool coastal regions that are humid most of the year are a paradise for begonias. Gardners in climate extremes have to resort to greenhouse or glasshouse culture where temperature and humidity are more or less under control.

Begonias will not withstand hot or drying winds, yet they must have ventilation. The average temperature in which begonias thrive best is about 55 degrees at night and 70 degrees in the daytime, but many begonias can stand the extreme of 32 degreees at night to 90 degrees during the day, without being damaged.

Humidity is important for begonias, and misting or the use of water pans under the plants may help overcome moisture deficiency. If possible, begonias prefer humidity between 50-80 degrees.

WATER AND DRAINAGE

Water carefully. Do not allow the soil to become excessively dry. On the other hand, do not allow the soil to become soggy at any time. Water when the surface begins to show dryness is a good policy.

Drainage is of paramount importance for pot culture as well as for ground culture. Never allow the plants to sit in water for any length of time. It is a good idea to spray the area surrounding them with water to keep humidity high.

FERTILIZERS

Plants are similar to people and must have a regular supply of food. All these foods are chemical in content, whether originally classed as organic or not.

There are many good commercial fertilizers that are satisfactory if applied according to instructions. Most growers prefer

to use a liquid solution by dissolving fertilizer in water. As a rule, weak solutions applied at weekly intervals are more effective than heavy applications at longer intervals.

Sufficient food makes a plant thrive, while excess food may kill. Liquid fertilizers become available to the plant quickly. Never fertilize a dry, dormant or sick plant. Feed a growing, healthy plant only.

LIGHT

Begonias are often classed as shade loving plants, however, they will become tall and spindly if there is not enough light. If too shaded, tuberous begonias will give very little bloom, but if there is too much sun, the plant will burn and the flowers will be stunted. Again, experience will determine the best in each locality.

Good locations for begonias are the north side of buildings, under filtered shade from trees, in lath houses or plastic houses. Never attempt to raise tuberous begonias in the house.

PRUNING

Cuttings of most begonias are best taken in the spring. Pruning to shape plants, as new growth starts, will give plants better form. Pinching of tip growth is done to insure bushy plants or full baskets. Cleanliness and grooming (removal of old leaves, etc.) is paramount for healthy and attractive plants.

PLANTING INSTRUCTIONS

Begonias, like other plants, should be planted carefully and firmly. They send their roots out laterally, close to the surface. For maximum growth, this shallow root system must not dry out. Careful watering and mulching is the answer. Pot size should be kept in proportion to the size of the plant. Re-pot to the next size when the root system reaches the edge of the container. Begonias, in general, do not like to be overpotted. Keep pots, tools, etc., clean. Use sterilized media when planting seeds.

PESTS

The most efficient control of mildew lies in preventation rather than cure. Use a preventative containing Karathane. For other pests, consult your local nurseryman.

GENERALITIES ABOUT VARIOUS TYPES OF BEGONIAS

STEMMED VARITIES

The majority of these plants come from the tropical and semi-tropical countries where they have a uniformly warm, moist climate. Many make good house plants if the air does not become too dry. They should be kept moist, not allowed to dry out, but if too wet, they will drop their leaves. Fresh air should be admitted to the room, but direct drafts are harmful. Plants may be misted or the air kept moist by sitting the potted plants on damp gravel, sponge rock or moss.

Semperflorens will grow well in the open ground. As almost all begonias do, they like a moist atmosphere and are shallow rooted.

Propagation of stemmed varieties may be taken from the main stem or side shoots. This is done preferably in the early spring. Tip cuttings root more quickly than old stems. The cutting should be made just below a node, with two nodes to a cutting. The propagation media may be sharp sand, sponge rock, vermiculite or other sterilized products available. The propagation box should be kept moist, mild temperature and in protected area. When both leaves and roots have developed they are ready to transplant using your favorite mix. Water well with Vitamin B-1 to avoid shock.

RHIZOMATOUS BEGONIAS

Rhizomatous begonias are so called because they have a thick rhizome which may be creeping or erect. These plants tolerate a heavier soil and more abuse, but one must be careful not to over water this type.

This type may be propagated by rhizome and leaf stem cuttings. New roots form quickly on the rhizome and a new plant will develop quickly. Many varieites of rhizomatous grow well in terrariums and closed containers. B. Versicolor and B. Rajah require the humidity obtained by the enclosed atmosphere.

REX BEGONIAS

This begonia class has infinite variety of leaf shape and color. They require high humidity and filtered light. They have thick rhizomes supplemented by masses of fine fibrous roots. They must have more porous soil of mainly organic material. They do not have a totally dormant winter period, but little growth occurs until spring.

Rex begonias are propagated by leaf or rhizome cuttings. Mature, vigorous leaves should be used. The petiole area will give the strongest start, but wedge shaped cuttings, including the main veins, will also produce a young plant. The media again will be your choice; sand, sponge rock or vermiculite. The propagation box should be kept covered by glass or plastic to keep

humidity high. After the small plants have begun to grow, it is a good idea to gradually harden them off by removing the cover. They can then be potted up into small containers. Again it is wise to water the new plants in with a Vitamin B-1 solution to lessen transplant shock.

In the spring, when new growth is about to begin, plants should be checked, cleaned, re-potted, if necessary, and made ready for their new season of growth.

TUBEROUS BEGONIAS

Tuberous begonias can be grown practically anywhere if protected from hot, dry air or extreme cold. They will grow in partial sunlight or shade; where air is moist and they are protected from the wind. They grow especially well along the coastal regions in the so-called "fog belts". If grown in hot dry areas, some means of providing an atmosphere of relatively high humidity and controlled temperature is necessary. High temperature or drafts of hot dry air will cause the buds to drop. If grown in too much shade there will be very few blooms. They grow best in an environment of 50% to 60% shade.

They can be grown from seed, stem cuttings or established tubers, but growing from tubers is the simplest method. Tubers can be purchased from December through April and should be planted as soon as new buds appear. Best results are obtained by planting tubers in flats with well composted, coarse oak leaf mold. The tubers should be spaced at least 2½" to 3" apart, depression side up, and should be covered with 3/4" to 1" of leaf mold so roots will develop over the entire surface of the tuber. The flats should have good drainage but should be kept moist.

When the new plants reach a height of 4" to 6" they should have a well developed root system and can be transplanted to individual containers. Except for very small tubers, pots or tubs smaller than 8" should not be used, and shallow containers - such as fern pots - give better results. Repotting during the growing season is not necessary as with other begonias.

A good potting mix for tuberous begonias is made from using one half last years mix combined with fresh leaf mold which has been composted. When transplanting, one tablespoon of Hoof and Horn in the bottom half of a 9" or 10" container will stimulate healthy growth. Staking should be done at this time. Water in well, with a solution of Vitamin B, to help overcome possible shock.

During the early stages of the growing season, tuberous begonias should be fed with a high nitrogen fertilizer every two to three weeks, changing to bloom producing fertilizer as the blooming season approaches.

One or two tip "pinchings" are recommended during the early stages of growth for hanging basket types.

As the growing season nears an end, in the late fall, tuberous begonias will be into dormancy naturally. In the final stages, water should be withheld and the foliage and stems allowed to separate from the tuber without cutting or breaking. After complete separation, the tubers should be dug up, all soil removed, and the tubers dried in the sun for a day or so. When dry, they should be placed in flats and stored in a cool, dry ventilated area.

In the spring, when new buds appear, tubers are ready to start all over again.

The major pests and diseases affecting tuberous begonias are powdery mildew, which can be controlled with a preventative containing Karathane; worms, which can be controlled in the early stages of growth with insecticides, and later by manually removing them; and rot which can best be controlled by not overwatering and making certain that planting medium is clean and free of fungi.