

BEGONIA CULTURE

The Begonia family includes hundreds of species that are native to Mexico, Central America, South America and to a lesser degree, parts of Asia and Africa. They grow naturally in both tropical rain forests and cooler mountainous and cloud forest regions. Begoniaceae is one of the largest flowering plant families with about 1500 different species and still more are being discovered. There are thousands of various hybrids. The genus Begonia was named in the 17th century by Charles Plumier, a botanist, to honor Michel Begon, a superintendent of Santo Domingo and botany patron. Most Begonias that are cultivated today, however, are hybrids.

Begonias are known as the great foliage impostors. Their leaves can resemble ivies, ferns, aralias, grasses and peperomias, among others. Leaves can be flat, pebbled, shiny, hairy, fuzzy or spiraled. Leaves can be in almost any color combination including red, green, purple, pink and metallic silver markings. All begonias have male and female flowers, bloom in all colors except blue, and can be found in two-foot wide clusters of hundreds of tiny flowers all the way up to a giant double blossom ten inches or more in diameter on Tuberous begonias. Some require a greenhouse or terrarium for proper growth. Others can be grown on a window sill, or planted outside right in the ground here in the greater San Francisco, Sacramento and Monterey Bay areas and become massive landscape plants giving years of beauty and enjoyment. Begonias can be as small as *B. prismatocarpa* at only a few inches high when mature in a terrarium, to as large as *B. luxurians* that will mature at over 8 feet high or more.

As gardeners and not botanists, we speak of Begonias using a Horticultural Classification system which groups together species and hybrids with similar characteristics and cultural requirements. Using that system, we can divide Begonias into the following groups: **CANE-LIKE, SHRUB-LIKE, THICK STEMMED, SEMPERFLORENS, RHIZOMATOUS, TUBEROUS** and **TRAILING** or **SCANDENT**.

CANE-LIKE or Cane Begonias, are grown mostly for their large and usually long-lasting pendulous flowers, but there are many that also have spectacular foliage. Cane Begonias grow as cane-like (think bamboo), with erect stems and send up new stems from the roots. Some remain short or dwarf in size, but some can grow up to 15 feet high, if planted in the ground. As a group, they are the most hardy or Temperature Tolerant of the begonias, and can tolerate the most sun.

Growers further divide Cane-like Begonias into several subgroups. **SUPERBA** Begonias have lobed, cleft leaves. **RUBRA** Begonias are the most common, and have no serration of the leaves and the undersides of the leaves are typically a dark red or maroon. **INTERMEDIATE** Begonias are crosses between the first 2 groups. **MALLET** Begonias are the most rare, with only 4-5 cultivars and considered the most difficult to grow. **CANE-LIKE** Begonias are among the easier types of Begonias to grow, excluding the **MALLET** type.

GENERAL CULTURE

Begonias send out shallow root systems, and prefer shallow pots, except for tall-growing canes and shrubs. Repot only to the next larger sized pot; begonias do not like over potting, but prefer to be somewhat root bound. Use either clay or plastic pots as your cultural conditions and your watering techniques require.

This document was compiled by Gary Turner from various lectures and documents created by the following branches of the American Begonia Society: the San Francisco Begonia Society, the Joan Coulat Sacramento Branch of the ABS and the Leslie Hatfield Monterey Bay Branch of the ABS.





SOIL AND POTTING

The planting medium mix should be slightly acid, containing loose, well-drained ingredients such as Perlite, Vermiculite and leaf mold (oak leaf, if available, or micro chip Orchid Bark). Good commercial mixes are also available.

Canes, like other Begonias, require a loose potting mix that will drain well, and prevent “soggy feet”. Avoid pots that are too large, as Begonias in general prefer to be root or pot bound. You will know it is time to repot to a larger pot when you have to water them too frequently. The type of pot does not matter, but for tall plants it is wise to use a heavy pot that will help prevent the plant from tipping over. When repotting, place the plant as low in the new pot as possible. This will bury more stem buds and encourage more canes to grow and more roots to form.

Joan Coulat of the Sacramento Begonia Society recommends this mix as the most effective, and mixes the ingredients on a flat cement surface using a flat shovel to thoroughly distribute all the nutrients and prevent any ‘hot spots’. Moisten the mix lightly to activate the ingredients and store in two 32 gallon plastic trash cans. This mixture works well in Sacramento because while it is both loose and airy, it still has good moisture retention. This mix should work fine for most everyone.

Joan Coulat’s special soil mixture recipe includes the following:

- **2 bags** of 2 cubic feet **Master Nursery Masters Pride Professional Potting Soil**
- **2 bags** of 2 cubic feet **Master Nursery Paydirt with Soil N’Rich**
- **3 - 1/2 gallons** of **Perlite** (course)
- **2 - 1 gallons** of **Vermiculite** (course)
- **1 - 1/2 cup** of **Blood Meal**
- **1 - 1/2 cup** of **SuperPhosphate**
- **1 - cup** of **Bone Meal**
- **1 - cup** of **Agricultural Lime**
- **1 - 1/2 cup** of **Ironite**

Carol Notaras and other members of the San Francisco Begonia Society also use a more basic blend of:

- **1/3 Potting Soil** (African Violet, Miracle Grow Moisture Control or similar)
- **1/3 Perlite**
- **1/3 Orchid Bark** (small or micro-chip size)

CLIMATE AND TEMPERATURE

The majority of begonias like bright light, shady areas out of direct mid-day sun are best. Good ventilation results in good growth, whereas poor air circulation can result in promoting the growth of mildew. Optimum temperatures for Cane Type begonias range from 55 degrees at night to about 80 degrees in the day. Some survive short bouts of freezing weather, and others can withstand 100 degree summers. Higher humidity through misting helps them grow better in higher temperatures.

If temperatures are going to fall below freezing, they should be moved indoors if they are in pots. Canes planted directly in the ground may drop their leaves above ground if they are exposed to temperatures below freezing, but usually grow back from the roots the next spring as the temperatures warm up again. Extreme temperature changes caused by moving plants may also cause leaf drop.

Surprisingly, many cane type and shrub type begonias will grow very well year round in our area, but might drop leaves when the temperatures drop to near or below freezing for short periods of time. The most successful situations are where the plants are protected or sheltered by trees, shrubs, other plants and fences.



HUMIDITY

In general, Cane Types are not bothered by humidity. The ideal range would be between 40% to 60%. If the humidity is too low, the leaf edges may become crisp. If the humidity level is too high, it could cause rotting or lower leaves to drop off.

LIGHT

While classified as shade plants, too little light will result in weak, spindly plants. Most varieties can take early morning sun or dappled sunlight all day long. Light that grows healthy African Violets and many other Gesneriads is also good for most begonias. However, the hybrid bedding, wax or **Semperflorens** type begonias are able to tolerate full sun, even in areas like Sacramento.

Light is important for Canes and all other Begonias in order to produce sturdy stems, foliage with good texture and color, and an abundance of flowers. Lots of filtered light is best, but avoid direct, hot sun. Too much sun will cause the leaves to bleach out and in severe situations, actual leaf burning and spotting.

WATERING AND DRAINAGE

The soil should neither become excessively dry nor allowed to stay sopping wet. The well-draining soil mix mentioned above with organic matter helps with this process. The plants should be watered thoroughly when the top of the soil becomes dry to the touch. Watering seems to be best done early in the day, giving plants time for the leaves to dry off before night time temperatures drop.

Canes Do not like to be over watered, although they are more tolerant than any other types of Begonias. Watering only after the surface of the planting soil is dry. Over watering will cause leaf drop. Try to avoid getting water on the leaves, if the temperature is high or the plant is in direct sun, as this can cause leaf burn spotting.

PROPAGATION

Most Begonias can be easily reproduced from stem cuttings. Spring time being the best time to start. Good results come from rooting cuttings in water, but make sure you have a branching node on the cutting. A branching node is a node at a leaf axil that did not produce flowers. Leaf nodes that produced flowers will not produce branching stems. Many people also have great success planting cuttings directly in moist potting soil or Perlite, and keeping the cuttings in deep shade until well rooted.

PRUNING

The best time of year to prune is late in winter just as new growth starts. Pinch the growth tips throughout the growing season to help shape plants, and help them bush out or fill out better for a more uniform shape, and to keep them within bounds.

PESTS AND DISEASE

In general, Begonias are quite hardy, durable plants, which are relatively resistant to pests when they are healthy. However, Mealy Bugs and Aphids are the most common insect pests for Begonias, and Mildew or Powdery Mildew is the most common disease, usually caused by damp conditions over night and poor air circulation.



FERTILIZER

Most growers prefer to water with dissolved fertilizer, although time release types which stay on the soil surface offer good results. As a general rule, 1/4 strength used at each watering or every other watering is more effective than heavier applications at longer intervals. By diluting the recommended strength, you can fertilize more often, and even every time you water. This also allows for using different fertilizers more often, which will give a better supply of trace elements and micro-nutrients. Never fertilize a dormant or sick plant.

For example, if you water once a week and the fertilizer package indicates using one tablespoon per gallon per month, then use 1/4 tablespoon per gallon per week. Many commercial growers use this method of diluted fertilizing on a regular basis. Alternating different fertilizers provides a wider range of micronutrients. Joan Coulat of the Sacramento Branch of the American Begonia Society uses, among others, Romeo (14-14-14), Romeo (18-18-18), Peters, Mir-Acid, Miracle Grow and Shultz fertilizers.

Canes respond well to regular fertilizing. Best results come from using a balanced fertilizer (20-20-20, etc.) frequently, but at less than full strength. It is also OK to use a high bloom fertilizer during the peak growing and blooming season. If you are growing blooming plants for show, start fertilizing about ten weeks ahead with a high bloom fertilizer. These fertilizers are higher in Phosphorus as indicated by the middle number of the 3 number code on fertilizer labels.

Using **SUPERthrive** at 1 drop per gallon of water used as a foliar spray once a week will help develop new depth of color, vigor and substance to begonia foliage.

HELPFUL INFORMATION

Begonia Societies:

American Begonia Society - begonias.org			
San Francisco Begonia Society sfbegonia.org	Joan Coulat - Sacramento Branch of the ABS sacramentobegonia.org	Santa Clara Valley Begonia Society scvbegonia.org	Leslie Hatfield - Monterey Bay Branch of ABS montereybegonia.org
1st Weds/month	3rd Tues/month	3rd Thurs/month	Last Weds/month

There are several very good online resources for Begonia Enthusiasts and Growers:

- **Begonias.org** - web site for the American Begonia Society, contains lots of helpful information, recommended books, links and online resources. Membership includes a bimonthly full color magazine **The Begonian**, which features newly discovered species, hybrids & events of interest to Begonia enthusiasts. The ABS also has Branch Societies throughout the USA.
- **BradsBegoniaWorld.com** - Brad Thompson is a world famous Begonia hybridizer and experienced grower. **Brad's Begonia World** provides lots of very helpful information about growing along with color photographs.
- **IDB.org (International Database of Begoniaceae)** - maintained by Ross Boswell, strives to be the ultimate information resource for Begonias including Parentage of hybrids along with photos of Begonias, cultural information and more.