

the TROPICAL GARDEN

SUMMER 2015

An aerial photograph of a lush tropical garden. In the center is a large, well-maintained green lawn. A low, curved stone wall runs across the foreground, separating the lawn from a dark pond. The pond's surface reflects the sky and the surrounding greenery. The garden is densely packed with various tropical plants, including numerous palm trees of different heights and types, and other broad-leafed plants. Several wooden benches are scattered throughout the lawn area. The background shows a dense line of trees under a bright, slightly cloudy sky.

Summer at Fairchild: A Timeless Garden Design



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I used to think of begonias as common houseplants that my great-grandmother might have grown for the summer, not much competition for the magnificent and unusual plants we can cultivate in the subtropics. But as usual, a closer look reveals much more to the story: The genus *Begonia* offers species and hybrids of dizzying variety.

BEGONIAS

Beyond the windowsill houseplant

Text and photos by Kenneth Setzer

First, a little family history: The genus *Begonia* belongs to the plant family Begoniaceae, and contributes a huge number of members, with about 1,400 species. *Hillebrandia* is the only other genus in the family. A rare Hawaiian endemic, it is the only family member native to Hawaii. A paper in the *American Journal of Botany* in 2004 indicates that *Hillebrandia sandwicensis* is one of the older branches on the family tree: While it is now only found in Hawaii, the species actually predates the formation of the Hawaiian archipelago by millions of years. It must have originated elsewhere, and is therefore probably a relict species, the remainder of a once-wider distribution.

Back to begonias: *Begonias* mostly inhabit humid, tropical and subtropical habitats, and are found throughout the tropics, excluding Australia. Most—but not all—begonias display asymmetric leaves, and usually white or pink flowers. In most other flowering plants, the sepals (the small parts below the petals, which together constitute the calyx) are green and clearly distinct from the petals. In begonias, the sepals and petals are often both brightly colored and nearly indistinguishable; together they are referred to as tepals.

Tiny *Begonia* seeds are unique in having a ring of “collar” cells that allows one end of the seed to open (acting like a door) for the seedling to emerge, akin to a chick breaking out of an egg. Of course, you would need a good microscope to view this.



Begonia nelumbifolia, the lily pad begonia. Its huge, nearly round, petiole (stalk attached underneath) leaves indeed look like those of the lotus. Give this large begonia room.



Begonia bipinnatifida is shrub-like and rare in cultivation. It requires high humidity as in a greenhouse or terrarium. The deeply divided leaves contrast dark green with wine-red undersides.



The showy, hot pink flowers of *Begonia maculata*.

Visually, begonias differ wildly: consider *Begonia nelumbifolia*, the lily pad begonia, which is common in Mexico and Central America. One could use its gigantic leaves as dinner plates, or as odd hats. Some begonias are even epiphytic (growing harmlessly on other plants), with *Begonia convolvulacea* growing to liana proportions. The tiny *Begonia bipinnatifida* looks more like a fern than a begonia. *Begonia bogneri*, with long, grass-like leaves, also doesn't look very begonia-like.

Even with so much diversity, begonias from different continents can often interbreed, a factor in the thousands of varieties and hybrids available.

Begonia species sharing certain similarities are grouped into botanical sections, of which there are currently 66. The sections make identification and classification a bit easier. For hands-on horticulture, however, the American Begonia Society places begonias into eight horticultural groups (see sidebar). These groups do not necessarily correspond to taxonomic criteria such as phylogeny or relatedness, and many plants have characteristics befitting more than one group.

Very generally, most begonias don't like extreme, long exposure to direct sun, though many do fine in bright light, provided they have access to moisture. In “*Begonias: Cultivation, Identification, and Natural History*,” author Mark C. Tebbitt advises that begonias with pale, thin leaves generally prefer high humidity and low light; those with thicker, hairless leaves like more light. Here in the Garden, I have found identical species flourishing in the shady Richard H. Simons Rainforest and along paths in direct sun.

Potted begonias don't tolerate “wet feet” well, and can rot from overwatering (especially tuberous types entering dormancy). However, they do thrive in high humidity, which can be increased by misting and group plantings.

Regions of high *Begonia* diversity are studied as possible refugia—areas that remained relatively unaffected during past events such as glaciation, thus allowing cold-sensitive plants like begonias to survive ice ages. This is one tough genus. Pretty neat for grandma's windowsill houseplant. 🌱

American Begonia Society Begonia groups

Rhizomatous begonias grow from rhizomes, and while they spread horizontally, will not reach great heights.

Cane begonias have thick stems resembling bamboo. Many are known as “angel wing” begonias.

Semperflorens, aka “wax” begonias are grouped together because of their waxy foliage. They live up to the name “ever-flowering.” They have bushy growth and are good for year-round plantings.

Rex, a type of rhizomatous begonia, is grown for showy, colorful leaves. All of its varieties are descended from *Begonia rex*.

Shrub-like begonias have a growth habit of multiple stems emerging from the soil surface to form a shrub-like appearance.

Tuberous or semi-tuberous begonias grow from tubers and are prized for their showy flowers. In cooler areas, they will go dormant in fall and winter; look for swollen stem bases.

Thick-stemmed begonias have, predictably, thick stems, and rarely branch.

Trailing-scandent begonias have a trailing growth habit; these can be trained to grow up trees in warmer climates and are also great in hanging pots.

Find more information at the American Begonia Society's web site: www.begonias.org.