

DEMYSTIFYING THE BIFOLIATE CATTLEYA SPECIES

By Keith Davis

The bifoliate cattleya species are an odd sort and have a reputation for being difficult and finicky to grow and maintain. Our goal is to take some of the mystery out of this group of cattleyas so that you can enjoy their fabulous blooms.

The species range in size from cute pygmy-sized plants like the 4 inch tall *C. nobilior* and *C. aclandiae* up to the gargantuan size of *C. amethystoglossa* and *C. guttata* which can be over 5 feet tall. To understand how to successfully grow these species, one needs to learn how these plants grow in nature and what their requirements are as well as their limitations. "One size fits all" does not apply to bifoliate cattleyas.

Some such as *C. guttata* grow in very harsh conditions in full tropical sun, salty air from the sea, stiff breezes and thrive in poor soils or on rocks. Others like *C. violacea* grow in less harsh environments with little temperature changes, less light and near water or waterfalls that give rise to very high humidity and cooling mists. Take the time to do research for the specific species you want to grow. Many of the old *Bulletins*, *Orchids* magazine, *Orchid Digest* issues, books, and web searches can yield a treasure trove of information on most all of the bifoliate species. The more you know about how it grows in nature, the fewer plants you will kill from trial and error.

Some traits that nearly all bifoliate cattleyas have in common is that they have a very specific growing period, rooting period and resting period. They also do not produce many new roots per growing season. Each root your plant produces is a treasure to be nurtured. They also highly resent losing their root system and often rebel by committing suicide.

To safeguard a bifoliate's root system, use a potting mix that does not break down very quickly. I like to use charcoal, large sponge rock, hard chunky bark such as sequoia or the bark from the Monterrey pine, or chunks of tree fern along with Styrofoam peanuts. Keep a close watch on the mix's condition. If breakdown starts, I remove the plant from the pot and only remove the rotting part of the old mix by spraying water up into the core of the root ball. You can pat the root ball gently to encourage loose old mix to fall out. If there are a lot of voids, you can sprinkle new mix on top of the plant's roots and pat the outside of the pot to encourage the mix to fall down to fill voids. If the voids are not too large, I just leave them and let the new roots fill those voids. If you need a larger pot, increase the pot size the bare minimum to which the root ball will fit. NEVER OVER-POT A BIFOLIATE. Some of the smaller growing bifoliate do better in baskets filled with something that won't rot such as tree fern chunks, charcoal, lava rock, etc. If the plant gets too large, just put the old basket into a larger one. Any of the above activities are best done when new root growth is visible. Remember, if you disturb the roots on a bifoliate, you are asking for disaster.

If you ever want to take a division of a bifoliate, it is best to use what I call the pot-over system. This involves letting a front lead grow over the pot's edge and tying up a small pot just under where the next growth will start. The new roots will grow down into the pot and the new growths will then have their own root system already established in the new pot. At this point, the division can be cut loose from the mother plant and you will

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have a no-stress division already established. This is fool proof but takes time. *C. loddigesii* and *C. harrisoniana* are two exceptions that can usually be divided as normal cattleyas if they are in active new root growing mode. These two species are not as difficult to repot, divide or get established, but are definitely the exception in this group.

There are 4 species that are often confused. Here is how to differentiate between them.

- ✦ *C. guttata* vs. *C. leopoldii* (also known as *tigrina*). The first is taller, up 4.5 to 5.5 feet, blooms are often seen with a greenish background, smaller and often have a larger flower count...up to 50 per spike, blooms in the late summer or early fall from a DRY sheath. *C. leopoldii* are smaller, up to about 3 feet, blooms are usually darker, flowers in late spring to early summer from a GREEN sheath. In the past, many people did not differentiate between the two species when breeding or granting awards. Some called their plant *C. guttata variety leopoldii* which is not correct, it is either one or the other. The two species are distinct.
- ✦ *C. loddigesii* and *C. harrisoniana*. These two also bloom at different times, the first in late winter or early spring and the latter in mid to late summer. *C. loddigesii* has more pink colored blooms while *harrisoniana* has darker colored blooms that are rose colored and more intensely pigmented. Also, *loddigesii* are generally shorter plants. True *harrisoniana* are actually quite rare just as true *guttata* is.

Finally, hybrids with bifoliate often overcome some of the difficulty of growing species and exhibit what breeders call Hybrid Vigor. The hybrids can be every bit as exciting to grow and flower.

We have many images of the species with various color forms and a few hybrids that hopefully will entice you to want to collect these beauties of nature. One of the most rewarding adventures in orchid growing is nurturing your bifoliate cattleya to the point that you have a specimen. It will usually take the blue ribbon at a show or society meeting and make you, the grower, very proud, as you should be.