St. Augustine Orchid Society
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Repotting Cattleyas Redux

April 2005

by Dr. Courtney Hackney, hackneau@comcast.net

Orchid Growing Tips

In case you were not paying attention, the equinox has come and gone, which means that days are now more than 12 hours long. Indoor growers need to adjust lights now so that their orchids will begin preparing for next year's flowers. One of the most frequent misconceptions among indoor growers is that their lights should match the day length outside. If you remember that most orchids we grow are either tropical species or have tropical ancestors, it will be obvious that day length should not be as long in summer as in the temperate zone, nor should nights be as long in winter.

A good pattern is to provide 13 ½ hours of light during midsummer and 13 ½ hours of dark in mid-winter. The key is to change the length of day or night with the season, which requires a three-hour change every six months. Most timers are in 15-minute increments, so increase the time by 30 minutes every month from December to June. Then subtract 30 minutes each month thereafter until December.

Many orchids will flower in response to increases or decreases in day length, so flowering can be controlled to some extent with many orchids. Remember though, there may be other important cues as well. The growth cycle is also dependent on day length. This is most critical for growth and survival of roots as growth may only occur during one time of year. If an orchid is repotted after root growth is completed, there may not be enough roots remaining to bloom well. Cattleyas are especially susceptible to poorly timed repotting. Old geezers (like me) pay close attention to when new roots are produced.

There are essentially three patterns, 1) new roots are produced before flowering, 2) new roots are produced after flowering, and finally 3) species that are each a little different. Most species and hybrids fall into one of the first two groups. For many unifoliate cattleya species, such as mossiae, trianaei, percivaliana, and schroederae, rooting occurs as the pseudobulbs grow with flowering following soon after. Some bifoliates, in- cluding C aurantiaca, bowringiana, intermedia, and skinneri follow the same pattern. Flowers usually are produced during winter-spring. Repotting in winter or early spring means that new roots fill the pot before flowering. This "root before blooming" group and hybrids with the same characteristic are generally considered easier to grow.

A second pattern is the "root after blooming" group. These have the reputation of being hard to bloom and flower, but that is largely because of the time when most growers repot. In this type, new leads emerge in the late winter, spring or summer and bloom as the bulb matures. Only after flowering does the plant get new roots. Repotting as the new growth begins deprives the new bulb of the nutrients required to grow and bloom because there are no new roots produced until after blooming. If repotted, cattleyas in this group will often forgo flowering and grow new roots instead.

The root after blooming group contains a number of unifoliate Cattleya species with a hard-to-grow reputation such as dowiana, lueddemanniana, warscewiczii, and warneri. Bifoliate cattleyas in this group have the added problem of producing only a few thick roots with each growth, so repotting at the wrong time often leads to a slow decline and ultimate death in species such as schilleriana, leopoldii, bicolor, and granulosa. Better timing of repotting often solves the undeserved reputation of being hard to grow.

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There are Cattleya species that produce new growths and roots several times during the year, such as C. aclandiae and walkeriana. These species produce new growths and then new roots almost immediately.

If you are interested in learning more about Cattleya culture, including the details of each species and their rooting cycle, consult the article by William Rogerson in issue 4 of the Orchid Digest in 2004. Rogerson grows his cattleyas to perfection because he understands the growth cycle of his cattleyas.