

# Rupicolous Laelia Culture



If you ask just a few orchid growers how to grow Brazil's rupicolous laelias, you're sure to hear stories of failure. This is ironic, because, compared with other small-growing orchids such as pleurothallids, these orchids are remarkably rugged. Their space-saving stature and colorful flowers make them worth growing. Like all orchid culture, it's easy once you know what the plants need. Although experimentation may be required for your own personal growing conditions, it helps to have a starting point.

The most common cultural requirement you'll hear regarding these laelias is, "They need plenty of light to flower. They'll grow okay under normal cattleya conditions, but you might never see a flower." This myth is probably due to the harsh environment in which they grow in nature; often on rock outcrops in full sun with nothing more than grasses and detritus to protect the plants, and nightly mist as the main source of moisture.

**Light** We are trying to give our orchids the best of culture, and, as with other genera, it is not always necessary (or advisable) to duplicate nature. In the May 1990 *AOS Bulletin*, James Nickou reported, "I have found that they (rupicolous laelias) will bloom with light levels adequate for most standard Cattleya hybrids. If grown in full sun they will eventually die." He goes on to say that under-light growers should place them close to the tubes for maximum exposure. I know of growers reliably flowering these species in cloudy Oregon. In South Florida, we hang them high and bright but not in direct sun, and they do not receive bright light all day. They grow vigorously and flower reliably for us despite having high night temperatures as a

disadvantage. These orchids come from mountainous areas and benefit from a drop in temperature at night.

Rupicolous laelias are often shy root producers and imported bare-root plants are slow to reestablish. If you repeatedly have problems getting these laelias going, look for artificially propagated seedlings rather than mature plants. Seedlings' constant growth is often a solution to establishing species that may otherwise be marginal growers for us. Because these plants resent being disturbed, avoid repotting them every year. When you do have to repot them, be gentle with the root pruning, cutting away only those roots that are dead.

**Media** Although I have seen people successfully growing rupicolous laelias on driftwood (watered every day) and in organic media such as tree fern, fir bark, and even sphagnum moss, the inorganic media are the best choice by a wide margin. Nickou suggested graded aquarium gravel about the size of a pea. Other expanded clay products, Aliflor, Turface, sponge rock, Solite, pumice rock, and fine charcoal, etc., may also be good choices. In the past, I have tried gravel and gravel mixed with tree fern and had only moderate success; the plants grew, but slowly. I have now settled on a combination of red lava rock and small-grade Aliflor and have had wonderful results.



**lava rock on the left, Aliflor on the right**

The coarser lava rock is placed in the bottom of the pot and the topping off is done with the finer Aliflor. The more even size of the Aliflor top dressing allows the orchids to be seated more easily. Larger plants (*L. cinnabarina*, *L. rupestris*, *L. angereri*, etc.) get more lava rock, whereas the smaller plants (*L. esalqueana*, *L. reginae*, *L. lilliputiana*, etc.) receive more of the finer Aliflor.

The fact that these orchids do not like being disturbed does not mean that you should overpot; rarely is more than a 5-inch pot necessary, with 3 inches being just about right for most of the smaller species. Clay seems preferable to plastic; it allows more air to the roots and the

evaporation of moisture from the clay provides a cooler environment for the roots during the hot summer. You will need to make this decision based upon your growing style and watering habits. It's okay if the plants are up to the edge of the pot, as the short rhizomes make for compact growth. A major advantage of using the inorganic media is that they do not break down. When repotting time comes, it is not necessary to remove every piece of the old medium; allow any bits of material that cling to the roots to stay. Indeed, some growers move the whole plant, lava rock and all, into the new pot and simply fill in with fresh medium. The best rule of thumb for these orchids is to repot only when necessary and do it in such a way as to cause minimal trauma to the plant.

**Watering** Although in nature these plants may go for months with no other moisture than nightly dew from the clouds rolling down the mountains, in cultivation they need an ample supply of water. Do not make the mistake of treating them as xerophytes. Under most situations, you will probably need to water rupicolous laelias two or three times a week. Cool spells, lower light or artificial light, and plastic pots will require less water. Growing them in an open shadehouse in South Florida in 3- to 5-inch pots using lava rock and Aliflor, we usually water three times a week and fertilize a fourth day during growth. They receive high temperatures, bright light and lots of air movement. We have fans going in the shadehouse 24 hours a day during the warm months. Most of us will water these plants along with everything else. However, Francisco Miranda, an expert on Brazil's native orchids, suggests watering them late in the afternoon as an attempt to mimic their evening watering in nature. At least one grower I have spoken with has had improved results with this technique. Be sure to provide adequate air movement to prevent rot and attempt nightly watering only on a trial basis.

**Fertilizer** Fertilizer seems to be less of a consideration than with other orchids; rupicolous laelias will grow and flower without it. Actually, too much fertilizer can be more harmful than too little. One reason some growers prefer smooth gravel to pitted lava rock is to avoid fertilizer salt build-up, to which these laelias seem to be sensitive. If using a semiporous medium, be sure to flush monthly with copious clean water to prevent potential problems.

This group of orchids is adaptable to a wide temperature and humidity range and will happily grow in the same conditions as the rest of your cattleyas and oncidiums. A significant day-night temperature differential may produce flowers more reliably but this has not yet been proven. Ours do well in steamy South Florida. The sturdy nature

of these little laelias makes them undesirable to most pests, with scale, mealybugs and occasional spidermites being the biggest threats. Like encyclias, the tightly clustered pseudobulbs of rupicolous laelias make an excellent hiding place for these menaces and they may be difficult to eradicate when they are finally noticed. If you are prone to outbreaks of insect pests, routinely look between the pseudobulbs for the tell-tale signs of whitish fuzzy stuff (mealybugs) or the shell-like armored scales, and treat with an appropriate pesticide.

**The Brazilian rupicolous laelias are not difficult subjects. As for any orchid, growing them is just a matter of providing acceptable conditions. Now that you know what those conditions are, try a few. Their compact growth habit and colorful flowers make them a worthwhile addition to any orchid collection.**

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