

Cattleya Culture

Cattleyas orchid have the following requirements:

Light

Inadequate light is probably the most common reason for otherwise healthy Cattleyas to not flower. Unlike Phalaenopsis, which will bloom every spring with only bright indirect light, a mature Cattleya will bloom in the same season as in previous years, unless it doesn't get enough light, which is at least twice as much as is required by Phalaenopsis. A good indicator of light levels is the color of the leaves. Cattleya leaves should trend toward more of a lime green (see **Figure 1**). If they are dark green, the plant might not be receiving enough light. My greenhouse roof has 2-layers of poly and a layer of 50% shade cloth; this barely provides enough light for good blooming. Ideally, I would like 4000-5000 footcandles of light and with sun for at least 8 hours a day.



Figure 1 – Lime green Cattleya leaves that receive enough sun.

Fertilizer

Feed the plants well, especially during their growing season. I have a fertilizer injector in my greenhouse that adds fertilizer to every drop of water I use. That means that my plants are getting fed every time I water. Ideally I would like to feed them 100-200 parts per million of non-urea nitrogen year around with an equal amount of phosphorus when it is time to make flowers and grow roots.

Repotting

Repot when the plants outgrow the pot or when mix breaks down. Unlike Phalaenopsis plants that grow straight up out of the middle of the plant, but Cattleyas grow horizontally, producing each new growth out of the side of the last one and marching toward the edge of the pot (see **Figure 2**). Once they grow over the side of the pot so that the new roots cannot grow into the media, it is time to repot. Potting mixes are probably the most controversial topic in orchid growing and honestly, you will need to figure out what works best under your conditions, and yes, your conditions are different

than mine, so my advice is only a starting point. I will probably write a whole other topic about orchid media choices, because there are many choices and opinions. I also plan to make a repotting video later in the spring when I am into full Cattleya repotting mode.



Figure 2 – New Cattleya growth where new roots cannot grow into the pot.

Temperature

As a general rule, I would like to maintain minimum temperatures around 55°F for most Cattleya varieties, but since I also grow Phals in in the same greenhouse I keep it at 60. It feels perfect when temps reach 85, but living in the south, temps as high as 95 are more realistic on hot summer days, even with evaporative cooling. This doesn't seem to bother the plants as long as there is adequate air movement to prevent too much heat buildup in the leaves. We had a power outage one day in September when I was not home and temperatures in the greenhouse exceeded 130° for much of the day. Many leaves were burned but I lost hardly any plants.

Watering

I like to let my Cattleyas dry out before watering again, unlike Vandaceous plants that prefer to stay more moist. When I water, I soak everything with a garden hose, but I water only on sunny days when the plants will dry out before evening. I prefer not to ever water on cool or cloudy days and I use a mix that retains some moisture for a few days, but allows air flow through the mix. This cycle of soaking all of the roots and then ensuring that the plant itself dries out as quickly as possible will keep fungus and bacterial infection to a minimum. Some plants (especially C. (Guarianthe) hybrids) are especially troublesome and can hold water in the many folds surrounding the leaves (see **Figure 3**). Keep those dry if you can.



Figure 3 – New Growths on *C. bowringiana* hybrids can hold water.

Air movement

Standing water and stagnant air are a recipe for orchid growing problems. These are air plants (epiphytes) and as such, in their natural environment their roots and the plant itself are exposed to winds that occur high in the trees where they live. Sticking them in a tight pot with no holes is a sure way to create problems. Make sure you have a way to circulate the air in the room where you grow your plants.

Orchid pests

I grow Cattleyas partly because I find them the easiest to grow of most orchid plants, but there are plenty of pests that like to eat them. Most common are scale insects and mealy bugs (both spread by ants), and the ever pesky snails and slugs. I have a spray program that I employ because I grow in the greenhouse, but if you grow in your house, you have to be more careful about the chemicals you use. I can't recommend any particular insecticides, but I can tell you what I have had success with. Just a warning to be careful what chemicals you use on your orchids because some will damage or kill certain varieties. And above all else, use chemicals according to the label and use them safely. When I spray in my greenhouse I also suit up fully with Tyvek overalls, a breathing apparatus, a face shield, and rubber boots and gloves. I look like I am ready for space travel but all that gear keeps me safe.

- I remember that when I lived in Florida, a safe all-purpose spray recommended by Selby Botanical Gardens was to add 1 pint of 409 cleaner and a pint of rubbing alcohol into an empty gallon jug and fill it with water. Pour this into a spray bottle and use as a contact spray.

- Another thing I sometimes use as a contact spray is a pyrethrin spray, which is supposed to be safe, and although it is labeled for use in a house, I would not use it there. BASF has several 20 oz spray products; the last one I bought was PT 221L.
- Insecticides that are not safe in the house that I use in the greenhouse include Orthene (acephate) and an insect growth regulator named Distance, which is pricy but extremely effective against both scale insects and mealy bugs.
- Slugs and snails are especially hard to get rid of. I hand pick them off when I can and have not had much luck with any kind of chemical treatments although I have used Southern Ag's snail and slug bait with some success.

Here is a series of photos of some common orchid pests.



Figure 4 – Mealy bugs on a Dendrobium.



Figure 5 – Bois Duval scale insects on a Cattleya leaf.