

Cattleya

Cattleyas are among the most commonly grown orchids, and their culture is often used as the basis for comparison with other types of orchids.

The flowers in cattleyas and their related hybrids come in many colors. Culture varies only slightly among most of these groups; this cultural information is a general guide to "standard" cattleya culture.

Like most other cultivated orchids, cattleyas are epiphytes, or air-plants. Because they are epiphytic, they have developed water-storage organs, called pseudobulbs, and have large, fleshy roots covered with a spongy, water-retentive velamen. They are accustomed to being dry at the roots between waterings, and therefore should be potted in a very porous, free-draining medium.

LIGHT is one of the most important factors in growing and blooming cattleyas, whether in a greenhouse setting or in the home. Bright light to some sun must be given to the plants, but no direct sun in the middle of the day. This means at east, shaded- south (as with a sheer curtain) or west window in the home, and 30% to 50% of full sun in a greenhouse (3,000 to 5,000 foot- candles). Leaves should be a medium green color.

TEMPERATURES. Recommended temperatures are 55 to 60 degrees F at night and 70 to 85 degrees during the day. Seedlings should have night temperatures 5 to 10 degrees higher. A 10 to 20 degrees differential between day and night is recommended, especially for mature plants. Higher day temperatures can be tolerated (up to 95 degrees F), if humidity, air circulation and shading are increased.

WATER should be provided in two ways: in the pot by watering and in the air as humidity. Watering in the pot is dictated by many criteria - size and type of pot, temperature, light, etc. Mature cattleyas need to dry out thoroughly before being watered again. Seedlings need slightly more constant moisture. Compare the weight of a dry pot of the same size and type of medium; it can indicate if a plant needs water. A freshly sharpened pencil inserted in the potting medium can be an indicator of moisture. If in doubt, it's best to wait a day or two until watering. Plants in active growth need more water than plants that are resting. Water below 50 degrees F may injure plants, as will softened water.

HUMIDITY. Cattleyas need 50% to 80% relative humidity. This can be provided in the home by placing the plants on trays of gravel, partially filled with water so that the plants stand above the water. Misting the plants in the morning only is helpful in dry climates. Air should always be moving around the plants to prevent fungal or bacterial disease, especially if high humidity and/or cool temperatures exist. In the greenhouse the

humidity can be increased by wetting the floor. Evaporative cooling increases humidity while cooling the air.

FERTILIZER must be given to cattleyas on a regular schedule. In fir bark, a high nitrogen (30-10-10) formulation, or a similar proportion, is used. High-phosphorus or bloom booster (10-30-20) formulation may be used occasionally (every 4 to 6 applications) to make sturdy growths and promote healthy blooming. When in active growth, plants need fertilizer every two weeks, and when not growing, once a month. Fertilizer can also be applied with every watering at 1/4 recommended dilution. Thorough flushing with clear water every month is recommended to prevent buildup of fertilizer salts.

POTTING is necessary when 1) the rhizome of the plants protrudes over the edge of the pot, or 2) the potting medium starts to break down and drain poorly (usually after 2 to 3 years). It is best to repot 1) just before new roots sprout from the rhizome, 2) after flowering, or 3) in the spring time.

Mature cattleyas are usually potted in medium-grade potting material; seedlings in fine-grade. Until a plant has six mature pseudobulbs, it generally should be put into a larger pot and not divided. If dividing a plant, 3 to 5 bulbs per division are required. Select a pot that will allow for 2 to 3 years of growth before crowding the pot. Place a small cone of potting material in the bottom of the pot, cut off any rotten roots, and spread the firm, live roots over the cone. Fill the pot with medium, working it around the roots. Pack firmly; stake if necessary. Keep the plant humid, shaded and dry at the roots for a while to promote new root growth. A vitamin B1 solution may help re-establish plants quickly.