Catasetinae Culture Sheet

This unusual group of orchids, which consists mainly of the genera *Catasetum*, *Cychnoches*, *Mormodes, Galeandra,* and *Clowesia*, offers fascinating, waxy flowers that often have the peculiar habit of discharging their pollen masses (pollinia) onto pollinating insects. Almost always deciduous, the pseudobulbous plants have strict growing and resting periods. Most flower before entering a dormant period when they drop their leaves, while many can also flower additional times throughout the year. Many of the genera have remarkably different male and female flowers that can be born on the same or separate inflorescences.

Catasetinae plant culture is not difficult. All it takes is an understanding of the seasonal growth patterns.

**Early spring:** Catasetinae begin their new growth in early spring. However, watering should wait until the new growth has well-developed new roots to an approximate length of 3-5” before you begin watering. Don’t water too early. Wait to water until the new roots are well-developed. It is better to wait to water than start watering too soon.

**Mid-Season:** Once the new roots are sufficiently developed and watering can begin, a surprising amount of growth will occur in the next 3-4 months; often the plants will double in size. Due to this, the plants require constant moisture, regular fertilization and light levels at or above those suggested for cattleyas. In most cases, irrigation will be needed 2 or 3 times a week with plenty of appropriate fertilizer.

**Late Season:** Sometime in late autumn, generally by the 15th of November, the plants will begin to enter the dormancy phase. The plant will signal the beginning of dormancy when the leaves begin yellowing and dropping off. At this time stop fertilizing and reduce watering by at least 50%. When most of the leaves have yellowed or fallen off, stop watering altogether. If the most leaves have not yet yellowed or fallen off by the 1st of January, go ahead and stop watering completely.

Note: Watering during dormancy should only be done if the plant shrivels severely. Usually a single irrigation is sufficient to restore the bulbs. (Don't be in a hurry to water; waiting will not hurt the plant)

Summary:

* As new growth develops in late spring, wait to water until the new roots are well-developed and are 3” to 5” long.
* Irrigate and fertilize frequently while the plants are in active growth.
* Stop fertilization and reduce irrigation by 50% by mid-November.
* Stop watering by January 1.

**Light levels:** Catasetinae grow best with light levels of 3,000 to 6,000 foot-candles, or one-half to three-fourths full sun. However, the plants are widely adaptable and can do well with light levels as low as 1500 foot-candles.

**Temperatures** reflect the fact these orchids are native to hot tropical areas and grow during the rainy summer months. During this growing period, day temperatures of 80° to 100° F and night temperatures of 60° to 65° F are beneficial. After growths mature, temperatures can be reduced to 55° F at night, with day temperatures of 70° to 85° F.

**Water** is a critical factor for the production of large pseudobulbs that result in best flowering. A great quantity of water must be stored by the plant in a relatively short growing season. Water heavily as new leaves are forming. As the pseudobulb matures, gradually reduce watering frequency. Leaves will yellow and drop. At this time, watering should be stopped completely until new growth begins. Water during this dormant period only if the pseudobulbs shrivel severely.

**Humidity** should be 40 to 60 percent. This can be provided in the home by placing the plants on trays of gravel only partially filled with water so that the plants do not sit in the water. Air should always be moving around the plants to prevent fungal or bacterial disease, especially if high humidity or cool temperatures exist.

**Air movement:** Catasetinae enjoy abundant air movement. If you are growing in a greenhouse or indoors use air circulating fans.

**Potting mix and mounting:** For seedlings up to a 3” pot size we use New Zealand sphagnum moss with the bottom 1/3 of the pot filled with Styrofoam peanuts or XL bark nuggets. For larger plants we use pots appropriate to the size of the plant allowing for 2-3 years growth (do not overpot; use the smallest pot that will work). For the larger plants, we have been using a 3:1 of mix of fine Kiwi Bark® or Classic Orchiata® and medium-large Perlite. However, this genus is not too particular with what it is potted in, and any well-drained media will work well. Catasetinae also do well mounted on bark with sphagnum moss to retain moisture during the active growing season.

**Fertilizer:** When in active growth, regularly use one teaspoon of your favorite water-soluble fertilizer per gallon of water. Frequent applications of a dilute concentrations of fertilizer are more effective than occasional applications of strong concentrations

**Repotting and Dividing:** Repotting is necessary when the plants protrude over the edge of the pot or the potting medium is beginning to break down and drain poorly (usually after two to three years). Repotting should be timed to coincide with the initiation of new growth, usually in the spring when new growth is just starting to develop and before the new roots start to show. (Remember no watering until the roots are 3-5” long). Unlike most orchid plants, Catasetinae can do well when divided into 1-2 bulb pieces, however, fantastic specimen plants can be grown as very large clumps if not divided. Divisions, if desired, are made by cutting with a sterile tool or by pulling the bulbs apart.

**Containers:** We prefer to grow in plastic pots or mounted on tree bark, however clay pots and baskets will work. Catasetinae do not like to be over-potted; select a pot size that will allow for 2-3 years of growth.

**Insect pests:** Catasetinae are generally pest free. However spider mites are attracted to the soft underside of the leaves of these plants. Control spider mites by keeping humidity high or spraying with recommended miticides.