

## **REFLECTIONS ON OUR OCTOBER PRESENTATION: CATASETUMS WITH FRED CLARKE**

We were treated to an interesting and knowledgeable presentation on Catasetums which have been cultivated since the 1800's. Fred is an engaging speaker and related the culture of these wonderful orchids with the natural habitats in which they are found. Generally they grow in open areas with good light and air movement. They grow in the well-drained brackets of palm trees, where nutrients are directed down the branches. They are used to wet summers and dry winters. These plants are deciduous. They have variable forms, but are sexually dimorphic. Unlike other orchids which have both male and female parts in the flower, the male and female flowers of Catasetum are different. They are pollinated by euglosine bees. They are all fragrant, the attractor for the pollinator. The male flower has a trigger which can shoot pollen at up to 60 feet per second to ensure that the bee receives the pollen, but is repelled from the male flower which subsequently finds a less-threatening female flower to pollinate. We were treated to photos of many of the hybrids that Fred has produced, many named by those who first flower them. Suffice it to say that many of us purchased Catasetums and some of the Aussie Dendrobiums (with similar culture demands). Fred has graciously allowed us to reprint the following culture notes for all beginning Catasetum growers!

### **Catasetinae Plant Culture Cycnoches, Catasetums, Mormodes, and Clowesia Reprinted with permission**

The cultural information below is a generalization and will apply in most situations; however each grower and growing environment is different. I encourage you to make adjustments based on your experience and growing conditions.

Catasetinae have a distinctive growth and rest period (dormancy). For best plant growth it is important to understand and respect these growth phases. When the plants are in active growth, maintain constant root zone moisture and fertilize regularly. This is essential to optimizing the development of new growth. When the plants are dormant little or no water is needed as the pseudobulbs store enough moisture and nutrients to survive the dormancy.

Catasetinae plant culture is not difficult. All it takes is an understanding of the seasonal growth patterns. The plants' vegetative state signals to the grower their changing needs. Interpret the signals and make the appropriate cultural adjustments. Here is what to look for:

#### **Early Spring**

Catasetinae begin their new growth in early spring. However, watering should wait until the new growth has well developed new roots. This means you should let the new roots grow to an approximate length of 3-5" before you begin watering. Let me emphasize this point. Wait to water until the new roots are well developed. The waiting to water is not easy, my natural instinct is to begin watering when I see new growth, but I have learned through trial and error that it is better to wait to water than start watering too soon. I also believe that Catasetinae roots deteriorate during dormancy and in the following year they are not as effective at taking up moisture and nutrients. This makes the new roots vital in the plant's health. This reinforces the message about not watering too early.

#### **Mid-Season:**

Once the new roots are sufficiently developed, this is the period where the plants are rapidly developing their new pseudobulbs. There is a surprising amount of growth that occurs in these 3-4 months, often the plants will double their size. Due to this, the plants require constant moisture and regular fertilization. In most cases, irrigation will be need 2 or 3 times a week. A balanced fertilizer at full strength is suitable for this rapid growth. Light levels at or above those suggested for Cattleya will help insure strong good growth and flowering. This is the time when the fruits of your labor will begin to pay off as the flowering season is in underway.

**Late Season:**

Sometime after flowering, in the late autumn the plants will begin to enter the dormancy phase. Understanding the signals of the onset of dormancy and the factors triggering it are important in good plant culture. The plant's first signals are the yellowing and browning off of the leaves. At this time stop fertilizing and reduce watering by ½ and when most leaves are yellow/brown and have dropped off, cease watering altogether. The general rule to follow is: by the 15<sup>th</sup> of November stop fertilization and reduce watering by ½. Most leaves should have yellowed or fallen off by the 1<sup>st</sup> of January, however, if the plants still have leaves, all irrigation should be stopped at this time.

The onset of dormancy is caused by several factors, the maturity of the pseudobulb, shorter day length, cooler day/night temperatures and a reduction of root zone moisture. In most of the country dormancy occurs naturally; however when the plants are cultivated in warm growing areas such as in South Texas, Florida, Hawaii, or in the home or under lights, sometimes dormancy needs to be encouraged. I have found that stopping watering in early January regardless of the number of green leaves will trigger the dormancy. Note: Watering during dormancy should only be done if the plant shrivels severely. Usually a single irrigation is sufficient to restore the bulbs.

Here's a summary:

- As the new growth develops, wait to irrigate until the new roots are well developed and are 3 to 5" long (don't be in a hurry to water, it is better to wait).
- Irrigate and fertilize frequently while the plants are in active growth.
- Stop fertilization and reduce irrigation by ½ around mid-November.
- Cease watering by the 1<sup>st</sup> of January.

**Light levels:** Catasetinae like light levels comparable to Cattleyas at about 2500-4000 foot candles (fc). However, the plants are widely adaptable and do well with light levels as low as 1500 fc and as high as 5000 fc. For optimal growth I suggest a Southern exposure or a location where the plants will receive plenty of bright, filtered light.

**Potting mix:** For mature plants I have been using a 3:1 of mix of fine 'Kiwi Bark' and medium Perlite. For seedlings up to a 3" pot size I like to use New Zealand sphagnum moss with the bottom 1/3 of the pot filled with Styrofoam peanuts. However, this genus is not too particular in what it is potted in and any well-drained media will work well.

**Containers:** I prefer to grow in plastic pots, however clay pots, baskets, and cork slabs will all work. Catasetinae don't like to be over potted, select a pot size that will allow for 2-3 years of growth.

**Fertilizer:** When in active growth, regularly use one teaspoon of your favorite fertilizer per gallon of water.

**Air movement:** Catasetinae enjoy abundant air movement, if you are growing in a greenhouse use air circulating fans. Also, hanging the plants allows for maximum air movement around them and often they do best hanging.

**Repotting and Dividing:** Is done as the new growth is just starting to develop and before the new roots start to show (remember no watering until the roots are well established, 3-5" long). Unlike most orchid plants Catasetinae do well when divided into 2 bulb pieces. Divisions are made by cutting with a sterile tool or by pulling the bulbs apart. I try to keep the size of my plants between 2 and 5 bulbs.

**Insect pests:** Catasetinae are generally pest free, however spider mites are attracted to the soft leaves of these plants. Spider mites are quite small, they live and feed on the undersides of the leaves. Take care in checking for them as the plants are developing the new leaves and control them with a recommended miteicide from your garden center. Although the leaves will drop off during dormancy this is not an excuse to not treat for them.

Please feel free to contact me on any question regarding the growing of this genus. Once the basics are understood they are very rewarding. [fred.clarke@worldnet.att.net](mailto:fred.clarke@worldnet.att.net)