

De-flasking the genus *Catasetinae*

With the rise in popularity of the genus *Catasetinae*, which includes *Catasetum*, *Cycnoches*, *Mormodes* and *Clowesia*, many growers are asking how to deflask these plants, as they grow and look very different in flask from other orchids. When the plantlets are replated for the final time, the new shoots elongate quickly and have a tendency to produce aerial roots along the internodes, with small bulblet that develops often an inch or more above the agar. So the big question is: how to plant out these unruly-looking plantlets?

It is important to remember that as part of their annual growth cycle, these orchids have an active summer growth phase and distinct winter dormancy. When deflasking, do so in the early spring. This allows for minimal stress, and more importantly assures a long growing season during which the new growths will have ample time to develop and mature before winter arrives.

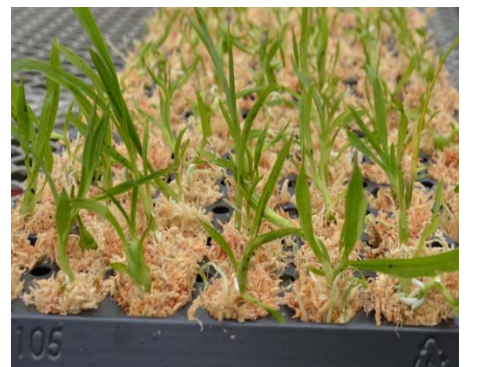


There are two methods of removing plants from flask; I use both techniques depending on the conditions and density of the plants in the flask. Method one is to wrap the flask with a sheet of newspaper, and with a hammer hit the base of the flask with a downward glancing blow away from your body. With some practice this will cleanly break the base of the flask and not harm the plants. The second method is to fill the flasks with a dilute quaternary ammonium compound like Physan 20, Consan Triple Action 20, or RD20. It is very important to use the labeled rate: more is not better! Fill the flask and shake to loosen the agar, then turn over the bottle and dump the contents out.



Once they are removed from the flask, select and grade the plantlets by size. This is to make planting the largest to the smallest plants easier to accomplish. I have experimented with potting the plants into community pots and cell trays. The best growth has resulted with the 105 cell trays (like the ones nurseries use for planting seeds) and using slightly moist AAA New Zealand sphagnum moss as the potting medium.

Select the largest plantlet and wrap the NZ moss around the roots and stem, covering it up to the base of the bulblet forming a medium-tight moss ball. Insert the moss ball and plant into the cell tray; it should be snug, not loose or too tight. The moss should be flush with the top of the 105 cell tray. Don't get concerned about filling the cell completely with moss; it may be better to have an air gap below the moss. I have noticed better drainage and root development leaving the gap. Select the next largest plant and repeat.



Once the plant material is potted in the 105 trays, I write 4 tags with the date, name and number of the cross, one for each of the 4 corners of the tray. This assures the block of plants is well-marked.

Optimal temperatures for the first 3 months are: 23-28 C (73-82 F) days and 18-21 C (64-70 F) nights.

A heating mat can be very useful during the early spring and fall to assure the night temperatures are maintained.

Light levels at 1000 fc and humidity levels at 50-80% are ideal. Fertilization is very important for young plants from flasks. Use ¼ tsp fertilizer for every 4 liters of water.

Careful attention to watering at this early stage is one of the most important aspects to getting a good start. As the moss holds a lot of water, monitoring the moisture levels and allowing the plugs to dry down but not become dry before the next watering is fundamental to your success. Having overly wet plugs for a long period of time will rot the roots and set the plantlets back or even kill them.

After three months and until early fall the plants will be developing new roots and top growth. Keep the night temperatures the same, and higher day temps up to 30-33 C (86-91 F) are fine. Light levels can be increased to 1500 fc while maintaining the 50-80% humidity. Continue to manage the moisture levels of the moss, allowing for the wet-to-almost-dry cycles, and continue the fertilization as described earlier.

By late fall, each plant will have developed a nice little bulb. With the change in season the plants will try to go dormant, but you want these first-year plants to keep growing as long as possible and have a short dormancy. In order to assure this, the night temperatures should be maintained at 18-21 C (64-70 F). With the arrival of winter and short days, special attention to irrigation frequency is now needed to avoid over-watering.

In early spring the new growth will start at the base of the previous growth, and when it is about 3 cm long it is time to pot up into 60 mm pots. AAA New Zealand sphagnum moss is the medium of choice. Place a few styrofoam peanuts or similar in the bottoms of the pots prior to potting to allow for an air gap in the bottom.

If you are just getting interested in the Catasetinae alliance, I am sure you will be surprised by the spectacular flowers and how easy they are to grow.

If you have been growing Catasetinae, you already understand.....

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