

CEPHALOTUS FOLLICULARIS: CULTIVATION WITH CAPILLARY MATS

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I have grown *Cephalotus follicularis* throughout the years with various degrees of success. I tried the latest and greatest techniques that “should work,” except they did not do very well for me! For the last two and a half years I have grown my more than twenty *Cephalotus* plants very well by using a capillary mat system, and I thought I would give my two cents worth about it.

The 160 liter (40 gallon) tank that I use for growing plants lies on its side. Illumination is provided by four 40 watt florescent lights, set to a photoperiod of 14 hours in the fall-winter and 16 hours in the spring-summer. The lights are 15 cm (6 inches) from the surface of the soil in the pots. The summer temperature in the room with the tank is about 24° C (75° F) at night and 35° C (95° F) during the day. During the winter it is about 14° C (25° F) cooler.

Remember I said the tank is on its side? On the open top (now, a wall), I glued a pane of glass over the lower one fourth part. This formed a water reservoir that did not leak since I used silicone glue. Inside the tank are several inverted 5 cm (2 inch) plastic pots which support a platform of egg-crate plastic mesh. On top of the mesh is a plastic sheet, which aids in the capillary action of the mat that is laid upon it. The mat drapes over the egg-crate mesh, down into the bottom of the water reservoir. For more information about capillary mats, talk to your local nursery or search the web (i.e. <http://www.charleysgreenhouse.com>).



With the mat in place, purified water (distilled, rainwater, reverse osmosis, or whatever) is poured into the reservoir until the water level is just a few cm (1 inch) below the level of the mat. Make sure the mat itself is fully wetted. Plastic plant pots are placed directly on the mat. A great thing about this system is that it is self-watering—I can leave the plants alone for two to three months between watering!

With this system, not all potting media work well because the plants are not watered from the above. Since the water is wicked to the pot through capillary action from the mat, the potting medium must maintain contact with the mat through the drainage holes at the bottom of the pots. The media that I use is very loose and light. It consists of perlite, peat, sand and small orchid bark in 3:2:1:1



proportions. The orchid bark and sand are optional. Once the potting mix is prepared and moistened, the plants are potted and gently placed on the mat. They are watered from above once (this is the only time they are top-watered). Avoid splashing the crown. Do not move the pots after this, but if you must, then make sure the drainage holes are plugged with moist peat before replacing the pots onto the mat so that the capillary action can resume. Watering the plants is now a simple matter of refilling the reservoir as the water level decreases.



As a fertilizer, I mix a pinch of 30-10-10 fertilizer, and ten drops of Superthrive, into 4 liters (1 gallon) of water. I use this to occasionally fill their pitchers.

I propagate my plants by leaf propagation during spring through early summer. Both noncarnivorous and pitcher leaves work. Usually I use material that is dislodged from the plants while transplanting, or from older growth that I removed to make room for new leaves. To remove material for propagation do not remove part of the plant stem with the leaf, just tear the leaf away from the plant. Pull the leaf back downwards and it will break off at the point where it was attached. Then without wetting it, lightly dip the petiole base into rooting hormone and stick it 0.5 cm. into the potting media. If it is a noncarnivorous leaf, lie it upon the soil surface. If it is a pitcher leaf, make an indentation into the soil to keep the pitcher upright. Cover the cuttings with an inverted, transparent cup and fill any pitcher leaves with water to ensure the humidity is high. I do not use fungicide. In six weeks, roots should develop and the cup can be removed. I usually propagate cuttings in the pot and medium that I want it in from the very start so that it can continue growing without interruption for 1 to 2 years.

I have successfully used the following mixes for leaf propagation: perlite, 1:1 perlite/vermiculite, 1:1 peat/sand, 1:1:1 peat/perlite/sand, and the standard potting media that I use for the mature plants.

As plants mature, side-shoots begin to develop from the tough rhizome. I let these grow until they are at least half the size of the parent plant. Then, I cut the child plant from the parent, all the way back to where it first emerged from the rhizome. I treat the new plant as a leaf cutting. If the cutting has mature pitchers I fill them with my fertilizer solution described above. I think it helps the plant survive and grow quickly.

I grow other plants on my capillary mats: *Darlingtonia californica*, *Drosera spatulata*, *Sarracenia purpurea* subsp. *venosa*, and *Sarracenia psittacina*.

So good luck growing your plants. I do not sell or trade my plants, but you will find nurseries in this issue of Carnivorous Plant Newsletter who would love to be your supplier.

(All photos appearing in this article were taken by the author—Ed.)

