

A NEW TECHNIQUE FOR THE CULTIVATION OF *CEPHALOTUS FOLLICULARIS*

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Jacky Chiem, co-author and owner of Chiem Exotics, a carnivorous plant nursery in Vietnam, received his first small *Cephalotus follicularis* plants in 2017. The climate in Ho Chi Minh City is well suited to tropical lowland plants, but not ideal for a temperate Australian native, resulting in some discussion between the two authors on how best to meet this challenge. It was decided that placing the plants in a chamber, that was successfully being used for highland *Nepenthes* and *Heliophora*, would give *C. follicularis* the best chance of survival. This in itself is not a new way to cultivate *C. follicularis*, but brings with it some other problems, particularly the plant's susceptibility to rotting and fungal attacks in conditions with poor ventilation. *Cephalotus follicularis* can also have the annoying habit in cultivation of looking vigorous and healthy, and without warning dropping most of its leaves and pitchers.

These issues became the topic of quite a bit of correspondence between the two authors, and what might be done to create a cultural method that would provide the plant with the best chance of long-term survival. This correspondence concluded with agreement that maintaining clean compost, not subject to breaking down or becoming sour would be essential. It is from here that Jacky Chiem applied his considerable horticultural knowledge and skills to devise a cultural method that has seen his plants flourish and multiply. The following is a summary of this technique that produces long-term vigorous growth resulting in large clumps of plants with multiple growing points, that can be divided regularly.

1. Plants are positioned in a highland greenhouse (Fig. 1A) with a temperature range of 15°C at night and 27°C daytime and 80% humidity, this is controlled with an air conditioner and misting. Good light is essential for developing the distinctive dark red colouration of *Cephalotus follicularis*, and this is achieved with a combination of filtered sunlight and LED grow lights (Fig. 1B).
2. Plants are grown in 20 cm deep plastic planter box, with the drain holes blocked (Fig. 2A).
3. A black plastic grate is placed in the bottom of the planter box to create a water well, these generally come with the planter box (Fig. 2B).
4. A 2.5 cm drain hole is made at one end of the planter box between 8 cm and 5.5 cm from the bottom of the box. It is best to insert and seal a 25 mm PVC joiner into the drain hole to promote good water flow (Fig. 2C).

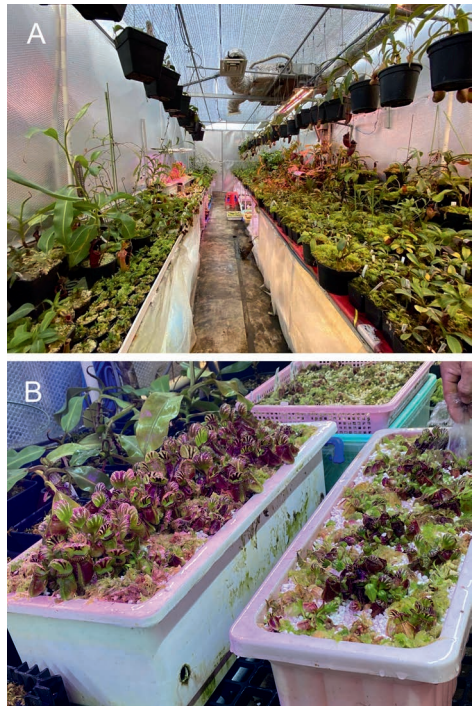


Figure 1: Highland greenhouse and *Cephalotus follicularis* planter boxes.



Figure 2: Technique for cultivation of *Cephalotus follicularis*.

5. One of the key success factors for this method, is the use of pure perlite as the compost. Fill the planter box with course grade perlite (Fig. 2D).
6. Water the perlite until excess water is seen overflowing from the drain (Fig. 2C). Once planted out, water every few days to keep water well full and encourage roots to find the water well. Perlite does not hold water well and it is important to maintain this watering regime with discipline.
7. Take a mature clump of *Cephalotus follicularis* and separate the clump into many smaller pieces (Fig. 2E), each with a small bit of rhizome, and wrap the rhizome with a small amount of live sphagnum (Fig. 2F).
8. Plant each division well-spaced into the perlite (Fig. 2G), put a few strands of live sphagnum around the small divisions on the surface of the perlite to help with water retention and surface humidity (Fig. 2H).

The innovations in this cultural method seem to go against the accepted principals for *C. follicularis*. Most growers use a compost that contains peat moss in varying proportions, and keeping the plants in a pot with a permanent water well, would almost certainly lead to problems with rot or fungus, particularly in a closed highland environment. Figure 1B shows an established planter box with about 2 years growth and a recently planted out box with cuttings starting to grow new foliage. Each large clump can provide the starter material for a new planter box, potentially one could exponentially continue this process. The authors are acutely aware that each grower has their own process for cultivating their plants and are not suggesting this as a foolproof method, rather to encourage growers to experiment and try left field solutions.