

HAVE YOU THOUGHT ABOUT A HYDROPROP?

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What? It is a propagator with a difference, and the idea comes from hydroponics, a form of soilless culture using circulated water with added nutrients, percolating through a neutral substrate in which the plants are growing. Typically these have been pretty large commercial installations, though I have seen a smaller scale private system in which, among other plants, orchids were growing remarkably successfully. Over the years I have been intrigued by the theory but never found an opportunity to put it into practice - until I noticed an item in a greenhouse and horticultural bits-and-pieces catalogue. The idea had immediate appeal and, sucker that I am, I bought one.

The Hydroprop consists of a black plastic tank filled with water warmed by an adjustable aquarium heater. It contains a small pump, and an array of spray nozzles at surface level project water almost horizontally, so that it plays on the underside of a tray containing foam discs. Each foam disc has a central slot, into which plant cuttings can be inserted, with the base of the stem projecting into the constant spray from the nozzles. The whole thing is surmounted by a transparent plastic dome with two adjustable ventilators. The foam discs can be washed and reused but are easily replaceable when they get tatty. Nutrients are also available as an option, depending on how long you want to leave the plant material in the propagator. I prefer to use just clean water and pot the cuttings on as soon as they show enough of a viable root system.

Wonderful! But does it work? Well, yes it does, and for some plants it seems especially beneficial. The photo (right) shows three quite different sorts of cuttings at the point when they have been removed from the Hydroprop to be potted on into standard potting compost. *Xerochrysum* (a tender perennial relative of the *Helichrysum*, known to many as an annual everlasting flower) and *Argyranthemum* seem to love the humid conditions, and root strongly in 10 to 14 days. Unsurprisingly, *Impatiens*, which are often rooted in a jam jar on the kitchen windowsill, also do very well. This is particularly helpful for *I. bicaudata*, which can be tricky to overwinter as adult plants (or even cuttings) rooted in conventional rooting medium. Even sad-looking tips of stems, that look as though the plant is about to die, root well, even in December, thereby providing assurance of a good stock of plants for the following spring. More surprisingly, *Erysimum*, which tend to be rather woody, have succeeded, and chrysanthemums are easy and reliable.

What about the downside, though? Unsurprisingly, absolute cleanliness is paramount. Broken or fading leaves are prone to fungal infection, flourishing in the warm humidity and romping through the confined space. Don't be put off. This is easily prevented with frequent, preferably daily, monitoring. And for cuttings with relatively large/soft leaves, it pays to reduce the length of lower leaves when taking cuttings, to reduce the amount of contact between neighbouring plants, to maximise air space, and to reduce the risk of fungal infection.



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The Hydroprop, packed with healthy cuttings held in individual foam discs

Whilst checking your cuttings, don't forget to carefully lift the edge of the tray (not too much, or you'll get gently sprayed!) to check the water level inside. It will need topping up from time to time. It is also worth checking the suckers that hold the heater and the pump assembly in place. They sometimes come adrift. The sponge filter on the pump intake occasionally needs to be taken off and rinsed in clean water. It is surprising how much muck the filter intercepts.



Well-rooted cuttings, ready for potting up

The positioning of the unit may be determined by the proximity of (waterproofed!) electrical sockets. My Hydroprop stands on greenhouse staging and I need to cover it with shading when the weather is

warm and sunny, otherwise the cuttings can flag and take a while to recover. I also like to leave the vents in the plastic dome open to maximise air flow, and on a daily basis I tilt the dome to one side to allow all the condensed water to drain back into the reservoir. This prevents it dripping onto the leaves and encouraging fungal problems.

I'm ambivalent about adding nutrients, mainly because it would be very unusual to fill all 40 slots (a much bigger version is also available) with the same sort of cuttings and to leave them long enough to require nutrient before potting them on into conventional compost. I find there is an ongoing sequence where cuttings of various types are removed once they've rooted, and replaced with fresh cuttings of whatever material is available and wanted.

When potting on, it is worth remembering that the dramatic change of environment will be a shock to the plant and it needs a bit of TLC to adapt. I put mine in an ordinary propagating frame with a bit of bottom heat and shading for a week or so, until the plant tells me it is feeling comfortable and ready to come out into the real world.

In terms of vigour and subsequent growth, I fancy the Hydroprop gives the plants a little bit of an edge over conventional propagation, but remember it will not suit some types of cutting and you'll need to experiment to determine which ones are most worth propagating by this method. I haven't tried yet, but I wouldn't rate the chances of success with pelargoniums, for example, so I still strike those cuttings into sharply drained cutting compost...but I wouldn't want to be without my Hydroprop. Despite the seemingly finicky details I mention above, it is really quite easy to use and maintain, and the care and attention is worth the results it produces.