

If you have a little patience, and can give seedlings the right conditions, buying flasks is a good way to acquire multiple plants, so you may select for the best.

Flask Sizes

Generally there are two flask sizes available:

• Standard flasks:

- US = 500 ml flask with 25-35 seedlings
- Asia = Horizontal gin bottle with 40-60 seedlings

• Hobby flasks with 6-10 seedlings

Not every breeder offers the hobby flask size, but I have purchased these from Carter & Holmes, HBI and Woodstream Orchids in the past.



Conditions

Orchid seedlings require high humidity, higher temperatures than mature plants (unless you want to grow them 8-10 years), and somewhat lower light until they are well established. I use a modified storage tub, with a shade cloth cover, to create a 'mini greenhouse' with water in the bottom.

Drill 1" holes 3" up from the bottom, and a 1" drain hole in the end, 2" up from the bottom.



Insert 3/4" plastic conduit carriers to hold the 'egg crate' panel. Drill a small hole near the ends, and insert a nail to prevent carriers from sliding all the way through.

Next, cut out the center of the lid, and attach a piece of shade cloth in the opening (use SS machine screws & nuts). If you must place the tub in a very bright location, use a double layer of shade cloth.

If you cannot place the tub in a room with higher temperature, place a lightbulb (or electric seedling mat) immediately below the tub, to elevate the temperature a little.

Deflasking

Some 'flasks' are jars, with a screw lid the same diameter as the jar. With these you can gently shake the agar 'cake' out of the jar. If agar is stuck, add some lukewarm water and swirl till it releases from jar.

When seedlings are in a narrow neck glass flask, you have to break the flask. Some recommend wrapping the flask in a couple of pages from a newspaper, and then tapping with a hammer. Others recommend doing it in a bucket with water, holding the flask under the surface while breaking it with a hammer.

I usually do it in my hand, tapping the bottle on the bottom edge (both hobby & 500 ml flasks), or on the shoulder of

gin bottles, while holding the other end of the bottle. I have deflasked some 40+ flasks in this way, and only cut myself once (when the bottle 'sorta exploded').

Cleaning

First remove any visible glass splinters. Then, you want to remove most of the agar, but do not go crazy. You can scrape off chunks where there are no roots, and you can rinse off more by spraying with lukewarm water. Aim for



the level of agar removal shown in these photos:

To Separate or Not?

If the seedlings separate by themselves while you clean the agar off, you can pot them several to a small pot, or individually, if very large.

If they do not separate by themselves, **leave them together** and plant the lot in a single compot (community pot). The roots formed in the flasks are often tightly intertwined, and they are ALWAYS very tender and brittle. You will break off most of the roots if you try to force separation.

Potting Mix

Obviously you cannot use a coarse bark mix. There is some difference of opinion between individual growers as to which mix to use. Each grower needs to decide, which mix will work best **with his/her watering schedule**.

Some growers use pure sphagnum for starters, others use a predominantly granular mix. My preference is finely chopped sphagnum (cut with scissors, into about 1/4" strands), seedling bark, charcoal and perlite, in approx. 5-2-1-1 ratio. Ron Midgett was favorably impressed with the results in this mix. I have used it for Paphs, Laelia anceps and assorted Vandaceous species & hybrids.

Individual Pots:

If the seedlings separate themselves, I pot 1-3 pcs together in 2" rose pots, using a couple of larger bark nuggets as drain. Here

Neofinetia falcata seedlings, which were 1 1/2"-2" coming out of the flask.

Compots

I place the seedlings in a 3 1/2" or 4" pot, and carefully pack mix around the group. I try



to work some mix in between the plants as well, using a small stick.

Here are two fresh compots from hobby flasks:

#2 shows seedlings about as large as they can be. #1

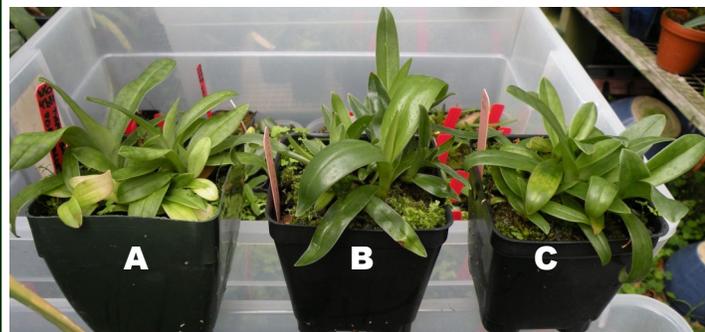


shows seedlings about as small as they might be; I only deflasked #1, since I had to deflask #2.

After the plants have spent 10-18 months in compots, developing new and stronger roots, with freedom to grow in all directions, it is much easier to separate the now larger seedlings. On occasion two plants might still have roots firmly intertwined, in those cases, you can leave the plants together, till they eventually grow in opposite directions.

For comparison, here are 3 older compots from hobby flasks, some 10½ months after deflasking.

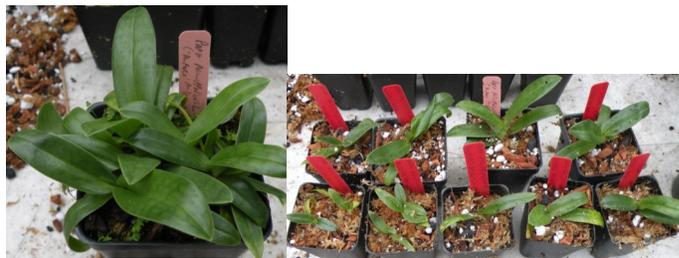
I have already split up two compots from that group



(deflasked in Aug 2013), and these 3 are due shortly.

Here is another compot (4"), which I purchased from a nursery in HI. These seedlings are in pure sphagnum, and they were deflasked about 9-10 months prior to this photo.

These are also due to be split up now.



Update, compot C (Paph philippinense x self) - half a dozen seedlings had been potted separately originally, as they separated themselves. In Sept 2014 I broke up the compot, for a total of 12-15 plants from one hobby flask.

At the same time I broke up the commercial compot from HI with Paph Lathamianum (villosum x spicerianum). It produced some 25 viable seedlings up to 4" size, plus a few 'runts', which went into 2" compots:



Fungicide?

Some authorities recommend treating the newly deflasked seedlings with fungicide. They come from a sterile environment, so I do not understand this recommendation, and have never done it. Of course, if the seedlings show any signs of a fungal attack later on, by all means treat them.

Drying Off?

Some writers recommend letting the deflasked seedlings 'dry off' before you start watering. **I disagree very strongly.** These young plants come from a 100% humidity environment, and have had their roots in agar for the past 8-16 months. They should be watered immediately after being potted up. This also helps settle the mix in between the newly potted seedlings.

Happy Growing!

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