

Growing Orchid Seedlings from Flask

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If you have a little patience, and can give them the right conditions, buying flasks with orchid seedlings 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 (qty depends upon genus)
 - Asia= Horizontal gin bottle with 40-60 seedlings
- Hobby flasks = 6-10 seedlings

Not every breeder offers hobby flasks, but I have purchased this size from Carter & Holmes, Ruben and Woodstream Orchids.



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. The tub has a drain hole drilled about 1/4" below the level of the bamboo sticks, which carry the egg crate shelf.

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.



I have deflasked some 40+ flasks in this way, and only cut myself once (when the bottle sorta exploded in my hand).

Cleaning

First remove any 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 water. When rinsing off the agar, do this over a colander to catch any seedlings falling free.

Aim for this level of agar removal (abt 80% removal):



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 the watering schedule that he/she can provide.**

Some growers use pure spaghnum, others use a predominantly granular mix. My preference is finely chopped spaghnum (cut with scissors, about 1/4" pcs), seedling bark, charcoal and perlite, in approx. 5-2-1-1 ratio. Ron Midgett was favorably impressed with the results achieved in this mix.

I place the plants in a 3½" 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.

Continued . . .

Here are two fresh compots from hobby flasks:



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.

The roots formed in the flasks are often tightly intertwined, and they are ALWAYS very tender and brittle. If you try to force separation, you will break off the majority of the roots.

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 other compots from hobby flasks, some 10½ months after deflasking; they are ready to be split up (with the smallest plants going into mini compots).



Lastly, here is a compot from a nursery in HI. Seedlings are in pure sphagnum, and have been in this compot for 9-10 months.

This compot is



ready to be split up now (Update: there were 26 seedlings in that pot).

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 signs of a fungal attack later on, by all means treat them.

Drying Off?

Some writers recommend letting the seedlings dry off before you start watering. **I disagree 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.

Special: Phragmipedium

These require slightly different treatment in that:

1. They do not just want to not dry out, they want to be WET. Use a higher percentage of sphagnum, and place the compot in a saucer with 3/4" water.
2. They also want lower light than most other orchids. In a greenhouse with 50% shade cloth, I still add a layer of 50% shade cloth on the seedling tub.

NOTE: Because we keep them so wet, plan to repot all Phragmipediums every 12 months.

You do not want 25 plants?

Few people want 25 plants of the same thing. Think about going in on several flasks together with 2 other growers, and you will get 8 plants of each of three different crosses.

If you have any questions about growing seedlings from flask, send your ? to fairorchids@aol.com

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