

Deflasking Disas

Disa seed can successfully be started on damp, boiled sphagnum moss, and at one time this was the preferred method. Much quicker growth is possible using a sterile nutrient agar medium, i.e. “flasking”. Seedlings live a pampered life in the flask: humidity is 100%, no diseases or pests, and no need for them even to use photosynthesis, since the medium contains lots of sugar as an energy source, in addition to the usual mineral nutrients.

Seedlings are generally ready for deflasking after 6-12 months. Ideally, they should be 3-5 cm (1½ to 2 inches) high, be sturdy and have well-developed roots before being removed from the flask. Vigorous, deep green, solid-looking seedlings deflask well; weedy and pale ones are likely to succumb within a few weeks of being deflasked. Occasionally a flask will become contaminated with a mold or other growth before the seedlings have reached optimal size for deflasking, but they can sometimes be saved if care is exercised. Spring is the ideal time to deflask, since this is the time of year when Disas grow most vigorously. However, it is best to deflask whenever the plantlets are at their peak in the flask, growing strongly but not yet overcrowded or showing dead or dying leaves.

Take care not to bruise or otherwise damage the plantlets as you remove them from their flasks. If they come out with the agar plate intact, that is fine. The plate and plants can be transferred to a community pot of chopped sphagnum or Supersphag/Perlite mix. If instead the agar has broken up, the seedlings should be individually planted in community pot. A 3” square pot is a good size for 6-10 seedlings. Keep the plants shaded and moist as they acclimatize to life outside the flask. A clear plastic dome is useful in order to maintain humidity. The dome, if used, should be lifted up and finally removed entirely over a period of about 10 days, as the plantlets develop the cuticle which reduces water loss. If the leaves show signs of dehydration, try to increase the humidity again.

The seedlings should be watered thoroughly with a dilute (e.g. one tenth strength) high nitrogen fertilizer (30:10:10, 20:20:20, 10:5:5 or similar). Excess fertilizer should be flushed out with water, to minimize algal growth on the damp surface of the medium.

It is important lift the dome on the seedlings as soon as possible, since without good air movement over the surface you are likely to get fungal growth which is a death sentence for the plantlets. If necessary, apply a fungicide at the first signs of trouble (Subdue, Physan, Captan, Cleary’s 3336, Aliette)

Within 2-3 weeks, community pots can be treated as for mature plants. Within a few months from deflasking, the seedlings should have developed strong new roots right the way to the bottom of the pots, and they may be crowding each other in the community pots. They can then be individually potted into small pots (2 inch or 5 cm square). After a year or so in these pots, they should be ready for full-sized pots (3 inch or 7 cm square). If deflasking is done in spring and the plants receive good treatment, a few may bloom as early as the summer of the following year.