

Growing Martagons from Seed

By Hugh Cocker

I start all my hypogeal seed in jars, from baby-food on up, depending on the amount of seed. I've tried a lot of different medium. Brown peat: had trouble with mould. Perlite: the moisture settles, making the bottom too wet and the top too dry. Fine vermiculite seems to work the best for me: the moisture stays even and it's sterile, so there's no mold. I've heard that finely milled sphagnum peat moss works very well, but I've never tried it.

I put the vermiculite in a strainer, put it in a pail of water and let it soak at least over-night. Remove the strainer from the pail the next day and let the excess water drip out. Then take roughly an amount of vermiculite that would fill up the jar you're working with, put it in a small bowl and thoroughly mix your seeds throughout the vermiculite. Put the mix in your jar and tamp it a bit to eliminate any air-pockets. Make sure a few of your seeds are against the glass sides of the jar so you can monitor progress.

I put a cover on the jar and place it somewhere at room-temperature, but not in the sun. Keep the jar there until you see the seeds have germinated and they become about the size of a match-head. Hypogeal seed produces only a bulblet during its first growth cycle. They will need a period of cold temperatures before they will start growing leaves. So when you see little bulblets, it's time to put the jar somewhere in the refrigerator, *not* the freezer!). As difficult as it is to wait, leave the jar in the frig for at least 8 weeks. (Also, rather than count on your memory, label the jar with the start-date of the cold-period).



After the cold-period, dump the contents of the jar on a plate or other flat surface and very carefully pick out the small bulblets. Be careful not to separate the bulblet from the seedpod when still attached (The portion of the bulb still in the seed's shell are the leaves that are necessary to feed the bulblet).

I used to do a lot of experimenting with potting mixes, some good and a lot not so good. Nowadays it's a lot easier to find a ready-made good potting mix. I wet the mix before I plant the bulblets. I fill the pots or flats I'm planning to use, cover them with something to keep the mix from floating out, put a weight of some kind on the cover, then place the containers into a basin or small tank that I fill with enough water to cover my containers. After an overnight soak, I take the containers out and let them drip off.

To plant the seeds, I use a pencil for a dibble. I make a small hole in the mix and carefully place the roots of the bulblet in the hole. The bulbs are placed about $\frac{3}{4}$ to 1 inch below the surface, then I press the medium around it. I space the bulbs about an inch apart.

I usually start my seeds in November or December. That way, they've set bulblets and have had their cold period just in time to be potted up and go outside when weather permits. I have a cold frame with a screen cover on the eastside of a honeysuckle hedge. They get morning sun and are safe from unwanted things. The containers are placed on slats to improve drainage in case of a lot of rain. If it's dry, be sure to keep them moist, but don't over-water!

I leave them in the cold frame through the summer and into the fall. Right after the bulb sale is over and we make our new beds, I replant the martagon seedlings. If I use pots, I carefully try to dump the contents out in one piece so that I don't disturb the bulbs. I plant the entire ball about an inch deeper than it was in the pot and make permanent stakes to mark each "chunk". The seedlings in flats I usually bury flat and all. The last step is to mulch (we mulch all of our beds, not just martagon seedlings).



The bulblets are left in their beds for two summers. The bulblets are still pretty small the first summer, they transplant better when they're a bit larger. The fall after the second summer they're dug up and planted individually in beds.

From this stage on it should be a piece of cake to get them to blooming size, but that's not been the case for me. We are often hit with late spring frosts. The mature martagons lose their growing tip and stay the same size all summer. The frosts kill the stems of the young martagons and many don't come back. The ones that do come back take a lot of years to become good garden lilies. But when they do, what a treat!

I haven't been impressed with my results of tissue culture, so I've relied on natural propagation.