

Seed Propagation Experiment

This year I decided it was high time to try growing some plants from seed again. I had been encouraged by the British Cactus & Succulent Society (BCSS) discussions and focus on conservation, along with the recent issues of importing established plants from nurseries in the European Union.

However, due to the late arrival of the December BCSS journal and its seed list, my subsequent application for some seeds was rejected in its entirety as everything had already sold out. A bit disappointing, however after hearing my plight, Robin and Colin both very kindly offered me a few packets of Mammillaria and Mesemb seeds. This made the experiment all the more interesting by having a few other Fife branch members who were also trying some experiments to share the experience with.

Along with the supplied Mammillaria seeds, I still had a couple of packets of old Lithops and Lapidaria seeds from a previous year, so I thought I would see if they were still viable, and if any would germinate.

To start the process I decided to test a new substrate mix which was suggested on the Manchester BCSS website of a 50/50 mix of John Innes No2 and molar clay. However, the only source of molar clay or clay granules I could get was from Euro car parts in Dundee. They sell it as a fluid spill absorption media. It is mentioned and recommended on the BCSS forum, so I thought I would give it a go. The only issue I can see is that it does exactly what it is supposed to do, and absorbs so much fluid that you are left with substrate which resembles the consistency of porridge!



The seeds were sown on 23rd February with half sown in the above mix and the rest in a 50/50 mix of sieved and sterilised John Innes No2, and 4mm granite grit in BEF 2 inch square pots. These were then sealed in zip lock bags and placed in a Stewart variable temp 50W propagator set to 21°C



Substrate mix



Sealed zip lock bags



Stewart variable temp propagator

The Lithops and Lapidaria seeds germinated on 4th March, with no signs of the Mammillaria seeds having germinated as yet. However there were signs of mould or fungus in some of the pots and I wonder if some of them had actually germinated, and then succumbed to 'damping off' disease. This was despite me having sterilised the substrate and pots. The substrate mix was sterilized in the kitchen microwave! Please don't tell my wife I did this!

About a week after germination I started to gradually open the zip lock bags to allow a bit more air in and after another couple of weeks removed the pots from the unsealed bags.



Lithops hallii seedlings at 15 days old

An interesting development is the Lithops grown in the 50/50 mix of John Innes No2 and molar clay have started to pull themselves down and upright into the substrate, whereas the ones in the mix with granite grit are on their side and a bit distorted. So in the long term, the clay granule mix has the edge!

I have now top dressed the pots with some fine grit to help prop the seedlings up. I had been advised to use silver sand for this, however in the past when I have used this type of medium, the sand formed an impenetrable crust which stops any water getting through.



Lithops julii seedlings at 4 months old



Lapidaria margaretae seedlings at 4 months old

Unfortunately, I have had very limited success with getting any of my Mammillaria seedlings to germinate with only a few having shown any signs of growth. So I decided to try a different approach, and moved them out of the propagator and into a different position on a sunny window sill with more direct light and a bit more direct heat. A few more have now started to germinate, so I shall see how they develop in due course.

To date – my Lithops and Lapidaria seedlings are still growing well. The pots get watered once a week by sitting them in a tray of water for a few minutes to allow them to soak up enough fluid to keep them hydrated without saturating the substrate. They sit in the shade in my conservatory which gives enough light without being in full sun to prevent scorching.

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