A Method for Germinating *Anthurium scherzerianum*

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INTRODUCTION

For some time it has been apparent that many growers of *Anthurium* were experiencing difficulty obtaining satisfactory germination of the seeds of this most desirable plant. Plant division was practised to a large extent to increase numbers, particularly in the cut flower industry. The advent of plant tissue culture and the subsequent development of satisfactory techniques that would produce reasonable multiplication rates, made this an economically viable proposition for growers to some extent.

However, some growers still like to produce their own seedlings, experimenting with specific cross hybridisation to produce plants that they hope will have unique characteristics — which is a great source of personal pride of achievement.

The very short viability of *Anthurium* seed meant that it was necessary to sow the berries very soon after ripening and harvest. As the berries in most cases contain only 3 to 4 seeds and these are covered in a sticky glutinous mass the process was messy and not altogether satisfactory.

With these difficulties in mind I set out to devise a method of handling fresh *Anthurium* seed and producing good results in germination. I will not go into the procedures of hybridisation and subsequent production of the seed, as this will probably be well known to *Anthurium* producers. The following will provide data on the methods that I employed to clean *Anthurium* seed and determine when optimum results could be obtained using inexpensive equipment available in most homes.

MATERIALS AND METHODS

The berries were harvested when mature and ripened. Most were fully developed and of a pink to red colour, and easily removed from the spadix.

These berries were gently mashed to break the outer coat and facilitate separation from the enclosed seed. The resultant gelatinous mass was then placed into a normal household flour sieve and immersed in a container of sterile water. Next the gelatinous mass was rubbed gently through the mesh of the sieve. This takes some time, but with perseverance the "jelly" will be dispersed in the water and the seed will be left behind in the sieve. This process was repeated a second time using a 1% bleach solution, it is recommended that rubber gloves be worn for this stage.

By this time the seed will be relatively clean with some of the outer skin of the berries still persisting. The next step is to spread the wet seed mass on to some layers of newspaper or other suitable material and place in a secure, well lit place to dry (preferably not in direct sunlight as the seed may over heat). The seed mass should be dry in about 24 h at which time it can be gently rubbed to completely separate the seed. If necessary the trash can be separated from the seed by gently blowing, however this is not absolutely necessary.

Ideally the seed should then be sown immediately on to a high peat University of California type media which has been treated with aerated steam at 63C for 30 min

and then cooled. The trays of sown seed were placed on a greenhouse bench with bottom heat, which held the media at approximately 23C, and were kept moist. Some batches were sown without covering and some with a very light covering of vermiculite. The light covering appeared to be preferred under the conditions that we had available.

RESULTS

Trial #	Date of seed cleaning	Treatment	Date of sowing	Time to germinate (weeks)	Germination (%)
1	Jan 21	1% bleach	Jan 23	3	90
2	Jan 21	1% bleach	Jan 30	3-4	65
3	Jan 21	1% bleach	Feb 8	3-4	30
4	Feb 10	Nil	Feb 12	3-4	78
5	Feb 10	Nil	Feb 19	4-5	45
6	Feb 10	Nil	Feb 27	4-5	15

It was obvious that it was of paramount importance for the seed to be sown as soon as possible after collection. A number of replicates were carried out and similar results ±3% to 4% were obtained. There was also a significant improvement in germination when the seed was washed in the 1% bleach solution. This was probably due to the removal of a significant percentage of surface pathogens.