

***In Vitro* Seed Germination of *Rhynchostylis retusa* as Affected by Pod Maturity and Germination Media**

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Abstract

Floriculture is rapidly growing in many parts of the world and becoming an important commercial venture. The local production of floriculture products is valued at over US\$ 14.2 million annually. The introduction of new plants is essential for the development of this sector. In this regard, identification and introduction of wild plants to the floriculture industry would not only solve the problem of finding new plants to the industry, but would also help to conserve native plants by preventing the loss of these plants from their habitat. *Rhynchostylis retusa* is one of the most beautiful endemic species of orchid found in Sri Lanka. Today it is an endangered wild species. But no artificial propagation has been performed yet. Since conventional propagation methods are not promising in propagation of orchid, micropropagation is good alternative for mass scale propagation of this endangered species

This research was conducted to identify suitable seed pod maturity stage and best germination medium for *Rhynchostylis retusa*. Kundson C medium along with basal MS (Murushieg and Skoog) supplemented with coconut water, banana extract, 0.05 mg/l BAP were used for these experiments. Matured seeds showed highest germination percentage when compared to immature and semi matured seeds. Kundson C is the best medium for *Rhynchostylis retusa* seed germination.

Keywords: pod maturity, *Rhynchostylis retusa*, seed germination