Determination of a Suitable Hardening Medium for Micropropagated *Anubias nana*

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Most of aquatic plant varieties are used in aquariums as ornamental plants due to their aesthetic and ecological value. The genus *Anubias* of the family Araceae is considered as one of the highly demanded plant types among other aquatic plant species. Among *Anubias* varieties, *A. barteri* var. *nana* is considered as a most cultivated and commercially important species. Micropropagation is currently applied to this plant as a tool for large scale multiplication of plants since the planting material has a very low multiplication rate. However, the high rate of mortality experienced by micro propagated plants during or following laboratory to outdoor transfer is still existing as a major limitation in large scale applications. Therefore, it is a requirement to develop an effective acclimatization procedure for a successful establishment and survival of plantlets. The present experiment was carried out in order to determine a suitable hardening medium for micropropagated *Anubias nana* using complete randomized design. The study was conducted at the Ornamental Fish Breeding and Training Centre, Rambadagalle. Four weeks old uniform sample of *in vitro* rooted *Anubias nana* plantlets were hardened by using five different potting media. Coir dust, coconut husks, clay brick shards, boggy soil and sand were used as different hardening media/treatments. Each treatment was replicated ten times. Every plantlet was provided with a constant amount (N: P: K-4:2: 1) of a commercial fertilizer in once a week. The performances of plantlets were measured by using survival rate and growth in each treatment. The measured growth parameters were number of roots and leaves, length of roots and leaves, fresh weight and dry weight of plantlets after 6 weeks of hardening period. Data were analyzed by using one way ANOVA and Tukey's test. The maximum survival percentage (100%) was obtained in coir dust, clay brick shards and sand. Out of five treatments of media, a significant difference ($p<0.05$) of root growth was shown by plantlets in coconut coir dust and sand. A significant difference ($p<0.05$) of leaf growth and weight was reported in plantlets in clay brick shards media.

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