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Storage, regeneration and genetic stability of synthetic seeds of *Ochradenus arabicus*: A high value medicinal plant of multiple uses

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Ochradenus arabicus is an important endemic medicinal plant which is found in Saudi Arabia. *In vitro* culture and propagation protocol was established from seeds of *O. arabicus.* Synthetic seeds were produced from stem segments growing *in vitro*. The stem segments were encapsulated in 3.0% sodium alginate prepared in MS medium and 50 mM calcium chloride. Encapsulated beads of stem segments were kept at 4.0°C for 8 weeks. The regeneration capacity of synthetic seeds and non encapsulated stem segments were evaluated at 2 weeks interval on MS medium containing 1.0 µM BAP. The conversion frequency was high even upto 8 weeks of storage at 4.0°C. Rooting in plantlets was obtained on MS medium containing 0.5 µM. Thus obtained from synthetic seeds were acclimatized and hardened under greenhouse conditions. The rooted plants established *ex vitro* and phenotypically all plants were similar to each others as well as with mother plants. Genetically, the plants raised from synthetic seeds and mother plant resulted in monomorphic profile by ISSR marker. This is an efficient and reliable method of synthetic seeds produced and stored for short period (8 weeks at 4.0 °C). The method can be useful in raising genetically identical plants from synthetic seeds of *O. arabicus.*

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