EMBRYO CULTURE AN EFFICIENT TOOL FOR CONSERVATION OF AN ENDANGERED MEDICINALLY IMPORTANT FOREST TREE *OROXYLUM INDICUM* L. KURZ

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ABSTRACT

An efficient, reproducible protocol for regeneration was achieved in *Oroxylum indicum* L.Kurz. an endangered and medicinally important forest tree for its propagation and conservation through zygotic embryo culture. The zygotic embryos were inoculated on MS medium containing 30 g/L sucrose and supplemented with different concentrations of BAP/ Kn (1.0-7.0 mg/L) individually. The multiple shoot bud induction was observed within two weeks of incubation. Absolute (100%) percentage of response was recorded on MS medium fortified with 5.0 mg/L BAP with maximum number of shoots/explant (20±0.82) in comparision to Kn. The i*n vitro* developed multiple shoots shifted onto MS medium supplemented with 1.0 mg/L GA_3 for elongation. The elongated microshoots were transferred onto ½ strength MS medium containing 20 g/L sucrose fortified with different concentrations of IAA/IBA/NAA (0.5-3.0 mg/L) for *in vitro* rooting. Maximum frequency number of roots per shoot (13.0±0.03) was observed. The rooted plantlets were transferred to sterilized soilrite for acclimatization and after six weeks shifted in to the research field. The plantlets developed through the zygotic embryo culture were found to be similar to the mother plant with 85% survival rate. The protocol developed during the present investigation can be used for multiplication and conservation of the species *O. indicum*.

KEYWORDS: *Oroxylum indicum*, Zygotic Embryo, *in Vitro* Rooting, Acclimatization