



Development of cost effective propagation techniques for *Coscinium fenestratum* Gaerth. (Colebr.) - Wenival

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Coscinium fenestratum (Weniwel) is widely used medicinal plant in Sri Lanka, considered as a threatened species in IUCN red list because of the over exploitation from the natural habitat. Therefore development of cost effective propagation techniques are prime important to start mass cultivation. Present research was planned to propagate Wenival through both means of vegetative and seeds.

For vegetative propagation, 3 different cutting types (soft wood, semi hard wood and hard wood cuttings), 3 different rooting media (sand, coir dust, sand: coir dust 1:1) with hormone and without hormone (3000mg/l IBA) and 3 different environment (shade hose, mist propagator, single propagator) were tested. For seed propagation 9 different treatments (control; over night soaking; 1500mg/l, 2000mg/l and 2500mg/l GA₃ soaking with over night; 50% HNO₃ in 1 min, 3 min and 5 min and splitted seeds) were tested. Number of shoots initiated, number of survived shoots and number of new leaves were recorded after 8 weeks. Hard wood cuttings without hormone in sand: coir dust 1:1 medium and hard wood cuttings with hormone in sand medium were recorded significantly higher number of shoots initiation and number of survived shoots in mist propagator. Hard wood cuttings with hormone in sand medium recorded highest number of new leaves in mist propagator. Two nodal hard wood cuttings which were cut just below the node initiated higher number of shoots and leaves. Air layering and simple layering with hormone showed better rooting.

Keywords: *Coscinium fenestratum*, layering, mass cultivation, mist propagator, seed propagation