

Micropropagation Protocols for Conservation, Reforestation and Commercial Propagation of Peatland Trees.

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Abstract. Peatland is a unique ecosystem formed through the accumulation of partially decayed vegetation or organic matter, in waterlogged and acidic conditions, in deficiency of oxygen over thousands of years. Drainage of peatlands for plantations leads to peat loss and land subsidence, which in turn leads to increased flooding, has damaging effect on surrounding vegetation especially forest areas. Over-drainage results in dry humus mass which becomes very susceptible to forest fires and the peat continues to smoulder underground for weeks, resulting in continued smoke and haze. We have identified, developed regeneration protocols and produced plant fast growing, uniform (produced via tissue culture), economically important plants in a sustainable manner, without damaging/over-draining the peat soils. This pilot stage project will serve as platform demonstration for future large scale plantations for both commercial and conservation of peat land vegetation.

Keywords: Conservation, Endangered, Peatland, Micropropagation, Tissue Culture