

***In vitro* rhizogenesis of *Ecballium elaterium* – an endangered medicinal plant**

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Ecballium elaterium, (squirting cucumber) from Cucurbitaceae family, has been used as medicinal plant since antiquity due to its antirheumatic, purgative and cardiac effects. In order to develop an efficient and reproducible protocol for *in vitro* propagation of this medicinal plant we have investigated the rhizogenic response of micropropagated shoots to different hormonal content of the culture media. Adventive rhizogenesis was modulated using different auxins (IAA, NAA and IBA) single or in combinations with cytokinins (Kn). Morphophysiological observation showed that auxin IBA added in concentrations from 0.5 to 2mg/l was the most efficient. Best results in terms of abundant branching, normal hydration and density of absorbent hairs were obtained at concentration of 1mg/l IBA. In contrast, auxin IAA stimulated formation of hyperhydric tissues and NAA had poor rhizogenic effect. Obtaining morphologically normal roots is prerequisite for an adequate physiology to ensure *ex vitro* acclimatization and an optimal survival rate of regenerated plants.