Vegetative propagation of *Rauvolfia sepentina* (Ekaweriya) by rooting of cuttings

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Rauvolfia serpentina is one of the most important, rare and valuable medicinal plants in the country. The root of the plant is used for various Ayurvedic preparations specially for lowering blood pressure and snakebites.

Healthy, newly emerged shoots consisting of 3-4 nodes were collected from the Ayurvedic nursery at Haldummulla and brought to ITI research farm at Girandurukotte. About 4 – 6 cm long shoot tip cultures were prepared after dissecting out all mature leaves and established in 3 different potting media i.e. (MD1) sand (MD2) 1:1:1 sand: topsoil: cow dung (MD3) 1:1:2 sand: topsoil: cow dung with and without application of rooting hormone (Sector). The cuttings were established in 5 x 8 polythene bags and kept in a humid chamber made out of polythene. Data were collected weekly on plant survival and growth until 12 weeks. Root number and root length were taken after 12 weeks using up rooted plants.

Higher survival percentages were observed in MD2 (62%) and MD3 (65%) potting media. than the medium with sand alone (37%). Higher shoot lengths were observed in two potting media i.e. MD2 and MD3 (9.9 cm) than the medium with sand alone (7.7 cm). A higher number of leaves (7.3) and higher growth score (5.4) were observed in the potting mixture with higher cow dung (MD3). Application of rooting hormone (Sector) significantly enhanced the percentage of success from 50 to 60. The number of roots produced by cuttings in two potting media i.e. MD2 (6.4) and MD3 (5.8) were significantly higher than in the sand medium (3.4). Comparatively a higher root length was observed in MD2 (11.9 cm) and MD3 (11.2 cm) potting media than the sand (8 cm) medium. Plants were successfully grown in 5"x 8" polythene bags and flowering occurred after about 6 months.

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