

MULTIPLICATION OF SOME THREATENED SPECIES FROM DIVERGENT SOURCES AND ESTABLISHMENT OF GERmplasm GARDEN

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ABSTRACT: Germplasm consisting of 2 accessions of *Catamixis baccharoides*, 9 accessions of *Ulmus wallichiana*, 8 accessions of *Rauvolfia serpentina* and 5 accessions of *Mahonia jaunsarensis* was collected from diverse sources in northern India. Treatment of cuttings with 6000 ppm IBA was found effective for propagating *Catamixis baccharoides* and *Ulmus wallichiana*. In case of *Rauvolfia serpentina*, 7000 ppm IBA generally evoked better rooting response in comparison with other IBA concentrations and resulted in greater plant percent (45.0 to 56.3 per cent). The survival percentage of wildings of *Rauvolfia serpentina* was much higher (92.5 to 96.3 per cent). IBA at 4000 to 5000 ppm concentration was found optimum to induce rooting in cuttings and produce plants of *Mahonia jaunsarensis*. Rooting and plant percent of different germplasm accessions within a species generally did not vary significantly which suggests that these propagation protocols can be reliably applied for multiplying germplasm of these species from wide sources. Using all of the above accessions, a germplasm garden was established covering an area of about 0.25 acre and consisting of 20 plants of *Catamixis baccharoides*, 90 plants of *Ulmus wallichiana*, 330 plants of and 50 plants of *Mahonia jaunsarensis*. The propagation techniques developed in the project can be used for setting up germplasm banks representing wider diversity of these species.

Keywords: *Catamixis baccharoides*, germplasm, diversity, *Mahonia jaunsarensis*, *Rauvolfia serpentina*, *Ulmus wallichiana*

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