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RESEARCH ARTICLE

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Effect of seasoning on sprouting of stem cutting and their survival in threatened medicinal important plant, *Commiphora wightii* (Arn.) Bhan.

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ABSTRACT : *Commiphora wightii* (Arn.) Bhan. known as Indian bdellium is a large shrub of family Burseraceae. Its oleo-gum resin is known to be anti-inflammatory, antirheumatic, hypocholesterolmic, hypolipidemic, and antifertility agent. In order to extract more oleo-gum resin it has been overtapped in past, killing its natural populations thus prompting IUCN to keep it in 'Data Deficient category'. Its *ex-situ* conservation through seed as well as vegetative propagation has met with variable success. Seasoning of stem cuttings for a duration that ensures more sprouting and consequent survival was, therefore, aim of this study. Cut stem cuttings kept for 0, 1, 2, 3, 4 and 5 days and treated with IBA (5000 ppm) revealed that maximum root biomass (0.56 g), maximum number of shoots (6) and length of shoots (49.50 cm) was found in five days seasoned stem cuttings. After 27 months of plantation maximum survival was found in four and five days seasoned stem cuttings (50% each) cuttings. Collar diameter (1.75 cm) was maximum in five day seasoned stem cuttings. Maximum plant height (119.75 cm) was in four days seasoned cuttings followed by five days seasoned cuttings (96 cm). Thus, four to five days of seasoning in the month of August emerged most optimum for sprouting of stem cuttings and their subsequent survival in field plantation.

KEY WORDS : *Commiphora wightii*, Collar diameter, IUCN, Survival, Seasoning

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