

# Micropropagation of *Salvadora Oleoides* and *Salvadora Persica*: Evergreen Plant Species of arid Environment

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## ABSTRACT

Indian Thar Desert is reservoir of stress tolerant plants that can sustain under extreme environmental conditions. *Salvadora oleoides* and *Salvadora persica* are economically and ecologically important evergreen plant species of arid and semi-arid environments. *In vitro* mass propagation is needed for economic and ecological importance of the species for the region. In the present investigation we are reporting comparative *in vitro* regeneration protocol of these two species. Nodal segments of mature tree species were selected as explants for induction of axillary shoot. The shoots were surface sterilized with 0.1% HgCl<sub>2</sub> for 5 min. followed by 4-5 washings with sterilized water. Surface sterilized shoots were inoculated on agar gelled MS medium containing 3% sucrose and 2-10 μM BAP. The cultures were maintain at 28 ± 2 °C, 60% RH, 40-50 μmol m<sup>-2</sup> s<sup>-1</sup> SFP and 12 hr photoperiod. Induction of axillary shoots was observed after two weeks of inoculation. BAP 6 μM and 2 μM were found to be suitable for induction of axillary shoots of *Salvadora oleoides* and *Salvadora persica* respectively. Approximately 2 axillary shoots were produced from each node of both the species. *In vitro* rooting was induced after four weeks of inoculation on MS medium containing 6 μM and 2 μM NOA respectively from *S. oleoides* and *S. persica* shoots. *In vitro* produced plantlets of *S. oleoides* were hardened in green house on soilrite moistened with ¼ MS salts. Micropropagation protocol can be used for large scale cultivation of these plants in the arid regions.