

## AN ATTEMPT TO PROPAGATE AND CONSERVE *WITHANIA SOMNIFERA* (L). DUNAL: A POLYPHARMACEUTICAL PLANT THROUGH *IN VITRO* CULTURE

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### ABSTRACT

The present study was conducted to establish a simple and effective protocol for plant propagation and conservation and by using shoot tip of *Withania somnifera* (Dunal). The plant is one of the important medicinal cash crop in many states of India. It is widely used in the treatment of inflammatory conditions, in tumor, tuberculosis, rheumatism and is beneficial to improve rejuvenating effect. In *In Vivo* condition the germination of seed is very poor. Regeneration protocol for multiple shoots development from shoot tips explants were established. Shoots were initiated directly from shoot tips and maximum of  $11.3 \pm 0.28$  shoots/explants were achieved, in MS medium containing 2 mg BAP/L, AdSO<sub>4</sub> 50 mg/L and citric acid 1 mg/L. MS media supplemented with 2 mg/L IBA was most suitable for rooting. The rooted plantlets were successfully established in field.

**KEYWORDS:** Sterilization, *Withania somnifera*, Multiplication, Explants, Mercuric Chloride