

## **IN VITRO ORGANOGENESIS AND PLANT REGENERATION IN *BRASSICA* SPECIES**

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### **ABSTRACT**

High frequency regeneration of plants from *in vitro* cultured tissues is prerequisite to use genetic transformation to enrich oleiferous *Brassica spp.* Emphasis was given in this study on callus induction aptitude and subsequent plant regeneration from cotyledon and stem segment of three of *Brassica spp.* viz BARI sarisa-8 (*Brassica napus*), Daulat (*Brassica juncea*) and Sonali (*Brassica campestris*). Two milligram per litre of Kn, BAP (1.0, 2.0, 3.0 mg/l) and constant concentration of NAA (0.5 mg/l) were used in MS medium. The result showed that stem segment produced maximum percentage of callus and subsequent shoot regeneration in all the four treatments BARI sarisa -8 Showed best performance in callus induction and it take minimum (6-7 days) for callus initiation. Shoot initiation potentiality also highest in the same variety under studied. The variety sonali showed poor performance for all the parameter under studied. Rooting occurred simultaneously from regenerated shoot on half strength MS medium supplemented with 0.5 mg/l IBA. Regenerated plantlets were successfully transferred to pots containing a mixer of soil and vermiculite.

**Keywords:** callus, regeneration, *Brassica spp.*, growth hormone