

IN VITRO REGENERATION FROM SEED EXPLANTS OF *SEMECARPUS ANACARDIUM* - AN IMPORTANT MEDICINAL PLANT.

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Nature has provided a complete store house of remedies to cure all ailments of mankind. The natural or herbal remedies are still the backbone of medicines. Many herbal remedies individually or in combination have been recommended in various medical treatments for the cure of different diseases. *Semecarpus anacardium* (SA) Linn is a deciduous forest tree (Family: Anacardiaceae), is one of the most popular medicinal valuable plant in the world of ayurveda.

It is used to Treat skin diseases, vitiligo, guinea worm, splenomegaly, scrofula, rheumatism, as depilatory, for regaining normal colour, as rejuvenative, as phrodisiac, alopecia, worms, poisoning, malarial fever. The decoction of bruised fruit (1 to 8) in a dose of 25ml was given for asthma. A decoction with milk and purified butter, in gradually increasing doses, was given in peripheral neuritis, sciatica, facial paralysis, hemiplegic. The milk extract has anticancer potency, and also used in the treatment of piles. It has anti inflammatory activity, antiatherogenic effect, neuroprotective activity, therapeutic activity, hypoglycemic and antiglycemic effect and fungistatic activity, etc. Nut bruised and the exudates are used as an abortifacient and vermifuge. The nuts are used for various medicinal and pharmacological purposes from ancient period.

The sterilized seeds were inoculated on WPM medium and cultures were incubated in dark for 4 weeks followed by 2 weeks in light to obtain germination and seedling growth. From each seedling 4-5 nodal explants were isolated and they were cultured on WPM medium supplemented with different concentrations of plant growth regulators to induce multiple shoots and callus. Explants produce small shoot buds on WPM medium fortified with 4.0 mg/l TDZ and 2.0 mg/l 2,4-D after 5 weeks of inoculation. These buds were transferred to WPM medium supplemented with 4.0 mg/l TDZ alone for further observations. Stem portion were elongated and auxiliary and apical buds developed into small sized shoots.