

IN VITRO CALLUS FORMATION OF *PISTACHIA VERA* L.

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Various parts of *Pistachia vera* seedling were used as explant; only the hypocotyl section of the seedling formed callus on the medium containing 2,4-dichlorophenoxy acetic acid (5mg/l). Browning of the callus was partly controlled by activated neutralized charcoal.

Nuts of *P.vera* L. were obtained from the Department of Fruit Development in Baluchistan, Quetta. The seeds, after removal of the shells, were washed with 70% alc., then sterilized with 5.0% calcium hypochlorite solution for 10 min. and finally rinsed with sterile water. The seeds were germinated in 1.0% agar medium. After 15 days at 4-6 leaf stage, explants of the seedling (nodal section of stem, section of root-ca 1cm long, young leaves and cotyledons) were transferred to modified Murashige and Skoog medium (1962) containing sucrose, 3.0%; 2,4-dichlorophenoxy acetic acid, 5mg/l; thiamine, 5mg/l; coconut milk, 10%; and activated neutralized charcoal, 0.3%. The pH of the medium was adjusted to 5.7 prior to autoclaving. Culture were inoculated at 28° in darkness. Callus formation was induced in one week.

The hypocotyl section (the end separated from root portion) firstly showed signs of swelling; then a white friable callus was formed which gradually became brownish. The callus formed by the cotyledonary stalks was also white and friable and became off white in due course. The callus formed along the stem portion was dark brown and pulp like although it was in direct contact with the medium. This indicated that the polyphenolic discharge of the tissue was not adsorbed by activated charcoal. Masses of white granular bodies appeared on the cut surfaces of the cotyledonary explant. However, further growth was checked due to the browning of the tissue. Explant of the root section and young leaves became brown before showing any sign of callus formation.

## REFERENCE

1. T. Murashige, and F. Skoog, *Physiol. Plant*, **15**, 485 (1962).