

**H207** Plant regeneration through ovule culture of *Allium fistulosum* L.

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Green callus was induced from the surface on the ovules of *Allium fistulosum* L. on MS medium containing 0.5 mg/L BAP and 0.5 mg/L 2,4-D or 0.5 mg/L NAA. The maintenance of green callus was significantly promoted by 0.5-1.0 mg/L BAP supplement in culture medium. When the green callus was transferred to low level (0.1-0.2 mg/L) of BAP and NAA medium, shoots developed from its surface. After 3 weeks of culture, high frequency plantlets that had produced roots were achieved from the shoots. Plantlets were transferred onto MS basal medium, wherein they developed into normal plants. Regenerated plants were transferred to pots and gradually acclimatized to green house conditions.

**H208** Induction and Culture of Hairy Roots of *Crotalaria sessiliflora*

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The hairy roots of *Crotalaria sessiliflora* were induced from the stem and leaf segments infected with *Agrobacterium rhizogenes* ATCC 15834. The induced hairy roots were subjected to paper electrophoresis for the detection of opine-positive clones which were considered to have been transformed. Manopine and agropine were presented in six hairy root clones while only manopine were presented in two hairy root clones. Eight hairy root clones were selected and cultured suitably in the MS, B5 and WP media while White and RCM media showed unsuitable. At 25 days after culture, the growth rate in the hairy roots CS6 was increased with 130-fold of the inoculated hairy roots and with 43-fold of the ordinary roots in MS liquid medium supplemented with 3% sucrose, pH 5.8 at 25°C in the dark at 70rpm. Also, at three weeks after culture in ½-macro liquid MS, the growth rate was increased with two-fold more than that in MS liquid medium. The presence of pyrrolizidine alkaloids, monocrotaline, in the hairy roots was detected on TLC plate.