ing of an outward flux of secretion product from the former and an inward influx of the same material to the latter helping in the growth of pollen tubes.

The location of secretory cells in the ovules of *N. marina*, and the fact that secretion is maximum prior to fertilization and present in the entire ovarian cavity suggest that it not only serves as a suitable medium for the free suspension of the pollen tube in the ovarian cavity but also provides nutrition to growing pollen tubes, since mucilage is highly rich in lipids, carbohydrates and proteins. The copious secretion, that besieges the ovule also functions of protection in a taxon which lives in a particular ecological nitche (saline water -pH 8.2).

One of us (BKJ) is grateful to UGC, New Delhi for financial assistance.

9 January 1986; Revised 4 July 1986

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PLANTLET FORMATION IN EMBRYO CULTURES OF *CAPSICUM ANNUUM* L VAR G4

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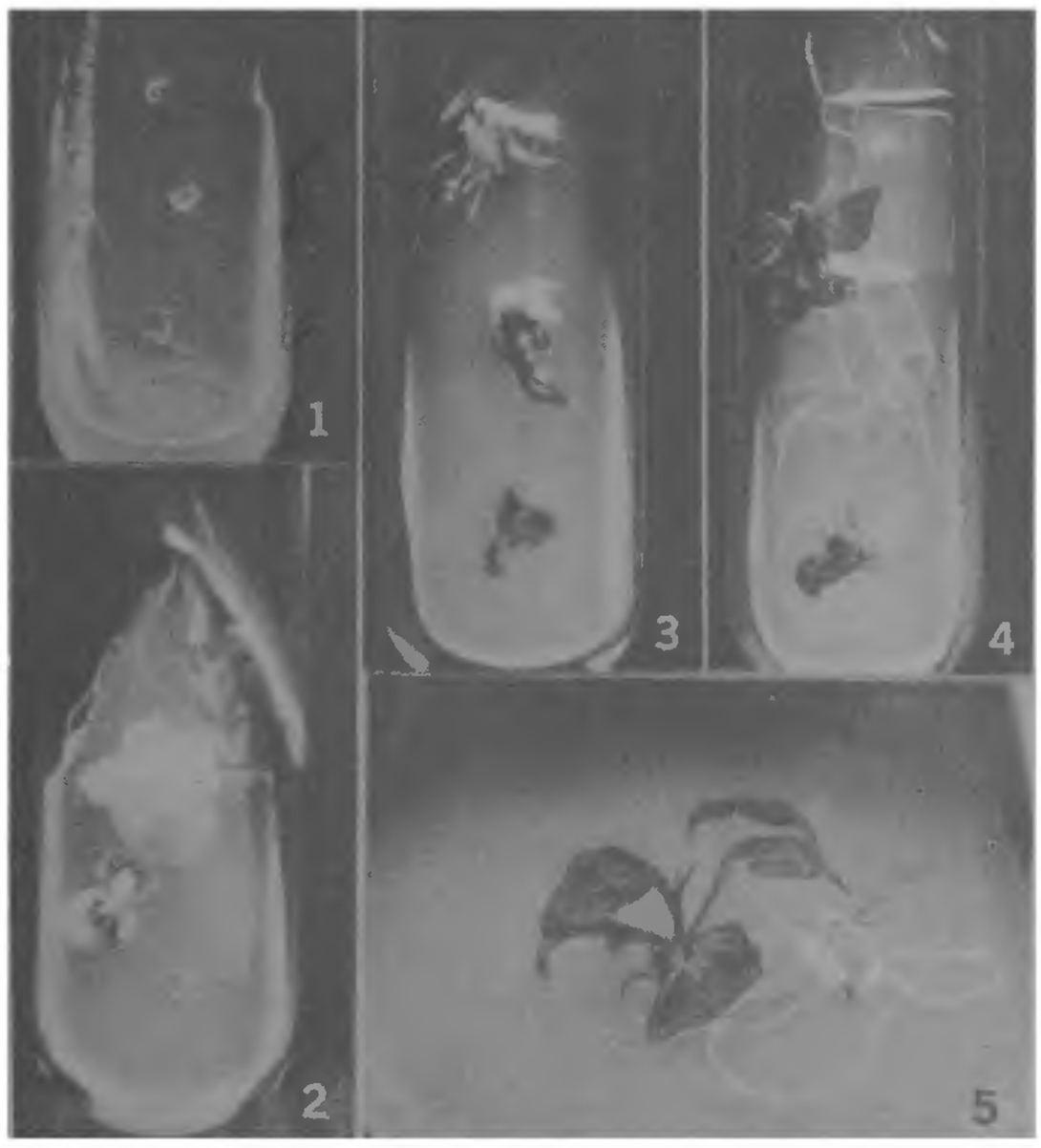
THE techniques of plant tissue culture are increasingly being applied for the improvement of economically important crops. *In vitro* cultures used for propagation could be started either from existing meristems or from adventitious meristems in the form of shoot apices or embryos. Embryos of *Hordeum vulgare*[1], *Solanum melongena*[2] and *Capsicum annuum*[3] have been successfully cultured for accelerating the rate of multiplication. George and Narayanaswamy[4] and others[5,6] reported the production of haploid plants through anther culture in *C. annuum*, and later Gunay and Rao[7] and Saxena *et al*[8] obtained plantlet regeneration from hypocotyl and cotyledon explants, and protoplasts, respectively.

Although red pepper cannot be considered as one of the world's major economic crop, it is one of the important cash crops of India with significant commercial value as a spice. Very little tissue culture work is being done in this crop. Our aim of experiment is to increase the multiplication rate through embryo culture in red pepper. We report here the formation of complete plantlets from excised mature embryos of *C. annuum* L var G4, a high yielding selection of a local cultivar.

Fresh seeds of *C. annuum*, var G4 were obtained from the Agricultural Research Station, Lam, Guntur, A.P. Soaked (24 hr) seeds were surface-sterilized with 0.1% mercuric chloride for 5 min and washed thoroughly in glass distilled water. The mature embryos were excised aseptically and cultured on modified Murashige and Skoog's (MS)[9] medium consisting of various combinations of 2,4-dichloro phenoxyacetic acid (2,4-D), 3-Indole acetic acid (IAA), kinetin (Kn) and 6-benzylaminopurine (BAP). The pH of the medium was adjusted to 5.8 with 0.1% NaOH and solidified by 1% agar. Differentiating cultures were maintained under a 16 hr light and 8 hr dark cycle at 26±2°C.

In excised mature embryos (figure 1) cultured on modified MS medium supplemented with 2,4-D (0.5–1 mg/l) and Kn (0.5 mg/l), the cotyledons turned green and subsequently formed an actively



Figures 1–5. 1. Excised mature embryos on MS medium. **2.** Actively growing healthy callus. **3.** Induction of roots. **4 and 5.** Profused rhizogenesis and plantlet regeneration.

growing callus (figure 2). The callus initiated all over/hypocotyl of the embryo first showed patches of chlorophyll-containing cells but later turned pale brown. Profuse rhizogenesis (8–15 roots per embryo of almost equal length) was observed (figure 3) when calli were transferred to media containing IAA (1 mg/l) and Kn (0.1 mg/l). 2,4-D in combination with Kn or BAP was inhibitory for producing roots. On a medium fortified with 2,4-D (0.5 mg/l) and BAP (2 mg/l) multiple shoot buds were initiated. These shoot buds when transferred to a medium having BAP 3 mg/l exhibited further proliferation into plantlets. Complete plantlets with roots were observed (figures 4 and 5) three weeks after the transfer of compacted callus maintained for over one month, to MS media with IAA (0.1 mg/l) and BAP (1 mg/l). We are currently engaged in studying the response of different local *Capsicum* varieties in tissue culture.

MVR is indebted to CSIR, New Delhi for selection as Pool Officer.

3 May 1986; Revised 26 May 1986

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OCCURRENCE OF *CLADOBOTRYUM VARIOSPERMUM* (LINK) HUGHES ON POLYPORUS FUNGI UNDER NATURAL CONDITIONS

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DURING a survey in the forest areas of Himachal Pradesh, *C. variospermum* was found to parasitize young fruit bodies of *Phomitopsis insulare* Murr and *Polyporus versicolor* L ex Fr during February 1986 at various locations. The mycoparasite invariably produced whitish mouldy growth on the lower surface of the fructifications. On microscopic examination it showed hyaline, profusely branched, septate hyphae up to 3 μm thick, bearing erect, long, septate, hyaline conidiophores, branching irregularly and repeatedly terminating in irregular groups of phialides which may or may not taper towards apex. Conidia terminal, hyaline, non-septate to 1-septate, subglobose to broadly ellipsoidal, thick walled, 12.5–17×8–9 μm. The fungus showed profuse whitish fluffy mycelial growth on PDA and MEA media producing conidiophores and conidia. Chlamydospores were intercalary and in chains. Conidia were smaller in size in culture. It showed optimum growth between 15 and 20°C