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
lipsids, carbohydrates and proteins. The copious
secretion, that besieges the ovule also functions of
protection in a taxon which lives in a particular
ecological niche (saline water -pH 8.2).

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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 in-
creasingly being applied for the improvement of
important crops. *In vitro* cultures used
for propagation could be started either from existing
meristems or from adventitious meristems in
form of shoot apices or embryos. Embryos of
*Hordeum vulgare*, *Solanum melongena* and *Cap-
sicum annuum* have been successfully cultured for
accelerating the rate of multiplication. George and
Narayanasmwamy and others reported the produc-
tion of haploid plants through anther culture in *C.
annuum*, and later Gunay and Rao and Saxena et
al obtained plantlet regeneration from hypocotyl
and cotyledon explants, and protoplasts, respec-
tively.

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* 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, Gun-
tur, A.P. Soaked (24 hr) seeds were surface-sterili-
ized with 0.1% mercuric chloride for 5 min and
washed thoroughly in glass distilled water. The
mature embryos were excised aseptically and cul-
tured on modified Murashige and Skoog's (MS)*
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

**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 *Phomopsis insulare* Murr and *Polyergus 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.

**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 1AA (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.

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