In vitro Regeneration of Pepper plants from Embryo, Cotyledon and Hypocotyl cultures from Normal and Mutagen treated Seeds

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Red pepper, an economically important crop of India, in which not much work has been done to establish culture conditions for its regeneration. We report the formation of complete plantlets from excised mature embryos of Capsicum annuum L. var. G4 on MS medium. Profuse rhizogenesis was observed in media containing NAA (1mg/l) and Kinetin (1mg/l) and complete plantlets were obtained when roots were transferred to media supplemented with BAP. Complete regeneration was also achieved from explants of cotyledon and hypocotyl of the same material. EMS and HA, chemical mutagens, have an inhibitory effect on callus and morphogenesis, but stimulation of callus and induction of roots directly from explants of hypocotyl cultures was recorded at lower concentrations. Chromosomal observations were also made. The data collected during the investigation will be discussed.

Morphogenesis in Cultures of Flower Buds of Brassica oleracea L. var.capitata 'Matsukaze'.

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Cabbage flower buds of about 5 mm in length were cultured in basal medium consisting of Murashige and Skoog inorganic salts, 3% sucrose, and in mg/l: i-inositol, 100; thiamine. HCl, 1.0; pyridoxine.HCl, 0.5; nicotinic acid, 0.5; glycine, 2.0; and gelrite, 2,000. Cultures were illuminated 16 hr per day whith 1,000 lux cold white ligth and exposed to a constant 27°C temperature. Observations and data were recorded after 40 days. The maximum number of shoots was obtained in a medium supplied with 1.0 mg/l BA and 2.0 mg/l IAA. Shoots were rooted by using the same basal medium containing 2mg/l of IAA.

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