

**ASEPTIC MULTIPLICATION AND MAINTENANCE OF POINTED
GOURD (*TRICHOSANTHES DIOICA* ROXB.) AS AFFECTED
BY SUCROSE, AGAR AND pH**

Rashmi Komal¹, Chandan Kumar² and U.K. Sinha¹

Received November 11, 2010 and Accepted January 3, 2011

ABSTRACT : Effect of different concentrations of sucrose, agar and different level of pH on *in vitro* axillary shoot multiplication of *Trichosanthes dioica* Roxb. was analysed. The shoot tips from the field grown germplasm were used as testing plant material. MS supplemented with 1.5 mg/l BAP + 0.2 mg/l NAA, 30 g/l of sucrose, 6 g/l of agar and 5.5-6.0 levels of pH proved more effective for maximum number of shoot induction and proliferation. The highest percentage of explants (98.45%) responded to shoot proliferation in the media enriched with 30 g/l sucrose. This sucrose concentration also showed the optimum result for total number of shoot per culture and average length of shoots which was 3.8 ± 0.28 and 3.66 ± 0.44 cm, respectively. The highest response of shoot proliferation from the shoot tip explants was observed on MS medium enriched with 6 g/l agar and the regeneration frequency was 98.50%. Among different level of pH tested, the highest percentage (100%) of explants showing proliferation was observed on the media adjusted to pH 5.5-6.0 levels. It was proved by the present investigation that *in vitro* growth and shoot multiplication was affected by sucrose, agar and pH.

Key Words: Aseptic multiplication, maintenance, pointed gourd.