

Mass *in-vitro* micro propagation of banana (*Musa* sp.)

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In-vitro: In glass; NaOCl : sodium hypochlorite; BAP: 6-Benzyl amino purine; IAA: Indole-3-acetic acid; IBA: Indole-3-Butyric Acid

ABSTRACT

Production of Banana is constrained by many biotic as well as abiotic factors. The production of disease free planting material of banana by meristem culture technique is an urgent need. An experiment has been designed to develop a suitable and efficient protocol for plant regeneration in banana through micro propagation. The surface sterilization of banana plant is the most difficult practice. So it is very important to optimize the concentration and duration of different sterilants for explants surface sterilization. The best sterilants for the surface sterilization of the explant of banana were 0.1 per cent HgCl₂ for 5 min duration followed by NaOCl (40 %, commercially available) solution for 8 min duration and 70 per cent ethyl alcohol for 2 min. And the best medium for establishment of banana explant was supplemented with 3mg/l BAP, 0.2mg/l IAA with 30 mg ascorbic acid followed by Proliferation with 5mg/l BAP, 0.5mg/l IAA with 30 mg ascorbic acid and 10 mg/l BAP, 0.5 mg/l IAA with 30 mg ascorbic acid. Significantly highest number of roots and greater root length were produced by 0.5 mg/l IAA + 0.5 mg/l IBA.

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