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Somatic embryo derived multiple shoot regeneration in Bacopa monneriae

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Bacopa monnieri L. commonly known as "Brahmi" is an important medicinal herb of the family Scrophulariaceae. It is the foremost brain tonic herb of the Indian System of Medicine and other traditional systems, used primarily as a nerve tonic, to treat insomnia and nervous tension. Effective invitro regeneration of brahmi (Bacopa monnieri) has been achieved via young leaf derived somatic embryo cultures. The leaf explants were inoculated on MS medium wuth2, 4- Dichloro phenoxy acetic acid (2, 4-D 0.5 mg/l) for callus induction .The cultured cell debris gave rise to luxuriantly growing calli after two weeks .These calli were sub cultured on MS medium supplemented with various concentrations of 2,4-D(0.75-1.75mg/l) alone or along with Benzyl adenine(BA 0.5-2.0mg/l) for somatic embryogenesis. The efficient somatic embryogenesis was observed on full strength MS medium supplemented with 2, 4-D (1.0 mg/l) along with BA (0.5mg/l) within three weeks of time.The initiated shoot buds were transferred onto (MS) medium supplemented with varied concentrations of BA (Benzyl adenine) and IBA (Indole butyric acid) for effective organogenesis which gave rise to healthy multiple shooting within short time duration on MS medium with BA 0.5 mg/l along with IBA 0.3 mg/l. The healthy plantlets were separated and were cultured in pots for field acclimatization.

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