-Shoot differentiation and plant regeneration from thidiazuron induced callus of Salvia officinals.

Tawfik, A.A. and M. F. Mohamed

Abstract:

Nodular competent callus was induced on the basal cut surface of the shoot apex explants cultured on MS (Murashige and Skoog) medium supplemented 1, 3, or 5 mg/L thidiazuron (TDZ) and incubated in darkness for one week followed by 4 weeks under white fluorescent light. A high percentage of proliferated callus was obtained with the medium containing 1 mg/L TDZ. The separated callus pieces were maintained on the same fresh medium. Shoot differentiation, following each of three successive maintenance passages, occurred on the medium either lacking or containing 1 mg/L benzyladenine (BA). The shoots developed roots on medium with 1 mg/L IBA. Up to seventy-five percent of the produced plantlets were acclimatized to the ex vitro conditions. The novel protocol may be useful for biotechnological applications in salvia improvement via genetic transformation or mutagenesis and cloning approaches.

Published In: