

Effects of 6-Benzyladenine and α -Naphthaleneacetic Acid on Callus Induction and Shoot Regeneration of Rosemary (*Rosmarinus officinalis*)

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Abstract

This study investigated the different combinations of BA and NAA on the callus induction, proliferation and regeneration of *Rosmarinus officinalis*. Regarding the best frequency of induction of calli derived from leaf, node and internode explants were obtained on the basal medium containing a combination of 10 μ M BA + 10 μ M NAA, at 27%, 98% and 94%, respectively. Similarly, a supplement of 10 μ M BA + 10 μ M NAA would proliferate a great quantity of white to greenish granular organogenic calli. These calli were subcultured within an interval of 5-6 weeks. Calli cultured on basal medium with equal concentration of BA in combination with NAA, which would successfully redifferentiated into adventitious buds on the surface. However, media with different ratios of BA to NAA, 10:1 and 2:1, did not trigger adventitious bud regeneration. The regenerated shoots subcultured on 1/2MS basal medium with 5 μ M BA + 5 μ M NAA or 10 μ M BA + 10 μ M NAA, a large number of adventitious buds could be repropagated on the shoot-derived calli.

Key words : Rosemary (*Rosmarinus officinalis*), Callus, Regeneration

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