

ADVENTITIOUS SHOOT REGENERATION FROM LEAF AND INTERNODAL EXPLANTS OF *MIMULUS AURANTIACUS* CURTIS

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Abstract

An efficient adventitious shoot regeneration system was established for *Mimulus aurantiacus* using internodal explants. The effects of various combinations of NAA (0.0, 0.1 and 0.5 mg l⁻¹) and TDZ (0.5, 1.0, 2.5 and 5.0 mg l⁻¹) on adventitious bud induction from leaf and internodal explants were studied. MS medium supplemented with 0.5 mg l⁻¹ NAA and 2.5 mg l⁻¹ TDZ or 0.1 mg l⁻¹ NAA and 1.0 mg l⁻¹ TDZ was optimal for induction of bud clusters from *in vitro* grown leaf explants or internodes, respectively. Up to 100% of explants responded with bud cluster formation on these optimal variant of the medium. The presence of NAA in the medium had a major impact on bud cluster induction capacity, whereas when it was omitted from the medium, caulogenic response was significantly lower. The effect of TDZ concentration was less pronounced. Well-established shoot proliferation and elongation was achieved by sub-culturing bud clusters on full-strength MS medium supplemented with 0.1 mg l⁻¹ IAA and 0.2 mg l⁻¹ BAP.

Key words: adventitious regeneration, *Mimulus aurantiacus*, NAA, shoot proliferation, TDZ

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