

Effects of auxin and cytokinin on callus induction in *Catharanthus roseus* (L.) G. Don

ABSTRACT

The study was conducted to observe the effect of different concentration and combination of auxin and cytokinin towards the callus induction of *C. roseus*. Explants comprising of basal leaf with petioles of *Catharanthus roseus* were cultured onto MS media supplemented with different types and concentrations of auxins (naphthalene acetic acid (NAA) and 2,4-dichlorophenoxyacetic (2,4- D)) and cytokinins (benzyl amino purine (BAP), and kinetin). Calli produced from explants showed differences in response in each of the treatment combinations. Treatments with kinetin and NAA, BAP with 2,4-D (Experiment B) did not differ significantly. Treatment with 3.0 mg L⁻¹ BAP + 3.0 mg L⁻¹ NAA (Experiment C) gave the highest dry weight (2.776 g) suggesting an optimum level of combination for callus induction.

Keyword: *Catharanthus roseus* (L.) G. Don; Callus induction; Auxin; Cytokinin