

Diterpenoid Production in Hairy Root Culture of *Salvia sclarea* L.

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Growth and diterpenoid accumulation (salvapisone, ferruginol, aethiopinone and 1-oxoaethiopinone) during the growth cycle of a *Salvia sclarea* hairy root culture are described. The roots transformed by *Agrobacterium rhizogenes* (LBA 9402) were cultured in half-strength B5 liquid medium supplemented with 30 g L⁻¹ sucrose under light (16 h/8 h light/dark). A culture period of 30 days was optimal for both biomass and diterpenoid production. The total content of four diterpenoids in the hairy roots [(27.3 ± 0.6) mg g⁻¹ dry weight] was higher than that of roots of field-grown *S. sclarea* plants [(3.15 ± 0.15) mg g⁻¹ dry weight]. In transformed roots, aethiopinone was the main diterpenoid, whereas the principal diterpenoid of natural roots was salvapisone.

Key words: Diterpenoids, Hairy Roots, *Salvia sclarea*