

Methyl Jasmonate Elicitation Enhances Glycyrrhizin Production in *Glycyrrhiza inflata* Hairy Roots Cultures

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Hairy roots were induced by infecting stems and leaves of *Glycyrrhiza inflata* with *Agrobacterium rhizogenes* ATCC 15834. The optimization of growth and glycyrrhizin accumulation of *G. inflata* hairy roots was studied. Sucrose (6%, w/v) was optimal for growth and glycyrrhizin accumulation in *G. inflata* hairy roots. Effects of elicitors like chitosan, methyl jasmonate, and yeast extract on glycyrrhizin production were studied. Methyl jasmonate (100 μM) was most efficient in enhancing glycyrrhizin production up to almost 109 $\mu\text{g/g}$ dry weight on day 5 of elicitation. These results indicate that application of elicitors can enhance the capacity of *G. inflata* hairy roots to produce glycyrrhizin.

Key words: Methyl Jasmonate, Glycyrrhizin, *Glycyrrhiza inflata*, Hairy Roots Cultures