

Wpływ egzogenego związku fenolowego – kwasu kawowego na organogenezę *Galanthus elwesii* Hook. w kulturach *in vitro*

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The effect of the exogenous phenolic compound, caffeic acid on organogenesis of *Galanthus elwesii* Hook. cultured *in vitro*

Summary

Caffeic acid is a simple phenolic compound, a phenylpropene derivative with two –OH groups, which inhibits IAA oxidase and, therefore, is considered to be an auxin cofactor. The aim of the present experiments was to determine the effect of exogenous caffeic acid (100-500 mg dm⁻³ in medium) on the organogenesis in giant snowdrop (*Galanthus elwesii*) in *in vitro* cultures. Exogenous caffeic acid at the supra optimal concentration (500 mg dm⁻³) inhibited shoots, leaves and roots formation, as well as reduced bulbs fresh mass and caused the explants growing. The lower dose of caffeic acid inhibited the rhizogenesis process. The analysis of the content of phenolic compounds in tissues and organs of giant snowdrop showed that exogenous caffeic acid reduced total content of endogenic phenolic compounds in regenerants.

Key words:

Galanthus elwesii, organogenesis, *in vitro*, phenolic compounds, caffeic acid

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