ABSTRAKT

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Possibilities of affecting of secondary metabolites production in culture *Silybum marianum in vitro*

Elicitation is the method making use defensive mechanism of plants to increasing poduction of secondary metabolites in plants and cultures *in vitro*. The effect of 6, 12, 24, 48, 72 and 168 hours influence by three concentrations of the abiotic elicitor (3-jodo-4-methylfenyl)amide 5-methylpyrazine-2-karboxylic acid on the flavonolignans production in *Silybum marianum* callus and suspension culture was monitored in this study. The *in vitro* culture was cultivated on Murashige-Skoog medium with the addition of 10 mg/l of α-naphtylacetic acid as a growth regulator. The content of flavonolignans was determined by HPLC. The maximum content of flavonolignans (0,03 %) in callus culture was demostrated after 24 hours of elicitation ($c_1 = 2{,}83 \cdot 10^{-3}$ mol/l). The maximum content of flavonolignans (0,04 %) in suspension culture was demonstrated after 48 hours of elicitation ($c_3 = 2{,}83 \cdot 10^{-5}$ mol/l).