

CULTURES OF MEDICAL PLANTS *IN VITRO* (I)

Diplomová práce

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The point of my work was to get know with methods of cultivation plant culture *in vitro*. It was tested effect of abiotic elicitor, H₂O₂ in different concentration for production of flavonolignans in callus and suspension culture *Silybum marianum* (L.) Gaertn.

On base of results of contents flavonolignans HPLC method in this culture was tested, if the oxidation stress increases volume of those substitutions.

By this experiment was proved cause of oxidation stress H₂O₂ for production of flavonolignans by callus and suspension culture *Silybum marianum* (L.) Gaertn. The maximum increasing of contents flavonolignans happend after 12 hours elicitation H₂O₂ in concentration c₂ (1,0 mol/l) - increasing was 317% against control (without the elicitor's action) by callus culture and increasing was 300% against control (without the elicitor's action) by suspension culture.