

***In vitro* cultures of medicinal of plants – VII**

Elicitation is one of the methods that can be used to increase production or accumulation of secondary metabolites in explants cultures. There were used callus and suspensions cultures of *Silybum marianum* (L.) Gaertn. Derivate *N*-phenylpyrazin-2-carboxamid was used as abiotic elicitor in concentrations $c_1=1.159 \times 10^{-3}$ mol/l, $c_2=1.159 \times 10^{-4}$ mol/l and $c_3=1.159 \times 10^{-5}$ mol/l. The effect of elicitors on the production (flavonolignans of silymarin complex and flavonoid of taxifolin) was evaluated after 6, 12, 24, 48, 72 and 168 hours. Cultures were cultivated on Murashige and Skoog medium with addition 10 mg/ml α -naphthylacetic acid (α -NAA). HPLC method for analysis was used. The maximal content of flavonolignans was reached after elicitor application in concentration c_2 after 168 h in callus culture (0,08%). However the highest content of silydianin was detected after application of elicitor in concentration c_1 (0.11 %) in suspensions culture. The maximal content of flavonoid taxifolin was noted in of nutrient medium of suspensions cultures.