

## **Flavonoids production in *Hydrocotyle bonariensis* callus tissues**

### **ABSTRACT**

Callus tissue of *Hydrocotyle bonariensis* was initiated from the leaf of *H. bonariensis* treated with 2 mg/L 2,4-D and 1 mg/L kinetin. The culture was kept at 25°C, under light (cool white fluorescent tubes, 1200 lux). The data obtained showed that the best medium for the highest flavonoids production was in DKW basal medium. Fructose as a carbon source increased the flavonoids content by 3%. Callus treated with 2 mg/L 2,4-D in comparison with the other auxins and among the cytokinins, kinetin and thidiazuron (TDZ) at 1 mg/L enhanced the flavonoid accumulation. Higher flavonoid production was obtained in combination with the 2 mg/L 2,4-D and 1 mg/L kinetin, while the pH value which was higher than 5.7 showed inhibitory effect on flavonoids production. It was found that the highest flavonoids were produced at 16 days of culture.

**Keyword:** Flavonoids; Cell culture; Media composition