

Lipid Composition and Toxicity for Different Micro-organisms of Callus Cultures from Ecdysteroid Containing Plants *Rhaponticum carthamoides*, *Serratula coronata* and *Ajuga reptans*

Tatiana I. Shirshova, Svetlana A. Burtseva*, Elena A. Pchounetleva

Institute of Biology, Komi Sci. Centre, Ural Division, R A S, 167610, Syktyvkar, Kommunisticheskaya str, 28, Russia,

E-mail: volodin@ib.kcs.komi.ru

**Institute of Microbiology, M A S, Kishinev, Academicheskaya str., 1, Moldova*

Quantitative, qualitative and fatty acid composition of total lipids from seeds and callus cultures of *Rhaponticum carthamoides*, *Serratula coronata* and *Ajuga reptans* was studied. It was shown that main components of lipid extract from callus cultures were sterols. Oleic, linoleic and palmitic acids were mainly contained. Extracts of total lipids from *Serratula coronata* callus cultures revealed the highest toxicity for different micro-organisms. These extracts suppressed the growth of 13 out of 15 micro-organism test-cultures belonging to different physiological groups. Lipids of seeds and callus cultures from *Rhaponticum carthamoides* and *Ajuga reptans* had a lower activity. They did not affect the growth of most of them, having insufficient influence only in concentration 1000 µg/ml.