

## ANALYSIS OF LEDUM PALUSTRE EXTRACTION CAKE AFTER OBTAINING THE ESSENTIAL OIL

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Wild rosemary (*Ledum palustre*, family *Ericaceae*) has significant area of distribution in Ukraine, which occupies the whole of the northern part from Lviv to Kharkiv regions. All parts of the plant contain essential oil (except the roots), composed mainly by ledol, heranilatsetat and palustrol. In addition, the plant contains flavonoids and tannins, which belong to the original catechins. In medicine, wild rosemary infusion is used as antitussive in acute and chronic bronchitis, as well as spastic enterocolitis. There is evidence *Ledum palustre* use as an insecticide. On the territory of Ukraine it was reported only one drug from this plant - "Ledin," which has antitussive activity. The pharmaceutical industry uses only terpenoid extract, while this plant is rich in other classes of biologically active substances, in particular phenolic compounds.

The aim of our research was to investigate the chemical composition of the extraction cake remained after obtaining the essential oil of *Ledum palustre* shoots, including phenolic compounds for more complex processing of raw materials, and creating new drugs on the basis of the results.

To achieve this we obtained essential oil of *Ledum palustre* shoots by the method presented in the Pharmacopoeia USSR 11-ed. Then 50% ethanol was added to the extraction cake and extracted during the day. The extract was filtered and the volume of filtrate was measured. Quantitative determination was performed by spectrophotometry. The total content of phenolic compounds was determined at wave length 270nm in calculation on gallic acid; hydroxycinnamic acid derivatives - at 327nm in calculation on chlorogenic acid and flavanoids by differential spectrophotometry with  $AlCl_3$  at 417nm in calculation on rutin.

It was found that the total content of phenolic compounds in the extract in calculation on absolutely dry raw materials was  $1,72\% \pm 0,01\%$ , hydroxycinnamic acid derivatives -  $1,19 \pm 0,01\%$  and the content flavanosds -  $0,069 \pm 0,01\%$ .

Thus, we have studied the content of phenolic compounds extracted from cake of *Ledum palustre* shoots remaining after obtaining essential oils and found the possibility of creating a new drug on the basis of the data.