

MONITORING OF THE EXTRACTION OF PECTINS FROM THE HERB OF *GALIUM VERUM* L.

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Introduction. Lady's bedstraw, *Galium verum* L., of the family *Rubiaceae* Juss. is widely used in folk medicine as a choleric, bactericide or anti-inflammatory remedy. As a certified medication it is used as a component in the *Tazalok* composite herbal preparation.

Previous studies established presence of hydroxycinnemic acids, flavonoids, coumarins, iridoids, and ether oil components. The present study has been focused on the water-soluble polysaccharides in the herb *Galium verum*.

Aim. The aim of the present study consisted in research in the peculiarities of the extraction of pectin compounds from the herb *Galium verum*.

Materials and methods. The subject under study was the herb of *Galium verum* harvested in the Kharkiv region of Ukraine in the flowering phase in June 2015.

The extraction was performed on 63.46 g air-dried oil cake of the herb *Galium verum* obtained from the water-soluble polysaccharides extraction, drained with 480 ml of a 0.33 % aqueous solution of oxalic acid, followed by heating in a boiling water bath for 1 hour (pH = 3), whereupon 790 ml purified water and 1 ml of a 25 % aqua-ammonia solution was added and heated for another hour (pH = 6).

The solution obtained was filtered and evaporated under vacuum down to 30 ml, whereupon the pectin substances were precipitated with a 96 % ethanol in the ratio 1 : 3. The precipitate was separated by means of centrifugation for 10 minutes at 3000 rpm then rinsed with a 96 % ethanol, re-centrifuged and dried up.

The extraction was performed twice again, every time with the addition of 1270 ml purified water. The residue was weighed up, dried and weighed up again.

Results and discussion. The results established the presence of pectin substances (%) in the 3 extractions at I – 3.88, II – 2.41, and III – 0.81. The yield of dried pectins from the raw was quantified as 2.12 %.

Conclusions. The present study established that the herb Lady's bedstraw contains 7.1 % pectin substances, which suggests the necessity of further research in the carbohydrate content of the *Galium verum*.