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Compilers: K. Y. Netosova, I. O. Surikova, O. S. Prokopenko, A. S. Materiienko, D. V. Lytkin

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Technologies of cultivation in our country are developed only for Glaucium flavum, Colchicum autumnale, Atropa belladonna and Echinops ritro. The lack of such technologies for a number of protected species is often explained not only by economic aspects. Growth of aerohydatophyte Nuphar lutea is possible only in coastal water and aquatic cenoses, and Lycopodium clavatum refers to spiophytes and can be cultivated only under the canopy of the forest.

Conclusions. The analysis shows that only for the half of the demanded alkaloid-containing species in Ukraine is developed cultivation technology, for other species, some of which are protected, the development of such technologies is relevant.

DETERMINATION OF THE QUANTITATIVE CONTENT OF FLAVONOIDS IN THE THALLOMS OF PARMELIA SULCATA AND PARMELIA PERLATA

Kyslychenko O. A., Protska V. V.
Scientific supervisor: prof. Zhuravel I. O.
National University of Pharmacy, Kharkiv, Ukraine
vvprotskaya@gmail.com

Introduction. According to literature, the Parmeliaceae family has about 2700 representatives. In turn, the genus Parmelia includes about 70 species, the most widespread among which are Parmelia sulcata and Parmelia perlata. These lichens are commonly found on all continents. They grow on the slopes of rocks, stony terrain, infertile soils and on trees as epiphytes.

Representatives of the genus Parmelia are used as animal feed, as a natural brown paint, in cosmetology for skin whitening, and some people use it for food. Along with this, they have long been used in folk medicine in many countries as antiviral, antitumor, antioxidant, antimicrobial, antipyretic, analgetic, antiallergic, wound healing and antispasmodic remedies. Galenic preparations from the thalloms of different species from the genus Parmelia are used in Indian folk medicine in the treatment of diarrhea, psoriasis, amenorrhea, dysentery and many other diseases. Literary data suggest that some representatives of this genus may exhibit antidiabetic, hypolipidemic and cardioprotective activity.

Aim. For the purpose of comprehensive phytochemical study of the thalloms of Parmelia sulcata and Parmelia perlata, the quantitative content of flavonoids in the investigated raw material was determined.

Materials and methods. The air-dry thalloms of Parmelia sulcata and Parmelia perlata, which were harvested in Kazakhstan in 2016-2017, were used for the research.

Quantitative determination of the sum of flavonoids in the thalloms of Parmelia sulcata and Parmelia perlata was carried out by spectrophotometric method in accordance with the method described in the second edition of the SPU, supplement 1 in the monograph "Sophora alabastrum". The maximum absorption for solutions of the investigated raw material was recorded at a wavelength of 410 nm. The calculation of the content of flavonoids was carried out on rutin and absolutely dry raw material.

Result and discussion. Preliminary detection of flavonoids in the studied types of raw materials was carried out by methods of paper and thin-layer chromatography.

As a result of the conducted experiments, it was found that the content of flavonoids in the thalloms of Parmelia sulcata and Parmelia perlata slightly differed. The content of the sum of flavonoids in the thalloms of Parmelia sulcata was 1,00 ± 0,03%, while in the thalloms of Parmelia pelata it comprised 1,21 ± 0,03%.

Conclusions. The obtained results can be used in the development of the quality control methods for thalloms of Parmelia sulcata and Parmelia perlata, as well as in the development of drugs on their basis.