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DETERMINATION OF MINERAL COMPOSITION OF TUSSILAGO FARFARA L. GROWING IN THE TERRITORY OF SOUTH FERGANA

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ABSTRACT

As can be seen from the diagrams, Tussilago Farfara L. from the mountainous regions of the Fergana region is distinguished by a high content of potassium, calcium, barium, copper, manganese, and zinc.

Mother-and-stepmother (Tussilago Farfara L.) has long been widely used in folk medicine for the treatment of various ailments, mainly of the respiratory tract. The herb contains a large amount of mucus, which has an enveloping effect on the mucous membrane of the mouth, throat and larynx, helping to protect against irritation. In addition to mucus, the plant contains saponins, as well as organic acids, which contribute to the softening, liquefaction of dry secretions in the upper respiratory tract, and contribute to the recovery process characteristic of the natural state of the body. Thus, thanks to these properties of coltsfoot, the herb promotes expectoration of phlegm due to the content of tannins, carotenoids and sterols, which have a clearly directed effect on the elimination of inflammatory processes, reduce hyperemia of the mucous membranes [1-3]. The great scientist Avicenna [4] advised an infusion of coltsfoot leaves as an expectorant, disinfectant and anti-inflammatory agent for almost all diseases of the upper respiratory tract. Mother-and-stepmother in folk medicine is used to treat tuberculosis, bronchial asthma, bronchitis, pleurisy, pneumonia, flu, rhinitis.

However, it is known that the medicinal properties of plants are associated not only with the action of organic components of raw materials, but also with macro- and microelements. If the organic composition depends on the whole on the soil and climatic conditions of growth and, first of all, on the amount of incoming solar energy and moisture, then the mineral composition is directly related to the composition of the soil of the place of growth.

In this regard, the purpose of our study was to determine the mineral composition of the vegetative organs of coltsfoot growing in the territory of South Fergana. For the experiment, the leaves of the plant

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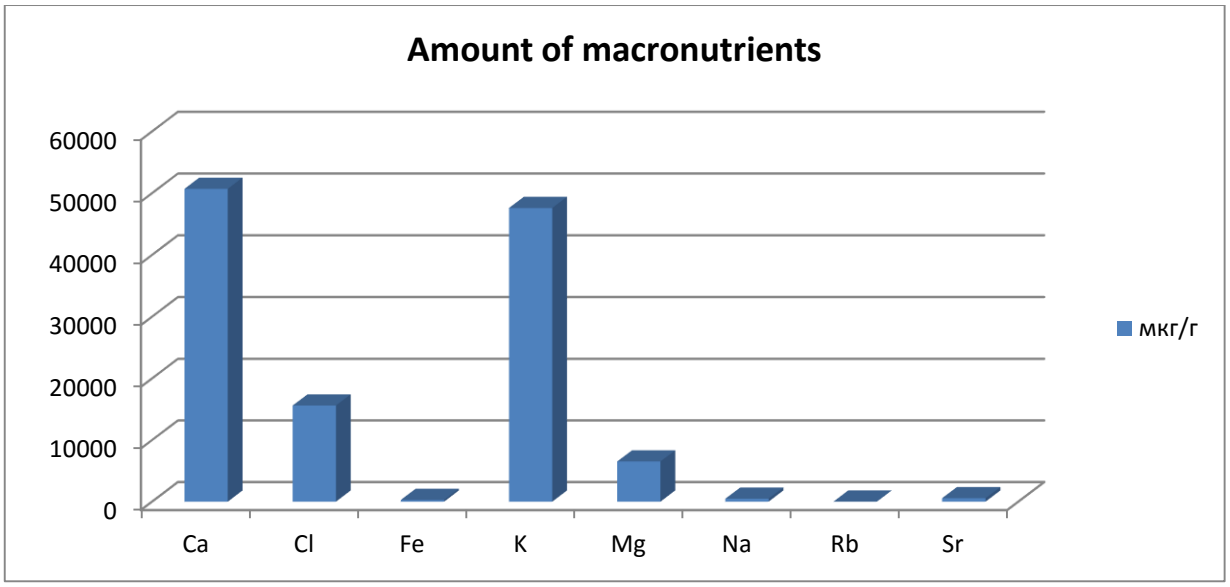
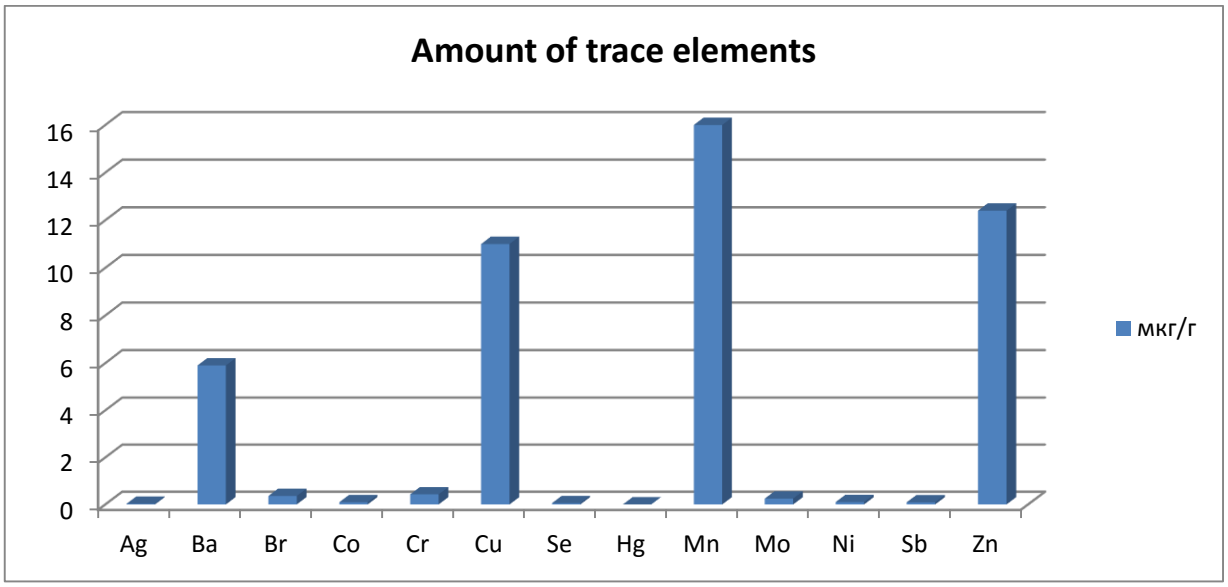
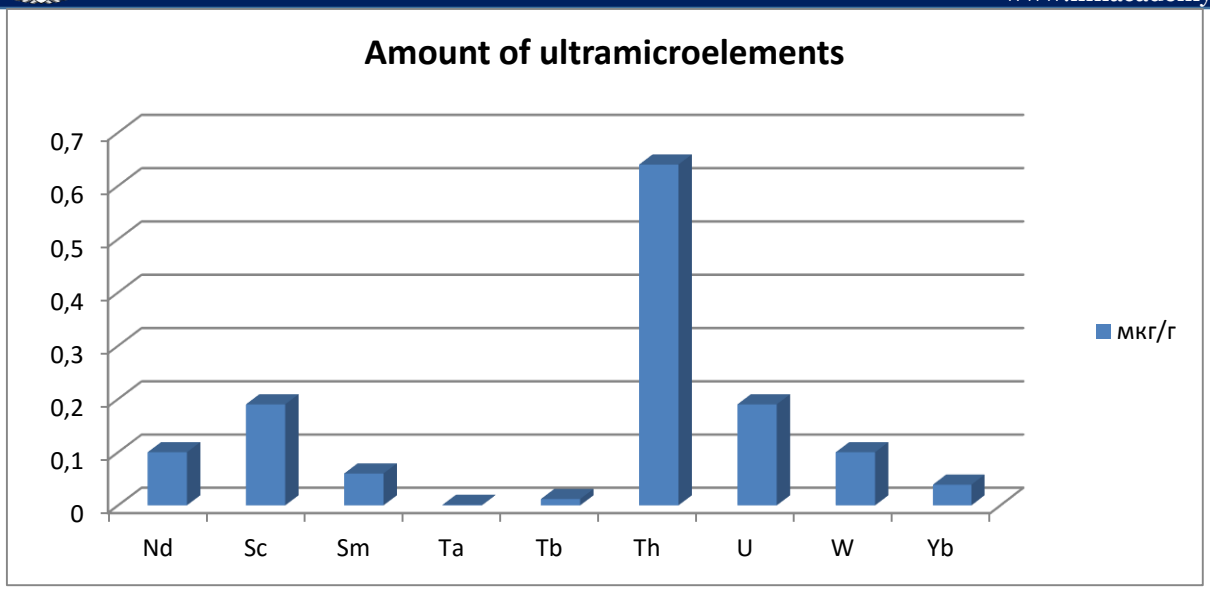
were collected in September 2019 on the territory of the village of Yordon, Fergana region. The macro- and microelement composition of the plant was determined by the neutron activation method in the laboratory of the Research Institute of Nuclear Physics of the Academy of Sciences of the Republic of Uzbekistan.

Experimentқ showed that coltsfoot in vegetative organs accumulates a large amount of elements such as potassium (K) (47600 mg / kg), sodium (Na) (480 mg / kg), calcium (Ca) (50700 mg / kg), cobalt (Co) (0.48mg / kg), iron (Fe) (278mg / kg), copper (Cu) (6.2mg / kg), chromium (Cr) (0.98mg / kg), magnesium (Mg) (6520mg / kg), manganese (Mn) (36mg / kg), molybdenum (Mo) (0.81mg / kg), selenium (Se) (1.1mg / kg), zinc (Zn) (26.6mg / kg), etc., which play an important role in the life of the human body. Below, for clarity, the quantitative content of macro-, micro- and ultramicroelements is given in the form of diagrams.







As can be seen from the diagrams, Tussilago Farfara L. from the mountainous regions of the Fergana region is distinguished by a high content of potassium, calcium, barium, copper, manganese, and zinc.

The high content of trace elements increases the physiological activity of the plant and this indicates the promising use of mother and stepmother in the treatment of chemical imbalance in the body [5-8].

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