

DETERMINATION OF NITROGEN CONTENT IN ARTEMISIA L. SPECIES HERBS

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Nitrogen is one of the main macronutrients required for plant life. It is part of amino acids and proteins (nitrogen's share in these compounds is about 15-19%), nucleic acids, chlorophylls, enzymes, many of vitamins, phosphatides, ATP, alkaloids etc. The total nitrogen content in plants is within the limits of 0.5-5% and more depending on the species, age, stage of vegetation, organ, soil type, mineral nutrition conditions and so on. Nitrogen content is an important indicator of food and fodder value of plants and indirectly allows to evaluate the quantitative content of nitrogen-containing biologically active substances (BAS).

The aim of our study was to determine the content of nitrogen in the herbs of 10 species of the genus *Artemisia* L. The objects of study were the following species (according to subgenera): subgenus *Artemisia* Less. - *A. absinthium* L., *A. vulgaris* L., *A. austriaca* Jacq., *A. abrotanum* L., *A. annua* L.; subgenus *Dracunculus* Bess. - *A. dracunculus* L., *A. arenaria* DC., *A. campestris* L., *A. marschalliana* Spreng.; subgenus *Seriphidium* Rouy - *A. nutans* Willd. Herbs for research were harvested in Kharkiv, Lugansk, Kiev oblasts and Crimea in 2010-2012 years during the phases of budding and flowering.

Determination of nitrogen content was performed by CHNS-O elemental micro-analysis method. For investigation we used CHNS-O elemental analyzer EuroVector series EuroEA3000 working in principle based on the dynamic combustion sample weight of 0.5 mg in an oxygen atmosphere, with next divide by chromatographic separation of gases formed. This method is characterized by high accuracy and the ability to use for the analysis of trace materials.

According the results of research was established that nitrogen content in herbs of studying species was from 2.2% to 5.1%. The highest nitrogen content was founded in *A. annua* L. (5.1%) and *A. abrotanum* L. (4.3%) herbs; the lowest - in *A. marschalliana* Spreng. (2.2%), *A. vulgaris* L. (2.5%) and *A. austriaca* Jacq. (2.6%) herbs.