CHANGES IN THE MINERAL CONTENT OF WILD STINGING NETTLE (*URTICA DIOICA* L.) AS INFLUENCED BY THE HARVESTING TIME

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The human requires different amounts of vitamins and minerals to stay healthy, especially in the spring when the immunity becomes weaker. The diet can be supplemented with edible plants starting to grow in early spring. The nettle is considered a weed, but herewith can be used as a medical herb with a high content of minerals.

Object of the investigation was the leaves of wild stinging nettle's (*Urtica dioica* L.). Nettle leaves were collected once a month from April to September 2019 in the same place, Vytautas Magnus University Agriculture Academy orchard (54° 53´ N, 23° 50´ E) in Kaunas district. The aim of this research was to determine effect of different harvesting time on stinging nettle mineral composition.

The amount of crude ash in leaves was determined by dry burning samples at a temperature of 550 °C. The nitrogen content was established by the standard Kjeldalh method, phosphorus and potassium – by flame photometric method. Magnesium, iron, copper, manganese, zinc, boron was determined by atomic absorption method.

The crude ash content from April to August in plants increased but in September decreased again. The highest content of ash was established in the leaves of nettles in August (4.70%). The nettles harvested in April characterized by the highest level of nitrogen (4.69%), phosphorus (1.02%), potassium (3.60%), iron, (526.20 mg kg^{-1}), and zinc (34.20 mg kg^{-1}). The highest amount of calcium (3.97%), magnesium (0.81%) and boron (62.13 mg kg^{-1}) were found in leaves of plants collected in September at the end of the growing season. The highest amount of copper (18.43 mg kg^{-1}) was determined in plants harvested in June. Nettles leaves in July was distinguished by manganese (57.40 mg kg^{-1}) content.

The research data have shown that the amount of crude ash and mineral elements in nettle leaves depends on harvest time.

Key words: *crude ash, mineral content, leaves of stinging nettle.*