

COMPARATIVE STUDY OF BETA VULGARIS ROOT AND LEAVES

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Introduction. Beetroot (*Beta vulgaris* L. subsp. *Vulgaris* var. *Conditiva* Alef.) is a vegetable crop, an annual and biennial, cross-pollinated herbaceous plant of the *Amaranthaceae* family, previously it belonged to the *Chenopodiaceae* family. This plant is widely cultivated in Ukraine and it is very loved by the Ukrainians as the main ingredient of borscht.

Before domesticating, wild beets were used for food and are still found in Iran, on the shores of the Mediterranean, Black and Caspian Seas, as well as in India and China.

The healing properties of beets have been known for a long time; initially, the root was used only as a medicine. Beet is rich source of antioxidant, vitamins as well as valuable elements. This makes it possible to use beets for the prevention of cancer, B vitamins, iron and cobalt – for the prevention and treatment of anemia, zinc and phosphorus – for the prevention of rickets in children. Natural antiseptics contained in the root vegetable make it possible to suppress and even treat some infectious diseases, prevent the development of gastric and intestinal pathogenic microflora, cleanse the oral cavity, and improve the condition of the skin microflora. Beets are actively used in diets for the treatment of hypertension, scurvy, diabetes mellitus, and kidney stones. Fresh cut of rhizome or pounded leaves – for wound healing. Fresh juice is especially effective for use. Fiber and organic acids stimulate gastric secretion and intestinal motility, which helps with spastic constipation. Beetroot leaves are commonly cut off and discarded before using its root due to lack of knowledge of how to use them.

Aim. The aim of our work was investigation of chemical composition of roots and leaves as prospective sources for the development of new medicines.

Materials and methods. Plant raw materials were harvested in the September of 2020 and dried. In the dried plant raw materials such characteristics were determined: loss of drying, the content of polysaccharides gravimetrically, and betaine content spectrophotometrically.

Results and discussion. It was found that root and leaves contain (%) loss of drying – 12,18 and 10,27; water soluble polysaccharides – 7,98 and 6,45; betaine – 0,12 and 0,04 respectively

Conclusion. The results will be used for standardization the raw materials.