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Evaluation of phytochemical constituents and antioxidant potential of leaf of *Petroselinum crispum* L.

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Parsley (*Petroselinum crispum* L.) is an aromatic plant from the *Apiaceae* family. It contains minerals, essential oils, vitamin C, phenolic compounds, flavonoids, non-flavonoids, pigments such as chlorophylls, carotenoids and it shows high antioxidant activity. The plant raw material is a product of the agricultural farm Igrošanac, located in the village of Medveđa near Trstenik, Rasin district.Tests were carried out in the laboratories of the Faculty of Agriculture in Čačak and included the following activities: determination of dry matter and moisture content, of ash content, vitamin C content, the content of photosynthetic pigments, the content of total phenols and antioxidant activity in parsley leaf. Determination of dry matter and ash content was performed by gravimetric method. The estimation of ascorbic acid was determined by titration method with Tillmans reagens. The total phenolic content was determined using a modified Folin-Ciocalteu colorimetric method. Antioxidant properties were determined by the ABTS assay. The content of chlorophyll and carotenoids was determined spectrophotometrically, with absorbance values recorded at wavelengths of 470, 648 and 664 nm. The moisture content in the parsley leaf was 8.22%, the dry matter content 91.78% and the ash content 23.54%. The vitamin C content was 87.5 mg/100 g/g d.m. The content of total phenols was 15.3 mg GAE/g d.m., while the antioxidant activity was 91%, ie. 27.44 μmol TE/g d.m. The content of total chlorophyll was 0.73, while the content of total carotenoids and xanthophylls was 0.10 mg/g d.m.

Based on the study of the characteristics of the parsley leaf, it can be concluded that it is a rich source of vitamin C, phenolic compounds, photosynthetic pigments with high antioxidant activity. Parsley is a good source of phytonutrient components. It is characterized by an exceptional wealth of phytonutrients that have functional value for the human body.

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