Department of Biology and Ecology, Faculty of Sciences and Mathematics University of Nis Institute for Nature Conservation of Serbia

# ABSTRACTS

14<sup>th</sup> Symposium on the Flora of Southeastern Serbia and Neighboring Regions Kladovo 26 to 29 June 2022

> 14. Simpozijum o flori jugoistočne Srbije i susednih regiona Kladovo 26. do 29. jun 2022.

Niš-Belgrade, 2022

Department of Biology and Ecology, Faculty of Sciences and Mathematics, University of Niš Institute for Nature Conservation of Serbia

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## Characterization of Mung bean (*Vigna radiata* L.) seeds: antioxidant activity, chlorophyll and carotenoid content

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Mung bean (*Vigna radiata* L.) is a leguminous plant with high nutritional value, traditionally known as a functional food. Legume seeds are a rich source of proteins, vitamins, minerals, and essential amino acids but also contain bioactive components and polyphenols which possess a high antioxidant capacity. Pigments content (chlorophyll *a* and *b*, carotenoids) was determined as good parameter for estimation of seed quality and an indicator of tolerance to different types of stress. The antioxidant activity of the seeds was determined using DPPH (2, 2-diphenyl-1-picrylhydrazyl) assay. The concentration of chlorophile *a* and *b* and carotenoids were determined by a spectrophotometric method. Obtained results indicate a higher content of chlorophyll *a* than chlorophyll *b*, 0.352 µg/ml and DPPH radical scavenging activity was  $54.52\% \pm 1.77$ . The advancement in this research lies in collecting information about bioactive compounds, such as chlorophylls and carotenoids, that are useful in improving the functional and antioxidant properties of quality seeds used in daily diet.

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