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Breeding Buckwheat for Nutritional Quality Volume II

Guest Editors:

Prof. Dr. Mateja Germ

Biotechnical Faculty, University of Ljubljana, Jamnikarjeva 101, Sl-1000 Ljubljana, Slovenia

Dr. Aleksandra Golob

Department of Biology, University of Ljubljana, Biotechnical Faculty, SI-1000 Ljubljana, Slovenia

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Message from the Guest Editors

Dear Colleagues,

Both commonly used species, common buckwheat (Fagopyrum esculentum Moench) and Tartary buckwheat (Fagopyrum tataricum (L.) Gaertn.), have been traditionally used in human nutrition. Efforts have been made to improve the nutritional value of buckwheat by breeding. Flavonoids and other phenolic substances from buckwheat are important for preserving health. Flavonoids act as antioxidants, lowering cholesterol, and have a positive effect on human blood pressure. When it comes to plants, flavonoids protect vulnerable tissues from UV radiation, oxidative stress, and herbivory. Among buckwheat species and cultivars, there are differences in the content of flavonoids. The concentration of flavonoids depends on genotype, phenological phases, climate conditions, year of growing and harvest, storage, and other factors. Different plant parts accumulate various flavonoid contents. Conditions such as UV radiation, drought, and the addition of minerals increase the accumulation of flavonoids by stimulating their synthesis through the phenylpropanoid pathway.









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Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

Message from the Editor-in-Chief

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