



UNIVERSITY OF
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FACULTY OF
AGRONOMY
ČAČAK

SYMBIOTECH

2nd INTERNATIONAL SYMPOSIUM
ON BIOTECHNOLOGY

14-15 March 2024

Faculty of Agronomy in Čačak, University of Kragujevac, Serbia

- PROCEEDINGS -

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- PROCEEDINGS -

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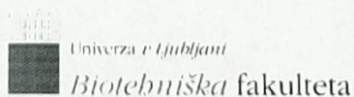
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POLYPHENOL-RICH BLACK CURRANT JUICE AMELIORATES METABOLIC SYNDROME INDUCED BY HIGH-FAT HIGH-FRUCTOSE DIET IN RATS

Snježana Petrović¹, Marija Paunović¹, Nataša Veličković², Bojana Micić², Maja Milošević³, Aleksandra Arsić¹, Biljana Pokimica¹, Vesna Vučić¹

Abstract: Our study was aimed to investigate the effects of commercially available, cold-pressed polyphenol-rich black currant (BC) juice on fat accumulation, blood lipids, insulin resistance, high blood pressure, and inflammation, in rats placed on high-fat high-fructose (HFF) diet. Co-administration of BC juice significantly reduced diet-induced adiposity and plasma triglycerides levels, improved glucose tolerance, and suppressed hepatic inflammation during prolonged HFF feeding in rats. These findings suggest that consumption of BC juice may counter the harmful effects of the Western diet rich in fats and sugars, and to be useful for the prevention of metabolic syndrome development and progression.

Keywords: polyphenol-rich juices, black currant, high-fat high-fructose diet, metabolic syndrome, *Wistar* rats

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