

ISSN 2637-3298



**UNIVERZITET PIM BANJA LUKA**  
**UNIVERZITET ZA POSLOVNI INŽENJERING I MENADŽMENT**

**XI INTERNATIONAL CONFERENCE ON SOCIAL AND  
TECHNOLOGICAL DEVELOPMENT – STED 2022**

**THE BOOK OF ABSTRACTS**

**XI MEĐUNARODNA KONFERENCIJA O DRUŠTVENOM I  
TEHNOLOŠKOM RAZVOJU – STED 2022**

**ZBORNIK IZVODA RADOVA**

Trebinje, June, 02-05, 2022

Trebinje, 02.- 05. juni 2022. godine

**Co-organizers:**



Fakulteta za logistiko



**VUB**  
VISOKA ŠKOLA ZA USLUŽNI BIZNIS



# **X INTERNATIONAL CONFERENCE ON SOCIAL AND TECHNOLOGICAL DEVELOPMENT**

## ***BOOK OF ABSTRACTS***

*Publisher:*

***University PIM, Banja Luka, Republic of Srpska, B&H***

*For publisher*

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*Editorial board:*

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*Design and Computer processing:*

***Ljubica Janjetović, PhD, Assistant Professor***

*Print:*

***„Sitoteka“ Banja Luka***

*Circulation:*

***150 copies***

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## THE NUTRITIONAL VALUE AND MINERAL COMPOSITION OF THE RED GRAPE, BLACKBERRY AND RASPBERRY COLD-PRESSED SEED OIL CAKES

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### ABSTRACT

Oilseed cakes obtained after oil extraction by cold pressing is free of toxic solvents and rich in nutrients (dietary fibers, antioxidants, vitamins, minerals, etc). Blackberry, raspberry and red grape flours were separated as flours with high fibre content (62.09–74.61 % dw) and relatively low content of protein (10.55-13.20 % dw). Pressing residues of red grape and berry seeds have been shown to exhibit high levels DPPH, ABTS and reducing power capacity. The chemical composition of raspberry pressed seed oil cakes showed highest contain of 69.53% neutral detergent fiber (NDF): cellulose, hemicellulose and lignin, while acid detergent fiber (ADF) was amount of 62.77%. The results showed the content of nutrient elements with the predominance of grape seed in Ca (481.55 mg/kg) and K (473.64 mg/kg). The Zn content of was in the range of 1.32 mg/kg to 1.61 mg/kg, whereas the Fe content ranged from 10.34 mg/kg to 12.35 mg/kg. Results indicate that oil cakes of red grape and berry seed proved to be a good source of micro- and macroelements. Due to high contents of dietary fiber and other bioactive compounds, oil cake residual can be used for valorization of functional ingredients or bioactive phytochemicals and potentially used in various food/feed applications.

**Keywords:** cold-pressed seed oil cakes, antioxidant capacity, dietary fibers, minerals.