



BOOK OF ABSTRACTS

First Legume Society Conference
2013: A Legume Odyssey

9-11 May 2013, Novi Sad, Serbia

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Book of Abstracts

Editors:
Aleksandar Mikić
Diego Rubiales
Vuk Đorđević

International Legume Society
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2013

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Getting the message out: grow, use, feed and eat legumes

Simple cooking and in vitro gastrointestinal digestion improves antioxidant activity of legume seed flour extracts

Nemanja Stanisavljević¹, Živko Jovanović¹, Tihomir Čupić², Jovanka Lukić¹, Jovanka Miljuš Đukić¹, Svetlana Radović³, Aleksandar Mikić⁴, Vesna Maksimović¹

¹*University of Belgrade, Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia*

²*Agricultural Institute Osijek, Department of Forage Crops, Osijek, Croatia*

³*University of Belgrade, Faculty of Biology, Belgrade, Serbia*

⁴*Institute of Field and Vegetable Crops, Forage Crops Department, Novi Sad, Serbia*

Antioxidant activities and phenolic contents were studied in methanolic and water extracts of non-processed, cooked and in vitro enzymatically digested seed flour. Antioxidant activities of total protein hydrolysates and small peptide fractions (MW<3kDa and MW<3kDa) isolated from seed were also determined. Study showed that cooking and enzymatic digestion strongly enhanced release of phenolic compounds. Scavenging activity against 2,2-diphenyl-1-picrylhydrazyl radical (DPPH[•]), hydroxyl radical and hydrogen peroxide were also increased. Protein hydrolysates especially MW<3kDa fraction possess significant antioxidative potential. Taken together our findings indicate that in methanolic and water extracts of cooked and digested seed flour small peptide fraction, beside phenolic compounds, can also significantly contribute to free radical and hydrogen peroxide scavenging activity.

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In the rich world of global agriculture, diverse legumes can play key roles to develop environment-friendly production, supplying humans and animals with the products of high nutritional value.

The Legume Society was initiated in 2011 with two primary missions. One of them was to treasure the rich legume research tradition of the European Association for Grain Legume Research (AEP), with emphasis on carrying out its the triennial legume-devoted conferences. Another one is to fulfill a long-term strategy of linking together the research on all legumes worldwide, from grain and forage legumes pharmaceutical and ornamental ones and from the Old World to the Americas.

We do anticipate that the First Legume Society Conference will be a unique and genuine contribution to our common goals: to promote the legume research and all its benefits into all spheres of the society, linking science with stakeholders and decision-makers, and to demonstrate how an efficient, useful and firm network of the legume researchers of the world is possible and sustainable.

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