



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

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

Analysis of some nutritional and antinutritional compounds in dry seeds of grass pea and field pea cultivars from Croatia

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Field pea (*Pisum sativum* var. *arvense*) and grass pea (*Lathyrus sativus*) are important high protein crops used as feed. Legume seeds are also rich in many other nutrient compounds including starch, sugar, dietary fiber and micronutrients (vitamins and minerals.) They are also a rich source of many bioactive non-nutrient compounds including phenolic antioxidants. Besides their beneficial effects, some phenolic compounds, especially condensed tannins in feed, are considered as antinutritional factors for ruminants, owing to their capacity for binding to macromolecules such as fiber and proteins. Seed mass and diameter are valuable parameters used in breeding, as well as seed mineral composition, since significant quantitative trait loci were identified for Ca, Fe, Mn, K, Mg, Ni, P and Zn. Thus we conducted this study in order to determine some parameters, in three cultivars of previously non-tested field pea and five grass pea cultivars from Croatia, which are important for breeders. We determined seed mass, diameter and proximate mineral composition as well as content of soluble sugars and total phenolic content in dry seeds of these cultivars. Cultivars differed significantly in total phenolics and mineral composition.

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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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