



BOOK OF ABSTRACTS

First Legume Society Conference
2013: A Legume Odyssey

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Book of Abstracts

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International Legume Society
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Programme

9

Session 1

Achievements and challenges in crop legume research

15

Session 2

Legume genetic resources and phylogenetic relationships

47

Session 3

Legumes in foods and impacts on human health

69

Session 4

Advances in legume breeding concepts and tools

115

Session 5

Legume seed production, meeting market requirements and economic impacts

137

Session 6

Translational omics for legume improvement

185

Session 7

Responses to biotic and abiotic stresses in legumes

225

Session 8

Non-food, non-feed and other alternative legume uses

235

Session 9

Understanding and enhancing the legume cropping environment

275

Session 10

Mechanisms of beneficial legume-microbe interactions

289

Session 11

Legumes in animal feeds: requirements and impacts

305

Session 12

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

Native legumes in the flora of Pčinja valley (South Serbia) – species diversity and distribution pattern

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The flora of Pčinja valley, as situated in southern Balkan Peninsula, is comparatively rich in native legume species, representing important genomic and breeding resources for legume crops and forages. According to their taxonomical diversity, legume family belongs to the group of most important plant families in the flora of Serbia, and at the same time the second best represented in the flora of Pčinja valley. Considering elements different in origin and ecological requirements this family comprises impressive list of 100 species and subspecies that represents more than 40% of their total number in Serbia. At the same time such a large number of representatives are distributed across the area of hardly 0.17% of whole country area. The genus *Trifolium*, referring 32 taxa, is the most abundant among all other genera in the flora of the valley. The following genera: *Vicia* (15), *Lathyrus* (11), *Medicago* (7), *Chamaecytisus* (5) and *Astragalus* (4) are also considerably rich at the family level. The life forms spectrum points at ecological group of annual representatives taking the largest portion of the all legume flora of valley. That is reasonable according to the strong Mediterranean, but also Pontic and even Oriental influences to the flora of southern Serbia. Spreading toward central Balkan Peninsula, special attention is given to Mediterranean and north Macedonian taxa, mostly forming their northern range limits in Pčinja valley. Spatial distribution of selected groups of the species as limitedly distributed mediterranean elements (*Vicia melanops*, *V. laeta*, *Ornithopus compressus*, *Trifolium phleoides*, *T. cherleri*, *T. sylvaticum*) or rare and endemic legume species (*Trifolium trichopterum*, *T. velenovskyi*, *T. medium* subsp. *balkanicum*) is discussed. The presence of wild growing crop relatives (e.g. *Pisum sativum* subsp. *elatius*, *Lens nigricans*, *Lathyrus sativus*, *Medicago falcata*) in the flora of the valley could represent a valuable source of desirable traits for the introgression into cultivated species, such as tolerance to abiotic and biotic stress is of special relevance. Examination of their actual diversity and distribution pattern was one of the aims of the studies conducted.

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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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