



# 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  
Institute of Field and Vegetable Crops, Novi Sad, Serbia  
2013

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### **Annual legumes as green manure crops**

Branko Čupina<sup>1</sup>, Aleksandar Mikić<sup>2</sup>, Đorđe Krstić<sup>1</sup>, Svetlana Antanasović<sup>1</sup>, Pero Erić<sup>1</sup>, Maja Manojlović<sup>1</sup>, Ranko Čabilovski<sup>1</sup>

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There is a large number of annual legume species having an economic importance either on a world or local scale, such as pea (*Pisum sativum* L.), faba bean (*Vicia faba* L.), lentil (*Lens culinaris* Medik.), grass pea (*Lathyrus sativus* L.) and vetches (*Vicia* spp.). All these crops are multi-functional and are used for both human consumption and in animal feeding. Apart from these various food and feed uses, annual legumes may represent a quality green manure, playing one of the most significant roles in organic farming and sustainable agriculture. In addition to their ability to increase soil fertility by a symbiosis with nitrogen-fixation bacteria, annual legumes are able to produce a considerable amount of aboveground biomass, also rich in nitrogen. For instance, aboveground biomass nitrogen yield in grass pea may surpass 300 kg ha<sup>-1</sup>, while in lentil it is higher than 100 kg ha<sup>-1</sup>. If cut in fool bloom, what in most years and in temperate regions occur in May, and incorporated, the aboveground biomass of most annual legumes have a long-term and beneficial effect on the productivity of numerous succeeding crops, such as silage maize (*Zea mays* L.) or sorghum (*Sorghum bicolor* (L.) Moench). Recently, there have been launched specific breeding programmes on annual legumes for their non-food use as green manure, aimed at developing cultivars with high and quality aboveground biomass and its faster degradation when incorporated, due to a decreased proportion of lignin and cellulose.

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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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