



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

The crude protein content in alfalfa grown on different soil types

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Alfalfa (*Medicago sativa* L.) is the most important forage legume. Crude protein content is one indicator of the its quality, which, among other things, is affected by the variability of soil properties. The aim of this study was to determine the effect of different soil types on the content of crude protein in alfalfa. The examination was conducted on six types of soil: chernozem, vertisol, eutric cambisol, humofluvisol, fluvisol and humogley (according to domestic soil classification). Sampling of plant material was carried out during May 2011., in the second year of alfalfa production. On the basis of these results it can be concluded that there are statistically significant differences in the content of crude protein between alfalfa plants, grown on different soil types. The highest protein content has alfalfa grown on chernozem (26.28%) and lowest on the eutric cambisols (13.98%). Soils, on which the protein content in alfalfa was higher, are characterized by good physical and chemical properties, a higher content of total nitrogen, primarily nitrogen fixation increased, as have the favorable conditions for microbial activity. This is primarily related to the pH value, because the greatest number of *Rhizobium* is in neutral and slightly alkaline soils. The expected results should be a guideline for the production practice, because the modeling of feed production, in different production conditions, raises the possibility of more intensive crop and livestock production.

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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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