



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
Institute of Field and Vegetable Crops, Novi Sad, Serbia
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Technical Editors:
Sanja Mikić and Aleksandar Mikić

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

Trichoderma* spp. isolates growth promotion activity on soybean seeds and their antagonistic effect on pathogen *Sclerotinia sclerotiorum

Sonja Tančić, Jelica Skrobonja, Mirjana Lalošević, Radivoje Jevtić

Institute of Field and Vegetable Crops, Novi Sad, Serbia

Trichoderma species have been registered as species with important growth promotion potential as well as antagonistic effect on different pathogens such as *Sclerotinia sclerotiorum*, *S. minor*, *Macrophomina phaseolina*, *Rhizoctonia solani*, *Fusarium*, *Alternaria*, *Leptosphaeria*, *Pythium*, *Phytophthora* and *Verticillium* species. *Trichoderma* isolates tested in this research were isolated from different soil types from Vojvodina region (Serbia) and refined to single-spore isolates used for further research. Dual culture test was used for screening of *Trichoderma* isolates' antagonistic effect on *Sclerotinia sclerotiorum* *in vitro*. All isolates had high Radial Growth Inhibition factor (RGI) of pathogen (34.4 – 52.2%) and high colonization percentage (46.7 – 100%) as well. Because of their good antagonistic effect, possible growth promotion activity of *Trichoderma* isolates on soybean seeds were tested under glasshouse conditions. Soybean seeds were coated with suspensions of different *Trichoderma* isolates, while sterile distilled water was used as a control. Seed germination percentages and root and shoots length were measured and data were analyzed in Statistica using Duncan's test. There were no significant effects on shoots length among all tested isolates comparing to control. Among tested *Trichoderma* isolates, the three showed significant positive effect on both root length and germination, while two isolates exhibited no significant effect on both measured parameters. The rest of tested isolates showed significant positive effect only on root length or germination. Isolates with highest growth promoting potential and antagonistic effect will be included in further more comprehensive research.

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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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