



# Legumes for a Sustainable World

**ILS2** | Second International Legume Society Conference

**11<sup>th</sup> - 14<sup>th</sup> OCT 2016**  
TRÓIA RESORT | PORTUGAL



# **Second International Legume Society Conference**

**Legumes for a sustainable world**

## **Book of Abstracts**



**11th – 14th October,  
2016**



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# **Welcome Addresses**

## **From the President of ILS (2011-2016)**

The Legume Society was founded in 2011 after closure of former European Association for Grain Legume Research (AEP). Our mission was becoming the society of reference for ALL legumes WORLWIDE, this is, extending the range of crops covered and the area of reference.

After five difficult years with absolutely lack of sponsors and any kind of financial support, we can proudly realize that Legume Society has consolidated with great success and has a promising future. This was possible only thanks to the voluntary work of a number of committed people.

We have been able to establish a solid and reliable series of triennial legume-devoted conferences as well as a dissemination magazine (Legume Perspectives), with a real niche serving as a dissemination tool for the legume community.

First Legume Society Conference was successfully organized at Novi Sad, Serbia in 2013. Second is taking place now (2016) at Troia, Portugal, together with a number of satellite events. Third is already planned at Poznan, Poland in 2019. We are sure that this reliable series of multidisciplinary conferences will be of great interest to legume experts, extending it to stake holders. We should acknowledge the great efforts made by the local organizers of these events.

At the General Assembly a new Scientific Committee will be elected that will for sure bring the renewed energies needed to continue with Legume Society endeavor. We all shall offer our support and gratitude and wish them success for future.

Diego Rubiales

## **From the Local Conveeners**

We cordially welcome you to the Second International Legume Society Conference in the International Year of Pulses.

In a world urgently requiring a more sustainable agriculture, food security and healthier diets, the demand for legume crops is on the rise. This growth is fostered by the increasing need for plant protein and for more sustainable and environmentally friendly sound agricultural practices.

Food, feed, fiber and even fuel are all products that come from legumes – plants that grow with low nitrogen inputs and in harsh environmental conditions.

The second ILS Conference is welcoming more than 370 attendees from 53 countries, showing the international recognition of the work developed by ILS and the global importance of research in legumes.

The general aim of the conference is to update and discuss the knowledge developed in legume research, in its various facets, from their genomes sequencing, their genetic resources, their environmental response and adaptation, to their use in agricultural systems.

We wish you a fruitful and rewarding conference and a pleasant stay in wonderful peninsula of Tróia.

Pedro Fevereiro, Carlota Vaz Patto and Susana Araújo

## Organizers

### International Legume Society

The **International Legume Society** was founded in 2011 with two primary missions. One of them was to treasure the rich legume research tradition of the former 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.



### ITQB NOVA

The **Instituto de Tecnologia Química e Biológica António Xavier (ITQB NOVA)** is a research and advanced training institute of **Universidade Nova de Lisboa**. The mission of **ITQB NOVA** is to carry out scientific research and postgraduate teaching in life sciences, chemistry and associated technologies, for the benefit of human health and the environment. ITQB's highly multidisciplinary nature makes it a leading centre for advanced training of researchers in Portugal.





# Conveners

**Pedro Fevereiro – ITQB NOVA**

**Carlota Vaz Patto – ITQB NOVA**

**Susana Araújo – ITQB NOVA**

**Diego Rubiales - Scientific Coordinator – IAS - CSIC**



# Scientific Committee

(in alphabetic order)

**Michael Abberton** - IITA, Nigeria

**Shiv Kumar Agrawal** - ICARDA, Syria

**Paolo Annicchiarico** - CREA-FLC, Italy

**Stephen E. Beebe** - CIAT, Colombia

**Charles Brummer** – Univ. California, USA

**Adrian Charlton** - FERA, UK

**Gerard Duc** - INRA, France

**Noel Ellis** – New Zealand

**Pedro Fevereiro** – ITQB NOVA, Portugal

**Judith Lichtenzveig** - Curtin Univ., Australia

**Kevin McPhee** - North Dakota State Univ., USA

**Aleksandar Mikić** - IFVC, Serbia

**Eduardo Rosa** - UTAD, Portugal

**Diego Rubiales** - CSIC, Spain

**Fred Stoddard** – Univ. Helsinki, Finland

**Richard Thompson** - INRA, France

**Tom Warkentin** – Univ. Saskatchewan, Canada

# **Local Organizer Committee**

**(in alphabetic order)**

**Nuno Almeida** - ITQB NOVA

**Ana Barradas** – Fertiprado

**Rita Caré** – CiB

**Manuela Costa** – Univ. Minho

**Isabel Duarte** – INIAV

**Sofia Duque** – ITQB NOVA

**Pedro Fevereiro** – ITQB NOVA

**Susana Leitão** - ITQB NOVA

**José Ricardo Parreira** - ITQB-NOVA

**Eduardo Rosa** – UTAD

**Marta Vasconcellos** – ESB - UCP

**Carlota Vaz Patto** - ITQB NOVA

**Manuela Veloso** – INIAV

# Sponsors

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## **Intercropping legumes with legumes and its effects on yield components**

**Živanov D., Karagić Đ., Milošević B., Vasiljević S., Đorđević V., Savić A., Mikić A.**

Institute of Field and Vegetable Crops, Novi Sad, Serbia

The experimental trial was established in the experimental field of the IFVCNS, using completely randomized block design with three replications. The plot size was 5m<sup>2</sup> and the seeding ratios was 50:50%. Pea +faba bean, pea + fenugreek and grass pea + white lupin were mixed together, and mechanically sown in rows at the same depth. A total of ten plants randomly chosen per plot in three replications were estimated for the yield components (the number of pods, number of seeds and seed weight per pod).

The average number of pods (7.6/8.2), number of seeds (26.9/30.1) and seed weight (6g/7.2g) per pea plant in a mixture with faba bean and fenugreek was significantly higher than in sole crop, where the average number of pods was 5.2, number of seeds 19.2, and seed weight 4.7g. However, in the same mixture the average number of pods (12.3/13.8) and seeds (29.7/57.7) per faba bean and fenugreek plants were significantly higher than in intercrop. Moreover, the fenugreek had the significantly higher seed weight (0.9g) in mixtures than in a sole crop. The sole crops of grass pea and white lupin had the significantly higher number of pods (18.5/9.2), seeds (44.1/29) and seed weight (7.25/13.2) then in mixture.

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