

CONFERENCE CENTRE OF ANTIBES JUAN-LES-PINS - FRANCE



From 1 to 6 May 2022



"Crossing borders:  
a world of nematode diversity and impact to discover"

# Book of Abstracts

## Program - Abstracts

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European  
Society of  
Nematologists



“Crossing borders: a world of nematode diversity and impact to discover”



## WELCOME

Dear Colleagues,

**On behalf of the Organizing Committee, it is our pleasure to welcome you to Antibes Juan-les-Pins in May 2022 for the 7<sup>th</sup> International Congress of Nematology!**

The International Congresses (ICN) have been hosted in cities around the world every six years since 1984. The 7<sup>th</sup> ICN was organized by the European Society of Nematology (ESN) under the auspices of the International Federation of Nematology Societies (IFNS). Antibes Juan-les-Pins, long a center of nematology, is also one of the most mythical seaside resorts of the French Riviera, dating to the ‘Belle Epoque’ period of the 1920s.

Delayed for two years by a global pandemic, the 7<sup>th</sup> ICN is the first to offer both on-site and virtual participation to accommodate and share this occasion with our colleagues still enduring health/travel restrictions.

The Seventh Congress will run from May 1 to 6, 2022 with the theme of **‘Crossing borders: a world of nematode diversity and impact to discover’**, a timely subject as we reconcile the global importance of agricultural production with that of environmental conservation.

Over the five days of the Congress, we will have an academic program that includes 11 plenary lectures and 31 parallel sessions covering a comprehensive variety of topics including biodiversity, biology, ecology, genetics, epidemiology, management, biocontrol, regulatory/quarantine, phylogeny and taxonomy. Poster sessions and workshops will provide further opportunities for discussing results and ideas. Significant support was available to assist students and scientists from middle and low-income countries to attend the conference.

More than a conference, the ICN 2022 will be an experience, a celebration of the best of nematology and the gathering of our global community. As you might expect when visiting France, this spirit of celebration will extend to a vibrant social program. We have scheduled a free day of activities to allow attendees to visit France and the French Riviera... unforgettable experiences.

Our sponsors are an integral part in the success of the conference, without whom none of this would be possible.

We look forward to meeting with you this week in Antibes Juan-les-Pins in 2022.

Dr. Pierre Abad, *7<sup>th</sup> ICN Chair - May 2022*  
Ernesto San-Blas, *Scientific Program Chair*  
Larry Duncan, *IFNS President*



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- IFNS Vice President: Dr. Ernesto **San-Blas**
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## Control of the rice root-knot nematode *Meloidogyne graminicola* using rice plants as trap crops.

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*Meloidogyne graminicola* is one of the most harmful organisms in the rice cultivation throughout the world. In 2016 it was detected for the first time in mainland Europe (Northern Italy) and subsequently added to the EPPO Alert List [1, 2].

Italy is the main rice growing country in Europe, so the Italian NPPO quickly issued phytosanitary measures to eradicate this pest. The rice field submersion is the technique usually carried out, but in the Lombardy region (where this pest has been detected in 2018) this practice is not applicable due to the sandy soil structure. For this reason, some field trials using rice plants as trap crops, were conducted to identify new control strategies against this pest. This agronomic technique stimulates juveniles to hatch and invade the roots of rice plants and, before the nematodes complete their life cycle, the crop is destroyed thus reducing the nematode population in the soil. In 2019, field trials were performed in a Lombard rice field that was highly infested with *M. graminicola*. In this area, 15 plots (5 m x 5 m) were set up, five plots for three treatments: (i) Uncultivated; (ii) Rice sown and left to grow until the end of the trials; (iii) Three separate cycles of rice production; where plants were sown and destructed at the second leaf stage each time. At the end of the three cycles, the number of eggs and juveniles in the soil was compared with the data recorded before the experiment and throughout treatments. In addition, all the plots were weeded and subsequently sown with the same amount of rice at the same time. At the second leaf stage of the plants, the severity of root galling was assessed (120 plants for treatment). Moreover, the evaluation of plant growth and density of the seedlings were evaluated.

The results showed that in the plots of the three seeding-weeding cycles, the density of the nematodes was statistically lower than the other two treatments, as well as the root gall index. Furthermore, the density of the seedlings and their epigeal growth was statistically higher than the other two treatments. In conclusion, the use of trap crop technique for control of this pest gave good results in a relatively short time and thus it could be used as new phytosanitary measure.

**Keywords:** Europe - Phytosanitary measures - Phytoparasitic nematode - Rice crop - Root gall index.

### References:

- [1] EPPO, 2016. Reporting service (2016/211).
- [2] Fanelli et al., 2017. European Journal of Plant Pathology. 149: 467-476.