UNIVERSITY OF SOUTHERN QUEENSLAND AUSTRALIA

Research
Centre for Crop Health

Australian Government

Australia-India Council

Seminar Invitation

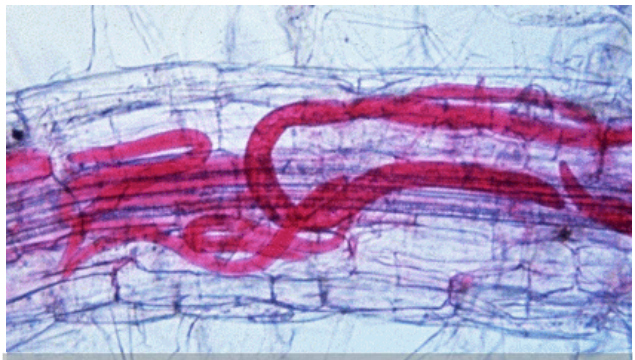
3 February 2017
NASC Complex, New Delhi, India

Enhancing awareness of the threat of root-lesion nematodes in India

The University of Southern Queensland (Australia) invites you to be a participant in a Seminar Day on root-lesion nematodes at the NASC Complex, New Delhi (India) on 3 February 2017, sponsored by the Australia-India Council.

BACKGROUND

Root-lesion nematodes (RLN), *Pratylenchus* spp., are microscopic worms that feed and reproduce in plant roots. They have a detrimental economic impact on crop production globally and are emerging as a serious constraint to chickpea production in India. These microscopic soil pests are often underestimated biotic stresses that have escaped the attention of farmers and researchers alike. RLN remains a hidden problem owing to indistinct above-ground symptoms. As a result affected crops are often misdiagnosed with nutrient or water deficiencies or even fungal diseases.



Root-lesion nematodes invading root cortex cells

CENTRE FOR CROP HEALTH, UNIVERSITY OF SOUTHERN QUEENSLAND, AUSTRALIA

The Centre for Crop Health (CCH) is a multidisciplinary research centre in the Institute for Agriculture and the Environment at the University of Southern Queensland (USQ), in Toowoomba, Australia. USQ is a dynamic regional University committed to developing research solutions that deliver a global impact.

With over 10 million dollars in external funding, the CCH specialises in research into biotic and abiotic factors affecting the health of summer and winter crops in Australia. The Centre delivers research outcomes that improve crop health and productivity, enhance global food security and increase both sustainability and profitability for rural communities.

Chickpea field infested with root-lesion nematodes in Madhya Pradesh, India

CROP NEMATOLOGY TEAM

Expert members of USQ's Crop Nematology team (Dr Rebecca Zwart, Dr Kirsty Owen, Jason Sheedy, Neil Robinson, Tim Clewett, Roslyn Reen), will be presenting at the Seminar Day. Under the leadership of Professor John Thompson, who first identified RLN as the cause of significant yield losses in wheat in Australia, the Crop Nematology team have established themselves as world leaders in researching integrated nematode management options that sustainably reduce RLN populations and improve crop yields.

AUSTRALIA-INDIA COUNCIL

The Australia-India Council (AIC) is a non-statutory body located within the Australian Government's Department of Foreign Affairs and Trade (DFAT). The Council's purpose is to broaden the relationship between Australia and India by encouraging and supporting contacts and increasing levels of knowledge and understanding between the peoples and institutions of the two countries. The AIC initiates or supports a range of activities designed to promote a greater awareness of Australia in India and a greater awareness of India in Australia, including visits and exchanges between the two countries, development of institutional links, and support of studies in each other's country.

SEMINAR OBJECTIVES

The Seminar Day aims to actively engage Australian and Indian researchers and key government stakeholders by highlighting the impact RLN has had on Australian agriculture and in doing so increase awareness of the threat of RLN in India.

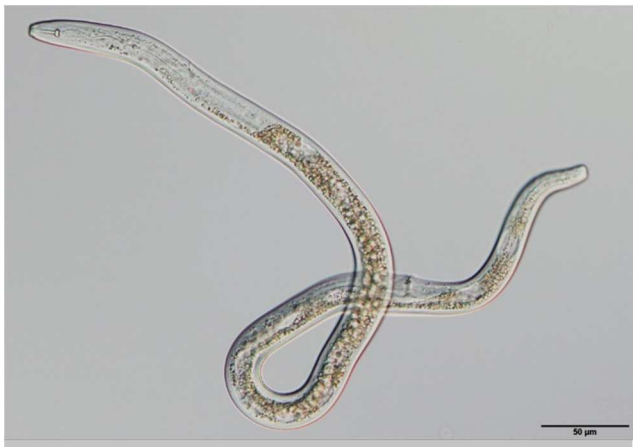
Furthermore, the purpose of the Seminar program is to initiate discussions on collaborative research that will increase agricultural productivity in both countries.

Following the Seminar Day in New Delhi, nematologists and researchers from across India will be invited to participant in a 5-day practical training workshop on RLN at JN Agricultural University, Jabalpur from 6-10 February 2017, to build capability for RLN research in India.

SEMINAR PROGRAM

The seminar program will showcase the success stories of USQ's Crop Nematology team research in developing management strategies that sustainably reduce crop losses. Sessions will include the status of RLN in Australia, India and globally; crop rotation effects on population densities in the soil and effects on crop growth and yield; discovery of germplasm sources for tolerance and resistance to RLN in crop landraces and wild crop relatives; pre-breeding programs to introgress sources of resistance and tolerance into adapted varieties; development of molecular markers for quantitative trait loci conferring resistance to RLN; and modelling nematode population densities in the soil. Other topics of discussion will include extension of research and engagement with growers and industry bodies and opportunities for collaboration with USQ.

A panel discussion will allow participants to comment on issues relevant to India and exchange ideas for opportunities and strategies for collaborative research between India and Australia.



Root-lesion nematode (*Pratylenchus thornei*)

DATE

Friday 3 February 2017 from 9.00 am to 4.00 pm.

LOCATION

The RLN training workshop will be held at the National Agricultural Science Complex (NASC), New Delhi.

HOW TO REGISTER

Participants are requested to register for the Seminar Day by returning the completed registration form by email latest **by Friday 25 November 2016** to rebecca.zwart@usq.edu.au.

The registration form is fillable online. You will be sent an email confirmation once your registration details have been received. Places are limited so please **confirm your place early.** Last minute cancellation is not appreciated and should be avoided.

CONTACT

For further information regarding the Seminar Day, please contact Dr Rebecca Zwart, Senior Research Fellow (Crop Nematology), USQ by email on rebecca.zwart@usq.edu.au.

"Enhancing awareness of the threat of root-lesion nematodes in India"

Supported by the Australian Government through the Australia-India Council of the Department of Foreign Affairs and Trade.

Australian Government | Australia-India Council