




ISSCT Pathology Section Webinar

The International Society of Sugar Cane Technologists (ISSCT) is pleased to invite you to the webinar on sugar cane Pathology which will take place on

Tuesday 2 June 2026 from 11 am to 1 pm GMT

Theme: *Emerging Diseases of Sugar cane*

Chaired by Shamsul Bhuiyan (Chair of ISSCT Pathology Section) with presentations as follows:

Presenter / Country / Organisation	Presentation Title
Dr Rasappa Viswanathan, India (Retired)	*Fusarium wilt and recent findings on the relation between wilt and Pokkah boeng pathogens*
Dr Philippe Rott, France / CIRAD	*Leaf yellowing and internode stunt: A new emerging sugar cane disease?*
Dr Mariana Cicarelli Cia, Brazil / CTC	*Is a new disease threatening Brazilian sugar cane fields?*
Dr Shamsul Bhuiyan, Australia / SRA	*Is Fusarium wilt an emerging sugar cane disease in Australia?*

The presentations will focus on the emerging threats sugar cane posed by sugar cane diseases in the context of climate change and their possible implications for sugar cane production.

Format of the webinar:

- Each presentation will last 15 minutes
- 5 minutes will be allocated to questions after each presentation
- After the final presentation, there will be a 20-minute panel discussion involving all speakers
- Total duration of the session will be up to 2 hours.

The programme with the biodata of the presenters and the synopses are given below.

The facilitators/organizers are:

- Dr. Shamsul Bhuiyan, SRA, Australia
- Dr. Nawshad Joomun, MSIRI, Mauritius
- Dr. Sharon McFarlane, SASRI, South Africa
- Dr Andre Gama, LSU, USA
- Dr San-Ji Gao, Fujian Agriculture and Forestry University, China

Language
The Webinar will be conducted in English.

Registration
The Registration Form for the Webinar may be accessed through the following link:
https://us06web.zoom.us/meeting/register/pMfaBaOmQzCIqXah4H8rTA

The Webinar is open to ISSCT compliant members as well as to non-members.

Compliant Members

Compliant members are those who have already settled their membership dues for the period 2025-2028. For those who have not yet done so, they may settle their dues of USD 150 through the following link:
https://members.issct.org/appform/issct_guatemala_2028.aspx

Non-Members

If a participant wishes to register for ONLY the webinar in Pathology, he/she should settle a registration fee of USD 50 through the following link:
https://members.issct.org/webinar/overview.aspx

After having settled either your ISSCT membership dues or only the registration fee for the webinar, an e-mail with the meeting details (Username and Password to access the Webinar), will be sent to you.

Further information
For further information, please contact the ISSCT **Pathology Chair –** Shamsul Bhuiyan sbhuiyan@sugarresearch.com.au or the ISSCT Secretariat at issctsecretariat@gmail.com / issct@intnet.mu

ISSCT Pathology Section Webinar

Programme

Tuesday 2 June 2026
11 am to 1 pm GMT

Chair: Dr Shamsul Bhuiyan

Speaker 1: 11 am GMT – 11:15 am GMT

Dr Rasappa Viswanathan (ICAR-Indian Sugar cane Research Institute, Lucknow, India)

Biodata

Dr. Rasappa Viswanathan, former Director of ICAR–Indian Sugar cane Research Institute, Lucknow, has over 34 years of distinguished experience in sugar cane research. Prior to his directorship, he spent more than three decades at the ICAR–Sugarcane Breeding Institute, Coimbatore, contributing to varietal development (including 16 commercial varieties), disease management strategies, the molecular basis of red rot resistance, and the epidemiology of *Fusarium* diseases. He developed and commercialized molecular diagnostics for major sugar cane viruses and phytoplasmas, characterized four sugar cane virus genomes, and successfully managed YLD and varietal degeneration through virus elimination and diagnostics, enabling the rejuvenation of variety Co 86032. His significant research impact is reflected in numerous awards and Fellowships, including NAAS Fellow, the Hari Om Ashram Trust Award, multiple national awards in plant protection, and recognition among the world's top 2% scientists (Stanford–Elsevier). He has published 329 peer-reviewed papers (~9500 citations, h-index 44), authored/edited 14 books, guided nine PhD scholars, and currently serves as President of the Indian Phytopathological Society, Chief Editor of *Indian Phytopathology*, and Editor-in-Chief of *Sugar Tech*. He has also contributed to ISSCT, including organizing the 12th ISSCT Pathology Workshop in 2018.

Fusarium wilt and recent findings on the relation between wilt and Pokkah boeng pathogens

Fusarium sacchari is the main pathogen responsible for wilt in Indian sugar cane, leading to significant yield losses, often exceeding 90%, particularly in ratoon crops. Its status has escalated from a minor to a major threat to sugar cane production in India, causing *Pokkah boeng* disease and severe damage in regions such as the Indian East Coast, Gujarat, and subtropical plains, especially when coupled with red rot or in ratoons. Research is currently being conducted to develop resistant varieties against sugar cane wilt.

Speaker 2: 11:20 am GMT – 11:35 am GMT

Dr Philippe Rott (CIRAD, Montpellier, France)

Biodata

Philippe is currently research director in plant pathology and the scientific director of CIRAD's sugar cane quarantine at the Plant Health Institute of Montpelier, France. He has over 40 years of experience in sugar cane pathology and has worked on bacterial, fungal and viral diseases. Philippe has also worked extensively in both laboratory and field research. He has produced over 150 scientific publications on sugar cane diseases including research papers, book chapters, and extension papers. He is the main editor of the book entitled "*A guide to sugar cane diseases*" published in 2000. During his career, Philippe performed expertise consultations in plant pathology in numerous countries in Africa, Asia, South America and the West Indies. He has been a member of ISSCT since 1988 and was awarded Honorary Life Membership in 2023.

Leaf yellowing and internode stunt: A new emerging sugar cane disease?

An unusual leaf yellowing condition of sugar cane was first observed in Jamaica around October-November 2023. Since then, this condition has caused significant yield reductions in cane tonnage, sugar, and rum, including entire crop losses. Symptoms of this leaf yellowing condition include yellow-orange discoloration of the leaves, reduced stalk internode size, development of side shoots on the first reduced joints of the stalk, reduced stalk diameter, death and mummification of the stalk. These symptoms correspond to an apparently new disease of sugar cane whose causal agent is currently under investigation.

Speaker 3: 11:40 am GMT – 11:55 am GMT

Dr Mariana Cicarelli Cia (CTC, Brazil)

Biodata

Mariana Cicarelli Cia is an agronomist with PhD in Plant Genetics and Breeding from the University of Sao Paulo (ESALQ/USP). She is specialised in plant pathology and molecular diagnosis sugar cane diseases. Mariana currently leads the plant pathology area at Centro de Technologia Canavieira (CTC), where she works disease characterisation, resistance screening, and integration of pathology with modern breeding tools to support the development of resilient sugar cane variety.

Is a new disease threatening Brazilian sugar cane fields?

Recent outbreaks of stalk mortality and internal rot in Brazilian sugar cane fields led to what became known as *Sugarcane Wilt Syndrome*. Through a collaborative investigation led by CTC, combining classical plant pathology and molecular diagnostics, *Colletotrichum falcatum* was identified as the primary causal agent, while *Pleocyta sacchari* acts mainly as an opportunistic decomposer. Identifying the cause opens new opportunities for the development of effective disease management strategies for the Brazilian sugar cane industry.

Speaker 4: 12:00 GMT – 1:15 pm GMT

Dr Shamsul Bhuiyan (SRA, Australia)

Biodata

Shamsul Bhuiyan is the Manager of the Biosecurity and Disease Screening Program at Sugar Research Australia (SRA). He is a plant pathologist with more than 25 years of professional experience, including over 18 years specialising in sugar cane pathology. Shamsul has extensive expertise in both field- and laboratory-based research and has authored nearly 100 scientific publications, including peer-reviewed journal articles, conference proceedings, and book chapters. His research has made significant contributions to the management of sugar cane diseases, particularly in the areas of chemical disease control, resistant variety, and soilborne pathogen management. He pioneered research into nematode resistance in sugar cane and developed several of the screening methods now used in the industry. Shamsul currently serves as Chair of the ISSCT Pathology Section and is a Senior Editor of the *Sugar Tech* journal, and *Australasian Plant Pathology*.

Is Fusarium wilt an emerging sugar cane disease in Australia?

In recent years, sugar cane germination failure and stool death have become major issues in Australia. In many affected fields, the problem appears to be variety-related. Preliminary investigations have consistently found *Fusarium* species—predominantly *F. sacchari*—associated with the damaged crops. Several other *Fusarium* species, as well as fungi from additional genera have been detected. Pathologists in Sugar Research Australia (SRA) is actively investigating this emerging problem to identify the causal organism(s), determine the level of risk, and develop effective management strategies. The aim is to support the industry with a clearer understanding of the disease complex and provide practical solutions to reduce the impact of this potential new threat to sugar cane production.

Emerging diseases: Panel discussion:

Panel: ISSCT Pathology Committee members, Dr Philippe Rott, Dr Viswanathan, Dr Tatianae De Fatima Mistura.

Also, attendees who wish to make a country update on emerging diseases, please contact the Pathology Section Chair (sbhuiyan@sugarresearch.com.au) to be included in the panel discussion.

Attendees will be able to make comments and give updates on new diseases or emerging issues in their country/region. Information from this session will be used to initiate the updates of disease lists for countries.