The University of Queensland and IIT Delhi Research Academy

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SEMINAR SERIES

Dr. Anjana Rustagi

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Biotechnological Interventions for Improvement of Indian Musa Varieties

ABSTRACT

This talk will focus on the utilization of biotechnological interventions to improve Indian Musa (banana) varieties, which are vital for food security and livelihoods but face challenges due to biotic and abiotic stresses. Conventional breeding is hindered by the crop's sterility, polyploidy, and long life cycle, making advanced techniques like somatic embryogenesis, genetic transformation, and CRISPR/Cas9-based genome editing essential. Successful regeneration of Indian varieties like 'somrani monthan' via embryogenic cell suspension and development of transgenic 'matti' and 'grand naine' varieties with enhanced disease and stress tolerance highlight significant progress. These efforts emphasize the need for further exploration of indigenous banana genotypes to achieve mass propagation, genetic improvement, and germplasm conservation, ensuring a resilient and sustainable banana crop for the future.

ABOUT THE SPEAKER

Dr. Anjana Rustagi, Associate Professor at Gargi College, University of Delhi, holds a Ph.D. in Botany (2011). With over 15 years of teaching and research experience, her work focuses on plant regeneration, genetic transformation, and stress tolerance in crops like Musa and Brassica juncea. She has contributed significantly to understanding ABA's role in embryogenesis and has numerous publications and edited books. An advisor for Ph.D. projects and a member of the International Society of Plant Morphologists, her expertise includes plant tissue culture, micropropagation, and microbiome-mediated stress mitigation.

LINK TO JOIN ONLINE : https://surl.li/xqpyve

17 February,2025 (Monday)
10:30 a.m. IST
3:00p.m. AEST onwards

LH212, First Floor, Lecture Hall Complex, IIT Delhi

Provided

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