



Sustainable and Climate Smart Agriculture Agro-Economy & Food Security

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Eminent Speakers



VAIBHAV Vaishwik Bharatiya Vaigyanik Summit

GLOBAL SUMMIT OF OVERSEAS AND RESIDENT INDIAN
SCIENTISTS AND ACADEMICIANS - OCT-NOV 2020



Microbial Resources for Sustainable Agriculture

Chair: Prof. Apparao Podile,
Vice Chancellor, University of Hyderabad

Co-Chair: Dr. TK Adhya, Ex. Director, NRRI, Cuttack

Date: 10 October 2020, Saturday at 15:30-19:30

Registration link for the programme will be displayed on IARI website on 9th October 2020

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Microbial Resources for Sustainable Agriculture

Panelist

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ICAR-National Bureau of Agriculturally Important Microorganisms,
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ICAR-Central Inland Fisheries Research Institute, Kolkata, INDIA

Dr. Sanjay Barua

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Abundant and diverse microorganisms establish the fundamental evolutionary and ecological relationships between plant, animal, human and environmental health. Recent advances in the microbiome studies using different omics technologies and data analytics show the complex interactions among microorganisms, other organisms, and ecosystems that facilitate the coexistence of all the living organisms in the natural environment. The beneficial microbiomes are critical to growth and development, resource use efficiency, stress tolerance, and disease resistance of plants and animals.

Agriculture contributes immensely to eradicating poverty and hunger, and economic growth and rapid industrialization. Harnessing the beneficial microbial resources in agriculture can sustainably improve farm productivity and food quality by efficiently using soil, nutrient, and water resources, minimizing the adverse environmental impacts of certain agronomic methods and practices, and improving the fitness of crops and animals in future climate change scenarios. The national initiative's present goal on 'Soil Health Card' is to assess soil health based on nutrient status and physical parameters and enable mutually beneficial dialog among farmers and technical specialists. A coordinated research effort for microbiomes of soils, plants, and animals is needed to derive benefits from their beneficial associations, conserve the natural resources, and maintain environmental health.

There are methodological challenges in discerning the natural variations in host-microbe interactions into useful microbiome traits and assembly rules. The global collaborative efforts among academic researchers, industries, and farmers will gain fundamental insights on the microbial resources in agriculture and their interrelationships among different components, enable translation of scientific discoveries to farmers' fields, and achieve sustainable agricultural, economic, and environmental goals.

The VAIBHAV Summit 2020 of India brings the global Indian researchers and resident researchers and academicians together to propose collaborative and cooperative mechanisms for research and knowledge exchanges and embark on the thought process for bringing innovations in the application of microbial resources in agriculture.