Sustainable and Climate Smart Agriculture
Agro-Economy & Food Security

ICAR-Indian Agricultural Research Institute
New Delhi-110012

Eminent Speakers

Dr. M.S. Reddy,
Auburn University, USA

Dr. V.V.S.R. Gupta
CSIRO, Australia

Prof. Brajesh Singh
Western Sydney University
Australia

Dr. D.L.N. Rao
Ex-Emeritus Scientist
ICAR-IISS
Bhopal, India

Dr. Yogesh Shouche
NCCS, Pune, India

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, ICAR-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

Panelists

Dr. H. B. Singh
Institute of Agricultural Sciences, BHU, Varanasi, INDIA

Dr. B. L. Jalali
Ex Director of Research, HAU, INDIA

Dr. R.C Kuhad
VC, Central University of Haryana, Mahendergarh

Dr. Lata
ICAR-Indian Agricultural Research Institute, New Delhi, INDIA

Dr. Anil Kumar Tripathi
Institute of Science, Banaras Hindu University, Varanasi, INDIA

Dr Anil Kumar Saxena
ICAR-National Bureau of Agriculturally Important Microorganisms, Mau Nath Bhanjan, INDIA

Dr. Jyotsana Sharma
ICAR-NRCP, Solapur, INDIA

Dr. Bijay Kumar Behera
ICAR-Central Inland Fisheries Research Institute, Kolkata, INDIA

Dr. Sanjay Barua
ICAR-NRC-Equines, Hisar, INDIA

Dr. U. Sivakumar
Tamil Nadu Agricultural University, Tamilnadu, INDIA

Dr. Piyush Pandey
Assam University, Silchar, Assam, INDIA

Dr. Srinivasan Ramasamy
World Vegetable Center, Shanhua, Tainan, Taiwan

Agriculture contributes immensely to eradicating poverty and hunger, and economic growth and rapid industrialization. Abundant and diverse microorganisms establish the fundamental evolutionary and ecological relationships between plant, animal, human and environmental health. Harnessing the beneficial microbial resources as 'bioinoculants' 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. Biological Nitrogen Fixation (BNF), especially associated with legumes has great potential to contribute to productive and sustainable agriculture.

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. 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 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.

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.