

Press note

Indian Agricultural Research Institute (IARI), New Delhi celebrates its 119th Foundation Day in Dr B P Pal Auditorium on April 1, 2024

The ICAR- Indian Agricultural Research Institute (IARI) celebrated its 119th Foundation Day at Dr B P Pal Auditorium on 1st April, 2024, with a special lecture held at its premises in New Delhi. The event marked the institute's commitment to agricultural research and innovation, commemorating its rich legacy and looking forward to future endeavors.

At the outset, there was lighting of the lamp by the dignitaries. The welcome address of Foundation Day lecture was given by the director, IARI Dr A K Singh. He spoke at length about IARI's achievements in terms of research, teaching and extension in the last year, which concluded with a short film on glimpses of institute achievements and new initiatives.

He also introduced the revered chairperson of today's lecture Dr Sudhir K Sopory to the august gathering. Dr Sopory has served as the former vice-chancellor, Jawaharlal university and Emeritus senior scientist at International Centre for Genetic Engineering Biotechnology, New Delhi. He introduced the speaker Dr Sanjay Kumar, Chairman Agricultural Scientists Recruitment Board (ASRB), New Delhi.

The Foundation Day lecture was delivered by Dr. Sanjay Kumar, a renowned agricultural scientist and former Director of CSIR-IHBT and the Chairperson, ASRB, New Delhi. Dr. Kumar's lecture titled "Unlocking Nature's Vault: Plant Bioresources for a Thriving Bioeconomy" highlighted the vast reservoir of potential housed within the rich biodiversity of India and to harness it in innovative and responsible ways. He said IARI can be best described as "Iconic Architect of Revolutionary Innovations in Publicly Useful Solutions for Agriculture". He highlighted that this sector constitutes 4 percentage of the nation's GDP of 3.47 trillion dollars. The various components of the Indian BioEconomy are BioIT, BioAgri, BioResearch, BioIndustrial and Biopharma. We can greatly benefit if we can leverage into BioAgri (GMO, Bt Cotton, Biopesticides) and BioIndustrial sectors (Bio-fuel, Bio-plastics, Enzymatic applications, Microbial technology, rDNA technology).

His major achievements include the identification of a novel carbon fixation pathway and its successful transplantation into a heterologous system, resulting in reduced photo-respiratory losses, enhanced photosynthetic efficiency, and increased yield.

He shared that the discovery, characterization, and modification of an autoclavable superoxide dismutase from high-altitude plant *Potentialla atrosanguinea* in Kunjum pass (15000 ft), Spiti, along with the exploration of plant adaptation mechanisms to high altitudes, had significantly advanced our understanding of plant biology. Furthermore, significant contributions have been made in the cloning of genes responsible for the synthesis of secondary metabolites and conferring stress tolerance to plants.

He highlighted that the research efforts also focused on unraveling the mechanisms underlying thorn formation in roses, winter dormancy, and drought stress in tea plants, as well as investigating plant-microbe interactions. The institute has played a crucial role in the development of nutraceuticals through the utilization of traditional knowledge, as well as in conducting genome and transcriptome sequencing of Himalayan plants and microbes. These endeavors have provided valuable insights into adaptive mechanisms and the synthesis of secondary metabolites in these unique ecosystems.

He strengthened several initiatives for empowering society/farmers, which include successful introduction of asafoetida and monk fruit in the country, and introduction of saffron, apple, cinnamon, liquorice, bamboo, liliun and tulip in non-traditional areas; technologies for waste management and Shiitake mushroom production in Himachal Pradesh.

He promoted aromatics in mountain farming to make Himachal as the top state in country for production of essential oil of wild marigold. His concerted effort resulted in the establishment of 56 startups and a notable increase in Memorandums of Understanding (MoUs), agreements, and Material Transfer Agreements (MTAs) signed by the institute with entrepreneurs. He informed that in 2022, Traditional Knowledge Digital Library was established with 4.5 lakh formulations and practices transcribed in it, which is open for public access. During his lecture, he emphasized the need for interdisciplinary research and collaboration to address the present agricultural challenges. He also emphasized the importance of adopting innovative technologies and practices to enhance the bioeconomy sector.

Additionally, the program featured the release of several institute publications and the recognition of exceptional staff members in administrative, technical and supporting staff categories and the literary competition winners as part of the foundation day celebrations. Eminent scientists such as Dr. H S Gupta and Dr. R B Singh, along with numerous researchers, students of IARI were in attendance at the lecture. In his address, Dr. A K Singh, the Director of IARI, expressed his gratitude to the institute's founders, scientists, staff, and stakeholders for their unwavering support and dedication towards advancing agricultural science and contributing to the nation's food security. The Foundation Day celebrations concluded with a vote of thanks by Dr R N Padaria, Joint Director Extension, IARI, along with a resolve to continue the legacy of excellence in agricultural research and education at the Indian Agricultural Research Institute.



