

Uttar Pradesh Council of Agricultural Research (UPCAR), Lucknow



Proceeding Participation in the National Conference

“Innovative Approaches for Millet Improvement” (IAMI @2025)

at

Institute of Agricultural Sciences, Banaras Hindu University
(BHU), Varanasi



Date of Conference: 7-8 November, 2025



Delegation Members (UPCAR):

- ❖ Dr. Sanjay Singh, Director General
- ❖ Dr A. K Singh, Secretary
- ❖ Dr. Permendra Singh, Deputy Director General
- ❖ Dr. Vinod Kumar Tiwari, Principal Scientific Officer
- ❖ Mr. Premchand Chaurasiya, Scientific Officer
- ❖ Dr. Rinni Singh, Scientific Officer
- ❖ Mr. Abhijeet, Scientific Officer
- ❖ Dr Himanshu Tiwari, Technical Secretary to DG

National Conference on "Innovative Approaches for Millets Improvement" (IAMI@2025)



Date November 7–8, 2025

Venue Institute of Agricultural Sciences, Banaras Hindu University (BHU), Varanasi, Uttar Pradesh.

Organizers

- ✓ Uttar Pradesh Council of Agricultural Research (UPCAR), Lucknow
- ✓ Dept. of Genetics & Plant Breeding, Inst. of Agricultural Sciences, BHU
- ✓ Indian Society of Genetics & Plant Breeding, New Delhi

- **Executive Summary**

A delegation from the Uttar Pradesh Council of Agricultural Research (UPCAR), Lucknow, visited Banaras Hindu University (BHU) to co-organize and attend the National Conference on "Innovative Approaches for Millets Improvement." The event was structurally divided into seven Technical Themes spread over two days, covering the entire millet value chain from "Seed to Spoon." UPCAR officials played pivotal roles not just as guests, but as Session Chairs, Moderators, Evaluators, and Presenters.

The conference served as a timely intervention to address the critical need for including millets (Shree Anna) in the national food basket to ensure nutritional security for the state of Uttar Pradesh and to the nation at large. The event facilitated an exchange of ideas between scientists, students, faculty, policymakers, representatives from Farmer Produce Organizations, and Agri-entrepreneurs.

- **Distinguished Dignitaries gracing the Conference of Agricultural Visionaries and their Remarks:**

- **President of the Function: Prof. Ajit Kumar Chaturvedi, Hon'ble Vice Chancellor, Banaras Hindu University** emphasized that “ The theme of this conference is highly relevant in the current scenario, as millets have reemerged as climate-resilient, nutritious, and sustainable crops that contribute to food and nutritional security. The Hon'ble Prime Minister of India has consistently emphasized the promotion of millets as part of the country's strategy for sustainable agriculture and farmer welfare. The United Nations' declaration of 2023 as the International Year of Millets further underscores the global importance of these “Nutri-Cereals” in ensuring resilient agricultural systems, improved nutrition, and enhanced livelihoods for farmers”.
- **Chief Guest: Prof. Panjab Singh, Chancellor, Rani Luxmi Bai Central Agricultural University, Jhansi and Former Director General, Indian Council of Agricultural Research, New Delhi** emphasized the historical significance of millets in Indian agriculture and the urgent need for genetic improvements to boost yield. Millets, celebrated as “Shree Anna”, are climate-resilient and nutrient-rich crops with immense potential to address malnutrition, food security, and livelihood challenges. Their ability to thrive under low inputs

makes them essential for sustainable agriculture in a changing climate. Plant Breeding has been central to millet improvement—leading to the development of high yielding, stress-tolerant, and nutrient-rich varieties. With tools like genomics and molecular breeding, the scope for crop enhancement is expanding rapidly. Strengthening this research pipeline is crucial to meet future nutritional.

- **Guest of Honour: Dr. A. K. Singh, Vice Chancellor, Rani Luxmi Bai Central Agricultural University, Jhansi** stated “Millets offer a rare attributes of thriving in rain-fed and resource-constrained ecologies, demand lower rejuvenation of external inputs, and providing nutrition—particularly micronutrients and dietary fiber— vital for addressing hidden hunger. As we confront the realities of climate variability, water stress, and degraded soils, accelerating millet research is a central to a resilient and inclusive agri-food future”.
- **Guest of Honour: Dr. Sanjay Singh, Director General, UPCAR** highlighted that Millets, often termed as “nutri-cereals,” are gaining global recognition for their remarkable resilience to climate variability, nutritional richness, and contribution to sustainable farming systems. In the context of changing climatic conditions and increasing food and nutritional security challenges, this conference is both timely and significant. He also discussed regarding UPCAR’s commitment to funding research that directly benefits the farmers of Uttar Pradesh, specifically through the "Uttar Pradesh Millet Revival Programme."
- **Co-chairman Technical session: Dr. Permender Singh, Deputy Director General, UPCAR,** put forward his views on the critical necessity of streamlining the seed production systems to ensure the availability of high-quality, climate-resilient varieties as the foundation for the industry. He further stated that sustainable entrepreneurship relies on integrating these formal seed systems with innovative processing technologies and robust market linkages to transform millets from subsistence crops into globally competitive smart foods.
- **Convener: Prof. P.K. Singh, Dept. of Genetics and Plant Breeding, BHU** discussed that the event provides an excellent opportunity to align research priorities with the national vision of promoting millet-based farming systems for higher income, ecological balance, and sustainable development. He mentioned that the conference discussions will foster collaborations and generate strategies to integrate genomics, innovation, and agri-

entrepreneurship into millet improvement programmes, empowering farmers and sustaining our environment.

Technical Sessions and Academic Proceedings

The two-day event was scientifically rigorous, featuring extensive deliberations on crop improvement, breeding strategies, and value addition. The statistical summary of the Conference: Total Participants: > 200 (Including Faculty, Students, Scientists, FPOs, and Agri-entrepreneurs), Keynote Lectures: 02, Invited Lectures: 11, Oral Presentations: 38, Poster Presentations: 68.

- ***Conference Technical Themes***



Theme I: Sustainable Millet Improvement through Breeding and Biotechnological Interventions.

Theme II: Harnessing Millet Biodiversity for Climate-Resilient Agriculture: Utilizing Plant Genetic Resources.

Theme III: Sustainable Millet Production: Agronomic, Crop Protection, Management Strategies, Innovative approaches to managing pests, diseases, and environmental stresses in millet crops.

Theme IV: Advancing Millet Seed Systems: Innovations, Partnerships, and Sustainable Development.

Theme V: Millet-Based Food and Feed: Enhancing Nutrition, Health, Value Chains through Millet Processing and Post-Harvest Management.

Theme VI: Unraveling Economic Potential of Millets: Market Access, Policy Support, and Empowering Farmers through Extension, Digital Tools, and Capacity Building for Sustainable Millet Innovations.

Theme VII: Millet-based Entrepreneurship and Seed Business Model.

- **ORAL PRESENTATION:** Dr. Rinni Singh (Scientific Officer, Plant Breeding/Biotechnology, UPCAR) delivered an oral presentation in the Technical session Theme IV: Advancing Millet Seed Systems. The presentation titled: "Innovative Approaches for Millet Revival in Uttar Pradesh: A Multi-Institutional Initiative for Sustainable Production, Nutritional Security, and Rural Empowerment", particularly focusing on the

Uttar Pradesh Millets Revival Programme. This presentation outlined the roadmap for the UPCAR-sponsored project and its impact on the state's nutritional metrics.

- Dr. Rinni Singh was awarded best oral presentation award during the award ceremony in the Valedictory function.
- **POSTER PRESENTATIONS:** Three poster presentations were from the team UPCAR namely, 1) “Integrating Millets into Agroforestry Systems in Uttar Pradesh for Sustainable Production and Resource Conservation” presented by Mr. Premchand Chaurasiya, Scientific Officer.
2) “Millets for Nutrition Security and Sustainable Livelihoods in Uttar Pradesh: Innovations in Processing, Post-Harvest Management and Value Chain Development for Food and Feed Systems” presented by Dr. Himanshu Tiwari Technical Secretary to DG.
3) “Reviving Millets in Uttar Pradesh: An Integrated Research–Extension Approach” presented by Mr. Abhijeet, Scientific Officer.
 - Mr Premchand Chaurasiya and Dr. Himanshu Tiwari were awarded Best Poster presentation award during the award ceremony in the Valedictory function.

Conclusion and Recommendations

The visit by the UPCAR delegation was highly productive. The collaboration between BHU, ISGPB, and UPCAR resulted in a successful platform for knowledge dissemination. Discussions and way forward towards continued support for the "Uttar Pradesh Millet Revival Programme", strengthening the supply chain for millet seeds in the state of U.P., and adoption of the innovative breeding approaches discussed during the technical sessions into active state agriculture policies.

Glimpses of the visit:



















