NATIONAL SYMPOSIUM ON

"HARNESSING POTATO INNOVATIONS AND DIVERSITY FOR FOOD AND NUTRITIONAL SECURITY"

75 YEAR OF CPRI-DIAMOND JUBILEE CELEBERATIONS

50 YEAR OF IPA-GOLDEN JUBILEE CELEBRATIONS

28-30 JANUARY, 2025



ORGANIZED BY

ICAR-CENTRAL POTATO RESEARCH INSTITUTE SHIMLA-171001 (H.P.)

at

ICAR-CENTRAL POTATO RESEARCH INSTITUTE REGIONAL STATION, MODIPURAM, MEERUT-250110 (UP)

IN COLLABORATION WITH

INDIAN COUNCIL OF AGRICULTURAL RESEARCH
New Delhi-110001

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INDIAN POTATO ASSOCIATION











Invitation

On behalf of the organizing committee, we are pleased to announce that ICAR-Central Potato Research Institute, Regional Station, Modipuram, Meerut-250110 (UP) will be hosting a National Symposium on "Harnessing Potato Innovations and Diversity for Food and Nutritional Security" on 28-30 January, 2025. This event is being organized in collaboration with Indian Council of Agricultural Research, New Delhi-110001 and Indian Potato Association, Shimla-171001 (H.P.). We cordially invite you to participate in this significant and futuristic scientific gathering.

About The National Symposium

In this symposium we will be celebrating the 75th anniversary of CPRI and 50th anniversary of Indian Potato Association. The symposium aims to bring together experts, researchers, and industry professionals to discuss various aspects of potato cultivation, including:

- 1. Breeding and genetic improvement including biotechnology, genomics, seed chain
- 2. Crop production, precision farming (AI & machine learning) and protection
- 3. Post-harvest management
- 4. Value addition
- 5. Crop diversity
- 6. Global food security
- 7. Farmers issue, market & industry and socio-economic impacts

A special industry workshop will be conducted to bridge the gap between research and practical implementation. This symposium aligns with our organization's commitment to agricultural development, knowledge sharing, and supporting our nation's farmers. It resonates with Mahatma Gandhi's belief that "The future of India lies in its villages" and that "If the villages perish, India will perish too."

Significance of Potato in Global and Indian Agriculture

Potato (*Solanum tuberosum L.*) has been designated as the "Food for Future" by FAO due to its high productivity and nutritional value. It has emerged as the third most important food crop globally, after rice and wheat. India ranks second in potato production after China, with an annual output of 56.7 million tonnes and productivity of 24.5 t/ha, covering an area of 2.3 million ha.

ICAR-CENTRAL POTATO RESEARCH INSTITUTE RS, MODIPURAM, MEERUT



Projections indicate that India needs to produce 125 million tonnes of potatoes by 2050 to meet the demands of its growing population, processing and export. The crop's high economic yield per unit area and time has made it increasingly important in regions where arable land is scarce, making it a preferred choice for small and marginal farmers.

However, the potential yield of potato is often limited by various biotic and abiotic factors in hills, plains, and plateau regions of the country. Farmers frequently face challenges such as water scarcity, changing rainfall patterns, frost and fog, post-harvest losses, pests and diseases, and issues related to processing and entrepreneurship.

Research Focus and Symposium Objectives

Scientists at ICAR-Central Potato Research Institute and its Regional Station, Modipuram are addressing these issues through cutting-edge research, including:

- Development of trait-specific new potato varieties
- ◆ Use of biotechnological tools for crop improvement
- → High-tech seed production through tissue culture and aeroponics, and seed supply chain
- ♦ Natural farming in potato and precision farming
- Plant nutrition and water management
- ♦ Soil health improvement
- ♦ Genome sequencing of pests and diseases
- ♦ Forecasting models

Assessing impact of potato technologies in economic development of the country

This National Symposium Aims To:

- 1. Provide a platform for knowledge exchange among researchers, academicians, and industry professionals
- 2. Disseminate the latest technologies and scientific advancements in potato production for mutual benefit of the farmers, stakeholders and industry
- 3. Bridge the gap between research findings and their practical applications
- 4. Address challenges in potato cultivation and utilization through innovative solutions

We believe this symposium will contribute significantly to the advancement of potato research and cultivation in India, ultimately benefiting farmers and supporting national food security goals.





Theme

DAY-1: 28-01-2025

SESSION 1: GENETIC RESOURCES, NEW FRONTIERS IN POTATO BREEDING AND BIOTECHNOLOGY

- ♦ Conservation and utilization of potato genetic resources
- Climate-resilient and bio-fortified potato varieties
- ♦ Breeding potato varieties for processing
- Participatory breeding approaches
- ♦ CRISPR and gene editing applications
- ♦ Omics approaches in potato research
- Genetic engineering for disease resistance and nutritional enhancement
- ♦ Molecular breeding for improved traits

SESSION 2: SUSTAINABLE POTATO PRODUCTION, CLIMATE CHANGE AND DIGITALIZATION IN POTATO FARMING

- Climate-smart farming practices
- ♦ Soil health and conservation agriculture
- ♦ Natural farming and low-input potato cultivation
- ♦ Advances in mechanization for potato farming
- ◆ Al and IoT applications in potato cultivation
- ◆ Precision agriculture for improved yield and resource management
- ♦ Remote sensing and drone technology in potato farming
- ♦ Big data analytics for decision support







DAY-2: 29-01-2025

SESSION 3: INTEGRATED PEST AND DISEASE MANAGEMENT IN POTATO

- ♦ Diagnostics, forecasting and early warning systems
- Resurgence and emerging potato pest and diseases
- ♦ Eco-friendly approaches to pest and disease management
- ♦ Host plant resistance and its integration with IPM
- ♦ Next generation molecules for the management of pest and diseases

SESSION 4: POST-HARVEST MANAGEMENT, VALUE ADDITION AND TECHNOLOGYTRANSFER

- ♦ Smart storage solutions for reducing post-harvest losses
- Novel processing technologies for potato products
- ♦ Utilizing potatoes for functional foods and nutraceuticals
- ♦ Packaging innovations for extended shelf life
- ♦ Extension strategies for promoting improved potato technologies
- ◆ Farmer-scientist collaborations and participatory research
- Digital platforms for knowledge dissemination
- ♦ Success stories and challenges in technology adoption

SESSION 5: INNOVATIONS IN POTATO SEED TECHNOLOGY

- ♦ Recent intervention in seed potatoes
- ◆ Tissue culture, aeroponics and ARC for healthy seed production
- ◆ Seed quality control, certification, and traceability systems

DAY-3:30-01-2025

SESSION 6: AGRI-INDUSTRY INTERFACE MEETING

- ◆ Export policies and their impact on the potato stakeholders
- ♦ Market trends and consumer preferences
- ♦ Prospects for potato-driven agro industries
- ♦ Sustainable value chains and fair trade practices
- ◆ Food security policies and the role of potatoes





Souvenir and Abstract Book

A comprehensive Souvenir cum Abstract Book will be published and distributed to all symposium delegates.

ABSTRACT SUBMISSION GUIDELINES

- 1. Format : Abstracts should be a maximum of 250 words, excluding title, authors, and affiliations.
- 2. Styling: Use MS Word, Times New Roman, 12-point font, single-spaced, with one-inch margins on both sides.
- 3. Content: Clearly indicate the relevant technical session at the top of the page and in the registration form.
- 4. Author Information: Include the email address of the corresponding author.
- 5. Oral Presentations: Each oral presentation will be allotted 7 minutes, followed by a 3 minute discussion period.

Submission Process

Please submit your abstract along with the completed registration form via email to **vijaigupt@gmail.com** or **dr.anujbhatnagar@gmail.com** by 01 December 2024.

Awards For Excellence

- ♦ Selected abstracts will be invited for oral presentations.
- ◆ Accepted poster presentations will be displayed in their respective thematic sessions.
- ◆ Best Oral and Poster Presentation awards will be conferred in each category.
- ♦ Poster viewing sessions will be scheduled and communicated by the first week of January 2025.

Special Session for Postgraduate Students

A dedicated session for postgraduate students will feature selected oral and poster presentations across all symposium themes. We encourage PG students to submit abstracts for peer review and potential presentation.

Eligibility for Participation

The symposium welcomes scientists, researchers, educators, and research scholars from universities, colleges, and research institutes and Industry working in Life Sciences, Agricultural Sciences, and related Social Sciences.







Registration Fees

PARTICULARS	FEE AMOUNT(RS)
Students	1000.00
Indian Potato Association life members	5000.00
Academicians, Scientists (non-members)	6000.00
Stakeholders, Industry and Others	6000.00

Payment Methods

- 1. **Demand Draft :** DEMAND DRAFT, in favor of MS IPA UNIT CPRI, payable at Meerut
- 2. Online Transfer: Account Name: MS IPA UNIT CPRI, A/C No: 10172902441, IFSC: SBIN0003067

Sponsorship

Sponsorship is invited from potato entrepreneurs, agro-industries, fertilizers and pesticide companies, food retailers, cold storages, and credit and marketing institutions to get associated with the events of National symposium, which will attract participation by a large number of potato scientists, research managers, agro entrepreneurs, government representatives, farming communities and other stakeholders.

Types of sponsorship	Amount (Rs)	Space in souvenir/free registration and stall
Platinum	500000/-	01 full page (colour)/05 and 01
Diamond	300000/-	1/2 full page (colour)/03 and 01
Gold	200000/-	1/4 full page (black & white)/02 and 01
Silver	100000/-	1/4 full page (black & white)/01 and 01

Accommodation

- ◆ Limited accommodation in guesthouses will be available on request and payment basis.
- ♦ Reservations will be made on a first-come, first-serve basis.
- ◆ Guest house tariffs in Meerut range from Rs. 700 to 1,200 per night.
- ◆ Information on private lodges and hotels (including budget and star category) in Meerut can be provided upon request.

To confirm your participation and accommodation requirements, please email dvsingh123@gmail.com or mehialonline@gmail.com.



About the ICAR-CPRI, SHIMLA (H.P.)

The Indian Council of Agricultural Research (ICAR)-Central Potato Research Institute (CPRI) was established during August 1949 at Patna (Bihar). The institute was later on, shifted to Shimla in 1956 in order to facilitate hybridization work in potato breeding and maintain seed potato health. It was transferred to the Indian Council of Agricultural



Research (ICAR) in April 1966. The research and development activities of the institute is carried out under the five divisions, viz. Crop Improvement & Seed Technology, Crop Production, Plant Protection, Crop Physiology, Biochemistry and Post Harvest Technology and Social Sciences. The Institute has six regional stations located across the country viz. Modipuram (Uttar Pradesh), Jalandhar (Punjab), Gwalior (Madhya Pradesh), Patna (Bihar), Shillong (Meghlaya) and Ooty (Tamil Nadu) to cater the need for location specific potato research and extension activities.

About the ICAR-CPRI RS, Modipuram, Meerut-250110 (U.P.)

ICAR-Central Potato Research Institute Campus. Modipuram is the biggest Regional Station of the ICAR-Central Potato Research Institute, Shimla. The campus is situated about 80 km from New Delhi on Delhi-Roorkee highway, NH 58 and the city of Dehradun and Haridwar is 180 and 140 km, respectively from this place. Two ICAR institutes



and a state Agricultural University is situated very near to this campus. Potato research in various disciplines through 11 interdisciplinary research programmes is carried out for the plains of India. Besides research and extension, this campus contributes almost half of breeder seed production of the country. This Campus also serves as one of the Centers of All India Co-ordinated Research Project on Potato and has national and international research collaborations. The campus is well equipped with modern facilities like laboratories, library, meeting halls, guest house and farmers Training Hall. Laboratories are well equipped to carry out advance studies and hi-tech seed production. The campus has 165 ha land area which facilitates excellent conduct of field experiments and high quality seed production of potato and other crops.

How to Reach: ICAR-Central Potato Research Institute-Regional Station is located at Modipuram, Meerut opposite to SDS Global Hospital along Delhi-Haridwar national highway No.58. This Regional Station is situated at about 14 km from Meerut City railway station and about 10 km from Meerut Cantt. railway station and about 11 km from Meerut City (Bhainsali) bus stand. Hired taxi/auto-rickshaw can be availed at railway/bus stations to reach the campus.



LOCATION MAP





Organizing Committee

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Dr. Himanshu Pathak

Hon'ble Director General, ICAR, New Delhi

PATRON

Dr. Sanjay Kumar Singh

Hon'ble Deputy Director General, (Horticulture), ICAR, New Delhi

CHAIRPERSON

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Director, ICAR-CPRI, Shimla (HP)

Dr. Sudhakar Pandey

P)

ADG (Vegetable Science), ICAR, New Delhi

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Head, ICAR-CPRI, RS, Modipuram, Meerut (UP)

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Pr. Scientist, ICAR-CPRI RS, Modipuram, Meerut (UP)

Dr. Sanjeev Sharma

Pr. Scientist & Head, Division of Crop Protection ICAR-CPRI, Shimla (HP)

Dr. Salej Sood

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Dr. Subhash S

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-: REGISTRATION FORM:-

National Symposium on

"HARNESSING POTATO INNOVATIONS AND DIVERSITY FOR FOOD AND NUTRITIONAL SECURITY"

ICAR-Central Potato Research Institute, Regional Station, Modipuram, Meerut-250110 (UP) 28-30 January, 2025

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