PULSES
NEWSLETTER
ICAR-Indian Institute of Pulses Research, Kanpur

VOLUME 36, No. 03 July to Sept, 2025

Annual Group Meet of AICRP on *Rabi* Pulses 2025 Organized

The Secretary DARE and Director General, ICAR, New Delhi, Dr. M.L. Jat, chaired the inaugural session of the Annual Group Meet of All India Coordinated Research Project (AICRP) on *Rabi* Pulses and a brainstorming session on"Roadmap for attaining self-sufficiency in pulses production" held at RLBCAU, Jhansi on 19th August 2025. The group meet was attended by more than 175 scientists from different organizations, *viz.*, State Agriculture Universities, BARC, ICRISAT, ICARDA, and ICAR institutes. Dr. Jat addressed the august gathering and emphasized to prepare an implementable action plan to achieve self-sufficiency in pulses. In the context of pulses, he mentioned about 3P approach for growing pulses, People, Planet, and Profit. He mentioned that pulses are important for both people as well as the planet, but at the sametime for increasing pulses production the scientists should put in efforts to make pulses cultivation profitable for farmers. He also emphasized that our research and development programme must be aligned with the local socio-economic system. He suggested that scientists should focus on designing high-yielding cultivars suitable for surface seeding, relay cropping, stress-prone areas, and high/low input areas. The Deputy Director General (Crop Sciences), ICAR, Dr. D. K. Yadava said that scientists should make efforts to develop production and protection technologies to minimize crop loss due to weeds, disease, and insect pests. He said dedicated efforts should be made to mechanize pulse cultivation from planting to harvesting.

Celebration of 33rd Foundation Day of ICAR-IIPR

ICAR-Indian Institute of Pulses Research, Kanpur celebrated its 33rd Foundation Day on September 5, 2025. On this occasion, Prof. Vinay Pathak, Vice-Chancellor of CSJMU, Kanpur and Dr. Sunil Chandra Dubey, Vice-Chancellor of Birsa Agricultural University, Ranchi, Jharkhand were the Chief Guests, while Dr. Seema Paroha, Director, National Sugar Institute, Kanpur was the Distinguished Guest. The Director of the Institute, Dr. G. P. Dixit stated that the country is steadily moving toward self-sufficiency in pulse production. He also shared that the Institute has received external funding for research projects worth approximately Rs. eight crores. He highlighted the achievements of the Institute elaborated on other innovative technologies and shared outreach activities.

Dr. Dixit also emphasized the Institute's efforts in building public-private partnerships, mentioning that despite challenges, the Institute is fully capable and committed to overcome them. He mentioned that the Institute is working to develop low-cost technologies for farmers and to ensure wider availability of improved seed varieties.. He also shared the active role of IIPR scientists during the recently held "***Viksit Krishi Sankalp Abhiyan 2025***," and reassured that the Institute continues to receive full cooperation from the government and is working toward setting new records in pulse production. The Chief Guest, Prof. Vinay Pathak highly appreciated the Director's address and commended the Institute's work and accomplishments over the past

INSIDE

year. He acknowledged that the Institute is playing a vital role in national development through its research contributions. Emphasizing collaborative research, he also discussed the importance of data management and analysis for the future. Prof. Pathak stressed that farmers should be equally aware of agricultural marketing and business knowledge to maximize their benefits. Referring to former Prime Minister Lal Bahadur Shastri's slogan "*Jai Jawan Jai Kisan,"* he underlined its significance in helping India achieve self-sufficiency in food production. Dr. Sunil Chandra Dubey presented a detailed research report on the significance of pulses and shared future strategies for innovation and updates in pulse research. Dr. Seema Paroha highlighted the nutritional value of pulses and praised the varieties developed under IIPR's breeding programmes. She lauded the institute's achievements and commended the leadership of Director for ensuring smooth research progress. She also proposed collaborative research between the Pulses and Sugar Institutes.

Recognizing the importance of Public-Private Partnerships, the Institute continues to sign Memoranda of Understanding (MoUs) with various organizations. On this occasion, an MoU was signed between CSJM Innovation Foundation, Kanpur, and Pulses Innovation Hub (ABIC, IIPR, Kanpur). A few new publications were also released by the Chief Guest. Progressive farmers from different districts of Uttar Pradesh were honoured for their outstanding contributions to pulses cultivation and were provided with improved seed varieties. On this occasion,

Institutional awards were also presented for commendable contributions in research: Dr. M.H. Kodandarama – Outstanding Scientist Award (Senior Category), Dr. Sujayanand G.K. – Outstanding Scientist Award (Young Category), Mr. R.K.S. Yadav – Best Employee Award (Technical Category), Mr. Kunal Kalra – Best Employee Award (Finance and Accounts Category), Mrs. Meenakshi Varshney – Best Employee Award (Administrative Category), Dr. Narendra Kumar and Team – Outstanding Team Award for Research and Development. The vote of thanks was delivered by Dr. Shailesh Tripathi, Project Coordinator *(Rabi)* and the event was conducted by Dr. Rekha Rani, Scientist and Dr. Raj Kumar Mishra, Principal Scientist.

Research Highlights

Molecular identification of mungbean powdery mildew pathogen and screening for its resistance

During 2024, at ICAR-IIPR Regional Station, Bhopal, Madhya Pradesh (M.P.) (Latitude 23.22°and Longitude 77.19°) powdery mildew was observed in mungbean varieties Shikha and Virat in both *Kharif* and *Rabi* seasons. Morphological characteristics of the pathogen were consistent with *Podosphaera xanthii* (Castagne) U. Braun & Shishkoff. For molecular confirmation, the large subunit region of ribosomal DNA (rDNA) was amplified And the amplicon sequence showed 99.71% similarity to *P. xanthii* (KX842351) isolate from USA. also It was also observed that a local collection of mungbean (IC653143) did not show any symptoms of powdery mildew in case of natural incidence while the other varieties (Shikha and Virat) were highly infected. To evaluate the resistance level of IC 653143 against powdery mildew. An experiment was conducted using the local collection along with Shikha and Virat varieties as susceptible checks by planting them in triplicate on 10/09/2024 . Inoculations of pathogen spores on the plants were done twice- at 18th and 30th day after sowing. At the onset of first disease symptoms which was observed at 7th week after sowing, the per cent disease incidence in case of Shikha, Virat and IC 653143 was 45%, 40%, and 3%, respectively. The disease severity index (DSI) in case of Shikha was 58% at 8th week after sowing and it reached to 100% at 11th week after sowing. Likewise, in case of Virat, DSI was 60% at 8th week after sowing and it reached to 100% at 11th week after sowing. In case of IC 653143, DSI was 0% at 8th week after sowing and it reached to 30% at 11th week after sowing. The AUDPC of Shikha and Virat was 4585 and 4557%, however it was very low in case of IC 653143 (829.50%).

Screening of IC 653143 for resistance against powdery mildew

Nidhi Kumari, Surendra Ghritlahre, Dibendu Dutta, Nainika Nagar and Gitanjali Sahay

Pulse_GeneBank: A Germplasm Resources Information System for Pulses

Different characteristics of germplasm data for major pulse crops maintained/stored in IIPR Gene Bank were collected and processed using digital format. A Germplasm resources Information System for Pulses (Pulse_GeneBank) has been developed. A user-friendly interface has been designed for for data entry related to different locations and characters of germplasm that allows users to store, modify and update information and perform search operation efficiently. Data of a total of 5,030 accessions (Chickpea: 1,633; Pigeonpea: 793; Lentil: 1,721; Fieldpea: 678; Cowpea: 106; *Rajmash*: 63 and Horsegram: 49) have been entered in the database through different forms (Location and Character-wise). The system has been developed using WAMP (Windows, Apache, Mysql and PHP) technology and has two components -one for data management and other for generating queries and reportsfor retrieval of information *viz.*, Location-wise report, Character-wise report, Dashboard, Query-based report & Detail report. Database and information system for Institute Gene Bank (Pulse_GeneBank) has been developed, maintained, implemented and uploaded on URL (https://seedhubiipr.wp.urdemo. website/admin/login.php). The system provides information that may be required by researchers, exporters and policy makers and also serves as an information highway for sharing pulses germplasm information *via* a digital platform.

Pulse_GeneBank: A Germplasm Resources Information System for Pulses

Devraj, P.K. Katiyar, Uma Sah and G.P. Dixit

Identification of unique low ODAP grasspea mutant and germplasm lines

Two sets of purified indigenous germplasm lines (356) and 339 mutant lines (M_3) of grasspea were grown in a field experiment with two replicates at IIPR Regional Station Bhopal. Normal agronomic practices were followed. Morphological data was recorded. β-N-Oxalyl-l-α, β-diamino-propionic Acid (β-ODAP) was analyzed using an UV-spectrophotometer in triplicate using Rao *et al*. (1964) method at IIPR, Kanpur. The ODAP content ranged from 0.04-0.8 per cent among the 356 grasspea indigenous germplasm lines analyzed and five low ODAP genotypes namely IPLa 62 (0.04 %), IPLa 111 (0.04 %), IPLa 113 (0.04 %), IPLa 92 (0.04 %) and IPLa 372 (0.09 %) were identified . Similarly, ODAP content ranged from 0.00079 to 0.18750 per cent among the 339 mutant lines analyzed. 328 low ODAP lines ranged from 0.01061-0.09935% while 6 lines (0.10043-0.18750%) were at the threshold level as compared to check varieties Mahateora (0.05 %) and Ratan (0.06 %). Besides, ODAP content in four advanced mutant lines (M_8) ranged from 0.03 to 0.05%. These identified germplasm and mutant lines will be validated for their stability for low ODAP content and utilized for grasspea improvement programme.

S. No.	Mutant line	ODAP content (%)
1.	GML 2020-499	0.00079
2.	GML 2020-1001	0.00629
3.	GML 2020-264	0.00649
4.	GML 2020-709	0.00727
5.	GML 2020-112	0.00845

Archana Singh, Neetu Singh Kushwah, Vaibhav Kumar, Bhojraj Parmar and G.P. Dixit

Allelic variants of Beta-Cyanoalanine synthase (LsCAS) gene in grasspea genome

Allelic variants of the *LsCAS* gene were identified in grasspea genotypes to understand the variations present at this locus. High number of bi-allelic SNP (14), multiallelic (1) SNP and biallelic InDels (2) were detected in the coding region as well as RNA, mRNA region of *LsCAS*gene. None of the identified variants could be associated with alteration in initiation codon. Among the identified variants, five caused missense mutations, but none resulted in the loss of start or stop codons. The *LsCAS*gene encodes a protein of 381 amino acids in most of the genotypes. However, in the Mahateora genotype, the gene encodes a protein with only 380 amino acids. This difference is due to the presence of InDel that results in the deletion of one serine codon in the coding region of the Mahateora *LsCAS* gene. Additionally, variations were also identified in the intronic region of the gene. One large deletion of 195 bp were identified in the second intron of grasspea genome sequence genotype Ls007. However, no such type of deletion was observed in the another grasspea genome sequence genotype Pusa 24 and Mahateora. Efforts are being made to associate variations in the *LsCAS* locus to the ODAP content in grass pea.

Neetu Singh Kushwah and G.P. Dixit

Isolation of DNA from chipped seeds of grasspea amenable to PCR amplification

Isolating DNA from a small portion of the seed without affecting its ability to germinate allows researchers to perform genetic analysis and advancing only those seeds with desirable traits to the next generation. This saves resources, time and labour on propagating undesirable individuals in the population. We successfully isolated DNA from seed powder obtained by chipping seeds with sandpaper. This was achieved using the CTAB method by adding of 0.2% PVP-40 in the extraction buffer and Phenol: chloroform: isoamyl alcohol treatment during the isolation step of CTAB method. The isolated DNA from the chipped seeds were comparable to that obtained from leaf samples (Fig 1). The spectral quality of seed DNA as measured by the A_{260}/A_{280} ratio ranged from 1.96 to 2.14. The DNA quality was further confirmed by PCR using *LsCAS* gene specific primers (Fig 2). Similar to leaf tissue, DNA isolated from seeds gave the single expected size of band in most of the genotypes (Fig 2), indicating that DNA isolated from seed is of good quality and amenable to PCR amplification.

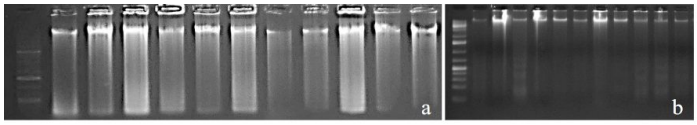


Fig. 1: Agarose gel electrophoresis of isolated DNA from different tissues of grasspea. a. DNA from chipped seed powder, b. DNA from leaves

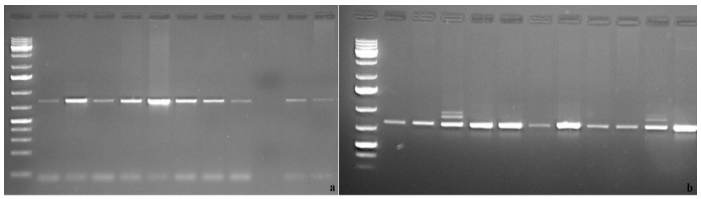


Fig. 2: Checking quality of DNA by PCR amplification. a. PCR amplified product from Leaf DNA, b. PCR amplified product from seed DNA.

Neetu Singh Kushwah, Shyam Sunder P., Shivam Sachan, Shambhavi Mishra and Vaishnavi Nigam

Selection of heat tolerant elite genotypes in chickpea

Terminal heat stress in chickpea is one of the major abiotic stresses which adversely affects its growth and yield. Hence, an attempt was made to identify the donors for heat tolerance trait. A set of 5,000 chickpea germplasm lines (received from ICRISAT and NBPGR) were characterized under heat stress conditions at the IIPR Regional Station, Phanda, Bhopal, Madhya Pradesh. Experiments were conducted in first week of Janauary in Augmented Block Design during *rabi* 2020-21 to 2024-25. Genotypes were exposed to heat stress (>35 °C temperature) conditions at flower initiation to seed development. Data was recorded for number of filled and unfilled pods, no. of shriveled seeds per pod, yield per plant, 100-seed, weight and biological yield per plant. Viability of pollen grains were correlated to yielding ability of genotypes. Based on the pooled and analyzed data, number of filled pods per plant (8 to 205) and high yielding (2.0 to 27.9 gm per plant), 10 elite genotypes [ICC 14454 (24.3 g/103 filled pods), ICC 14410 (24.5 g/143 filled pods), ICC 11861 (23.8 g/117 filled pods), ICC 2220 (22.4 g/125 filled pods), EC 267221 (22.2 g/115 filled pods), ICC 6471 (21.6 g/103 filled pods), ICC 3162 (20.2 g/111 filled pods), ICC 3406 (21.0 g /205 filled pods), ICC 2242 (20.0 g/180 filled pods) and ICC 14409 (19.9 gm/119 filled pods)] were identified and selected in comparison to the checks [JG 14 (18.0 g /72 filled pods) and IPC 2006-77 (16.9 gm/ 83 filled pods)]. However, small seed size and low seed density affected the yield of few elite genotypes in different seasons. The validated genotypes could be utilized as a donor for development of heat tolerant chickpea lines in crop improvement programmes.

Fig. : Field view (@ >39ºC) of heat tolerant elite chickpea genotypes, ICC 11861 & ICC 14409.

Archana Singh, Avinash Shrivastav, Shailesh Tripathi and G.P. Dixit

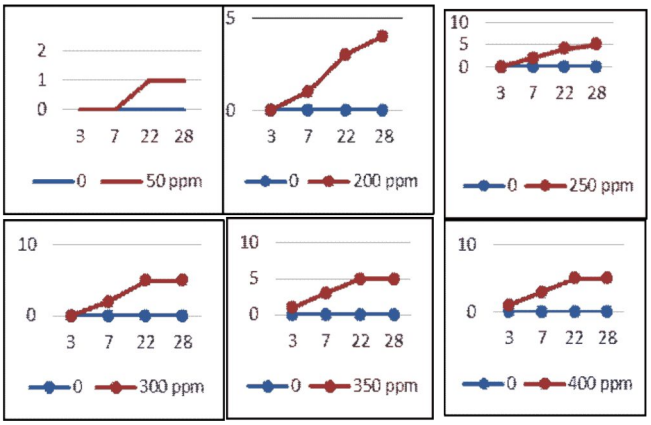
Pathogenicity-related (PR) and antioxidative genes in *Phytophthora cajani*

A qPCR analysis of 12 pathogenicity- and defense-related genes in *Phytophthora cajani*–infected pigeonpea cultivars UPAS 120 (susceptible) and IPAC 79 (resistant) (inoculated with 2×10^5 zoospores mL^{-1}) revealed distinct expression patterns. The susceptible UPAS 120 showed early induction of PR2, PR3, and Peroxidase, while the resistant IPAC 79 exhibited sustained upregulation of PAL2, CHS8, PR10, LOX, and SPMS, associated with lignification and jasmonate signaling. PR3, PAL2, CHS8, LOX, and Peroxidase emerged as key defense markers for *Phytophthora* resistance in pigeonpea Microscopic view of *Phytophthora cajani* infection in pigeonpea tissues at 48 h post inoculation (hpi). (a) Infected tissue of susceptible cultivar UPAS 120 showing disrupted cell structure and intercellular hyphal growth. (b) Uninoculated plant cell showing intact cell organization and restricted pathogen penetration

R.K. Mishra, Shailesh Dixit, Sonika Pandey and Abhishek Bohra

Basta dosage sensitivity assessed for leaf paint assay in pigeonpea

Herbicide resistance, as a selectable marker, provides a convenient and easily assayable system whereby transformants and transgenics can readily be identified using simple techniques such as leaf painting. The herbicide Basta has been used in several crops for this purpose. A Leaf paint assay was conducted in pigeonpea *cv*. IPA 15-6 on photosynthetically active terminal leaves of third branch of 20-25 days old plants by swabbing one half of the leaf with different doses of basta. These leaves were observed from three to 28 days post application for development of yellow lesions and scored in the range of 1 to 4 with increase in lesion formation and a score of 5 for necrosis initiation and /or leaf drop. Dosage response curves revealed that basta @ 350 ppm caused initiation of yellow lesions within three days of application followed by basta@ 250 and 300 ppm that showed development of lesions within 7 days. With further increase in dose, formation of these lesions was earlier, however, painted leaves also showed symptoms of necrosis and drop.



Basta Dose response curves. X-axis displays number of days after application of herbicide, Y – axis displays score of sensitivity

Meenal Rathore, Sudhir Bajpai, C P Nath and Shanmugavadivel PS

Identification of promising chickpea genotype under combined drought and heat stress

Growing evidence indicates that concurrent drought and heat stress severely constrain crop productivity, particularly in chickpea. To identify germplasm with enhanced resilience to these co-occurring stresses, we evaluated 166 chickpea genotypes under field conditions across two growing seasons (2022–2023 and 2024–2025). Substantial genetic variation for yield and yield-associated traits was detected under combined drought and heat stress in both years. During 2022–2023, IPC 2021-165 (6.5 g plant^{-1}) and ICC 12237 (8.3 g plant^{-1}) outperformed the stress-susceptible check ICC 92944 (6.05 g plant^{-1}). In 2024–2025, IPC 2021-165 (7.0 g plant^{-1}) and IPC 19-58 (7.2 g plant^{-1}) again showed superior seed yield relative to ICC 92944 (6.3 g plant^{-1}). Together, these results identify IPC 2021-165, ICC 12237, and IPC 19-58 as promising donor genotypes for breeding chickpea cultivars with improved tolerance to simultaneous drought and heat stress.

Uday Chand Jha, Yogesh Kumar, P.K. Katiyar and G P Dixit

प्रौद्योगिकी हस्तांतरण

Activities conducted under IIPR-NER Sub-Plan

A total of 55 Farmers' Training Programmes (Capacity building/Skill development programme) were conducted on Pulse Production Technologies under the 'Promotion of Pulses in NE Region. Among these, a 7-day 'National Nutritional Week' was also observed during the first week of September at the College of Horticulture and Forestry (Central Agricultural University), Pasighat, Arunachal Pradesh. Over 50 demonstrations on pulse production technologies and 13 Awareness programmes were conducted aiming for the promotion of pulse crops in the north eastern region of India, under the IIPR NER Sub-Plan. These Awareness programmes, focusing *Kharif* pulses, were conducted in different districts of Assam through

Glimpses of Training-cum-input distribution programme organized under the IIPR-NER Sub-Plan during the 2nd quarter of 2025-26

KVKs of the Assam Agricultural University. Apart from these, 105.73 q of quality seeds of different pulse crops were also distributed to the farmers. Fertilizers, including bio-fertilizers, FYM and vermicompost were distributed to the tune of 536.1q whereas plant protection chemicals of 8q were distributed for combating insect-pests and diseases in the region. In addition, 1355 numbers of petty equipment were distributed to the farmers aiding small agricultural operations in pulses cultivation. These programmes were conducted in collaboration with local ICAR centres, CAUs, SAUs, and State Agricultural Departments, covering farmers across various districts of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura.

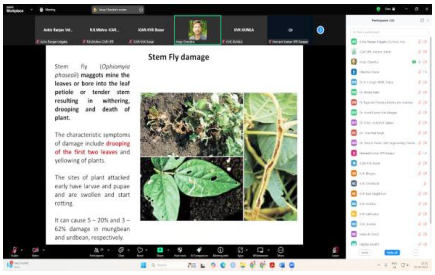
Anup Chandra, DP Patel and GP Dixit

Collaborative Online Training Programmes for KVK Scientists on Improved Production Technologies of *Kharif* Pulses

ICAR-IIPR, Kanpur is associated as a knowledge partner in the project *"Ensuring Pulses Sufficiency in India by Capitalizing on the Model Pulse Village Approach"*, being implemented by Agricultural Extension Division, ICAR, New Delhi. ICAR-IIPR, Kanpur and its regional stations/centres in collaboration with different ICAR-ATARIs organised one day online training programme for Subject Matter Specialists (SMSs) and Head, Krishi Vigyan Kendras (KVKs) associated in the project as partners from across the country during Sept. 2025. A total of 04 training progrmeams were organized for a total of 78 participants from partner KVKs of Uttar Pradesh, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Rajasthan, Haryana, Telangana, Andhra Pradesh and Karnataka states.

In this regard, ICAR-IIPR, Kanpur in collaboration with ICAR-ATARI, Kanpur, and ICAR-ATARI, Patna organised a one-day online training programme on *"Plant Protection Technologies and Post-Harvest Management in Kharif Pulses"* on 10th September 2025, wherein 30 participants including KVK heads and Subject matter Specialists from partner KVKs of Uttar Pradesh, Bihar and Jharkhand participated. ICAR-IIPR, RC, Bhopal in collaboration with ICAR-ATARI Jabalpur, organised an online training programme on "*Crop Protection and Post-harvest Technologies for Kharif Pulses*" on 30th

September 2025 for SMS/Head of KVKs (11 nos) engaged in the said project from Madhya Pradesh and Chhattisgarh states. In similar lines, ICAR-IIPR- Regional Centre, Bikaner and ICAR-ATARI, Jodhpur successfully organized an online one-day collaborative training programme on *"Crop Protection and Post-Harvest Technologies for Kharif Pulses"* on 15th September 2025. The training was specifically tailored for Subject Matter Specialists (SMSs) and Heads of Krishi Vigyan Kendras (KVKs), wherein a total of 17 participants joined. To cater to the information needs of KVKs personnel of Andhra Pradesh, Telangana, Tamil Nadu, and Karnataka, ICAR-IIPR, RRS, Dharwad in collaboration with ICAR-ATARI, Bangalore and ICAR-ATARI, Hyderabad organised an online training programme on "*Crop protection and post-harvest*



management of pigeonpea and cowpea crops" that was attended by 20 participants.

These training programmes were customized as per the production situations of the states and covered all important aspects like technological advancements in pulse production technologies, including climate-resilient improved varieties recommended for the states, disease and pest management, post-harvest technologies, and learnings and experiences from model pulse villages.

Uma Sah, Geetanjali Sahay, S.L. Patil, Sudheer Kumar and Ashis R. Udgata

ICAR-IIPR enters into agreements with multiple stakeholders

- EDP on Bio-fertilizer Production on 22 September 2025. (05 participants from Gorakhpur district of UP.)
- FPO connect Program 2.0 on 29 September 2025. (30 participants FPO Directors, Members and entrepreneurs).
- Licencing agreement with M/S Abhimanyu Seeds Pvt. Ltd. on 5th September, 2025 for commercialization of fieldpea varieties.
- Memorandum of Understanding (MoU) signed between Pulse Innovation Hub, ABIC and CSJM Innovation Foundation, Kanpur for co-incubation programme.

Schedule Caste-Sub Plan

Under Schedule Caste Sub-Plan, following activities were conducted:

- Farmer's Training at Kanpur Dehat, Auraiya, Unnao, Barabanki, Hardoi in U.P. and Bikaner in Rajasthan : 07 Nos.
- Quality seed Distribution of Urdbean, Mungbean, Field pea and Chickpea seeds, ICAR-IIPR, Kanpur : 97.50 q.
- Distribution of Knapsack sprayers, ICAR-IIPR,Kanpur and IIPR- RRS-Phanda Bhopal : 179 Nos.
- Distribution of Storage bins, ICAR-IIPR, Kanpur and IIPR- RRS-Phanda Bhopal : 179 Nos.

- Distribution of Agricultural tool kits, ICAR-IIPR, Kanpur and IIPR-RRS-Phanda, Bhopal, 257 Nos.
- Distribution of Biofertilizer - *Rhizobium*, ICAR-IIPR, Kanpur, 648 units.

हिन्दी दिवस समारोह का आयोजन

भाकृअनुप– भारतीय दलहन अनुसंधान संस्थान में दिनांक 25 सितम्बर, 2025 को हिन्दी दिवस समारोहपूर्वक मनाया गया। प्रो. राकेश कुमार शुक्ल, वीएसएसडी डिग्री कालेज, कानपुर समारोह के मुख्य अतिथि थे। समारोह की अध्यक्षता संस्थान के निदेशक डा. जी.पी.दीक्षित ने की। समारोह में संस्थान के सभी वैज्ञानिक, तकनीकी, प्रशासनिक एवं सहायक वर्ग के कर्मचारियों ने भाग लिया। तत्पश्चात संस्थान के राजभाषा सचिव ने सभी अतिथियों एवं प्रतिभागियों का स्वागत करते हुए कहा कि हिन्दी दिवस का आयोजन हमारी भाषाई अस्मिता और राष्ट्रीय गौरव का उत्सव है। इस अवसर पर हम यह संकल्प लेते हैं कि संस्थान के अधिक से अधिक कार्य हिन्दी में संपादित किए जाएँ, ताकि राजभाषा का व्यावहारिक प्रयोग और अधिक प्रभावी हो सके।

मुख्य अतिथि प्रो. राकेश कुमार शुक्ल ने अपने प्रेरक उद्बोधन में कहा कि देवनागरी लिपि में लिखी गयी हिन्दी हमारी राजभाषा ही नहीं, बल्कि राष्ट्रीय एकता का प्रतीक है। हिन्दी वह सेतु है जो भारत के विविध भाषाई क्षेत्रों को जोड़ती है। उन्होंने कहा कि ज्ञान–विज्ञान, अनुसंधान और तकनीकी विकास के क्षेत्र में भी हिन्दी को सशक्त माध्यम के रूप में अपनाने की आवश्यकता है। यदि भारत को विकसित राष्ट्रो की श्रेणी में लाना है, तो उसकी भाषा को भी विकास का आधार बनाना होगा।

अध्यक्षीय संबोधन में डॉ. जी.पी. दीक्षित ने कहा कि हिन्दी भाषा में अभिव्यक्ति की सरलता, स्पष्टता और व्यापकता निहित है। हम अपनी मातृभाषा में ही अपने विचारों और

वैज्ञानिक कार्यों को सबसे प्रभावी ढंग से प्रस्तुत कर सकते हैं। संस्थान में राजभाषा के प्रयोग को बढ़ावा देने के लिए अनेक सार्थक प्रयास किए जा रहे हैं, जिनमें हिन्दी में वैज्ञानिक लेखन, कार्यालयीन पत्राचार, प्रकाशन और सृजनात्मक गतिविधियाँ शामिल हैं। उन्होंने सभी कर्मचारियों से आह्वान किया कि वे राजभाषा हिन्दी के प्रयोग को अपने दैनिक कार्यों में और अधिक प्रोत्साहन दें। संस्थान में राजभाषा हिन्दी के प्रचार– प्रसार, प्रयोग और सृजनात्मक उपयोग की दिशा में सतत और प्रभावी प्रयास जारी है, जिससे हिन्दी न केवल प्रशासन की भाषा बने, बल्कि विज्ञान और अनुसंधान की भी सशक्त अभिव्यक्ति बन सके।

हिन्दी पखवाड़े के अंतर्गत आयोजित विभिन्न प्रतियोगिताओं के विजेताओं – डॉ. राजकुमार मिश्रा, श्री सुजीत कुमार वर्मा, डॉ. अर्चना सिंह, डॉ. हेमंत कुमार, डॉ. मनमोहन देव, डॉ. ऋषिकेश कुमार, डॉ. अंतरा दास, डॉ. कन्हैया

लाल, श्री अमित गुप्ता, श्री मनीष कुमार, श्री शिव शरण, श्रीमती मीनाक्षी वार्ष्णेय, श्री मयंक मिश्रा, श्री यदुवीर सिंह यादव, श्री अनिल सोनकर, श्री अभिषेक सिंह राजपूत, श्रीमती रीता मिश्रा, श्रीमती रश्मि यादव, श्री अनुज गुप्ता, श्री शिवम सृष्टि तथा श्री सचिन सिंह को मुख्य अतिथि द्वारा प्रशस्ति पत्र एवं पुरस्कार प्रदान किए गए। कार्यक्रम का संचालन डॉ. राज कुमार मिश्रा ने किया। समापन सत्र में डॉ. शैलेश त्रिपाठी, परियोजना समन्वयक (रबी) ने धन्यवाद ज्ञापन प्रस्तुत किया।

PERSONNEL

Appointments, Promotions, Transfers, *etc.*

Appointments

Sl.	Name	Post	Date of joining
1	Dr. Priyanka Lal	Scientist	07.07.2025
2	Dr. Shamima Parveen	Scientist	07.07.2025
3	Dr. Shriniketan Puranik	Scientist	07.07.2025

Promotions

Sl.	Name	Promoted to	w.e.f.
1	Dr. Banwari Lal, Sr. Scientist (Research Level-12)	Sr. Scientist (Research Level -13A)	28.09.2022

Retirements:

Sl.	Name	Post held	Date of retirement
1	Dr. Omkar Nath	CTO (T-9)	31.07.2025

EDITORIAL COMMITTEE

Chairman

Dr. G.P. Dixit

Co-chairperson

Dr. (Mrs) Meenal Rathore

Members

Dr. A.K. Srivastava
Dr. A.K. Parihar
Dr. Anup Chandra
Dr. Uday Chandra Jha
Dr. K.K. Hazra

Member Secretary

Dr. Rajesh Kumar Srivastava

Director's Desk

Dear Readers,

The ICAR-Indian Institute of Pulses Research (IIPR), Kanpur plays a central role in developing improved pulse varieties for India, focusing on higher yields, resilience, and farmer-friendly traits like mechanization friendly varieties. It also maintains a wild garden preserving the wild pulses accessions ensuring a rich genetic base for prebreeding and future breeding. As the nodal institute, IIPR channels its breeding outputs into the AICRPs on *Rabi* and *Kharif* pulses, where multilocation trials validate performance before varietal release and farmer adoption. A robust network research system is indispensable for advancing pulses research in India, and this is precisely the strength of the Institute, working hand-in-hand with the All India Coordinated Research Projects (AICRPs) on *Rabi* and *Kharif* pulses. Given the diversity of agro-ecological zones, cropping systems, and farmer practices across the country, no single organization can address the challenges of productivity, resilience, and nutritional security alone.

The All India Coordinated Research Projects (AICRPs) on *Rabi* and *Kharif* pulses have been pivotal in advancing India's national pulses research, working in close synergy with the ICAR–Indian Institute of Pulses Research (IIPR), Kanpur. Established originally under the All India Coordinated Pulses Improvement Project in 1967, these networks have evolved into specialized platforms addressing the diverse agro-ecological requirements of chickpea, pigeonpea, mungbean, urdbean, and other pulse crops. The AICRP on *Kharif* pulses focuses on enhancing productivity and resilience of crops grown in the monsoon season, while the AICRP on *Rabi* pulses targets winter-season legumes, ensuring year-round research coverage. Together, IIPR and the AICRPs have released numerous high-yielding, disease-resistant varieties tailored to different regions, expanded cultivation into non-traditional areas, and promoted climate-resilient practices.

The All India Coordinated Research Projects (AICRPs) on *Rabi* and *Kharif* pulses serve as the national testing

and evaluation network for varieties developed. Once promising lines are bred and advanced at IIPR, they are systematically distributed to AICRP centres across diverse agro-climatic zones. Through multilocation trials, these centres rigorously assess the varieties for yield potential, disease and pest resistance, adaptability, and quality traits under local conditions. The coordinated evaluation ensures that only the most stable and superior varieties progress to the stage of varietal identification, followed by official notification and release for farmers' use. This mechanism not only validates the performance of new varieties across India's varied environments but also accelerates their adoption, thereby strengthening national pulses production and contributing to food and nutritional security. Annual group meets of AICRPs have served as vital platforms for reviewing progress, setting research priorities, and fostering collaboration among scientists nationwide including IIPR and universities under NARS system.

By integrating basic, strategic, and applied research, we continue to play a central role in India's mission to achieve self-reliance in pulses production and ensure sustainable agricultural growth. By linking IIPR's cutting-edge breeding and molecular innovations with the field-level evaluations of AICRP centres, India has been able to release 976 of improved varieties (1985-2025), strengthen integrated pest and disease management, and promote climate-resilient cropping systems. The system accelerates varietal release, enhances adoption, and ensures that pulses research translates into tangible gains in productivity, soil health, and nutritional security. In essence, the synergy between IIPR and AICRPs exemplifies how a national research network can transform scientific advances into sustainable agricultural solutions for the country.

India's strength in pulses research lies in its network — with IIPR at the helm and AICRPs across *Rabi* and *Kharif* seasons ensuring that science translates into solutions. Together, they deliver varieties, technologies, and resilience that reach farmers nationwide, turning research into real impact. Through these efforts, IIPR has ensured that India's pulse sector is not only self-reliant in varietal development but also responsive to farmers' needs for climate-resilient, disease-resistant, and high-yielding crops. Its innovations have directly contributed to expanding pulse cultivation into non-traditional regions, improving soil health through pulse-based systems, and enhancing protein availability for millions of households.

(Girish Prasad Dixit)

Published by Director, ICAR-Indian Institute of Pulses Research, Kanpur-208 024
Tel. : 0512-2570264, EPBAX Lines : 0512-2572464, 2572465; Fax : 0512-2572582
E-mail : director.iipr@icar.org.in; gpdixit1966@gmail.com; Website : http://www.iipr.res.in
Printed at : Maheshwari & Sons, 289/214, Moti Nagar, Lucknow-226 004; Mob. : 9721505010