



भा.कृ.अनु.प. - भा.कृ.अनु.सं., झारखंड ICAR - IARI, JHARKHAND

सूचना पत्र | NEWSLETTER

Volume 5 Issue 4

October - December 2025



From Director's Desk

It is my pleasure to present October-December 2025 issue of the ICAR-Indian Agricultural Research Institute, Jharkhand. This quarter has been marked by significant achievements in research, education, extension, and capacity building. The period witnessed strengthened engagement with farming communities, enriched academic exposure for students, and scientific studies contributing to sustainable agricultural development in the Eastern Plateau and Hill region. The institute also remained actively engaged in farmer-centric extension activities. Training programmes on natural farming and soil health, including the observance of *World Soil Day* under the theme '*Healthy Soil, Healthy Cities*', emphasized our focus on sustainable resource management and environmentally responsible farming systems.

On the research front, several studies contributed to advances in crop improvement, soil and water management, food and feed sciences and plant biotechnology. Research on Moderate Electric Field-assisted enzymatic hydrolysis of jackfruit seed starch demonstrated substantial

modification of functional properties, highlighting its potential for value addition and industrial applications.

The institute continued its extensive outreach through the Scheduled Caste Sub Plan (SCSP) and Tribal Sub Plan (TSP), benefiting thousands of marginalized and tribal farming communities across Jharkhand and neighbouring states by large-scale distribution of quality seeds, planting materials, farm tools, and technical training.

Academic activities included induction of the new undergraduate batch through Deeksharambh-2025, successful completion of postgraduate research programmes, and student exposure visits, village attachments, and agro-industrial internships strengthened experiential learning and professional preparedness.

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The institute actively organized and participated in national and institutional events such as World Soil Day, Swachhata Pakhwada, Kisan Samman Diwas, Rashtriya Ekta Diwas and Constitution Day, fostering environmental awareness, social responsibility, and national values across the campus.

We were privileged to host distinguished visitors from national and international institutions, whose interactions with students enriched academic discourse and inspired young minds to pursue innovation, leadership, and global excellence in agriculture.

I extend my sincere appreciation to the faculty, staff, students and editorial team for their dedicated efforts in documenting and achieving these milestones. ICAR-IARI, Jharkhand remains steadfast in its commitment to scientific excellence, farmer empowerment and innovation-driven growth for a resilient and prosperous agricultural future in eastern India.

HIGHLIGHTS

ICAR-IARI organized Kisan Mela under Janjatiya Gaurav Diwas in Hazaribagh

ICAR-Indian Agricultural Research Institute (IARI), Jharkhand organized Janjatiya Gaurav Varsh Pakhwada 2025 from 1-15 November 2025 to commemorate the 150th Birth Anniversary of Bhagwan Birsa Munda with the objective of promoting tribal heritage and empowering tribal communities through agriculture and allied activities. As part of the programme, a Kisan Mela-cum-Kisan Sangoshthi was organised on 13 November 2025 at Daurwa village, Barhi block, Hazaribagh. The event aimed to enhance awareness among tribal farmers, promote scientific farming practices, and strengthen institutional linkages. Shri Anand Sharma, IAS, Hazaribagh, graced the occasion as Chief Guest and encouraged farmers to adopt modern technologies innovation, and effective use of government schemes for sustainable development. An Agriculture exhibition showcased climate-resilient crop varieties, soil health management, livestock technologies, bio-fertilizers, and value-added products. Scientists conducted interactive sessions on crop production, soil and nutrient management, climate-resilient agriculture, pest and disease management, livestock rearing, millet cultivation and agro-entrepreneurship. Farmers' queries were addressed during an open discussion. The institute also expressed its intent to adopt Daurwa village for focused livelihood and income-generation interventions. The programme witnessed participation of over 200 farmers and concluded with the distribution of vegetable seed kits, reaffirming ICAR-IARI's commitment to inclusive tribal development.



चौपारण संख्या दैनिक संख्या बरही : आश - पश 13/11/25 05

जनजातीय गौरव वर्ष पखवाड़ा पर भव्य किसान मेला आयोजित

किसानों के वैज्ञानिक खेती व पशुपालन के साथ अर्थोपार्जन में सहायक होगा यह मेला : आईएएस आनंद शर्मा

चौपारण संख्या

जयदीप सिन्हा

बरही : जनजातीय पखवाड़ा वर्ष के मौके पर भारतीय कृषि अनुसंधान परिषद व संस्थान गौरिया करमा ने खोडार पंचायत के जनजातीय बहुल गांव दौरवा में भव्य किसान मेला का आयोजन किया, जिसका मुख्य उद्देश्य किसानों के लिए ज्ञान, अनुभव और उत्तम कृषि व अर्थोपार्जन के लिए प्रेरित करना था, जिसमें लगभग 400 किसान शामिल हुए।

मेला का शुभारंभ मुख्य अतिथि आनंद शर्मा (आईएएस, हजारीबाग) ने दीप प्रज्वलित कर किया, मुख्य अतिथि ने इस प्रकार के आयोजन को उन्नत खेती और सशक्त किसान के लिए अनिवार्य बताया, उन्होंने कहा कि इस प्रकार के आयोजन किसानों को वैज्ञानिक खेती व पशुपालन से संबंधित नवीन तकनीकों की जानकारी में सहायक होते हैं। कार्यक्रम ओएसडी वरिष्ठ कृषि वैज्ञानिक डॉ. विशाल नाथ पांडेय के निर्देशन व नॉडल अधिकारी कृषि वैज्ञानिक डॉ. पंकज कुमार सिन्हा व डॉ. शिल्पी केरकेटा के देखरेख में हुआ, जिसका संचालन कैम्पस इंचार्ज डॉ. एस.के. महंता ने किया।

उपस्थित किसानों को संस्थान के ओएसडी डॉ. पांडेय सहित कृषि वैज्ञानिक डॉ. मनोज चौधरी, डॉ. दीपक गुप्ता, डॉ. कृष्णा प्रकाश, डॉ. नरेंद्र कुमार,



डॉ. आशा कुमारी आदि कई प्रतिष्ठित विशेषज्ञों ने किसानों को कृषि व पशुपालन से संबंधित कई महत्वपूर्ण जानकारियां दीं, किसानों को उन्नत बीजों, जैविक खादों,

फसल चक्र, जलवायु अनुकूल खेती और टिकाऊ कृषि के उपायों के बारे में विस्तार से बताए गए, वैज्ञानिकों ने बताया कि आधुनिक तकनीक और वैज्ञानिक पद्धति से खेती करने

पर उत्पादन में वृद्धि के साथ किसानों की आय भी बढ़ाई जा सकती है, कार्यक्रम में किसानों ने विशेषज्ञों से सीधे संवाद कर अपनी समस्याओं का समाधान प्राप्त किया, मेला ने यह संदेश दिया कि जब प्रशासन, वैज्ञानिक संस्थान और किसान मिलकर काम करते हैं, तो कृषि क्षेत्र में आत्मनिर्भरता और समृद्धि की दिशा में ठोस बदलाव संभव है, यह किसान मेला जनजातीय गौरव वर्ष पखवाड़ा की भावना को साकार करते हुए किसानों के सशक्तिकरण की दिशा में एक महत्वपूर्ण कदम था, कार्यक्रम आयोजन में पूर्व मुखिया बिना उरांव, एफपीओ निदेशक संजय साव, मजन उरांव और राजू तिळी का सहयोग प्राप्त है, जिसमें बीटीएम राकेश कुमार, अरुण कुमार, राहुल कुमार, विकास कुमार और सत्यम कुमार ने तकनीकी रूप से सहयोग दिया।

प्रिय पाठकों आप अपनी खबर हमें उपर लिखे नम्बरों पर भेजे हम आपकी खबर को प्रकाशित करने का भरपूर प्रयास करेंगे

RESEARCH

Identification and expression profiling of phosphate transporter genes in pigeon pea

Phosphate transporter (PHT) genes play a crucial role in phosphorus (Pi) uptake and transport in plants and represent valuable genetic resources for crop improvement, particularly under acid soil conditions. To identify phosphorus transporter genes in pigeon pea, a genome-wide search was carried out using PHT-family Pfam IDs, based on the five PHT gene families reported in *Arabidopsis*. Potential orthologs were identified through standalone reciprocal BLAST analysis using the local NCBI BLAST tool against the annotated pigeon pea genome available in the LIS database, followed by HMM-based searches to eliminate false positives. This approach resulted in the identification of 304 putative PHT gene orthologs in pigeon pea, of which 229 genes were selected for further analysis by considering a single transcript per gene. Among these, 120 genes belonged to Pfam 00083, 88 to Pfam 00153, one gene to Pfam 01384, 12 genes to Pfam 03105, and eight genes to Pfam 03124. Additionally, gene expression datasets were analyzed to pinpoint candidate PHT genes exhibiting dynamic expression patterns during the vegetative-to-reproductive transition, which were prioritized for further functional characterization and profiling.

(Sougata Bhattacharjee, Seshathri V, Rakesh Bhowmick, Anima Mahato and Omkar Limbalkar Dipak Gupta)

Effect of moderate electric field-assisted enzymatic hydrolysis on functional properties of jackfruit seed starch

Moderate Electric Field (MEF) assisted α -amylase treatment significantly modified the functional and storage properties of jackfruit seed starch, with notable effects on pasting behaviour, rheology, and water activity. RVA analysis (Fig. a) showed a marked reduction in peak viscosity from native starch (104.8 RVU) to MEF-treated starch (16.3 RVU), indicating controlled depolymerization. Lower final, breakdown, and setback viscosities reflected improved thermal stability, reduced amylose reassociation, and decreased retrogradation, supporting enhanced shelf-life and suitability for instant foods, beverages, and smooth-texture applications. Rheological evaluation (Fig. b) confirmed non-Newtonian, shear-thinning behaviour across treated samples, with MEF intensity reducing consistency and increasing shear sensitivity. These changes improved flow characteristics, facilitating easier mixing, pumping, and industrial processing through enhanced molecular mobility and reduced resistance to flow. Water activity analysis (Fig. c) demonstrated that moderate MEF levels increased starch hydration, while higher field strength (35 V/cm) reduced water activity due to moisture expulsion and partial recrystallization. Optimized water activity values indicate improved storage stability and reduced microbial risk. Overall, MEF-assisted enzymatic treatment enables precise control of starch functionality, positioning jackfruit seed starch as a value-added ingredient for food and biopolymer applications.

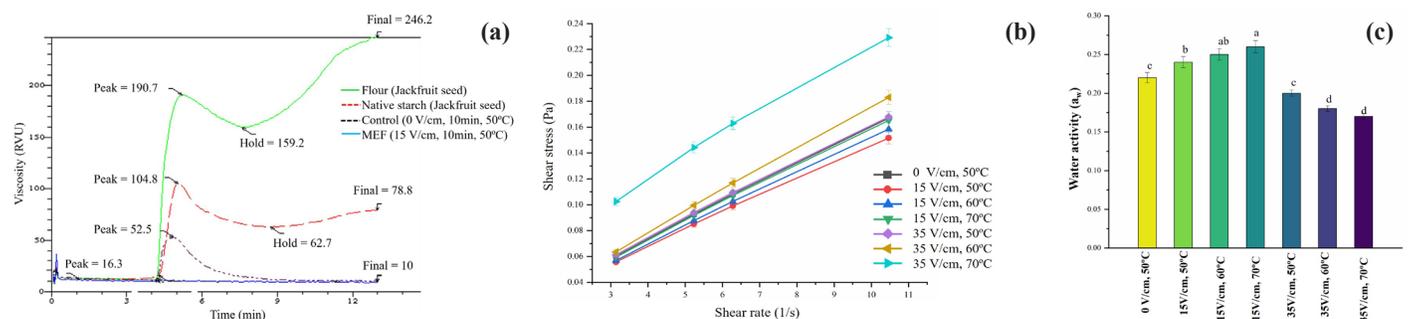


Fig. a) Pasting profiles of jackfruit seed flour, native starch, and starch samples treated with Alpha-Amylase (Control) and MEF-Assisted Alpha-Amylase (15 V/Cm, 10 Min, 50°C) b) Relationship between shear stress and shear rate as a function of electric field and temperature of treated starch c) Water activity (a_w) of starch samples as a function of electric field strength and treatment temperature

(Ranjit Singh)

Identification, characterization and documentation of local goat genetic resources in Jharkhand: a baseline study

Baseline surveys and data analysis initiated in selected districts of Central and North Eastern Plateau sub-zone to document goat population structure, production systems, and management practices. For this in Hazaribagh district two blocks were selected *i.e.*, Barhi and Katkamsandi. From each block five villages (Gauriakarma-Kheron, Kedaruth, Daurwa Kundwa, Malkoko and Karso) having population of local goats targeted for characterization were selected.

From different villages a minimum of 50 samples were collected for study. Phenotypic (morphological) characterization of local goats was carried out including body weight, coat colour, height etc. Delineation and geo-mapping of breeding tracts of indigenous goat populations also started to understand their spatial distribution and habitat. Based on this a comprehensive database will be developed through standardized data recording formats for documentation and future breed registration and conservation planning.

(Shilpi Kerketta, S. K. Mahanta, Pankaj Kumar Sinha, B. N. Mandal, Vandana Yadav and Kannaka)



Timely dissemination of ICT-based, location-specific animal advisory services for livestock farmers of Jharkhand

As part of the ongoing research activities, extensive fieldwork completed leading to the successful collection of primary livestock-related data from three agro-climatic zones of Jharkhand. Analysis of the collected data enabled identification and prioritization of region-specific livestock challenges, which guided the development of ICT-based, location-specific advisory services. To ensure timely, farmer-friendly dissemination of these advisories, multiple ICT platforms are being developed and piloted, including:

- A dedicated YouTube channel for dissemination of video-based livestock advisories;
- WhatsApp groups and broadcast channels for real-time information sharing; and
- A radio podcast platform to deliver audio-based advisories in local dialects.

These ICT-enabled interventions aim to strengthen last-mile connectivity and ensure the prompt delivery of accurate, actionable information to livestock farmers, thereby enhancing productivity and improving animal health and management practices. Following the identification and prioritization of region-specific livestock challenges, advisory scripts have been prepared, and their recording is in progress for dissemination through multiple ICT platforms.

(Shilpi Kerketta, S. K. Mahanta, Pankaj Kumar Sinha, Vandana Yadav, B.N. Mandal, Abhay Kumar Giri and P. M. Nuzaiiba)

EDUCATION

Education/Academic Activities/Students' Visits

Deeksharambh-2025: A Vibrant Beginning for the New UG Batch at ICAR-IARI Jharkhand

The academic year 2025 - 26 marked a significant milestone for ICAR-IARI Jharkhand with the admission of 60 undergraduate students (24 girls and 36 boys) from 12 states through ICAR-NTA CUET. Admissions were conducted during 26-27 November 2025, followed by Deeksharambh-2025, a 14 - day orientation-cum-induction programme held from 28 November to 11 December 2025, in accordance with the ICAR 6th Dean

Committee recommendations. The programme aimed to facilitate a smooth academic transition and familiarize students with the Institute's vision, mandates, and expectations. It began with inaugural addresses by the Campus-in-Charge, Academic Coordinator, UG Coordinator, CAO-cum-Registrar, In-Charge (IDC), and the Comptroller. An interactive ice-breaking session conducted by the Associate Dean (UG) and Controller of Examination on 28 November helped students build confidence and enthusiasm. The Director and Vice-Chancellor, ICAR-IARI Jharkhand, along with the Dean & Joint Director (Education), interacted with



students virtually on 3 December 2025, motivating them towards excellence in agricultural education and research. The programme was further enriched by virtual lectures jointly organized with IARI, New Delhi on 2-3 December 2025, by eminent personalities such as Padma Bhushan Dr. R. A. Mashelkar, Former Director General, CSIR, and Mr. Hemendra Mathur, Chairman, FICCI Task Force on Agri Start-ups and Co-founder of ThinkAg. Expert talks at IARI Jharkhand by Dr. Bablee Kumari Singh (Scientist, ICFRE-IFP, Ranchi), Mr. Havyas Kudupaje (Co-founder, Beegle Agritech and Agriproducts Pvt. Ltd.), and Dr. Vikash Kumar (Vice President (Risk), Tata Capital

Ltd.) exposed students to emerging opportunities in research, innovation, entrepreneurship, and agri-business, making Deeksharambh-2025 a meaningful and inspiring start to their academic journey.

Deeksharambh-2025: Holistic orientation and student engagement at ICAR-IARI Jharkhand

Beyond academics, Deeksharambh-2025 emphasized holistic student development through team-building activities, personality development exercises, cultural programmes, SWOT analysis, and group discussions. Special sessions on career opportunities in agriculture, entrepreneurship, goal setting, time and stress management, and financial literacy equipped students with essential life and professional skills. Exposure visits to institutions in Hazaribagh district, including ICAR-CRRI RS (CRURRS) on 9 December 2025, provided practical learning opportunities and interaction with scientists. Students were oriented to the four-year UG curriculum, institutional facilities, academic regulations, fellowship norms, POSH Act provisions, anti-ragging measures, and student welfare committees. Each student was assigned a scientist - mentor for continuous guidance. Participation in the Swachhata Mission, exposure to NSS activities, and weekend sports events fostered social responsibility, well-being, and enthusiasm. The programme concluded on 11 December 2025 with closing remarks by the Academic Coordinator, leaving students motivated, informed, and ready to begin their academic journey at ICAR-IARI Jharkhand.

Students READY Programme of UG students

The UG 4th year batch (2022-26) comprising 54 students, successfully underwent KVK/Village Attachment Programme (under RAWE curriculum) at KVK Ramgarh and adjoining villages from 22nd September to 14th November



2025. The programme provided hands-on exposure to farming systems, extension activities, and rural livelihood practices. This was followed by a one-month Agro-Industrial Attachment-cum-Internship programme conducted at various agro-industrial organizations across different parts of the country (16th November to 15th December), enabling students to gain practical insights into agribusiness operations, processing, and industrial exposure, thereby strengthening their professional competencies and employability.



EXTENSION AND OUTREACH ACTIVITIES

SCSP Activities of IARI Jharkhand

A. Input distribution under SCSP

Under Scheduled Caste Sub plan project of IARI Jharkhand, during the three months period, improved quality Rabi crop seeds, plant saplings and small farm tools have been distributed free of cost among the selected farmers belonging to schedule caste. During October to December 2025, a total of 139 tonnes of rabi crop seeds which includes approx. 1150 Q wheat seeds, 95 Q of lentil seeds, 73 Q mustard seeds, 80 Q chickpea seeds, 10 Q pea seeds, 250 kgs onion seeds and 11000 nos. of vegetable seed kits were distributed among more than 10,000 scheduled caste farmers. In addition, 1100 small farm tools and 250 fruit plant saplings were distributed among more than 300 selected beneficiaries. These beneficiaries belong to 14 blocks of Hazaribagh district, three blocks of Koderma, two blocks each of Chatra, Dhanbad and Bokaro district of Jharkhand and two blocks of Badh and Patna District of Bihar.



भारतीय कृषि अनुसंधान संस्थान गोरिया करमा ने किसानों को मुफ्त में दिया बीज

फ्रीडम फाइटर संवाददाता

चरही : भारतीय कृषि अनुसंधान संस्थान गोरिया करमा, के द्वारा बड़ी फल सब्जी प्रोड्यूसर कंपनी चुरचू की ओर से अनुसूचित जाति उप परियोजना के अंतर्गत रबी फसल वर्ष 2025 के लिए एससी जाति के लिए प्रखंड चुरचू के हेंदेगड़ा पंचायत के गांव में किसानों के बीच गेहूँ, सरसों, चना, मसूर और सब्जी के उन्नत किस्म के बीज मुफ्त में शनिवार की वितरण किया गया। प्रखंड में हेंदेगड़ा पंचायत से जुड़े लगभग हर गांव से किसान



एकत्रित हुए और उनको खेती विस्तृत जानकारी दी गई। यह गोरिया करमा के वैज्ञानिक के नए तकनीकी के बारे में कार्यक्रम आईसीएआर कृष्ण प्रकाश, ए स पांडे के

नेतृत्व में चलाया जा रहा है। बीज अधिकारी डा. कृष्ण प्रकाश, चुरचू बाड़ी फल सब्जी के डीरेक्टर फुलेश्वर महतो, रोहित महतो, छत्रधारी महतो हेन्देगड़ा पंचायत मुखिया गिरजा कुमारी, पंचायत समिति सदस्य मालती देवी, नरेश कुमार महतो, बिनोद महतो सरजू कुमार महतो, पवन कुमार इस कार्यक्रम का रबी फसल के गेहूँ, सरसों, चना, मसूर एवं सब्जी बीज किट किसानों को उपलब्ध कराया। इसे उन्नत किस्म के बीज बताया है और उपज के बाद इसको अगले वर्ष के लिए भी बीज रख सकते हैं।

B. Kisan Goshthi-cum-Seed Distribution program at farmer's village

To make the scheduled caste farmers familiar with the new technologies and train them, 20 nos. of Kisan Goshthi-cum-Seed Distribution programs were organised at various places as listed below. Direct input supply to the needy farmers helped in enhancing their income through input-cost saving and an increase in farm production of scheduled caste farmers, as recorded during the visits of scientists for monitoring the farmers' fields, seed distribution and feedback from the farmers.

Programme: Seed Distribution and Training on Scientific Cultivation of Rabi among Scheduled Caste Farmers (15 October-15 December, 2025)

Programme Coordinator: Dr. Krishna Prakash (Nodal Officer, SCSP) assisted by SCSP Committee

S. No.	Date	Places	Block/ district	Resource persons
1	17.10.2025	Gurhet	Sadar	Dr. Asha Kumari, Mr. Arun Kumar Rajak
2	30.10.2025	Rasoia Dhamna, Puhara, Bendagi	Barhi	Mr. Arun Kumar Rajak
3	01.11.2025	Bahera, Ratanpur, Belkhara, Nagwa	Chauparan	Dr. Krishna Prakash, Dr. Dipak K. Gupta, Mr. Shantesh Kamath
4	04.11.2025	Kariyatpur, Malkoko, Rohania	Barhi	Dr. Asha Kumari, Mr. Arun Kumar Rajak
5	07.11.2025	Pipradih, Ome, Peto	Badkagaon, Keredari	Dr. Asha Kumari, Mr. Akash A. Mr. Arun Kumar Rajak
6	08.11.2025	Sewai Khurd	Mayurhand	Dr. Manoj Chaudhary, Mr. Arun Kumar Rajak
7	10.11.2025	Medhkuri, Digwar	Daru	Dr. Krishna Prakash
8	10.11.2025	Godhiya, Bedmakka, Nawada, Banaso	Bishnugarh, Tatijhariya	Dr. Krishna Prakash, Dr. Prabhat Guru, Dr. Asha Kumari, Dr. Saheb Pal
9	12.11.2025	Beram	Tatijhariya	Dr. Kashinath G Teli, Dr. Priti Tigga
10	12.11.2025	Koderma KVK	Jainager, Koderma, Bhagandih	Dr. Pankaj Kr. Sinha, Mr. Shantesh Kamath, Mr. Arun Kumar Rajak
11	14.11.2025	Bandachak	Chandwara	Mr. Arun Kumar Rajak
12	14.11.2025	Chatra KVK	Chatra, Kullu	Dr. Pankaj Kr. Sinha, Dr. Ranjit Singh, Mr. Arun Kumar Rajak
13	15.11.2025	Ramgarh KVK	Udlu	Dr. Pankaj Kr. Sinha, Mr. Arun Kumar Rajak
14	16.11.2025	Bokaro KVK, Nawadiah	Bokaro	Dr. Vishal Nath, Dr. Krishna Prakash
15	17.11.2025	Lonhri, Jalundh, Ashiya	Ichak	Dr. Himani Priya, Dr. Vandana Yadav, Mr. Arun Kumar Rajak
16	18.11.2025	Karma, Bahera, Basariya	Chauparan	Dr. Ranjit Singh, Mr. Arun Kumar Rajak
17	24.11.2025	Dhanbad Kvk	Dhanbad	Dr. Vishal Nath, Dr. Krishna Prakash
18	26.11.2025	Badh, Patna	Badh, Patna	Dr. Krishna Prakash
19	15.12.2025	Pakariya	Mayurhand	Mr. Arun Kumar Rajak
20	30.12.2025	Basariya	Chaupran	Mr. Arun Kumar Rajak

Activities under Tribal Sub Plan of IARI Jharkhand

A. Training and input distribution program

As part of the Tribal Sub-Plan (TSP), ICAR-Indian Agricultural Research Institute (ICAR-IARI) is actively working to enhance the socio-economic status of tribal farmers by increasing farm income through improved agricultural productivity. Under this initiative, a Farmer's Training-cum-Seed Distribution Programme on 'Improved Agricultural Practices for Rabi Crops' was organized. Additionally, Scheduled Tribe (ST) beneficiaries from various villages of Bishnugarh, Barhi, Tatijhariya, Barkatha, Chauparan, Daru, Sadar, Katkamsandi, Ichak, Dadi and Churchu blocks of Hazaribagh district; Giddhour block of Chatra district; and selected blocks of Khunti, Ranchi and Simdega district, received technical training on Rabi crop cultivation practices. Overall, 1429 farmers benefited from these programmes. Post-training, seeds of Wheat (48.75 quintal), Mustard (20 quintal), Lentil (19.61 quintal), Chickpea (24.46 quintal) and Vegetable (1029 packets) were distributed as handholding support to encourage adoption of improved practices, thereby promoting sustainable livelihoods and agricultural development among tribal farming communities.



सीएसी चौपारण एफपीओ के माध्यम से अनुसूचित जनजाति किसानों को रबी फसल बीज का निःशुल्क वितरण

न्यूज़ 10 भारत/संवाददाता

चौपारण भारतीय कृषि अनुसंधान संस्थान (आईसीएआर) गौरियाकरमा द्वारा अनुसूचित जाति श्रम परियोजना के तहत रबी फसल वर्ष 2025 के लिए चौपारण प्रखंड के विभिन्न गांव-चोदहा, जगोडीह, कर्मा, गंगाआहार आदि में लगभग 100 अनुसूचित जनजाति किसानों के बीच उन्नत किस्म के बीज निःशुल्क वितरित किए गए। वितरित बीजों में गेहूँ, चना, सरसों, मसूर तथा सफ़ी बीज शामिल थे। बीज वितरण कार्यक्रम में सीएसी चौपारण एफपीओ के निदेशक दीपक कुमार, सावित्री कुमारी, संजय साव, धनेश्वर साव तथा सीईओ कैलाश साव ने महत्वपूर्ण भूमिका निभाई। कार्यक्रम में चौपारण प्रखंड के विभिन्न आदिवासी बहुल गांवों के किसान बड़े उत्साह के साथ उपस्थित हुए। किसानों को आधुनिक कृषि तकनीक और रबी फसल प्रबंधन के बारे में विस्तृत जानकारी दी गई। तकनीकी मार्गदर्शन आईसीएआर



गौरियाकरमा के परिसर प्रभारी डॉ. सनत कुमार महंता, डॉ. विशाल नाथ, डॉ. शिल्पा केकेट्टा, प्रखंड कृषि पदाधिकारी मुकुंद हंस, डॉ. रणजीत सिंह, तकनीकी अधिकारी अरुण कुमार रजक व बदल कुमार द्वारा प्रदान किया गया। आईसीएआर के वैज्ञानिकों ने किसानों को बताया कि वितरित किए गए सभी बीज उन्नत किस्म के हैं और उपज के बावद किसान इन बीजों को अगले वर्ष के लिए भी सुरक्षित रख सकेंगे। वैज्ञानिकों ने वैज्ञानिक पद्धति से खेती करने, बीज उपचार, उर्वक प्रबंधन, कीट निवृत्तन और उत्पादन बढ़ाने के उपाय भी साझा किए। प्रति आभार व्यक्त किया।



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हजारीबाग 08

आईसीएआर गौरियाकरमा के द्वारा जनजातीय किसानों के लिए रबी बीज वितरण एवं प्रशिक्षण कार्यक्रम सम्पन्न

आईसीएआर के 90 अनुसूचित जाति किसानों को रबी फसल के बीज वितरित किया गया। किसानों को रबी फसल के बीज वितरित किया गया। किसानों को रबी फसल के बीज वितरित किया गया।

B. Kisan Gosthi under TSP

Kisan Gosthi was organized in farmers' villages, and direct input supply to needy Tribal farmers significantly contributed to enhancing their income through increased agricultural productivity. This impact was recorded during scientists' field visits for monitoring crop performance, seed distribution, and collection of farmers' feedbacks. The efforts of the institute in supplying quality seeds under the tribal sub plan (TSP) were highly appreciated by the beneficiary farmers. There is a strong demand for quality seeds of various crops across all seasons, reflecting the effectiveness and acceptance of the intervention.



S.D.O. (Barhi), was the Chief Guest for the event. The dignitaries emphasized the adoption of scientific farming practices, integrated farming systems, and biodiversity conservation for sustainable and self-reliant agriculture. Progressive farmers were felicitated for excellence in crop diversification, nursery management, and integrated farming. Technical sessions by IARI -Jharkhand scientists covered seed production, vegetable cultivation, livestock and fisheries, soil and water conservation, and biofertilizer use. The programme concluded with the distribution of vegetable seed kits to promote nutrigardening and nutritional security in Jharkhand.



Live viewing of 21st instalment of PM-KISAN at IARI Jharkhand

ICAR-Indian Agricultural Research Institute (IARI), Jharkhand, organized a live viewing of the 21st instalment of the PM-KISAN Samman Nidhi Scheme, benefiting over 150 farmers, including 82 women farmers, from nearby villages. The programme formed part of a nationwide initiative to enhance farmer welfare through direct engagement and awareness. Smt. Meera Kumari, Mukhya of Gauriakarma village, graced the occasion and emphasized timely institutional support, sustainable farming practices, and inclusive development for small and marginal farmers. The live telecast connected farmers with national policy updates and success stories, while on-site registration and awareness sessions helped resolve queries related to PM-KISAN benefits. Technical sessions by IARI scientists on quality seed production, biofertilizers, soil health, value addition, and scientific goat farming were also conducted. The programme concluded with the distribution of quality seeds for the rabi season to enhance farm productivity.



Swachhata Pakhwada Celebrated at ICAR-IARI, Jharkhand

ICAR-IARI Jharkhand observed Swachhata Pakhwada from 16th to 31st December 2025 with active participation of students, staff, and stakeholders, reinforcing the importance of cleanliness, sustainability, and resource efficiency. Key activities included a waste-to-wealth demonstration, showcasing composting and vermicomposting of crop residues and conversion of hostel food waste into useful resources. Cleanliness and sanitation drives were conducted across the campus, nearby residential areas, and local markets to promote waste segregation and hygiene awareness. A plantation drive and campaigns against single-use plastics encouraged eco-friendly practices. Shramdaan activities were organized at nearby community spaces, including a temple and Anganwadi, enhancing sanitation and community engagement. The initiative strengthened collective responsibility and fostered a culture of cleanliness, environmental stewardship, and sustainable living.





Rashtriya Ekta Diwas celebration at ICAR-IARI, Jharkhand

Rashtriya Ekta Diwas (National Unity Day) is celebrated every year on 31st October to commemorate the birth anniversary of Sardar Vallabhbhai Patel, the ‘Iron Man of India’. The day highlights the importance of national integration, unity, and security. ICAR-IARI, Jharkhand organized various activities to pay tribute to his remarkable contribution in unifying the nation.

The programme commenced at 31/10/2025 (Friday) with a brief introduction about the significance of Rashtriya Ekta Diwas. All students, faculty members, and staff took the Rashtriya Ekta Diwas Pledge, reaffirming their commitment to preserving the unity, integrity, and security of the nation. A total of 40 students and 30 staff members took part in the programme. Their enthusiastic involvement contributed to the success of the event.



Constitution Day celebration at ICAR-IARI, Jharkhand

Constitution Day, also known as Samvidhan Divas, was celebrated with great enthusiasm at ICAR-Indian Agricultural Research Institute (IARI), Jharkhand on 26th November 2025. The event aimed to highlight the significance of the Constitution of India, honour the vision of Dr. B. R. Ambedkar, and promote awareness about constitutional values among permanent staff, contractual workers and students. The programme began with the collective reading of the Preamble to the Constitution by all staff members and students. The oath reinforced commitment towards justice, liberty, equality, and fraternity. Participants took a pledge to follow the Fundamental Duties and contribute positively towards society and the nation. The Campus Incharge, ICAR-IARI Jharkhand addressed the gathering, emphasizing on the historic significance of 26th November 1949, the role of Indian Constitution in safeguarding citizens’ rights and contribution of agriculture institutions towards national development. A short lecture was delivered to students by faculty members on evolution and framing of the Constitution, key features such as federal structure, fundamental rights, and directive principles and relevance of constitutional values in agricultural research, extension, and rural development. The programme saw active participation from staffs and students of Institute.



IARI-Jharkhand organized World Soil Day-cum-Farmers’ Training programme

World Soil Day-cum-Farmers’ Training Programme was organized on 05 December 2025 at ICAR-Indian Agricultural Research Institute (IARI), Gauriakarma, Hazaribagh, under the theme ‘Healthy Soil, Healthy Cities’. The programme was conducted in the presence of the local village Mukhiya and institutional representatives. The programme highlighted

IARI-Jharkhand organized ATMA, Banka (Bihar) sponsored five-day farmers’ training programme

ICAR-Indian Agricultural Research Institute (IARI), Gauriakarma, Hazaribagh, Jharkhand, organized a five-day farmers’ training programme on ‘Natural Farming for Sustainable Agriculture and Healthy Soils’ from 15-19 December 2025. The programme was sponsored by the Agricultural Technology Management Agency (ATMA), Banka, Bihar. Seventeen farmers, along with Mr. Ranjan Kumar, Assistant Technical Manager, ATMA, Banka, participated in the capacity-building initiative. Experts involved in training, highlighted the challenges of chemical-intensive agriculture and emphasized natural farming as a sustainable alternative for improving soil health, environmental quality, and farm profitability. The training covered soil health management, natural nutrient sources, bio-input preparation, crop diversification, pest and disease management, mechanization, and field and industrial visits to research and demonstration farms, combining scientific principles with practical applications. The programme reinforced natural farming as a low-input, eco-friendly approach for enhancing soil resilience and ensuring sustainable agricultural livelihoods.



हजारीबाग 23

प्राकृतिक खेती से सुधरेगी भूमि की सेहत और किसानों की आय : एस. के. महंता

टिकाऊ कृषि एवं स्वस्थ मृदा हेतु प्राकृतिक खेती पर पांच दिवसीय किसान प्रशिक्षण कार्यक्रम का उद्घाटन

संस्था प्रवर्ती : प्रवर्ती महंता, डॉ. विशाल आरुणिएश्वर भारतीय कृषि अनुसंधान संस्थान (आरुणिएश्वर), गौरीकुसुमा, हजारीबाग, झारखंड में हुआ। इस कार्यक्रम को एपीकएनएल टेक्नोलॉजी मैनेजमेंट एजेंसी बंका, बिहार द्वारा प्रायोजित किया गया है और यह 15 से 19 दिसंबर 2025 तक आयोजित किया जा रहा है। इस क्षमता-विकास पहल में बिहार के 17 किसान प्रतिभागियों को आमंत्रित करने के लिए एस. के. महंता ने कृषि में आर्थिक उपयोग से नए समाधान के रूप में प्राकृतिक खेती को प्रोत्साहित करने के लिए एक कार्यक्रम का आयोजन किया।

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यंत्रिकरण और अनुसंधान एवं प्रदर्शन के माध्यम से प्राकृतिक खेती को प्रोत्साहित करने के लिए एक कार्यक्रम का आयोजन किया गया है, जिसमें मिट्टी की स्वस्थता को बढ़ावा देने के लिए प्राकृतिक खेती के लाभों पर चर्चा की जाएगी। इस कार्यक्रम का उद्घाटन कार्यक्रम में प्राकृतिक खेती के प्रति प्रतिबद्धता को प्रोत्साहित करने के लिए प्राकृतिक खेती के लाभों पर चर्चा की जाएगी। इस कार्यक्रम का उद्घाटन कार्यक्रम में प्राकृतिक खेती के प्रति प्रतिबद्धता को प्रोत्साहित करने के लिए प्राकृतिक खेती के लाभों पर चर्चा की जाएगी।

Awards and Recognitions

Sl. No.	Name & Designation	Events/ Recognition	Brief details	Date & Venue
1	Dr. B. N. Mandal, Principal Scientist	Invited Lecture	Delivered Invited Lecture on “Design of Experiments” via online mode in 10-Days Winter School on “Data Driven AI and Analysis using SPSS & R”	11 Dec 2025, organized by Society for Agricultural Research, Applied Technology and Environmental Sciences with International University of Business Agriculture and Technology (IUBAT), Bangladesh, KaruSphere Laboratory, Guadeloupe and Yuga State University, Russia.
2	Dr. Saheb Pal	External Expert	Served as External Examiner for M.Sc. (Ag.) Horticulture thesis evaluation and viva-voce examination.	21 Nov 2025, Birsa Agricultural University, Kanke, Ranchi
3	Dr. Shilpi Kerketta	Expert Panel Member	Served as panel expert for Director recruitment (Dairy Development; Advt. No. 07/2023).	07 Nov 2025
4	Mr. Akash A.	Best Oral Presentation Award	Awarded Best Oral Presentation for the paper titled ‘GWAS Revealed Distinct Genetic Architecture of Natural and Artificial Ageing in Soybean’	02 Nov 2025, National Conference on Advances in Climate-Conscious Crop Science: Genetics, Genomics and Breeding

Seminar/Symposium/Conferences attended

- **Dr. Shilpi Kerketta** attended three days International Conference on Sustainable Innovation in Agriculture, Veterinary and Allied Sciences scheduled to be held on 29-31st December, 2025 through Hybrid Mode organised by University of Agricultural Sciences, Raichur, Karnataka and National Agriculture Development Cooperative Ltd., Bramulla, J&K.
- **Dr. Mukesh Kumar Tiwari**, participated presented a research paper entitled “Integrating RUSLE, Remote Sensing, and Machine Learning for Soil Erosion Risk Assessment in a Selected Watershed of the Chota Nagpur Plateau, India”, in the 59th Annual Convention of the Indian Society of Agricultural Engineers (ISAE) and the International Symposium on “Mechatronics and Robotics in Pre- and Post-Production Agriculture”, jointly organized by ISAE, New Delhi, and ICAR-Central Institute of Agricultural Engineering (ICAR-CIAE), Bhopal, during 10-12 November 2025.
- Dr. Mukesh Kumar Tiwari, acted as Rapporteur during the 59th ISAE Annual Convention and International Symposium on Mechatronics and Robotics in Pre- and Post-Production Agriculture (10-12 November 2025), jointly organized by ISAE and ICAR-CIAE, Bhopal.
- **Singh N., Sharma R. M., Dubey A. K., Awasthi O. P., Saha S., Bharadwaj C., Sevanti A. M., Sharma N., and Kumar, A.** 2025. Citrus improvement for fruit quality and enhanced nutritional values through interspecific hybridization (*Citrus maxima* [Burm. f.] Osbeck × *Citrus sinensis* [L.] Osbeck). *National Citrus Symposium, 2025, Jalgaon, India.*



Distinguished visitors at ICAR-IARI, Jharkhand

- On 23 October 2025, a distinguished team of scientists visited ICAR-IARI, Jharkhand. The delegation included:
 - Dr. A. R. Sharma, Former Director, ICAR-Weed Research Institute, Jabalpur, and Former Director of Research, Rani Lakshmi Bai Central Agricultural University (RLBCAU), Jhansi, Uttar Pradesh.
 - Dr. Biswajit Mandal, Head, Social Science Division, ICAR-CRRI, Cuttack.
 - Dr. Pratap Bhattacharjee, Head, Crop Production Division, ICAR-CRRI, Cuttack.
 - Dr. N. P. Mandal, In-charge, Central Rainfed Upland Rice Research Station (CRURRS) - CRRI, Hazaribagh, Jharkhand.

The purpose of their visit was to interact with scientists and explore avenues for meaningful collaboration with ICAR-CRRI, Cuttack. During discussions, the delegation advised the institute to prioritize the research directions, includes efficient utilization of water resources, promotion of double cropping and increased cropping intensity, advancement of improved mechanization, crop diversification, with emphasis on oilseeds and pulses, integrated farming systems, farmer-centric research approaches and refinement of micro-irrigation technologies. They also suggested renewed efforts to reinstate the Postgraduate Programme at IARI Jharkhand, aligning academic growth with regional needs.



2. Dr. N. K. Singh, Professor at GBPUAT, Pantnagar and Chairman of the AICRP Monitoring Team, visited ICAR-IARI, Jharkhand on 16 October 2025 during the team's evaluation of maize trials at the institute. On this occasion, Dr. Singh delivered a special lecture on the topic, Pre-breeding and Direct Breeding Using Wild Relatives in Maize Improvement. Dr. Singh emphasized the critical role of wild relatives in strengthening genetic diversity, enhancing resilience against stresses, and advancing maize improvement strategies. His insights provided valuable direction for ongoing and future research initiatives at the institute. This academic interaction enriched the monitoring team's visit, combining evaluation with knowledge-sharing and fostering collaborative growth in maize research.



3. Dr. Gaurav Jha, Assistant Professor at Kansas State University, United States, visited IARI Jharkhand and delivered a keynote address to the newly admitted undergraduate students (AY: 2025-26) on 4th December 2025. In his talk, he emphasized the future of agriculture with special reference to



precision farming, digital technologies, and data-driven decision-making, inspiring students to adopt innovation-driven approaches for sustainable agricultural development. He also inspired the students by sharing insights on pursuing higher studies and exploring opportunities in advanced agricultural research and education abroad, motivating them to aim for global excellence in the field of agriculture.

4. Dr. Awani Singh, Head, FSRCHPR, ICAR-RCER, Plandu, Ranchi and Dr. Sudhanshu Shekhar, Head, KVK Ramgarh (ICAR-RCER) visited IARI Jharkhand on 10th December 2025. During their visit, they interacted with the newly joined undergraduate students and delivered insightful sessions on life lessons, leadership in agriculture, and the values required for professional excellence. Their motivating talks inspired students to develop leadership qualities, a positive attitude, and a strong sense of responsibility towards the agricultural sector and society.



List of farm equipment available at ICAR-IARI Jharkhand

Name	Nos.	Item	Name	Nos.	Item
Tractor - Powertrac 45 HP	02		Disk Harrow	02	
Rotavator	01		Shrub Master	01	
Multi crop planter	01		MB Plough	01	
Paddy cleaner	01		Tractor mounted Spray Tank	01	
Zero till Seed Drill	03		Drill Machine	01	
Mini Tractor	02				

SELECTED PUBLICATIONS

Research articles

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