भा.कृ.अनु.प. - भा.कृ.अनु.सं., झारखंड
ICAR – IARI, JHARKHAND
सूचना पत्र | NEWSLETTER

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CONTENTS

From Director's Desk

The July - September 2025 edition of the ICAR - IARI, Jharkhand newsletter highlights a dynamic quarter marked by significant achievements in research, education, and outreach. This period witnessed strengthened engagement with farming communities, enriched academic exposure for students, and notable scientific advancements contributing to sustainable agricultural growth in the Eastern Plateau and Hill region.

The institute continued its extensive outreach through the Scheduled Caste Sub Plan (SCSP) and Tribal Sub Plan (TSP), reaching thousands of farmers across Jharkhand and neighbouring states. Over 2,000 farmers benefitted under SCSP through the distribution of quality seeds, vegetable kits, and farm tools, while 840 tribal farmers received technical training and inputs under TSP. These initiatives underscore the institute's commitment to inclusive agricultural development and livelihood enhancement, particularly among marginalized and tribal communities.

On the research front, several studies advanced our understanding of crop and soil management. Investigations on microbial consortia applications in rice and wheat demonstrated promising improvements in soil health and productivity, while genetic improvement programmes in okra and papaya and conservation research on the Black Bengal goat highlighted the institute's multidisciplinary strength. A novel study on *Moderate Electric Field Assisted Enzymatic Hydrolysis of Starch* revealed that applying moderate electric fields significantly reduced the crystallinity of jackfruit seed starch from 58% to 38%, indicating potential industrial applications in food processing and value addition.

Academic programmes also remained vibrant. Postgraduate students successfully completed their research work and viva examinations, while undergraduate students participated in multiple exposure visits covering integrated farming systems, sericulture, lac cultivation, and biodiversity conservation, broadening their practical understanding of sustainable agriculture.

The institute actively celebrated *Swachhata Pakhwada*, *Hindi Pakhwada*, and *Parthenium Awareness Week* with great enthusiasm, fostering environmental consciousness, cultural unity, and social responsibility across the campus.

I extend my appreciation to the editorial team and all staff for their dedicated efforts in documenting this productive quarter. ICAR-IARI, Jharkhand remains committed to scientific excellence, farmer empowerment, and innovation-driven growth for a resilient and prosperous agricultural future in eastern India.

हर कदम, हर डगर
किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद
Agrisearch with a human touch

HIGHLIGHTS

ICAR-IARI, Jharkhand organized five-day training on millet production and value addition under SCSP

ICAR-Indian Agricultural Research Institute, Jharkhand conducted a five-day farmer training programme on "Millet Production, Promotion and Value Addition in Jharkhand" under the Scheduled Caste Sub Plan (SCSP) from August 2-6, 2025. A total of 30 farmers from Barhi, Barkattha, and Ichak blocks of Hazaribagh district participated. The programme was inaugurated in alignment with the release of the 20th instalment of PM-KISAN, addressed by the Hon'ble Prime Minister in online mode. The training aimed to promote millet cultivation, integration into local cropping systems, and awareness of value addition opportunities. Sessions focused on nutritional benefits of millets, production technologies, pest and disease management, processing equipment, and use of millets as fodder. A practical exposure visit was conducted at the Herodih Farmer's Producer Company unit in Telaiya, Koderma. The programme ended with concluding session, feedback interaction and distribution of ragi seed kits, vegetable kits, farm tools, and training certificates to the participants.

Studies in Black Bengal goats begin at ICAR-IARI, Jharkhand

Goats play an important role in the rural economy of Jharkhand, providing meat, milk, and livelihood to small and marginal farmers. Jharkhand has one of the highest goat populations in India, with around 9.1 million goats as per the 2019 Livestock Census, making it the 8th ranked state nationwide. Among the different breeds, the Black Bengal goat holds a special place. Known for its medium size, jet black coat, high prolificacy, excellent meat quality, early maturity, adaptability, and good twinning percentage, it is one of the most valuable small ruminant breeds in the region. Traditionally found in parts of Eastern India, this breed is well adapted to local conditions. In Jharkhand, however, the population of pure Black Bengal goats has been declining in recent years. Indiscriminate breeding and uncontrolled crossbreeding have led to the dilution of its genetic purity. As a result, farmers are losing the unique traits that make the breed so profitable and well-suited to the state's agro-climatic conditions. To address this concern, ICAR-IARI, Jharkhand has initiated a project dedicated to studying and conserving the Black Bengal goat, with the objective of conducting systematic studies on their morphological, reproductive, and productive characteristics under controlled management conditions. Studies focus on feeding, breeding, and population management, along with detailed evaluation of reproductive performance, health, and growth parameters. By working closely with farmers and using scientific breeding strategies, this initiative hopes to restore and expand the population of pure Black Bengal goats in Jharkhand, helping to preserve an important genetic resource while enhancing rural livelihoods.

RESEARCH

Field evaluation of osmotolerant bacterial consortia in wheat under varying irrigation in acidic soils

Field experiments were conducted at ICAR-IARI, Jharkhand, during the 2024-25 Rabi season to evaluate three osmotolerant bacterial consortia [(Consortium 1: MKS-6 + *Azotobacter* W5), (Consortium 2: MRD-17 + *Azotobacter* W5), (Consortium 3: MKS-6 + MRD-17 + *Azotobacter* W5)] under three irrigation regimes (3, 4, and 5 irrigations) in two wheat varieties- HD 2967 (drought susceptible) and HD 3171 (drought tolerant) grown in acidic soil (pH 5.7). The experiment followed a randomized block design with 24 treatments and three replications. Data on physiological, biochemical, and yield parameters revealed that Consortium 3 with five irrigations (T12) recorded the highest shoot length, root length, root volume, and flag leaf area. At maturity, T12 showed maximum plant height (85.27 cm & 95.93 cm), productive tillers m^{-2} (391 & 481), spike length (14.79 & 16.77 cm), grains $spike^{-1}$ (56.87 & 51.73), 1000-grain weight (56.87 & 39.67 g), grain yield (4.49 & 4.67 t ha^{-1}), and biological yield (10.07 & 10.97 t ha^{-1}) in HD 2967 and HD 3171, respectively. Overall, HD 3171 responded best to bioformulation inoculation.

(Himani Priya, Sangeeta Paul, Ranjit Singh, Akash A., Manoj Chaudhary, Asha Kumari)

Fig. View of experimental plot

Impact of Cyanobacterial and Biofilm Consortia on Soil Health and Yield of Transplanted and Direct-Seeded Rice

A field experiment was conducted at ICAR-IARI, Jharkhand during Kharif 2024 to study the effect of microbial inoculants on rice (variety Swarna Shreya) under two planting methods: **Transplanted Rice (TPR)** and **Direct Seeded Rice (DSR)**. Two microbial consortia were tested: a **cyanobacterial consortium (BF1+BF2+BF3+BF4)** and a **biofilm (An-Tr)**, across

Fig. View of experimental plot

four treatments in each planting method. Results indicated that photosynthetic pigments in leaves, a significant difference was observed amongst treatments, with treatment T4 75% N + FD PK + biofilm inoculant, recorded highest value and influence of treatments on leaf pigment were more pronounced under transplanted rice as compared to direct seeded rice. Leaf and root N-metabolism related enzymes *viz.*, nitrate reductase and

glutamine synthetase activities illustrated that treatment T3 (*Swarna shreya* treated with 75% N + Full dose PK + BF1+BF2+BF3+BF4 (Cyanobacterial consortium) showed the highest NR and GS activities under both the planting methods with more effective in transplanted rice over direct seeded rice except for leaf NR and GS activity. Analysis of soil dehydrogenase activity and chlorophyll content illustrated that T3 75% N + FD PK + biofilm inoculant, T3 (*Swarna shreya* treated with 75% N + Full dose PK + BF1+BF2+BF3+BF4 (Cyanobacterial consortium), outperformed other treatments. Both the microbial inoculated treatments exhibited significantly higher yield and harvest index, as compared to the uninoculated control, with both inoculants recording statistically higher, but at par values.

(Himani Priya, Radha Prasanna, Ranjit Singh, Akash A., Manoj Chaudhary, Asha Kumari)

Evaluation and genetic improvement of okra (*Abelmoschus esculentus* (L.) Moench) for yield-contributing traits

A total of 82 accessions of okra were evaluated during the *kharif* season of 2024 and spring-summer season of 2024-2025 under the in-house project "Genetic Improvement of Okra (*Abelmoschus esculentus* (L.) Moench)". The accessions were characterized following the DUS guidelines for different morphological and yield contributing characters. During the *kharif* season of 2024, Kashi Pragati, VRO-120, Hisar Unnat, Kashi Lalima and Gayatri were found promising for different yield contributing traits. Thus, these genotypes were selected and crosses are being made in *kharif* season of 2025 following line × tester mating design for studying their heterotic potential and identification of promising segregating lines in subsequent generations.

(Saheb Pal, Krishna Prakash, Rabi Sankar Pan, Santosh Kumar and Pavithra KN)

Performance evaluation and characterization of fruit crop varieties under the edapho-climatic conditions of Eastern Plateau Region

The fruit crops varieties and genotypes were evaluated for the plant growth and phenotypic characterization during the rainy season of 2024 under in-house project 'Performance evaluation of fruit crops and varieties under edapho-climatic conditions of Eastern Plateau Region'. The field experiments included evaluation of different varieties of major fruit crops namely, mango, bael, jamun, Annona sp, aonla, guava, ber, and sapota. Furthermore the local/ unique germplasms of mango, custard apple, gooseberry, jamun, *Pithecellobium*, kendu, mulberry previously collected during the different SCSP seed distribution programme and VKSA visits to the villages have been raised in nursery for evaluation.

(Narendra Singh, Vishal Nath, Krishna Prakash, Dipak Kumar Gupta, Akash A and B.N. Mandal)

Evaluation of papaya germplasm for sex expression and development of improved breeding lines

The papaya germplasm was raised and evaluated for flowering, sex expression traits under in house project 'Genetic improvement of papaya for yield and quality enhancement'. Among the evaluated germplasm several lines were predominantly dioecious and most of the raised plants were male. The gyno-diocious types lines have been selected among them and selfed for further generation. The advanced breeding lines of improved type were raised in separate experimental field for further selection.

(Vishal Nath, Santosh Kumar, Krishna Prakash, Narendra Singh, Asha Kumari, Sougata Bhattacharjee, Akash A and Pavithra K N)

Development and evaluation of improved grafting method for rapid propagation in mango (*Mangifera indica* L.)

Mango seedlings have been raised under inhouse project 'Development and evaluation of improved grafting method for rapid propagation in mango'. The raised seedlings were shifted to polybags and their stem thickness at different intervals were studied. The obtained seedlings of age 2-3 months were grafted with the scion of different mango genotypes collected from mother block of ICAR-IARI Jharkhand, BAU farm Gauria Karma, and ICAR-RCER, Ranchi.

(Narendra Singh, Vishal Nath, Shantesh Kamath, Krishna Prakash, Dipak Kumar Gupta, and Pavithra KN)

Moderate electric field assisted enzymatic hydrolysis of starch

Starch extracted from Malay variety of jackfruit seeds was treated with thermostable alpha enzyme and moderate electric field (MEF) under the specified conditions: Field strength: (5, 15 & 25) V/cm (50 Hz); Treatment time: (20, 40, 60 & 80) min; Reaction Temp.: (50, 60 & 70) °C. The moderate electric field (MEF) assisted alpha enzyme treated samples were analyzed to obtain FTIR and XRD data for analysis of chemical composition, molecular

structure, and crystallinity of jackfruit seed starch. Results indicated that MEF assistance altered the relative crystallinity of hydrolyzed jackfruit seed starch, reducing it from 58% to 38% as the applied electric field increased from 0 V/cm to 15 V/cm, consequently modifying the starch granule structure.

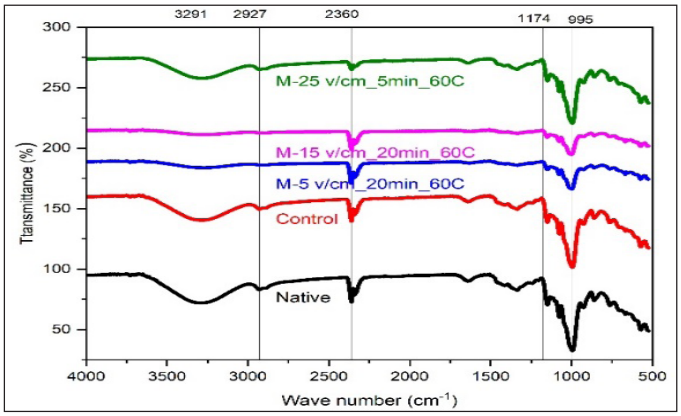

Fig. FTIR curves of MEF, enzyme treated starch

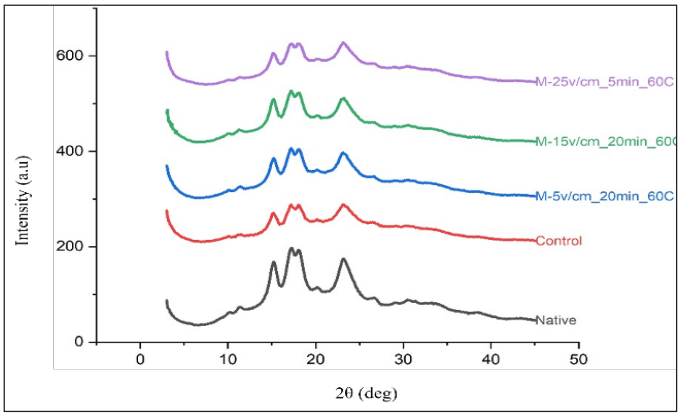

Fig. X-ray diffraction curves of MEF, enzyme treated starch

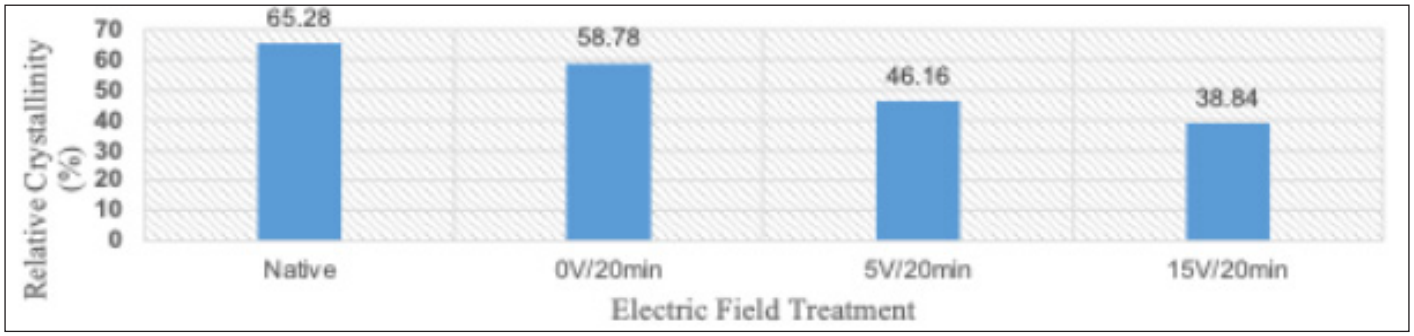

Fig. Relative crystallinity (%) vs electric field assisted treated starch

(Ranjit Singh)

EDUCATION

Education/Academic Activities/Students' Visits

M.Sc. (Ag.) Programme

In July and August 2025, a total of 19 M.Sc. students from the 2023-25 batch of IARI-Jharkhand successfully completed all thesis-related formalities, including the thesis viva-voce examination, and were awarded provisional degree certificates by the Graduate School. It comprised 5 students each from Soil Science, Fruit Science, and Genetics & Plant Breeding, and 4 students from Vegetable Science.

B.Sc. (Ag.) Programme

Educational cum exposure visit of UG students to sheep and goat breeding farm, Chatra, under Department of Animal Husbandry, Government of Jharkhand

To provide practical exposure to scientific goat and sheep rearing practices, an educational visit was organized for B.Sc. first-year students of IARI-Jharkhand on July 10, 2025. The Sheep and Goat Breeding Farm,

Chatra, is renowned for maintaining two economically significant goat breeds—Black Bengal, native to West Bengal, and Beetal, native to Punjab-both of which play a vital role in meat and milk production in India. Among sheep breeds, Shahabadi, a breed native to Bihar, is also reared at the farm. The visit provided students with valuable insights into breed characteristics, breeding management, housing, feeding, and healthcare practices implemented at a government breeding farm. Students actively interacted with farm officials, gaining hands-on experience in handling goats, understanding breeding schedules, and learning about feed formulation. They also observed essential biosecurity and hygiene protocols to be followed in livestock farms. This educational-cum-exposure visit significantly enhanced students' understanding of scientific livestock management and emphasized its importance in sustainable farm development. The practical knowledge gained through this visit will not only support their academic learning but also contribute to promotion of efficient and profitable small ruminant farming in their future professional pursuits.

Study visits of UG students to ICAR- National Institute of Secondary Agriculture (NISA), Central Tasar Research & Training Institute (CTRTI) and Divyayan Krishi Vigyan Kendra (KVK) of Ramkrishna Mission, Ranchi

The study visit organized for B.Sc. (Ag.) third year students to ICAR- National Institute of Secondary Agriculture (NISA), Central Tasar Research & Training Institute (CTRTI) and Divyayan Krishi Vigyan Kendra (KVK) of Ramkrishna Mission, Ranchi for practical exposure on Silk making and Lac extraction under the course of Beneficial Insect pests on July 22, 2025. The visit provided students with practical exposure to the scientific rearing and processing of economically important insects such as silkworm and lac insect. At CTRTI, students gained

first-hand experience of the Tasar silk production process, which included rearing of silkworms, maintenance of host plants, cocoon formation, and silk reeling operations. They also interacted with scientists and technical experts who explained the importance of quality host plants and disease management in silkworm rearing. At NISA, students learned about lac cultivation techniques, host plant selection, and methods of lac extraction and processing. Demonstrations on value addition and product diversification using lac were also conducted. The visit provided valuable insights into the commercial and ecological significance of beneficial insects and their contribution to rural livelihoods. Overall, the exposure visits effectively bridged theoretical knowledge with field-level practices, enhancing the students' understanding of secondary agriculture and its applications. The visit to Divyayan KVK exposed students to a wide range of agricultural technologies, integrated farming systems, and rural entrepreneurship models being promoted for farmer empowerment. Moreover, it gave an exposure on how need-based, skill-oriented training in agriculture and allied fields through a 'learning by doing' approach is followed by the KVK to promote self-employment and improve rural livelihoods.

Study-cum-Exposure Visit to Birsa Agricultural University (BAU) and Research Centre for Eastern Region – Research Station (RCER-RS), Plandu, Ranchi for UG students

Study-cum-Exposure Visit was organized for B.Sc. (Ag.) second-year students to Birsa Agricultural University (BAU) and Research Centre for Eastern Region – Research Station (RCER-RS), Plandu, Ranchi as part of the Study-cum-Exposure Visit under the Farming System and Sustainable Agriculture Course on July 29, 2025. The tour was conducted to enhance the experiential learning of B.Sc. (Ag.) second-year students. During the visit, students explored various facilities at BAU, including crop-based and livestock-based Integrated Farming System (IFS) models, mushroom production units, vermicompost production units, and *Azolla* production units. These visits provided students with practical exposure to the components of IFS contributing to agricultural sustainability and profitability. At RCER-RS, Plandu, the students observed horticulture-based innovations such as four-tier multi-storeyed cropping systems, horticulture-based IFS models, fruit crop-based high-density planting, and the use of Tephrosia mulching

techniques in fruit crops. Expert lectures were delivered by Dr. A. S. Karmakar, Head, Department of Agronomy, and Dr. Puran, Assistant Professor, BAU, along with Dr. Reshma Shindhe, Scientist, and Dr. Mahesh Dhakhar, Senior Scientist, RCER, Plandu. The interactive sessions and technical discussions with these experts significantly enriched students' understanding and provided valuable insights into integrated and sustainable agricultural practices.

Study tour visit to Biodiversity Park, Lalkhatanga, and Zoological Park, Ormanjhi, Ranchi

A study tour visits to Biodiversity Park, Lalkhatanga, and Zoological Park, Ormanjhi, Ranchi under the course Environmental Studies and Disaster Management for BSc first-year students was conducted on August 01, 2025. At the Biodiversity Park, students were introduced to various indigenous floral species with the assistance of forest officials and instructors. They identified native tree and shrub species and documented them through photographs for academic reference. During the visit to the National Bureau of Plant Genetic Resources (NBPGR), students were briefed on the aims and objectives of the organization and gained insights into the germplasm conserved at the station through an interactive session with Dr. Monu Kumar, Head (In-Charge), NBPGR. The visit concluded with a tour of the Zoological Park, where students learned about the diversity of birds, reptiles, wild animals, and

butterflies and their host plants, as well as tree and shrub species. The session, guided by a forest ranger, also highlighted the major threats to biodiversity and the importance of wildlife conservation.

EXTENSION AND OUTREACH ACTIVITIES

SCSP Activities of IARI Jharkhand

A. Seed distribution under SCSP

Under Scheduled Caste Sub plan project of IARI Jharkhand, improved quality seeds, fruit plant seedlings and small farm tools have been distributed free of cost among the selected farmers belonging to schedule caste community. During July to September, a total of 125 Q of paddy seeds, 70 Q of Maize seeds, 12 Q Pigeon pea seeds, 1800 nos. of vegetable seed kits, and approx. 400 nos. of small farm tools and 1200 fruit plants were distributed among more than 2000 beneficiaries belonging to 10

भारतीय कृषि अनुसंधान संस्थान गौरिया करमा के द्वारा फसल किट एंव धन मक्का का हुआ वितरण

बड़कागांव : भारतीय कृषि अनुसंधान संस्थान गौरिया करमा द्वारा अनुसूचित जाति उप परियोजना की एससी के अंतर्गत खरीफ फसल वर्ष 2025 एससी जाति के लिए बड़कागांव प्रखंड के ग्राम पंचायत चोपदार बालिया में 175 किसानो के बीच धान, मक्का और सब्जी के उन्नत किस्म के बीज मुफ्त में वितरण किया गया। बड़कागांव प्रखंड के चोपदार बालिया से जुड़े लगभग हर गांव से किसान एकत्रित हुए और उनको खेती के नए तकनीकी के बारे में विस्तृत जानकारी दी गई। जिसमे आईसीएआर गौरिया करमा से वैज्ञानिक डा आशा कुमारी, डा प्रभात कुमार गुरू तकनीकी अधिकारी अरुण कुमार रजक ,के द्वारा प्रदान किया गया। और साथ ही एकपीसी के बीओडी यशोदा देवी भी वहा उपस्थित थी। उक्त सभी बीज महिला किसान बड़कागांव प्रगतिशील प्रोड्यूसर कंपनी लिमिटेड बड़कागांव के द्वारा वितरण किया गया। आईसीएआर के तकनीकी अधिकारी अरुण कुमार रजक द्वारा किसानो को जानकारी दी गई कि जो भी बीज किसानो को उपलब्ध कराया जा रहा है ये सभी उन्नत किस्म के बीज है और उपज के बाद इसको अगले वर्ष के लिए भी बीज रख सकते है तैयार कर सकते है ताकि किसानो को ज्यादा से ज्यादा उपज प्राप्त हो सके। वही किसानो को वैज्ञानिक तरीके से खेती करने की जानकारी दिए गए। किसानो के बीच काफी काफी खुशी देखी गई।

महिला एग्रो प्रोड्यूसर कंपनी लिमिटेड द्वारा किसानों के बीच उन्नत बीजों का वितरण

राष्ट्रीय खबर

इचाक : इचाक भारतीय कृषि अनुसंधान संस्थान गोरिया करमा द्वारा अनुसूचित जाति उप-परियोजना (एससी-एसपी) के अंतर्गत खरीफ फसल 2025 हेतु इचाक प्रखंड के बरका खुर्द पंचायत में 200 किसानों के बीच उन्नत किस्म के धान, मक्का एवं सब्जी बीजों का निःशुल्क वितरण किया गया। इस अवसर पर संस्थान के ओसीडी डॉ. विशाल नाथ, नोडल पदाधिकारी डॉ. कृष्ण प्रकाश, डॉ. पंकज कुमार सिंह, डॉ. आशा रानी पटेल के मार्गदर्शन में तकनीकी अधिकारी अरुण कुमार रजक द्वारा किसानों को बीजों की उन्नत किस्म, उनका उपयोग एवं आधुनिक खेती की तकनीकों की विस्तृत जानकारी दी गई। किसानों को इन बीजों के माध्यम से अधिक उत्पादन व लाभ प्राप्त करने के लिए प्रेरित किया गया।

100 किसानों के बीच बीज का किया वितरण

किसानों के बीच हुआ बीज वितरण

टंडवा (गणादेश) : भारतीय कृषि अनुसंधान संस्थान के सहयोग से मानव विकास संस्था ने अनुसूचित जाति के किसानों के बीच धान, मकई और सब्जी किट का वितरण किया।मिश्रौल, खरिका और बीरबीर गांव के किसानों को बीज दिया गया। इस दौरान संस्थान के मनश्याम राणा ने बताया कि बाजार में अधिक दर पर बीज मिलता है। आमदनी कम होने की वजह से किसान बाजार से बीज नहीं खरीद पाते हैं। ऐसे में किसानों के बीच बीच का वितरण उनके लिए कल्याणकारी साबित होगा। इस मौके पर जितेन्द्र सिंह, भोला राम समेत अनेक लोग शामिल थे।

blocks of Hazaribagh district, one block each of Chatra and Koderma district of Jharkhand and one block of Patna district of Bihar.

B. Kisan Goshthi at farmer's village

Direct input supply to the needy farmers helped in enhancing their income through increased agricultural productivity of scheduled caste farmers, as recorded during the visit of scientist for monitoring the field, seed distribution and feedback from the farmers. Efforts of the institute in supplying quality seeds under SCSP is highly appreciated by the benefitted farmers and there is a great demand for the quality seeds of various crops in all seasons.

गोधिया में आईसीएआर ने की बीज वितरण की जांच, उन्नत खेती की दी जानकारी

C. Training and input distribution program organized by ICAR-IARI Jharkhand

ICAR-IARI, Jharkhand organized a five-days farmer's training programme on 'Millet's production, promotion and value addition in Jharkhand' under the SCSP scheme during August 02-06, 2025. Total 30 selected farmers from Barhi, Barkattha and Ichak blocks of Hazaribag district participated in the training programme. At the end, seed kits (Ragi seeds and vegetable seed) and small farm tools were distributed to the farmers.

आईसीएआर-आईएआरआई में प्रारंभ हुआ पांच दिवसीय मिल्लेट्स फसल प्रशिक्षण व बीज वितरण कार्यक्रम

किसानों को सशक्त व जलवायु-प्रतिरोधी मिल्लेट्स खेती को बढ़ावा देना है मुख्य उद्देश्य : ओएसडी

आईसीएआर में पाँच दिवसीय कृषक प्रशिक्षण कार्यक्रम संपन्न, सर्टिफिकेट व बीज वितरित

Activities under Tribal Sub Plan of IARI Jharkhand

As part of the Tribal Sub-Plan (TSP), ICAR–IARI is actively engaged in enhancing the standard of living of tribal farmers by increasing their income through improved agricultural productivity. Under the TSP initiative, a Farmer's Training cum Seed Distribution Programme on *'Improved Agricultural Practices for Kharif'* was organized. A specialized training programme on 'Advanced Gardening Techniques' was conducted on 12th September 2025 in collaboration with Pradhan, Bokaro, wherein 95 farmers participated and benefitted through hands-on training sessions and input distribution. In addition, Scheduled Tribe (ST) beneficiaries from various villages across Dari, Daru, Ichak, Barhi, Katkamsandi, Tatijhariya, Sadar, and Bishnugarh blocks of Hazaribagh district, Giddhour block of Chatra, and different blocks of Khunti (Karra), Ranchi, Gumla (Bharno, Sisai) and Simdega (Kolebira) districts were provided with technical training on the cultivation of Kharif crops. A total of 840 farmers benefitted from the programme. After the training sessions, paddy, pigeon pea, maize, and vegetable seed kits were distributed among the farmers as a part of handholding support to promote improved livelihoods and sustainable agricultural development.

SPECIAL EVENTS

Two-day IRC meeting held at IARI-Jharkhand

The Institute Research Council (IRC) meeting, held from June 30 to July 1, 2025, under the chairmanship of Dr. Ch. Srinivasa Rao, Director and Vice-Chancellor, ICAR-IARI, convened scientists across disciplines along with Dr. C. Viswanathan, Joint Director (Research), IARI-New Delhi, to review ongoing projects, propose new research, and align institutional efforts with national priorities. Conducted in hybrid mode, the meeting emphasized strategic directions for research integration, outreach, and capacity building. On this occasion, newly joined scientists and senior researchers were warmly welcomed into the IARI-Jharkhand community. The meeting spotlighted strategic priorities such as supporting tribal farming systems tailored to regional agro-climatic needs. Emphasis was placed on refining project titles for broader relevance, embedding outreach components, and scaling youth and SHG-focused training

programs. Scientists were encouraged to pursue copyrights, foster inter-institutional collaborations, and strengthen the institute's impact through innovative research.


20th Parthenium Awareness week celebration at ICAR-IARI, Jharkhand

In a significant initiative by ICAR '*20th Parthenium Awareness Week*' was celebrated at ICAR-IARI-Jharkhand. On occasion of this event various activities like expert lectures (from awareness to action: tackling parthenium together and bio-control measures for parthenium management), debate competition for students on topic 'Parthenium could be used for beneficial purposes rather than being eradicated' and *Parthenium* cleaning drive to make IARI Jharkhand as Parthenium free were undertaken involving all staffs and students of IARI Jharkhand. Dr. Vishal Nath, OSD, IARI-Jharkhand delivered his insight regarding harmful and beneficial aspects of Parthenium.




ICAR-Indian Agricultural Research Institute, Jharkhand organized Hindi Pakhwada cum Workshop

The Hindi Pakhwada-cum-Workshop was organized at ICAR-IARI, Jharkhand, from 8th-22nd September 2025 to promote the use of Hindi as the *Rajbhasha* (Official Language) of India. The event commemorated 14th September 1949, when Hindi in Devanagari script was adopted as the official language of the Union. The programme, inaugurated by Dr. Vishal Nath (OSD, ICAR-IARI, Jharkhand) with an oath-taking ceremony and address by Chief Guest Dr. Sunil Yadav, emphasized the importance of Hindi as a unifying language of the nation, its historical significance and promotion of Rajbhasha. Various activities, and competitions- such as poetry recitation, story writing, dictation, noting and drafting, quiz, and Antakshari- were held for staff and students to enhance proficiency and interest in Hindi. Workshops were

organized inviting various guest lectures providing comprehensive knowledge on Hindi grammar, correct spelling, clarity of pronunciation, note making and the development of Hindi. The fortnight programme was successfully concluded with a valedictory ceremony and prize distribution. The celebration fostered enthusiasm for using Hindi in official and personal communication, reinforcing its cultural and national significance.

Swachhata Pakhwada 2025: A Fortnight of cleanliness and commitment

As part of the nationwide Swachh Bharat Mission, Swachhata Pakhwada 2025 was observed at ICAR-IARI, Jharkhand, from 17th September to 1st October 2025 with active participation and enthusiasm. The programme aimed to promote cleanliness, hygiene, and sustainable practices across the campus and community. Activities included the *Swachhata Pledge Ceremony*, where all officials committed to maintaining cleanliness, and the "*Ek Ped Maa Ke Naam*" plantation drive, during which guava trees were planted in the residential area to promote environmental awareness. An awareness programme at Government Middle School, Kheron, Barhi sensitized students on maintaining cleanliness at home, school, and public places. A *Swachhata Marathon and human chain formation* were organized to symbolize unity and collective commitment toward a clean environment. Cleanliness drives were conducted in temple premises and nearby public areas, followed by the felicitation of cleaning staff by the OSD for their dedicated service. The fortnight fostered a strong sense of responsibility and community spirit toward cleanliness and hygiene.

चौपारण संध्या दैनिक संध्या बरही : आस - पास 18/09/25 16

आईसीएआर में प्रारंभ हुआ स्वच्छता पखवाड़ा, एक पेड़ मां के नाम के तहत किया गया वृक्षारोपण

चौपारण संध्या
जयदीप सिन्हा

बरही : गौरियाकरमा स्थित भारतीय कृषि अनुसंधान संस्थान केंद्र में बुधवार से स्वच्छता पखवाड़ा की शुरुआत हुई. कार्यक्रम विशेष कार्याधिकारी डॉ विशाल नाथ के मार्गदर्शन में प्रारंभ हुआ. जिसके तहत विशेष कार्याधिकारी सहित मुख्य प्रशासनिक अधिकारी सुबोध नीरज एवं नियंत्रक प्रशांत कुमार व संस्थान के अन्य वैज्ञानिकों ने पीएम के एक पेड़ मां के नाम अभियान के तहत संस्थान परिसर में वृक्षारोपण किया. वृक्षारोपण कार्यक्रम के बाद उपस्थित लोगों ने स्वच्छता संबंधित शपथ ग्रहण किया. इस दौरान कार्यालय एवं आवासीय परिसर की साफ सफाई की गई. मौके पर गठित स्वच्छता समिति के अध्यक्ष डॉ अनिमा महतो ने सबों को स्वच्छता पखवाड़ा के अंतर्गत अगले 15 दिनों के कार्यक्रमों की जानकारी दी. जिसके तहत कार्यालय, आवासीय परिसर, निकटवर्ती पर्यटक स्थल, मंदिर, विद्यालय की सफाई के साथ जागरूकता शिविर, स्वच्छता मैराथन इत्यादि का आयोजन किए जायेंगे. कार्यक्रम 1 अक्तूबर तक चलेगा.

Cleanliness drive conducted at ICAR-IARI Jharkhand Campus and Village Kheron

A cleanliness drive was successfully organized by the Swachhta Committee of ICAR-IARI, Jharkhand, in collaboration with the National Service Scheme (NSS) Unit, on 26th September 2025. The event took place across the institute campus and the adjoining village of Kheron, focusing on promoting hygiene, sanitation, and environmental awareness. The initiative witnessed active and enthusiastic participation from 2nd and 3rd year B.Sc. Agriculture students, faculty members, and NSS volunteers. Participants engaged in both cleaning activities which included cleaning of pathways, common areas, and public spaces, enhancing cleanliness and greenery and awareness campaigns, contributing to the well-being of the community and environment. This drive fostered a strong sense of social responsibility, discipline, and community engagement among students and staff. It also motivated villagers to embrace sustainable hygiene practices for improved health and quality of life. Organized in alignment with the Swachh Bharat Abhiyan, the initiative highlighted the power of collaborative action by students, faculty, NSS coordinators, and institutional committees in driving positive social change.

गौरियाकरमा में गूंजा स्वच्छता का नारा

आइएआरआइ में मानव श्रृंखला बनाते संस्थान के अधिकारी, वैज्ञानिक, कर्मी व अन्य।

संसू बरही (हजारीबाग): भारतीय कृषि अनुसंधान संस्थान (आईएआरआई), गौरियाकरमा में स्वच्छता पखवाड़ा के तहत स्वच्छता मैराथन और प्रतीकात्मक मानव श्रृंखला कार्यक्रम किया गया। जिसका शुभारंभ विशेष कार्याधिकारी डाक्टर विशाल नाथ ने किया। मैराथन में मुख्य प्रशासनिक अधिकारी, नियंत्रक, वैज्ञानिक व अन्य अधिकारियों ने भाग लिया। सभी प्रतिभागी गेट संख्या एक से चलकर गौरियाकरमा व आसपास के गांव - टोला पहुंच कर ग्रामीणों में स्वच्छता जागरूकता फैलाते हुए करीब 1.5 किलोमीटर की दूरी तय कर प्रशासनिक भवन के सामने मानव श्रृंखला में शामिल हुए।

Capacity building programmes/trainings organized

IARI-Jharkhand Reaches 11 Government Schools in Hazaribagh with 'School Soil Health Program'

Under the flagship School Soil Health Program, a series of 11 'One Day Training on Soil Sample Collection and Testing' sessions were successfully conducted for students of government schools across Hazaribagh district. The initiative aimed to promote awareness on soil health and equip students with practical knowledge on soil sampling and testing techniques. The trainings were coordinated by ICAR-Indian Agricultural Research Institute, Jharkhand, and were sponsored and organized by ATMA, Hazaribagh. Each session covered key topics including techniques of soil sample collection, importance of soil testing, identification of nutrient deficiency symptoms and role of Soil Health Cards in sustainable agriculture. To ensure effective outreach, eleven scientists were designated to conduct trainings at different schools, as detailed below:

Sl. No.	Name of scientist	Place of training	Date
1.	Dr Dipak Kumar Gupta	Kendriya Vidyalaya BSF, Hazaribagh	08-09-2025
2.	Dr Priti Tigga	JNV, Bonga, Hazaribagh	09-09-2025
3.	Dr Himani Priya	KB High school Hazaribagh	10-09-2025
4.	Dr Pankaj Kumar Sinha	UPG High school, Salgawan, Katkamdag	11-09-2025
5.	Dr Mukesh Tiwari	UPG High school, Kharna, Bishnugarh	12-09-2025
6.	Dr Vishal Nath	UPG High school, Merhkuri, Daru	13-09-2025
7.	Dr Kashinath G. Teli	UPG High school, Jharpo, Tatijhariya	15-09-2025
8.	Dr Krishna Prakash	UPG High school, Bijaiya, Barhi	16-09-2025
9.	Dr Narendra Singh	UPG High school, Debo, Chouparan	18-09-2025
10.	Dr Saheb Pal	UPG High school, Chalkusha	19-09-2025
11.	Dr Vishal Nath	UPG High school, Choube, Chalkusha	20-09-2025

The programme received encouraging response from participating schools and students. In view of its success, further trainings are being proposed at designated schools under the same initiative.

Dr. Saheb Pal conducted an exposure visit of 25 Farmers from Jhalda Development Block, Purulia District under ATMA on 18/09/2025 to the campus of ICAR-IARI, Jharkhand. He also delivered a lecture on 'Improved production technology and plant protection measures for early rabi season vegetable crops'.

Awards and Recognitions

Sl. No.	Name & Designation	Event/ Recognition	Details / Description	Date & Venue
1.	Dr. B. N. Mandal, Principal Scientist	Nominated as External Expert	Interview Board for selection of Project Associate in an externally funded project.	August 26, 2025 ICAR–NRRI CRURRS, Hazaribagh
2.	Dr. Mukesh Kumar Tiwari, Senior Scientist	Nominated as Expert Member	Members in the selection committee for direct recruitment of teachers in (i) Soil and Water Engineering, (ii) Soil and Water Conservation Engineering.	September 14, 2025 S.D. Agricultural University, Sardar Krushinagar, Gujarat
3.	Dr. B. N. Mandal, Principal Scientist	Invited Lectures	Delivered two online invited lectures on '*Test of hypothesis in survey data using R'* and '*Correlation and regression analysis in surveys using R'* during a training programme on 'Advances in Survey Research and Data Analysis using Open-Source Software'.	September 15-24, 2025 ICAR–National Institute of Foot and Mouth Disease, Bhubaneswar
4.	Dr. Mukesh Kumar Tiwari, Senior Scientist	Guest Lecture	'Introduction to Machine Learning Techniques in Water Resources Engineering' during one-month in-plant training for M. Tech. (Soil and Water Conservation Engineering) students.	September 1-30, 2025 ICAR-Indian Institute of Soil and Water Conservation, Research Centre, Vasad, Gujarat
5.	Dr. Saheb Pal, Scientist	Award	Received 'Young Scientist Award' by the Association of Plant Science Researchers (APSR) in recognition of his work in Horticulture (Vegetable Science).	August 3, 2025, Dehradun, Uttarakhand
6.	Dr. Nuzaiba P.M., Scientist	Award	Received 'Dr. A.P. Sharma Young Scientist Award, 2025' by the Inland Fisheries Society of India (IFSI) during the 2nd Indian Fisheries Outlook.	July 12-14, 2025 OUAT, College of Fisheries, Rangailunda, Brahmapur, Odisha
7.	Dr. Anima Mahato Scientist	Thesis Evaluation	Evaluated M.Sc. thesis entitled 'Genome wide association study of yield under suboptimal nitrogen and phosphorus fertilization in a subset of 3K rice genome panel' and conducted Final Viva-voce (online) of Ms. S.S. Mohanty.	August 28, 2025 Dept. of Genetics Plant Breeding, PGCA. RPCAU, Pusa
8.	Dr. Vandana Senior Scientist Dr Shilpi Kerketta Scientist	Eminent speaker	Invited as an Eminent speaker during National Workshop cum Training Programme on "Recent Advances in Scientific Interventions to Enhance Livestock Productivity and Farm Profitability".	18 to 20 September 2025, Main Campus, Tarba-Kharba, AISECT University, Hazaribagh, Jharkhand
9.	Dr. Saheb Pal	External Examiner	For the Course Breeding of Cross-Pollinated Vegetable Crops (VSC-506)	College of Horticulture, Thenzawl under the Central Agricultural University, Imphal

Distinguished Visitors at ICAR-IARI, Jharkhand

1. Sri B.S. Yadav, IAS, Director Agriculture, Jharkhand visited ICAR-IARI, Jharkhand on 27/08/2025 for an interactive meeting with the Scientific staff, IARI, Jharkhand

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