



# भारतीय कृषि अनुसंधान संस्थान - झारखंड एक नजर में...

## Indian Agricultural Research Institute - Jharkhand AT A GLANCE...

2015-2025



भा.कृ.अनु.प.-भारतीय कृषि अनुसंधान संस्थान - झारखंड

गौरिया करमा (खेरोन), हजारीबाग - 825 405

ICAR-Indian Agricultural Research Institute - Jharkhand

Gauria Karma (Kheron), Hazaribagh, Jharkhand - 825 405



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# GENESIS AND FUNCTION

Indian Agricultural Research Institute (IARI), New Delhi is a premier Agricultural Research Institute of India and birthplace of Indian Green Revolution. IARI, New Delhi has always been forefront of Agricultural Research, Education and Extension in India. However, since independence only one such institute was established. Therefore, Union Government announced in its Budget 2014-2015 to establish two more such institutions of excellence on similar pattern in Assam and Jharkhand with view to make India largely self-sufficient in providing food for growing population and making farming competitive and profitable. Thus, the foundation stone of the second IARI i.e. Indian Agricultural Research Institute-Jharkhand was laid by Hon'ble Prime Minister Shri Narendra Modi on June 28, 2015 at Gauria Karma village of Barhi block, Hazaribagh, Jharkhand. Indian Agricultural Research Institute-Jharkhand (IARI-J) is a unique Institution, which possess all the hallmark identities of IARI, New Delhi including all sectors of agriculture like field crops, horticultural crops, agro-forestry as well as animal husbandry and fisheries. IARI-Jharkhand is working on agrarian challenges and complexities of Eastern India through Research, Education and Extension dedicated towards developing quality human resource; generation of farmer friendly technologies to enhance productivity, quality and profitability; promotion of agro-based industries and generation of employment opportunities for holistic and sustainable development of the agriculture sector in the Eastern region. The institute is working with an approach of integrated multi-disciplinary research in School mode, i.e. Schools of Crop Sciences, Natural Resource Management and Animal Sciences.



## Part of Foundation Day Speech of Honourable Prime Minister

Amid rising population and increasingly fragmented land-holdings, the need of the hour for the nation is a second green revolution without any delay, which could only happen in Eastern India. Proper research is required in all agro-climatic zones of the country. This would ensure best results, as well as greater acceptability among farmers. This required the spread of agricultural research and education in various regions therefore Union Government is committed to the development of this region.



## VISION

Tapping the inherent potential of Eastern states to bring a second green revolution in the country



## MISSION

Establishment of a State-of-Art Indian Agricultural Research Institute-cum-Deemed to be University in Jharkhand to cater for the needs of resource rich eastern part of the country through science and technology for effective and sustainable harnessing of available potential in agriculture, animal husbandry, fisheries, horticulture and other allied sciences.



## MANDATES

Conducting basic, strategic and anticipatory research and development of quality human resources for academic excellence in frontier areas of agriculture and allied sector for enhanced productivity, quality and livelihood security.



## FUNCTIONS

- 1) To conduct farming system-based research that leads to sustained agriculture productivity in harmony with the environment.
- 2) To serve as an institution of higher learning in agriculture and allied sectors.
- 3) To promote rural entrepreneurship and commercialization of agriculture to make it more profitable.
- 4) To fuel and promote technology-driven growth of agro-industries through first-generation entrepreneurs of the region with a view to develop ancillary industries for enhancing rural employment and economic empowerment.
- 5) Ushering in an evergreen revolution for enhancing productivity, profitability and sustainable agriculture in the region through need-based efficient technology generation, quality Undergraduate and Post-Graduate education in agriculture and allied sectors with gender equity for ensuring overall prosperity in the Eastern part of the country.

## SCHOOLS OF THE INSTITUTE

### School of Crop Sciences

Developing improved varieties/hybrids, quality seed production technologies and integrated pest and disease management strategies of agri-horticultural crops to boost productivity and livelihood security of the farmers in eastern states.



### School of Natural Resource Management

Managing natural resources and agri-preneurial ecosystem to enhance agriculture production, value addition, environmental sustainability and income security among the farmers in Eastern India.



### School of Animal and Fishery Sciences

Evaluating regionally preferred livestock and fisheries species for integration with agri-horticultural crops and development of efficient and economic production system to improve livelihood security of the farming community.





## OBJECTIVES

### EDUCATION

1. To promote excellence and foster high standard of education for holistic agrarian development in region.
2. To orient the education program towards future needs and opportunities present in the area.
3. To strengthen non-formal training for promoting entrepreneurial skills among youths and commercialization of agriculture.
4. To develop quality human resources in agriculture and allied sector to cater the future needs.

### RESEARCH

1. To increase the utilization of water resources through multi-disciplinary research on water harvesting, micro-irrigation system and enhancing water use efficiency (per drop more crop) to achieve higher factor productivity.
2. To develop alternate cropping systems for increasing cropping intensity with increased productivity in the eastern states.
3. To develop integrated farming system models for the eastern states in view of the specific requirements of the region
4. To develop horticulture and animal husbandry-based diversification systems to promote rural entrepreneurship.
5. To develop effective post-harvest management and value-addition protocols for agri-produce to enhance the farm income and period of availability.

### EXTENSION

1. To develop innovative extension models, dovetail them to developmental models, and disseminate them through KVKs, State Agricultural Universities and State extension and development departments in different states of Eastern India
2. To promote client-oriented on-farm research and technology assessment, refinement and transfer through participatory approaches for promoting the Institute-Village Linkage programme.
3. To foster development in communication research and linkages with development programmes and strengthen micro-planning through inter-departmental and participatory modes.

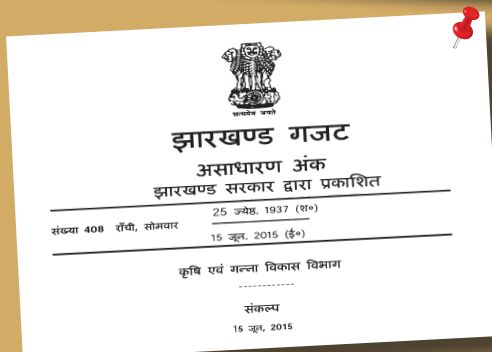


Hon'ble Prime Minister of India Shri. Narendra Modi digitally laid out the foundation stone of IARI-Jharkhand at Gauria Karma, Barhi, Hazaribagh, Jharkhand on June 28, 2015 with a vision to bring second agricultural revolution in Eastern India



# IMPORTANT MILESTONES

1. Announcement of establishment of Indian Agricultural Research Institute (IARI)-like institutes in Jharkhand and Assam by the then Hon'ble Finance Minister in his maiden budget speech  
(July 10, 2014)
2. Free of cost transfer of 1000 acre land to the ICAR by Government of Jharkhand for the establishment of IARI-Jharkhand  
(June 09, 2015)
3. Resolution for transfer of land to ICAR got published in Gazette (extraordinary, number 408) of Government of Jharkhand  
(June 15, 2015)
4. Mutation of transferred land (case number: 51/2015-16) on the name of Secretary, ICAR  
(June 19, 2015)
5. Laying of foundation stone of IARI-Jharkhand by the Hon'ble Prime Minister, Shri Narendra Modi ji  
(June 28, 2015)
6. Start of first academic session of M.Sc. of IARI-Jharkhand with teaching facilities at IARI-New Delhi  
(August 2015)
7. Approval of establishment of IARI-Jharkhand by Union Cabinet with estimated outlay of Rs. 200.78 crores  
(January 18, 2017)
8. Start of construction work (boundary wall and academic cum administrative building) at Gauria Karma by the CPWD  
(April 2017)
9. Inauguration of the Administrative & Academic Building and laying of the Foundation Stone of the Guest House by Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers' Welfare  
(January 27, 2019)
10. Posting of first batch of 10 scientists at IARI-Jharkhand  
(May 26, 2020)
11. Start of research trials for the evaluation of varieties/germplasm of rice  
(June 2020)
12. Inauguration of Guest House and naming of Administrative and Academic Building after Late Dr Shyama Prasad Mukherjee through video conference by Shri Narendra Singh Tomar, Union Minister of Agriculture & Farmers' Welfare, Rural Development & Panchayati Raj  
(July 06, 2020)
13. Start of M.Sc. teaching at IARI-Jharkhand, Gauria Karma  
(October 20, 2021)
14. Start of B.Sc. (Agriculture) teaching at IARI-Jharkhand, Gauria Karma  
(June 08, 2023)
15. Inauguration of Girls Hostel "Mahua", Boy's Hostel "Kadamb" and staff residential colony "Palash Vihar by Shri Arjun Munda, Union Minister of Agriculture & Farmers' Welfare and Tribal Affairs  
(March 01, 2024)





# SALIENT ACHIEVEMENTS

The laying of foundation stone by the Honourable Prime Minister Shri Narendra Modi followed by cabinet approval for its establishment on January 18, 2017 open the path for building a new and robust ecosystem of Agricultural Education, Research and Extension in the Eastern India. Presently, IARI-Jharkhand has developed many infrastructure facilities like Academic-cum-Administrative Building, Guest House, Staffs Residential Quarters, Boys' and Girls' Hostels, Farm Building, Boundary Wall, Roads, Laboratories, Library etc. equipped with modern tools and techniques which led to start of Education, Research and Outreach program. Many more facilities are under construction like Residential Quarter, Examination Hall, Sports Complex, Shopping Complex, Dispensary, Animal Shed and Laboratories etc., which will further enhanced the efficiency of IARI-J for achieving its objectives.



## Dr. Shyama Prasad Mukherjee Bhavan

(Academic-cum-Administrative Building)

(05 Laboratories, 01 Library, 01 Conference Hall, 07 Classrooms and 33 Rooms for the Staffs)

## Guest House

(02 VIP Suites, 08 Double Bed Rooms, 01 Conference Hall, 01 Meeting Hall & 01 Kitchen and Dining Hall)



## Mahua Girls Hostel

(Single Room with Attached Toilet: 48 Rooms; Single Room with Common Toilet: 120 Rooms; TV Room, Yoga Room; Sports and Gymnasium Room; Recreation Hall; Dining Hall; Saloon Room; Laundry Room; Outdoor Badminton Court: 02; Parents Waiting Hall; Cycle and Scooter Parking place; Reception; Warden residence)

## Kadamb Boys Hostel

(Single Room with Attached Toilet: 48; Single Room with Common Toilet: 128; TV Room; Sports Gymnasium Room; Recreation Hall; Reading Room; Yoga Room; Dining Hall; Saloon; Laundry Room; Outdoor Badminton Court: 02; Parents Waiting Room; Reception; Warden residence)







### Palash Vihar Residential Complex

(01 T-VII, 02 T-VI, 02 T-V, 04 T-IV, 08 T-III and 08 T-II quarters are operational)  
(16 T-IV and 16 T-III quarters, 01 overhead water tank and water sink are under construction)



### Farm building

(One farmers' classroom and two farm store hall)



### Farmers' Hostel

(Six room with four bed in each and one kitchen and dining space)



### Vishal Sarovar



### Animal Shed



Exam Hall, Dispensary, Sports Complex, Shopping Complex and Animal Labs are under construction



## FARM FACILITIES DEVELOPED



IMD Automatic Weather Station



Horticulture Nursery



Fodder Germplasm Block



Mother Plantation Block



Vermicomposting Unit



Tractor



Water tanker (5000 L)



Laser land leveller



Multi-crop thresher



# TEACHING FACILITIES



Smart Classroom



Academic Cell



Library



Study room at hostel



Natural Resource Management Laboratory



Crop Science Laboratory



Horticulture Laboratory



Microbial culture room



## FACILITIES FOR STUDENTS



Ambulance



Bus



Playground



Volleyball court



Badminton court



Table tennis room



Mess area



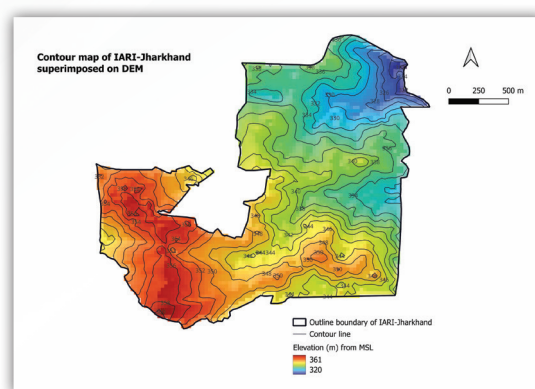
AR/VR Classroom



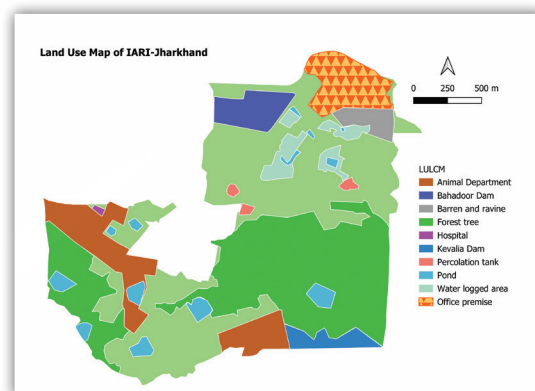
# RESEARCH OUTCOMES

Research at IARI-Jharkhand, Gauria Karma started during July 2020 after posting of a batch of 10 scientists in May 26, 2020. Subsequently with increase in the number of scientists and students, the number of in-house as well as externally funded research projects gradually increased. The first IRC of the institute was held between 17-15 June 2021 for proposal, monitoring and evaluation of ongoing project. Presently 18 in-house research projects and 06 externally funded research projects are being carried out in the field of Natural Resource Management, Germplasm Collection, Crop Improvement cereals, pulses, oil seeds, fruits, vegetables and flowers. Post-harvest management, Livestock Management and Fisheries Management for enhancing sustainability and economy of eastern region. The salient research outcomes are as follows:

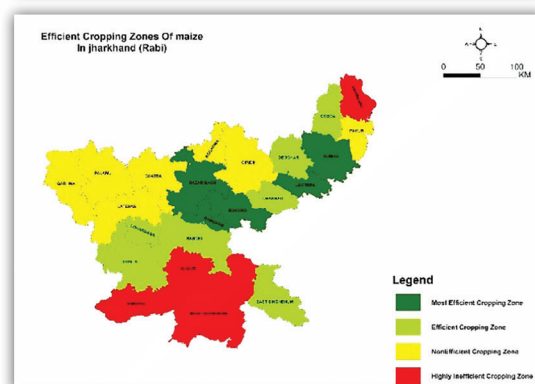
**Land Use Map of IARI-Jharkhand:** About 35% area of IARI-J is under forest tree cover with highly eroded land and ravines. About 5.5%, 6% and 3.5% area are under residential and office premises, water body mainly Bahadur Dam and Kevalia Dam and water logged, respectively. About 20% area has been brought under field and horticultural crops experimentation over the period of time. The elevation of IARI-J land surface ranged from 320-361 m above MSL. The DEM and Contour Map superimposed on hill shed clearly showed that the topography of IARI-J is undulating having two micro watershed with runoff accumulation zones in west part of the IARI-J. Bahadur Dam has spread over about 13 ha area and Kevalia Dam is spread over about 95 ha of land, out of these about 10 ha area falls under the boundary of IARI-J.



**Soil of IARI-Jharkhand:** Large variations have been found in the physico-chemical properties of soil of IARI-Jharkhand due to presence of undulating topography. Majority of soil is acidic in nature with pH between 4.5 and 7.4. Soil texture vary from sandy loam to sandy clay loam depending upon the topo-sequence. The soils had low to medium available Nitrogen (80-400 kg/ha), Phosphorus (03-23 kg/ha) and Potassium (50-250 kg/ha).



**Efficient Cropping Zone in Jharkhand:** In Jharkhand, five districts were found to be most efficient regions for maize (*rabi*), nine districts for wheat, six districts for pigeonpea, three districts for lentil, six districts for potato and five districts for guava as in these areas both the RYI (Relative Yield Index) and RSI (Relative Spread Index) were high. In some of the districts, RSI is more for a particular crop, while the RYI is low indicating non suitability of that crop. However, due to other factors such as market demand and value of the produce, farmers cultivate the crops that are not suitable for their location which relates in high RSI with low RYI.



### Optimized Maize Yield through Nano-Urea Spray

Averaged over fertilizers, grain yield under control was 2.33 t/ha, which was increased to 6.78 t/ha with the application of 120 kg/ha + 2 spray of Nano-fertilizer. Yield increased due to incremental N was significant up to the highest application rate. One-season results indicated the possibility of increasing grain yield in maize consequent to use of Nano-urea (2 Sprays) over and above of recommended dose of nitrogen application through prilled urea.

### Biochar enhances soil pH and crop productivity in acidic soil:

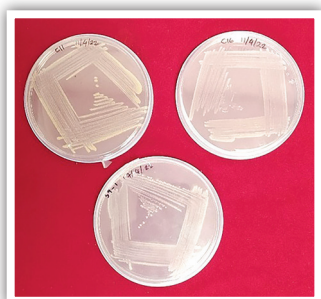
The soil pH was found 12.8-16.9% higher in biochar-applied soil compared to the initial soil pH. The global warming potential was found to be lower in biochar-applied treatment compared to non-biochar-applied treatments. The wheat yield was found about 25% and 45% higher under biochar treatments @ 5t/ha and 10 t/ha, respectively. Slightly higher yield was observed in rice yield however difference was insignificant.

### Greenhouse gas and ammonia emission from dung of cross-breed and indigenous cattle:

The GHG and  $\text{NH}_3$  emission was found significantly higher from the dung of cross-breed (CB) compared to Indigenous breed (IB) cattle in all the composting experiment. The global warming potential (GWP) due to emission of  $\text{CH}_4 + \text{N}_2\text{O}$  was about 1.7- 2.3 times higher for CB cattle compared to IB cattle.

### Soil microbes “Native Diazotrophs” for Acidic Soils of Jharkhand:

Three diazotrophic bacteria-*Brucella oryzae*, *Brucella ciceri*, and *Pseudomonas nitroreducens*-were isolated from acidic soils in Jharkhand, demonstrating strong nitrogen-fixing and plant growth-promoting capabilities. Vermiculite + paddy straw compost-based diazotrophic consortium (*Brucella oryzae*, *B. ciceri*, *Pseudomonas nitroreducens*) was developed to enhance rice productivity in acidic soils under DSR and TPR planting methods.



### Wheat varieties and breeding line for acidic soil:

Forty-five advance breeding lines were evaluated for yield and associated traits under acidic and limed soil condition, out of which one line viz., GK-16 was identified to be superior as compared to the check, HD 2967. Wheat varieties DBW 335 and HD 3360 were found superior under +Phosphorus and -Phosphorus conditions, respectively.

### Maize inbred lines for acidic soil:

Inbreds P53, P66, P37, P100, P60, P90, P59, and P36 showed better adaptation to acidic soil, making them suitable as parental lines for hybrid development. IMR349, IMR543, IMR534, and IMR476 has been identified as aluminium (Al) toxicity-tolerant genotypes. Thirty-eight elite maize inbred lines have been developed using local landraces and private-sector hybrids through rigorous cycles of phenotypic selection and self-pollination. These lines hold promising diversity for yield traits, stress resilience and wider adaptability and, will serve as a valuable genetic resource for hybrid breeding, specifically suited to agro-climatic conditions of Eastern India.

### High-yielding Baby corn and Maize hybrids:

The Baby corn Hybrids CR105, CR174, CR99, CR168, CR70, and CR87 have been found superior performers in terms of yield stability and fodder production across the tested location of Jharkhand. Four hybrids (DMRH 1419, IMH-8-101, IQPMH-18-2, and DMRH 1417 (SMH-5)) out yielded the check variety and found to be moderately resistant to all the major diseases and insect pests in different zones of Jharkhand.

### Mungbean germplasm for low phosphorus tolerance:

Nine superior accessions (IC0105576, IC0392343, IC0398988, IC0400063, IC0400174, IC0565278, IC0623693, IC0639817, IC0610380) has been identified with enhanced phosphorus use efficiency compared to tolerant and susceptible checks. The screening has identified five top-performing recombinant inbred lines (RILs) - RIL 37, RIL 22, RIL 63, RIL 135, and RIL 144 - for further use in lentil breeding programs targeting aluminium toxicity and low phosphorus tolerance.

### Lentil germplasm for low phosphorus tolerance:

The top five efficient genotypes identified for Phosphorus Use Efficiency were IC0623666, IC78460, IC260897, IC78449, and IC78455.



**Lentil varieties for Jharkhand:** The lentil varieties PDL-1 and PSL-9 have shown promising yield potential in Jharkhand's agroclimatic conditions. Two potential entries, PAL 14 and PAL 15 has found promising candidates for rice fallow ecosystem for rabi season fallow.

**Pigeonpea cultivar for Jharkhand:** Across different AICRP trials, IPA 15-21 recorded a pooled yield of 2083 kg/ha, 9.1% superior to all checks. In Jharkhand state centres (Ranchi & Chianki), IPA 15-21 displayed an impressive 55.84% yield superiority (2288 kg/ha) over the best check IPA-203.

**Tissue culture protocol for regeneration and transformation in pigeonpea:** A tissue culture-based regeneration and transformation protocol has been successfully developed using the embryo axis of pigeonpea (*Cajanus cajan*). Shooting efficiency was 82% for Pusa 992 and 77% for Asha, with nearly 100% rooting efficiency in half-strength MS medium containing 15 g/L sucrose and 0.5 mg/L IAA. Regenerated plants showed 90% survival after transplantation into pots.

**Papaya germplasm collected from hot-spot area:** A papaya gene pool was identified in tribal backyard gardens across hot-spot regions of Jharkhand. A fine-grid survey in Bandgaon, Murhu, Karra, and Khuntpani documented 28 diverse papaya types with varied fruit shapes, sizes (0.76-3.9 kg), and TSS (10-15° Brix).

**Pointed gourd germplasm collection and conservation:** Eighteen pointed gourd germplasm has been collected from farmers' fields and research institutions and maintained at the institute farm. Two promising genotypes (GKP-3 and HARP-63) suitable for generating variability and hybrid crosses have been identified.

**Fruit crops at IARI-Jharkhand:** The germplasm/varieties of potential fruit crops have been collected from different places of the country and established in the research farm of IARI, Jharkhand for their performance evaluation

**Goat and Pig farming in Jharkhand:** For goat farming semi-scavenging system is widely practiced, especially near forest land, barren, or uncultivable areas. However, most goat farmers are resource-poor and lack awareness of scientific management and health care practices. Indigenous pigs farrowed at 15-16 months, while crossbred pigs did so earlier at 12-14 months. Litter sizes were 6-10 for indigenous pigs and 10-14 for crossbred pigs. Growth performance varied significantly, with indigenous pigs reaching 35 kg and crossbred pigs 70 kg at 12 months. Poor diet quality-mainly low-protein crop by-products was a key factor in slow growth.



**Performance evaluation of Freshwater Fish:** Experimentation involved stocking five carp varieties viz., catla (*Catla catla*), rohu (*Labeo rohita*), common carp (*Cyprinus carpio*), grass carp (*Ctenopharyngodon idella*), and black carp (*Mylopharyngodon piceus*) in triplicate at 4 fish/m<sup>2</sup>.





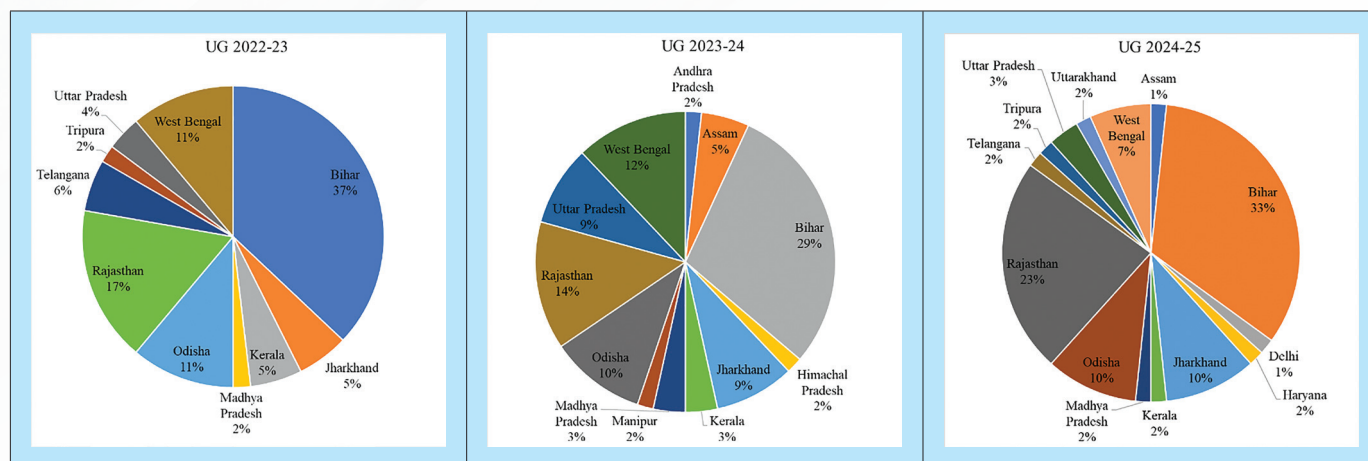
Fruit Crop	Fruit crops and their varieties conserved at IARI-Jharkhand
<b>Mango</b> (38 genotypes)	<p><b>Variety</b> (1) Totapuri, (2) Swarnarekha, (3) Banganapalle, (4) Neelam, (5) Chausa, (6) Dashehari, (7) Langra, (8) Malda, (9) Kesar, (10) Arka Neelachal Kesari, (11) Zardalu, (12) Bombay Green, (13) Himsagar, (14) Kisan Bhog, (15) Sukul, (16) Imam Pasand, (17) Raspuri, (18) Alphonso, (19) Paharpur Sindhuria</p> <p><b>Hybrids</b> (1) Manjeera, (2) Neeleshan, (3) Neeleswari, (4) Neelgoa, (5) Mahmood Bahar, (6) Arunika, (7) Ambika, (8) Amrapalli, (9) Mallika, (10) Pusa Arunima, (11) Pusa Sreshtha, (12) Arka Puneet, (13) Pusa Peetamber, (14) Pusa Lalima, (15) Pusa Pratibha, (16) Arka Uday, (17) Akra Suprabhat, (18) Pusa Manohari, (19) Pusa Deepsikha</p>
<b>Guava</b> (12 genotypes)	(1) Lucknow 49, (2) Allahbad Safeda, (3) Arka Kiran, (4) Arka Mridula, (5) Pusa Prateeksha, (6) Pusa Arushi, (7) CISH Lalit, (8) CISH Sweta, (9) CISH Dhawal, (10) CISH Lalima, (11) Arka Poorna, (12) Arka Rashmi
<b>Jamun</b> (3 genotypes)	(1) CISH-J-37 Jamvant, (2) CISH J-42, (3) Dhupdal
<b>Litchi</b> (7 genotypes)	(1) Shahi, (2) Rose Scented, (3) China, (4) Gandaki Yogita, (5) Gandaki Sampada, (6) Gandaki Lalima, (7) Late Bedana
<b>Ber</b> (3 genotypes)	(1) Apple Ber, (2) Gola, (3) Umran
<b>Sapota</b> (5 genotypes)	(1) Cricket Ball, (2) Kalipatti, (3) Murabba, (4) DSH-1, (5) DSH-2
<b>Custard apple</b> (3 genotypes)	(1) Akra Neelachal Vikram, (2) Arka Sahan, (3) Balanagar
<b>Jackfruit</b> (2 genotypes)	(1) Siddhu, (2) Shankara
<b>Citrus</b> (13 genotypes)	<p><b>Lemon:</b> Kagzi Kalan</p> <p><b>Sweet orange:</b> Mosambi, Pusa Round and Pusa Sharad</p> <p><b>Lime:</b> Seedless, Kagzi lime, Pusa Abhinav, Pusa Udit</p> <p><b>Mandarins:</b> Kinnow, Coorg Mandarin</p> <p><b>Pummelo:</b> Arka Ananatha, Arka Chandra, Pusa Arun, Devanhalli</p>
<b>Grapes</b> (4 genotypes)	Pusa Aditi, Pusa Trishar, Pusa Navrang, Pusa Urvashi
<b>Bael</b> (5 genotypes)	(1) CISH B1, (2) CISH B2, (3) NB 5, (4) NB9, (5) Swarna Vasudha
<b>Aonla</b> (6 genotypes)	(1) Chakaiya, (2) Kanchan, (3) Krishna, (4) NA-6, (5) NA-7, (6) NA 10

# TEACHING

## Numbers of M.Sc. and B.Sc. students admitted and passed out from IARI-Jharkhand

Degree	Academic Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
M.Sc. (Ag.)	Students admitted	9	10	11	11	12	30	29	20	20	18
	Students Passed out			9	10	10	10	12	30	28	
B.Sc. (Ag.)	Students admitted								66	63	59
	Students Passed out								-	-	-

## Representation of students from various parts of India



## Professional achievement by some of the passed out PG students of IARI-Jharkhand

Name	Discipline	Current position
Ankit Kumar Verma	Environmental Science	Technical Assistant, FCI
Surender P	Environmental Science	Forest Range Officer, Tamil Nadu
Saikat Bera	Soil Science & AC	Field Officer, Coconut Development Board
Chandu Anagani	Plant Pathology	Technical Assistant, FCI
Komal Verma	Plant Pathology	SDAO, Haryana
Priyabarta Sahu	Soil Science & AC	Asst. Agriculture Officer, Govt Of Odisha
Nagaraju Thogata	Agril. Extension	Asst. Manager, NABARD
Soumyadarshi Muduli	Agronomy	Assist. Manager, NABARD
S. Shyam	Microbiology	Scientist, Silk Board
Sayan Goswami	Agronomy	Technical Assistant, FCI
Indrani Saha	Seed science and Technology	AFO Union Bank Of India
Balakrishna Reddy	Environmental Science	Group II, PSC, Andhra Pradesh
Tanmay Das	Agronomy	Assistant Director Agriculture, West Bengal



Many students have joined PhD program in the institutes of national and international reputation like IARI, New Delhi; IIHR, Bangalore; IIT, Dhanbad; RPCAU, Pusa; Navsari Agricultural University, Gujarat; CCSHAU, Hisar; and GBPUAT, Pant Nagar etc.

## INFORMATION RELATED TO ACADEMIC PROGRAM

### B.Sc. (Agriculture) Program

- **Duration of course:** 4 years
- **Eligibility:** Intermediate in Science
- **Nature of education:** Residential
- **Process of admission:** Through Common University Entrance Test (CUET) conducted by National Testing Agencies (NTA) during month of April-May each year
- **Seat availability per year:** 66
- **Fee structure:** It varies yearly, however during academic session 2024-25 it was
  - Admission: Rs. 15,700 (including Rs. 10,000 caution money)
  - Hostel fee: Rs. 5500-26500/Year
  - Food: Rs. 3500-4500/Month

### M.Sc. Program

- **Duration of course:** 2 years
- **Nature of education:** Residential
- **Process of admission:** Through AIEEA conducted by National Testing Agencies (NTA) during month of April-May each year
- **Seat availability per year:** Variable
- **Discipline:** Soil science, Genetics and Plant breeding, Vegetable Science and Fruit Science (New disciplines may be added in coming years)
- **Fee structure:** It varies yearly, however during academic session 2024-25 it was
  - Admission: 18,100 (including 10,000 caution money)
  - Hostel fee: Rs 5500-26500/Year
  - Food: Rs. 3500-4500/Month



## GLIMPSES OF EXPOSURE VISITS & EDUCATIONAL TOURS



ICAR-Central Rainfed Upland Rice Research Station (CRURRS), Hazaribagh



Vinoba Bhave University, Hazaribagh



Food Corporation of India (FCI), Gaya



Birsa Agricultural University, Ranchi



Koderma Thermal Power Station, Koderma



ICAR-RCER, Palandu, Ranchi



Parasnath Wildlife Sanctuary, Giridih



IARI farm machinery shed, Gauria Karma



## GLIMPSES OF STUDENTS' ACTIVITIES AT IARI JHARKHAND



Celebration of Holi



IARI Jharkhand Sports meet



Plantation drive



Rangoli Competition



Republic Day Celebration



Cultural Meet



Students receiving awards for Painting competition at Barhi



Diwali Celebration



Yoga Day Celebration



# EXTENSION

IARI-Jharkhand has successfully reached and imprinted its image among the farmers of many districts of Jharkhand mainly Hazaribagh, Bokaro, Chatra, Ramgarh, Koderma, Giridih, Khunti, Simdega through various extension mechanism like Survey, Kisan Gosthi, Field Day, Farmers Fair and Farmers Training under various scheme like SCSP, TSP, Research Projects and Institute mandate.



## Farmer's Fair

On January 28, 2024, a Farmer's Fair was organized at ICAR-IARI, Jharkhand sports ground with the sponsorship of NABARD, Hazaribagh. The Chief Guest of the program was Honourable Member of Parliament and Chairman of Standing Committee of Finance, Govt. of India, Shri Jayant Sinha. More than 5000 visitors turned up in the event and witnessed the stalls and display exhibits to aware and sensitize farmers of the state on improved agricultural practices including livestock and fish farming.



## Scientist-Farmer Interface

The institute regularly organised Scientist-Farmers Interface and Kisan Gosthi to analyse the existing problems associated with crop and animal farming and to disseminate the new technologies. The institute has successfully organised more than 50 Kisan Gosthis, Awareness Camps, Farmer's Field Visit and Scientist-Farmer Interface programs under institute-mandated activity as well as under SCSP, TSP and externally funded project.



## Input Distribution

The institute is actively working for enhancing agricultural productivity and income of SC and ST farmers of Eastern India through distributing quality seed inputs, horticultural planting material, livestock, poultry, efficient farms implements and tools under SCSP and TSP. Till date more than 35,000 SC and more than 6000 ST farmers has been benefited.



## Capacity Building

Capacity building has remained one of the major activities of IARI-Jharkhand since the start of Research, Education and Outreach Programme from 2020 onwards. The institute has successfully trained farmers, officials of state departments and students of other universities in the field of improved practices of cereals, pulses, oilseeds, vegetables and fruit cultivation, mushroom cultivation; vermicomposting, biofertilizer, soil health management, backyard poultry farming, post-harvest techniques, nursery management, agroforestry systems etc.



# IMPORTANT PUBLICATIONS

Sl. No.	Title and Issue No.	Editors	Year
1	ICAR IARI- Jharkhand Newsletter. Volume 1, No. 1	Preeti Singh, Ashok Kumar, Krishna Prakash, Manoj Chaudhary, Ranjit Singh, Santosh Kumar, Shilpi Karketta, S.K Mahanta, Vishal Nath, Asha Kumari	Jan.-Dec. 2021
2	ICAR IARI- Jharkhand Newsletter. Volume 2, No. 1	Preeti Singh, Santosh Kumar, Krishna Prakash, Manoj Chaudhary, Himani Priya, Shilpi Kerketta, Asha Kumari, S.K Mahanta, Vishal Nath	Jan.-Dec. 2022
3	ICAR IARI- Jharkhand Annual Report	S.K. Mahanta, Niranjana Kumar, Krishna Prakash, Dipak Kumar Gupta, Anima Mahto, Asha Kumari Himani Priya, Shilpi Kerketa, Santosh Kumar Monika M., Nuzaiaba P. M.	2023
4	झारखण्ड में एकल संकर मक्का बीज उत्पादन की तकनीक। IARI-JH/TM-001/2022	संतोष कुमार, प्रीति सिंह, बहादुर सिंह जाट, सुमित कुमार अग्रवाल, प्रियरंजन कुमार, वीरेंद्र कुमार यादव, नितीश रंजन प्रकाश, तरुण कुमार शर्मा, अशोक कुमार, विशाल नाथ	2022
5	भद्रिका पुंज (राजभाषा पत्रिका)। IARI-Jharkhand 2022	विशाल नाथ, मनोज चौधरी	2022
6	भद्रिका पुंज (राजभाषा पत्रिका)। IARI-Jharkhand 2023	विशाल नाथ, मनोज चौधरी, अनिमा महतो, प्रीति सिंह, शिल्पी केरकेटा, मोनिका एम.	2023
7	बैकयार्ड पोलट्री फार्मिंग। IARI-Jharkhand/Teb/ 2025-001	मोनिका एम, शिल्पी केरकेटा, पंकज कुमार सिन्हा, पवित्रा के एन, विशाल नाथ, सनत कुमार महंता, नुजैबा पी एम, अभय कुमार गिरी	2025
8	भारतीय कृषि अनुसंधान संस्थान। IARI-J/2024/EF-001	विशाल नाथ, सनत कुमार महंता, कृष्ण प्रकाश, दीपक कुमार गुप्ता	2024
9	ICAR-IARI Jharkhand at a Glance. IARI-J/2024/EF-002	Vishal Nath, Sanat Kumar Mahanta, Krishna Prakash, Dipak Kumar Gupta	2024
10	रबी दलहनी फसलों में रोग एवं कीट प्रबंधन। IARI-J/2024/EF-003	अनिमा महतो, शैलन एन संगमा, निरंजन कुमार, मोनू कुमार	2024
11	मसूर एवं चना की खेती में पोषक तत्व प्रबंधन। IARI-J/2024/EF-004	अनिमा महतो, आशा कुमारी, मोनू कुमार, पंकज कुमार सिन्हा, दीपक गुप्ता, सनत कुमार महंता	2024
12	चना एवं मसूर में गुणवत्तापूर्ण बीज उत्पादन। IARI-J/2024/EF-005	अनिमा महतो, मोनू कुमार, हिमानी प्रिया, कृष्ण प्रकाश, प्रियरंजन कुमार	2024
13	कीटनाषकों का विवेकपूर्ण उपयोग। IARI-J/2024/EF-006	निरंजन कुमार, शैलन एन संगमा, नुजैबा पी. एम., आशारानी पटेल, पी. के सिन्हा	2024
14	टमाटर का आर्थिक और पोषक महत्व। IARI-J/2024/EF-007	दामिनी मैथानी, प्रियंका खाती, जीवन बी, स्वाती लोहानी, आशा कुमारी, शैलन एन संगमा, विजया रानी, सौगत भट्टाचार्य	2024
15	सब्जी में ग्राफिटिंग करने की तकनीकियाँ फायदे। IARI-J/2024/EF-008	साहेब पाल, कृष्ण प्रकाश, नरेन्द्र सिंह, विशाल नाथ	2024
16	झारखण्ड में बकरी पालन लाभ का धंधा। IARI-J/2024/EF-009	डॉ.शिल्पी केरकेटा, डॉ. सनत कुमार महंता, डॉ.मोनिका एम.	2024
17	नील हरित पैवाल (बीजीए) जैवउर्वरक उत्पादन एवं धान की खेती में इनका उपयोग। IARI-J/2024/EF-010	हिमानी प्रिया, रंजित सिंह, प्रियरंजन कुमार, दीपक कुमार गुप्ता, अनिमा महतो, आकाश ए., प्रीति सिंह, मनोज चौधरी	2024
18	संकर मक्का बीज उत्पादन की तकनीक। IARI-J/2024/EF-011	संतोष कुमार, प्रीति सिंह, आकाश ए., प्रियरंजन कुमार, विशाल नाथ	2024
19	कृषि में लाभप्रदता हेतु बेबी कॉर्न (शिशु मक्का) की वैज्ञानिक पद्धति द्वारा खेती। IARI-J/2024/EF-012	संतोष कुमार, प्रीति सिंह, निरंजन कुमार, शैलन एन संगमा, सनत कुमार महंता	2024
20	मक्के में पोषक तत्वों की कमी के लक्षण एवं आपूर्ति। IARI-J/2024/EF-013	प्रीति सिंह, संतोष कुमार, निरंजन कुमार, हिमानी प्रिया, शैलन एन संगमा	2024
21	कृषि मृदा में बायोचार का उपयोग। IARI-J/2024/EF-014	दीपक कुमार गुप्ता, आरती भाटिया, पंकज कुमार सिन्हा, चन्दन कुमार गुप्ता, विशाल नाथ	2024
22	Botanicals and Their Use in Pest Disease Management. IARI-J/2024/EF-015	Shannon N. Sangma, Niranjana Kumar, Asha Kumari, Pavithra K N , Nuzaiaba P M and Asharani Patel	2024
23	कार्प मछली पालन के लिए बेहतर प्रबंधन पद्धतियाँ। IARI-J/2024/EF-016	अभय कुमार गिरी, दीपक कुमार गुप्ता, पंकज कुमार सिन्हा, कृष्ण प्रकाश, निरंजन कुमार, शैलन एन संगमा, एस.के. गुप्ता, डी. बरुआ	2024
24	प्रशिक्षण पुस्तिका: दलहनी फसलों में गुणवत्तायुक्त बीज उत्पादन। IARI-J/2024/TEB-001	आनिम महतो, मोनू कुमार, प्रिय रंजन कुमार, सनत कुमार महंता, दीपक कुमार गुप्ता, कृष्ण प्रकाश, पंकज कुमार सिंह, आशा कुमारी	2024

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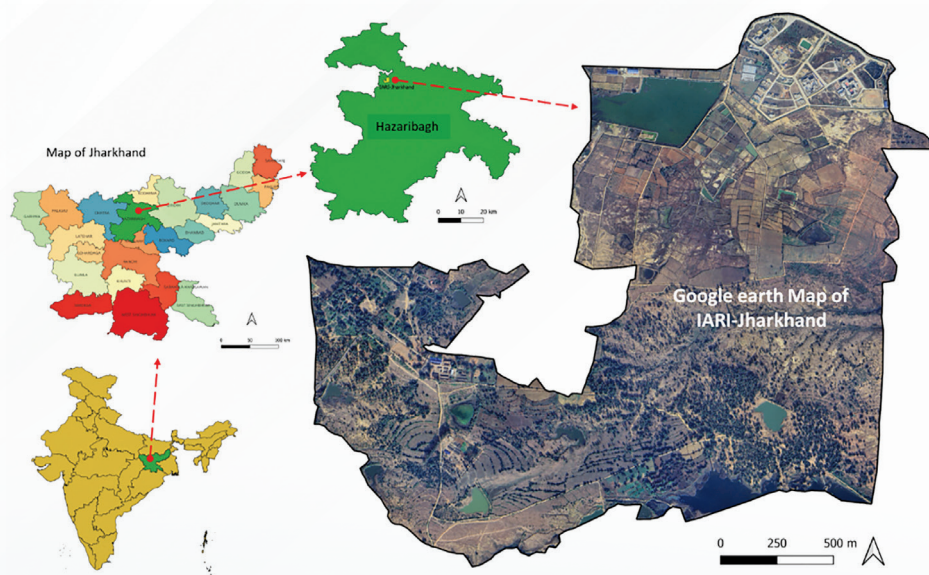
# FIRST BLOOMS OF IARI-JHARKHAND

Barnyard Millet ( <i>Echinochloa esculenta</i> )	Foxtail Millet ( <i>Setaria italica</i> )	Jowar ( <i>Sorghum bicolor</i> )	Ragi ( <i>Eleusine coracana</i> )
Bajra ( <i>Pennisetum glaucum</i> )	Brassica juncea	Solanum tuberosum	Cajanus cajan
Cicer arietinum	Papaya <i>Carica papaya</i>	Mango (Variety Arunika)	Mango (Variety Mallika)
Pomegranate (Variety Bhagva)	Sweet Orange cv. Mosambi	Prunus persica	Mulberries ( <i>Morus</i> spp.)

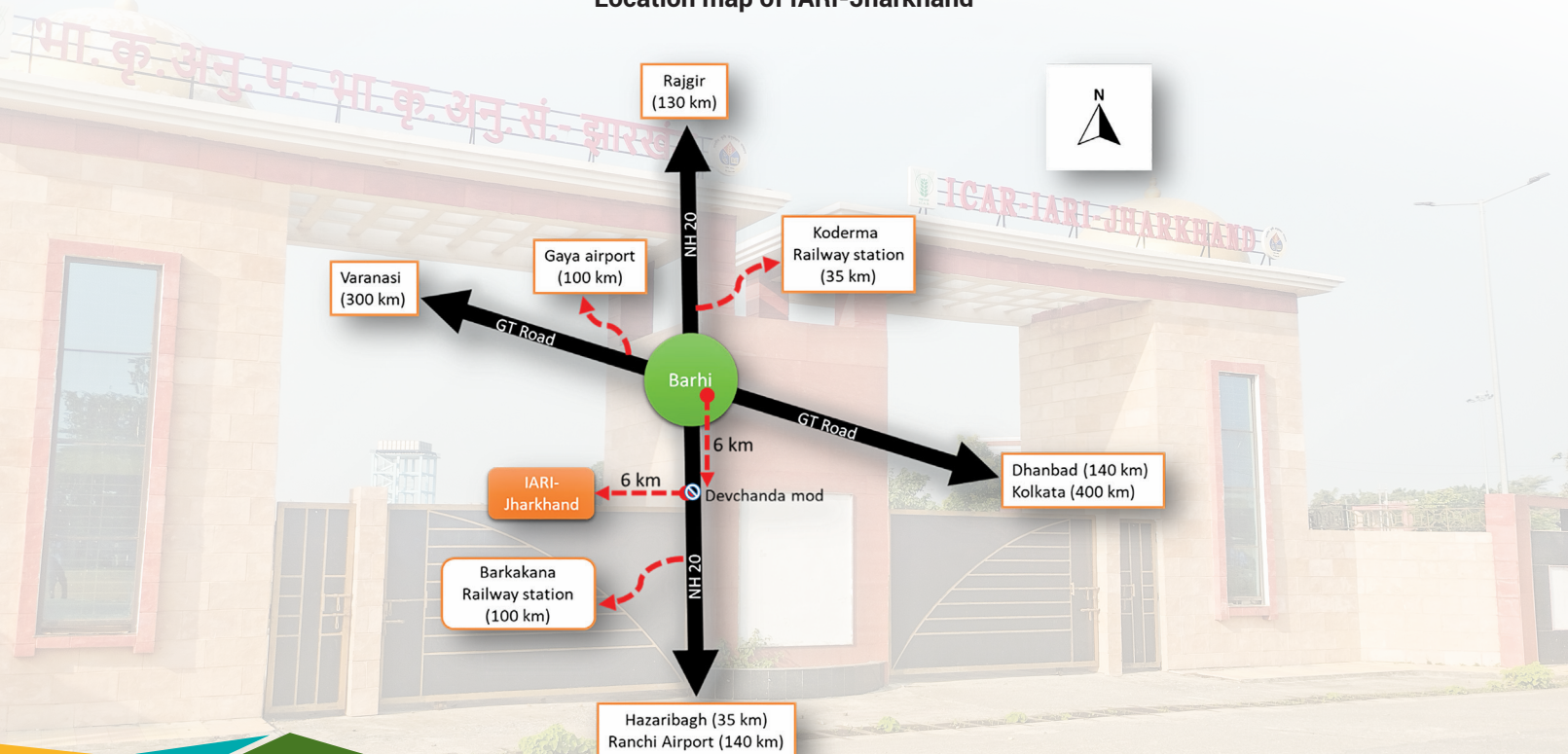


# LOCATION AND CLIMATE

The present campus of the Institute is spread over an area of 1000 acres and located at 24°17'5.87"N 85°21'36.43"E and about 320 meter above mean sea level at Gauria Karma village of Barhi block, Hazaribagh, Jharkhand-825405. It is situated under the Central North-Eastern Plateau Agro-climatic zone and is characterized by humid and sub-humid tropical monsoon. The average rainfall of the district is about 1250 mm and maximum is received during June–September. The minimum annual temperature of the district varied from 15.3 °C to 20.6°C while maximum annual temperature varied from 27.4°C to 31.1°C. The coolest month is January while April and May are hottest months. It is located about 35 km North of Hazaribagh town, 100 km North of Barkakana Railway Station, 150 km North of Ranchi Airport, about 35 km South of Koderma Railway Station, 100 km South-East of Gaya Airport and 140 km West of Dhanbad Railway station.



Location map of IARI-Jharkhand











**भा.कृ.अनु.प.- भारतीय कृषि अनुसंधान संस्थान - झारखंड**  
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