# Annual Action Plan


# Krishi Vigyan Kendra,

## Saraikela-Kharsawan

**(estd : 2010)**

## Directorate of Extension Education

## Birsa Agricultural University, Ranchi

### ATARI Zone-IV Patna, Bihar

# Brief information about the district

| | |
|---|---|
| Name of Agro Climatic Zone | VII |
| Longitude | **85°30'14" - 86°15'24"E** |
| Latitude | **22°29'26" - 23° 09'34"N** |
| Temperature Maximum | **42.9** |
| Temperature Minimum | **8°C** |
| Geographical (ha) | **299600.34** |
| Total cultivable area (ha) | **94803.15** |
| Total Net sown area (ha) | **92112.56** |
| Area sown more than once (ha) | **6.31** |
| Kharif sown area (ha) | **903472** |
| Rabi sown area (ha) | **34523** |
| Summer sown area (ha) | **1455** |
| Gross cropped area (ha) | **81,301** |
| Cropping intensity (%) | **109** |
| Annual Rainfall (mm) | **1275 mm** |
| Rainy days | **94** |
| Total irrigated area (ha) | **5728** |
| Total rainfed area (ha) | **89500** |
| Irrigation per cent | **11%** |
| Soil type | **Loam, sandy loam, and clayey loam** |
| Upland (ha) & % of total cultivable area | **92416 (62.34 %)** |
| Midland (ha) & % of total cultivable area | **35214 (23.45 %)** |

| | |
|---|---|
| Lowland (ha) & % of total cultivable area | **18416 (14.21%)** |
| Soil organic carbon status of the district | **(Low/Medium/High)-Low and Medium 60.4%** |
| Nutrient status of soil of the district | **N (Low/Medium/High) Medium 80.2%** |
| | **P (Low/Medium/High)-Low 94.9%** |
| | **K (Low/Medium/High)-Medium 64.8%** |
| Micronutrient status of soil of the district | **( Low/Medium/High)-Low Boron-55% Sulpher-40.9%** |
| Fertilizer consumption (Kg/ha) | **193 kg/ha** |
| Total Population | **1065056** |
| Total SC population & (%) of total population | **56195 (5.28%)** |
| Total ST population & (%) of total population | **3,74,642 (35.18%)** |
| Male population | **544411** |
| Female population | **520645** |
| Literacy (%) | **68.85%** |
| No of Tehasil | **02** |
| No of blocks | **09** |
| No of Panchayat | **132** |
| No of villages | **1148** |

# Staff position

| S. No. | Name of staff | Designation and discipline | Date of joining in present KVK |
|---|---|---|---|
| **1.** | Dr. Pankaj Seth | I/C Sr. Scientist & Head(Veterinary Science) | 06 August, 2025 |
| **2.** | Sri Gondra Mardi | Scientist ( Plant Protection) | 08 October, 2025 |
| **3.** | Dr. Amresh Chandra Pandey | Scientist ( Agril.Engg) | 08 October,2025 |
| **4.** | Mrs. Elishma Xaxa | Scientist (GPB) | 10 October, 2025 |
| **5.** | Sri. Lucky Oraon | Assistant | 06 February, 2025 |
| **6.** | Sri. Susheel purty | Peon | 17 December, 2005 |
| **7.** | Sri. Binod Tirkey | Peon | |
| **8.** | Kumari Seemran | Technical agent (Contractual) | |

# Farmer Category of the district

| Name of Block | Geographical Area (ha) | Marginal Farmer (Nos.) Up to 1.0 ha | Small Farmers (Nos.) 1.0 – 2.0 ha | Semi-medium Farmers (Nos.) 2.0 – 4.0 ha | Medium Farmers (Nos.) 4.0 – 10.0 ha | Large Farmers (Nos.) 10.0 ha & Above | Total Farmers (Nos.) |
|---|---|---|---|---|---|---|---|
| Saraikela | 36120.78 | 12954 | 3379 | 2991 | 1441 | 329 | 20994 |
| Kharsawan | 23463.53 | 9508 | 3847 | 1838 | 976 | 325 | 19794 |
| Kuchai | 38403.11 | 14989 | 5495 | 2232 | 1846 | 397 | 21959 |
| Rajnager | 53938.41 | 11686 | 4573 | 4915 | 2545 | 259 | 23978 |
| Gamhariya | 28129.27 | 8513 | 3824 | 1818 | 974 | 210 | 17839 |
| Nimdih | 29143.58 | 15187 | 10187 | 2248 | 1070 | 305 | 28797 |
| Chandil | 37369.67 | 9941 | 3717 | 1240 | 830 | 345 | 13873 |
| Kukru | 35289.00 | 6779 | 5842 | 1523 | 417 | 207 | 14250 |
| Ichagarh | 34976.44 | 10942 | 5670 | 4388 | 735 | 317 | 21852 |
| Total no of farmers | | 93720 | 40692 | 21670 | 10417 | 2287 | **169086** |
| % of Land holding | | **55.43** | 24.06 | 12.82 | 6.16 | **1.35** | |

**Average land holding of the district (0.56 ha)**
**Source of information:DAO, Saraikela Kharsawan, 2025**

# Status of major field crops of the district

| Season : Kharif | | | |
|---|---|---|---|
| Name of crop | **Area (ha)** | **Production (MT)** | **Productivity (Q/ha)** |
| Paddy | **80406** | **2003457** | **24.70** |
| Maize | **2107** | **35034** | **25.6** |
| Pigeonpea | **9324** | **879200** | **16.25** |
| Jowar | **365** | **456.25** | **12.5** |
| Ragi | **1441** | **1800** | **12.5** |
| Bajra | **1298** | **1870.2** | **9.75** |
| Groundnut | **1635** | **1993** | **12.30** |
| Season : Rabi | | | |
| Wheat | **6630** | **16322** | **24.8** |
| Mustard | **24865** | **13675** | **6.8** |
| Chickpea | **14963** | **21432** | **11.50** |
| Lentil | **633** | **456** | **7.20** |
| Sesame | **565** | **746** | **7.15** |
| Season: Summer | | | |
| Groundnut | **478** | **948** | **11.85** |
| Sesame | **263** | **618** | **7.15** |
| Moong | **2349** | **16443** | **8.56** |

**Source of information: DAO, Saraikela-Kharsawan**
**( Source of Year: 2024 )**

# Status of major horticulture crops of the district

| Vegetable crop | | | |
|---|---|---|---|
| Name of crop | **Area (ha)** | **Production (MT)** | **Productivity (q/ha)** |
| Okra | **2200** | **31500** | **140** |
| Chilli | **1200** | **78000** | **80** |
| Brinjal | **1700** | **34400** | **180** |
| Bottle guard | **1180** | **182900** | **165** |
| Elephant Foot Yam | **632** | **34760** | **60** |
| Cucumber | **948** | **80580** | **95** |
| Potato | **2500** | **24700** | **96.95** |
| Tomato | **1700** | **35600** | **200** |
| Cauliflower | **1100** | **18300** | **160** |
| Onion | **1180** | **322730** | **210** |
| Brinjal | **1900** | **36600** | **220** |
| Fruit crop | | | |
| Mango | **2640** | **32832** | **123.45** |
| Lemon | **160** | **1600** | **95.65** |
| Papaya | **534** | **1255** | **11.80** |
| Guava | **1830** | **28138** | **122.74** |

**Source of information: DHO, Saraikela-Kharsawan, 2025**

# Live stock status of the district

| Name of livestock | Number |
|---|---|
| **Total no. of Indigenous cattle** | 433000 |
| **Total no. of cross breed** | 120522 |
| **Total no. of Buffalo** | 196000 |
| **Total no. of Goat** | 364755 |
| **Total no. of Sheep** | 85299 |
| **Total no. of Pig** | 65111 |
| **Total no. of poultry** | 3457000 |
| **Total no. of commercial dairy unit** | 28 |
| **Total no. of commercial Goatery unit** | 16 |
| **Total no. of commercial poultry unit** | 48 |
| **Total no. of commercial pig units** | 18 |

Source of information: DAHO, Saraikela-Kharsawan
(Source of Year: 2024)

# Details of Agro-Ecological situation

| S. No | Name of Agro-Climatic Zone | Name of Agro-Ecological Situation | Agro-Ecological Situation features | Blocks covered |
|---|---|---|---|---|
| **1.** | VII | South Eastern Plateau Zone-VI | • Climate: Sub-humid to humid climate with lower rainfall compared to the Eastern Plateau & Hills - Eastern Plateau zone.<br>• Terrain: A mix of hilly terrain and homogenous plains.<br>• Land Use: In the northern plain areas, agriculture is prominent, with rice and wheat being major crops. Southern areas, particularly forested regions, have patches of agricultural land.<br>• Crops: Common crops include rice, maize, wheat, and oilseeds.<br>• Potential: The agro-climatic conditions favor the cultivation of fruits and vegetables.<br>• Forests: Significant portion of the district is covered by forests, which play a vital role in the local economy. | |
| **2.** | | AES-I | Rainfed undulated, deciduous forest having sandy loam, Red laterite soil. Rice, Maize, Wheat, Vegetable, Pulse & Oilseed | Ichagarh,Nimdih Kukru |
| **3.** | | AES-II | Rainfed upper plateau, temperate forest areas having course texture red laterite. Rice Maize, Pulses, Vegetable | Kuchai,Kharsawan |
| **4.** | | AES-III | Rainfed undulated deciduous forest area having sandy loam<br>laterite soil. Rice, Maize, Wheat | Gamharia, Chandil |
| **5.** | | AES-IV | Rainfed undulated partial forest area having sandy loam laterite soil. Rice, Maize, Oilseed & Pulses | Rajnagar, Saraikela |

# MAJOR PROBLEMS IDENTIFIED

- Erratic rain fall
- Poor irrigation infrastructure
- Poor soil quality, acidic and soil erosion
- Pest and disease infestation
- High input cost
- Excessive dependence on the rice in all farming situation
- Dependency on subsidies
- Small and marginal farmers
- Low agriculture production
- Low production of dairy cattle, goat, pig and backyard poultry
- Poor resource farmers

# MAJOR THRUST AREAS

- Popularization of Integrated Nutrient Management and IPM.
- Improvement of soil and water conservation practices for sustainable agricultural production.
- Replacement and improvement in crop productivity with new high yielding varieties
- Promotion of Oilseeds and Pulses
- Promotion and area expansion of Nutri cereals and millets
- Development of animal husbandry enterprises like dairy, piggery, goat and backyard poultry farming
- Fishery based Integrated Farming System
- Development of Hi-Tech Horticulture and Mushroom Cultivation.
- Development of fruits and vegetables nursery to obtain quality seeds/seedling
- Development of homes science enterprises, processing and value addition to obtain extra income in lean period and practices for drudgery reduction.
- Promotion of Natural Farming.
- Promotion of fodder cultivation
- Formation of FIGs, Self-help groups, FPOs & village level organization for sustainable agricultural development
- Market linkage for SHGs, FPOs, and FIGs

## Summary of the activities to be conducted during 2026-27

| Activity<br>OFTs | Target | |
|---|---|---|
| | Number of activity | No. of farmers to be covered |
| OFTs | 08 | 80 |
| FLDs – Oilseeds (activity in ha) | 02 | 06 |
| FLDs – Pulses (activity in ha) | 02 | 06 |
| FLDs – Other than Oilseed and Pulses crops (activity in ha) | 03 | 14 |
| FLDs – Other than Crops (activity in no. of unit/Enterprises) | 03 | 40 |
| Training – Farmers and farm women | 43 | 2150 |
| Training – Rural Youths | 19 | 475 |
| Training – Extension Functionaries | 09 | 225 |
| Extension activities | 54 | 3600 |
| Seed Production (Quintal) | 160 | 70 |
| No. of seedling/sampling Production | 15000 | 50 |
| Other Bio- products – Vermicompost (q) | 50 | 15 |
| Live stock products (Poultry chicks – nos.) | 0 | |
| (Fingerlings – nos.) | 0 | |
| No of Soil and Water Testing in Laboratory | 800 | 800 |
| No of advisory through Kishan Sarathi portal | 08 | 3000 |
| SAC Meeting (Date & no. of core/ official members) | 01 | 23 |
| Literature to be developed/ Published | 05 | 2500 |
| Convergence Programme / Sponsored Programme | 02 | 150 |
| KVK Progressive Farmers interaction | 02 | 82 |
| Outreach of KVK in the District (No. of blocks, no. of villages) | 9 (18) | 1500 |

# Proposed OFT 2026-27

# OFT No:1

## Goat population of district:364755,
## District Av. yield: 13.68 kg/goat, State Av. yield: 17.25 kg/goat

| | |
|---|---|
| Enterprise | Goat Farming |
| **Season** | Kharif/Rabi/Summer 2026-27 |
| **Main problem** | Unhealthy low birth weight and reduced survivability of kids |
| **Main cause** | Inadequate and low nutrient feeding management |
| Title of OFT | **Assessment of concentrate ration feeding in pregnant does ( Steaming Up)** |
| **Farming situation** | Traditional goat rearing under rainfed production system |
| **Thematic area** | Livestock feeding management |
| **Farmer practice** | **Free range grazing/browsing without any feed supplement** |
| **Technology option selected for assessment** | **To1: Farmers practice + Supplementation of 100 gm concentrate/day from 60 days before the expected day of kidding**<br>**To2: Farmers practice + Supplementation of 150 gm concentrate/day from 60 days before the expected day of kidding** |
| **Source of technology** | IVRI, Bareilly, 2023 |
| **No of trial** | 2 (10 ) |
| **Detail of critical input** | Concentrate feed |
| **Cost of individual critical input** | Rs. 500/- |
| **Total cost of critical input** | Rs. 5000/- |
| **Performance indicator to be recorded** | (i) Av. Birth weight (ii) Av. Body weight gain (iii) Mortality % (iv) B:C ratio |

# OFT No:2

## Pig population of district:65111,

## District Av. yield: 30.5 kg/pig, State Av. yield: 36 kg/pig

| | |
|---|---|
| **Enterprise** | **Pig farming** |
| **Season** | Kharif/Rabi/Summer 2026-27 |
| **Main problem** | Low body weight gain in pig |
| **Main cause** | Intense irritation, which leads to chronic stress, reduced feed intake, and wasted energy |
| **Title of OFT** | Assessment of Karanj oil and custard leaves extract to control external parasites in pig |
| **Farming situation** | Traditional pig rearing under rainfed production system |
| **Thematic area** | Livestock health management |
| **Farmer practice** | Use of karanj oil/ Neem oil |
| **Technology option selected for assessment** | To1: Neem Oil 100 ml + Sulphur 10g +Camphore 10g + Custard leaves extract for 3 alternative days<br>To2: Karanj oil 100 ml + Sulphur 10g +Camphore 10g + Custard leave extract for 3 alternative days |
| **Source of technology** | BAU, Ranchi, 2020 |
| **No of trial** | 2 (10 ) |
| **Detail of critical input** | Sulphur, Camphore, Karanj oil, Neem oil |
| **Cost of individual critical input** | Rs. 100/- |
| **Total cost of critical input** | Rs. 1000/- |
| **Performance indicator to be recorded** | (i) Av. Body weight gain (ii) B:C ratio |

# OFT No. 3
# Crop area of district in ha 81361 ( ha) ,
# District yield –(24.70q/ha) State yield (26.72q/ha)

| Crop | Rice |
|---|---|
| **Season** | Kharif 2026 |
| **Main Problem** | Low yield of Rice |
| **Main Cause** | Severe infestation of yellow stem borer (Scirpophaga incertulas) on rice resulting 20-30% yield losses. |
| **Title of OFT** | Assessment of insecticide for the management yellow stem borer (Scirpophaga incertulas) on rice. |
| **Farming situation** | Sandy loam, mid and low land, rain fed farming situation |
| **Thematic area** | Integrated pest management |
| **Farmer Practice** | Spray of chlorpyrifos or cypermethrin @ 2.5 ml/lit. of water when dead heart appear in the field |
| **Technology option selected for assessment** | T1- Fipronil 0.3G at 20 DAT @ 25 Kg/ha and the foliar spray with flubendamide 480% SC at 50 DAT @ 0.4ml/lit. of water<br>T2- Chlorantraniliporle 0.4G at 20 DAT @ 10 Kg/ha and the foliar spray with flubendamide480% SC at 50 DAT @ 0.4ml/lit. of water |
| **Source of technology** | ANGRAU,ARS 2025 |
| **No. of Trial** | 3 (10) |
| **Details of critical input** | Chlorantraniliporle, fipronil and flubendamide |
| **Cost of individual critical input** | 1000 |
| **Total cost of Critical input** | 10000 |
| **Performance indicator to be recorded** | (i) Technical indicator ( infestation %, number of tiller, no. of dead heart per hill , grain per panicle, Yield q/ha)<br>(ii) Economic indicator (Cost of cultivation, Gross return, Net return and B:C Ratio)<br>(iii) Farmer perception |

# OFT No. 4
# Chickpea crop area of district in ha (14963 ha) , District yield –(16.5 q/ha) State yield (q/ha)

| | |
|---|---|
| **Crop** | **Chick Pea** |
| **Season** | Rabi |
| **Main Problem** | Low yield of Chickpea |
| **Main Cause** | Pod borer *(Helicoverpa armigera)* heavily infested pod during pod formation resulting heavy losses . Estimated avoidable yield losses due to pod borer in chickpea to range between 30-50%. |
| **Title of OFT** | Assessment of insecticides for the management of pod borer in Chickpea |
| **Farming situation** | Sandy and Sandy loam, medium land, lowland Rainfed |
| **Thematic area** | Integrated Pest management |
| **Farmer Practice** | Chemical pesticide available in the market like Dimethoate, chlorpyriphos spray @ 2.5 ml/lit.of water etc. spray when symptoms of infestation appear in the field |
| **Technology option selected for assessment** | T1- Spray of Lambda cyhalothrin 5% EC @ 2.0 ml/lit. of water with two sprays applied first spray when pest population exceed the ETL and 15 days thereafter.<br>T2- Spray of Chlorantraniliprole18.5% SC@ 0.5 ml/lit. of water with two sprays applied first spray when pest population exceed the ETL and 15 days thereafter. |
| **No. of Trial** | 10 (plot size 250 sq-m) |
| **Details of critical input** | Chlorantraniliprole& Lambda cyhalothrin |
| **Cost of individual critical input** | 1000 /- |
| **Total cost of Critical input** | 10000 /- |
| **Performance indicator to be recorded** | (i) Technical indicator (No. of pod per plant, % pod damage and yield Q/ha)<br>(ii) Economic indicator (Cost of cultivation, Gross return, Net return and B:C Ratio)<br>(iii) Farmer perception |

# OFT No:5
## Crop area of district 9324 ha,
## District yield (12 Q/ha) State yield (Q/ha)

| | |
|---|---|
| **Crop** | **Pigeonpea** |
| **Season** | Kharif 2026 |
| **Main problem** | Low yield |
| **Main cause** | Farmers use local seed |
| **Title of OFT** | Assessment of performance of climate resilient Pigeonpea varieties |
| **Farming situation** | sandy loam to loam soil, upland , rainfed farming situation |
| **Thematic area** | Pulse production |
| **Farmer practice** | Local seed - Chaitali ( No seed treatment ) |
| **Technology option selected for assessment** | T1- Birsa arhar 2 Spacing 45*30cm (Seed treatment with Rhizobium 7 - 10 gm/kg seed)<br>T2- IPAE 15-6 Spacing 45*30cm (Seed treatment with Rhizobium 7-10 gm/kg seed ) |
| **Source of technology** | BAU,Ranchi , ICAR-IIPR,Kanpur (2023) |
| **No of trial** | 10 |
| **Detail of critical input** | HYV Seed |
| **Cost of individual critical input** | Rs.300 |
| **Total cost of critical input** | Rs.3000 |
| **Performance indicator to be recorded** | i. Technical indicator Yield (Q/ha)<br>ii. Economic indicator (Cost of cultivation, Gross return, Net return, B:C ratio)<br>iii. Farmer perception |

# OFT No:6
## Crop area of district 81361 ha,
## District yield (24.70 Q/ha) State yield (26.72 Q/ha)

| | |
|---|---|
| **Crop** | **Paddy** |
| **Season** | Kharif 2026 |
| **Main problem** | Low Yield in paddy |
| **Main cause** | Use local variety, lack of knowledge of improved HYV drought tolerance paddy varieties |
| **Title of OFT** | Assessment of Performance of drought tolerance paddy varieties |
| **Farming situation** | Loamy soil, medium land ,rainfed farming situation |
| **Thematic area** | Paddy production |
| **Farmer practice** | T1- Balibhojna (No seed treatment) |
| **Technology option selected for assessment** | T2- CR Dhan 807 (Seed treatment with Azospirillum 7- 8 gm/kg seed)<br>T2- Swarna purvi dhan 1 (Seed treatment with Azospirillum 7 -8 gm/kg seed)<br>T3- Swarna Shusk dhan (Seed treatment with Azospirillum 7- 8 gm /kg seed) |
| **Source of technology** | ICAR-NRRI Cuttack |
| **No of trial** | 10 |
| **Detail of critical input** | HYV drought seed, Azospirillum |
| **Cost of individual critical input** | Rs. 200 |
| **Total cost of critical input** | Rs. 2000 |
| **Performance indicator to be recorded** | i. Technical indicator (No of tillers, Effective tillers, grains per panicle, Yield (Q/ha)<br>ii. Economic indicator (Cost of cultivation, Gross return, Net return, B:C ratio)<br>iii. Farmer perception |

# OFT No:7
# Crop Area – 9324 ha,
# District yield (12q/ha) State yield (13.5 q/ha)

| | |
|---|---|
| Crop | Pigeonpea |
| **Season** | Kharif 2026 |
| **Main problem** | Low yield in pigeonpea |
| **Main causes** | Weed infestation, High Labour cost |
| Title of OFT | **Assessment of weed management through low - cost weeding tools in Pigeonpea cultivation** |
| **Farming situation** | Sandy loam, Midland, Irrigated |
| **Thematic area** | Weed Management |
| Farmer practice | **No weeding/hand weeding with khurpi/kudal** |
| Technology option selected for assessment | **T1: Three Tyne hoe (Grubber)**<br>**T2: Rotary tiller (Manual)** |
| **Source of technology** | CIAE, Bhopal 2021 |
| **No of trial** | 10 |
| **Detail of critical input** | Three tyne hoe and Rotary tiller |
| **Cost of individual critical input** | Rs. 9000/- |
| **Total cost of critical input** | Rs. 9000/ha |
| **Performance indicator to be recorded** | (i) Technical indicator :Field Capacity, Field efficiency, Weeding efficiency, Yield<br>(ii) Economic indicator :Cost of cultivation, Gross return, Net return, B:C ratio<br>(iii) Farmer perception |

# OFT No : 8
# Crop area – 520 ha,
# District yield (150q/ha) State yield (q/ha))

| | |
|---|---|
| **Crop** | **Cauliflower** |
| **Season** | Rabi 2026 |
| **Main problem** | Low yield in Cauliflower |
| **Main causes** | Less Irrigation Water Availability, High Labour Cost |
| **Title of OFT** | Assessment of Drip Irrigation system in Cauliflower Cultivation |
| **Farming situation** | Sandy loam, Midland, Irrigated |
| **Thematic area** | Water Management |
| **Farmer practice** | Furrow Irrigation |
| **Technology option selected for assessment** | T1 Single Row Crop with Single Lateral Line<br>T2 Double Row Crop with Single Lateral Line |
| **Source of technology** | IARI New Delhi |
| **No of trial** | 10 (Area 0.4 ha/trail) |
| **Detail of critical input** | Nil |
| **Cost of individual critical input** | Nil |
| **Total cost of critical input** | Nil |
| **Performance indicator to be recorded** | (i) Technical indicator :Duty, Delta, Base Period, Water Use Efficiency, Water Foot Print, Yield<br>(ii) Economic indicator :Cost of cultivation, Gross return, Net return, B:C ratio<br>(iii) Farmer perception |

# Proposed FLD 2026-27

# FLD No: 01
# Crop area of district in 1241 ha,
# District yield:10.75 q/ha, State yield: 12.25 q/ha

| | | | |
|---|---|---|---|
| **Title of FLD** | **Demonstration on improved cultivation practices of Ragi ( Finger millet)** | | |
| **Season & Year** | Kharif & 2026 | | |
| **Main Problem** | Low yield of Ragi | | |
| **Main cause of problem** | Use of local seed, lack of knowledge for scientific cultivation of ragi and improper farm management | | |
| **Full detail of farmer's Practice** | Local seed and broadcasting method of cultivation, Seed rate 15 kg/ha, No seed treatment, imbalanced fertilizer use | | |
| **Full detail of technology to be demonstrated** | High yielding Ragi var. BBM 10, Seed rate 8kg/ha, Seed treatment (Aspergillusawamori @ 25g/kg) Line sowing, Spacing 30 X10 cm, NPK 50:40:25 kg/ha, | | |
| **Source of Technology with year** | BAU, Ranchi, 2020 | | |
| **Name of the Technology** | Improve Package of practices for Finger millet Cultivation. | | |
| **Thematic area** | Integrated crop management : Millet production | | |
| **Name of villages** | Charakhmara, Bergi, Jamband, Leda, Kowad | | |
| **Farming situation** | Rainfed upland production system | | |
| **Area (ha)/Unit (No.)** | 01 ha | No of farmers | 50 |

# FLD No. 2

## Chickpea crop area of district in ha (14963 ha) , District yield –(16.5 q/ha) State yield (q/ha)

| | | | |
|---|---|---|---|
| **Title of FLD** | **Demonstration on chickpea variety Pusa 3043 in medium land situation.** | | |
| **Season & Year** | Rabi 2025 | | |
| **Main Problem** | Low yield | | |
| **Main cause of problem** | Low yield due to wilt . | | |
| **Full detail of farmer's Practice** | Local variety avariety+ Mixed cropping with maize, | | |
| **Full detail of technology to be demonstrated** | Sowing Time- 1 st week of November to Mid of November, Seed treatment with Rhizobium culture 200gm culture with 8 kg of seeds, Seed rate-80 kg /ha, Spacing 30X10 cm, Fertilizer application - 25:50:25:20Kg NPKS/ha, interculture operation at 1st at 25 to 30 days and 2nd at 50 to 55 days after sowing. Weed control–Spray of Pendimethalin 5ml /l of water within 3 days after sowing, Spray of Indoxacarb@0.5ml/ha at 50% flower and second 15 days after of 1st spray for control of pod borer. | | |
| **Source of Technology with year** | IIPR, Kanpur | | |
| **Name of the Technology** | Variety (Pusa 3043) and full package of chickpea production. | | |
| **Thematic area** | Crop production | | |
| **Name of villages** | Govindpur, Dirlang | | |
| **Farming situation** | Medium land, irrigated condition | | |
| **Area (ha)/Unit (No.)** | 4 | No. of Farmer | 25 |

# FLD No. 3

## Okra crop area of district in ha (2200 ha) , District yield –(140.0 q/ha) State yield (q/ha)

| | | | |
|---|---|---|---|
| **Title of FLD** | **Demonstration on integrated pest management of shoot and fruit borer in Okra** | | |
| **Season & Year** | Rabi 2026 | | |
| **Main Problem** | Low yield of Okra | | |
| **Main cause of Problem** | *Shoot and fruit borer(Earias vittela) of Okra heavily infested at vegetative, flowering and fruiting stage resulting 30-70% yield losses* | | |
| **Full detail of Farmer's Practice** | Repeated spraying of Dimethoat and chlorpyriphos when fruit borer appears in the field | | |
| **Full detail of Technology to be demonstrated** | Spray of Rynaxpyre 0.25 ml/l at 25 DAS + NSKE 4%@ at 50DAS + Emamectin benzonate 0.5ml/l at 60-75 DAS + Bt 1ml/l at 90 DAS and NSKE 4% at 105-110 DAS | | |
| **Source of Technology with year** | IVRI, Varanasi | | |
| **Name of the Technology** | Integrated paste management of fruit and shoot borer in Okra | | |
| **Thematic area** | Integrated paste management | | |
| **Name of villages** | Dumurdiha, khokro, Dugni and Salam pathar | | |
| **Farming situation** | Midland and sandy loam soil and irrigated situation | | |
| **Area (ha)/Unit (No.)** | 2 ha | No. of Farmers | 30 |
| **Performance indicator** | 1. Technical indicator- % infestation, yield losses, damaged fruit per plant and yield q/ha<br>2. Economic indicator- (Cost of cultivation, Gross return, Net return and B:C Ratio)<br>3. Farmer's feedback | | |

# FLD No. 4

# Bottle gourd crop area of district in ha (1180 ha) , District yield –(165.0 q/ha) State yield (q/ha)

| | | | |
|---|---|---|---|
| **Title of FLD** | **Demonstration of Wilt disease Management in Bottle Gourd** | | |
| **Season & Year** | Rabi 2026 | | |
| **Main Problem** | Low yield of Bottle gourd.. | | |
| **Main cause of Problem** | Fungal Pathogen Fuzarium oxysporuim is soil as well as seed borne Pathogen causes wilting | | |
| **Full detail of Farmer's Practice** | No seed treatment. When wilting symptom appear in the spray fungicide carbendazim @ 2.5 gm/l of water | | |
| **Full detail of Technology to be demonstrated** | (i) Raise bed Planting<br>(ii) Seed treatment with carbendazim @ 2.5 gm/kg of seed<br>(iii) Soil application- soil application @ 2.5 kg/ha of Trichoderma viridae (1kg Trichoderma viridae in 100 kg FYM | | |
| **Source of Technology with year** | BAU | | |
| **Name of the Technology** | Management of wilt disease in Bottle gourd by integrated disease management approaches | | |
| **Thematic area** | Integrated disease management | | |
| **Name of villages** | Kukru, Tiruldih, Dhatkidih and Choeka, | | |
| **Farming situation** | Sandy loam soil, Mid Land and irrigated situation. | | |
| **Area (ha)/Unit (No.)** | 2 ha. | **No. of Farmers** | 30 |
| **Performance indicator** | 1. Technical indicator- Wilting %, Mortality %, Yield loss and yield q/ha<br>2. Economical indicator-(Cost of cultivation, Gross return, Net return and B:C Ratio)<br>3. Farmer's Feedback | | |

# FLD No: 05

| | | | |
|---|---|---|---|
| Title of FLD | Demonstration on perennial green fodder (Napier) cultivation | | |
| Season & Year | Kharif & 2026 | | |
| Main Problem | Low production of dairy cattle | | |
| Main cause of problem | Green fodder scarcity for stall feeding in Animal during winter & summer, lack of knowledge on scientific fodder production, | | |
| Full detail of farmer's Practice | Open grazing, Paddy straw, Locally available green grass | | |
| Full detail of technology to be demonstrated | HY Var. Super Napier/ CO8, Seed rate 32000 saplings/ha, Spacing 50X50, NPK 60:50:40 and 25kg/ha N/cutting | | |
| Source of Technology with year | BAU, Ranchi, 2021 | | |
| Name of the Technology | Improved production technology of perennial green fodder | | |
| Thematic area | Fodder production | | |
| Name of villages | Narayanbeda, Gouri, Sukhsari | | |
| Farming situation | Rainfed production system | | |
| Area (ha)/Unit (No.) | 1 ha | No of farmers | 6 |
| Performance indicator | 1. Technical indicator- Av. Yield q/ha, No. of cuts<br>2. Economic indicator : Gross cost Rs. /ha), Net Return Rs. /ha), BC Ratio<br>3. Farmer Feedback | | |

# FLD No: 6

| | | | |
|---|---|---|---|
| **Title of FLD** | Demonstration of Scientific Lac Production technology | | |
| **Season & Year** | Kharif & 2026 | | |
| **Main Problem** | Low production of lac | | |
| **Main cause of problem** | Lack of knowledge of scientific lac cultivation, High pest incidence of black, white moth and Chrysoperla, High mortality of insect, Non availability of HY brood lac, | | |
| **Full detail of farmer's Practice** | Traditional method of lac cultivation, local brood lac, No pest management | | |
| **Full detail of technology to be demonstrated** | Demonstration of Scientific LAC Production technology with HY Kusmi brood lac, pest management through IPM | | |
| **Source of Technology with year** | ICAR- National Institute of Secondary Agriculture (NISA), Ranchi | | |
| **Name of the Technology** | Improved Lac Production technology | | |
| **Thematic area** | Secondary agriculture: Lac production | | |
| **Name of villages** | Khukhra, Motileda, Bergi, Nawdiha | | |
| **Farming situation** | Rainfed production system | | |
| **Area (ha)/Unit (No.)** | 60 Plants | No of farmers | 20 |
| **Performance indicator** | 1. (I) Technical indicator- Av. Yield kg/Plant, Pest infestation %<br>2. (II) Economic indicator- Gross cost, Gross return, Net return, B:C ratio<br>3. (III) Farmer Feedback-<br>4. Return Rs. /ha), BC Ratio<br>5. Farmer Feedback | | |

# FLD No: 7

| | | | |
|---|---|---|---|
| Title of FLD | Demonstration on improved rearing of Vigova duck | | |
| Season & Year | Kharif & 2026-27 | | |
| Main Problem | Low body weight of duck | | |
| Main cause of problem | Lack of scientific keeping of duck, non-descript desi duck, mortality and poor management in duckery production | | |
| Full detail of farmer's Practice | Traditional duck keeping with non-descript desi birds | | |
| Full detail of technology to be demonstrated | High yielding duck variety Vigova Super M, Vaccination, Mineral Mixture Supplement | | |
| Source of Technology with year | CPDO, Bengaluru 2020 | | |
| Name of the Technology | Improved rearing practices of duck farming | | |
| Thematic area | Duckery production | | |
| Name of villages | Samanpur, Pahadhar, Jilingadar, Jamjoda | | |
| Farming situation | Rainfed production system and semi- intensive duck production | | |
| Area (ha)/Unit (No.) | 300 No. | No of farmers | 20 |
| Performance indicator | 1. Technical indicator- Av. Body weight kg/bird, Mortality %<br>2. Economical indicator- Gross cost, Gross return, B:C Ratio<br>3. Farmers' feedback-<br>4. (III) Farmer Feedback-<br>5. Return Rs. /ha), BC Ratio<br>6. Farmer Feedback | | |

# FLD No: 8
# Backyard poultry of district: 34057000,
# District yield : 0.957kg/bird, State yield: 1.25kg/bird

| | | | |
|---|---|---|---|
| Title of FLD | Demonstration on improved rearing of Jharsim backyard poultry | | |
| Season & Year | Rabi & 2026-27 | | |
| Main Problem | Low body weight gain in backyard poultry production | | |
| Main cause of problem | Lack of knowledge of scientific poultry keeping, non-descript desi birds and poor management in backyard poultry production | | |
| Full detail of farmer's Practice | Traditional poultry keeping with non-descript desi birds | | |
| Full detail of technology to be demonstrated | High yielding dual type backyard poultry breed Jharsim, Vaccination, Mineral Mixture supplement | | |
| Source of Technology with year | BAU, Ranchi | | |
| Name of the Technology | Improved backyard poultry production: Jharsim | | |
| Thematic area | Backyard Poultry production | | |
| Name of villages | Burudih, | | |
| Farming situation | Rainfed production system and semi- intensive poultry production | | |
| Area (ha)/Unit (No.) | 400 No. | No of farmers | 20 |
| Performance indicator | 1. Technical indicator-Av. Body weight (kg/bird), Av. Egg production (No.), Mortality %<br>2. Economical indicator- Gross cost, Gross return, B:C Ratio<br>3. Farmers' feedback- | | |

# FLD No. 9
# Crop Area of the district in 675 ha, District yield 35q/ha, State Yield 30 q/ha

| | | | |
|---|---|---|---|
| Title of FLD | Demonstration of Hydrogel to mitigated the moisture stress condition in Pointed gourd cultivation | | |
| **Season & Year** | Kharif 2025 | | |
| **Main Problem** | Low yield | | |
| **Main cause of Problem** | Yield loss in Rice due to erratic rainfall or long dry spell | | |
| **Full detail of Farmer's Practice** | Traditional Rice cultivation | | |
| **Full detail of Technology to be demonstrated** | Hydrogel enhance the water holding capacity of soil. It holds the water and keep on releasing during dry spell of about 15 to 20 days. | | |
| **Source of Technology with year** | IARI | | |
| **Name of the Technology** | Hydrogel | | |
| **Thematic area** | Water Management | | |
| **Name of villages** | Dhaniya, Barakhurshi and Cholagora | | |
| **Farming situation** | Sandy loam soil, Midland and Rainfed farming | | |
| **Area (ha)/Unit (No.)** | **01 ha** | **No. of Farmers** | **10** |
| **Performance indicator** | 1. Technical indicator- Duty, Delta, Base Period and Yield<br>2. Economical indicator- Cost of cultivation, B:C Ratio<br>3. Farmer's perception | | |

# Proposed training 2026-27

# Training Programme: Farmers and Farm Women training 2026-27

| Title of training programme (Animal Husbandry) | Venue | Thematic Area | Duration (Days) | Participant (No.) | Month |
|---|---|---|---|---|---|
| **Good dairy practices during summer season** | Off | Dairy production | 01 | 50 | April, 2026 |
| **Housing management of dairy cattle** | Off | Dairy production | 01 | 50 | April, 2026 |
| **Feeding management of dairy cattle** | Off | Feeding management | 01 | 50 | May, 2026 |
| **Importance of livestock vaccination** | Off | Backyard poultry Production | 01 | 50 | May, 2026 |
| **Preparation and management of fish pond** | Off | Feeding management | 01 | 50 | June, 2026 |
| **Improved duck farming practices** | Off | Duck production | 01 | 50 | June, 2026 |
| **Composite fish farming** | Off | Fish production | 01 | 50 | July, 2026 |
| **Care and management of livestock during rainy season** | Off | Livestock production & Management | 01 | 50 | July, 2026 |
| **Methods of silage making** | Off | Feeding Management | 01 | 50 | August, 2026 |
| **Improved backyard poultry production** | Off | Poultry production | 01 | 50 | August, 2026 |
| **Improved sheep farming practices** | Off | Sheep production | 01 | 50 | September, 2026 |
| **Control measures of PPR disease in goat** | Off | Disease Management | 01 | 50 | September, 2026 |
| **Livestock based Integrated Farming System** | Off | IFS | 01 | 50 | October, 2026 |
| **Cultivation** | Off | fodder production | 01 | 50 | October, 2026 |

| | | | | | |
|---|---|---|---|---|---|
| **techniques of fodder crops** | | | | | |
| **Improved rearing practices of pig** | Off | Pig production | 01 | 50 | November, 2026 |
| **Care and management of livestock during winter** | Off | Livestock production | 01 | 50 | November, 2026 |
| **Processing and value addition of milk** | Off | Value addition | 01 | 50 | December, 2026 |
| **Improved goat rearing practices** | Off | Backyard poultry production | 01 | 50 | December, 2026 |
| **Management and control of poultry disease** | Off | Disease management | 01 | 50 | January, 2027 |
| **Processing and value addition of meat** | Off | Value addition | 01 | 50 | January, 2027 |
| **Management and control of FMD** | Off | Disease management | 01 | 50 | February, 2027 |
| **Care and management of calf** | Off | Dairy production | 01 | 50 | March, 2027 |

| Title of training Programme (Agril. Engg.) | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Interculture tools/ implements/equipments and their selection** | On, off | Farm Mechanization | 2, 1 | 30+30 | July-August |
| **Selection of harvesting equipments/tools/implements** | On, off | Farm Mechanization | 2, 1 | 30+30 | September |
| **Selection of plant protection equipments/tools/implements** | On, off | Farm Mechanization | 2, 1 | 30+30 | May-Sept. |
| **Implements for drudgery reduction of farm womens** | On, off | Farm Mechanization | 2, 1 | 30+30 | May-Sept. |
| **Water management techniques and methods for rabi and kharif crops/vegetables** | On, off | Water Management | 2, 1 | 30+30 | July-Dec |
| **Farm bunding and its role in mitigating drought** | On, off | Water Management | 2, 1 | 30+30 | July-Dec |
| **Rainwater harvesting for life saving irrigation** | On, off | Water Management | 2, 1 | 30+30 | July-Dec |
| **Micro irrigation** | On, off | Water Management | 2, 1 | 30+30 | July-Dec |

| Title of training Programme (Plant Protection.) | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Farmers and Farm Women training** | | | | | |
| IPM in Kharif vegetables | Off | IPM | 1 | 50 | June-July |
| IPM in Pulses crops | Off | IPM | 1 | 50 | Oct-Nov |
| **IPM in Rabi Vegetables** | Off | IPM | 1 | 50 | August |
| **Seed treatment and Nursery raising in crop & Vegetables** | Off | IPM | 1 | 50 | March |
| **Seed treatment & Nursery raising in Crop & Vegetables** | Off | IPM | 1 | 50 | May-June |
| **Management in storage of Farm Produce** | Off | IPM | 1 | 50 | Dec-Jan |
| **IPM in rice.** | Off | IPM | 1 | 50 | July-August |

| Title of training Programme (GPB.) | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Farmers and Farm Women training** | | | | | |
| **Important of summer ploughing and solarization** | Off | Resource conservation | 2 | 60 | May |
| **Rice seed production system** | On | Seed production | 1 | 30 | June |
| **Ragi ,Gondli production system** | On | Small Millet production | 1 | 30 | June |
| **Production technique of baby corn maize** | Off | Crop diversification | 1 | 30 | August |
| **Improved production technique of mustard and linseed** | On | Oilseed production | 2 | 60 | September |
| **Selection of quality seed** | On | Farming component of crop | | | October |

# Training Programme : Rural Youth 2026-27

| Title of training Programme | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Good dairy practices and management** | On | Dairy production | 05 | 25 | May, 2026 |
| **Skill and entrepreneurship development in pig production** | On | Pig production | 05 | 25 | August, 2026 |
| **Commercial goat farming and marketing management** | On | Goat production | 05 | 25 | October, 2026 |
| **Training for Paravets/ Pashu Sakhi** | On | Livestock production | 10 | 25 | December, 2026 |
| **Entrepreneurship development in backyard poultry farming** | On | Poultry production | 05 | 25 | February, 2027 |
| Total training: 05 | | | **30** | **125** | |

| Title of training Programme | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Repair and maintenance of irrigation pumps and engines** | On | Farm Mechanization | 5 | 25 | Dec-Feb |
| **Periodic maintenance of farm implements** | On | Farm Mechanization | 5 | 25 | Dec-Feb |
| **Technological know how of micro irrigation** | On | Water Management | 5 | 25 | Dec-Feb |
| **Technological know how of protected cultivation** | On | Protected Cultivation | 5 | 25 | Dec-Feb |
| **Use of plastic in agriculture** | On | Protected Cultivation | 5 | 25 | Dec-Feb |

| Title of training Programme | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Rural Youth Training** | | | | | |
| Integrated Farming system | **On** | **IFS** | **3** | **25** | **June, 2026** |
| **Composting and Vermicompost Production** | On | Vermi-composting | 3 | 25 | October,2026 |
| **Organic Farming** | On | NRM | 3 | 25 | December,2026 |
| **Oyster Mushroom Production Techniques** | On | Mushroom Production | 5 | 25 | February, 2027 |

| Title of training Programme (GPB) | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Rural Youth Training** | | | | | |
| **SRI production technique** | On | Integrated crop management | 2 | 25 | May,2026 |
| **Quality seed production system of field crop for Seed Village** | On | Seed production | 3 | 25 | July, 2026 |
| **Improved production technique of Oilseed crop** | On | Crop diversification | 3 | 25 | October,2026 |
| **Improved production system of Pulse crop** | On | Crop diversification | 3 | 25 | December, 2026 |
| **Technique of round the year fodder cultivation** | On | Fodder production | 3 | 25 | January,2027 |

## Vocational training 2026-27

| Title of training Programme | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| Commercial pig farming and marketing management | On | Pig production | 05 | 25 | May, 2026 |
| Improved duck farming and management | On | Duck production | 05 | 25 | July, 2026 |
| Improved goat rearing practices and management | On | Goat production | 05 | 25 | September, 2026 |
| Improved technique of backyard poultry production and management | On | Poultry production | 05 | 25 | November, 2026 |
| Composite fish farming | On | Fish production | 05 | 25 | January, 2027 |
| Commercial dairy farming and management | On | Dairy production | 05 | 25 | March, 2027 |
| Total training: 06 | | | 30 | 150 | |

## Extension Functionaries Training 2026-27

| Title of training Programme | Venue | Thematic Area | Duration (Days) | Participants (No.) | Month |
|---|---|---|---|---|---|
| **Frontier technology for livestock production and management** | On | Livestock production and management | 03 | 25 | June, 2026 |
| **Quality seed production & management** | On | Seed production | 03 | 25 | June, 2026 |
| **Integrated farming system Model for doubling farmers income** | On | IFS | 03 | 25 | July, 2026 |
| **Livestock based IFS Modules** | On | IFS | 03 | 25 | August, 2026 |
| **Natural Resource Management** | On | NRM | 03 | 25 | September,2026 |

| | | | | | |
|---|---|---|---|---|---|
| **Bio-fertilizer & Bio-pesticides and their uses** | On | IPM | 03 | 25 | October, 2026 |
| **Processing and value addition of milk and meat** | On | Value addition | 03 | 25 | November, 2026 |
| **Advanced mobile based technologies to ease the implementation of technologies** | On | Information Technology | 02 | 25 | Dec. |
| **Role of livestock in Natural Farming** | On | Value addition | 03 | 25 | January, 2027 |

# Proposed Extension Activities 2026-27

# Extension activities 2026-27

| Name of activity | No. | No. of farmers | Quarter wise details of activities to be conducted | | | |
|---|---|---|---|---|---|---|
| | | | Q1 | Q2 | Q3 | Q4 |
| **Field day** | 08 | 400 | 2 | 2 | 2 | 2 |
| **Kisan Mela** | 02 | 1200 | - | - | - | 2 |
| **Kishan Ghosthi** | 08 | 300 | 2 | 2 | 2 | 2 |
| **Exhibition** | 1 | 100 | - | - | 1 | - |
| **Ex-trainees sammelan** | 2 | 200 | | 1 | | 1 |
| **Special day celebration** | 6 | 1500 | 2 | 2 | 2 | 2 |
| **Animal health camp** | 5 | 250 | 2 | | 2 | 1 |
| **Soil test camp** | 4 | 250 | 2 | | 2 | |
| **International Soil Day** | 01 | 110 | | | | 1 |
| **SHG conveners meeting** | 3 | 90 | 1 | | 1 | 1 |
| **Farmer Scientist interaction** | 4 | 200 | 1 | 1 | 1 | 1 |
| **Scientist visit to farmers field** | 12 | 360 | 3 | 3 | 3 | 3 |

## Quality Seed Production Programme 2026-2027

| S. No. | Season | Name of crops | Name of varieties | Area (ha) to be covered | Category of seed to be produced |
|---|---|---|---|---|---|
| **1.** | **Kharif** | Paddy | CR 305 | 1 ha | F/S |
| **2.** | | Paddy | IR 64 Drt. | 1 ha | F/S |
| **3.** | | Paddy | Rajendra Mansuri | 2 ha | F/S |
| **4.** | | Ragi | BM10 | 0.5 ha | F/S |
| **5.** | **Rabi** | Mustard | BBM -1 | 1.5 ha | F/S |
| **6.** | | Linseed | Priyam | 1 ha | F/S |

## Detail of quality seedling/ sampling production programme

| S. No. | Season | Name of vegetable /fruit | Name of varieties | No of seedling/ sampling to be prepared |
|---|---|---|---|---|
| 1. | Kharif | Tomato | Swarna Sampada | 2500 Seedling |
| 2. | | Chilli | Pusa Jawala | 2500 Seedlings |
| 3. | | Papaya | Pusa Dwarf | 2000 |
| 4. | | Mango | Amrapali | 1500 |
| 5. | Rabi | Cauliflower | Pusa snowball -16 | 2000 Seedlings |
| 6. | | Brinjal | Birsa Chiyanki Brinjal | 1500 Seedling |
| 7. | | Cabbage | Cabbage 812 | 2000 Seedling |

## Soil & water testing 2026-27

| S. No. | Name of activity | No of sample to be tested | No of farmer to be covered | Revenue to be generated (Rs) |
|---|---|---|---|---|
| 1. | Soil testing | 800 | 800 | 88000.00 |