

## **PROFORMA FOR ANNUAL REPORT 2022( 1<sup>st</sup> January-31<sup>st</sup> December 2022)**

### **1. GENERAL INFORMATION ABOUT THE KVK**

#### 1.1. Name and address of KVK with phone, fax and e-mail

Name and address of KVK	Telephone		E-Mail
	Office	FAX	
Krishi Vigyan Kendra, Bokaro P.O.-Petarwar Pin- 829121	06549-265048 (O) 09431126991 (M)	FAX	kvk_bokaro@yahoo.co.in

#### 1.2. Name and address of host organization with phone, fax and e-mail

Name and address of Host Organization	Telephone		E mail
	Office	FAX	
Birsa Agricultural University, Jharkhand, Kanke, Ranchi Pin-834006	(VC) 0651-2450500(O)	0651-2450850	<a href="mailto:vc@bauranchi.org">vc@bauranchi.org</a> <a href="mailto:vc_bau@rediffmail.com">vc_bau@rediffmail.com</a>
	(DEE) 0651-2450849 (O)	0651-2450525	<a href="mailto:deebauranchi@gmail.com">deebauranchi@gmail.com</a>

#### 1.3. Name of Senior Scientist and Head with phone & mobile No.

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Anil Kumar	9431176741	9431176741	<a href="mailto:Anilkvk4@gmail.com">Anilkvk4@gmail.com</a>

#### 1.4. Year of sanction of KVK:

(Reference of Sanction Order)

2004. Vide letter No. of ICAR- F.No. 6-5/2000-AE-1 dated 24-6-2004

1.5. Staff Position (as on 31<sup>st</sup> December 2021)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	PayScale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/Others)
1	Sr. Scientist & Head	-	-	-	-	-	-	-
2	Scientist	Dr. Anil Kumar	I/C Sr. Scientist & Head Scientist	Horticulture	Basic: 107300.00	19-07-04	Permanent	Others
3	Scientist	Sri Uday Kumar	Scientist	Agronomy	Basic: 92500.00	19-07-04	Permanent	Others
4	Scientist	Sri Vinay Kumar	Scientist	Agril. Engg.	Basic: 92500.00	20-07-04	Permanent	Others
5	Scientist	MrsNeena Bharti	Scientist	Plant Protection	Basic: 92500.00	20-07-04	Permanent	ST
6	Scientist	Dr. Nandana Kumari	Scientist	Home Science	Basic: 101100.00	19-07-04	Permanent	Others
7	Programme Assistant	Dr. Rupa Rani	Programme Assistant	Horticulture	Basic: 62200.00	16-03-05	Permanent	Others
8	Computer Programmer	Naman Kandulna	Computer Assistant	-	Basic: 60400.00	20-07-04	Permanent	ST
9	Farm Manager	-	-	-	-	-	-	-
10		Sunil Kr. Pandey	Audio Visual Aid	-	Basic: 60400.00		Permanent	Others
11	Accountant / Superintendent	Sri Abhay Kumar Singh	O.S.cum Accountant	-	11000.00		Contractual Staff	Others
12	Stenographer	Sri Ratnesh Kumar Mishra	Stenographer	-	9000.00		Contractual Staff	Others
13.	Driver	Sri RanchandraLohar	Driver	-	9000.00		Contractual Staff	ST
14.	Driver	Sri PanchanandMahto		-	9000.00		Contractual Staff	Others
15.	Supporting staff	Sri Rupilal Marandi		-	7000.00		Contractual Staff	ST
16.	Supporting staff	Sri Durga Prasad Mahto		-	7000.00		Contractual Staff	Others

## 1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1	Under Buildings Under Demonstration Units	2.0
2.	Under Crops	6
3.	Orchard/Agro-forestry	1
4.	Technology park	0.4
5.	Pond	0.2
6.	Unutilized land due to undulating	0.4
	Total	<b>10</b>

*Total area should be matched with breakup*

## 1.7. Infrastructure Development:

## A) Buildings and others

S. No.	Name of infrastructure	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (sq.m)	Under use or not*	Source of funding
1.	Administrative Building					Completed	500		I.C.A.R.
2.	Farmers Hostel					Completed	300		I.C.A.R.
3.	Staff Quarters (6)			Completed up to lintel level		Incomplete	400		I.C.A.R.
4.	Piggery unit	Not yet started							
5	Fencing					Completed			District Administration
6	Rain Water harvesting structure					Incomplete (Micro irrigation system is not installed)	120x120x10 ft pond		I.C.A.R.
7	Threshing floor					Completed			I.C.A.R.
8	Farm godown					Completed			I.C.A.R.
9.	Farm godown					Completed			District Administration
10.	Preservation unit					Completed			I.C.A.R.
11.	Dairy unit					Completed			I.C.A.R.
12.	Poultry unit	Not started							
13.	Goatry unit	Not started							

14.	Mushroom Lab	Not started							
15.	Mushroom production unit								
16.	Shade house	Not started							
17.	Soil test Lab					Completed			District Administration
18.	ATIC Centre					Completed			District Administration
19.	IT Infrastructure					Completed			I.C.A.R.
20.	Plant diagnostic lab	Not started							I.C.A.R.
21.	Irrigation channel	Not started							I.C.A.R.
22.	Deep boring	Failed							I.C.A.R.
	Others, Please Specify								

\* If not in use then since when and reason for non-use

## B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Jeep	2005	431129.00	364290.0 K.M.	Required to be replaced
Tractor	2006	361200.00	2038.0hrs	Required to be replaced (Maintenance cost is very high)
<b>Bike</b>	2017	50000		Running
<b>Bike</b>	2017	50000		Running

## C) Equipment &amp; AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
<b>a. Lab equipment</b>				
Refrigerator	2007	11990.00	Good	I.C.A.R.
Food processor	2007	4995.00	Good	I.C.A.R.
Commercial gas cylinder	2008	3000.00	Good	I.C.A.R.
Weighing machine	2008	7540.00	Good	I.C.A.R.
Weighing machine	2010	12740.00	Good	I.C.A.R.
Weighing machine	2010	7260.00	Good	I.C.A.R.
Aqua soft dispenser	2012	20000.00	Good	I.C.A.R.
Crown corking machine	2013	19700.00	Good	I.C.A.R.
Tomato Pulpar	2013	29800.00	Good	I.C.A.R.
Screw type Juice Extractor	2013	22000.00	Good	I.C.A.R.
Refractometer	2013	43000.00	Good	I.C.A.R.
<b>b. Farm machinery</b>				
<b>c. AV Aids</b>				
Computer	2006	45000.00	Good	I.C.A.R.
UPS	2006	7000.00	Good	I.C.A.R.
Laser Printer	2006	8000.00	Good	I.C.A.R.
Fax Machine	2006	8000.00	Not installed	I.C.A.R.
Xerox	2007	72000.00	Not functioning	I.C.A.R.
2 KVA Stabilizer	2007	4850.00	Good	I.C.A.R.
Stabilizer 500 VA Manual Auto-cut	2007	1750.00	Good	I.C.A.R.
Camera	2005	12650.00	Good	
Camera	2007	14512.50	Not functioning properly	I.C.A.R.
LCD Projector	2007	51989.00	Good	I.C.A.R.
HAKIM Audio Visual Trolley	2007	8534.00	Good	I.C.A.R.
Projector Screen 8'x6'	2007	7550.00	Good	I.C.A.R.
15Mtrs special imported moulded VGA cable	2007	7500.00	Good	I.C.A.R.
Laser pointer torch with duel effect	2007	2200.00	Good	I.C.A.R.
AHUJA Medium Power Amplified -120 Watt	2013	8847.36	Good	I.C.A.R.
AHUJA 2 way compact PA wall Speaker	2013	8694.72	Good	I.C.A.R.
AHUJA Reflex Horn-WFA-21" Bell Dia	2013	986.84	Good	I.C.A.R.
AHUJA Driver unit -Model-AU40XT	2013	1408.77	Good	I.C.A.R.
AHUJA PA Microphone-	2013	1693.85	Good	I.C.A.R.

Model AUD 101XLR				
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## D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
Seed drill cum fertilizer drill	2005	775.00	Good	I.C.A.R.
Birsaridger plough	2005	485.00	Good	I.C.A.R.
Japanese paddy weeder	2005	525.00	Good	I.C.A.R.
Dryland weeder	2005	300.00	Good	I.C.A.R.
Birsa potato digger	2005	625.00	Good	I.C.A.R.
Paddy transplanter	2006	-	Good	DAO
Cultivator 9 tine	2006	14200.00	Good	I.C.A.R.
Land leveler	2006	8080.00	Good	I.C.A.R.
Offset disk	2006	28020.00	Good	I.C.A.R.
Trailer 4 wheel with tyre tube	2006	76500.00	Good	I.C.A.R.
Disc plough 2 furrow	2007	26995.00	Good	I.C.A.R.
Grass cutter	2007	38500	Good	I.C.A.R.
M.B. Plough	2007	26993.00	Good	I.C.A.R.
Rottary tiller	2007	88585.00	Good	I.C.A.R.
Power sprayer	2007	48500.00	Good	I.C.A.R.
Cage wheel nut bolt type	2007	5250.00	Good	I.C.A.R.
Zero till fertilizer drill	2010	-	Good	I.C.A.R.
Power Tiller	2011		Good	I.C.A.R.
Field king laser Guided Land Leveler Machine	2012		Good	I.C.A.R.

## 1.8. Details SAC meeting\* conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1.	08.08.2022	25	At least establish one acre of land for organic farming and one acre of land for natural farming in KVK farm	KVK, Bokaro established one acre land for Pigeon pea crop in organic farming and one acre land for Mustard crop in Natural Farming	
			Farm women should be trained for value addition of crop, so that they may get appropriate cost of crop	At least 200 farm women trained for value addition of crop	
			Grafting, Budding & Air layering should promoted through training & demonstration	125 Farmers and youths were trained in Grafting, Budding were trained	
			Introduction and promotion of high yielding varieties of crops along with emphasis on reduction of input cost in agriculture , so that the	All the variety taken under FLD and CFLD are high yielding and training on natural has already started to	

			farmers income could be doubled.	reduce the input cost and slowdown the dependency on chemical fertilizer.	
			Promotion of pulses & oilseed crop in Giridih district	The demonstration of pulse like pigeon pea 5.0 ha, Green gram 10 ha. Black gram 20 ha. Horse gram 10 ha. Chick pea 10 ha. And oilseed crops like groundnut 10 ha. Sesame 10.ha. Mustard 50ha. Linseed 20ha... Were promoted by conducting FLD and CFLD programme and training on those crops also conducted to promote pulse and oilseed production. Total demonstration on pulses were 100 ha. and 100 hac oilseed and the farmers benefited were 250 and 275 respectively	

*\* Salient recommendation of SAC in bullet form*

*Attach a copy of SAC proceedings along with list of participants*

## 2.a. District level data on agriculture, livestock and farming situation (2022)

Sl.No.	Items	Information
1	Major Farming system/enterprise	<ol style="list-style-type: none"> <li>1. Agriculture + Horticulture (Vegetable) + Animal Husbandry</li> <li>2. Agriculture + Horticulture (Vegetable)</li> <li>3. Agriculture + Animal Husbandry</li> <li>4. Agriculture + Horticulture (Vegetable) + Animal Husbandry+ Fishery</li> <li>5. Agriculture + Horticulture (Vegetable) + Animal Husbandry+ Lac culture</li> <li>6. Agriculture + Animal Husbandry+ Lac culture</li> <li>7. Agriculture + Labour</li> </ol>
2	Agro-climatic Zone	<p>IV- Central North Eastern Plateau Zone</p> <p>Characteristics:</p> <p>Geographical area of Zone = 41293 K.m<sup>2</sup> Mining dominates in central part. Damodar, Barakar, More and Ajay are the main rivers of this zone. Damodar basin is famous for coal. This zone is characterized by having humid &amp; sub humid tropical monsoon type of climate. Average rainfall of the zone is 1320 m.m. Monsoon breaks in the second week of June. In normal years pre monsoon rains are received in the month of May about 60 m.m. Apart from this winter rain during December- February is sparse. Soil developed on Rajmahal traps are dark, heavy textured, neutral in reaction and moderately well drained to poorly drained and moderately rich in N but poor in P&amp;K. Soils of Dhanbad&amp;Giridih areas are light textured, moderately to slightly acidic and moderately well drained and poor in N &amp; P and moderate to fairly rich in K. Upland Soils of Ranchi and Hazaribagh areas are gravely to sandy, shallow, acidic and of very poor fertility status where as medium land soil are yellow coloured, slightly to moderate acidic, some what poorly drained &amp; moderately fertile where as the soils of Koderma side are light textured, silty in nature, yellowish to reddish in colour&amp; neutral to moderately acidic in reaction. These are poor to moderate in N, poor in available P and rich to very rich in K. Very limited irrigation potential has been exploited in this zone. Although it is claimed that 8-9% area is irrigated. Larger part of agricultural land is rainfed. Less than 55% area comes under net cultivated area. Good forest is available on 12-13 percent land. Rice, maize, wheat, potato, linseed, rapseed and mustard, til, niger, ground nut and vegetables are major crops of the region.</p> <p>Climate of the Bokaro district is sub humid with water deficiency in winter. Temperature ranges from 2<sup>o</sup>C in winter to 45<sup>o</sup>C in hot summer. The main drainage system is Damodar&amp;Swarnrekha rivers. Only 5-8% of net sown area is irrigated. The average annual rainfall of the district is 1275 mm. Upland soils are</p>

		red to brownish red in colour, light textured, well drained, acidic in reaction and poor in organic carbon, N, Ca, Mg., P & S. Medium land soils are yellow, yellowish in colour, light to medium texture, moderately acidic and poor in N, Ca, Mg and organic matter. Whereas the low land soils are gray to grayish in colour, heavy textured, neutral to slightly alkaline in reaction, poorly drained and medium in N and organic matter. The major crops of the district are rice, maize, wheat, potato, lentil, linseed, rapseed& mustard, groundnut, potato and vegetables like ladys finger, tomato, brinjal, French bean, raddish, cauliflower, cabbage & cucurbits.
3	Agro ecological situation	<ol style="list-style-type: none"> <li>1. Red sandy loam, gravely undulating topography with mines and forests: Undulating topography, having red sandy loam soil, full of gravels, covered with perennial forests, having mines</li> <li>2. Sandy loam rainfed: Upland sandy loam soil, no irrigation facility, agriculture only depend on rain water</li> <li>3. Sandy loam irrigated: Medium land, sandy loam soil, having irrigation facility</li> <li>4. Clay loam rainfed :Low land, clay loam soil, agriculture depend only rain water</li> </ol>
4	Soil type	<ol style="list-style-type: none"> <li>1. Stony and gravely soil: Found in the foot hill prone to intensive erosion low water holding capacity highly acidic low in fertility status and organic matter content only suitable for pasture and recreation purpose.</li> <li>2. Light texture soil (Sandy soil) :Found in upland, coarse texture soil, highly acidic in reaction, low water holding capacity, low in organic matter content and poor in fertility status, rich in micronutrient except Boron and Molybdenum, prone to erosion.</li> <li>3. Medium texture soil (Loamy soil): Found in medium land, soil texture is mainly sandy loam to sandy clay loam, soils are moderately acidic, poor in fertility status and low in organic matter content and water holding capacity is moderate.</li> </ol> <p>Fine textured soil (Clayey soil) :Heavy texture soil , found in low land, soils are fairly acidic to neutral in reaction, water holding capacity is high, organic matter content is medium and moderate in fertility status.</p>
5	Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others	<ol style="list-style-type: none"> <li>1. Stony and gravely soil: Found in the foot hill prone to intensive erosion low water holding capacity highly acidic low in fertility status and organic matter content only suitable for pasture and recreation purpose.</li> <li>2. Light texture soil (Sandy soil) :Found in upland, coarse texture soil, highly acidic in reaction, low water holding capacity, low in organic matter content and poor in fertility status, rich in micronutrient except Boron and</li> </ol>

		<p>Molybdenum, prone to erosion.</p> <p><b>3. Medium texture soil (Loamy soil):</b> Found in medium land, soil texture is mainly sandy loam to sandy clay loam, soils are moderately acidic, poor in fertility status and low in organic matter content and water holding capacity is moderate.</p> <p>Fine textured soil (Clayey soil) :Heavy texture soil , found in low land, soils are fairly acidic to neutral in reaction, water holding capacity is high, organic matter content is medium and moderate in fertility status.</p>
6	Mean yearly temperature, rainfall, humidity of the district	Mean yearly rainfall- mm
7	Production of major livestock products like milk, egg, meat etc.	

Note: Please give recent data only

.b.Details of operational area / villages (2022)

Sl. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified(Crop wise)	Identified Thrust Area
1.	Bermo	Petarwar	Ambadih, Chargi, Jaruatn, Bundu, Lukaiya, Koh, Jaradih, Itke, Chanpi, Angwali, Kojram, Rukam etc.	Paddy Maize Groundnut Vegetables Potato Sweet potato Onion Mustard Poultry Goatry	1. Low productivity in cereals & pulses 2. Low profitability in vegetable cultivation 3. Low productivity in poultry & goatry	1. Introduction of high yielding and hybrid varieties of paddy 2. INM & IPM in paddy 3. Introduction of disease resistant variety of vegetable specially in tomato & brinjal
2.	Bermo	Kasmar	Durgapur, Raghunathpur, Madhukarpur, Mayapur, Kurko, Chandipur, Baraikala, Ranitanr, Manjura, Rangamati, Hisim, Kedla.	Paddy Maize Wheat Arhar Gram Niger Mustard Groundnut Vegetable Potato Sweet potato Lac Poultry Goatry	1. Low productivity in cereals & pulses 2. Low profitability in vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in oilseed crops 5. Low productivity in lac	4. Introduction high yielding variety of Arhar gram, groundnut, mustard and Niger 5. Management of soil acidity through furrow application of lime and sweet potato cultivation with integrated nutrient management
3.	Bermo	Gomia	Saram, Dhedhe, Tulbul, Mahuatn,	Paddy Vegetable Maize	1. Low productivity in cereals & pulses	6. Income

			Lalpaniya, Kander	Wheat Arhar Niger Mustard Sweet potato Poultry Goatry Lac	2. Low profitability in vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in oilseed crops 5. Low productivity in lac	generation activity for rural youth & farm women 7. Rain water harvesting. 8. INM & IPM 9. Post harvest management, marketing & value addition 10. Farm mechanization
4.	Bermo	Bermo	Jaridih, Govindpur	Paddy Maize Arhar Niger Vegetable Potato Lac Goatry	1. Low productivity in cereals & pulses 2. Low profitability in vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in lac	11. Introduction of high yielding variety of maize and wheat with integrated crop management 12. Moisture conservation and micro irrigation system 13. Breed improvement in goatry and piggery
5.	Bermo	Chandrapura	Taranari, Narra, Telo, Jarua, Kurumba, Paranga	Paddy Maize Arhar Vegetable Potato Lac Poultry Goatry	1. Low productivity in cereals & pulses 2. Low profitability in vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in lac	14. Disease and feed management in poultry and goatry 15. Organic vegetable cultivation 16. Popularization of sweet corn and baby corn
6.	Bermo	Nawadih	Alargo, Bhalmara, Chapri, Narayanpur, Penk, Kothi	Paddy Maize Arhar Niger Vegetable Potato Lac Poultry Goatry Piggery	1. Low productivity in cereals & pulses 2. Low profitability in vegetable crops 3. Low productivity in poultry, goatry & piggery 4. Low productivity in oilseed crops 5. Low productivity in lac	17. Popularization of low volume high value vegetable crops such as broccoli, colour d capsicum, 18. Popularization of mushroom production
7.	Chas	Chas	Dharpura, Pokhanna, Jhopro, Ulgoda, Pindrajora, KasiJharia,	Paddy Maize Wheat Arhar Gram	1. Low productivity in cereals & pulses 2. Low profitability in	

				Mustard Vegetable Poultry Goatry Lac	vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in oilseed crops 5. Low productivity in lac
8.	Chas	Chandankiyari	Chandankiyari, Banskari, Lanka, Machatanr, Siyaljori, Bermo	Paddy Maize Groundnut Vegetables Potato Poultry Goatry	1. Low productivity in cereals & pulses 2. Low profitability in vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in oilseed crops 5. Low productivity in lac
9.		Jaridih	Tilaiya, Bhaski, Beldih, Araju, Gangjori, Pichri	Paddy Maize Wheat Arhar Gram Mustard Vegetable Poultry Goatry	1. Low productivity in cereals & pulses 2. Low profitability in vegetable crops 3. Low productivity in poultry & goatry 4. Low productivity in oilseed crops 5. Low productivity in lac

2. c. Details of village adoption programme:

Name of the villages adopted by Sr. Scientist & Head and SMS (in year 2022) for its development and action plan

Name of village	Block	Action taken for development
Raghunathpur	Kasmar	Base line survey is completed for knowing the existing condition of the village. Problems have been identified and accordingly some steps have been taken through our mandated activities. Scientists are regularly visiting these adopted villages and providing timely advice for crops related problems.
Chandipur	Kasmar	
Jaruatanr	Petarwar	
Manjura	Kasmar	
Koh	Petarwar	
Ambadih	Petarwar	

## 2.1 Priority thrust areas

S. No	Thrust area
1.	Popularization of Soil and water conservation techniques
2.	Intensification in crop production system
3.	Development of seed production system.
4.	Value addition of locally available fruits & vegetables.
5.	Improvement of indigenous poor breeds of livestock.
6.	Soil Fertility Management
7.	Insect pest and disease management of major crops
8.	Entrepreneurship development through mushroom, vermi compost production.
9.	Farm Mechanization



Livestock strains and fish fingerlings produced (in lakh)*		Soil, water, plant, manures samples tested (in lakh)	
Target	Achievement	Target	Achievement

\* Give no. only in case of fish fingerlings

Publication by KVKs							
Item	No.	No. circulated	No. of Research papers in NAAS rated Journals	Highest NAAS rating of any publication	Average NAAS rating of the publications	Details of awarded publication, if any	Details of Award given to the publication
Research paper							
Seminar/conference/symposia papers							
Books							
Bulletins							
News letter							
Popular Articles							
Book Chapter							
Extension Pamphlets/ literature	5	2000					
Technical reports	4	50					
Electronic Publication (CD/DVD etc)							
TOTAL							

3.1.1 Achievements on technologies assessed and refined

**OFT (All discipline)**

**OFT-1 Home Science**

1.	Title of On farm Trial	Assessment of different kind of ripe jack fruit based jam.
2.	Problem diagnosed	Jack fruit is heavily produced in local area of Bokaro district but not properly utilized due to lack of processing knowledge.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<b>F.P.</b> : Local people consume ripe jack fruit just as fruit. <b>T.O.1:</b> Preparation of jam ripe jack fruit. <b>Formulation - Ingredients</b> Jack fruit pulp 1 kg, Sugar – 700g, Citric acid 2.5g, pectin:10g <b>T.O. 2:</b> Preparation of mixed jam from ripe jack fruit, papaya, guava and mango <b>Formulation - Ingredients</b> Well ripened jack fruit pulp juice – 600 g , Mango pulp – 100 g,papaya pulp 100 g and guava pulp 100g, Citric acid-2.5 g,pectin10g.
4.	Source of Technology (ICAR/AICRP/SAU/other, please specify)	The Asian Journal of Horticulture <b>vol.12,Issue 1,june,2017 p160-164.</b>
5.	Production system and thematic area	Rainfed Upland and Value Addition
6.	Performance of the Technology with performance indicators	Given in table
7.	Final recommendation for micro level situation	
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	Their reaction were very good and cooperative.

*Thematic area:* Value Addition

Problem definition: Jack fruit is heavily produced in local area of Bokaro district but not properly utilized due to lack of processing knowledge.

Technology assessed: Assessed

Table 1: Nutritive value of 100g of all three produce of Jack Fruit based jam.

Technology option	No. of trials	Protein (g)	Fat (g)	CHO (g)	Energy (Kcal)	Calci um (mg)	Iron (mg)	Cost of produce/ kg	Market price of produce/ kg	Net profit/kg (Rs.)	B:C ratio
<b>F.P.</b> : Local people consume ripe jack fruit just as fruit	10	1.9	0.1	19.8	88.0	20.0	0.56	25	50	25	2:1
<b>T.O.1:</b> Preparation of jam ripe jack fruit. <b>Formulation - Ingredients</b> Jack fruit pulp 1 kg, Sugar – 700g, Citric acid 2.5g, pectin:10g		9.79	0.18	96.43	395.83	31.20	0.73	80	350	270	4.37:1
<b>T.O. 2:</b> Preparation of mixed jam from ripe jack fruit, papaya, guava and mango <b>Formulation - Ingredients</b> Well ripened jack fruit pulp juice – 600 g , Mango pulp – 100 g,papaya pulp 100 g and guava pulp 100g, Citric acid-2.5 g,pectin10g.		1.68	0.35	94.82	388.05	27.87	1.14	100	250	150	2.5:1

**OFT-2: Horticulture**

1.	Title of On farm Trial	Effect of micronutrient on yield and quality of Mango.
2.	Problem diagnosed	Deficiency of micronutrient like zinc, boron contributing towards poor yield and quality of Mango.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers Practice - FYM 10 kg per tree + urea 0.5 kg per plant (06 year old) T.O.1- RDF (0.6:0.6:0.36 kg NPK/plant) + 100 g zinc sulphate + 50 g copper sulphate + 50 g boric acid (soil application) in basin after harvest + foliar spray of 0.2% zinc sulphate + 0.1% boric acid (2 spray at just before flowering and marble stage) T.O.2- RDF (0.6:0.6:0.36 kg NPK/plant) + 100 g zinc sulphate + 50 g copper sulphate + 50 g boric acid (soil application) in basin after harvest + foliar spray of 0.2% zinc sulphate + 0.1% copper sulphate + 0.1% boric acid (2 spray at just before flowering and marble stage) <b>Mango- Variety : Amrapali</b>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR, RCER, Ranchi
5.	Production system and thematic area	Fruit based production system, INM
6.	Performance of the Technology with performance indicators	Given in table
7.	Final recommendation for micro level situation	Technology Option-II – FYM @ 20kg /tree, RDF (0.6:0.6:0.36 kg NPK/plant) + 100 g ZnSO <sub>4</sub> + 50 g CuSO <sub>4</sub> + 50 g boric acid (soil application) in basin after harvest + foliar spray of 0.2% ZnSO <sub>4</sub> + 0.1% CuSO <sub>4</sub> + 0.1% boric acid (2 spray at just before flowering and marble stage) has better performance over Technology Option-I and farmers practice.
8.	Constraints identified and feedback for research	Unavailability of CuSO <sub>4</sub> in local market.
9.	Process of farmers participation and their reaction	Personal contact and group discussion.

*Thematic area: Integrated Nutrient Management*

**Problem definition:** Deficiency of micronutrient like zinc, boron contributing towards poor yield and quality of Mango.

Technology assessed:

Table-1: Effect of micronutrient on yield and quality of Mango.

Technology option	No. of trials	Yield component					Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of initial fruit/pa nicle	No. of final fruit set	Fruit wt. (g)	Yield (q/ha)	TSS				
Farmers Practice –FYM 10 kg per tree + urea 0.5 kg per plant (06 year old)	07	32.50	1.60	132.00	45.20	18.5	75500.00	135600.00	60100.00	1:79
T.O.I– RDF (0.6:0.6:0.36 kg NPK/plant) + 100 g zinc sulphate + 50 g cupper sulphate + 50 g boric acid (soil application) in basin after harvest + foliar spray of 0.2% zinc sulphate + 0.1% boric acid (2 spray at just before flowering and marble stage)		48.00	2.50	152.00	84.00	21.20	85500.00	252000.00	166500.00	2:94
T.O.II– RDF (0.6:0.6:0.36 kg NPK/plant) + 100 g zinc sulphate + 50 g cupper sulphate + 50 g boric acid (soil application) in basin after harvest + foliar spray of 0.2% zinc sulphate + 0.1% cupper sulphate + 0.1% boric acid (2 spray at just before flowering and marble stage) <b>Mango- Variety : Amrapali</b>		65.00	3.25	170.50	98.00	22.00	87500.00	294000.00	206500.00	3.36

**Results:** Technology Option-II – FYM @ 20kg /tree, RDF (0.6:0.6:0.36 kg NPK/plant) + 100 g ZnSO<sub>4</sub> + 50 g CuSO<sub>4</sub> + 50 g boric acid (soil application) in basin after harvest + foliar spray of 0.2% ZnSO<sub>4</sub> + 0.1% CuSO<sub>4</sub>+ 0.1% boric acid (2 spray at just before flowering and marble stage) has better performance over Technology Option-I and farmers practice.**Note:** Mango price@3000/ quintal.



Height measurement of Mango tree



Application of Nutrient in Mango tree

### OFT-3

1.	Title of On Farm Trial	Sustainable Onion production through nutrient management
2.	Problem Diagnose	Unbalanced use of fertilizer results in poor crops yields.
3.	Details of Technologies selected for assessment/refinement	Farmers Practice : 60:20:20 (NPK) + 20 q FYM Technology option-I : RDF 150:50:80 (NPK), P through SSP Technology option-II : RDF 50% + 20 q poultry manure
4.	Source of Technology	Directorate of Onion & Garlic research, Pune
5.	Replication	11
6.	Production System & Thematic Area	Irrigated medium land and Nutrient Management
7.	Performance of the Technology with performance indicators	Given in table
8.	Final recommendation for micro level situation	RDF 50% + 20 q poultry manure performed better over other treatments.
9.	Constraints identified and feedback for research	Decomposition of poultry manure is difficult. CN ratio of poultry manure is very low and poultry manure contains residue, drugs and antibiotic. Before using it should be composted with paddy straw or saw dust.
10.	Process of farmers participation and their reaction	Personal contact and gosthi with farmers.

*Thematic area:* Nutrient Management

*Problem definition:* Unbalanced use of fertilizer results in poor crops yields.

**Table: 1- Sustainable Onion production through nutrient management**

Technology Option	No. of trials	Yield components				Yield (q)	Gross income (Rs.)	Cost of cultivation (Rs.)	Net return (Rs.)
		Plant height (cm)	Nos. of leaves	Diameter of bulb (cm)	Bulb wt. (g)				
F. P-60:20:20 (NPK) + 20 q FYM	11	35.20	9.0	4.0	56.20	243	194400	52500	141900
TO1- RDF 150:50:80 (NPK), P through SSP		42.92	8.0	3.4	54.50	198	158400	55000	103400
TO2- RDF 50% + 20 q poultry manure		52.60	13.0	4.8	61.20	285	228000	53100	174900

Onion sold @ Rs. 800/q

**Result:** Technology option-II performed good over technology option – I and farmers practice in respect of yield attributing character.



**OFT-4 : Plant Protection**

1.	Title of On farm Trial	Management of pod borer <i>Helicoverpaarmigera</i> (Hubner) in chickpea.
2.	Problem diagnosed	Low productivity of chickpea due to heavy infestation of pod borer.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined) <b>- Refined</b>	<b>Technology option</b> <b>Farmers Practice</b> : 1 spray of Carbryl 50 WP @ 4g/ lit. water as per appearance of larva. <b>Technology option-I</b> : 2 spray of Lambdacyhalothrin 2.5EC @ 2 ml/l water at 7 days interval starting from flowering stage. <b>Technology option-II</b> :Bt var. kurstaki 2g/l water. 1st spray at 50% flowering and 2 <sup>nd</sup> spray at 15 days after 1 <sup>st</sup> spraying. + 1spray of Chlorantraniliprole 18.5% SC 1ml/3l water after 2 <sup>nd</sup> spray of BT.
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	BAU, Ranchi
5.	Replication	10
6.	Production system and thematic area	Rainfed Upland and Integrated Pest Management
7.	Performance of the Technology with performance indicators	Given in table
8.	Final recommendation for micro level situation	-Technology option-II :Bt var. kurstaki 2g/l water. 1st spray at 50% flowering and 2 <sup>nd</sup> spray at 15 days after 1 <sup>st</sup> spraying. + 1spray of Chlorantraniliprole 18.5% SC 1ml/3l water after 2 <sup>nd</sup> spray of BT was found most effective in reducing pod damage
9.	Constraints identified and feedback for research	
10.	Process of farmers participation and their reaction	Personal contact and gosthi with farmer

*Thematic area: Integrated Pest Management*

Problem definition: Low productivity of chickpea due to heavy infestation of pod borer.

Technology assessed: Assessment

Table:Effect of insecticide against H.armigera under field condition.

Technology option	No.of larvae/MRL			Pod damage %	Yield q/ha	Cost of cultivation	Gross income	Net return	B:C
	2DAS	7DAS	14DAS						
Farmers Practice : 1 spray of Carbryl 50 WP @ 4g/ lit. water as per appearance of larva.	0.96 (1.22)	0.82 (1.15)	0.60 (1.05)	9.4 (17.86)	8.0	70680	10400	33320	0.47
Technology option-I : 2 spray of Lambdacyhalothrin 2.5EC @ 2 ml/l water at 7 days interval starting from flowering stage.	0.82 (1.15)	0.64 (1.07)	0.54 (1.02)	8.7 (17.15)	13.60	70720	176800	106080	1.5
Technology option-II :Seed treatment with Bt +var. Bt var. kurstaki 2g/l water. 1st spray at 50% flowering and 2 <sup>nd</sup> spray at 15 days after 1 <sup>st</sup> spraying.	0.50 (1.00)	0.50 (1.00)	0.44 (0.97)	7.9 (16.32)	16.22	71800	210860	139060	1.9

Results: **TO2** -Technology option-II :Bt var. kurstaki 2g/l water. 1st spray at 50% flowering and 2<sup>nd</sup>spray at 15 days after 1<sup>st</sup> spraying. + 1spray of Chlorantraniliprole 18.5% SC 1ml/3l water after 2<sup>nd</sup> spray of BT was found most effective in reducing pod damage.

## OFT-5Agril. Engg

1.	Title of On farm Trial	Assessment of different sowing methods on wheat yield.
2.	Problem diagnosed	Low yield of wheat due to improper sowing method.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<b>F.P.</b> :-Conventional method (wheat sowing behind the plough) <b>T.O.1</b> :- Sowing with seed drill. <b>T.O.2</b> :- Sowing with zero tillage machine.
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	BAU, Ranchi
5.	Production system and thematic area	Irrigated Mediumland Farm Mechanization
6.	Performance of the Technology with performance indicators	Given in table
7.	Final recommendation for micro level situation	Technology option -2 Sowing with zero tillage machine was found most effective in different sowing method in wheat yield.
8.	Constraints identified and feedback for research	Zero tillage machine is not available in local area and its cost is high.
9.	Process of farmers participation and their reaction	Personal contact, training and gosthi

*Thematic area:* Farm Mechanization

*Problem definition:* Low yield of wheat due to improper sowing method.

*Table: 1 – Effect of different sowing method in wheat yield.*

Technology option	No. of trails	Yield components				Yield q/ha	Cost of cultivation Rs./ha	Gross income Rs./ha	Net income Rs./ha	B:C ratio
		Moisture content of soil before sowing	Plant Population after 21 days	Effective tiller/m <sup>2</sup>	No. of grain/ear head					
<b>F.P.</b> :- Conventional method (wheat sowing behind the plough)	07	12.50	185	276	40.1	27.0	30500	59400	28900	1.94
<b>T.O.1</b> :- Sowing with conventional seed drill.		12.70	190	288	42.6	29.2	29000	64240	35240	2.21
<b>T.O.2</b> :- Sowing with zero tillage machine.		17.20	172	294	45.2	30.1	26000	66220	40220	2.54

Selling price of wheat Rs. 2200/q

**Results:** Technology option -2 Sowing with zero tillage machine was found most effective in different sowing method in wheat yield.

## OFT- : 6 Crop Production

1.	Title of On Farm Trial	Yield and profitability of mustard as affected by nutrient management under irrigated condition.
2.	Problem Diagnose	Low yield of mustard due to imbalance use of fertilizer.
3.	Details of Technologies selected for assessment/refinement	F.P. - 20-25kgN, 8-10 kg P <sub>2</sub> O <sub>5</sub> , 8-10 q FYM/ha T.O. I - 75% RDF (60:45:30 kg NPK/ha)+ Azotobacter + PSB T. O. ii - 100% RDF + Sulphur (20kg/ha) RDF- 80:60:40 kgNPK/ha
4.	Source of Technology	BAU Ranchi
5.	Replication	10
6.	Production System & Thematic Area	Irrigated medium land and Nutrient Management
7.	Performance of the Technology with performance indicators	Given in table
8.	Final recommendation for micro level situation	
9.	Constraints identified and feedback for research	
10.	Process of farmers participation and their reaction	Personal contact and gosthi

*Thematic area:* Nutrient Management

*Problem definition:* Low yield of mustard due to imbalance use of fertilizer.

Table: 1 - Yield and profitability of mustard as affected by nutrient management under irrigated condition.

Treatment	No. of trials	Yield Component				Seed yield (q/ha)	Gross return (Rs/ha)	Net return (Rs./ha)	B:C ratio
		Plant height (cm)	No. of siliqua /plant	No. of seeds siliqua	1000 Seed (q/ha)				
F.P. - 20-25kgN, 8-10 kg P <sub>2</sub> O <sub>5</sub> , 8-10 q FYM/ha	10	118.6	212.6	11.2	2.79	7.42	37100.00	24250.00	2.8
T.O. I - 75% RDF (60:45:30 kg NPK/ha)+ Azotobacter + PSB		132.4	246.4	12.4	3.46	9.76	48800.00	34075.00	3.3
T. O. ii - 100% RDF + Sulphur (20kg/ha)		138.6	262.8	13.6	3.82	11.84	59200.00	41950.00	3.4

\* RDF: 80:60:40 kg NPK/ha



**OFT- 7: Crop Production**

1.	Title of On Farm Trial	Effect of sowing methods on forage productivity and economics of barseem.
2.	Problem Diagnose	Low forage productivity of barseem due to poor crop establishment
3.	Details of Technologies selected for assessment/refinement	F.P. :Broadcasting method T.O.1 : Line sowing at 30 cm T.O. 2 : Puddling method
4.	Source of Technology	Birsa Agricultural University, Ranchi
5.	Replication	07
6.	Production System & Thematic Area	Integrated medium land and Fodder Production
7.	Performance of the Technology with performance indicators	Line sowing method of barseem is recorded maximum green fodder yield (492.33 q/ha) with net return of Rs. 123263.00 and B:C ratio 5.0. Line sowing method increased in green fodder yield of 89.87 % and 54.50% over broadcasting and puddling methods, respectively.
8.	Final recommendation for micro level situation	Line sowing method of barseem is recommended for higher green fodder yield.
9.	Constraints identified and feedback for research	
10.	Process of farmers participation and their reaction	Personal contact.

*Thematic area: Fodder Production*

Problem definition: Low forage productivity of barseem due to poor crop establishment

Table: 1 - Effect of sowing methods on yield of Barseem

Technology Option	Plant population/m <sup>2</sup>	Branches/ Plant	GF yield (q/ha)	Cost of cultivation (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
<b>F P: Broadcasting method</b>	84	11	259.29	22790	77788	54998	2.41
<b>TO1- Line sowing at 30 cm</b>	166	20	492.33	24400	147663	123263	5.0
<b>TO2- Puddling method</b>	123	14	318.67	25500	95600	70100	2.75

Result: Line sowing method of barseem is recorded maximum green fodder yield (492.33 q/ha) with net return of Rs. 123263.00 and B:C ratio 5.0. Line sowing method increased in green fodder yield of 89.87 % and 54.50% over broadcasting and puddling methods, respectively.

### 3.1.2 Technology Assessed by KVK (Discipline wise)

Technologies assessed under various crops by KVKs (Crop Production)				
	Thematic areas	Number of the technologies (Technology Interventions)	No. of trials	No. of Locations
1	Integrated Nutrient Management	4	40	40
2	Varietal Evaluation			
3	Integrated Pest Management	1	10	10
4	Integrated Crop Management			
5	Integrated Disease Management			
6	Small Scale Income Generation Enterprises			
7	Weed Management			
8	Resource Conservation Technology	1	10	10
9	Farm Machineries			
10	Integrated Farming System			
11	Seed / Plant production			
12	Post Harvest Technology / Value addition	1	10	10

13	Drudgery Reduction			
14	Storage Technique			
15	Others (Pl. specify)			
16	Cropping Systems			
17	Farm Mechanization			
18	Others			
	<b>Total</b>	<b>7</b>	<b>70</b>	<b>70</b>
	<b>Technologies assessed under livestock by KVKs</b>			
	Thematic areas	No. of technologies (Technology Interventions)	No. of trials	No. of locations
1	Disease Management			
2	Evaluation of Breeds			
3	Feed and Fodder management			
4	Nutrition Management			
5	Production and Management			
6	Processing and value addition			
7	Others (Pl. specify)			
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Technologies assessed under various enterprises by KVKs</b>			
	Thematic areas	No. of technologies (Technology Interventions)	No. of trials	No. of locations
1	Drudgery reduction			
2	Entrepreneurship Development			
3	Health and nutrition			
4	Processing and value addition			
5	Energy conservation			
6	Small-scale income generation			
7	Storage techniques			
8	Household food security			
9	Organic farming			
10	Agroforestry management			
11	Mechanization			

12	Resource conservation technology			
13	Value Addition			
14	Others			
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Technologies assessed under various enterprises for women empowerment</b>			
	Thematic areas	No. of technologies (Technology Interventions)	No. of trials	No. of locations
1	Drudgery Reduction			
2	Entrepreneurship Development			
3	Health and Nutrition			
4	Value Addition			
5	Others			
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>











Sheep and goat																	
Duckery																	
Others (Pl.specify)																	
Total																	

\* Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

\*\*  $BCR = \text{GROSS RETURN} / \text{GROSS COST}$

**Fisheries**

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl.specify)																	
Total																	

\* Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Other enterprises**

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit				*Economics of check (Rs.) or Rs./unit				
				Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Oyster mushroom	Enterprise development																
Button mushroom																	
Vermicompost																	
Sericulture																	
Apiculture																	
Others (pl.specify)																	
Total																	

\* Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Women empowerment**

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women					
Pregnant women					
Adolescent Girl					
Other women					
Children					
Neonatal					
Infants					

**Farm implements and machinery**

Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit)					
					Demonstration	Check											

\* Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Farm Machinery**

Category	Name of the implement / Equipment / Tool	Crop (if applicable)	No. of Technologies	No. of Demos	Area (ha)
<b>Sowing and planting tools and machineries</b>					
<b>Total</b>					
<b>Intercultural operation tools and machineries</b>					
<b>Total</b>					
<b>Irrigation management tools and machineries</b>					
<b>Total</b>					
<b>Plant protection tools and machineries</b>					
<b>Total</b>					

<b>Harvesting tools and machineries</b>					
<b>Total</b>					
<b>Postharvest processing tools and machineries</b>					
<b>Total</b>					
<b>Total mechanization tools and machineries</b>					
<b>Total</b>					
<b>Others</b>					
<b>Total</b>					
<b>Grand Total</b>					

#### Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1.	Paddy: IR64-drt	Better yield performance under moisture deficit condition.8-10 days early maturity compare to other local variety.
2.	Ragi: A-404	Better yield performance, larger head size and bold seeded.

#### Extension and Training activities under FLD

Sl.No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	19.11.2022	Kisan Gosthi on Paddy crop	26	
		21.08.2022	Kisan Gosthi on Ragi crop	23	
2.	Farmers Training				
3.	Media coverage				
4.	Training for extension functionaries				

## Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif, Rabi and summer 2022

### Technical Parameters:

#### Oilseed:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha) 7 years	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			% Increase	Yield gap minimized (%)		
				Distri ct yield (D)	State yield (S)	Potenti al yield (P)				Max.	Min.	Av.		D	S	P
				1	Sesame	Local Til				3	3.2	3.76	8	N-32	50	20
2	Linseed	Local Tisi	4.2	3.0	1.2	12	Priyam	57	20	7.6	5.2	6.5	54.7	116	441	(-)45
3	Mustard	Local	5.5	6.0	3.7	12	P-30	102	50	10.4	6.2	8.8	60	46	138	(-)100

#### B. Economic parameters

Sl. No.	Crop	Variety demonstrated & Technology demonstrated	Farmer's Existing plot				Demonstration plot			
			Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
1.	Sesame	N-32, Line sowing, Seed treatment, Sulphur, Pest & Disease management	10500	24000	13500	2.28	13500	38400	24900	2.8
2.	Linseed	Var- Priyam, Line sowing, Sulphur, pest & disease management	9000	16800	7800	1.86	14500	36900	22400	2.5
3.	Mustard	P-30, Line sowing, Sulphur, pest & disease management	11500	24750	13250	2.2	11500	24750	13250	2.2

### C. Socio-economic impact parameters 2022

Sl. No.	Crop	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Mandays/house hold)
1.	Sesame	N-32 Line sowing, Seed treatment	4800	108	80	480	400	Education, Health, Daily expenses	40
2.	Linseed	Var- Priyam, Line sowing, Sulphur, pest & disease management	Standing						
3.	Mustard	P-30, Line sowing, Sulphur, pest & disease management	Standing						

### D. Oilseed Farmers' perception of the intervention demonstrated 2022

Sl. No.	Crop	Technologies demonstrated (with name)	Farmers' Perception parameters					Suggestions, for change/improvement, if any
			Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	
1.	Sesame	N-32, Line sowing, Seed treatment	Yes	Yes	75%	No	Yes	Good variety
2.	Linseed	Var- Priyam, Line sowing, Sulphur, pest & disease management						
3.	Mustard	P-30, Line sowing, Sulphur, pest & disease management						

**A. Technical Parameters:****Pulses:**

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha) 7 years	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			% increase	Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.		D	S	P
1	Black gram	Local	6.5	5.5	6.19	14	WBU109 Sulata	52	20	12.4	7.2	10.4	60	89	68	(-) 28.2
2	Pigeonpea	Local	9.5	7	7.5	18	Rajiv Lochan	55	20	14.6	9.2	12.4	55	77	65	(-)31.1
3	Green gram	Local	6	5.5	6.19	12	IPM 2-3	50	20	10.8	6.8	9.7	61	76	56.7	(-)19
4	Horse gram	Local	4.5	4	4.5	9	Indra	50	20	8.6	6.2	7.6	68.9	90	68.8	(-) 15
5	Chickpea	Local	8.5	8.2	8.3	17	GNG1581	76	20	15.4	9.5	13.2	37.5	60.9	59	(-)22.33

**E. Economic parameters**

Sl. No.	Crop	Variety demonstrated & Technology demonstrated	Farmer's Existing plot				Demonstration plot			
			Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
1.	Black gram	WBU109 Sulata	16400	42250	25850	2.8	19000	67600	48600	3.5
2.	Pigeonpea	Rajiv Lochan	Standing							
3.	Green gram	IPM 2-3	16400	39000	22600	2.3	19800	63050	43250	3.2
4.	Horse gram	Indra	12000	22500	10500	1.8	15000	38000	23000	2.5
5.	Chickpea	GNG1581	Standing							

**F. Socio-economic impact parameters 2022**

Sl. No.	Crop	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Mandays/house hold)
1.	Black gram	WBU109 Sulata	10400	286	65	1050	1000	Education, Health, Daily expenses	45

2.	Pigeonpea	Rajiv Lochan							
3.	Green gram	IPM 2-3	9700	195	65	2250	650	Education, Health, Daily expenses	45
4.	Horse gram	Indra	7600	3800	50	3400	400	Education, Health, Daily expenses	40
5.	Chickpea	GNG1581	Standing						

### G. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
<b>Pigeon Pea</b> -Branching of Plant	Profuse branching of the Plant.	Line sowing behind the plough give the better result in branching.	Farmers are needed to small instrument for easily sowing of chickpea.
<b>Black gram</b> -Branching of plant is good	The performance of this variety is good in yield in comparison to local variety	Yield is better in comparison to Local check	It is good variety in kharif season due to its resistant to mosaic
<b>Green gram -Shikha</b> , with the spacing 30X10 cm apart. and bold seeded	Performance is good due to its bold seed	Yield potential is good in comparison to local variety.	Farmers like because it can be grown in as summer Moong.
<b>Horse gram</b> - Branching of plant is good	Good	Yield is better in comparison to Local check	Suitable for this region

**H. Extension activities under FLD conducted:**

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
<b>1. Pigeon Pea</b>	<b>Training and Field Day</b>	<b>24.06.2022, 19.07.2022 and 14.11.2022</b>	36,24 and 12
<b>2 .Blackgram</b>	<b>Training and Field Day</b>	<b>8.07.22, 04.08.2022 and 15.10.22</b>	76, 32 and 81
<b>3.Greengram</b>	<b>Training and Field day</b>	<b>25.06.22 and 16.10.22</b>	37 and 56
<b>4.Horse gram</b>	<b>Training and Field Day</b>	<b>24.08.22 and 13.12.22</b>	38 and 66

**I. Sequential good quality photographs (as per crop stages i.e. growth & development)****J. Farmers' training photographs****K. Quality Action Photographs of field visits/field days and technology demonstrated.****J. Details of budget utilization**

Pigeon Pea	i) Critical input	81000.00	81000.00	NIL
	ii) TA/DA/POL etc. for monitoring	900.00	900.00	
	iii) Extension Activities (Field day)	8100.00	8100.00	NIL
	iv)Publication of literature	-	-	
	<b>Total</b>	<b>90000.00</b>	<b>90000.00</b>	<b>NIL</b>
Blackgram	i) Critical input	162000.00	162000.00	NIL
	ii) TA/DA/POL etc. for monitoring	1800.00	1800.00	
	iii) Extension Activities (Field day)	16200.00	16200.00	NIL
	iv)Publication of literature	-	-	

	<b>Total</b>	<b>180000.00</b>	<b>180000.00</b>	<b>NIL</b>
Green gram	i) Critical input	81000.00	81000.00	NIL
	ii) TA/DA/POL etc. for monitoring	900.00	900.00	
	iii) Extension Activities (Field day)	8100.00	8100.00	NIL
	iv)Publication of literature	-	-	
	<b>Total</b>	<b>90000.00</b>	<b>90000.00</b>	<b>NIL</b>
Horse gram	i) Critical input	81000.00	81000.00	NIL
	ii) TA/DA/POL etc. for monitoring	900.00	900.00	
	iii) Extension Activities (Field day)	8100.00	8100.00	NIL
	iv)Publication of literature	-	-	
	<b>Total</b>	<b>90000.00</b>	<b>90000.00</b>	<b>NIL</b>
<b>Grand Total</b>		<b>360000.00</b>	<b>360000.00</b>	<b>NIL</b>



















Thematic Area	No. of Courses	No. of Participants									Grand Total			
		Other			SC			ST			M	F	T	
		M	F	T	M	F	T	M	F	T				
Others, if any														
<b>TOTAL</b>	<b>5</b>	<b>49</b>	<b>54</b>	<b>63</b>	<b>20</b>	<b>20</b>	<b>40</b>	<b>20</b>	<b>32</b>	<b>52</b>	<b>89</b>	<b>126</b>	<b>215</b>	

### F) Extension Personnel Including the sponsored training programmes(Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Productivity enhancement in field crops	2	84	3	87	1	1	2	7	4	11	92	8	100
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards	1	51	16	75							51	16	67
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application	1		15	15	2	2	4	9	2	11	11	19	30
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
<b>TOTAL</b>	<b>4</b>	<b>135</b>	<b>34</b>	<b>177</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>16</b>	<b>6</b>	<b>22</b>	<b>154</b>	<b>43</b>	<b>197</b>

## G) Consolidated table (ON and OFF Campus)

### i. Farmers & Farm Women

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
<b>I. Crop Production</b>													
Weed Management													
Resource Conservation Technologies	1	11	6	17	3		3	7		7	21	6	27
Cropping Systems													
Crop Diversification													
Integrated Farming	1	1	58					1			2	58	60
Water management													
Seed production													
Nursery management													
Integrated Crop Management	3	28	28	56	4		4	16	27	43	48	55	103
Fodder production													
Production of organic inputs													
Others, (cultivation of crops )	4	82	14	96	10		10	20	5	25	102	19	121
TOTAL													
<b>II. Horticulture</b>													
<b>a) Vegetable Crops</b>													
Integrated nutrient management	1	13	7	20	2		2	4	1	5	19	8	27
Water management													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops	4	117	10	127	4	15	19	8	43	51	129	68	197
Off-season vegetables	2	15	15	30	16	20	36				31	35	66
Nursery raising	1	30									30		30
Exotic vegetables like Broccoli													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any (Cultivation of Vegetable)	6	56	84	140		32	32	2	4	6	58	120	178
TOTAL													
<b>b) Fruits</b>													
Training and Pruning													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
TOTAL													
<b>c) Ornamental Plants</b>													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental	1					32	32					32	32





Thematic Area	No. of Courses	No. of Participants									Grand Total			
		Other			SC			ST			M	F	T	
		M	F	T	M	F	T	M	F	T				
Pearl culture														
Fish processing and value addition														
Others, if any														
<b>TOTAL</b>														
<b>IX. Production of Inputs at site</b>														
Seed Production														
Planting material production														
Bio-agents production														
Bio-pesticides production														
Bio-fertilizer production														
Vermi-compost production														
Organic manures production														
Production of fry and fingerlings														
Production of Bee-colonies and wax sheets														
Small tools and implements														
Production of livestock feed and fodder														
Production of Fish feed														
Others, if any														
<b>TOTAL</b>														
<b>X. Capacity Building and Group Dynamics</b>														
Leadership development														
Group dynamics	1							30	70	100	30	70	100	
Formation and Management of SHGs														
Mobilization of social capital	3	138	51	189	58	74	132	52	69	121	248	194	442	
Entrepreneurial development of farmers/youths	1	6	1	7	2		2				8	1	9	
WTO and IPR issues														
Others, if any														
<b>TOTAL</b>														
<b>XI Agro-forestry</b>														
Production technologies														
Nursery management														
Integrated Farming Systems														
<b>TOTAL</b>														
<b>XII. Others (Pl. specify)</b>														
<b>TOTAL</b>	42	622	603	1225	116	223	339	157	309	466	895	1135	2030	

**ii. RURAL YOUTH (On and Off Campus)**

Thematic Area	No. of Courses	No. of Participants									Grand Total			
		Other			SC			ST			M	F	T	
		M	F	T	M	F	T	M	F	T				
Mushroom Production	2		43	43		2	2		5			50	50	
Bee-keeping														
Integrated farming	3	10	24	34	6		6	13	42	55	29	66	95	
Seed production														
Production of organic inputs														
Planting material production	1	60	20	80							60	20	80	

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Vermi-culture	1	9	2	11	3	1	4	5	2	7	17	5	22
Sericulture													
Protected cultivation of vegetable crops	2	29	3	32	7		7	8	-	8	44	3	47
Commercial fruit production	1	2	4	6	4		4	4		4	10	4	14
Repair and maintenance of farm machinery and implements	1	40		40							40		40
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition	3	9	26	35	20	8	28	24	40	34	53	74	127
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post-Harvest Technology	2		30	30		12	12		22	22		64	64
Tailoring and Stitching													
Rural Crafts													
Enterprise development													
Others if any (ICT application in agriculture)													
<b>TOTAL</b>	<b>16</b>	<b>159</b>	<b>152</b>	<b>311</b>	<b>40</b>	<b>23</b>	<b>63</b>	<b>54</b>	<b>111</b>	<b>165</b>	<b>253</b>	<b>286</b>	<b>539</b>

### iii. Extension Personnel (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Productivity enhancement in field crops	3	112	13	125	2	4	6	10	14	24	124	31	155
Integrated Pest Management													
Integrated Nutrient management	1	30		30	3		3	9		9	42		42

Rejuvenation of old orchards	1	51	16	75							51	16	67
Value addition	1	34	3	37	1		1	2		2	37	3	40
Protected cultivation technology	1	27	1	28	4		4	9		9	40	1	41
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application	1		15	15	2	2	4	9	2	11	11	19	30
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production	1		20	20					16	16		36	36
Household food security	1		26	26		4	4		4	4		34	34
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others if any													
<b>TOTAL</b>	<b>10</b>	<b>254</b>	<b>94</b>	<b>348</b>	<b>12</b>	<b>10</b>	<b>22</b>	<b>39</b>	<b>36</b>	<b>75</b>	<b>305</b>	<b>140</b>	<b>345</b>

**Please furnish the details of training programmes as Annexure in the proforma given below**

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST					
					Male	Female	Total	Male	Female	Total			

**H) Vocational training programmes for Rural Youth**

**Details of training programmes for Rural Youth**

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self-employed after training			Number of persons employed elsewhere
				Male	Female	Total	Type of units	Number of units	Number of persons employed	

\*training title should specify the major technology /skill transferred



## 3.4. A. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers				Extension Officials			Total		
		M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
Field Day	26	800	138	925	23	-	-	-			925
KisanMela	2	4900	300	5200	22	10	4	14	4910	304	5214
KisanGhosthi	6	160	20	180	10	12	-	12	160	20	192
Exhibition	1	305	132	437	32	-	-	-	305	132	437
Film Show	32	305	25	330	20	10	2	-	305	25	330
Method Demonstrations	19	190	25	215	13	-	-	-	190	25	215
Farmers Scientist Interaction	2	76	24	100	20	3	-	-	79	24	103
Workshop	2	68	15	83	18	21	8	29	89	23	112
Group meetings	-	-	-	-	-	-	-	-			
Lectures delivered as resource persons	116	430	15	445	8	-	-	-	430	15	445
Advisory Services	256	195	8	203	8	-	-	-	195	8	203
Scientific visit to farmers field	86	82	4	86	11	-	-	-	82	4	86
Farmers visit to KVK	2136	1412	724	2136	19	-	-	-	1412	724	2136
Diagnostic visits	61	356	49	415	20	-	-	-	356	49	415
Exposure visits	4	140	10	150	10	-	-	-	140	10	150
Ex-trainees Sammelan	-	-	-	-	-	-	-	-	-	-	-
Soil health Camp	2	75	9	84	18	-	-	-	75	9	84
Animal Health Camp	1	30	2	32	9	-	-	-	30	2	32
Agri mobile clinic	-	-	-	-	-	-	-	-	-	-	-
Soil test campaigns	4	310	17	327	12	-	-	-	310	17	327
FPO Conveners meet	4	245	8	253	10	-	-	-	245	8	253
Self Help Group Conveners meetings	-	-	-	-	-	-	-	-	-	-	-
MahilaMandals Conveners meetings	-	-	-	-	-	-	-	-	-	-	-
Celebration of important days (specify) Soil Health day	1	40	22	62	22	-	-	-	40	22	62
Sankalp Se Siddhi	-	-	-	-	-	-	-	-	-	-	-
Swachchhta Hi Sewa	6	180	20	200	20	-	-	-	180	20	200
Plantation programme	1	150	10	160	20	-	-	-	150	10	160
Live telecast Natural farming	1	150	200	350	25	-	-	-	150	200	350
<b>Total</b>	<b>2669</b>	<b>10599</b>	<b>1777</b>	<b>11836</b>		<b>56</b>	<b>14</b>	<b>55</b>	<b>9673</b>	<b>1163</b>	<b>10836</b>

## B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	26
Radio talks	0
TV talks	7
Popular articles	0
Extension Literature	7
Electronic media	0
Animal health camp	0
Any other	



**KVK farm**

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom seed provided			
				SC	ST	Other	Total
Grand Total							

**Production of planting materials by the KVKs**

Crop	Variety	No. of planting materials	Value (Rs)	Number of farmers to whom planting material provided			
				SC	ST	Other	Total
<b>Vegetable seedlings</b>							
Cauliflower	Mali-60 & 80	2000					
Cabbage							
Tomato							
Brinjal	JK-132	2000					
Chilli							
Onion							
Others							
<b>Fruits</b>							
Mango	Amarpali	1000					
Guava							
Lime							
Papaya							
Banana							
Others							
<b>Ornamental plants</b>							
Medicinal and Aromatic							
Plantation							
Spices							
Turmeric							
Tuber							
Elephant yams							
Fodder crop saplings							
Forest Species							
Others, pl.specify							
<b>Total</b>							

**Production of Bio-Products**

Name of product	Quantity	Value (Rs.)	No. of Farmers benefited
-----------------	----------	-------------	--------------------------

	Kg		SC	ST	Other	Total
Bio-fertilizers						
Bio-pesticide						
Bio-fungicide						
Bio-agents						
Others, please specify.						
Total						

### Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted			
				SC	ST	Other	Total
<b>Dairy animals</b>							
Cows							
Buffaloes							
Calves							
Others (Pl. specify)							
<b>Small ruminants</b>							
Sheep							
Goat							
Other, please specify							
<b>Poultry</b>							
Broilers							
Layers							
Duals (broiler and layer)							
Japanese Quail							
Turkey							
Emu							
Ducks							
Others (Pl. specify)							
<b>Piggery</b>							
Piglet							
Hog							
Others (Pl. specify)							
<b>Fisheries</b>							
Indian carp							
Exotic carp							
Mixed carp							
Fish fingerlings							
Spawn							
Others (Pl. specify)							
<b>Grand Total</b>							

### 3.5. b. Seed Hub Programme-“Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India”

i) Name of Seed Hub Centre:

i) Name of Seed Hub Centre:

Name of Nodal Officer :	Uday Kumar Singh
Address :	Krishi Vigyan Kendra, Bokaro
e-mail :	<a href="mailto:kvk_bokaro@yahoo.co.in">kvk_bokaro@yahoo.co.in</a>
Phone No. :	06549-265048 (O)
Mobile :	<b>09431126991 (M)</b> <b>7992322648 (M)</b>

ii) Quality Seed Production Reports

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed(F/S, C/S)
Kharif 2021	Green gram	IPM- 2-3	100	8.0	80.0	B/S to F/S
		IPM- 2-3		10.0	100.0	F/S I to F/S II
	Black gram	IPU- 1102	200	1.5	15.0	B/S to F/S
		WBU-109 (Sulata)		12.0	96.0	C/S I to C/S II
	Pigeon pea	Rajeev Lochan	250	10.0	Standing	F/S to C/S
Horse gram	VLG-19	100	-	-	-	
Rabi 2021	Chick pea	GNG-1581	200	22.0	Standing	B/S to F/S
Summer/Spring 2021	Green gram	HUM-16	150	-	To be sown	
<b>Total</b>			<b>1000</b>	<b>63.5</b>		

iii) Financial Progress

Fund received (2016-17, 2017-18, 2019, 2020 and 2021)	Expenditure (Rs. in lakhs)		Unspent balance (Rs. in lakhs)	Remarks
	Infrastructure	Revolving fund		
2016-17	50.00	40.00	37.52954	
2017-18	-	36.00	32.96939	
2019	-	24.00	18.71225	
2020	-			
2021	-			

iv) Infrastructure Development

Item	Progress
Seed processing unit	
Seed storage structure	

## 3.6. (A) Literature Developed/Published (with full title, author &amp; reference)

Item	Title	Author's name	ISBN No./ISSN Copy	Circulation
Research paper				
Seminar/conference/ symposia papers				
Books				
Bulletins				
News letter				
Popular Articles				
Book Chapter				
Extension Pamphlets/ literature	5			2000
Technical reports	Annual Report	Dr. Anil Kumar	20	20
	Annual Action Plan	„	20	20
	SAC Report	„	20	20
	CFLD Report	„	10	10
	Zonal Workshop Report	„	20	20
Electronic Publication (CD/DVD etc)				
TOTAL				

N.B.: Please enclose a copy of each. In case of literature prepared in local language please indicate the title in English

## (B) Details of HRD programmes undergone by KVK personnel:

Sl. No.	Name of programme	Name of course	Name of KVK personnel and designation	Date and Duration	Organized by
1.					
2.					
3.					
4.					

## 3.7. Success stories/Case studies, if any (two- or three-pages write-up on 1-2best case(s) with suitable action photographs)

Name of farmer	
Address	
Contact details (Phone, mobile, email Id)	
Landholding (in ha.)	
Name and description of the farm/ enterprise	
Economic impact	
Social impact	
Environmental impact	
Horizontal/ Vertical spread	

## 3.8. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

Sl. No.	Name/ Title of the technology	Name/ Details of the Innovator(s)	Brief details of the Innovative Technology

- 3.9. a. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

- b. Give details of organic farming practiced by the farmer

Sl. No.	Crop / Enterprise	Area (ha)/ No. covered	Production	No. of farmers involved	Market available (Y/N)

- 3.10. Indicate the specific training need analysis tools/methodology followed by KVKs

Sl. No.	Brief details of the tool/ methodology followed	Purpose for which the tool was followed

- 3.11. a. Details of equipment available in Soil and Water Testing Laboratory

Sl. No	Name of the Equipment	Qty.

- 3.11.b. Details of samples analyzed so far:

Number of soil samples analyzed		
Through mini soil testing kit/labs	Through soil testing laboratory	Total

- 3.11.c Detail of Soil, Water and Plant analysis at KVK

Sl.	Analysis	No. of Samples analyzed	No. of Villages	No. of Farmers	Amount realized (Rs.)
1.	Soil				
2.	Water				
3.	Plant				
4.	Fertilizers				
5.	Manures				
6.	Food				
7.	Others (if any)				

- 3.11.d. Details on World Soil Day

Sl. No.	Activity	No. of Participants	No. of VIPs	Name (s) of VIP(s)	Number of Soil Health Cards distributed	No. of farmers benefitted

- 3.12. Activities of Rain Water Harvesting structure and micro irrigation system

No of training programme	No. of demonstrations	No. of plant material produced	Visit by the farmers (No.)	Visit by the officials (No.)

--	--	--	--	--

## 3.13. Technology week celebration

Type of activities	No. of activities	Number of participants	Related crop/livestock technology

## 3.14. RAWE/ FETprogramme - is KVK involved? (Y/N)

No of student trained	No of days stayed
23	10

ARS trainees trained	No of days stayed

## 3.15. List of VIP visitors (Minister/ MP/MLA/DM/VC/ZilaParishad/Other Head of Organization/Foreigners)

Date	Name of the person	Purpose of visit
17.10.2022	Dr. Lambodar Mahto MLA, Gomia Jharkhand	PM Live Telecast

## 4. IMPACT

## 4.1. Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants

## 4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

Horizontal spread of technologies	
Technology	Horizontal spread

Give information in the same format as in case studies

## 4.3. Details of impact analysis of KVK activities carried out during the reporting period

Sl. No.	Brief details of technology	Impact of the technology in subjective terms	Impact of the technology in objective terms

## 4.4. Details of innovations recorded by the KVK

Thematic area	
Name of the Innovation	
Details of Innovator	
Back ground of innovation	
Technology details	
Practical utility of innovation	

#### 4.5. Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	
Name & complete address of the entrepreneur	
Role of KVK with quantitative data support:	
Timeline of the entrepreneurship development	
Technical Components of the Enterprise	
Status of entrepreneur before and after the enterprise	
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	
Horizontal spread of enterprise	

#### 4.6. Any other initiative taken by the KVK

### 5. LINKAGES

#### 5.1. Functional linkage with different organizations

Name of organization	Nature of linkage
DRDA, Bokaro	Infrastructure & sponsored training programme.
District Agriculture Office, Bokaro	Participation in training, FLD, Joint survey.
District Animal Husbandry Office Bokaro	Joint training programme & participation in meeting.
District Fisheries Office, Bokaro	Joint training programme & participation in meeting.
District Horticulture Office, Bokaro	Joint training programme & participation in meeting.
District Plant Protection Office, Bokaro	Joint diagnostic survey & participation in meeting.
District Forest Office, Bokaro	Participation in meeting.
Agricultural produce market committee (Bazaar Samiti), Bokaro	Joint training programme, participation in meeting & joint Krishak Gosthi.
Lead Bank Manager office, Bokaro	Financial support from banks to trained persons for entrepreneur development.
Zonal Office, Bank of India Bokaro	Financial support from banks to trained persons for entrepreneur development.
NABARD, Bokaro	Formation of SHG, Kisan Club & Training.

Tata Steel Rural Development Society, Bokaro	Joint training programme & participation in meeting.
Alamin Gramin Mahila Sishu Kalyan Kendra, Jharkhand State Office, Kanke, Ranchi	Joint training programme.
Krishi Bikash Shilpa Kendra, Birbhum(W.B)	Joint training programme.


5.2. List of special programme undertaken during 2021 by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NABARD/NHM/NFDB/Other Agencies (**information of previous years should not be provided**)

a) Programmes for infrastructure development

Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)

(b) Programme for other activities (training,FLD,OFT, Mela, Exhibition etc.)

Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)

## 6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1.Performance of demonstration units (other than instructional farm)

Sl. No.	Name of demo Unit	Year of estt.	Area (Sq. mt)	Details of production			Amount (Rs.)		Remarks
				Variety/breded	Produce	Qty.	Cost of inputs	Gross income	
1.									
2.									
3.									
4.									
5.									
6.									
7.									
	Total								

6.2.Performance of Instructional Farm (Crops)

Name Of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.(q)	Cost of inputs	Gross income	
Paddy	07.08.2022	25.11.22	1	Rajendra Mansuri	F/S	16		73600	
	04.08.2022	28.11.22	1	IR64 DRT1	F/S	19		87400	
Mustard	26.11.2022		1.5	BBM-1	F/S				Standing
Linseed	23.11.22		0.4	Priyam	F/S				Standing

## 6.3. Performance of Production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

Sl. No.	Name of the Product	Qty. (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.					

## 6.4. Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.							
2.							
3.							

## 6.5. Utilization of hostel facilities

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
May			
Total :			

(For whole of the year)

## 6.6. Utilization of staff quarters

Whether staff quarters has been completed:

No. of staffquarters:

Date of completion:

Occupancy details:

Months	Q I	Q II	Q III	Q IV	Q V	Q VI

FINANCIAL PERFORMANCE

## 7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Main Account	State Bank of India	Peterwar, Bokaro	11472450621
Revolving Account	State Bank of India	Peterwar, Bokaro	11472450632
Seed Hub	State Bank of India	Peterwar, Bokaro	36065817352

## 7.2. Utilization of funds under CFLD on Oilseed (Rs. In Lakhs)

Item	Released by ICAR		Expenditure		Unspent balance as on -
	Kharif	Rabi	Kharif	Rabi	


7.3. Utilization of funds under CFLD on Pulses (*Rs. In Lakhs*)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2022
	Kharif	Rabi	Kharif	Rabi	

## 7.4. Utilization of KVK funds during the year 2022(Not audited)

Sl. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances			
2	Traveling allowances			
3	Contingencies			
A				
B				
C				
D				
E				
F				
G				
H				
I				
J	Swachhta Expenditure			
TOTAL (A)				
<b>B. Non-Recurring Contingencies</b>				
1				
2				
3				
4				
TOTAL (B)				
<b>C. REVOLVING FUND</b>				
GRAND TOTAL (A+B+C)				

7.5. Status of **Revolving fund** (Rs. in lakh) for last three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year (Kind + cash)
2020	970000	500703	621609	849094
2021	8490094	290040	780816	358318
2022	358318	464813	1066720	(-)243589

- 7.6. (i) Number of SHGs formed by KVKs  
(ii) Association of KVKs with SHGs formed by other organizations indicating the area of SHG activities  
(iii) Details of marketing channels created for the SHGs

## 7.7. Joint activity carried out with line departments and ATMA

Name of activity	Number of activities	Season	With department line	With ATMA	With both
Field Days	10	Kharif & Rabi	Agriculture		
Farmers Scientist Interaction	2	Kharif & Rabi	Agriculture		
Krishak Gosti	13	Kharif & Rabi	Agriculture		
Workshop	2	Kharif & Rabi	Agriculture		
Kisan mela		Rabi	Agriculture		
Awareness programme	12	Kharif & Rabi	Agriculture		
Combined visit under FLD programme	16	Kharif & Rabi	Agriculture		

## 8. Other information

## 8.1. Prevalent diseases in Crops

Name of the disease	Crop	Date of outbreak	Area affected (in ha)	% Commodity loss	Preventive measures taken for area (in ha)

## 8.2. Prevalent diseases in Livestock/Fishery

Name of the disease	Species affected	Date of outbreak	Number of death/ Morbidity rate (%)	Number of animals vaccinated	Preventive measures taken in pond (in ha)

## 9.1. Nehru YuvaKendra(NYK) Training

Title of the training programme	Period		No. of the participant		Amount of Fund Received (Rs)
	From	To	Male	Female	

## 9.2. PPV &amp; FR Sensitization training Programme

Date of vaccination programme	Resource Person	No. of participants	Registration (crop wise)	
			Name of crop	No. of registration

9.3. *mKisan*Portal (National Farmers' Portal/ SMSPortal)

Type of message	No. of messages	No. of farmers covered
Crop		
Livestock		

Fishery		
Weather		
Marketing		
Awareness		
Training information		
Other		
<b>Total</b>		

#### 9.4. KVK Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	
2.	No. of farmers registered in the portal	
3.	Mobile Apps developed by KVK	
4.	Name of the App	
5.	Language of the App	
6.	Meant for crop/ livestock/ fishery/ others	
7.	No. of times downloaded	

#### 9.5 Kisan Mobile Advisory Services (KMAS)

Sl. No.	Discipline	No. of Advisories	No. of Messages (text+ videos)	Total messages	No. of Farmers
1.	Crop				
2.	Livestock				
3.	Weather				
4.	Marketing				
5.	Awareness				
6.	Enterprises				
7.	Others				
8.	Total				

#### 9.6. a. Observation of Swachha Bharat Programme/Pakhwara

Date/ Duration of Observation	Activities undertaken	No. of Participants			
		Staffs	Farmers	Others	Total

#### b. Details of Swachhta activities with expenditure

Activities	Number	Expenditure (in Rs.)
1. Digitization of office records/ e-office		
2. Basic maintenance		
3. Sanitation and SBM		
4. Cleaning and beautification of surrounding areas		
5. Vermicomposting/ Composting of biodegradable waste management & other activities on generate of wealth for waste		





## 9.17. Contingent crop planning

Name of the state	Name of district/KVK	Thematic area	Number of programmes organized	Number of Farmers contacted	A brief about contingent plan executed by the KVK

## 10. Report on Cereal Systems Initiative for South Asia (CSISA)

- a) Year:  
b) Introduction / General Information:

Experiment	Title	Objective	Treatment details	Date of sowing	Replication	Result with photographs
Experiment 1						
Experiment 2						
Experiment 3						
...						
..						
Others (If any)						

## 11. Details of TSP

## a. Achievements of physical output under TSP during 2021

Sl.	Activities	Physical Achievement	
		No. of Trainings/Demos	No. of beneficiaries
1)	Trainings		
a.	Farmer		
b.	Women		
c.	Rural Youths		
d.	Extension Personnel		
2)	OFT	No. of OFTs	No. of beneficiaries
3)	FLD	No. of FLDs	No. of beneficiaries
4)	Mobile agro- advisory to farmers	No. of advisory	No. of beneficiaries
5)	Other activities		
a.	Participants in extension activities (No.)		
b.	Production of seed (q)		
c.	Production of Planting material (No. in lakh)		
d.	Production of Livestock strains (No. in lakh)		
e.	Production of fingerlings (No. in lakh)		
f.	Testing of Soil, water, plant, manures samples (Nos.)		
g.	Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)		
h.	No. of other programmes (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)		

b. Fund received under TSP in 2022-23 (Rs. In lakh):

c. Achievements of physical outcome under TSP during 2022

Sl. No.	Description	Unit	Achievements
1	Change in family income	%	
2	Change in family consumption level	%	
3	Change in availability of agricultural implements/ tools etc.	No. per household	

d. Location and Beneficiary Details during 2022

District	Sub-district	No. of Village covered	Name of village(s) covered	ST population benefitted (No.)		
				M	F	T

## 12.Details of SCSP

Sl.	Activities	Physical Achievement	
		No. of Trainings/Demos	No. of beneficiaries
1)	Trainings		
a.	Farmer	3	90
b.	Women		
c.	Rural Youths		
d.	Extension Personnel		
2)	OFT	No. of OFTs	No. of beneficiaries
3)	FLD	No. of FLDs	No. of beneficiaries
		1	30
4)	Mobile agro- advisory to farmers	No. of advisory	No. of beneficiaries
		5	5
5)	Other activities		
a.	Participants in extension activities (No.)		
b.	Production of seed (q)		
c.	Production of Planting material (No. in lakh)		
d.	Production of Livestock strains (No. in lakh)		
e.	Production of fingerlings (No. in lakh)		
f.	Testing of Soil, water, plant, manures samples (Nos.)		10



Detailed report should be provided in the circulated Performa

14.a) Awards/Recognition received by the KVK in year 2022

Sl. No.	Name of the Award	Conferring Authority	Amount	Purpose

b) Award received by Farmers in year 2022

Sl.	Name of the Award	Name of the Farmer	Address	Contact No.	Aadhar No.	Amount	Purpose	Conferring Authority
1.	Progressive Farmer's Award	Shankar Soren	Village- Jaina, Post- Jaridih, Block Jaridih, Bokaro, Pin- 829301	08340607850 9939189072	-	-	Best Organic Farmer	BAU, Ranchi

15. Any significant achievement of the KVK with facts and figures as well as quality photograph

16. Number of commodity based organizations/ farmers' cooperative society/ FPO formed/ associated with during last one year (Details of the group/society may be indicated)

Sl. No.	Name of the organization/ Society	Trust Deed No.& date	Date of Trust Registration Address	Proposed Activity	Commodity Identified	No. of Members	Financial position (Rupees in lakh)	Success indicator

17. Integrated Farming System (IFS)

A) Details of KVK Demo. Unit

Sl. No.	Module details (Component-wise)	Area under IFS (ha)	Production (Commodity-wise)	Cost of production in Rs. (Component-wise)	Value realized in Rs. (Commodity-wise)	No. of farmer adopted practicing IFS	% Change in adoption during the year

B) Activities under IFS

Sl. No.	Component Name	No. of KVKs under the Component	No. of Components established	Area (ha)	No. of Activities		No. of farmers benefited	
					Demo	Training	Demo	Training
1.								
2.								
3.								

18. Technologies for Doubling Farmers' Income

Sl. No.	Name of the Technology	Brief Details of Technology (3- 5 bullet points)	Net Return to the farmer (Rs.) per ha per year due to adoption of the technology	No. of farmers adopted the technology in the district	One high resolution 'Photo' in 'jpg' format for each technology
1					
2					

## 19. Report on Digital Farming Initiatives in Agriculture/ Digital Ag. Extension Service

Phase	Database prepared/ covered for		KVK level Committee		Various activity conducted for farmers
	Total no. of villages	Total no. of farmers	Date of formation	Name of members	
I					
II					
Total					

## 20. Information on Visit of Ministers to KVKs, if any

Date of Visit	Name of Hon'ble Minister	Name of Ministry	Salient points in his/ her observation (2-3 bulleted points)

## 21. a) Information on ASCI Skill Development Training Programme, undertaken during 2022

Year	Name of the Job role	Name of the certified Trainer of KVK for the Job role	Date of start of training	Date of completion of training	No. of participants	Whether uploaded to SDMS Portal (Y/N)	Fund utilized for the training (Rs.)
2022							

b) Information on Skill Development Training Programme (**Other than ASCI or less than 200 hrs.**, if any) if undertaken during 2022

Thematic area of training	Title of the training	Duration (in hrs.)	No. of participants									Fund utilized for the training (Rs.)	
			SC		ST		Other		Total				
			M	F	M	F	M	F	M	F	T		

## 22. Information of NARI Project(if applicable)

Name of Nodal Officer	No. of OFT on specified aspects	Title(s) of OFT	No. of FLD on specified aspects	No. of capacity development programme on specified aspects	Total no. of farm women/ girls involved in the project	Details of Issues related to gender mainstreaming addressed through the project

## Progress Information of NARI Project

## a. Details of established Nutrition Garden in Nutri-Smart village

Sl.	Name of Nutri-Smart Village	Type of Nutrition Garden	Number	Area (sqm)	No. of beneficiaries
1.	Raghunathpur, Kasmar	Backyard/Kitchen garden	1	360	333
2.	Bundu Jara, Petarwar	Community level	1	1000	38
3.	Baradih	Terrace Garden	1	280	367
4.	Koh	Vertical Garden	2	1600	351
<b>TOTAL</b>			<b>5</b>	<b>3240</b>	<b>1089</b>



**C. Livestock and Fishery related activities**

Name of programme	No. of Programme	Activities performed				No. of farmers benefited									No. of other officials (except KVK) attended the programme		
		No. of animals vaccinated	No. of animals dewormed	Feed/nutrient supplements provided (kg)	Any other (Distribution of animals/birds/fingerlings) [No.]	SC		ST		Others		Total					
						M	F	M	F	M	F	M	F	T			
KKA-I																	
KKA-II																	

**D. Other activities**

Name of programme	Activities	No. of farmers benefited									No. of other officials (except KVK) attended the programme	
		SC		ST		Others		Total				
		M	F	M	F	M	F	M	F	T		
KKA-I	Soil Health Card Distributed											
	NADEP											
	Pit established											
	Farm implements distributed											
	Others, if any											
KKA-II	Soil Health Card Distributed											
	NADEP											
	Pit established											
	Farm implements distributed											
	Others, if any											

**Krishi Kalyan Abhiyan- III**

No. of villages covered	No. of animal inseminated	No. of farmers benefited									Any other, if any (pl. specify)	
		SC		ST		Others		Total				
		M	F	M	F	M	F	M	F	T		

**25. ARYA**

KVK	No. of entrepreneurial units established	No. of Training programs organized	No. of rural youth trained		No. of youth established units	
			Male	Female	Male	Female

**26. Any other programme organized by KVK, not covered above**

Sl. No.	Name of the programme	Date of the programme	Venue	Purpose	No. of participants

**27. Good quality action photographs of overall achievements of KVK during the year (best 10)**

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