



***KRISHI VIGYAN KENDRA
BOKARO***



ANNUAL REPORT
(April 2009- March 2010)

ZONAL WORKSHOP OF KVKs

ZONE- II

Venue- BVC, Patna

Date: 07 to 09 April, 2010

**BIRSA AGRICULTURAL UNIVERSITY
KANKE, RANCHI (JHARKHAND)**

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1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone	FAX	E mail
Krishi Vigyan Kendra, Bokaro P.O.- Petarwar Pin- 829121	06549-265048 (O) 09431126991 (M)		kvk_bokaro@yahoo.co.in

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

Address	Telephone	FAX	E mail
	Office	Office	
Directorate of Extension Education, Birsa Agricultural University, Jharkhand, Kanke, Ranchi Pin-834006	(VC) 0651-2450500(O)	0651-2450850	
	(DEE) 0651- 2450849 (O)	0651-2450525	rpsratna07@yahoo.co.in

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Sri Uday Kumar Singh	09431595179	9431126991	Udaykumarsingh1972@gmail.com

1.4. Year of sanction:

(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 March 2010)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/Others)
1	Programme Coordinator	Sri Uday Kumar	I/C Programme Coordinator & SMS	Agronomy	8000-13500 (9375)	19-07-04	Permanent	Others
2	Subject Matter Specialist	Dr. Anil Kumar	SMS	Horticulture	8000-13500 (10475)	19-07-04	Permanent	Others
3.	Subject Matter Specialist	Dr. Sudhir Kumar Jha	SMS	Soil Science	8000-13500 (10475)	20-07-04	Permanent	Others
4.	Subject Matter Specialist	Sri Vinay Kumar	SMS	Agril. Engg.	8000-13500 (9375)	20-07-04	Permanent	Others
5.	Subject Matter Specialist	Mrs Neena Bharti	SMS	Plant Prot.	8000-13500 (9375)	20-07-04	Permanent	ST
5.	Subject Matter Specialist	Mrs. Nandana Kumari	SMS (Study Leave)	Home Science	8000-13500 (9375)	19-07-04	Permanent	Others
6.	Farm Manager	Miss Priyanka Verma	Farm Manager (Study Leave)		5500-9000 (6375)	31-07-04	Permanent	Others
7.	Computer Programmer	Sri Naman Kandulna	Programme Assistant(Computer)		5000-8000 (5750)	20-07-04	Permanent	ST
7.	Accountant / Superintendent	Sri Abhay Kumar Singh	O.S.cum Accountant		5500.00	April 2008	Contractual Staff	Others
8.	Stenographer	Sri Ratnesh Kumar Mishra	Stenographer		4000.00	April 2008	Contractual Staff	Others

9.	Driver	Sri Laloo Mahato	Driver		3050-4590 (3425)	22-07-04	Permanent	OBC
10.	Driver	Sri Ranchandra Lohar	Driver		3000.00	April 2008	Contractual Staff	ST
11.	Peon	Sri Ruplal Marandi	Peon		2500.00	April 2008	Contractual Staff	ST
12.	Peon	Sri Durga Prasad Mahto	Peon		2500.00	April 2008	Contractual Staff	OBC

1.6. Total land with KVK (in ha)

S. No.	Item	Area (ha)
1	Under Buildings & Demonstration units	2.0
2.	Under Crops	6
3.	Orchard/Agro-forestry (Mother plant nursery)	1
4.	Technology park	0.4
5.	Pond	0.2
6.	Unutilized land due to undulating	0.4

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	I.C.A.R.	1-12-2007	500				completed
2.	Farmers Hostel	I.C.A.R.	01-10-2007	300				Completed
3.	Staff Quarters (6)	I.C.A.R.					400	Work under progress
4.	Demonstration Units (2)	-						
5	Fencing	District Administration						completed
6	Rain Water harvesting system	I.C.A.R.	June 2007	120x120x10 ft pond				Incomplete (Micro irrigation system is not installed)
7	Threshing floor	Not sanctioned						
8	Farm godown	District Administration	Dec.2007	1750				completed
9.	IT Infrastructure	I.C.A.R.						Incomplete (Room partitioning is not done)

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Kms. Run during the year (1 st April 09 to 31 st Jan.2010)	Total Kms. Run	Present status
Jeep	2005	431129.00	3590	158280	Time to time repairing is needed
Tractor	2006	361200.00	133 Hour run	729 Hour run	Time to time repairing is needed

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computer	2006	45000.00	Good
UPS	2006	7000.00	Good
Laser Printer	2006	8000.00	Good
Fax Machine	2006	8000.00	Not installed
Xerox	2007	72000.00	Good
2 KVA Stabilizer	2007	4850.00	Good
Stabilizer 500 VA Manual Auto-cut	2007	1750.00	Good
Camera	2005	12650.00	Good
Camera	2007	14512.50	Good
LCD Projector	2007	51989.00	Good
HAKIM Audio Visual Trolley	2007	8534.00	Good
Projector Screen 8'x6'	2007	7550.00	Good
15Mtrs special imported moulded VGA cable	2007	7500.00	Good
Laser pointer torch with duel effect	2007	2200.00	Good

1.8. A). Details SAC meeting* conducted in the year

PROCEEDINGS OF 4th SCIENTIFIC ADVISORY COMMITTEE MEETING OF KRISHI VIGYAN KENDRA, BOKARO HELD ON 16TH FEBRUARY, 2009

Sl. No.	Date	No. Of Participants	Salient Recommendations	Action Taken
1.	16-02-2009	34	It was decided that Project Director, ATMA, Bokaro will provide fund available to him for assessment and refinement to technology, Farmer Scientist interaction and training of extension functionaries programmes to KVK, Bokaro.	Project Director ATMA Bokaro has provided Rs.6.8 lakh for training of farmers under RKVY scheme.
2.			At least 250 participants of extension functionaries and 2500 participants of practicing farmers and rural youth should be trained every year.	2360 farmers & Rural youth & 94 Extension functionaries has been provided training till January 2010
3.			Zonal Co-coordinator of zone – II, ICAR has emphasized that fund released by them should reach to KVK in time, so that KVK activities will be conducted timely.	Action has been taken
4.			Low cost technologies such as application of lime, Rhizobium culture and BGA should be incorporated in FLD programme.	1. FLD on application of lime has been conducted in 5 .0ha for Red gram and 3.0 ha Black gram crop 2. FLD on application of Rhizobium culture has been conducted on 5.0 ha for Red gram and 5.0 ha for Black gram.

5.			Recommendation of On Farm Trials should be given to ATMA for its dissemination in larger area.	Recommendation has been given to Project Director ATMA for large scale multiplication.
6.			Preservation methods of local available fruits and vegetable should be popularized and it should be linked with market.	SMS Home Science has gone on Study leave, so action on this has not been taken.
7.			Mushroom production training should be strengthened and it should be spread in villages.	112 Rural youth has been provided training on Mushroom production.
8.			Result of OFT should be reported separately for a assessment and refinement.	Action taken
9.			Home Scientist should work intensively on drudgery reduction, income generation through entrepreneurship and nutritional security.	SMS Home Science has gone on Study leave, so action on this has not been taken.
10.			Training on rain water harvesting and micro irrigation system should be under taken in intensive manner.	328 Farmers /rural youth have been provided taining rain water harvesting, micro irrigation system, water management & soil water conservation measures.

List of the members attended the SAC meeting:-

1. Dr. R.P. Singh 'Ratan' Director Extension Education, BAU, Ranchi - Chairman
2. Dr. A. K. Singh, Zonal Coordinator,ZCU, ICAR, Zone – II, Kolkata - Member
3. Sri Uday Kr. Singh, I/C Programme Coordinator, KVK, Bokaro - Member
4. Sri Arun Kr. Gupta, DHO and DAO-cum-P.D ATMA, Bokaro - Member
5. Sri M.K. Mandal, DDM, NABARD, Bokaro - Member
6. Sri Umesh Tiwari, LDM, Bokaro - Member
7. Sri Ram Prasad, District Co-operative Officer, Bokaro - Member
8. Sri Suresh Kumar, T.O., Dairy Development Office, Bokaro - Member
9. Smt Manu Ghose, LEO, Petarwar, Bokaro - Member
10. Sri Om Prakash, Nodal Officer I.S.A.P.Reg. Office, Jharkhand - Member
11. Sri Ravikant Kishor, CEO, Chas - Member
12. Sri Ramesh Kumar, Secretary, NGO- Raj Development Society, Bokaro – Member
13. Sri Nandlal, Representative, NGO- PRADAN - Member
14. Sri Rahul Sahgal, Print Media, Daynik Jagran - Member
15. Sri Sri Sanjay Kr. Sethi, Print Media, Prabhat Khabar - Member
16. Sri Bipin Mukherjee, Print Media, Prabhat Khabar - Member
17. Sri Nirmal Kumar, Artist-cum-photographer, BAU, Ranchi - Member
18. Sri Devilal Mahto, Progressive farmer, Ulgoda - Member
19. Sri Ramvilash Mahto, Progressive farmer, Ulgoda - Member

20. Sri Guddu Pd. Kisku, Progressive farmer, Mayapur, Petarwar - Member
21. Sri Suganchand Mahto, Progressive farmer, Lukaiya, Petarwar - Member
22. Smt Sanju Devi, Progressive farmer, Ambadih, Petarwar - Member
23. Sri Umesh Kr. Dangi, Progressive farmer, Ambadih, Petarwar - Member
24. Sri Kailash Mahro, Progressive farmer, Madukarpur, Kashmar - Member
25. Sri Santosh Kr. Mahto, Progressive farmer, Madhukarpur, Kasmar - Member
26. Dr. Sudhir Kr. Jha, SMS, Soil Science, KVK, Bokaro - Member
27. Dr. Anil Kumar, SMS (Hort), KVK, Bokaro - Member
28. Mrs. Nandana Kumari, SMS (Home Sc.) - Member
29. Sri Raman Kr. Srivastava, Programme Assistant - Member
30. Ms. Priyanka Verma, Farm Manager - Member
31. Sri Naman Kandulna, Programme Assistant (Computer) - Member
32. Sri Abhay Kr. Singh, KVK, Bokaro - Member
33. Sri Ratnesh Kr. Mishra, KVK, Bokaro - Member
34. Sri Durga Pd. Mahto, KVK, Bokaro - Member

2. DETAILS OF DISTRICT (2009-10)

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1	Agriculture + Horticulture(Vegetable)+ Animal Husbandry
2.	Agriculture + Horticulture(Vegetable)
3.	Agriculture + Animal Husbandry
4.	Agriculture + Horticulture(Vegetable)+ Animal Husbandry+ Fishery
5.	Agriculture + Horticulture(Vegetable)+ Animal Husbandry+ Lac culture
6.	Agriculture + Animal Husbandry+ Lac culture
7.	Agriculture + Labour

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1.	IV- Central North Eastern Plateau Zone	<p>Geographical area of Zone = 41293 K.m² 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 & 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&K. Soils of Dhanbad & Giridih areas are light textured, moderately to slightly acidic and moderately well drained and poor in N & 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 & moderately fertile where as the soils of Koderma side are light textured, silty in nature, yellowish to reddish in colour & 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 style="text-align: right;">Climate of the Bokaro district is sub humid with water</p>

		deficiency in winter. Temperature ranges from 20°C in winter to 45°C in hot summer. The main drainage system is Damodar & Swarnrekha rivers. Only 5-8% of net sown area is irrigated. The average annual rainfall of the district is 1275 mm. Upland soils are 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, rapeseed & mustard, groundnut, potato and vegetables like lady's finger, tomato, brinjal, french bean, radish, cauliflower, cabbage & cucurbits.
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S. No	Agro ecological situation	Characteristics
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
2.	Sandy loam rainfed	Upland sandy loam soil, no irrigation facility, agriculture only depend on rain water
3.	Sandy loam irrigated	Medium land, sandy loam soil, having irrigation facility
4.	Clay loam rainfed	Low land, clay loam soil, agriculture depend only rain water

Source: ATMA, Bokaro District

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
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.	206465
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.	619395
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.	2064650
4.	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.	1238790

Source: NSSLUP India

2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (MT)	Productivity (Qtl /ha)
1	Paddy (Hybrid)	3075	12300	40.00
2	Paddy	26113	40088	15.50
3	Wheat	1300	1272	10.00
4	Maiz	4746	7595	16.00
5	Arhar	2130	1374	6.50
6	Gram	1309	1149	8.25
7	Mustad	1615	388	6.00
8.	Pea	325	387	12.00
9.	Green gram			6.0
10.	Horse gram			4.0
11.	Black gram			6.0
12.	Lentil			8.0
13.	Sesame			2.0
14.	Niger			2.0
15.	Linseed			5.0
16.	Mustard			6.0
17.	Brinjal	496	5952	
18.	Potato	300	750	
19.	Cauliflower	508	4572	
20.	Pea	325	387	

Source: Distt. Agriculture office Bokaro

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		R H (%)	No. of Rainy Days
		Maximum	Minimum		
April 09	0	44.5	12.5		0
May 09	74.8	44.5	15.0		6
June 09	130.8	48.5	18.5		5
July 09	86.2	34.5	19.5		16
August 09	281.2	34.5	19.5		20
Sept. 09	353.6	33	17.5		11
Oct. 09	98.8	31.5	11.0		8
Nov. 09	4.8	30.5	7.5		1
Dec. 09	3.6	28.5	5.5		1
Jan. 2010	3.6	27.0	3.0		1
Feb. 2010	6.2	29.5	7.5		0

(Till 17th February 2010)

2.6 Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	15121		
<i>Indigenous</i>	493525		
Buffalo	102956		
Sheep			
<i>Crossbred</i>	8898		
<i>Indigenous</i>	50183		
Goats	207156		

Pigs			
<i>Crossbred</i>	709		
<i>Indigenous</i>	42500		
Rabbits			
Poultry			
Hens			
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			

Source: District Agriculture Office, Bokaro

Category	Area	Production	Productivity
Fish			
<i>Marine</i>			
<i>Inland</i>			
Prawn			
Scampi			
Shrimp			

2.7 Details of Operational area / Villages (2009-100)

Sl. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Area
1.	Bermo	Petarwar	Ambadih Bundu, Lukaiya, Koh, Jaradih, Itke, Chanpi, Angwali etc.	Paddy Groundnut Vegetables Potato Onion Poultry	1. Low productivity 2. Low profitability in vegetable cultivation 3. Low productivity in poultry	1. Introduction of high yielding varieties of paddy 2. Introduction of disease resistant variety of vegetable specially in tomato & brinjal
2.	Bermo	Kasmar	Durgapur, Madhukarpur, Mayapur, Kurko, Chandipur, Baraikala, Ranitanr, Rangamati	Arhar Sesame Niger Paddy Vegetable Goatry	1. Low productivity 2. Low profitability in vegetable crops 3. Low profitability in goatry	3. Introduction high yielding variety of Arhar Sesame and Niger 4. Management of soil acidity through furrow application of lime
3.	Chas	Chas	Dharpura, Jhopro, Ulgoda	Arhar Sesame Niger Paddy Vegetable Goatry	1. Low productivity 2. Low profitability in vegetable crops 3. Low profitability in goatry	5. Income generation activity for rural youth & farm women 6. Rain water harvesting.
4.	Chas	Chandankiyari	Bansgari, Lanka, Machatanr	Paddy Groundnut Vegetables Potato Onion Poultry	1. Low productivity 2. Low profitability in vegetable cultivation 3. Low productivity in poultry	7. INM & IPM 8. Post harvest management, marketing & value addition

2.8 Priority thrust areas

S. No	Thrust area
1	Soil water conservation and judicious use of available irrigation water.
2.	Intensification in crop production
3.	Diversification
4.	Development of seed production system.
5.	Establishment of small scale industries like preservation and processing industries & cold storage.
6.	Value addition in vegetables.
7.	Improvement of indigenous and genetically poor breeds of livestock.
8.	Management of soil acidity.

3. TECHNICAL ACHIEVEMENTS

3.1. A. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1.	Soil water conservation and judicious use of available irrigation water.	Soil and water	Soil of the district are undulated laterite, acidic, having low fertility, low water holding capacity with deficient in organic carbon, phosphorous, sulphur and micronutrients (B,Mo,Zn) erosion.	Micro irrigation system in vegetable.	FLDs on cover crops- Groundnut, Niger Sesame Arhar Black gram, Horse gram.2.	1. Method of irrigation in vegetable 2. Soil and water conservation		Kisan gosthi- 3 Field days-1	
2.	Yield improvement in rice.	Rice	Low yield of rainfed paddy In medium and low land situation.	Effect of NPK and BGA culture on yield of paddy.	-	1.Production technology of seedling raising 2. SRI technology of rice production 3.Integrated pest and disease management in paddy	-	Kisan gosthi- 1	Seeds & inputs for OFT
3.	Yield improvement in vegetable.	Brinjal Tomato Bitter gourd Potato	Low yield and poor quality of vegetables.	1. Varietal trails of brinjal. 2. Effect of nutrient management on yield of potato and bitter gourd.	FLDs on Tomato 3235 (Sungrow)	1.Selection of brinjal variety 2. Seedling production techniques of cucurbitaious vegetables 3. Package of practices of brinjal and tomato 4. INM in vegetable crops		Kisan gosthi- 1	Seeds & inputs for OFT
4.	Intensification in crops production.	All crops	Low system productivity in uplands under rainfed condition	1.Production potential of maize based intercropping system under rain fed condition. 2. Effect of NPK & Rhizobium culture on yield of arhar.	FLD on Black gram, Pigeon pea, Till, Niger.	1. Production technology of kharif pulses 2. Package of practices of maize based intercropping 3.Integrated nutrient management in potato		Kisan gosthi- 2 Field days-1	Seeds & inputs for OFT
5.	Reclamation of acidic soil.	All crops	-	-	Pulses & Oilseeds	Reclamation of soil			

6.	Pest management in crops	All crops	Low yield of major cereals, pulse and vegetable	-	-	1. Seed treatment in Rabi vegetable 2. Control of wilting ii brinjal & tomato 3. IPM modules for different crops 4. Control of storage grain pest		TV talk- 2 Help line-150	-
7.	Development of seed production system	Rice, wheat & pulse	Low yield of major crops in lack of quality seed & planting materials	-	-	1. Seed production technique of rice			Supply of foundation seed of rice for seed production
8.	Development of assured market facility	All crops	Low profitability in crop cultivation	-	-	-	-		-
9.	Improvement of endogenous & genetically poor breeds of livestock	Pig, Cattle, Goat	Poor profitability in cattle, pig, & goat farming	-	-	-	-		
10.	Drudgery reduction in farm women	All crops	High drudgery involvement in rice & wheat harvesting, maize shelling & potato digging	Use of improved sickle to reduce drudgery in paddy harvesting	-	1. Use & maintenance of maize sheller 2. Use of potato digger	-	-	-

B. Details of each On Farm Trial to be furnished in the following format

- 1) Title of on-farm trials
- 2) Problem diagnose
- 3) Details of technologies selected for assessment/refinement
- 4) Source of technology
- 5) Production system and thematic area
- 6) Performance of the Technology with performance indicators
- 7) Final recommendation for micro level situation
- 8) Constraints identified and feedback for research
- 9) Process of farmers participation and their reaction

3.1. B. Details of each On Farm Trial to be furnished in the following format

- 9) Title of on-farm trials
- 10) Problem diagnose
- 11) Details of technologies selected for assessment/refinement
- 12) Source of technology
- 13) Production system and thematic area
- 14) Performance of the Technology with performance indicators
- 15) Final recommendation for micro level situation
- 16) Constraints identified and feedback for research
- 17) Process of farmers participation and their reaction

OFT-1

- i) **Name of the KVK** : KVK, Bokaro
 ii) **Crop** : Potato
 iii) **Season** : Rabi
 iv) **Problem definition:** Low yield of potato due to imbalanced use of nutrient.
 v) **Technology Assessed/ Refined** : Assessment

Technology options

- Farmer's Practice - Farmer's seed + (50 kg N +32 kg P₂ O₅ / ha)
 Technology option I - Farmer's seed +Farmer's practice + 50kg K₂ O/ ha
 Technology option II - Farmer's seed + 50 % RDF
 Technology option III - Farmer's seed + 75 % RDF
 Recommended dose of fertilizer for potato is 120:100:90 kg N: P₂ O₅: K₂ O/ ha
 vi) Farming situation : Irrigated late sown

- vii) Irrigated/rain fed : Irrigated
 viii) No. of replication (farmer): 10
 ix) Soil type : Alfi sol
 x) Fertility status :

Soil status		Final soil status (kg/ha)			Final soil status		Final soil status (kg/ha)		
OC (%)	p ^H	N	P ₂ O ₅	K ₂ O	OC (%)	p ^H	N	P ₂ O ₅	K ₂ O
0.52-0.85	5.4-6.2	290-405	6.2-16.0	120-290	Analysis is going on		Analysis is going on		

Table title: Effect of nutrient management on yield of potato.

Farming situation: Irrigated No. of trails: 10

Technology Options	Yield attributing characters		Yield (q/ha)	Cost of cultivation Rs.	Net return (Rs./ha)	BC ratio
	No. of tuber/plant	Weight of tuber/plant (gm)				
FP-Farmer's seed + (50 kg +32 kg P ₂ O ₅ / ha)	17.0	330.5	228.6	28600	85700	4.00
1-Farmer's seed +Farmer's practice + 50kg K ₂ O/ ha	19.4	380.0	267.2	29000	104600	4.60
2-Farmer's seed + 50 % RDF	20.1	391.5	274.8	29300	108100	4.69
3-Farmer's seed + 75 % RDF	22.5	440.5	295.0	30300	117200	4.87
CD 5 %	2.3	46.5	27.6	-	-	-

ix) Final recommendation for micro level situation:

Farmers practice (50kgN+32kgP₂O₅) +50kgK₂O/ha and T2 - 50% of the RDF are found to be at par in yield attributing characters such as no. of tuber/plant and Weight of tuber/plant and yield but significantly superior than farmers practice.75% RDF treatment are found to be the best in yield attributing characters, yield and B:C ratio.

OFT- 2

- i) Name of the KVK** :- KVK Bokaro
- ii) Crop** :- Groundnut
- iii) Season** :- Kharif
- iv) Problem definition** :- Low productivity of groundnut due to acidity & poor soil health in upland condition. This reduces the yield to an extent of about 30 %.
- v) Technology Assessed/ Refined:** - Assessment

Technological option:-

- Farmers practice - (25 - 30 kg N + 12.5 kg P₂O₅ / ha)
- Technological option **i** - F P + lime @ 4 qt/ ha (furrow application)
- Technological option **ii** - 50 % RDF (12.5: 25 : 10 N:P₂O₅:K₂Okg/ha)
- Technological option **iii** - 50 % RDF + Lime application @ 4 qt./ ha (furrow application)+ Vermi compost @ 10 qt/ ha

- vi) Farming situation** :- Rainfed upland, timely sown
- vii) Irrigated/ Rainfed** :- Rainfed
- viii) No. of replication** :- 10
- ix) Soil type** : Alfi sol
- x) Fertility status** :

Soil status		Final soil status (kg/ha)			Final soil status		Final soil status (kg/ha)		
OC (%)	P ^H	N	P ₂ O ₅	K ₂ O	OC (%)	P ^H	N	P ₂ O ₅	K ₂ O
0.40-0.65	5.0-5.6	205-290	4.2-10.1	92-205	Analysis is going on		Analysis is going on		

Table Title:- Effect of nutrient management on yield of groundnut under rainfed condition.

Farming situation: Rainfed upland

No. of trails: 10

Technology Options	Yield attributing characters			Yield (q/ha)	Cost of cultivation Rs.	Net return (Rs./ha)	BC ratio
	No. of pod/plant	100 pod weight	Shelling %				
FP-(25 - 30 kg N + 12.5 kg P ₂ O ₅ / ha)	11.8	98.2	66.4	9.6	13000	17720	2.36
1- F P + lime @ 4 qt/ ha (furrow application)	14.6	103.8	70.1	11.3	14000	20560	2.46
2- 50 % RDF (12.5: 25 : 10 N:P ₂ O ₅ :K ₂ Okg/ha)	15.2	105.8	68.5	12.5	15600	26100	2.67
3- 50 % RDF + Lime application @ 4 qt./ ha (furrow application)+ Vermi compost @ 10 qt/ ha	19.0	110.0	73.4	15.8	20350	30210	2.48
CD 5 %	1.86	3.47	2.83	1.7			

ix) Final recommendation for micro level situation:

Farmers practice (25 - 30 kg N + 12.5 kg P₂O₅ / ha) + lime @ 4 qt/ ha (furrow application)
or 50 % RDF (12.5: 25: 10 N:P₂O₅:K₂Okg/ha)

OFT- 3

- i) Name of the KVK** :- KVK Bokaro
- ii) Crop** :- Bitter gourd
- iii) Season** :- Summer
- iv) Problem definition:-** Low productivity in summer vegetable cultivation under medium land situation.
- v) Technology Assessed/ Refined: -** Assessment

Technological option :-

- Farmers Practice - Basin method of Irrigation
- Technological option **i** - Bucket type micro tube Irrigation method
- Technological option **ii** - Pitcher Irrigation method in alternate row

- vi) Farming situation** :- Medium land
- vii) Irrigated/ Rainfed** :- Irrigated
- viii) No. of replication** :- 7
- ix) Soil type** : Alfi sol
- x) Fertility status** :

Soil status		Final soil status (kg/ha)			Final soil status		Final soil status (kg/ha)		
OC (%)	P ^H	N	P ² O ⁵	K ² O	OC (%)	P ^H	N	P ² O ⁵	K ² O
0.6-0.9	5.5-6.1	250-360	8.2-15.2	122-220					

Table Title: - Effect micro irrigation systems on water use efficiency & productivity of bitter gourd.

Technology option	Water required (cm/ha)	Water use efficiency (kg/ha/cm)	Weight of fruit(g/fruit)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Net income (Rs./ha)	B:C Ratio
FP- Basin method of Irrigation	26.40	526.5	110	139.0	53597.00	57603.00	1.07
1-Bucket type micro tube Irrigation method	17.60	914.8	125	161.0	47930.00	80870.00	1.68
2-Pitcher Irrigation method in alternate row	21.36	1039.3	175	222.0	72654.00	104946.00	1.45

Plant spacing: 0.6 m, Row spacing: 1 m, Seed rate: 6 kg/ha

Remarks: Sale price of Bitter gourd @ Rs. 8.00/kg

OFT – 4

- i) Name of the KVK** :- KVK Bokaro
- ii) Crop** :- Brinjal
- iii) Season** :- Kharif
- iv) Problem definition** :- Low profitability of brinjal in kharif season due to high mortality and poor yield.

v) Technology Assessed/ Refined: - Assessment

Technological option :-

- Farmer practice - (Kiran)
- Technological option **i** - Swarna Neelima
- Technological option **ii** - Swarna Shakti
- Technological option **iii** - No. 132

vii) Farming situation :- Upland

vii) Irrigated/ Rainfed :- Rain fed

viii) No. of replication :- 7

ix) Soil type : Alfi sol

x) Fertility status:

Soil status		Initial soil status (kg/ha)			Final soil status		Final soil status (kg/ha)		
OC (%)	P ^H	N	P2O5	K2O	OC (%)	P ^H	N	P2O5	K2O
0.6-0.9	5.7-6.2	290-400	8-15	120-200					

Table Title: Evaluation of suitable variety of Brinjal for kharif season.

Farming situation: Rainfed

No. of trails: 07

Technology Options	Mortality %	Colour of the fruit	Shape of the fruit	Length of the fruit	Diameter of fruit	Average fruit weight (gm)	Yield (q/ha)	Cost of cultivation Rs.	Net return (Rs./ha)	BC ratio
Farmer practice- (Kiran)	23	Light Purple	Cylindrical	32.5	10.2	103	246	59600	26500	1.44
1- Swarna Neelima	8	Purple	Oblong	19.6	22.5	252	436	61400	200200	4.27
2- Swarna Shakti	16	Purple	Round	12.5	24.0	201	412	61400	185800	4.0
3- No. 132	25	Green	Cylindrical	19.0	16.5	125	289	65000	50600	1.78
CD 5 %				10.6	8.4	80.5	54.2			

Variety

Average prevailing market price

- Kiran - @ Rs 3.5/kg
- Swarna Neelima - @ Rs 6.0/kg
- Swarna Shakti - @ Rs 6.0/kg
- No. 132 - @ Rs 4.0/kg

OFT- 5

- i) Name of the KVK :- KVK Bokaro
 ii) Crop :- Tomato
 iii) Season :- Rabi
 iv) Problem definition :- Wastage of tomatoes in peak season.
 v) Technology Assessed/ Refined: - Assessment

Technology options

- Farmers practice - (Open sundrying)
 Technology options I - Preparation & preservation of tomato as tomato crush
 Technology options II - Preparation & preservation of tomato as tomato pure
 vi) Farming situation :- Upland
 vii) Irrigated/ Rainfed :- Irrigated
 viii) No. of replication :- 10
 ix) Soil type : Alfi sol
 x) Fertility status:

Soil status		Initial soil status (kg/ha)			Final soil status		Final soil status (kg/ha)		
OC (%)	P ^H	N	P2O5	K2O	OC (%)	P ^H	N	P2O5	K2O

6. Performance of the Technology with performance indicators:

Crop: Tomato

Farming situation: Irrigated

No. of trial: 10

Treatment	Shelf life/keeping quality	Physical quality characteristics				Taste	Cost estimation
		Colour		Texture			
		Fresh	At 5 month	Fresh	At 5 month		
FP- Open sun drying of tomato slices	Approx 1 year	Dull red colour	Dull blakish red colour	Rough texture	Hard rough textured	Least sour	Rs 10/.5 kg
1- Preparation & preservation of tomato as tomato crush	5 Month	Bright red colour	Bright red colour	Smooth & soft texture	Smooth & soft textured as in fresh	Sour taster but best in taste	Rs 15/ 05 kg (cost of jar included)
2- Preparation & preservation of tomato as tomato puree	3 month	Deep red colour	Dull maroonish red colour	Very-very soft & smooth	Water starts to come out from tomato	Most sour	Rs 18/.5 kg (cost of jar included)

Ranking of parameters used for suitability of tomato based products for farmers

Treatment	Shelf life	Colour (Degree of appealing)		Physical Texture		Taste	Cost estimation	Ranking Analysis Total scoring
		At fresh condition	At 5 month	At fresh condition	At 5 month			
FP-Open sun drying of tomato slices	XXXX	X	XX	XX	X	XXX	X	14/7=2 (III)
1- Preservation of tomato as tomato crush	XXX	XXXXX	XXXXX	XXXX	XXXX	XXX XX	XX	28/7=4 (I)
2- Preservation of tomato as tomato puree	XX	XXXX	XXX	XXXXX	XXXX	XXX X	XXX	27/7= 3.8 (II)

7. Final recommendation for micro level situation: Tomato crush

8. Constraints identified and feedback for research:

Preparation of sundried tomato slices depends upto hot and clear sunshine day otherwise tomato slices would not be dried.

9. Process of farmers participation and their reaction:

1.Farmers – scientists interaction programmes through visit at OFT sites.

3.2 Achievements of Frontline Demonstrations

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2009-10 (April to March) and recommended for large scale adoption in the district

S. No	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No. of villages	No. of farmers	Area in ha
	ICM	Niger var- BN- 1 Black gram var PU- 35 Mustard var- Shivani Ground nut var – GG- 2	Large scale demonstration, farmer to farmer extension through ATMA field school	20	500	75
	ICM	Hybrid paddy var- Arize- 6444	Large scale demonstration, farmer to farmer extension through ATMA field school	25	600	150
	Vegetable crop	Wilt resistant variety of tomato such as Swarna Naveen, Swarna Lalima, Harsha	Large scale demonstration, farmer to farmer extension through ATMA field school	10	100	05
	Vegetable crop	Wilt resistant variety of Brinjal such as Swarna Shyamli, Swarna Shree, Swarna Mani	Large scale demonstration, farmer to farmer extension through ATMA field school	25	400	25

b. Details of FLDs implemented during 2009-10 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Oilseed

Sl. No	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration				Reasons for shortfall in achievement
					Proposed	Actual	SC	ST	Others	Total	
1.	Groundnut	Crop production and Integrated nutrient management	Variety TG-22	Kharif 09	3.0	3.0	-	10	24	34	
2.	Niger	Crop production and Integrated nutrient management	Variety- BN- 1	Kharif 09	5.0	5.0	-	2	19	21	
3.	Sesame	Crop production and Integrated nutrient management	Variety- TC-25	Kharif 09	3.0	3.0	-	1	8	9	
4.	Mustard	Crop production and Integrated nutrient management	Variety- Pusa Agrani	Rabi 09	10.0	10.0	-	16	21	37	
5.	Linseed	Crop production and Integrated nutrient management	Variety- Subhra	Rabi 09	5.0	5.0	1	5	10	16	
6.	Tomato		JK- Harsha Sungrow- 3535	Kharif 09	3.0	3.0	-	2	20	22	

Pulses

Sl. No	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration				Reasons for shortfall in achievement
					Proposed	Actual	SC	ST	Other	Total	
1.	Pegionpea	Crop production and Integrated nutrient management	Variety-ND - 1	Kharif 09	5.0	5.0	-	1	23	24	
2.	Black gram	Crop production and Integrated nutrient management	Variety- PU- 19	Kharif 09	2.0	2.0	-	-	15	15	
3.	Horse gram	Crop production and Integrated nutrient management	Variety- Madhu	Kharif 09	2.0	2.0	-	1	15	16	
4.	Gram	Crop production and Integrated nutrient management	Variety- P- 256	Rabi 09	10.0	10.0	3	10	23	36	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date
				N (kg/ha)	P ₂ O ₅ (kg/ha)	K ₂ O (kg/ha)			
Oilseed									
Groundnut	Kharif 09	Rainfed	Alfisol	180-290	8.5-16.4	90-170	Fallow	15- 22 July09	10-15 Nov 09
Niger	Kharif 09	Rainfed	Alfisol	160-240	7.2-15.8	85-160	Fallow	12-20 Sept 09	22-30 Dec. 09
Sesame	Kharif 09	Rainfed	Alfisol	170-250	8.5-17.8	95-180	Fallow	24-28 July 09	16-22 Nov. 09
Mustard	Rabi 09-10	Irrigated	Alfisol	260-470	12.0-35.0	120-290	Rice	19- 25 Oct. 09	Data process
Linseed	Rabi 09-10	Rainfed	Alfisol	220-350	10.1-26.2	110-250	Rica	12-20 Nov. 09	Data process
Pulse									
Pegionpea	Kharif 09-10	Rainfed	Alfisol	175-300	7.5-20.0	102-165	Fallow	08-15 July 09	10-20 March 2010
Black gram	Kharif 09	Rainfed	Alfisol	175-290	8-15.0	101-180	Fallow	22-28 July 09	12-18 Oct. 09
Horse gram	Kharif 09	Rainfed	Alfisol	150-280	6.5-13.8	85-175	Fallow	10-15 Sept. 09	20-28 Dec. 09
Gram	Rabi 09-10	Irrigated	Alfisol	230-410	11.2-23.2	105-285	Rice	15-22 Nov. 09	Data process

Performance of FLD – Oil Seed

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)
						H	L	A		
1	2	3	4	5	6	7	8	9	10	11
	Groundnut	Variety	TG-22	34	3.0	14.2	9.8	12.7	8.5	49.4
	Niger	Variety with full package	BN-1	21	5.0	5.5	3.1	4.2	2.0	110.0
	Sesame	Variety with full package	TC-25	9	3.0	4.0	2.2	3.2	1.9	68.4
	Mustard	Variety with full package	Pusa Agrani	37	10.0	Data process				
	Linseed	Variety with full package	Subhra	16	5.0	Data process				

Performance of FLD – Pulses

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)
						H	L	A		
1	2	3	4	5	6	7	8	9	10	11
	Pegion pea	Variety with full package	ND- 1	24	5.0	Data process				
	Black gram	Variety with full package	PU-19	15	2.0	13.8	8.0	12.2	6.8	79.4
	Horse gram	Variety with full package	Madhu	16	2.0	7.4	4.1	6.4	3.6	77.8
	Gram	Variety	P - 256	36	10.0					

Economic Impact of FLD

Oilseed

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Cost of cultivation)	
Crop	Demo.	Local Check	Demo.	Local Check	Demo.	Local Check	Demo.	Local check
14	15	16	17	18	19	20	21	22
Groundnut	14600	13200	40640	27200	26040	14000	2.78	2.06
Sesame	7100	5950	22400	13300	15300	7350	3.15	2.23
Niger	6500	5150	14700	7000	8200	1850	2.26	1.36

Pulse

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Cost of cultivation)	
Crop	Demo.	Local Check	Demo.	Local Check	Demo.	Local Check	Demo.	Local check
14	15	16	17	18	19	20	21	22
Black gram	9000	7050	36600	20400	27600	13350	4.1	2.89
Horse gram	6900	5125	12800	7200	5900	2075	1.85	1.40

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1.	Pigeon pea- Pod borer attack under late sown condition. Maturity of pods was unsynchronised.
2.	Black gram- Less insect pest and disease infestation under late sown condition
3.	Madhu variety of horse gram is tolerant to moisture stress condition.
4.	Groundnut- Tolerant against moisture stress condition resistant against Tika disease.
5.	Niger- No. of pods/ plant, No. of seed/pods and seed size is more than local variety. Best performance of BN- 1 variety of niger in early sowing with proper plant population should be maintained. But not tolerant to moisture stress.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Pigeon pea(ND- 1)- Farmers were very happy to show the performance of ND-1 variety of Pigeon pea like No. of pods/plant but major constraint is long duration variety.
2.	Black gram (PU- 19) - Farmers like this variety because better yield under late sown condition.
3.	Groundnut (TG-22)- Due to thin pod and bold seed size farmers like TG-22 of groundnut and better yield performance under moisture stress condition.
4.	Horse gram (Madhu)- Better yield performance of Madhu variety.
5.	Niger (BN-1) - Plant height & no. of pods/plant is more than local variety and farmers were satisfied to obtained yield of BN-1 variety.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	6			
2	Farmers Training	7			
3	Media coverage	3			
4	Training for extension functionaries	1			

c. Details of FLD on Enterprises

(i) A. Farm Implements

Name of the implement	crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Drum seeder	Paddy	5	2	Labour/time saving	Failed	-	-	-

- **Field efficiency, labour saving etc.**

B. Low cost technology

Name of the Technology	crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Application of lime	Red gram	21	5.0					
	Black gram	20	3.0	-	-	-	-	-
Application of Rhizobium culture	Red gram	21	5.0	-	-	-	-	-
	Black gram	25	5.0	-	-	-	-	-

-

(ii) Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Pig	T&D	2	8	-	-	-	-	-

* **Milk production, meat production, egg production, reduction in disease incidence etc.**

(iii) Other Enterprises

Enterprise	Variety/ breed/Species/others	No. of farmers	No. of Units	Performance parameters / indicators	Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Mushroom	Oyster	10	10	1200/ month	-	-	-	-
Apiary								
Sericulture								
Vermi compost	<i>Eisenia foetida</i>	08	08	1000/ month	-	-	-	-

3.3 Achievements on Training (Including the sponsored and FLD training programmes):

(A) ON Campus

Thematic Area	No. of Courses	No. of Participants											Grand Total	
		Others			SC			ST			Total			
		M	F	T	M	F	T	M	F	T	M	F		
(A) Farmers & Farm Women														
I Crop Production														
Weed Management	1	24	-	24	7	-	7	2	-	2	33	-	33	
Resource Conservation Technologies														
Cropping Systems														
Crop Diversification														
Integrated Farming														
Water management	3	49	-	49	18	-	18	8	-	8	75	-	75	
Seed production														
Nursery management														
Integrated Crop Management	7	82	18	100	12	-	12	35	8	43	129	26	155	
Fodder production														
Production of organic inputs														
Others, if any														
II Horticulture														
a) Vegetable Crops														
Production of low volume and high value crops														
Off-season vegetables														
Nursery raising														
Exotic vegetables like Broccoli														
Export potential vegetables														
Grading and standardization														
Protective cultivation (Green Houses, Shade Net etc.)														
Others, if any														
b) Fruits														
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														
c) Ornamental Plants														
Nursery Management														
Management of potted plants														
Export potential of ornamental plants														
Propagation techniques of Ornamental Plants														
Others, if any														
d) Plantation crops														
Production and Management technology														
Processing and value addition														
Others, if any														
e) Tuber crops														
Production and Management technology	1	26	-	26	-	-	-	-	-	-	26	-	26	

Productivity enhancement in field crops	2	41	-	41	-	-	-	7	-	7	7	-	48
Integrated Pest Management	1	7	14	21	-	-	-	-	-	-	7	14	21
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology	1	21	4	25	-	-	-	-	-	-	21	4	25
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
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	1	17	-	17	1	-	1	4	-	4	22	-	22
Gender mainstreaming through SHGs													
Hi-tech horticulture													
TOTAL	5	97	14	111	1	-	1	4	-	4	102	14	116

(A)OFF Campus

Thematic Area	No. of Courses	No. of Participants											Grand Total	
		Others			SC			ST			Total			
		M	F	T	M	F	T	M	F	T	M	F		
(A) Farmers & Farm Women														
I Crop Production														
Weed Management	1	26	-	26	-	-	-	-	-	-	26	-	26	
Resource Conservation Technologies														
Cropping Systems	1	18	-	18	-	-	-	4	-	4	22	-	22	
Crop Diversification														
Integrated Farming														
Water management	1	28	-	28	7	-	7	8	-	8	43	-	43	
Seed production														
Nursery management														
Integrated Crop Management	4	84	-	84	5	-	5	10	-	10	99	-	99	
Fodder production	1	22	-	22	5	-	5	-	-	-	27	-	27	
Production of organic inputs														
Others, (Contingent plan)	5	104	-	104	7	-	7	9	-	9	120	-	120	
II Horticulture														
a) Vegetable Crops														
Production of low volume and high value crops														
Off-season vegetables														
Nursery raising	2	39	-	39	2	-	2	-	-	-	41	-	41	

Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching	1	-	27	27	-	-	-	-	-	-	-	27	27
Rural Crafts													
Others, if any (ICM)	1	23	-	23	-	-	-	-	-	-	23	-	23
TOTAL	6	69	75	144	-	-	-	-	4	4	69	79	148
(C) Extension Personnel													
Productivity enhancement in field crops	4	90	-	90	1	-	1	4	-	4	95	-	95
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security	1	7	14	21	-	-	-	-	-	-	7	14	21
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Hi-tech horticulture													
TOTAL	5	97	14	111	1	-	1	4	-	4	102	14	116

(D) Vocational 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 else where
				M	F	T	Type of units	No. of units	Number of persons employed	
Cloths	Making of low cost female garments	Drafting & cutting of family wears of female	5	-	27	27	2	2	2	-
Mushroom	To meet the demand of mushroom	Mushroom production technology	6	-	26	26	5	5	5	-
Compost	Entrepreneurship for school dropout	Production method of vermi compost	5	29	-	29	15	15	10	-
Mushroom	To meet the demand of mushroom	Mushroom production technology	5	-	26	26	5	5	4	1
Diesel Pump set	Entrepreneurship for school dropout	Repair & maintenance of diesel pump set	7	17	-	17	1	1	1	1
Animals	Minimize the diseases in animals	Feed & disease management in goat	2	23	-	23	-	-	-	-
		Total	32	69	79	148	28	28	22	2

*training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes

Sl. No	Title	Thematic area	Month	Duration (days)	Client PF/R/Y/EF	No. of courses	No. of Participants									Sponsoring Agency	
							Male			Female			Total				
							OTH	SC	ST	OTH	SC	ST	OTH	SC	ST		Total
1.	SRI	ICM	20-22 Jun09	3	PF	1	8	7	3	10	-	2	18	7	5	30	RKVY
2.	SRI	ICM	20-22 Jun09	3	PF	1	8	-	9	8	-	5	14	-	14	30	RKVY
3.	SRI	ICM	23 & 25-26 Jun09	3	PF	1	-	30	-	-	-	-	-	30	-	30	RKVY
4.	Seed production technology for quality seed production	Seed production	26-30 Jun09	5	RY	1	-	-	-	29	-	1	29	-	1	30	RKVY
5.	Nursery technique & production of off season vegetable	Nursery raising	26 Jun – 02 July 09	5	PF	1	-	-	3	22	-	5	22	-	8	30	RKVY
6.	Production technique of major pulses & oilseed crops	ICM	3 – 7 July 09	5	PF	1	6	23	1	-	-	-	6	23	1	30	RKVY
7.	Seed production technology for quality seed production	Seed production	5-9 July 09	5	RY	1	16	2	12	-	-	-	16	2	12	30	RKVY
8.	Production technique of major pulses & oilseed crops	ICM	8-12 July 09	5	PF	1	18	-	12	-	-	-	18	-	12	30	RKVY
9.	Insect pest & disease management	IPM & IDM	13-19 July 09	7	PF	1	19	-	11	-	-	-	19	-	11	30	RKVY
10.	Insect pest & disease management	IPM & IDM	19-25 July 09	7	PF	1	30	-	-	-	-	-	30	-	-	30	RKVY
11.	Nursery technique & production of off season vegetable	Nursery raising	26 July- 1 Aug 09	7	PF	1	30	-	-	-	-	-	30	-	-	30	RKVY
12.	Mushroom production technology	Mushroom production	2-8 & 16-18 Aug 09	10	RY	1	2	-	-	24	2	2	26	2	2	30	RKVY
13.	Soil & water conservation technique	Soil & water conservation	9-14 & 16 Aug 09	7	PF	1	25	-	5	-	-	-	25	-	5	30	RKVY
14.	Nursery technique & production of off season vegetable	Nursery raising	9-14 & 16 Aug 09	7	PF	1	29	1	-	-	-	-	29	1	-	30	RKVY
15.	Production & use of organic inputs	Vermi compost	19-25 Aug 09	7	RY	1	-	-	-	30	-	-	30	-	-	30	RKVY
16.	Mushroom production technology	Mushroom production	24 Aug - 3 Sept 09	10	RY	1	-	-	-	24	1	5	24	1	5	30	RKVY
17.	Integrated farming system	Farming system	26 Aug- 2 Sept 09	7	PF	1	29	1	-	-	-	-	29	1	-	30	RKVY
18.	Soil & water conservation technique	Soil & water conservation	6-12 Sept 09	7	PF	1	29	1	-	-	-	-	29	1	-	30	RKVY
19.	Integrated farming system	Farming system	12-18 Sept 09	7	PF	1	-	6	-	-	24	-	-	30	-	30	RKVY
20.	Production & use of organic inputs	Vermi compost	29 Sept - 1 Oct 09 3- 5 Oct 09 & 7 th Oct 09	7	RY	1	27	-	3	-	-	-	27	-	3	30	RKVY
Total				124	-	20	276	71	59	147	27	20	421	98	79	600	

3.5 Production and supply of Technological products

A. SEED MATERIALS PRODUCED AT KVK FARM (Year- 2008-09)

Sl. No.	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Rice	MTU-7029	89.00	133500.00	
		Lalat	14.0	21000.00	
		Anjali	16.00	22400.00	
TOTAL			119.00	176900.00	
OILSEEDS	Niger	BN-1	0.5	2000.00	
	Mustard	Pusa Agrani	0.5	2000.00	
TOTAL			1.0	4000.00	
PULSES					
VEGETABLES					
Total					
FLOWER CROPS					
OTHERS)					
Total					
Mushroom					
Murabba					
Total					

3.6. Literature Developed/Published (with full title, author & reference)

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers			
Technical reports			
News letters			
Technical bulletins			
	[kjhQ Qlyksa dh mUUKr [ksrh	Mk- vfuy dqekj Jh mn; dqekj flag Jh fou; dqekj	800
	Ek`k:e mRiknu rduhd	Mk- vfuy dqekj Jh mn; dqekj flag Jherh uhuk Hkkjrh	800
	lfCt;ksa dh ikS/k rS;kj djuk	Mk- vfuy dqekj Jh mn; dqekj flag Jherh uhuk Hkkjrh	800
	dkcZfud [kkn mRiknu rduhd	Mk- lq/khj dqekj >k Jh mn; dqekj flag	800
	mUur cht mRiknu	Jh mn; dqekj flag Mk- vfuy dqekj Jherh uhuk Hkkjrh	800
Popular articles			
Extension literature			
	—f`k esa iksVk`k dk egRo	Mk- lq/khj dqekj >k	1000
	—f`k foKau dsUnz ,d ifjp;	—f`k foKau dsUnz	1000
	dsapqvk [kkn cukus dh fof/k ,oa iz;ksx	Mk- lq/khj dqekj >k	1000
	lfCt;ksa dh LoLF; ikS/k mRiknu rduhd	Mk- vfuy dqekj Jh mn; dqekj flag Jh fou; dqekj	1000
	Jh ?kku dh [ksrh	Jh mn; dqekj flag	1000
	mj+n dh [ksrh	Jh mn; dqekj flag	1000
	Pkkjk laj{k.k	Mk- lq/khj dqekj >k Mk- vfuy dqekj Jh mn; dqekj flag Jh fou; dqekj	1000
	vkdfLed Qly ;kstuk	Mk- lq/khj dqekj >k Mk- vfuy dqekj Jh mn; dqekj flag Jh fou; dqekj	1000
	Ek`nk ijh{k.k D;ksa vkSj dSlS	Mk- lq/khj dqekj >k	1000

Others (Pl. specify)			
TOTAL			12700

(C) Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number

(D) Details of personnel development

Title of Workshop/Seminar/Winter School/Training	Venue	Name of Scientist attended
Zonal Workshop of KVKs	BAU, Ranchi	Sri Uday Kumar
Maize Production Technology	NASC, New Delhi	Sri Uday Kr. Singh
Winter School	BAU, Ranchi	Sri Uday Kr. Singh
Winter School	IINRG, Ranchi	Mrs Neena Bharti

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

SUCCESS STORY

Hybrid rice boom for food security

Ambadih village under Petarwar Block in Bokaro district is about 40 km from the district headquarters and about 10 km from the Krishi Vigyan Kendra, Petarwar. The village having population of 500 comprises mostly small and marginal farmers. The farmers despite being diligent were unable to become self reliant in farming. Farming here were totally dependent on the monsoon with 90 percent of the cultivable land in the village being rain fed. Farmers here were growing only one crop paddy. They are growing IR- 64, IR – 36, Lalat and MTU – 7029 varieties of paddy in their village. But their average productivity of paddy is 20 to 22 quintals per hectare. As most of the farmers are small and marginal, they are not able to produce enough rice to feed their family through out the year.

In the year 2006, Krishi Vigyan Kendra adopted this village. After adoption of village Ambadih an PRA was conducted in that village by K V K Scientists. During PRA we came to know that majority of farmers are sufficient amount of rice to feed their family through out the year.

So, an intervention was planned through farmer's participation and implemented as Front line demonstration in 20 farmer's field. Prior to conducting the FLD the selected farmers were imparted

training at KVK, Bokaro by KVK Scientists. Under our FLD intervention we have provide 3 kg paddy seed of hybrid variety Arize – 6444 to 20 selected farmers of the village in 3rd week of June which is sufficient for 0.5 acres of land. All the selected farmers had raised their seedling in their paddy field and 21 days old seedling were transplanted at a spacing of 25 c.m. x 15 c.m. of fertilizer dose of 80:40:20 kg NPK/ha was applied to the crop. Half dose of nitrogen and full dose of phosphorus and potash were applied at the time of transplanting. The rest doses of nitrogen were applied at 25 and 50 days after transplanting. One seeding was transplanted at spacing of 25 c.m. x 15 c.m. Initially farmers were hesitant to transplant one seeding. But when we persuaded them and show to them in KVK farm that we are also transplanting one seeding, they agreed to transplant one seeding at one place. One weeding was done 25 – 30 days after transplanting. The crop stand was so attractive that farmers from hereby villages often visited their plots and enquired about the seed. The farmers namely Unesh Kumar Dangi, Anant Mahto and Pawan Mahto harvested on an average of 70 quintal grain per hectare where as rest of the farmers harvested 50 to 60 quintal/ha grain. Under farmers practice with farmer’s seed they harvested only an average 25 quintal/ha of paddy grain. The return/rupee spent was 3.33 under hybrid rice and 1.6 under farmer’s practice. Thus the return/rupee spent was doubled in hybrid rice than their own practice. The intervention was conducted for 2 consecutive year (2006-2007) under FLD programme. The farmers were given 3 times training each year, first before sowing, 2nd at transplanting and 3rd before harvesting. Initially farmers had some hesitation about taste of the hybrid rice but later on they were satisfied with this. Now Ambadih village has become self sufficient in rice. Almost all the villagers are growing hybrid rice in some of their land and about 70% area under hybrid rice cultivation of total rice cultivation. Now the villagers have sufficient rice to feed their family through out the year.

The technology gained momentum very soon as this hybrid rice has provided them food security. The demand of hybrid rice seed increased rapidly. So in 2008 we approach the private company Bayer for supply of hybrid rice Arize - 6444 in local market. We also organize farmers, input dealers and company representative meet at KVK centre in May 2008 so ensure the supply of good quality hybrid rice in local market. The impact was so evident that not only in Ambadih but farmers of others villages are growing hybrid rice in some parts of their land. Thus now the farmers are able to produce sufficient rice to feed their family throughout the year. Now some farmers are even selling rice in market. Thus hybrid rice technology has proved to be the boom for the district for providing food security to the family.

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

3.9 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)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
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3.10 Indicate the specific training need analysis tools/methodology followed for

- Identification of courses for farmers/farm women
- Rural Youth
- In service personnel

3.11 Field activities

- i. Number of villages adopted : 04
- ii. No. of farm families selected : 412
- iii. No. of survey/PRA conducted : -

3.12. Activities of Soil and Water Testing Laboratory- NA

Status of establishment of Lab :

- 1. Year of establishment :
- 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1			
Total			

- 3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	85	85	-	-
Water Samples		--	-	-
Total	85	85	-	-

4.0 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)

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

5.0 LINKAGES

Name of organization	Nature of linkage
1. NABARD/COMMERCIAL BANK	Formation of Kisan Club, SHG etc
2. R.K. MISSION, RANCHI	Training input
3.LINE DEPTT. OF STATE GOVT.	Training & Administrative Linkage
4. DRDA	Training & Administrative Linkage

5. NGO(Pradan, Shayogni, Kalyani, Dhara etc)	Community Organization
6. HARP, Plandu Ranchi	Planting & Seed materials
7. CURRS, Hazaribagh	Seed materials
8. ATMA Bokaro	Trainer as a resource person
9.RKVY	FLD, Training

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

5.2 List of special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
RKVY (Training)	20-06-09	District	6.8 Lakh
RKVY (Soil Testing)			3.0 Lakh
ATMA(Farmers Scientist Interaction)	February 2010	District	00.40 Lakh
ATMA(FLD, Short term Assessment & Refinement Validation & Adoption)	February 2010	District	03.76 Lakh

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

S. No.	Programme	Nature of linkage	Remarks
1.	Training	Functional	
2.	SREP preparation	Functional	
3.	Farmers Scientist Interaction	Functional	
4.	FLD, Short term Assessment & Refinement Validation & Adoption	Functional	
5.	Kisan Gosthi	Functional	
6.	Kisan Mela	Functional	
7.	Rabi & Kharif Workshop	Functional	
8.	MMKKY	Functional	
9.	Sidhu Kanhu Krishak Pathshala	Functional	

5.4 Give details of programmes implemented under National Horticultural Mission- NA

S. No.	Programme	Nature of linkage	Constraints if any

5.5 Nature of linkage with National Fisheries Development Board - NA

S. No.	Programme	Nature of linkage	Remarks

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

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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)
13-18 July 2009	30	6	Lack of water supply
18-01-2010	16	4	
15-19 Feb. 2010	30	5	
20-23 Feb.2010	30	4	

(For whole of the year)

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute			
With KVK	S.B.I.	Petarwar, Bokaro	11472450621

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

Item	Released by ICAR		Expenditure		Unspent balance as on 20 th March2010
	Kharif 2009	Rabi 2009 -10	Kharif 2009	Rabi 2009-10	
Inputs	0.38500	0.52500	0.38500	0.52500	0.01000
Extension activities	0.05500	0.07500	0.05000	0.05000	0.03000
TA/DA/POL etc.	0.08250	0.11250	0.08308	0.10000	0.01192
TOTAL	0.52250	0.71250	0.54308	0.67000	0.05192

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

Item	Released by ICAR		Expenditure		Unspent balance as on 20 th March2010
	Kharif 2009	Rabi 2009 -10	Kharif 2009	Rabi 2009-10	
Inputs	0.31500	0.35000	0.31000	0.42250	(-)0.06750
Extension activities	0.04500	0.05000	0.04500	0.05000	0.00000
TA/DA/POL etc.	0.06750	0.07500	0.06750	-	0.07500
TOTAL	0.42750	0.47500	0.42250	0.47250	0.00750

7.4 Utilization of funds under FLD on Cotton (Rs. In Lakhs)

Item	Released by ICAR		Expenditure		Unspent balance as on 20 th March2010
	Kharif 2009	Rabi 2009 -10	Kharif 2009	Rabi 2009-10	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

**7.5 Utilization of KVK funds during the year 2008 -09 and 2009 -10 (20 th March 2010)
(year-wise separately) (current year and previous year)**

S. No.	Particulars	2008-09			2009-10(20 th march 2010)		
		Sanctioned	Released	Expenditure	Sanctioned	Released	Expenditure
A. Recurring Contingencies							
1	Pay & Allowances	30.00000	22.21856	22.16186	26.00000	2538304.00	25.56301
2	Traveling allowances	01.00000	00.90000	00.76992	0.80000	00.05000	0.5000
3	Contingencies						
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)						
B	POL, repair of vehicles, tractor and equipments	2.40000	2.30500	2.33747	2.25000	1.12000	2.20000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)						
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)						
E	Training of rural youth						
F	Training of extension functionaries	2.40000	1.48000	1.44323	2.65000	1.60000	2.40000
G	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	0.68000	0.31000	0.29300	0.60000	0.60000	0.29000
H	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.72000	0.39500	0.41990	0.75000	0.73000	0.43990
I	Maintenance of buildings						
J	Establishment of Soil, Plant & Water Testing Laboratory						
K	Library				0.0500		0.05000
TOTAL (A)		37.20000	27.60856	27.42538	33.10000	29.48304	30.99291

B. Non-Recurring Contingencies		2008-09			2009-10		
		Sanction	Released	Expenditure	Sanction	Released	Expenditure
1	Works	-	-	-	-	-	-
2	Equipments including SWTL & Furniture	-	-	-	-	-	-
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-	-	-	-
TOTAL (B)		-	-	-	-	-	-
C. REVOLVING FUND							
GRAND TOTAL (A+B+C)		-	-	-	-	-	-

7.5 c .Status of revolving fund (Rs. In lakhs) for the four years

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year	
				Cash	Kind
April 2005 to March 2006	0.98000	0.87463	1.73737	0.11726	-
April 2006 to March 2007	0.11726	3.50705	3.29211	0.33220	-
April 2007 to March 2008	0.33220	1.32742	1.56119	0.09843	-
April 2008 to March 2009	0.09843	2.27033	1.43681	0.93195	-
April 2009 to Dec. 2009	0.93195	2.14435	0.90260	2.17370	0.80(Estimated)

Annexure

Date	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants OTH			Number of SC			Number of ST			Total		Grand Total
					M	F	T	M	F	T	M	F	T	M	F	
03-04-09	Practicing farmers /Farm women	Use of lime in acid soil	1	Off	20	-	20	-	-	-	-	-	-	20	-	20
16-17 April 09	Practicing farmers /Farm women	Diversified use of raw mango	2	Off	-	26	26	-	-	-	-	-	-	-	26	26
18-04-09	Practicing farmers /Farm women	Diversified use of raw jack fruit	1	Off	-	20	20	-	-	-	-	-	-	-	20	20
04-05-09	Practicing farmers /Farm women	Low cost water harvesting system	1	Off	23	-	23	-	-	-	-	-	-	23	-	23
05-05-09	Practicing farmers /Farm women	Cultivation practice of maize based intercropping system	1	Off	18	-	18	-	-	-	4	-	4	22	-	22
08-05-09	Practicing farmers /Farm women	Preservation of mango at home scale method	1	Off	24	-	24	-	-	-	-	-	-	24	-	24
11-05-09	Practicing farmers /Farm women	Nursery raising under adverse weather condition	1	Off	20	-	20	-	-	-	-	-	-	20	-	20
16-05-09	Practicing farmers /Farm women	Use of lime in acid soil	1	Off	26	-	26	-	-	-	-	-	-	26	-	26
18-05-09	Practicing farmers /Farm women	Disease management in nursery	1	Off	24	-	24	-	-	-	-	-	-	24	-	24
20-05-09	Practicing farmers /Farm women	Post harvest management of vegetable	1	Off	-	23	23	-	-	-	-	-	-	-	23	23
12-06-09	Practicing farmers /Farm women	Cultivation practice of kharif pulses	1	Off	20	-	20	-	-	-	4	-	4	24	-	24
12-06-09	Practicing farmers /Farm women	Insect pest management of kharif pulses	1	Off	12	-	12	-	-	-	-	-	-	12	-	12
13-05-09	Practicing farmers /Farm women	Use of improved implements in paddy cultivation	1	Off	30	-	30	-	-	-	-	--	-	30	-	30
25-06-09	Practicing farmers /Farm women	How to prepare potato chips of home consumption	1	Off	-	36	36	-	-	-	-	-	-	-	36	36
26-06-09	Practicing farmers /Farm women	Measures to combat anemia among small children	1	Off		63	63	-	-	-	-	-	-	-	63	63
07-07-09	Practicing farmers /Farm women	Production technology of pulse	1	Off	30	-	30	-	-	-	-	-	-	30	-	30

07-07-09	Practicing farmers /Farm women	Integrated disease management of pulse	1	Off	31	-	31	-	-	-	-	-	-	31	-	31
11-07-09	Practicing farmers /Farm women	Low cost supplementary food preparation	1	Off	-	30	30	-	-	-	-	-	-	-	30	30
01-08-09	Practicing farmers /Farm women	Use of lime in acid soil	1	Off	10	-	10	-	-	-	-	-	-	10	-	10
03-08-09	Practicing farmers /Farm women	Contingent crop plan for adverse weather condition	1	Off	18	-	18	-	-	-	3	-	3	21	-	21
03-08-09	Practicing farmers /Farm women	Contingent crop plan for adverse weather condition	1	Off	15	-	15	-	-	-	3	-	3	18	-	18
04-08-09	Practicing farmers /Farm women	Production technique of disease free seedling of vegetable	1	Off	19	-	19	2	-	2	-	-	-	21	-	21
08-08-09	Practicing farmers /Farm women	Contingent crop plan for adverse weather condition	1	Off	19	-	19	-	-	-	-	-	-	19	-	19
11-08-09	Practicing farmers /Farm women	Conservation technique of locally available feed and fodder through silage making	1	Off	14	-	14	-	-	-	3	-	3	17	-	17
12-08-09	Practicing farmers /Farm women	Contingent crop plan for adverse weather condition	1	Off	20	-	20	3	-	3	-	-	-	23	-	23
13-08-09	Practicing farmers /Farm women	Rain water harvesting technique	1	Off	28	-	28	7	-	7	8	-	8	43	-	43
17-08-09	Practicing farmers /Farm women	Integrated pest management of kharif pulses	1	Off	16	-	16	-	-	-	6	-	6	22	-	22
28-08-09	Practicing farmers /Farm women	Contingent crop plan for adverse weather condition	1	Off	18	-	18	4	-	4	-	-	-	22	-	22
07-09-09	Practicing farmers /Farm women	Cultivation practice of potato	1	Off	19	-	19	-	-	-	-	7	7	19	7	26
12-09-09	Practicing farmers /Farm women	Cultivation practice of niger and horse gram	1	Off	13	-	13	5	-	5	6	-	6	24	-	24
15-09-09	Practicing farmers /Farm women	Insect pest management of mustard toria	1	Off	15	-	15	6	-	6	-	-	-	21	-	21
29-10-09	Practicing farmers /Farm women	Soil conservation technique in standing crops like fruit crops	1	Off	26	-	26	-	-	-	-	-	-	26	-	26
30-10-09	Practicing farmers /Farm women	Fertilizer management in tuber crops	1	Off	21	-	21	-	-	-	-	-	-	21	-	21
03-11-09	Practicing farmers /Farm women	Cultivation practice at late season potato & fertilizer management	1	Off	24	-	24	-	-	-	-	-	-	24	-	24

09	/Farm women	drying of green leaf vegetable & Green vegetable														
20-21 April 09	Practicing farmers /Farm women	Management & practice of hybrid rice	2	On	7	-	7	-	-	-	3	-	3	10	-	10
09-10 July 09	Practicing farmers /Farm women	Conservation of nutritional value after harvesting	2	On	-	12	12	-	-	-	-	-	-	-	12	12
17-18 July 09	Practicing farmers /Farm women	Soil & water conservation technique	2	On	23	-	23	5	-	5	-	-	-	28	-	28
21-23 Aug. 09	Practicing farmers /Farm women	Soil and moisture conservation technique	3	On	28	-	28	-	-	-	-	-	-	28	-	28
31-07-09 to 01-08-09	Practicing farmers /Farm women	Value addition	2	On	-	19	19	-	-	-	-	5	5	-	24	24
14-15 Sept 09	Practicing farmers /Farm women	Rain water management	2	On	17	-	17	4	-	4	-	-	-	21	-	21
17-18 Sept 09	Practicing farmers /Farm women	Low cost water harvesting technique	2	On	20	-	20	-	-	-	3	-	3	23	-	23
24-25 Sept 09	Practicing farmers /Farm women	Cultivation practice and management of mustard/toria	2	On	27	-	27	-	-	-	-	-	-	27	-	27
05-07 Oct 09	Practicing farmers /Farm women	Production technique of rabi pulse, gram & lentil	3	On	-	-	-	-	-	-	24	-	24	24	-	24
09-10 Oct 09	Practicing farmers /Farm women	Cultivation practice & management of cauliflower & cabbage	2	On	-	18	18	-	-	-	-	8	8	-	26	26
9-10 Oct 09	Practicing farmers /Farm women	Sulphur management in oilseed crops	2	On	-	7	7	-	8	8	-	5	5	-	20	20
21-22 Oct 09	Practicing farmers /Farm women	Integrated pest & disease management in pulses & oilseed crops	2	On	27	-	27	9	-	9	-	-	-	36	-	36
27-28 Oct 09	Practicing farmers /Farm women	Cultivation practice of potato	2	On	26	-	26	-	-	-	-	-	-	26	-	26
03-04 Nov 09	Practicing farmers /Farm women	Integrated insect and pest management in rabi crops	2	On	24	-	24	-	-	-	-	-	-	24	-	24

05-06 Nov 09	Practicing farmers /Farm women	Cultivation practice of cucurbitaceous vegetables	2	On	26	-	26	-	-	-	-	-	-	26	-	26
09-10 Nov 09	Practicing farmers /Farm women	Role of micronutrient & potasic fertilizer in vegetable crops	2	On	25	-	25	-	-	-	-	-	-	25	-	25
20-21 Nov 09	Practicing farmers /Farm women	Formation of self help group	2	On	5	-	5	8	-	8	14	-	14	27	-	27
14-15 Dec 09	Practicing farmers /Farm women	Pest and disease management in wheat	2	On	24	-	24	-	-	-	-	-	-	24	-	24
30-31 Dec 09	Practicing farmers /Farm women	Irrigation scheduling in wheat	2	On	14	-	14	6	-	6	8	-	8	28	-	28
11-12 Jan2010	Practicing farmers /Farm women	Pre & post harvest techniques of potato for increasing self life	2	On	24	-	24	-	-	-	-	-	-	24	-	24
06-07 Jan .2010	Practicing farmers /Farm women	Water management of rabi pulses & oilseeds	2	On	18	-	18	8	-	8	-	-	-	26	-	26
15-16 Jan. 2010	Practicing farmers /Farm women	Production of small tools and implements	2	On	20	-	20	-	-	-	3	-	3	23	-	23
21-22 Jan. 2010	Practicing farmers /Farm women	Integrated disease management in oilseed crops	2	On	24	-	24	-	-	-	-	-	-	24	-	24
09-10Feb.2010	Practicing farmers /Farm women	Integrated disease management in cucurbits	2	On	15	-	15	-	-	-	6	-	6	21	-	21
13-14 Feb. 2010	Practicing farmers /Farm women	Cultivation practice on summer maize	2	On	17	-	17	-	-	-	8	-	8	25	-	25
17-18 Feb.2010	Practicing farmers /Farm women	Grading and storage of potato	2	On	24	-	24	-	-	-	2	-	2	26	-	26
24-25 Feb. 2010	Practicing farmers /Farm women	Production technology of wheat	2	On	5	-	5	12	-	12	-	-	-	17	-	17
25-26 Feb 2010	Practicing farmers /Farm women	Primary processing of locally available vegetable	2	On	-	17	17	-	-	-	-	-	-	-	17	17
09-10 Mar. 2010	Practicing farmers /Farm women	Weed management in summer maize	2	On	24	-	24	7	-	7	2	-	2	33	-	33
12-13 Mar. 2010	Practicing farmers /Farm women	Irrigation schedule in cucurbit	2	On	24	-	24	3	-	3	3	-	3	30	-	30

19-20 Mar. 2010	Practicing farmers /Farm women	Method of soil testing	2	On	17	-	17	9	-	9	-	-	-	26	-	26
22-23 Mar. 2010	Practicing farmers /Farm women	Primary processing of locally available vegetable	2	On	22	-	22	-	-	-	6	-	6	28	-	28

Date	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants OTH			Number of SC			Number of ST			Total		Grand Total
					M	F	T	M	F	T	M	F	T	M	F	
15-17 June 09	Rural Youth	Drafting & cutting of family wears of female	5	On	-	27	27	-	-	-	-	-	-	-	27	27
07-12 Sept 09	Rural Youth	Mushroom production technology	6	On	-	22	22	-	-	-	-	4	4	-	26	26
03-04 Dec 09	Rural Youth	Production method of vermi compost	2	On	29	-	29	-	-	-	-	-	-	29	-	29
04-05 Dec 09	Rural Youth	Mushroom production technology	2	On	-	26	26	-	-	-	-	-	-	-	26	26
09-10 Dec 09	Rural Youth	Repair & maintenance of diesel pump set	2	On	17	-	17	-	-	-	-	-	-	17	-	17
27-29 Jan 2010	Rural Youth	Feed & disease management in goat	3	On	23	-	23	-	-	-	-	-	-	23	-	23
		Total	20		69	75	144	-	-	-	-	4	4	69	79	148

Date	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants OTH			Number of SC			Number of ST			Total		Grand Total
					M	F	T	M	F	T	M	F	T	M	F	
25-08-2009	Extension	Production technology of	1	On	20	-	20	-	-	-	-	-	-	20	-	20

