ANNUAL REPORT
2013 – 14

KRISHI VIGYAN KENDRA
BURDWAN

KRISHI VIGYAN KENDRA
Central Research Institute for Jute & Allied Fibres (ICAR)
Budbud, Burdwan, W.B. 713 403
Telefax: 0343-2513651
www.kvkcrijaf.org.in

1. GENERAL INFORMATION ABOUT THE KVK

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

Name: Krishi Vigyan Kendra, Burdwan

Address	Telephone		E mail
Bud Bud, Burdwan-713 403. West Bengal	Office - 0343 2513651	Fax - 0343 2513651	kvkburdwan@gmail.com **Web:** www.kvkcrijaf.org.in

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

Name of Host organization: **Central Research Institute for Jute and Allied Fibres (ICAR)**

Address	Telephone		E mail
	Office	Fax	
Barrackpore Kolkata- 700 120. West Bengal	033-25356124	033- 25350415	crijaf-wb@nic.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. D. Ghorai (I/C)	03325772766	09433122515	dipankarghoraikvk@gmail.com

1.4. Year of sanction: 2005 vide order No. 5-24 / 2002 – AE – I, dated April 01, 2005

1.5. Staff Position (as on 1st April, 2014)

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	VACANT						
2	Subject Matter Specialist	Dr. Dipankar Ghorai	I/C PC and SMS	Agriculture	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 25840	26.04.2006	**Permanent**	GEN
3	Subject Matter Specialist	Mr. Golam Ziauddin	SMS	Fisheries	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 23640	28.04.2006	**Permanent**	GEN
4	Subject Matter Specialist	Dr. Chandrakanta Jana	SMS	AH&VS	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 25840	29.04.2006	**Permanent**	GEN
5	Subject Matter Specialist	Dr. Subrata Sarkar	SMS	Horticulture	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 25840	04.05.2006	**Permanent**	GEN
6	Subject Matter Specialist	Ms. Poli Saikia	SMS	Home Sc.	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 21630	09.04.12	**Permanent**	OBC
7	Subject Matter Specialist	Dr. Monica S. Singh	SMS	Agril. Extn.	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 21630	09.07.2012	**Permanent**	GEN
8	Programme Assistant	Mr. Sandipan Garai	Prog. Assistant	Agriculture	Rs. 9300-34800 Grade Pay - 4600 B. Pay – Rs. 17560	18.04.2006	**Permanent**	OBC
9	Computer Programmer	Sk Golam Rasul	Prog. Assistant (Computer)	Computer	Rs. 9300-34800 Grade Pay - 4600 B. Pay – Rs. 17560	10.04.2006	**Permanent**	GEN
10	Farm Manager	Mr. Soumya Sarathi Kundu	Prog. Assistant (Farm Manager)	Agriculture	Rs. 9300-34800 Grade Pay - 4600 B. Pay – Rs. 17040	06.01.2007	**Permanent**	GEN
11	Accountant / Superintendent	Mr. Baidyanath Mukhopadhyay	Assistant	--	Rs. 9300-34800 Grade Pay - 4200 B. Pay – Rs. 16630	15.03.2006	**Permanent**	GEN
12	Stenographer	Mr. Sushanta Dey	Stenographer Gr - III	--	Rs.5200-20200 G. P. – 2400, B. Pay – Rs. 12220	20.03.2006	**Permanent**	GEN
13.	Driver	Mr. Joydeep Pal	Driver – cum -	--	Rs.5200-20200	06.07.2006	**Permanent**	GEN

			mechanic		G. P. – 2400, B. Pay – Rs. 10380			
14.	Driver	Mr. Santi Nath Pal	Driver– cum - mechanic	--	Rs.5200-20200 G. P. – 2400, B. Pay – Rs. 10380	10.07.2006	**Permanent**	OBC
15.	Supporting staff	Mr. Shyamal Bhanja	Supporting staff	Peon	Rs. 5200-20200 G. P. – 1800, B. Pay - Rs. 8640	25.02.2006	**Permanent**	GEN
16.	Supporting staff	Mr. Anup Das	Supporting staff	Cook	Rs. 5200-20200 G. P. – 1800, B. Pay - Rs. 8640	01.03.2006	**Permanent**	SC

1.6. Total land with KVK (in ha) : 18 ha

S. No.	Item	Area (ha)
1	Under Buildings	3.5
2.	Under Demonstration Units	2.5
3.	Under Crops	7.0
4.	Orchard/Agro-forestry	2.0
5.	Others (Ponds)	3.0

Total area should be matched with breakup

1.7. Infrastructure Development:

A) Buildings and others

S. No.	Name of building	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					√	552	Under use	ICAR
2.	Farmers Hostel					√	306	Under use	ICAR
3.	Staff Quarters (6)					√	400	Under use	ICAR
4.	Piggery unit								
5	Fencing					√	925 m	Under use	ICAR
6	Rain Water harvesting structure					√	6000	Under use	MGNREGA
7	Threshing floor								
8	Farm godown								
9.	Dairy unit								
10.	Poultry unit								
11.	Goatary unit					√	50	Under use	ICAR
12.	Mushroom Lab								
13.	Mushroom production unit								
14.	Greenhouse					√	1008 sqm	Under use	RKVY
15.	Soil test Lab					√	Instrumental support	Under use	ICAR
16	Others								
	Feed preparation Unit					√	Instrumental support	Under use	ATMA
	Integrated farming system					√	6000	Under use	ICAR
	Vermicompost unit					√	60	Under use	ATMA
	Portable carp hatchery					√	30	Operation yet to start	ICAR
	Deep tube well					√	Depth 80 ft.	Under use	ICAR

* 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
TATA SUMO WB 40 C 9883	01.04.1999	---	134651	In working condition
Tractor WB 39 3472	01.04.1999	---	953 hrs	In working condition

C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab equipment				
Flame photometer	2006-07	29813.00	In working condition	ICAR
Spectrophotometer	2006-07	46283.00	In working condition	ICAR
Shaker	2006-07	20756.00	In working condition	ICAR
Hot air oven	2006-07	5344.00	In working condition	ICAR
Hot plate	2007-08	14000.00	In working condition	ICAR
Glass distillation unit	2007-08	28000.00	In working condition	ICAR
Conductivity bridge	2007-08	10000.00	In working condition	ICAR
pH meter	2007-08	9563.00	In working condition	ICAR
Electronic balance	2007-08	12375.00	In working condition	ICAR
Grinder	2007-08	19500.00	In working condition	ICAR
Kjeldahl N analyser	2008-09	250474.00	In working condition	ICAR
Atomic absorption spectrophotometer	2012-13	944832.00	To be installed shortly	ICAR
b. Farm machinery				
Tractor	01.04.1999	--	In working condition	ICAR
Power reaper	2011-12	85476.00	In working condition	ICAR
c. AV Aids				
LCD projector	2008-09	109000.00	In working condition	ICAR
Computer with accessories (2 Nos.)	2009 -10	49920.00	In working condition	ICAR
LCD TV	2010-11	13110	In working condition	ICAR
Digital Camera	2010-11	14790	In working condition	ICAR

D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
CRIJAF Nail weeder	2012-13	3400.00	In working condition	ICAR
Brush cutter	2011-12	22360.00	In working condition	ICAR
Seed drill	2011-12	66500.00	In working condition	ICAR
Rotovator	2011-12	107120.00	In working condition	ICAR
Sprayer	2011-12	7300.00	In working condition	ICAR
Paddy thresher	2011-12	12000.00	In working condition	ICAR

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

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken
1.	18.06.13	31+	Please refer to Annexure I for Proceedings of SAC containing salient recommendations in bulleted form	Please refer to Annexure II for action taken report

** Salient recommendation of SAC in bullet form*

Attach a copy of SAC proceedings along with list of participants

2. District level data on agriculture, livestock and farming situation (2013-14)

Sl. no.	Item	Information
1	Major Farming system/enterprise	Rice production system Dairy –poultry production system Poultry Goatary Duckery Fishery Rice – potato-fodder- livestock production system Rice –vegetable-Rice production system Jute-rice production system Fish-duck-banana production system
2	Agro-climatic Zone	**1. New Alluvium** Average annual rainfall 1300-1600 mm, Soil type- sandy loam, clay and clay loam, Soil depth 4-6 ft with medium to good water holding capacity, **Neutral to acidic soil with good fertility.** **2. Old Alluvium** Average annual rainfall 1300-1500 mm, Soil type- sandy loam and clay loam Soil depth 4-6 ft with medium to good water holding capacity **Neutral to acidic soil with good fertility** **3. Red and Lateritic** Average annual rainfall 1100-1400 mm, Soil type- sandy loam, coarse in texture Undulating land with low soil depth, sometimes hard layer present in sub surface **Medium to highly acidic soil**
3	Agro ecological situation	**Agro ecological sub region 12.3 under the AES 12.0 (Eastern Plateau)** I Chhotonagpur Plateau and Garhjat hills, hot dry sub humid ecosystem with red & laterite soils and LGP 150-180 days covering the blocks of Durgapur & Asansol. Main crops are, paddy, mustard, vegetables, pulse etc. The area covers 186154 ha II. Moist and sub humid ecosystem with alluvial soil with LGP of 180-200 days covering the blocks of Burdwan (N), Burdwan (S), Kalna & Katwa, Main crops paddy, mustard, **sesame, potato, jute, vegetables etc. The area covers 517532 ha**
4	Soil type	**1.Gangetic alluvial – 206423 ha** Soil order is entisols. Sandy loam to clay loam, fine in texture, slightly acidic to neutral in reaction. Rich in potash and medium to rich in available plant nutrients. **2. Vindhya alluvial – 311000 ha** Soil order is entisol Sandy loam to clay loam, fine to moderate coarse in texture, acidic to neutral in reaction. **3. Red and Lateritic – 186054 ha** Soil orders are mainly alfisol and ultisol. Coarse gritty soil blended with rock fragment, mainly acidic in nature, reddish in color due to high level of iron, low in nitrogen, calcium, phosphate and other plant nutrient.
5	Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others	Aman pady – 32.73 Boro paddy – 26.95 Wheat – 21.99

		Pulses – 8.80 Oilseeds – 10.01 Jute & other fibres ** - 18.7 lakh bales Potato – 212.49
6	Mean yearly temperature, rainfall, humidity of the district	Mean yearly temperature: Max – 31, Min – 18 Relative humidity : 76 Total rainfall: 1136 mm
7	Production of major livestock products like milk, egg, meat etc.	Milk : 464080 tonnes, 280 kg/year Egg: 2672.40 lakh egg, 85 no. eggs/year Meat : 4000 MT

2.6 Details of operational area / villages (2013-14)

S.N	Taluk	Block	Village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Durg apur	Kanksa	Keten (Ghosh para, Bauri para and Pan para)	Paddy, potato, mustard, sesame, lentil, vegetable, cattle, poultry, duck, goat, fish	***Bio-physical*** **Low productivity of all major crops** • Non-availability of quality seed / planting materials • Marginal soil • Limited water resources for irrigation • Indiscriminate and inappropriate use of chemical fertilizer **Inadequate descriptive/prolific breed of livestock** **Poor feed resources** ***Socio- economic*** **Lack of credit facilities** **Lack of awareness regarding good agronomic /husbandry practices** **Very restricted livelihood option**	• Integration of good agronomic practices • Providing quality seeds/planting materials • Diversification of land use • Soil health management like organic farming etc. • Livestock productivity improvement and health care • Efficient utilization of water bodies • Entrepreneurship development
2	Durg apur	Galsi-I	Jaguli para (Mollapara and Bauripara), Silla, Ramgopalpur, Atpara, Raipur	Kharif Paddy, boro paddy, mustard, fodder, cattle, poultry, duck, goat, fish	***Bio-physical*** **Low productivity of all major crops** • Non-availability of quality seed materials • High cost involvement for major crops • Indiscriminate and inappropriate use of chemical fertilizers • Low input of organics & biofertiliser **Lesser extent of crop diversification** **Low productivity of livestock & poultry** **Poor feed resources** ***Socio-economic*** • Lack of credit facilities • Inadequate house hold income generation	• Providing quality seeds/planting material • Diversification of land use • Entrepreneurship development • Organic farming • Health care • Improvement of women led vocations • Popularization of balanced feeding practices
3.	Burdwan North	Galsi-II	Garamba-Bhasapur	Aus paddy, kharif paddy, jute, potato, mustard, vegetable cattle, poultry, Goat, fish		
4.	Durg apur	Galsi-I	Manikbazar-Jharul, Nurkona	Paddy, potato, mustard, sesame, lentil, vegetable, cattle, poultry, duck, goat, fish, pig		

2.7 Priority thrust areas

S. No	Thrust area
1.	Integration of good agronomic practices for cultivation of field and vegetable crops for vertical agricultural growth
2.	Production of quality seeds/planting materials for major agricultural crops like rice, jute, mustard and vegetable and fruit crops
3.	Diversification of land use through cultivation of vegetables and other horticultural crops
4.	Soil health management through organic farming, balanced and integrated fertilization etc.
5.	Livestock productivity improvement and health care
6.	Efficient utilization of water bodies through composite fish culture and improved management practices
7.	Efficient resource utilization and output maximization through integrated farming system approach
8.	Entrepreneurship development for family income generation
9.	Empowerment of women through post harvest operation
10	Strengthening of animal feed resources through fodder production/ quality fodder seed production

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievement of mandatory activities by KVK during 2013-14@

OFT				FLD			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
9	7	66	52	15	16	201	297

Training				Extension activities			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
125	130	3200	3539	970	971	9000	9034

Seed production (q)		Planting material (Nos.)	
Target	Achievement	Target	Achievement
220	240	55000	50000

@Target should match with your midterm report

3.1 Achievements on technologies assessed and refined

OFT-1

1.	Title of On farm Trial	**Evaluation of performance of different varieties of jute under rainfed and medium upland situation of Burdwan district**
2.	Problem diagnose	Inadequate productivity vis-à-vis soil situation and fertility
3.	Details of technologies selected for assessment/refinement	**FP:** JRO 524 **TO 1:** JRO 128 **TO 2 :** JRO 204 **TO 3 :** CO 58
4.	Source of Technology	CRIJAF, Barrackpore
5.	Production system and thematic area	Jute based production system; varietal trial
6.	Performance of the Technology with performance indicators	**Results indicated that as regards productivity CO 58 and JRO 204 produced significantly more fibre and were at par followed by JRO 128**
7.	Final recommendation for micro level situation	Existing jute cultivar of JRO 524 should be replaced with improved cultivars like CO58 and JRO 204.
8.	Constraints identified and feedback for research	Seed availability of improved cultivars is scarcely available in the market. Feasibility of jute seed production in West Bengal should be researched.
9.	Process of farmers participation and their reaction	Training and awareness; Farmers are satisfied with performance of improved cultivars

Thematic area: Varietal trial

Problem definition: Inadequate productivity vis-à-vis soil situation and fertility

Technology assessed: Improved variety

Table:

Technology option	No. of trials	Yield component		Yield (q/ha)	Cost of cultivation (Rs./ha)*	Gross return (Rs/ha)**	Net return (Rs./ha)	BC ratio
		Pl. height (cm)	Base diameter (mm)					
FP: JRO 524	5	218	148	26.1	42500	58725	16225	1.38
TO 1: JRO 128		226	1.46	30.5	42500	68625	26125	1.61
TO 2 : JRO 204		239	1.48	32.7	42500	73575	31075	**1.73**
TO 3 : CO 58		242	1.51	33.4	42500	75150	32650	**1.77**
LSD at 5%		**10.6**	**ns**	**1.34**				

*Though coast of cultivation varied by ± 10%, it was averaged to be constant
** Selling price also varied between farmers. But for uniformity it was taken @ 2250/qtl.

Results:

Results indicated that as regards productivity CO 58 and JRO 204 produced significantly more fibre and were at par followed by JRO 128. JRO 524 produced significantly less fibre as compared to any other cultivar.

OFT-2

1.	Title of On farm Trial	Effect of sulphur and zinc nutrition on rice yield in medium upland situation of Burdwan district
2.	Problem diagnose	Declining productivity trend of paddy and widespread deficiency of S and Zn in the district
3.	Details of technologies selected for assessment/refinement	FP: 90:60:30 N, P, K through urea, DAP and MOP TO 1: Recommended doses (100:50:50) through urea, DAP and MOP TO 2: RD + 6 kg $Znha^{-1}$ through Zn Carbonate TO 3: RD + 20 kg Sha^{-1} through elemental S TO 4: RD + 6 kg $Znha^{-1}$ through Zn Carbonate+ 20 kg Sha^{-1} through elemental S
4.	Source of Technology	DRR, Hyderabad
5.	Production system and thematic area	Irrigated rice based production system
6.	Performance of the Technology with performance indicators	Application of Sulfur and Zn were found to be responsive regarding productivity of paddy. While single application of the nutrient resulted in at par productivity, combined application resulted in significantly higher productivity over any of the TOs. There was significant differences in yield attributes like EBT and 1000 gr. Wt.
7.	Final recommendation for micro level situation	Sulfur and Zn should be applied for more profitability as well as productivity
8.	Constraints identified and feedback for research	In view of the large scale deficiencies of S and Zn in the district, responses to this nutrient should be researched in all prevailing crops in the district
9.	Process of farmers participation and their reaction	Training and awareness, discussion, group meetings. Farmers were encouraged to see the responses of S and Zn application

Thematic area: Nutrient management

Problem definition: Declining productivity trend of paddy and widespread deficiency of S and Zn in the district

Technology assessed: S and Zn supplementation

Table:

Technology option	No. of trials	Yield component			Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Plant height (cm)	No. of effective tillers/hill	Panicle 1000 grain wt (gm)					
FP	4	103.4	10.1	20.2	48.6	31650	60750	29100	1.92
TO1		106.3	11.3	20.4	50.2	31630	62750	31120	1.98
TO2		114.4	11.9	21.4	52.7	32630	68375	35745	2.10
TO3		116.3	12.1	21.3	52.4	32430	67625	35195	2.09
TO4		115.5	13.2	22.1	55.1	33430	68875	35445	2.06
		ns	0.67	0.64	1.54				

- available S status of plots: 7 -11 kg/ha
- available Zn status of plots: 0.40 – 0.65 mg/kg
- Cost of production was taken to be varying only for fertilizers
- Selling price of paddy was taken at Rs. 1250/qtl

Results:

Application of Sulfur and Zn were found to be responsive regarding productivity of paddy. While single application of the nutrient resulted in at par productivity, combined application resulted in significantly higher productivity over any of the TOs. There was significant differences in yield attributes like EBT and 1000 gr. Wt.

OFT-3

1.	Title of On farm Trial	Evaluation of different agrochemicals on flowering and yield of chilli
2.	Problem diagnose	High percentage of flower droppings is a common problem in chilli leading to reduction in yield
3.	Details of technologies selected for assessment/refinement	**FP:** Recommended dose of fertilizer (100:50:50 kg NPK/ha) **TO 1:** Recommended dose of fertilizer + NAA as FS (3 times) **TO 2:** Recommended dose of fertilizer + Triacontanol as FS (3 times) **TO 3:** Recommended dose of fertilizer + Boron as FS (3 times)
4.	Source of Technology	BCKV
5.	Production system and thematic area	Irrigated vegetable based production system
6.	Performance of the Technology with performance indicators	Result indicated that Triacontanol as well as boron showed better respond in terms of flower retention, fruit numbers and yield. Plant vigor also increased with the treatment of Triacontanol leading to higher yield.
7.	Final recommendation for micro level situation	Use of Triacontanol to be promoted in cultivation of chilli.
8.	Constraints identified and feedback for research	Timely plant protection measures should be taken to get maximum effectiveness of target chemicals i.e. Triacontanol or boron
9.	Process of farmers participation and their reaction	Through training and field level demonstration. Farmers were satisfied with the performance of the technology.

Thematic area: Effect of growth promoters

Problem definition: High percentage of flower droppings is a common phenomenon in chilli leading to reduction in yield

Technology assessed: Different agrochemicals like NAA, Triacontanol and Boron

Table:

Technology option	No. of trials	Yield component		Yield **(q/ha)**	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of Fruits/ plant	Plant canopy width (cm)					
FP: 100:50:50 kg NPK/ha	7	62.3	58.3	72.5	65610	145000	79390	2.21
TO1: 100:50:50 kg NPK/ha + NAA as FS (3 times)	7	73	56.1	79.1	66200	158200	92000	2.38
TO2: 100:50:50 kg NPK/ha + Triacontanol as FS (3 times)	7	88.3	68.4	86.3	67600	172000	104400	2.55
TO3: 100:50:50 kg NPK/ha + Boron as FS (3 times)	7	78.5	59.5	83.4	66900	166800	99900	2.49
CD(0.05)		11.26	6.15	13.1				

Results: Result indicated that Triacontanol as well as boron showed better respond in terms of flower retention, fruit numbers and yield. Plant vigor also increased with the treatment of Triacontanol leading to higher yield.

OFT-4

1.	Title of On farm Trial	**Evaluation of performance of different pig breeds in Burdwan district under low input system.**
2.	Problem diagnose	Poor meat production in pig is due to use of non descriptive breed
3.	Details of technologies selected for **assessment**/refinement	**Farmers' practice:** Local breed **Technology 1 to be assessed:** White Yorkshire **Technology 2 to be assessed:** Ghungroo
4.	Source of Technology	NRC on Pig, Assam
5.	Production system and thematic area	Livestock and poultry based production system, Breed evaluation
6.	Performance of the Technology with performance indicators	White Yorkshire performed well in term of growth rate upto selling but ghungroo is much prolific and easily manage by tribal community using low input system
7.	Final recommendation for micro level situation	Concerning significantly higher litter size, Ghungroo pig may be recommended at tribal area with low input system
8.	Constraints identified and feedback for research	In tribal area, there is scarcity of feed to meet the nutritional requirement of heavy breed like white Yorkshire; Litter size of ghungroo pig impressed the farmers and acceptability of meat of this breed is more among them.
9.	Process of farmers participation and their reaction	Through training , health camp and group discussion Piglet mortality in ghungroo pig after weaning was less as compared to White Yorkshire

Thematic area: Pig breeds evaluation

Problem definition: Poor body growth performance in pig is due to use of non descriptive breed of pig under low input system.

Technology assessed: ***Adoption of improved pig breed under low input management practice***

Table: Growth performance of different technology options with their economics

Technology option	No. of trials	Yield component		**Cost of rearing (Rs./pig)**	**Gross return (Rs./pig)**	**Net Return (Profit) in (Rs./pig)**	BC ratio
		No. of litter/ sow	***Production per unit Body wt at selling in Kg (at 7 month age)**				
Farmers' practice: Local breed	7	4.43[c]	**33.29[c]**	**3150**	**3994**	**488**	**1.27**
TO1= White Yorkshire	7	8.29[b]	**63.43a**	**3910**	**7611**	**3701**	**1.95**
TO2= Ghungroo	7	11.14[a]	**46.14b**	**3510**	**5536**	**2026**	**1.58**

a b c values with different superscripts in a row differ significantly ($p<0.05$).

Results: Pig breeds were evaluated under low inputs management system by KVK Burdwan in tribal area. The trial was conducted in Palashboni village with non descriptive breed, White Yorkshire and Ghungroo breed under low cost housing and feed management practices. Pigs were maintained on boiled weeds and rice polish, hotel waste, different unused vegetables and strategic feed supplementation.
There was significantly ($p<0.05$) higher in body weight at selling (at the age of 7 month) in white Yorkshire breed but litter size at birth was significantly higher in ghungroo pig under low input system. It was also observed that survivility of piglets at weaning were also more in ghungroo pig.

OFT-5

1.	Title of On farm Trial	**Evaluation of different sources of selenium and vit. E supplementation on production and hatchability of duck egg in Burdwan district**
2.	Problem diagnose	Poor egg production and hatchability in duck is due to deficiency of anti-stress vitamins and minerals in diet.
3.	Details of technologies selected for **assessment**/refinement	**Farmers' practice:** Whole day foraging + kitchen waste **Technology 1 to be assessed:** Farmers' practice + inorganic source of Se and Vit. E * **Technology 2 to be assessed:** Farmers' practice + organic source of Se and Vit. E *
4.	Source of Technology	CARI, Izatnagar
5.	Production system and thematic area	Livestock and duck based production system under backyard farming; Nutrition management
6.	Performance of the Technology with performance indicators	Supplementation of bio-chelated Vit. E & Se to deshi layer ducks performed well in term of egg production and size of eggs. Hatchability of eggs was also improved in this group under backyard production system.
7.	Final recommendation for micro level situation	Concerning significantly higher egg production, supplementation of biochelated Se & Vit E may be recommended to deshi duck under this agro climatic situation.
8.	Constraints identified and feedback for research	Measuring of mixture of such amount is sometime difficult to few farmers. Hatchability was also enhanced after supplementation of bio-chelated vit. E and Se.
9.	Process of farmers participation and their reaction	Through training, health camp and group discussion. Non productive ducks become productive after 6 days of supplementation.

Thematic area: Nutrition Management

Problem definition: Non productiveness, small sized egg with poor hatchability in deshi ducks are the main problem among duck raisers of Burdwan district.

Technology assessed: Supplementation of **anti stress mineral and Vitamin** to deshi ducks

Table: Egg production and reproductive performance of different technology options with their economics

Technology Assessed	No. of trials	Yield parameters		Hatchability (artificial incubator) (in %)	Cost of rearing (Rs./duck)	Gross return (Rs./duck)	Net Return (Profit) in (Rs./duck)	B:C Ratio (Gross return : cost)
		*Production per unit egg production/ duck/ 4 month	Wt of egg (g)					
Farmers' practice: Whole day foraging + kitchen waste	**7**	**51.43^{c}**	45.71 ^{c}	**58**	**271**	**334**	**63**	**1.23**
TO1= FP+ inorganic source of Se & Vit E	**7**	**65.00^{b}**	54.43^{b}	**65**	**320**	**422**	**102**	**1.32**
TO2= FP + Organic source of Se & Vit E	**7**	**75.14^{a}**	58.57^{a}	**68**	**330**	**488**	**158**	**1.48**

a b c values with different superscripts in a row differ significantly ($p<0.05$).

Results: The programme was conducted in duck producing villages with the aim of enhancement of egg production and fertility of male duck . Supplementation of organic source of Se & and Vit E improved egg production in deshi duck (75 nos. /4 month) under backyard management practices in compared to inorganic source of Se & Vit. E (65 nos. /4 month). Feeding rate was Selenium = 0.5 ppm and Vit. E = 50 microgram per duck/ day. Hatchability of duck eggs under artificial incubator was increased in supplemented groups.

OFT-6

1.	Title of On farm Trial	**Effectiveness of extension teaching methods in gain and retention of knowledge of SRI**
2.	Problem diagnose	Low gain and retention of knowledge leading to low adoption
3.	Details of technologies selected for assessment/refinement	**Farmers' practice**: Knowledge gain through informal source **TO1:** Lecture + demonstration **TO 2:** Lecture + Field day TO 3: Lecture + Training manual
4.	Source of Technology	-
5.	Production system and thematic area	Training Methods
6.	Performance of the Technology with performance indicators	Knowledge gain and Knowledge retention
7.	Final recommendation for micro level situation	Lecture + demonstration
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Farmers had active participation through lecture demonstration and field day. They interacted with experts and among themselves also. They found lecture followed by demonstration best for teaching.

Thematic area: Training Methods

Problem definition: Low gain and retention of knowledge leading to low adoption

Technology assessed: Knowledge gain and knowledge retension

Table 1. Effectiveness of different extension teaching methods in terms of gain in knowledge by the respondents

Extension teaching methods	Mean knowledge score		Difference (IAT-BT)	Standard deviation	't' value	Rank
	BT	IAT				
TO1	0.00	**21.78**	**21.78**	**11.33**	**2.64****	I
TO2	**0.00**	18.93	18.93	9.85	3.69**	**II**
TO3	**0.00**	17.35	17.35	9.02	6.28**	**III**

BT = **Before Treatment,** IAT = **Immediately After Treatment**
** indicate 1 % level of significance

Table 2. Effectiveness of different extension teaching methods in terms of retention of knowledge by the respondents

Extension teaching methods	Mean knowledge score		Difference (IAT-15 DAT)	Standard deviation	't' value	Rank
	IAT	15 DAT				
TO1	**21.78**	**19.93**	**1.85**	**10.38**	**1.44****	I
TO2	18.93	17.00	1.93	8.76	3.11**	**II**
TO3	17.35	14.00	3.35	7.67	4.37**	**III**

IAT = **Immediately After Treatment,** 15 DAT = **15 Days After Treatment**
**** indicate 1 % level of significance**

Results: The study was taken in Galsi I block of Burdwan District. with a aim to see best extension teaching method in providing knowledge on SRI technology. It was seen and lecture followed by demonstration was the best teaching method in term of knowledge gain and knowledge retension.

OFT-7

1.	Title of On farm Trial	Assessment of preservation techniques for improving shelf life of cauliflower pickle
2.	Problem diagnose	Lack of knowledge on preservation techniques of value added products leading to spoilage
3.	Details of technologies selected for assessment/refinement	**Farmers' practice** (Traditional method using salt, turmeric and chilli powder , onion, garlic and ginger with little amount of mustard oil) **Technology - 1:** FP + use of locally made tamarind pulp solution (50 ml/kg) as a preservative + other ingredients like pepper, cardamom etc. **Technology - 2:** FP + use of Acetic acid @ 20 ml/kg and sodium benzoate @ 0.5 mg/ kg as a chemical preservative + other ingredients like pepper, cardamom etc.
4.	Performance of the Technology with performance indicators	It was found that pickle consisting of spices, salt with adequate amount of mustard oil, acetic acid(@ 20 ml/kg and sodium benzoate @ 0.5 mg/ kg) increased the shelf life of pickle as well as profitability, as evident from organoleptic test, in comparison to others
5.	Constraints identified and feedback for research	Lack of knowledge on preservatives & scarce availability of preservatives in local market; Indigenous techniques of preservation are to be explored
6.	Process of farmers participation and their reaction	Training and awareness; Farm women showed interest

Thematic area: ***Value addition***

Problem definition: Lack of knowledge on preservation techniques of value added products leading to spoilage

Technology assessed: Preservation techniques

Table:

Technology option	No. of trials	Sell Price (Rs/kg)	Cost of Production (Rs.)	Gross return (Rs.)	Net return (Rs.)	BC ratio
FP	7	60	405	420	35	1.04
TO1		130	686	910	224	1.33
TO2		160	770	1120	350	1.45

Organoleptic test (No. of respondents 50):

Tech. options	Hedonic scale rating*					
	Colour		Taste		Odour	
	Dislike (rating 1-4)	Like (rating 6-9)	Dislike (rating 1-4)	Like (rating 6-9)	Dislike (rating 1-4)	Like (rating 6-9)
FP	15	30	17	30	12	30
TO1	2	45	3	46	2	47
TO2	0	50	0	50	0	50

* Hedonic ratings scale:

1	2	3	4	5	6	7	8	9
Dislike extremely	Dislike Very much	Dislike moderately	Dislike slightly	Neither like nor dislike	Like slightly	Like moderately	Like Very much	Like extremely

Results: Spoilage of cauliflower pickle often occurs due to its less shelf life which lead to low return. Nine points hedonic rating scale (1-9) was applied for organoleptic test for data analysis. It was found that pickle consisting of spices, salt with adequate amount of mustard oil, acetic acid(@ 20 ml/kg and sodium benzoate @ 0.5 mg/ kg) increased the shelf life of pickle as well as profitability, as evident from organoleptic test, in comparison to others.

3.2 Achievements of Frontline Demonstrations

A. Details of FLDs implemented during 2013-14

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
				Proposed	Actual	SC/ST	Others	Total	
1.	Jute	Improved variety	JRO 204 Local Chk. JRO 524	5	5	15	20	35	
	Paddy	Improved production technology	SRI	2	2	0	15	15	
2.	Paddy	I.P.M.	Management of Yellow Stem Borer of Rice through Pheromone traps	1.0 ha	1.0 ha	Nil	7	7	
3.	Mustard	Nutrient management	Sulfur nutrition	2	2	0	15	15	
4.	Lentil	Improved variety	WBL 81 Local Chk. B 256	2	2	4	11	15	
5.	Tomato	Improved variety (F1)	Abhilash	4	4	6	9	15	
6.	Banana	Tissue cultured variety	Grand Naine	3.5	3.5	2	7	9	
7.	Banana	Nutritional management	Banana micronutrient formulation prepared by IIHR	1.5	1.5	-	7	7	
8.	Rice bean as fodder	Improved agronomic practices	Improved variety and fertilizer application Var. Bidhan-2	0.2	0.2	-	5	5	
9.	Oat as fodder	Improved agronomic practices	Improved variety and method of sowing Var. Kent	0.5	0.5	-	5	5	
10	Maize	Drudgery reduction for	Shelling maize from dehusked cob using			15	35	50	

		farm women	tubular maize sheller.						
11	Diversified vegetable (cucurbits, brinjal, chilli, tomato, okra, bean and GLV)	Supplementation of diversified vegetables to farm families through kitchen garden	Diversified vegetable (cucurbits, brinjal, chilli, tomato, okra, bean and GLV) + manuring+ Fertilizers			3	4	7	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P_2O_5	K_2O					
Jute	Pre kharif	Irrigated	Sandy loam	210	46	190	Vegetables	April 2 – 10th, 2013	July 20 – 29, 2013		
Paddy	Kharif	Irrigated	Clay loam	230	32	252	Paddy	Aug. 2 -6, 2013	Oct. 24 – Nov 4 2013		
Paddy	Kharif, 2013	Irrigated, medium to up land,	Sandy loam to clay loam	254	38	195	Boro Rice	July 25 – 29, 2013	Oct 17 – 25, 2013		
Mustard	Rabi	Irrigated	loamy	216	29	203	Paddy	Nov. 2 – 10, 2013	Feb. 5 – 12, 2014		
Lentil	Rabi	Irrigated	Loamy	234	52	194	Paddy	Nov. 15 -17, 2013	Feb. 24 - 28, 2014		
Tomato	Rabi	Irrigated	Loam	230	52	210	Vegetables	Oct. 10-21, 2013	Dec. 25, 2013 - Feb.28,2014		
Banana	Year round	Irrigated	Loam	210	50	190	Vegetables	April 24-30, 2013	Jan. 12 – March 5		
Banana	Year round	Irrigated	Loam	220	51	200	Vegetables	April 24-30, 2013	Jan. 12 – March 5		
Rice bean as fodder	Kharif 2013	Rain fed	Clay loam	230 – 315	27 – 45	215 – 320	Vegetables	26.06.13-30.06.13	20.08.13-30.08.13 & 2nd cut		

									28.09.13-30.09.13		
Oat as fodder	Rabi 2013	Irrigated	Sandy loam to clay loam	254	38	195	Amon rice	02.12.13-05.12.13	25.01.14-30.01.14		

In both the Tables, information of same crop should be provided. For example, if in Table 3.2A crops are mentioned as a,b,c,d etc., in the table for Details of farming situation, the same crop should be mentioned in the identical sequence.

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Mustard B-9	Nutrient management	Sulfur nutrition	15	2	11.3	10.5	7.6	22500	38420	15920	1.71	21700	35700	14000	1.65
Total			15	2	11.3	10.5	7.6	22500	38420	15920	1.71	21700	35700	14000	1.65

* 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

Pulses

Frontline demonstration on pulse crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Lentil	Improved variety	WBL 81	15	2	12.5	10.4	20.2	18250	51250	33000	2.81	18500	42640	24140	2.30
	Total		15	2	12.5	10.4	20.2	18250	51250	33000	2.81	18500	42640	24140	2.30

* 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 crops

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Jute	Improved variety	JRO 204	35	5	30.5	26.3	16	1. PL. ht. 360 cm 2. BD. 1.48 cm	PL. ht. 324 cm BD. 1.45 cm	38750	68625	29875	1.77	39125	59175	20050	1.51
Paddy	Improved production technology	SRI	15	2	68.4	55.8	22.6	1. EBT 19.4 2. 1000 gr wt 22.3	1. EBT 13.1 2. 1000 gr wt 22.1	37400	85500	48100	2.29	36300	69750	33450	1.92
Paddy	I.P.M.	Management of YSB of Rice through Pheromone traps	7	1.0 ha	56.25	48.75	15.38	% reduction of white heads :16	% reduction of white heads :11	37125	73687	36562	1.98	35175	63862	28687	1.82
Tomato	Improved variety (F1)	Abhilash	15	4	340	270	25.8	-	-	68700	185000	116300	2.69	61790	131000	69210	2.12
Banana	Tissue cultured plant	Grand Naine	9	3.5	710.90	587.00	22.5	Wt of bunch 35 kg	Wt of bunch 27.7 kg	92000	276000	184000	3.0	85500	195500	110000	2.28
Banana	Nutritional management	Banana micronutrient formulation prepared by IIHR	7	1.5	770.40	700.10	10.04	Wt of bunch 37.8 kg	Wt of bunch 34.8 kg	95000	299000	204000	3.14	92000	271000	179000	2.94
Rice bean as fodder	Improved agronomic practices	Improved variety and fertilizer application Var. Bidhan-2	5	0.2	284	203	39.6	Dry matter 18.25 %	Dry matter 18.10 %	9285	17040	7755	1.84	9062	12204	3142	1.35
Oat as fodder	Improved agronomic practices	Improved variety and method of sowing Var. Kent	5	0.5	417	363	14.87	Dry matter 15.79 %	Dry matter 13.47 %	10820	20850	10030	1.93	11220	18150	6930	1.62
	Total		98	17.7													

Livestock

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
Cow (deshi)	Nutrition management	Region specific mineral supplementation to deshi cow	10	10	Milk yield-436.45 kg/ lactation / cow	Milk yield-315.4 kg/ lactation / cow	38.4	Lactation period-207 days	Lactation period-183 days	6696	11784	5088	1.76	6295	8519	2224	1.35
Cow (deshi)	Nutrition management	Home made feed supplementation to deshi cow	10	10	Milk yield-558.5 kg/ lactation / cow	Milk yield-342.8 kg/ lactation / cow	62.9	Lactation period-210 days	Lactation period-182 days	7725	15080	7355	1.95	6620	9256	2636	1.39
Poultry (RIR)	Breed adaptation	Improved rural poultry breed rearing	10	20 chicks/ unit	Egg production-75/ hen/ 4 month	Egg production-32/ hen/ 4 month	134 (on the basis of 4 month data)	Single Egg wt-47.37 g	Single Egg wt-39.62 g	316/ hen	575/ hen	259/ hen	1.82	276/ hen	310/ hen	34/ hen	1.12
Pigerry	Breed adaptation	Improved prolific breed	5	1/ unit	Growth- 48 kg/ 6 month	Growth -35 kg/ 6 month											
Total			35														

* 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

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	Name of Observations					
Farm Women	Drudgery Reduction : Shelling maize from dehusked cob using tubular maize sheller	50	Check	Demonstration	Check	Demonstration	Check	Demonstration
			Working Heart Rate (Beats/min) during traditional method of using hand	Mean heart Rate (beats/min) during shelling maize using maize sheller	Mean work pulse (beats/min) in traditional method	Mean work pulse (beats/min) using maize sheller	Out put in traditional method of shelling	Out put using maize sheller
			103	89	31	17	14.4 kg cobs/hr	23.8 kg cobs/hr

*Resting heart rate (72 Beats/min)

*** The work pulse value is calculated by subtracting the mean heart rate of subject during work with their mean heart during rest.**

Other women	Supplementation of diversified vegetables to farm families through kitchen garden (cucurbits, brinjal, chilli, tomato, okra, bean cowpea and GLV)+ manuring+ fertilizer Famers practice (only cucurbits without manuring)	7	Avg. Cumulative productivity (q/ha)		Gross Return (Rs./ha)		Gross Cost (Rs./ha)		B:C Ratio	
			Farmers Practices	Technology	Farmers Practices	Technology	Farmers Practices	Technology	Farmers Practices	Technology
			94.2	104.2	107100	183600	51000	68000	2.1	2.7
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

Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
Cereals				Demo	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Bajra										
Maize										
Paddy	PAC 835	5	0.7	Crop is yet to be harvested						
Sorghum										
Wheat										
Others (pl.specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower										
Groundnut										
Soybean										
Others (pl.specify)										
Total										

Pulses										
Greengram										
Blackgram										
Bengalgram										
Redgram										
Others (pl.specify)										
Total										
Vegetable crops										
Bottle gourd										
Capsicum										
Cucumber										
Tomato	Abhilash	15	4	340	270	25.8	68700	185000	116300	2.69
Brinjal										
Okra										
Onion										
Potato										
Field bean										
Others (pl.specify)										
Total										
Commercial crops										
Cotton										
Coconut										
Others (pl.specify)										
Total										
Fodder crops										
Napier (Fodder)										
Maize (Fodder)										
Sorghum (Fodder)										
Others (pl.specify)										
Total										

Technical Feedback on the demonstrated technologies

S. No	Crop	Feed Back
1	Jute	Seed of improved variety have to be made available in accessible market
2	Paddy (SRI)	Location and resource specific modification should be made in existing practice
3	Paddy (IPM)	Cultural and biological control measures should be practiced simultaneously over very wide area
4	Mustard	Responses to different levels of S should be calculated in sulfur deficient areas
5	Lentil	Seed of improved variety have to be made available in accessible market
6	Tomato	Abhilash is a suitable F1 variety for rabi season in Burdwan with high yield potentiality
7	Banana	Tissue cultured banana var. Grand Naine has better yield potentiality with uniformity in fruiting as compared to local ones
8	Banana	Micronutrient formulation prepared by IIHR is effective for yield enhancement in banana
9.	Rice bean as fodder	Ricebean var Bidhan-2 has better yield as compared to local variety and having higher dry matter content
10.	Oat as fodder	This variety is very much suitable for cultivation in paddy- paddy cropping sequence in such agro-climatic situation.

Extension and Training activities under FLD

SL. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	27.09.13, 27.1.14			
2.	Farmers Training				
3.	Media coverage				
4.	Training for extension functionaries				

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

Farmers and farm women (on 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
I. Crop Production													
Weed Management													
Resource Conservation Technologies	1	27	0	27	7	0	7	0	0	0	34	0	34
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management	3	42	3	45	13	2	15	14	1	15	69	6	75
Seed production													
Nursery management													
Integrated Crop Management													
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)													
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													

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
Yield increment													
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising	4	40	42	82	20	21	41	2	1	3	62	64	126
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)	2	32	8	40	16	4	20	0	0	0	48	12	60
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
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)													
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	16	4	20	8	2	10	0	0	0	24	6	30
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													

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
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing	1	24	0	24	10	0	10	2	0	12	36	0	36
Others, if any													
IV. Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products	3	40	20	60	20	10	30	0	0	0	60	30	90
Others, if any Goat farming													
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening													
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care	3	0	15	15	0	30	30	0	30	30	0	75	75
Others, if any													
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	3	57	15	72	15	3	18	0	0	0	72	18	90
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any													
VIII. Fisheries													
Integrated fish farming													

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
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease													
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
IX. Production of Inputs at site													
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													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues	3	27	21	48	22	5	27	13	2	15	62	28	90
Others, if any (Women Legal Rights)	3	0	45	45	0	15	15	0	15	15	0	75	75
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	**27**	**305**	**173**	**478**	**131**	**92**	**223**	**31**	**49**	**90**	**467**	**314**	**781**

Rural Youth (on 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	24	12	36	14	6	20	2	2	4	40	20	60
Bee-keeping													
Integrated farming													
Seed production	3	48	3	51	21	3	24	15	0	15	84	6	90
Production of organic inputs	2	34	2	36	16	2	18	6	0	6	56	4	60
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production	1	11	4	15	4	1	5	0	0	0	15	5	20
Ornamental fisheries													
Enterprise development													
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													
Tailoring and Stitching													
Rural Crafts	1	1	11	12	1	12	13	0	5	5	2	28	30
Others, if any (ICT application in agriculture)	2	16	8	24	6	4	10	4	2	6	26	14	40
TOTAL	**11**	**134**	**40**	**174**	**62**	**28**	**90**	**27**	**9**	**36**	**223**	**77**	**300**

Extension Personnel (on 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													
Value addition													
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	3	75	0	75	15	0	15	0	0	0	90	0	90
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													
TOTAL	**3**	**75**	**0**	**75**	**15**	**0**	**15**	**0**	**0**	**0**	**90**	**0**	**90**

Farmers and farm women (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
I. Crop Production													
Weed Management													
Resource Conservation Technologies	3	40	5	45	27	3	30	13	2	15	80	10	90
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management	1	15	0	15	10	0	10	5	0	5	30	0	30
Fodder production													
Production of organic inputs													
Others, (Seed production)	2	35	0	35	15	0	15	10	0	10	60	0	60
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													
Yield increment													

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
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
Layout and Management of Orchards	3	36	18	54	12	6	18	12	6	18	60	30	90
Cultivation of Fruit	1	20	0	20	10	0	10	0	0	0	30	0	30
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques	3	51	12	63	21	6	27	0	0	0	72	18	90
Others, if any(INM)													
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													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management	5	100	0	100	30	0	30	20	0	20	150	0	150
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops													

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
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
IV. Livestock Production and Management													
Dairy Management	3	32	18	50	23	7	30	5	5	10	60	30	90
Poultry Management	3	20	25	45	25	20	45	0	0	0	45	45	90
Piggery Management	3	0	0	0	16	14	30	14	16	30	30	30	60
Rabbit Management													
Disease Management	3	20	40	60	10	20	30	0	0	0	30	60	90
Feed management													
Production of quality animal products													
Others, if any Goat farming													
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening													
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care	3	0	15	15	0	30	30	0	30	30	0	75	75
Others, if any (Therapeutic nutrition)	2	0	10	10	0	20	20	0	20	20	0	50	50
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	3	57	15	72	15	3	18	0	0	0	72	18	90
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any (Pest management)	4	78	18	96	18	6	24	0	0	0	96	24	120
VIII. Fisheries													
Integrated fish farming													
Carp breeding and hatchery													

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
management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease	2	31	9	40	9	5	14	4	2	6	44	16	60
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn	2	27	9	36	19	3	22	2	0	2	48	12	60
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any (Nutritional requirements of fresh water fishes)	1	17	3	20	5	2	7	2	1	3	24	6	30
IX. Production of Inputs at site													
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													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	**47**	**579**	**197**	**776**	**265**	**145**	**410**	**87**	**82**	**169**	**931**	**424**	**1355**

RURAL YOUTH (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													
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production	3	15	5	20	12	8	20	17	3	20	44	16	60
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	4	60	40	100	15	5	20	0	0	0	75	45	120
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any (Entrepreneurship development)	2	14	2	16	8	2	10	4	0	4	26	4	30
TOTAL	**9**	**89**	**47**	**136**	**35**	**15**	**50**	**21**	**3**	**24**	**145**	**65**	**210**

Extension Personnel (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													
Integrated Pest Management													
Integrated Nutrient management													

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
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													
Women and Child care													
Low cost and nutrient efficient diet designing	3	30	15	45	10	5	15	0	0	0	40	20	60
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
TOTAL	**3**	**30**	**15**	**45**	**10**	**5**	**15**	**0**	**0**	**0**	**40**	**20**	**60**

Consolidated table (ON and OFF Campus)

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
I. Crop Production													
Weed Management													
Resource Conservation Technologies	4	67	5	72	34	3	37	13	2	15	80	10	90
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management	3	42	3	45	13	2	15	14	1	15	69	6	75
Seed production													
Nursery management													
Integrated Crop Management	1	15	0	15	10	0	10	5	0	5	30	0	30
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)	2	35	0	35	15	0	15	10	0	10	60	0	60
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													

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
Off-season vegetables													
Nursery raising	4	40	42	82	20	21	41	2	1	3	62	64	126
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)	2	32	8	40	16	4	20	0	0	0	48	12	60
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
Layout and Management of Orchards	3	36	18	54	12	6	18	12	6	18	60	30	90
Cultivation of Fruit	1	20	0	20	10	0	10	0	0	0	30	0	30
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques	3	51	12	63	21	6	27	0	0	0	72	18	90
Others, if any(INM)													
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	16	4	20	8	2	10	0	0	0	24	6	30
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management	5	100	0	100	30	0	30	20	0	20	150	0	150
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic													

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
inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing	1	24	0	24	10	0	10	2	0	2	36	0	36
Others, if any													
IV. Livestock Production and Management													
Dairy Management	3	32	18	50	23	7	30	5	5	10	60	30	90
Poultry Management	3	20	25	45	25	20	45	0	0	0	45	45	90
Piggery Management	3	0	0	0	16	14	30	14	16	30	30	30	60
Rabbit Management													
Disease Management	3	20	40	60	10	20	30	0	0	0	30	60	90
Feed management													
Production of quality animal products	3	40	20	60	20	10	30	0	0	0	60	30	90
Others, if any Goat farming													
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening													
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care	6	0	30	30	0	60	60	0	60	60	0	150	150
Others, if any (Therapeutic nutrition)	2	0	10	10	0	20	20	0	20	20	0	50	50
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	6	114	30	144	30	6	36	0	0	0	144	36	180
Integrated Disease Management													

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
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any (Pest management)	4	78	18	96	18	6	24	0	0	0	96	24	120
VIII. Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease	2	31	9	40	9	5	14	4	2	6	44	16	60
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn	2	27	9	36	19	3	22	2	0	2	48	12	60
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any (Nutritional requirements of fresh water fishes)	1	17	3	20	5	2	7	2	1	3	24	6	30
IX. Production of Inputs at site													
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													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues	3	27	21	48	22	5	27	13	2	15	62	28	90
Others, if any (Women Legal Rights)	3	0	45	45	0	15	15	0	15	15	0	75	75
XI Agro-forestry													
Production technologies													
Nursery management													

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
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	**74**	**884**	**370**	**1254**	**396**	**237**	**633**	**118**	**131**	**249**	**1398**	**738**	**2136**

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	24	12	36	14	6	20	2	2	4	40	20	60
Bee-keeping													
Integrated farming													
Seed production	3	48	3	51	21	3	24	15	0	15	84	6	90
Production of organic inputs	2	34	2	36	16	2	18	6	0	6	56	4	60
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production	4	26	9	35	16	9	25	17	3	20	59	21	80
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing	4	60	40	100	15	5	20	0	0	0	75	45	120

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
technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts	1	1	11	12	1	12	13	0	5	5	2	28	30
Enterprise development													
Others, if any	4	30	10	40	14	6	20	8	2	10	52	18	70
TOTAL	**20**	**223**	**87**	**310**	**97**	**43**	**140**	**48**	**12**	**60**	**368**	**142**	**510**

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													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
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	3	75	0	75	15	0	15	0	0	0	90	0	90
Livestock feed and fodder production													
Household food security													
Women and Child care													

Low cost and nutrient efficient diet designing	3	30	15	45	10	5	15	0	0	0	40	20	60
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
TOTAL	**6**	**105**	**15**	**120**	**25**	**5**	**30**	**0**	**0**	**0**	**130**	**20**	**150**

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

Date	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
Agronomy	PF	Water management	03	On	69	6	75	27	3	30
	PF	Rice cultivation through SRI	03	Off	80	10	90	40	5	45
	PF	Improved production technology of Jute	01	Off	30	0	30	15	0	15
	PF	Seed treatment and nursery management of kharif paddy	02	Off	60	0	60	25	0	25
	PF	Improved fertilizer management in pulses	02	Off	60		60	30	0	30
	PF	Improved fertilizer management in oilseeds	03	Off	90	0	90	20	0	20
	RY	Vermicompost production at farmers level	03	On	85	5	90	37	2	39
	RY	Paddy seed production technology	03	On	85	5	90	37	2	39
Fishery	PF	Effects of liming in fish ponds	01	Off	22	8	30	7	3	10
	PF	Nutritional requirements of fresh water fishes	01	Off	24	6	30	7	3	10
	PF	Aquatic weeds and algal blooms in fish ponds, their control and utilization	01	Off	22	8	30	6	4	10
	PF	Polyculture of fresh water pron and major carps	02	Off	48	12	60	21	3	24
	RY	Carp breeding and hatchery management	04	Off	75	45	120	15	5	20
Home Science	PF	Women legal rights	03	On	0	75	75	0	30	30
	PF	Women and child care	03	On	0	75	75	0	60	60
	PF	Management of	03	Off	0	75	75	0	60	60

		protein energy for malnutrition of children								
	PF	Therapeutic nutrition	02	Off	0	50	50	0	40	40
	RY	Kantha stitch preparation	07	On	196	14	210	119	7	126
	EF	Development of low cost nutritious food	03	Off	40	20	60	10	5	15
Horticulture	PF	Nursery management in vegetable crops	03	On	30	60	90	10	20	30
	PF	Improved production technology of potato	01	On	24	6	30	8	2	10
	PF	Production technology of cole crops in green house	02	On	48	12	60	16	4	20
	PF	Layout and Management of Orchards	03	Off	60	30	90	24	12	36
	PF	Improved production technology of TCB	01	Off	30	0	30	10	0	10
	PF	Plant propagation techniques of sub-tropical fruit crops	03	Off	72	18	90	21	6	27
Plant Protection	PF	Integrated Pest Management (IPM) in rice	03	On	72	18	90	15	3	18
	PF	Integrated Pest Management (IPM) in rice	03	Off	72	18	90	15	3	18
	PF	Pest management in mustard	02	Off	48	12	60	9	3	12
	PF	Pest management in tomato	02	Off	48	12	60	9	3	12
	RY	Mushroom cultivation	05	On	100	50	150	40	20	60
Animal Husbandry	PF	Cultivation technique of Rice bean	03	On	60	30	90	20	10	30
	PF	Home made cattle feed preparation	03	Off	60	30	90	28	12	40
	PF	Care & handling of day old chicks	03	Off	45	45	90	25	20	45
	PF	Animal shed disinfection	03	Off	30	60	90	10	20	30
	PF	Rearing of pig in low inputs system	03	Off	30	30	60	30	30	60
	RY	Broiler farming	07	On	105	35	140	28	7	35
	RY	Duck rearing	03	Off	44	16	60	29	11	40
	EF	Artificial insemination	03	On	90	0	90	15	0	15
Agril. Extension	PF	WTO and IPR issues in agriculture	03	On	62	28	90	35	7	42

	RY	ICT application in agriculture	03	On	40	20	60	16	8	24
	RY	Entrepreneurship development	07	Off	91	14	105	42	7	49

(D) Vocational training programmes for Rural Youth

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
				Male	Female	Total	Type of units	Number of units	Number of persons employed	
Entrepreneurs	Entrepreneurship development	Vocational training on entrepreneurship development	7	00	105	105				
Mushroom	Entrepreneurship development	Vocational training on mushroom cultivation	5	150	00	150				
Broiler	Entrepreneurship development	Broiler farming	7	140	00	140	Individuals			
Kantha stitch	Entrepreneurship development	Vocational training on Kantha stitch preparation	7	0	210	210				

*training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes

Sl. No	Title	Thematic area	Month	Duration (days)	Client	No. of courses	**No. of Participants**									Sponsoring Agency
					PF/RY/EF		Male			Female			Total			
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1.	Need for soil testing and soil test based fertilizer application	Soil and Water Testing	March, 2014	1	PF	1	24	8	4	0	0	0	24	8	4	36	**Mahindra**
2.	Nursery management in vegetable crops	Nursery raising	March, 2014	1	PF	1	20	8	4	2	1	1	22	9	5	36	**Mahindra**
3.	Vermicompost production at farmers level	Production of organic inputs	March, 2014	1	RY	1	21	8	3	0	0	0	21	8	3	32	**UPL**
4	Rice cultivation through SRI	Resource Conservation Technologies	March, 2014	1	PF	1	27	5	2	0	0	0	27	5	2	34	**CLAAS**

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

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	7	144	90	234	38	2	40	182	92	274
Kisan Mela										
Kisan Ghosthi										
Exhibition	02	2400	700	3100	60	10	70	2460	710	3170
Film Show	20	710	180	890	30	00	30	740	180	920
Method Demonstrations	03	85	10	95	07	03	10	92	13	105
Farmers Seminar	05	100	20	120	25	05	30	125	25	150
Workshop										
Group meetings										
Lectures delivered as resource persons	14	630	50	680	00	00	00	630	50	680
Advisory Services	450	465	40	505	00	00	00	465	40	505
Scientific visit to farmers field	130	900	190	1090	00	00	00	900	190	1090
Farmers visit to KVK	210	2550	510	3060	00	00	00	210	2550	510
Diagnostic visits	60	40	20	60	00	00	00	60	20	60
Exposure visits	4	50	10	60	00	00	00	50	10	60
Ex-trainees Sammelan										
Soil health Camp	4	140	00	140	20	00	20	160	00	160
Animal Health Camp	13	550	230	780 families	00	00	00	550	230	780 families
Agri mobile clinic	20	600	50	650	00	00	00	600	50	650
Soil test campaigns	4	150	0	150	00	00	00	150	0	150
Farm Science Club Conveners meet	12	125	15	140	15	00	15	140	15	155
Self Help Group Conveners meetings	06	40	110	150	00	00	00	40	110	150
Mahila Mandals Conveners meetings	4	00	45	45	00	00	00	00	45	45
Celebration of important days (Republic Day, Independence Day, World Vet. Day)	3	130	70	200	00	00	00	130	70	200
Any Other (Specify)										
Total	971	9809	2340	11369	195	20	215	7684	4400	9034

B. Other Extension activities

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Newspaper coverage	11									
Radio talks	1									
TV talks	3									
Popular articles										
Extension Literature	4	400	50	450	00	00	00	400	40	450
	19	400	50	450	00	00	00	400	40	450

3.5 Production and supply of Technological products

Village seed

Crop	variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Total				

KVK farm

Crop	variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Paddy	MTU 7029	240 qtl	700000	Yet to be sold
Grand Total	MTU 7029	240 qtl	700000	

Production of planting materials by the KVKs

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Vegetable seedlings				
Cauliflower	Trisha	5000	-	10
Cabbage				
Tomato	Abhilash	40000	For demonstration	40
Brinjal	Bhangar	10000	-	7
Chilli				
Onion				
Others				
Fruits				
Mango				
Guava				
Lime				
Papaya				
Banana				
Others				
Ornamental plants				
Medicinal and Aromatic				
Plantation				
Spices				
Turmeric				
Tuber				
Elephant yams				
Fodder crop saplings				
Forest Species				
Others, pl.specify				

Total				

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents	Vermicompost	2 tonnes	--	--
Others				
Total				

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Goat	Bengal goat	4800 kg live weight	8800	8
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Grand Total				

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

Item	Title	Authors name	Number	Circulation
Research paper	Validation of ancient liquid organics -Panchagavya and Kunapajala as plant growth promoters	S.Sarkar, S.S.Kundu, D.Ghorai		
	Productivity in relation to temperature and transparency in the euphotic zone of selected tropical freshwater floodplain wetlands of west Bengal	G. Ziauddin, A. K. Jaiswar, S. K. Chakraborty and Utpal Bhaumik		
Seminar/conference/	Potassium nutrition in a jute-	D.Ghorai,		

symposia papers	rice-wheat intense cropping system in an alluvial soil in West Bengal - Some food for thought? Sustainable rural livelihood security of SHG household in disadvantaged district: Assessing impact of Microfinance.	M.N.Saha, H.S.Sen S. S. Patil K. D. Kokate M. S. Singh		
Books				
Bulletins	Location Specific Changes in SRI : Towards Augmented Paddy Productivity and holistic dissemination in West Bengal	D.Ghorai, S.S.Kundu, S.Sarkar, F.H.Rahman	100	46
News letter				
Popular Articles				
Book Chapter	Living Out of Ganga: A Traditional Yet Imperiled Livelihood on Bamboo Post Harvest Processing and Emerging Problems of Ganga	D.Ghorai, H.S.Sen		
Extension Pamphlets/ literature	Nutrition and its importance in health	P. Saikia, S. Garai, D. Ghorai and M.S. Singh	210	190
	Diseases of fish and its control measures	G. Ziauddin	120	100
	Pig production with low inputs	**C. Jana**	240	240
	Integrated pest management of rice	**S. S. Kundu and D. Ghorai**	200	200
Technical reports				
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:

S. No.	Name of Programme	Name of KVK personnel and designation	Date and Duration	Organized by
1.	First International Conference on Bio-Resource and Stress Management	Dr. Subrata Sarkar SMS (Horciculture)	February 6 -9, 2013	Ratikanta Maiti Foundation,
2.	27th Annual Workshop of AINP on Jute and Allied Fibres	Dr. Dipankar Ghorai I/c Programme Coordinator	February 10 – 11, 2013	CRIJAF, Barrackpore
3.	Training on OFT Design for Social Science	Dr Monica Suresh Sing SMS (Agril. Extn.) Ms. Poli Saikia SMS (Home Sc.)	February 11, 2013	Directorate of Extension Education, BCKV, Mohanpur
4.	Training on Evaluation of Training	Dr Monica Suresh Sing SMS (Agril. Extn.) Ms. Poli Saikia SMS (Home Sc.)	February 12, 2013	Directorate of Extension Education, BCKV, Mohanpur
5.	Workshop on "Training Need Assessment"	Mr. S. S. Kundu Farm Manager/T-5 Mr. Sandipan Garai Prog, Asstt./T-5	March 2, 2013	Directorate of Extension Education, BCKV, Mohanpur
6.	Training course on	Ms. Poli Saikia	November 6 -13, 2013	Directorate of Research

	"Promotional issues of women in Agriculture for Farm Mechanization and further steps to reduce their drudgery with increased output"	SMS (Home Sc.)		on Women in Agriculture (ICAR), Bhubaneswar
7.	National Seminar on Sustaining Soil Health in Ensuring Food Security	Dr. Dipankar Ghorai I/c Programme Coordinator	November 21-22, 2013	NIRJAFT, Kolkata
8.	National Symposium & Satellite Seminar on Veterinary Pathology Congress-2013	Dr. Chandrakanta Jana SMS (AH&VS)	November 21-23, 2013	Department of Veterinary Pathology, CVSc & AH, OUAT, Bhubaneswar
9.	Third International Conference on Extension Educational Strategies for Sustainable Agricultural Development – A Global Perspective	Dr. Monica Suresh Singh SMS (Agril. Extn.)	December 5 – 8, 2013	International Society of Extension(INSEE), Nagpur University of Agricultural Sciences, Bangalore
10.	Training on "Revision of SREP"	Dr. Monica Suresh Singh SMS (Agril. Extn.)	December 9 – 13, 2013	Directorate of Agriculture, Govt. of W.B. at SAMETI, Narendrapur
11.	Training programme under NIFTD	Dr. Chandrakanta Jana SMS (AH&VS)	December 19-20, 2013	BCKV, Moanpur, Nadia
12.	Workshop on Enhancing the outreach of the KVKs	Dr. Dipankar Ghorai I/c Programme Coordinator	January 14, 2014	BCKV, Moanpur, Nadia
13.	Workshop on Technology Back stopping	Dr. Chandrakanta Jana SMS (AH&VS)	January 16-17, 2014	BCKV, Moanpur, Nadia
14.	Workshop on Managements of Information for efficient functioning of KVKs	Sk. Golam Rasul Prog. Asstt. (Computer)/T-5	January 29-30, 2014	BCKV, Moanpur, Nadia
15.	International Symposium on Potassium Nutrition and Crop Quality	Dr. Dipankar Ghorai I/c Programme Coordinator	March 4 – 5, 2014	International Potash Institute (IPI), Horgen, Switzerland & Birsa Agricultural University, Ranchi, Jharkhand, India
16.	Workshop on NIFTD	Dr. Chandrakanta Jana SMS (AH&VS)	March 7, 2014	Zonal Project Directorate, Zone-II

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

1. Livelihood security of tribal family through improved animal husbandry practices

Most of the tribal families in this district are resource poor, engaged as agriculture labour on seasonal basis. Using their leisure time, they maintained few livestock and poultry of non descriptive breeds with traditional system of management. One tribal family from Palashboni village of Kanksa block near the vicinity of Durgapur city came to KVK for technological guidance to establish a broiler farm. KVK Burdwan provided long tem training on broiler farming to Debu Hembram of 35 yrs old and Sanatan Hembram of 32 year old tribal youths in the year 2012. After that, this centre guided them in the area of low cost shed construction, feed management, day to day care and health care as well as selling of produces. They started broiler farm with a rearing capacity of 2000 chicks per batch. They followed proper brooding operation, feeding practices, vaccination schedule, shed disinfection and bio security measures. They achieved better growth rate of broiler and reduced mortality rate up to 10% with KVK's interventions. Such kind of interventions helped them to generate net income of Rs. 72,000/- to Rs.75,000/- per annum. With this support, they are able to make expenditure for studying their sister in graduate level and their sons in class IV standard, apart from maintenance of their family.

After that they also diversified their farm activities by establishing a piggery unit using low inputs in the year 2013. They were trained on different aspects of pig production like low cost shed construction, feeding practices, piglet management, and health care. They made pig shed using bamboo, paddy straw etc. Seven piglets of Ghungroo breed were introduced at the age of 2- 3 month

old on August 2013 by the KVK. They also met nutrition demand of the 7 pigs of Ghungroo breed by using locally available cheap feed like hotel waste, hostel refuges, vegetable refuges from *Sabji Mandi* and mineral mixture. So far, Mr. Hembram received 31 piglets from 3 sows in first furrow in previous month and 2 sows are near to furrow. Adult boars (male pig) are weighing near about 75 kg in 8 month old age. Expected income from pig is about Rs. 120000.00 in this year. Mr. Debu Hembram was identified and felicitated by ICAR research complex, eastern regional during their Technology Showcasing programme. Now it was disseminated through field day among the community and their farm was used as model for tribal rural youths for improving livelihood security of their families.

Low cost broiler shed

Training of tribal youths on broiler farming conducted by KVK

Diagnostic field visit to pig farm by KVK officials

Felicitation of successful farmers during technology showcasing of ICAR institute

Dissemination of production technology in field day

Piglet production by successful farmer for further multiplication

2. Low cost hatchery for producing quality fish seed : CHANDRA HATCHERY

A special technique adopted in his own method of stripping within the water body for enhancement of the spawn production diminishing the injury of fishes. Technology has been modified in the area of breeding operation of fishes by transforming the spawning pool - cum – hatching pool is developed by converting into a Bundh-cum-hatching pool. As a result, reduces the huge water requirement and electricity consumption. So the input cost is reduced or minimized. Simultaneously, the space requirement is also reduced. Number of labour required is minimized during breeding operation which resulting low cost of operation.

The following facilities can be obtained through the aforesaid modification:
The fittings of gadgets required for the transformation during Bundh-cum-hatching pool becomes very easy. Spawn production is enhanced three times than the conventional Chinese hatcheries. Mortality of spawn is minimized to 2-3 % where as in conventional Chinese hatcheries the mortality rate 15-20 %. Holding capacity of Chinese hatcheries is 240 ltr per 4 cubic metre where as in my hatchery (Bundh –cum-hatching pool) is 500 – 600 litres per 4 cubic metres. The hatching success is enhanced 95 – 98 % in Bundh –Cum-Hatching pool where as it is 80-85 % in conventional Chinese hatcheries.
The "Chandra hatchery" was set up at the premises of Susanta Bowal son of Late Nimai Chandra Bowal (reputed fish farmer), DVC para, and post: Memari named as "Bowal Fish Hatchery". Owner Sri Susanta Bowal and other fish farmers and research scholars are getting the following facilities: obtaining the fish spawn production, training on fish breeding & hatchery management from this model of Chandra hatchery.
He was awarded patents for Three-in-One Fish Reproductive Chamber in the year 29.09.1986.
He also applied another patient for Chandra Bundh-cum-Hatching Pool (Chandra Hatchery) – An improved modified integrated Fish Hatchery or "Chandra Hatchery" Bundh-cum-Hatching Pool granted a patient application no. 1281/Kol/2009. it is still under process.

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

1. One methodology that was used by KVK was National Farmers' Portal and Kisan Mobile Advisory Service. Though this tools were not developed by KVK, they were regularly used for providing advisory to farmers of this region regarding weather information, crop and other informations. As a result of which operational area of this KVK has increased by some margin.

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
1.	Goat	Lanka suti	Diarrhea control

3.10 Indicate the specific training need analysis tools/methodology followed by the KVK

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

Sl. No	Name of the Equipment	Qty.
1.	Flame photometer	One
2.	Spectrophotometer	One
3.	Shaker	One
4.	Hot air oven	One
5.	Hot plate	One
6.	Glass distillation unit	One
7.	Conductivity bridge	One
8.	pH meter	One
9.	Electronic balance	Two
10.	Grinder	One
11.	Kjeldahl N analyser	One
12.	Atomic absorption spectrophotometer	One

3.11.b. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
FLD field samples	82	65	6	--
OFT field samples	25	5	1	
Farmers field samples	468	385	27	
Total	575	355	34	

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	Visit by the officials

3.13 Technology week celebration

Type of activities	No. of activities	Number of participants	Related crop/livestock technology
Farmers training	8	300	
Live demonstration	6		
TV show	2		
Self help group meeting	4	100	
Farmer-Scientist interaction	2	100	

3.14. RAWE programme - is KVK involved?

No. this KVK is not involved

3.15. List of VIP visitors including the officials of ZPD and DEE

Sl. No.	Name of dignitaries	Designation	Date of visit
1	Mr. Malay Ghatak	Minster In-Charge, Agril., Govt. of West Bengal	10.02.2013
2	Mr. Swapan Debnath	Minster of State, M.&S.S.E., Govt. of West Bengal	10.02.2013
3	Dr. Saumen Mahapatra	Minster In-Charge, Govt. of West Bengal	09.02.2013
4	Mr. Sanjay Mitra	Chief Secretary, Govt. of West Bengal	09.02.2013
5	Mr. Banamali Hazra	MLA & Chairman, Agril. Marketing and Fisheries Standing Committee	14.02.2014
6	Mr. Tapan Chatterjee	MLA, Purbasthali Uttar	19.02.2014
7	Mr. Sunil Mandal	MLA, Galsi	24.02.2014
8	Prof. Biswapati Mandal	Pro-VC, BCKV, Mohanpur	19.02.2014
9	Dr. A. K. Singh	ZPD, Zone-II	11.11.2013
10	Mr. Jogendra Kumar	Director, RSFP&D, Kalyani	27.04.2013 19.08.2013
11	Mr. L. K. Pingle	Former GM, NABARD, Mumbai	02.05.2013
12	Mr. Debashish Sarkar	Addl. S.P. (HQ), Burdwan	10.02.2013
13	Ms. Ayesha Rani	S.D.O., Durgapur	10.02.2013
14	Dr. T. K. Dutta	Head, ERS, NDRI, Kalyani	13.08.2013
15	Dr. Keshava	Pr. Scientist, ZPD, Zone-I, Ludhiana	11.06.2013
16	Dr. Shyamal Naskar	Pr. Scientist, ERS, IVRI, Kolkata	13.08.2013
17	Dr. Subhasish Bandopadhyay	Pr. Scientist, ERS, IVRI, Kolkata	13.08.2013 28.09.2013
18	Dr. A. K. Das	Pr. Scientist, CIFRI, Barrackpore	26.02.2014
19	Dr. Anupam Chatterjee	Sr. Scientist, ERS, NDRI, Kalyani	13.08.2013
20	Dr. P. Dandapat	Sr. Scientist, ERS, IVRI, Kolkata	13.08.2013
21	Dr. Ajoy Mandal	Sr. Scientist, ERS, NDRI, Kalyani	13.08.2013
22	Dr. M. Mondal	Sr. Scientist, ERS, NDRI, Kalyani	13.08.2013
23	Dr. F. H. Rahman	Sr. Scientist, ZPD, Zone-II, Kolkata	18.01.2014
24	Dr. Saon Banerjee	Associate Prof. & OIC, AICRP on Agro-meteorology, BCKV, Kalyani	23.08.2013
25	Dr. Madhab ch. Dhara	Agronomist, RRS, Chinsurah, Hooghly	15.02.2013
26	Dr. Supriyo Ghatak	Asstt. Director of Agriculture (Plant Protection), Burdwan	24.01.2014
27	Dr. Deb Kumar Sarkar	Asstt. Director of Agriculture (Subject Matter), Durgapur Sub-Division	24.01.2014
28	Mr. Mohanlal Kumar	Asstt. Director of Agriculture (Admn.), Burdwan Sadar Sub-Division	24.01.2014
29	Dr. A.K. Mandal	Asstt. Director of Agriculture (S&R), H/Q and Nodal Officer, FFP, W.B.	14.02.2014
30	Mr. Samir Kr. Ghosh	Asstt. Director of Agriculture (Seed Certification), Burdwan and Dy. Director of Agriculture (World Bank Project), Purulia	28.02.2014
31	Dr. K. C. Sharma	BIRD, Lucknow	27.02.2014

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)
Paddy productivity augmentation through SRI	50	92	4000/bigha	8000/bigha
Introduction of cultivation of jute in new areas	48	80	-	16000/ha
Cultivation of Oyster mushroom in new areas	30	75	-	1000/month
Preparation of kantha stitch	30	80	-	3500/month
Introduction of Khaki Campbell duck	25	80	-	300/month

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
Seed treatment for crops	Farmers in this region were not used to treat seeds of different crops while sowing before KVK intervention. After intervention of KVK, not only the farmers in the adopted village but farmers in the adjoining villages as well are now practicing seed treatment for crops like paddy, jute, pulses, potato etc. The technology has spread to as much as 18 blocks of the district.

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

Impacts of the different efforts by the KVK during 2013-14 which are hereunder:

1. Replacement of older varieties of the crops like jute, Mustard etc by Improved varieties of JBO 2003H, JRO 8432, JRO 204 and WBBN1 respectively
2. System of Rice Intensification – better yield, less labour & cost effective - Wide coverage of SRI technology
3. Integrated Farming System– More return from per unit land -Widespread dissemination of Integrated Farming System approach
4. Region specific mineral mixture - Improved milk yield, fat % and reproductive performance and better performance of *Deshi cow* through supplementation of this - Widespread dissemination of this technology
5. Seed replacement rate enhanced and Seed treatment of different crops has been come in practice
6. Use of biofertilizer and biopesticide has been increased
7. Crop diversification i.e. introduction of jute, vegetables in the cropping system
8. Cultivation of off season vegetable – came into practice
9. Soil test based fertilizer application – came into practice
10. Preparation of Jute handicraft – Six of the trainees (Five female and one male) are generating income through handicraft preparation
11. Preparation of Kantha Stitch - Five of the trainees (female) are supplementing family income

12. Vermicompost production – Eight village level production units have been formed
13. Mushroom cultivation – Twenty village level production units have been formed for domestic consumption
14. Self help group – Fifty four (54) SHGs have been formed and actively working in collaboration with KVK and NABARD
15. Seed Village Programme initiated in different blocks of Burdwan which covers around 300 ha area under paddy seed cultivation.

4.4 Details of innovations recorded by the KVK

Thematic area	Hatchery
Name of the Innovation	CHANDRA HATCHERY
Details of Innovator	Chandra Narayan Bairagya Village: Khano Block Memari-I
Back ground of innovation	In view of the enhanced cost of operation and hatchling mortality, the present innovation was made.
Technology details	In stead of two pools as required in the conventional Chinese hatchery, which apart from enhancing cost is a bit difficult to operate, Mr. Bairagya has innovated a one chambered Bundh-cum-Hatching pool with modified water circulatory system.
Practical utility of innovation	The modified hatchery is easy to operate, suitable for small farmers and diminishes hatchling mortality as well.

4.5 Details of entrepreneurship development

Entrepreneurship 1

Entrepreneurship development	
Name of the enterprise	Vermiculture
Name & complete address of the entrepreneur	Chowdhury Amirul Haque, Jagulipara Block: Galsi-I
Intervention of KVK with quantitative data support:	In view of the deteriorating soil quality, application of good quality organic matter is the need of the hour. KVK intervened through hand on training on vermicompost production in the adopted villages. The above mentioned farmer has developed one vermicompost unit in his backyard with a capacity of roundabout 3 tonne. The vermicompost he produces is being used in his farm of about 3 ha. Apart from this he has developed expertise in vermiculture as well. He regularly sell the earthworm to various public ad private bodies, like NABARD; dept. of agriculture, Burdwan; NGOs whereby he earns substantial additional income to run the enterprise profitably.
Time line of the entrepreneurship development	2008: Obtained training from KVK. Got exposure to some profitable vermicompost production agencies. 2009: Constructed one vermicompost unit with subsidized funding from RKVY through KVK. 2012: Apart from regularly using vermicompost produced in his fields, got expertise in vermiculture. 2013: Generates an additional income in the range of 4200 -8600/month from selling of earthworms. 2014: He is being regularly hired by various private and public bodies as expert in the field.
Technical Components of the Enterprise	--
Status of entrepreneur before and after the enterprise	Generates an additional income in the range of 4200 -8600/month from selling of earthworms, apart from the remuneration received as expert to different fora.
Present working condition of enterprise in terms of raw materials availability, labour	The enterprise is extremely viable economically.

availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	
Horizontal spread of enterprise	Following his suite, 14 other rural youths in 5 villages under KVK operational area have started vermiculture.

Entrepreneurship 2

Entrepreneurship development	
Name of the enterprise	Kantha stitch
Name & complete address of the entrepreneur	Aminara Bagam Atapara, Galsi – I Burdwan
Intervention of KVK with quantitative data support:	KVK imparted 7 days training on preparing various kantha stitch. Also KVK has tried to explosure various selling channels for marketing her products. KVK also helped her for procuring loan from bank.
Time line of the entrepreneurship development	She got training in September, 2013. After that she motivated 5 more girls to work for her. In December she started to prepare various katha stich products like kurta, saree, purses etc.
Technical Components of the Enterprise	The enterprise is household enterprise where self labour is the critical input.
Status of entrepreneur before and after the enterprise	As the enterprise is in initial stage she gets a net profit of 2-3 thousand rupees every month. Before then her primary source of family income was from farming which her husband it. She herself didn't contribute to family income.
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	The business is gradually growing. She gets her raw materials from bolpur which is nearby Burdwan and is very famous for Kantha Stitch. She has employed five local girls to work for her. Sanjoy Kantha Stich from Brahamandihi (Bhedia) purchase her finished products. KVK also herped her to sell her product in Mati Utsav-14 and Technology Week-14 by keeping it in KVKs stall
Horizontal spread of enterprise	No horizontal spread till now

4.6 Any other initiative taken by the KVK

A. Observation of World Veterinary Day at CRIJAF-KVK

World Veterinary Day was observed by the KVK of Central Research Institute for Jute and Allied Fibres (ICAR) at Bud Bud, Burwdan on last Saturday of April 2013 i.e. on April 27, 2013. the theme of the World Veterinary Day for this year was "**Vaccination to prevent and protect".** On this occasion, an animal health-cum-awareness camp was organized at Bud Bud, Nurkona and Khanpara villages of Galsi-I block. In this camp, 482 goats were vaccinated against Peste Des Petits Ruminants (PPR). The camp covered 130 farm families. A session was organized on **"Fodder Production and Animal Health"** at KVK campus which was attended by sixty farmers and farm women. This session was chaired by Dr. Yogendra Kumar, Director, Regional Station for Forage Production and Demonstration, Ministry of Agriculture, Kalyani and Dr. Chandrakanta Jana, SMS (A.H. & V. S.).

In the introductory speech, Dr. Jana emphasized on Animal Health through vaccination and fodder production. Following this Dr. Kumar expressed his view on forage seed production and

various schemes regarding forage seed production. Dr. Subrata Sarkar, SMS (Horticulture) pointed out that change cropping pattern with fodder crop restore soil health. Later Mr. S. Sarkar, RSFPD, talked about different types of fodder. He showed photographs of many fodder crops which made identification of crops easy for the farmers and also talked about cultivation practices regarding different types of fodder. In addition to this a film on "Animal Health Care and Vaccination" was shown to the farmers. Fodder seed of maize, cow pea and coix were distributed to the farmers. The session ended with a vote of thanks given by Dr. Monica Suresh Singh, SMS (Agril. Extn.).

B. Animal Health Camp cum Farmers Scientist interaction at Jagulipara, Galsi-1 block in collaboration with NDRI & IVRI

Bud Bud, 13th Aug, 2013: Krishi Vigyan Kendra Burdwan of Central Research Institute for Jute and Allied Fibres (ICAR), Bud Bud organized an animal vaccination camp-cum-Farmers Scientist interaction at Jaguliapa and Atpara villages of Galsi-I block of Burdwan in collaboration with Indian Veterinary Research Institute, Kolkata and National Dairy Research Institute, Kalyani. In this camp 405 nos. of goats were vaccinated against PPR. Peste Des Petits Ruminants (PPR) is a very devastating disease of goat and sheep causing huge economic losses to the country. To prevent such losses and to protect goats vaccination is the most economic tool for sustainable goat production in rural areas. In this programme, 100 families bring their goat for vaccination. Another health camp on management of infertility of cattle was conducted at Atpara where 165 cattle were brought for treatment and mineral mixture dewarming medicine were provided to the farmers. The camp was conducted by Dr. Chandrakanta Jana, SMS (A.H. & V.S.), KVK Burdwan.

After end of the camp, a farmers-scientist interaction was conducted at Jagulipara village with participation of 30 nos. of farmers. In this session distinguished scientists from NDRI and IVRI delivered speech in response to farmers' burning problem like management of infertility of cow, importance of vaccination, fodder cultivation and low cost feed formulation for dairy cattle. Dr. Tapas Kumar Dutta, Head NDRI told dewarming, mineral supplementation is the way to check infertility in dairy animal. Dr. Shyamol Naskar, Principal Scientist remark that feeding of fodder and improved housing can improve the health and productivity of cow. Dr. Chandrakanta Jana, SMS (A.H. & V. S.) emphasized on regular vaccination of livestock and poultry to reduce disease problems and economic losses. The session was concluded by distributing the cutting of hybrid napier, seeds of cow pea (var. Bundel-2) and rice bean (var. Bidhan-2) to the farmers for strengthening fodder production at farmers level. The programme was covered by E-TV Bangla for broadcasting in Annodata Programme.

C. National Nutrition Week observed at KVK Burdwan, West Bengal

National Nutrition week, 1-7 September was observed in its campus. This innovative initiation was taken to address the problem of malnutrition or under nutrition among children and farm women of our society as well as to make aware about the food value of the different vegetables, pulse, fruits, milk, meat and cereals available in the market. For these purpose workers of different Anganwadi centres of Galsi –I, Accredited Social Health Activists (ASHA), school children and farm women from nearby villages were being sensitized. In this occasion preparation of a low cost children food had been demonstrated using locally available food ingredients like wheat, gram, black gram and leafy vegetables. Rice based weaning food preparation and other cheap nutritional recipes using locally available resources were also demonstrated during the seven days of awareness programme.

5.0 LINKAGES

5.1 Functional linkage with different organizations

Sl. No.	Name of organization	Nature of linkage
1.	Deptt. Of Agril., GOWB, Burdwan	Training, RKVY
2.	Deptt. Of Horti., GOWB, Burdwan	RKVY, Training
3.	Deptt. Of A.R.D., GOWB, Burdwan	Training, Vaccination camp, Supply of chicks, ducklings
4.	Deptt. Of Fishery., GOWB, Burdwan	Training
5.	ATMA, Burdwan	Training, exposure visit
6.	MGNREGS, Burdwan	Convergence programme with KVK, Integrated Farming System (IFS) model
7.	Regional Station for Forage Production & Demonstration, MoAg., GOI, Kalyani	Training.
8.	IIT, Kharagpur	Exposure visit & Training
9.	BCKV, Mohanpur, Nadia	Technological support, exposure visit & training
10.	Visva-Bharati, Santiniketan	Training
11.	WBUAFS, Kolkata	Training
12.	Directorate of Research on Women in Agriculture, Odisha	Training
13.	ANGRAU, Hyderabad	Breeder seed collection
14.	CIFA Reg. Centre (ICAR), Rahara	Training
15.	CIFA Reg. Centre (ICAR), Kalyani	Exposure visit & Training
16.	Vivekananda Institute of Biotechnology, Nimpith, South 24 Paraganas.	Training
17.	State Agricultural Management and Extension Training Institute (*SAMETI*), Narendrapur, Kolkata	Training
18.	ERS-IVRI, Kolkata	Training, Animal health camp, Disease reporting, sample diagnosis

19.	ERS NDRI, Kalyani	Exposure visit, Joint FLD, fodder seed collection, infertility camp.
20.	Indian Society of Agribusiness Professionals (ISAP), Asansol	Imparted training, technology support to the society
21.	ATMA, Katihar, Bihar	Exposure visit & Training
22.	Indian Agriculture Research Institute, New Delhi	Collaborative programme on scented rice production, Impact analysis, Institure- psot office linkage
23.	IGFRI, Jhansi	NIFTD programme, fodder seed collection
24.	CIFRI, Barrackpore	Technology support, expert sharing etc.
25.	IIHR, Bangalore	Collection of micro nutrient formulation for banana.
26.	CIAE, Bhopal	Collection of maize Sheller for FLD on drudgery reduction
27.	NGOs like Men at Work, Ujjiban, SSSNS, Meghdhoot Welfare Society, Sonar Bangla Farmers' Club, Birbhum Malrampur Krishak Kalyan Sansthan	Training, collaborative programme

5.2. List special programmes undertaken during 2013-14 by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./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.)
MGNREGA	Creation of rainwater harvesting structures	April, 2013	Govt. of West Bengal	6.50 lakh in terms of labour wages

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

Total				
Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Technology Week	Mass awareness and exposure to technologies in agriculture and allied fields	Feb. – March, 2014	NABARD	74500.00
Awareness camp on PPV&FR	Mass awareness among practicing farmers about their rights regarding protection of plant varieties	Feb. 2014	PPV&FR Authority, DAC, New Delhi	80000.00
Exposure visit	Farmers awareness	Nov. 2013	ATMA, Katihar	30000.00
Farmers' Training	Skill development	Feb. 2014	Mahindra,	13000.00
	Skill development	Feb. 2014	CLAAS	10000.00

	Skill development	March, 2014	UPL	10000.00

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/breed	Produce	Qty.	Cost of inputs	Gross income	
1.	Greenhouse	2009	1008	Off season Cowpea (var. Kashi Kanchan)	Beans	375 kg	2000	6700	
	Total					375 kg	2000	6700	

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	15.07.13	22.11.13	5.5	MTU 7029	Seed	240	400000	700000	Yet to be sold
Tissue culture banana	20.05.2012	9.6.13-8.08.13	0.1	Grand Naine	Fruits	109 nos. of bunches	6000	20165	

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.	Vermicompost	2 tonnes	10000.00	--	Used in KVK farm land for production of seed, seedlings, banana etc.

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.	Goat	Bengal goat	Kids	Live wt of 43 kg	3000	8800	Stock maintaining

6.5 Utilization of hostel facilities

Accommodation available (No. of beds) : 20

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
October, 2013	17	03	
Total :			

(For whole of the year)

6.6 Utilization of staff quarters

Whether staff quarters has been completed: Completed
No. of staff quarters: 06 nos.
Handover of quarter on 31.01.2013 and completion of road and electrical work on 31.03.13

Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI
From April 2013 onwards	All staff quarters have been occupied by official staff					

7.FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Current A/c	State Bank of India, Mankar	Mankar Road, Burdwan	30466431682

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

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

7.4 Utilization of funds under FLD on Maize *(Rs. In Lakh):* **NIL**

7.5 Utilization of KVK funds during the year 2013 -14 (Not audited)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	77.00	77.00	77.27
2	Traveling allowances	1.25	1.25	1.25
3	Contingencies	13.00	13.00	12.96
TOTAL (A)		91.25	91.25	91.48
B. Non-Recurring Contingencies				
1				
2				
3				
4				
TOTAL (B)				
C. REVOLVING FUND				

GRAND TOTAL (A+B+C)	91.25	91.25	91.48

7.6. Status of revolving fund (Rs. in lakh) for last three years

Year	Opening balance as on 1st April (Rs.)	Income during the year (Rs.)	Expenditure during the year (Rs.)	Net balance in hand as on 1st April of each year (Kind + cash) (Rs.)
2011-12	50,420	5,15,212	5,36,972	28,660
2012-13	28,660	7,08,772	5,11,572	2,25,860
2013-14	2,25,860	6,73,485	4,15,384	4,83,961 + In kind Rs. 7,00,000 (approx)

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.: 86

7.7. Details of marketing channels created for the SHGs

KVK mobilized the marketing channel for the SHG, especially women SHGs, associated with the production of rural and other handicrafts, by linking them with yearly Krishi melas, rural fairs and town based cooperatives dealing with selling of crafts etc. KVK has also connected SHG doing katha stich with traders from Bolpur.

KVK has created financial opportunity for many of the SHGs formed by linking them with NABARD, rural banks etc.

7.8. Special programme on Food and Nutrition :

The National Nutrition week was celebrated from 1-7 September, 2013 with an initiative to address the problem of malnutrition or under nutrition among children and women especially in rural areas. The 7 days awareness programme was held at different Anganwadi centres, tribal villages of Galsi –I. where Supervisors, Anganwadi workers, (Accredited Social Health Activists) ASHA workers, panchayat members, teachers, village women, pregnant and lactating women , adolescents girls and school students were participated. Different programme related to nutrition , video shows , trainings, quiz competition , awareness camp , demonstration of cheap nutritional recipes methods, of making weaning food etc. were also organized. Around 300 farm women benefited from it.

7.9. Community Radio Station :

Not applicable for this KVK

7.10. Joint activity carried out with line departments and ATMA

Name of activity	Season	With line department	With ATMA	Both
Vaccination camp	Year round	Animal husbandry dept., Wet Bengal		
Seed production	Kharif 2013	Dept. of Agriculture, West Bengal		
Exposure visit	Rabi, 2013		ATMA, KAtihar	
SAC	Kharif, 2013	All line dept., west Bengal		
Farmers training	Year round	All line dept., west Bengal		

8. Other information

8.1. Prevalent diseases in Livestock/Crops

Name of the disease	Crop/animal	Date of outbreak	Number of death/ % crop loss	Number of animals vaccinated
Goat pox	Goat	8.12.13, 28.1.14, 17.3.14	55	985 in surrounding villages
Duck Plague	Duck	03.11.13	75	40 ducks
Fowl pox	Poultry	05.02.14, 16.02.14	30	600 birds
Late Blight of potato	Crop- Potato	January, 14	Range between 15- 65 %	-

8.2. Nehru Yuva Kendra (NYK) Training

Not applicable for this KVK

8.3. PPV & FR Sensitization training Programme

Date of organizing the programme	Resource Person	No. of participants	Registration (crop wise)	
24.02.14	1. Dr. D.K.Dey, PPV&FR cell, BCKV, 2. Dr. A. Bera, CSRSJAF, Bud Bud 3. Dr. D.Ghorai, KVK	220	Paddy	7

8.4. KMAS /SMS Portal

KISAN MOBILE ADVISORY SERVICE

No. of calls	No. of farmers covered	No. of messages	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other

23	391	4115	1847	286	754	299	795	134

8.5. SMS PORTAL

Date of start of functioning of SMS portal:

No. of messages	No. of calls	No. of farmers covered	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other
18913	24	1696	9521	1537	3540	906	3215	194

8.6. Programme with Seema Suraksha Bal (BSF)

Not applicable for this KVK

8.7.a. Utilization of HRD fund (Rs. 0.15 Lakh provided to KVKs)

Training programme/Seminar/Symposia/Workshop etc attended	**Duration and date**	**Name of the participants**	**Designation**	**Organizer of the training programme**	**Amount spent for the purpose (Rs.)**
First International Conference on Bio-Resource and Stress Management	February 6 - 9, 2013	Dr. Subrata Sarkar	SMS (Horticulture)	Ratikanta Maiti Foundation,	5000
27th Annual Workshop of AINP on Jute and Allied Fibres	February 10 – 11, 2013	Dr. Dipankar Ghorai	I/c Programme Coordinator	CRIJAF, Barrackpore	1000
National Symposium & Satellite Seminar on Veterinary Pathology Congress-2013	November 21-23, 2013	Dr. Chandrakanta Jana	SMS (AH&VS)	Department of Veterinary Pathology, CVSc & AH, OUAT, Bhubaneswar	3600
Third International Conference on Extension Educational Strategies for Sustainable Agricultural Development – A Global Perspective	December 5 – 8, 2013	Dr. Monica Suresh Singh	SMS (Agril. Extension)	International Society of Extension(INSEE), Nagpur University of Agricultural Sciences, Bangalore	2500
International Symposium on Potassium Nutrition and Crop Quality	March 4 – 5, 2014	Dr. Dipankar Ghorai	I/c Programme Coordinator	International Potash Institute (IPI), Horgen, Switzerland & Birsa Agricultural University, Ranchi, Jharkhand, India	2000

b. HRD fund utilized for other purposes

Head	Amount (Rs.)

8.8. Performance of Automatic Weather Station in KVK

Not applicable for this KVK

8.9. IPNI Trail (**Applicable for KVKs identified under IPNI trial)**

Not applicable for this KVK

8.10. Achievement under TSP Project (Saraikella, Godda, Sahibganj, Dumka, Giridih,, Pakur)
Not applicable for this KVK

8.11 PROGRESS REPORT OF NICRA KVK (Technology Demonstration component) 2013-14

Not applicable for this KVK

8.12. National Initiative on Fodder Technology Demonstration (NIFTD)
(**Applicable for KVKs identified under NIFTD)**

The programme has yet to be initiated in this KVK. Action plan for the year 2014-15 has been submitted to IGFRI, Jhansi.

8.13. Awards/Recognition received by the KVK

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

Award received by Farmers from the KVK district

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
1.	Innovative farmer	Chandra Narayan Bairagya	2013	ICAR	Plaque and memorabilia	Innovation in hatchery
2.	Innovative farmer	Sk. Shoyeb Hossain	2013	ICAR	Plaque and memorabilia	Innovation in IFS
3.	Best Farmer	Sk. Amir Hossain	2013	Dept. Of Agriculture, West Bengal	50000.00	Innovation in alternate farming
4.	Chasi no. 1	Sk. Janab Ali	2014	Mahindra Sammriddhi	15000.00	Innovation in SRI