

ANNUAL REPORT

2011 – 12

KRISHI VIGYAN KENDRA BURDWAN



KRISHI VIGYAN KENDRA

Central Research Institute for Jute & Allied Fibres (ICAR)

Budbud, Burdwan, W.B. 713 403

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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-mailName 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. F. H. RAHMAN	08961999370	09432955117	fhrahmancal@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 31th March, 2011)**

S N	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Perman- ent/ tempora- ry	Category (SC/ST/ BC/ Others)
1	Programme Coordinator	Dr. F. H. Rahman	Programme Coordinator	Soil Science	Rs. 37400- 67000 Grade Pay - 9000 Basic – Rs. 47800	10.04.2007	Perman- ent	GEN
2	Subject Matter Specialist	Mr. Dipankar Ghorai	SMS	Agricultur- e	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 24350	26.04.2006	Perman- ent	GEN
3	Subject Matter Specialist	Mr. Golam Ziauddin	SMS	Fisheries	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 23640	28.04.2006	Perman- ent	GEN
4	Subject Matter Specialist	Dr. Chandrakanta Jana	SMS	AH&VS	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 22950	29.04.2006	Perman- ent	GEN
5	Subject Matter Specialist	Dr. Subrata Sarkar	SMS	Horticul- ture	Rs. 15600-39100 Grade Pay - 5400 Basic – Rs. 24350	04.05.2006	Perman- ent	GEN
6	Computer Programmer	Sk Golam Rasul	Prog. Assistant (Computer)	Computer	Rs. 9300-34800 Grade Pay - 4200 B. Pay – 15670	10.04.2006	Perman- ent	GEN
7	Programme Assistant	Mr. Sandipan Garai	Prog. Assistant	Agricultur- e	Rs. 9300-34800 Grade Pay - 4200 B. Pay – 15670	18.04.2006	Perman- ent	OBC
8	Farm Manager	Mr. Soumya Sarathi Kundu	Prog. Assistant (Farm Manager)	Agricultur- e	Rs. 9300-34800 Grade Pay - 4200 B. Pay – 15210	06.01.2007	Perman- ent	GEN
9	Accountant / Superintendent	Mr. Baidyanath Mukhopadhyay	Assistant	--	Rs. 9300-34800 Grade Pay - 4200 B. Pay – 15670	15.03.2006	Perman- ent	GEN
10	Stenographer	Mr. Sushanta Dey	Stenographer Gr - III	--	Rs.5200-20200 G. P. – 2400, B. Pay – 11510	20.03.2006	Perman- ent	GEN

11	Driver	Mr. Joydeep Pal	Driver – cum - mechanic	--	Rs.5200-20200 G. P. – 2000, B. Pay – 9090	06.07.2006	Perman ent	GEN
12	Driver	Mr. Santi Nath Pal	Driver- cum - mechanic	--	Rs.5200-20200 G. P. – 2000, B. Pay – 9090	10.07.2006	Perman ent	OBC
13	Supporting staff	Mr. Shyamal Bhanja	Supporting staff	Peon	Rs. 5200-20200 G. P. – 1800, B. Pay – 8130	25.02.2006	Perman ent	GEN
14	Supporting staff	Mr. Anup Das	Supporting staff	Cook	Rs. 5200-20200 G. P. – 1800, B. Pay – 8130	01.03.2006	Perman ent	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

1.7. Infrastructural Development:

A) Buildings

S. N.	Name of building	Not yet started	Complete d up to plinth level	Complete d up to lintel level	Completed up to roof level	Totally completed	Plinth area (Sq.m)	Source of fund
1.	Administrative Building					Completed	552	ICAR
2.	Farmers Hostel					Completed	306	ICAR
3.	Staff Quarters (6)					Completed	400	ICAR
4.	Demonstration Units (6)							
	Portable carp hatchery					Completed		ICAR
	Integrated farming system					Completed		ICAR
	Greenhouse					Completed		RKVY
	Drip irrigation in fruit orchard					Completed		ATMA
	Feed grinding machine					Completed		ATMA
	Vermicompost unit					Completed		ATMA
5	Fencing					Completed	925 m	ICAR
6	Rain Water harvesting structure					Completed	6000 sq.m.	MGN REGS
7	Threshing floor							
8	Farm godown							
9.	Deer tube well					Completed		ICAR

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Kms. Run during the year	Total Kms. Run	Present status
TATA Sumo	01.04.1999	-	2657	87488 since its possession from PSB, Shantiniketan on 08.05.2006	In running condition
Tractor	01.04.1999	-	221 hrs	829 since its possession from PSB, Shantiniketan on 08.05.2006	In running condition.

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Photo copier with stabilizer	2006-07	49499.00	In working condition
Flame photometer	2006-07	29813.00	In working condition
Spectrophotometer	2006-07	46283.00	In working condition
Shaker	2006-07	20756.00	In working condition
Hot air oven	2006-07	5344.00	In working condition
Hot plate	2007-08	14000.00	In working condition
Glass distillation unit	2007-08	28000.00	In working condition
Conductivity bridge	2007-08	10000.00	In working condition
pH meter	2007-08	9563.00	In working condition
Refrigerator	2007-08	12350.00	In working condition
Electronic balance	2007-08	12375.00	In working condition
Grinder	2007-08	19500.00	In working condition
Kjeldahl N analyser	2008-09	250474.00	In working condition
Generator	2008-09	68000.00	In working condition
FAX machine	2008-09	12080.00	In working condition
LCD projector	2008-09	109000.00	In working condition
Godrej Iron Chest	2008-09	9360.00	In working condition
Computer with accessories (2 Nos.)	2009 -10	49920.00	In working condition
LCD TV	2010-11	13110	In working condition
Digital Camera	2010-11	14790	In working condition
Farm implements			
Brush cutter	2011-12	22360	In working condition
Seed drill	2011-12	66500	In working condition
Rotovator	2011-12	107120	In working condition
Sprayer	2011-12	7300	In working condition
Paddy thresher	2011-12	12000	In working condition
Power reaper	2011-12	85476	In working condition

1.8.A) Details SAC meeting conducted in the year

S.N	Date	Number of Participants	Salient Recommendations	Action taken
1	10.04.2012	56	1. Concerted effort of KVK and line departments for holistic development. 2. More diversification of production 3. KVK should have more involvement in the RKVY programmes. 4. Village seed production programmes of cultivars other than popular ones must be appraised for marketing beforehand. 5. KVK may initiate bio-village programme under RKVY. 6. Low cost technologies should be promoted by KVK	-

			7. Farmers' filed samples should be collected by KVK personnel for better reproducibility. 8. More no. of villages to be adopted. 9. Farm implements may be demonstrated in the farmers field.	
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Proceedings of the Ninth Scientific Advisory Committee held on Apr 12, 2012 - See Annexure - I

2. DETAILS OF DISTRICT (2010-11)

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

S. No	Farming system/enterprise
1.	Rice production system
2.	Fishery
3.	Poultry
4.	Goatary
5.	Duckery
6.	Rice -vegetable-Rice production system
7.	Jute-rice production system

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

S. No	Agro-climatic Zone	Characteristics
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

(Source: Dept. of Agriculture, Govt. of W.B.)

S. N	Agro ecological situation	Characteristics
1.	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

(Source: NBSS&LUP (ICAR),, 2008, Nagpur)

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Gangetic alluvial	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.	206423
2	Vindhya alluvial	Soil order is entisol Sandy loam to clay loam, fine to moderate coarse in texture, acidic to neutral in reaction.	311000
3	Red and Lateritic	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.	186054

(Source: Dept. of Agriculture, Govt. of W.B., 2008)

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

S. No	Crop	Area ('000 ha)	Production ('0000 q)	Productivity (q/ha)
01	Aus paddy	14.6	44.6	30.47
02	Aman paddy	417.2	1365.5	32.73
03	Boro paddy	207.2	558.4	26.95
04	Wheat	2.2	4.8	21.99
05	Pulses	1.3	1.1	8.80
06	Oilseeds	42.0	42.1	10.01
07	Jute & other fibres **	15.5	282.8	18.7
08	Potato	43.4	921.2	212.49
09	Chilli (dry)	2.6	3.7	14.13
10	Ginger	0.1	0.3	18.87

** Production in 1000 bales of 180 kg each & productivity in bales/ha

(Source: District statistical handbook, 2010, Bureau of Applied Economics & Statistics, Govt. of West Bengal)

2.5. Weather data (Avg. of 5 years)

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	
April	72.9	30.8	17.1	88
May	84.0	34.2	18.2	87
June	23.8	33.2	17.3	85
July	280.0	28.4	19.3	89
August	234.2	34.0	24.0	91
September	201.2	34.0	23.0	88
October	156.3	33.4	20.6	86
November	7.9	31.0	16.7	85
December	5.0	31.0	11.2	79
January	16.2	25.2	6.9	76
February	8.8	28.6	10.7	78
March	25.8	32.2	12.9	81

(Source: Agricultural Directorate, Burdwan Dist, 2010-11)

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

Category	Population	Production	Productivity
Cattle			
Crossbred	243633	464080 tonnes milk	280 kg milk /year
Indigenous	1486985		
Buffalo	120356	--	--
Sheep			
Crossbred			
Indigenous	175669	61.887 kg (wool)	
Goats	1408200	4000 MT (meat)	
Pigs			
Crossbred			
Indigenous	99931	420 MT (Meat)	
Rabbits			
Poultry			
Hens			
Desi	4624236	2672.40 lakh egg	85 no. eggs/year
Improved			
Ducks	1778834		
Turkey and others	27981		
Fish			
Marine			
Inland	50448.19	36029.787	3250
Prawn			

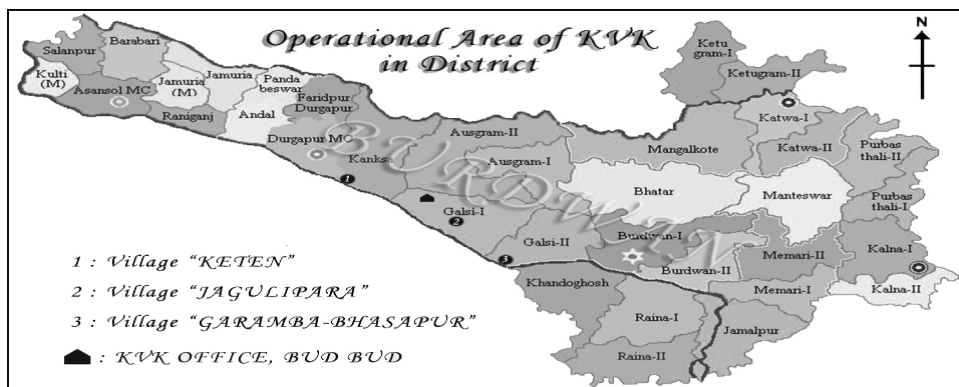
(Source: Livestock population, W.B., Animal Resources Development Department, 2009)

2.7 Details of Operational area/ Villages

S.N	Taluk	Block	Village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Durgapur	Kanksa	Keten (Ghosh para, Bauri para and Pan para)	Paddy, potato, mustard, sesame, lentil, vegetable, cattle, poultry, duck, goat, fish	<u>Bio-physical</u> 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 <u>Socio- economic</u> 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	Durgapur	Galsi-I	Jaguli para (Mollapara and Bauripara)	Kharif Paddy, boro paddy, mustard, cattle, poultry, duck, goat, fish	<u>Bio-physical</u> 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 <u>Socio-economic</u> - 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	Garambha-Bhasapur	Aus paddy, kharif paddy, jute, potato, mustard, vegetable cattle, poultry, Goat, fish		
4.	Durgapur	Galsi-I	Manikbazar-Jharul	Paddy, potato, mustard, sesame, lentil, vegetable, cattle, poultry, duck, goat, fish		

2.8 Priority thrust areas

S. N	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 like organic farming etc.
5.	Livestock productivity improvement and health care
6.	Efficient utilization of water bodies through composite fish culture and improved management practices
7.	Entrepreneurship development for family income generation



TECHNICAL ACHIEVEMENTS**3. A. Details of target and achievement of mandatory activities by KVK during 2011-12**

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
7	7	34	34	65	65	65	65

Training				Extension activities			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
72	75	2313	2403	700	769	7500	9167

Seed production (q)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
250	250 (at KVK farm)	15000 nos. of tomato, brinjal etc.	20000
2500	2500 (at village)		

**3.1. A Details of each On Farm Trial to be furnished in the following format
(Total number of OFT conducted – 06 Nos.)**

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	Low productivity of jute due to non use of improved varieties
3	Details of technologies selected for assessment/refinement	Farmers' practice: JRO 524 Technology - 1 to be assessed: JBO 2003H Technology - 2 to be assessed: JRO 8432 Technology - 4 to be assessed: JRO 204
4	Source of Technology	CRIJAF
5	Production system and thematic area	Rainfed rice based production system
6	Performance of the Technology with performance indicators	JBO 2003H and JRO 524 produced significantly more fibre and were at par than JRO 8432. JRO 524 (FP) yielded significantly less compared to all technology options.
7	Final recommendation for micro level situation	JRO 204 is to be promoted
8	Constraints identified and feedback for research	Seed is not easily available in the market
9	Process of farmers participation and their reaction	Through training , demonstration, field day. Farmers were very much encouraged by the performance of the newer varieties as well as the quality of the seeds

OFT 2:

1	Title of On farm Trial	Assessment of performance of lentil under differing modes of biofertilization in medium upland situation of Buddwan district
2	Problem diagnose	Inadequate productivity
3	Details of technologies selected for assessment/refinement	Farmers' practice: Conventional lentil cultivation Technology - 1 to be assessed: Rhizobium seed inoculation + 75 % N + 100 % P and K Technology - 2 to be assessed: <i>Rhizobium</i> soil inoculation + 75% N+100% P and K
4	Source of Technology	DPR
5	Production system and thematic area	Rainfed rice based production system
6	Performance of the Technology with performance indicators	Soil inoculation was more effective in increasing the productivity over seed inoculation and FP
7	Final recommendation for micro level situation	Rhizobium culture should be used in micro level
8	Constraints identified and feedback for research	Rhizobium is not available in the market in large scale
9	Process of farmers participation and their reaction	Through training , demonstration, field day. Farmers were very much encouraged by the performance of the newer varieties as well as the quality of the seeds

OFT 3:

1	Title of On farm Trial	Assessment of performance of lentil under differing biofertilization in medium upland situation of Burdwan district
2	Problem diagnose	
3	Details of technologies selected for assessment /refinement	Farmers' practice: Conventional lentil cultivation Technology - 1 to be assessed: <i>Rhizobium</i> + 75% N+100% P, K Technology - 2 to be assessed: VAM + 75% P+100% N, K Technology - 2 to be assessed: <i>Rhizobium</i> + VAM+ 75% N, P + 100% K
4	Source of Technology	DPR
5	Production system and thematic area	Rainfed rice based production system
6	Performance of the Technology with performance indicators	It was observed that conjunctive use of rhizobium and VAM augmented productivity to a significant extent while single use of them were also beneficial compared to FP.
7	Final recommendation for micro level situation	Rhizobium and VAM culture should be used in micro level
8	Constraints identified and feedback for research	Rhizobium and VAM are not available in the market in large scale
9	Process of farmers participation and their reaction	Through training , demonstration, field day. Farmers were very much encouraged by the performance of the newer varieties as well as the quality of the seeds

OFT 4:

1.	Title of On farm Trial	Evaluation of different varieties of okra in Burdwan district
2.	Problem diagnose	Low productivity of okra due to non use of improved and hybrid varieties
3.	Details of technologies selected for assessment /refinement	Farmers' practice: local variety Technology - 1 to be assessed: Hybrid 1 (OH 597) Technology - 2 to be assessed: Hybrid 2 (152) Technology - 3 to be assessed: Hybrid 3 (Bhindi No.10)
4.	Source of technology	BCKV
5.	Production system	Rainfed rice based production system
6.	Performance of the Technology with performance indicators	Result indicated that Bhindi No. 10 yielded the most and it is the most cost-effective proposition. It also showed some tolerance against YVMV of okra
7.	Final recommendation for micro level situation	Farmers should replace existing varieties with hybrid varieties like Bhindi No. 10, 152 etc.
8.	Constraints identified and feedback for research	High cost and non availability of hybrid seeds
9.	Process of farmers participation and their reaction	Through training and field level demonstration Farmers were satisfied with the performance of the technology.

OFT 5:

1.	Title of On farm Trial	Evaluation of different seedling raising techniques on yield and mortality of tomato in Burdwan
2.	Problem diagnose	Low yield and high mortality is one of the common problems to the farmers due to conventional method of seedling raising.
3.	Details of technologies selected for assessment /refinement	Farmers' practice: seedling raising in plain field Technology - 1 to be assessed: seedling raising in raised bed Technology - 2 to be assessed: seedling raising in potray
4.	Source of technology	BCKV
5.	Production system	Rainfed rice based production system
6.	Performance of the Technology with performance indicators	Result indicated that use of potray to raise the seedlings of tomato is very much effective to reduce the seedling mortality rate in the main field which is reflected in terms of yield and profitability of crop.
7.	Final recommendation for micro level situation	Farmers should use potrays or seedling raising trays to raise the seedlings.
8.	Constraints identified and feedback for research	Initial cost is little higher and availability of such trays is difficult in local market.
9.	Process of farmers participation and their reaction	Through training and field level demonstration Farmers were satisfied with the performance of the technology.

OFT 6:

1	Title of On farm Trial	Evaluation of performance of different poultry breeds in Burdwan district under backyard farming.
2	Problem diagnose	Poor egg production in poultry birds is due to use of local, non descriptive breed
3	Details of technologies selected for assessment /refinement	Farmers' practice: Local breed Technology 1 to be assessed: <i>Rhold Island Red (RIR)</i> Technology 2 to be assessed: <i>Banaraja</i>
4	Source of Technology	WBUAFS, Kolkata
5	Production system and thematic area	Livestock and poultry based production system, Breed evaluation
6	Performance of the Technology with performance indicators	Banaraja breed performed well in term of adoptability and growth rate at this farming situation
7	Final recommendation for micro level situation	Need further observation for one year
8	Constraints identified and feedback for research	Males are more fighting in nature; Growth of banaraja birds impressed the farmers
9	Process of farmers participation and their reaction	Through training , health camp and group discussion Growth of the Banaraja is faster than RIR

OFT 7:

1.	Title of On farm Trial	Evaluation of performance of crop - fish - livestock integrated farming on improving aquatic niche based production system
2	Problem diagnose	Inefficient performance of available perennial pond based production system is due to non efficient utilization of natural resources
3	Details of technologies selected for assessment /refinement	Farmers' practice: Fish farming Technology - 1 to be assessed: Crop + fish + poultry * farming Technology - 2 to be assessed: Crop + fish + duck** farming
4	Source of Technology	BAU, Ranchi
5	Production system and thematic area	Fish based production system, Integrated farming approach
6	Performance of the Technology with performance indicators	Best performance of integrated production system was observed through cultivation of tissue culture banana in bund area and pasture feed poultry rearing as meat purpose with IMC fish cultivation in pond.
7	Final recommendation for micro level situation	Integrated approach through Crop + fish + poultry rearing was performed better among all others combination.
8	Constraints identified and feedback for research	It is labour intensive and need excess attention of farmers. It ensure better returns within a short period of time and area. One enterprise serves as insurance for the others.
9	Process of farmers participation and their reaction	Through training and awareness camp.

3. 1. B. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

OFT 1: Varietal trial

Problem definition: Low productivity of jute due to non use of improved varieties

Technology assessed or refined (as the case may be): Introduction of improved varieties of jute

The district of Burdwan is a minor jute growing district of West Bengal with only 15 thousand odd hectares under the crop having average productivity around 19 q/ha. The principal jute area is concentrated on the eastern fringes of the district in blocks of Katwa and Ketugram. Though jute is also practiced in fairly regular basis in villages located on or near the banks of river Damodar, which marks the southern boundary of the district. Jurjuti-Bajpara is one such village in Galsi – II block of the district. Productivity of jute, as divulged by villagers is on the decline due to non availability of improved varieties as well as good quality seed.

The On Farm Trial was conducted in five farmers' fields, namely Nityananda sarkar, Sarat Roy, Bhabani Bala, Sribas Adhikari and Manabendra Adhikari, each of them considered as a replication. Results indicated that JBO 2003H and JRO 204 attained more height and were at par compared to JRO 524 (FP) and JRO 8432. Evaluation of base diameter indicated that JRO 204 significantly yielded more thinner plants compared to other technology options and FP. As regards productivity JBO 2003H and JRO 524 produced significantly more fibre and were at par than JRO 8432. JRO 524 (FP) yielded significantly less compared to all technology options.

Table 1.B: Yield performance of different variety of jute

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)	Base diameter (cm)					
FP: JRO 524	5	265 ^a	1.46 ^b	29.50 ^a	36250	61950	25700	1.71
TO1:JRO 8432		284 ^b	1.37 ^a	33.13 ^c	36250	69563	33313	1.92
TO2:JBO 2003H		271 ^a	1.40 ^b	31.13 ^b	36250	65363	29113	1.80
TO3:JRO 204		282 ^b	1.34 ^a	32.81 ^c	36250	68906	32656	1.90

OFT2: Assessment of performance of *lentil* under differing modes of biofertilization in medium upland situation of Burdwan district

Problem definition: Poor productivity of lentil

Technology assessed or refined (as the case may be): Biofertilization in lentil

Burdwan is a minor pulse growing district of Burdwan. Among the pulse crops grown, lentil is the major one. Productivity of lentil is rather poor which can be ascribed to imbalanced use of fertilizers coupled with a general antipathy towards use of biofertilisers. With this in mind the present OFT was formulated where lentil specific *Rhizobium* supplemented inorganic N along with balanced use of nutrients. It was observed that soil inoculation was more effective in increasing the productivity.

The overall productivity level, although, was much less due to off-season torrential rain and subsequent crop damage.

Table 2.B: Yield performance of lentil under differing modes of biofertilization

Technology option	No. of trials	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
TO 1: Farmers' practice	7	6.26 ^a	12375	18767	6392	1.52
TO 2: <i>Rhizobium</i> seed inoculation + 75% N+100% P and K		6.60 ^{ab}	12750	19787	7037	1.55
TO 3: <i>Rhizobium</i> soil inoculation + 75% N+100% P and K		6.84 ^b	12750	20533	7783	1.61

OFT3: Assessment of performance of lentil under differing biofertilization in medium upland situation of Burdwan district

Problem definition: Poor productivity of lentil

Technology assessed or refined (as the case may be): Biofertilization in lentil

Burdwan is a minor pulse growing district of Burdwan. Among the pulse crops grown, lentil is the major one. Productivity of lentil is rather poor which can be ascribed to imbalanced use of fertilizers coupled with a general antipathy towards use of biofertilisers. With this in mind the present OFT was formulated where lentil specific *Rhizobium* which supplemented inorganic N and vascular arbuscular mycorrhizae which supplemented P was used along with balanced use of nutrients. It was observed that conjunctive use of rhizobium and VAM augmented productivity to a significant extent while single use of them were also beneficial compared to FP.

The overall productivity level, although, was much less due to off-season torrential rain and subsequent crop damage.

Table 3.B: Yield performance of rice in different methods of cultivation

Technology option	No. of trials	Yield (q/ha)	Cost of cultivation Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
TO 1: Farmers' practice	5	6.04 ^a	12375	18126	5751	1.46
TO 2: <i>Rhizobium</i> + 75% N+100% P, K		6.66 ^b	12750	19968	7218	1.57
TO 3: VAM+ 75% P+100% N, K		6.87 ^{bc}	13125	20616	7491	1.57
TO4: <i>Rhizobium</i> + VAM+ 75% N, P + 100% , K		7.32 ^c	13500	21960	8460	1.63

OFT 4: Varetal trials

Problem definition: Low productivity of okra due to non use of improved and hybrid varieties

Technology assessed or refined (as the case may be): introduction of hybrid varieties of okra

The use of local varieties is the main cause of low yield of okra. At the same time high susceptibility of such cultivar to YVMV also reduce the yield potentiality of okra. The object of the OFT was to show the farmers that hybrid varieties can augment yield to a substantial extent. Besides, use of hybrid can tolerate the YVMV that is also a point to be established. Three different hybrid was tried among them Bhindi No. 10 was best in respect of yield as well as tolerant to YVMV.

Table 4.B: effect of yield on using of improved varieties of okra

Technology option	No. of trials	Data related to problem addressed	Yield components	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		YVMV Disease incidence (%)						
Farmers'practice: local variety	10	23.4		80	20000	48000	28000	2.4
TO1: Hybrid 1 (OH 597)		13.6		110	25450	66000	40550	2.59
TO2: Hybrid 2 (152)		14.2		120	25450	72000	46550	2.82
TO3: Hybrid 3 (Bhindi No.10)		11.5		125	25450	75000	49550	2.94
CD(P=0.05)		3.45		4.23				

OFT 5: Seedling raising techniques

Problem definition: Low yield and high mortality is one of the common problems to the farmers due to conventional method of seedling raising.

Technology assessed or refined (as the case may be): Introduction of potrays or seedling raising trays to raise the tomato seedlings.

Transplanting of seedlings along with the root ball intact is possible by using potrays. It was observed from the study that seedling mortality was considerably reduced by using seedlings raised in potrays in comparison to farmers practice (in flat beds) or seedlings raised in raised beds. Seedlings from potrays were early to establish in the main field which ultimately expressed in terms of yield and profitability. Use of potrays also reduces the requirement of seeds.

Table 5.B.: Effect of seedling raising techniques on yield and mortality of tomato

Technology option	No. of trials	Data related to problem addressed	Yield components	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		Seedling mortality rate (%)						
Farmers' practice: seedling raising in plain field	10	6.72		28.20	61790	131000	69210	2.12
TO1: seedling raising in raised beds		5.60		29.14	61470	142000	80530	2.31
TO2: seedling raising in potrays		1.67		33.60	68700	185000	116300	2.69
CD(P=0.05)		1.06		3.21				

OFT 6: Poultry breed Evaluation under backyard farming.

Problem definition: Poor egg production in poultry birds is due to use of local, non descriptive breed

Technology assessed or refined (as the case may be): *Adoption of improved rural poultry breed*

Rural poultry breeds were evaluated under backyard management practices by KVK Burdwan. The trail was conducted with Local breed, Banaraja and RIR. The trail is continuing and the birds are in laying condition. Only 6 months egg production data have been presented but adoptability and growth rate of Banaraja breed are very much attractive to the farmers. The fighting habit of banaraja breed helps to adopt in rural free range farming situation in compare to RIR.

Technology Assessed	*Production per unit (Avg. egg production/hen/6 month)	Cost of rearing (Rs./hen)	Gross return (Rs./hen)	Net Return (Profit) in Rs. (hen/yr)	B:C Ratio (Gross return : cost)
Farmers' practice: Local breed	48	220	240	20	1.09
TO1= <i>Rhold Island Red (RIR)</i>	100	259	500	241	1.93
TO2= <i>Banaraja</i>	95	232	475	243	2.04

Table 6.B. : Effect of different technology options on egg production, age of 1st laying and wt at laying.

Technology options	Egg production (egg/hen/6 month)	Age of 1 st laying (wk)	Wt at laying (kg)
FP	48c	26 ^c	1.2 ^c
TO1	100 ^a	22 ^a	1.8 ^b
TO2	95 ^a	23 ^a	1.95 ^a

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

OFT 7: Integrated farming

Problem definition: Inefficient performance of available perennial pond based production system is due to non efficient utilization of natural resources

Technology assessed or refined (as the case may be): Resource utilization and generation of income from several enterprises

The main objective of integrated farming was utilization of all possible resource available to the farmer for maximization of income from different source and at the same time proper utilization of bund area. Best performance of integrated production system was observed through cultivation of tissue culture banana in bund area and pasture feed poultry rearing with IMC fish cultivation in pond in term of production and benefit cost ratio

Table 7.B. Data of different interventions under Integrated farming System

Technology option	No. of trials	Data related to problem addressed			Poultry Yield egg/bird/annum	Duckery Yield egg/bird/annum	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		Fish yield q/ha	Tissue culture banana Yield q/ha	Vegetable yield q/ha						
FP: Farmers' practice (Fish farming)	7	11.21	-	-	-	-	21350	50850	32025	1.5
TO1: Crop+ fish + poultry farming		22.2	690	270	175	-	72000	182000	110000	2.52
TO2: Crop+ fish + duck farming		21.1	680	257	-	158	74500	172000	97500	2.30
SEm ₊		0.65	0.23	0.45						
CD(P=0.05)		3.21	6.21	4.55						

Unit size was 1 ha, out of this 0.75 ha and 0.25 ha were pond and cultivable area, respectively. Unit size of poultry (RIR) and duck (KC) were 15 in nos. each.

3.2 Achievements of Frontline Demonstrations

A. Details of FLDs implemented during 2011-12 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/demonstration				Reasons for shortfall achievement
					Proposed	Actual	SC	ST	Others	Total	
1.	Jute	Improved variety	JRO 204	Pre kharif 11	4	4	20	-	2	22	-
2.	Rice	Improved technology	SRI	kharif 11	3	3	1	-	12	15	-
3.	Tissue culture banana	Production technology	Tissue cultured	Through out the year (Kharif sowing)	1	1	5		5	10	
4.	Rice bean (fodder)	Fodder production	Improved production technology	Kharif 10	0.2	0.2	-	-	5	5	-
5.	Mustard	IPM	IPM	Rabi 2011	1	1	1	-	9	10	-
6.	IFS	IFS	IFS	Year round	0.4	0.4	-	-	3	3	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N (kg/ha)	P (kg/ha)	K (kg/ha)					
Jute	Pre kharif 11	Irrigated	Sandy loam	232	43	195	Potato	16.4.11	8.8.11	--	--
Rice	kharif 11	Irrigated	Clay loam	213	29	286	Fallow	25.6.11	10.11.10	-	-
Tissue culture banana	kharif 11	Irrigated	Clay loam	Crop standing, result awaited							
Mustard	Rabi 11	Irrigated	Clay loam	205	24	275	Paddy	15.11.11	10.02.12	--	--
Rice bean (fodder)	Kharif 10	Rainfed	Clay loam	230 – 315	27 – 45	215 – 320	Vegetables/ No crop	28.09.10- 29.09.10	05.11.10 - 14.12.10	--	--
IFS	Year round	--	--	-	-	-	-		Year round	--	--

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	IPM	Cultural practice & control measures with chemical & botanicals	10	1	13.75	10.25	34.20	18750	44000	25250	2.34	22500	32800	10300	1.45
Total			10	1	13.75	10.25	34.20	18750	44000	25250	2.34	22500	32800	10300	1.45

* Economics to be worked out based 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
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

** BCR= GROSS RETURN/GROSS COST

Maize, cotton and lentil as special programme

Frontline demonstration on maize, cotton and lentil

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
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

** BCR= GROSS RETURN/GROSS COST

Other crops

Category and 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)			
					Demons tration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals																	
Rice	Production technology	SRI	15	3	71.6	53.6	34	Please see the tables below		32250	77328	45078	2.40	30500	57888	27388	1.90
Flower crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fodder crops (Rice bean)	Varietals trial	Bidhan 1	5	0.2	239.8	194	23.6			6419	13189	6770	2.05	6350	10670	4320	1.68
Fibre crops (Jute)	Varietals trial	Improved variety	22	4	33.4	25.2	33	Please see the tables below	35600	76820	41220	2.16	35200	57960	22760	1.65	
Others (Tissue cultures banana)	Production technology	Improved variety (G 9)	10	1	Result awaited												
	Total		83	9.7													

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

** BCR= GROSS RETURN/GROSS COST

• **Data on parameters: Jute (Improved variety:jro 204)**

Crop	Parameters	Data on parameter in relation to technology demonstrated	
		Demo	Local
Jute	Plant height (cm)	294	254
	Base diameter (cm)	1.21	1.32

* **Data on parameters: Rice (SRI)**

Crop	Parameters	Data on parameter in relation to technology demonstrated	
		Demo	Local
Rice	Plant height (cm)	121.1	108.9
	Effective tiller/hill	20.1	10.4
	No. of filled grains/panicle	176	136
	Panicle length (cm)	23.1	17.9
	Test weight (g)	22.4	21.1

* Data on parameters: Rice bean (as Fodder)

Crop	Parameters	Data on parameter in relation to technology demonstrated	
		Demo	Local
Rice bean	Leaflet length (cm)	11.32	7.82
	Leaflet width (cm)	8.19	5.34
	Total yield (q/ha)	240.2	193

• Data on parameters: IPM in Mustard

Crop	Parameters	Data on parameter in relation to technology demonstrated	
		Demo	Local
Mustard	Mean Aphid Population (mean of 3 obs.)	9.37	20.5

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.)			
					Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cattle	Nutrition management	Mineral mixture	10	10	410.9	291.7	40.8	-	-	4331	6445	2114	1.49	4045	4549	449	1.10
Cattle	Nutrition management	Home made feed	10	10	432.5	293.0	47.6	-	-	4123	6312	2189	1.53	4100	4610	510	1.12
Buffalo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
goat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duckery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			20	20													

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

** BCR= GROSS RETURN/GROSS COST

- *Milk yield (kg/lactation).
- **Birth wt of kid in gm./kid)

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
	Total																

* Economics to be worked out based 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Button mushroom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vermicompost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apiculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total																

* Economics to be worked out based 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 KVKs	No. of demonstrations	Name of observations	Demonstration	Check
Women	-	-	-	-	-	-
Pregnant women	-	-	-	-	-	-
Adolescent Girl	-	-	-	-	-	-
Other women	-	-	-	-	-	-
Children	-	-	-	-	-	-
Neonats	-	-	-	-	-	-
Infants	-	-	-	-	-	-
Children	-	-	-	-	-	-

Farm implements and machinery

Name of the implement	Crop	Name of the technology demonstrated	No. of KVKs	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 ect.)			
						Demonstration	Check									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Economics to be worked out based 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)			
				Demo	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Cereals	-	-	-	-	-	-	-	-	-	-
Bajra	-	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-	-
Paddy	-	-	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Oilseeds	-	-	-	-	-	-	-	-	-	-
Castor	-	-	-	-	-	-	-	-	-	-
Mustard	-	-	-	-	-	-	-	-	-	-

Safflower	-	-	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-
Groundnut	-	-	-	-	-	-	-	-	-	-
Soybean	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-	-
Greengram	-	-	-	-	-	-	-	-	-	-
Blackgram	-	-	-	-	-	-	-	-	-	-
Bengalgram	-	-	-	-	-	-	-	-	-	-
Redgram	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Vegetable crops	-	-	-	-	-	-	-	-	-	-
Bottle gourd	-	-	-	-	-	-	-	-	-	-
Capsicum	-	-	-	-	-	-	-	-	-	-
Cucumber	-	-	-	-	-	-	-	-	-	-
Tomato	-	-	-	-	-	-	-	-	-	-
Brinjal	-	-	-	-	-	-	-	-	-	-
Okra	-	-	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-	-	-
Potato	-	-	-	-	-	-	-	-	-	-
Field bean	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Coconut	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Fodder crops	-	-	-	-	-	-	-	-	-	-
Napier (Fodder)	-	-	-	-	-	-	-	-	-	-
Maize (Fodder)	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-

NB: Attach few good action photographs with title at the back with pencil

Analytical Review of component demonstrations (details of each component for rainfed / irrigated situations to be given separately for each season)

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Jute	Pre kharif,2010	1. Seed/Variety	Medium upland	325	273	26
		2. Bio-fertilizer				
		3. Fertilizer management				
Brinjal	Rabi 2010	Insect management	Medium upland	246.5	231	6.7
Jute	Pre kharif,2010	5. Combination of components (Line sowing)	Medium upland	281	264	9

Technical Feedback on the demonstrated technologies

S. N.	Crop	Feed Back
1.	Jute (Improved variety)	High yield and good quality fibre
2.	Rice (Production technology)	Cono weeder is not very effective in clay to clay loam soils. Herbicide can be effective for weed management. In such case row transplanting would not be required leading to reduced cost of cultivation.
3.	Mustard (IPM)	Pest controlled significantly and got high yield
4.	Cattle (home made feed)	Malnutrition checked to some extent and milk yield higher
5.	Cattle (Mineral mixture)	Wt. of calf increased and calving interval reduced
6.	Rice bean (package)	Better yield

Farmers' reactions on specific technologies

S. No	Crop	Feed Back
1.	Jute (Weed management)	Annexure III
2.	Rice (Production technology)	Annexure IV
3.	Mustard (IPM)	Annexure V
4.	Cattle (home made feed)	Annexure VI
5.	Cattle (Mineral mixture)	Annexure VII
6.	Rice bean (package)	Annexure VIII

Extension and Training activities under FLD

S. N.	Activity	No. of activities organised	Dates	Number of participants	Remarks
1	Field days	4			
2	Farmers Training	8			
3	Media coverage	--	--	--	

3.3 Achievements on Training (Including the sponsored and FLD training programmes):**A. ON Campus**

Thematic Area	No. of Courses	No. of Participants									Grand Total
		OTHERS			SC			ST			
		M	F	T	M	F	T	M	F	T	
I Crop Production											
Weed Management											
Resource Conservation Technologies	1	20	00	20	10	00	10	00	00	00	30
Cropping Systems											
Crop Diversification											
Integrated Farming											
Water management											
Seed production											
Nursery management											
Integrated Crop Management											
Fodder production											
Production of organic inputs											
Others, if any											
II Horticulture											
a) Vegetable Crops											
Production of low volume & high value crops											
Off-season vegetables											
Nursery raising											
Exotic vegetables like Broccoli											
Export potential vegetables											
Grading and standardization											
Protective cultivation (Green Houses, Shade Net etc.)											
Others, if any											
b) Fruits											
Training and Pruning											
Layout and Management of Orchards											
Cultivation of Fruit											
Management of young plants/orchards											
Rejuvenation of old orchards											
Export potential fruits											
Micro irrigation systems of orchards											
Plant propagation techniques											
Others, if any											
c) Ornamental Plants											
Nursery Management											
Management of potted plants											
Export potential of ornamental plants											
Propagation techniques of Ornamental Plants											
Others, if any											
d) Plantation crops											
Production and Management technology											
Processing and value addition											
Others, if any											
e) Tuber crops											
Production and Management technology											
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											
Micro nutrient deficiency in crops											
Nutrient Use Efficiency											
Soil and Water Testing											
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											
Others, if any											
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											
Value addition											
Income generation activities for empowerment of rural Women	2	00	40	40	00	15	15	00	05	05	60
Location specific drudgery reduction technologies											
Rural Crafts											
Women and child care	1	00	15	15	00	10	10	00	05	05	30
Others, if any											
VI Agril. Engineering											
Installation and maintenance of micro irrigation systems											
Use of Plastics in farming practices											

Burdwan KVK, CRIJAF (ICAR)											
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	1	20	00	20	10	00	10	00	00	00	30
Integrated Disease Management											
Bio-control of pests and diseases	1	20	00	20	10	00	10	00	00	00	30
Production of bio control agents and bio pesticides											
Others, if any	1	20	00	20	10	00	10	00	00	00	30
VIII Fisheries											
Integrated fish farming											
Carp breeding and hatchery mgt.											
Carp fry and fingerling rearing											
Composite fish culture	1	14	04	18	06	06	12	00	00	00	30
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	1	10	00	10	03	00	03	07	00	07	20
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	2	05	05	10	05	05	10	00	00	00	20
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											

Burdwan KVK, CRIJAF (ICAR)

Production technologies											
Nursery management											
Integrated Farming Systems											
XII Others (Pl. Specify)											
TOTAL	11	109	64	173	54	36	90	7	10	17	280
(B) RURAL YOUTH											
Mushroom Production	4	60	00	60	40	00	40	20	00	20	120
Bee-keeping											
Integrated farming											
Seed production	3	21	00	21	09	00	09	00	00	00	30
Production of organic inputs	1	10	00	10	03	00	03	07	00	07	20
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	10	00	10	10	10	20	00	00	00	30
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	1	14	04	18	06	06	12	00	00	00	30
Fry and fingerling rearing											
Small scale processing											
Post Harvest Technology											
Tailoring and Stitching											
Rural Crafts											
Others, if any											
TOTAL	12	115	4	119	68	16	84	27	0	27	230
(C) Extension Personnel											
Productivity enhancement in field crops	1	20	00	20	10	00	10	00	00	00	30
Integrated Pest Management											
Integrated Nutrient management											
Rejuvenation of old orchards											
Protected cultivation technology	1	15	00	15	15	00	15	00	00	00	30
Formation and Management of SHGs											
Group Dynamics and farmers											

Burdwan KVK, CRIJAF (ICAR)

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	1	20	00	20	10	00	10	00	00	00	30
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											
Any other	1	15	00	15	10	00	10	00	00	00	25
TOTAL	4	70	0	70	45	0	45	0	0	0	115

B. OFF Campus

Thematic Area	No. of Courses	No. of Participants									Grand Total
		Others			SC			ST			
		M	F	T	M	F	T	M	F	T	
I Crop Production											
Weed Management											
Resource Conservation Technologies	2	40	00	40	20	00	20	00	00	00	60
Cropping Systems											
Crop Diversification											
Integrated Farming											
Water management											
Seed production	1	15	00	15	10	00	10	05	00	05	30
Nursery management	2	30	00	30	20	00	20	10	00	10	60
Integrated Crop Management											
Fodder production											
Production of organic inputs											
Others, if any	1	20	00	20	10	00	10	00	00	00	30
II Horticulture											
a) Vegetable Crops											
Production of low volume & high value crops											
Off-season vegetables											
Nursery raising	1	10	05	15	08	02	10	00	00	00	25
Exotic vegetables like Broccoli											
Export potential vegetables											
Grading and standardization											
Protective cultivation (Green Houses, Shade Net etc.)	2	40	00	40	20	00	20	00	00	00	60
Others, if any	2	35	00	35	20	00	20	00	00	00	55
b) Fruits											
Training and Pruning											
Layout and Management of Orchards											
Cultivation of Fruit	1	10	05	15	08	02	10	00	00	00	25
Management of young plants/orchards											
Rejuvenation of old orchards											
Export potential fruits											
Micro irrigation systems of orchards											
Plant propagation techniques											
Others, if any											

c) Ornamental Plants											
Nursery Management											
Management of potted plants											
Export potential of ornamental plants											
Propagation techniques of Ornamental Plants											
Others, if any											
d) Plantation crops											
Production and Management technology											
Processing and value addition											
Others, if any											
e) Tuber crops											
Production and Management technology	2	40	00	40	20	00	20	00	00	00	60
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	2	30	00	30	20	00	20	10	00	10	60
Soil and Water Conservation											
Integrated Nutrient Management											
Production and use of organic inputs											
Management of Problematic soils											
Micro nutrient deficiency in crops											
Nutrient Use Efficiency											
Soil and Water Testing	1	20	00	20	10	00	10	00	00	00	30
Others, if any											
IV Livestock Production and Management											
Dairy Management	3	20	10	30	25	35	60	00	00	00	90
Poultry Management											
Piggery Management											
Rabbit Management											
Disease Management	1	10	10	20	10	00	10	00	00	00	30
Feed management	2	25	15	40	10	10	20	00	00	00	60
Production of quality animal products											
Others, if any											
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	1	00	15	15	00	10	10	00	05	05	30

Burdwan KVK, CRIJAF (ICAR)

processing											
Gender mainstreaming through SHGs											
Storage loss minimization techniques	1	00	15	15	00	10	10	00	05	05	30
Value addition											
Income generation activities for empowerment of rural Women											
Location specific drudgery reduction technologies											
Rural Crafts											
Women and child care											
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	2	28	12	40	20	00	20	00	00	00	60
Others, if any											
VII Plant Protection											
Integrated Pest Management	2	35	00	35	20	00	20	00	00	00	55
Integrated Disease Management											
Bio-control of pests and diseases											
Production of bio control agents and bio pesticides											
Others, if any	5	95	00	95	55	00	55	00	00	00	150
VIII Fisheries											
Integrated fish farming	1	14	04	18	06	06	12	00	00	00	30
Carp breeding and hatchery mgt.											
Carp fry and fingerling rearing	2	36	05	41	11	08	19	00	00	00	60
Composite fish culture	3	49	09	58	18	14	32	00	00	00	90
Hatchery management and culture of freshwater prawn	1	14	04	18	06	06	12	00	00	00	30
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	1	20	00	20	10	00	10	00	00	00	30
Bio-fertilizer production											
Vermi-compost production											
Organic manures production	1	15	00	15	15	00	15	00	00	00	30
Production of fry and fingerlings											
Production of Bee-colonies and wax sheets											
Small tools and implements											

Burdwan KVK, CRIJAF (ICAR)											
Production of livestock feed and fodder	1	10	05	15	10	05	15	00	00	00	30
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	44	661	114	775	382	108	490	25	10	35	1300
(B) RURAL YOUTH											
Mushroom Production											
Bee-keeping											
Integrated farming											
Seed production	1	15	00	15	10	00	10	05	00	05	30
Production of organic inputs											
Integrated Farming											
Planting material production											
Rabbit farming											
Poultry production											
Ornamental fisheries											
Para vets											
Para extension workers											
Composite fish culture											
Freshwater prawn culture											
Shrimp farming											
Pearl culture											
Cold water fisheries											
Fish harvest and processing technology											
Fry and fingerling rearing											
Small scale processing											
Post Harvest Technology											
Tailoring and Stitching											
Rural Crafts											
Others, if any											
TOTAL	1	15	00	15	10	00	10	05	00	05	30
(C) Extension Personnel											
Productivity enhancement in field crops											
Integrated Pest Management											
Integrated Nutrient management											
Rejuvenation of old orchards											
WTO and IPR issues											
Management in farm animals											
Livestock feed and fodder production											
Household food security											
Women and Child care											

Low cost and nutrient efficient diet designing											
Production and use of organic inputs											
Information networking among farmers											
Gender mainstreaming through SHGs											
Any other (Pl. Specify)											
TOTAL											

C) Consolidated table (ON and OFF Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total
		Others			SC			ST			
		M	F	T	M	F	T	M	F	T	
(A) Farmers & Farm Women											
I Crop Production											
Weed Management											
Resource Conservation Technologies	3	60	00	60	30	00	30	00	00	00	90
Cropping Systems											
Crop Diversification											
Integrated Farming											
Water management											
Seed production	1	15	00	15	10	00	10	05	00	05	30
Nursery management	2	30	00	30	20	00	20	10	00	10	60
Integrated Crop Management											
Fodder production											
Production of organic inputs											
Others, if any	1	20	00	20	10	00	10	00	00	00	30
II Horticulture											
a) Vegetable Crops											
Production of low volume & high value crops											
Off-season vegetables											
Nursery raising	1	10	05	15	08	02	10	00	00	00	25
Exotic vegetables like Broccoli											
Export potential vegetables											
Grading and standardization											
Protective cultivation (Green Houses, Shade Net etc.)	2	40	00	40	20	00	20	00	00	00	60
Others, if any	2	35	00	35	20	00	20	00	00	00	55
b) Fruits											
Training and Pruning											
Layout and Management of Orchards											
Cultivation of Fruit	1	10	5	15	08	02	10	00	00	00	25
Management of young plants/orchards											
Rejuvenation of old orchards											
Export potential fruits											
Micro irrigation systems of orchards											
Plant propagation techniques											
Others, if any											
c) Ornamental Plants											
Nursery Management											
Management of potted plants											
Export potential of ornamental plants											
Propagation techniques of Ornamental Plants											
Others, if any											
d) Plantation crops											

Production and Management technology											
Processing and value addition											
Others, if any											
e) Tuber crops											
Production and Management technology	2	40	00	40	20	00	20	00	00	00	60
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	2	30	00	30	20	00	20	10	00	10	60
Soil and Water Conservation											
Integrated Nutrient Management											
Production and use of organic inputs											
Management of Problematic soils											
Micro nutrient deficiency in crops											
Nutrient Use Efficiency											
Soil and Water Testing	1	20	00	20	10	00	10	00	00	00	30
Others, if any											
IV Livestock Production and Management											
Dairy Management	3	20	10	30	25	35	60	00	00	00	90
Poultry Management											
Piggery Management											
Rabbit Management											
Disease Management	1	10	10	20	10	00	10	00	00	00	30
Feed management	2	25	15	40	10	10	20	00	00	00	60
Production of quality animal products											
Others, if any											
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	1	00	15	15	00	10	10	00	05	05	30
Gender mainstreaming through SHGs											
Storage loss minimization techniques	1	00	15	15	00	10	10	00	05	05	30
Value addition			160								
	7	00	0	160	00	50	00	00	00	00	210
Income generation activities for empowerment of rural Women	2	00	40	40	00	15	15	00	05	05	60

Burdwan KVK, CRIJAF (ICAR)											
Location specific drudgery reduction technologies											
Rural Crafts	7	00	160	00	50	00	00	00	00	00	210
Women and child care	1	00	15	15	00	10	10	00	05	05	30
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	2	28	12	40	20	00	20	00	00	00	60
Others, if any											
VII Plant Protection											
Integrated Pest Management	3	55	00	55	30	00	30	00	00	00	85
Integrated Disease Management											
Bio-control of pests and diseases	1	20	00	20	10	00	10	00	00	00	30
Production of bio control agents and bio pesticides											
Others, if any	6	115	00	115	65	00	65	00	00	00	180
VIII Fisheries											
Integrated fish farming	1	14	04	18	06	06	12	00	00	00	30
Carp breeding and hatchery mgt.											
Carp fry and fingerling rearing	2	36	05	41	11	08	19	00	00	00	60
Composite fish culture	4	63	13	76	24	20	44	00	00	00	120
Hatchery management and culture of freshwater prawn	1	14	04	18	06	06	12	00	00	00	30
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	1	20	00	20	10	00	10	00	00	00	30
Bio-fertilizer production											
Vermi-compost production	1	10	00	10	03	00	03	07	00	07	20
Organic manures production	1	15	00	15	15	00	15	00	00	00	30
Production of fry and fingerlings											
Production of Bee-colonies and wax sheets											
Small tools and implements											
Production of livestock feed and fodder	3	15	10	25	15	10	25	00	00	00	50
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	69	770	498	126 8	436	244	580	32	20	52	2000
Rural Youth											
Mushroom Production	4	60	00	60	40	00	40	20	00	20	120
Bee-keeping											
Integrated farming	4	36	00	36	19	00	19	05	00	05	60
Seed production											
Production of organic inputs	1	10	00	10	03	00	03	07	00	07	20
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	10	00	10	10	10	20	00	00	00	30
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	1	14	04	18	06	06	12	00	00	00	30
Fry and fingerling rearing											
Small scale processing											
Post Harvest Technology											
Tailoring and Stitching											
Rural Crafts											
Others, if any											

Burdwan KVK, CRIJAF (ICAR)											
TOTAL	13	130	4	134	78	16	94	32	0	32	260
(C) Extension Personnel											
Productivity enhancement in field crops	1	20	00	20	10	00	10	00	0	00	30
Integrated Pest Management											
Integrated Nutrient management											
Rejuvenation of old orchards											
Protected cultivation technology	1	15	00	15	15	00	15	00	0	00	30
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	1	20	00	20	10	00	10	00	0	00	30
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											
Any other (Pl. Specify)	1	15	00	15	10	00	10	00	0	00	25
TOTAL	4	70	0	70	45	0	45	0	0	0	115

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

Date	Clientele	Title of Training	Duration in days	Venue	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
13.07.11	PF	Improved production technology of Jute	1	Off	30	00	30	10	00	10
08.07.11, 19.07.11	PF	Rice cultivation through SRI	2	Off	60	00	60	20	00	20
21.07.11	PF	Rice cultivation through SRI	1	On	30	00	30	10	00	10
19.07.11	EF	Rice cultivation through SRI	1	Off	30	00	30	10	00	10
15.07.11	PF	Need for soil testing and soil test based fertilizer application	1	Off	30	00	30	10	00	10
13.07.11	PF	Use of fibre extractor in extraction of fibre	1	Off	30	0	30	10	00	10
08.09.11	PF	NADEP compost production	1	Off	30	00	30	15	00	15
13.09.11	RY	Paddy seed production technology	1	Off	30	00	30	15	00	15
08.09.11	RY	Vermicompost production at farmers level	1	On	20	00	20	10	00	10
30.11.11	PF	Vermicompost production at farmers level	1	On	20	00	20	10	00	10
28.11.11 & 03.12.11	PF	Improved fertilizer management in mustard	2	Off	60	00	60	30	00	30
11.07.11	PF	Seed treatment and nursery management of <i>kharif</i> paddy	1	On	30	00	30	15	00	15
21.07.11	PF	Seed treatment and nursery management of <i>kharif</i> paddy	1	Off	30	00	30	15	00	15
24.09.11	PF	Paddy seed production technology	1	Off	30	00	30	15	00	15
24.11.11	EF	Climate change and agriculture	1	On	25	00	25	10	00	10
25.07.11	PF	Nursery management in vegetable crops	1	Off	18	7	25	08	02	10
25.07.11	PF	Preparation of organic pesticides and its application	1	Off	30	0	30	10	00	10
15.07.11	PF	Use of mulch in horticultural crops	1	On	30	0	30	10	00	10
15.09.11	EF	Micro irrigation technology	1	On	30	00	30	15	00	15
27.07.11	PF	Improved cultivation of tissue culture banana	1	Off	18	07	25	08	02	10
19.09.11	PF	Improved production technology of tomato	1	Off	30	0	30	10	0	10
23.11.11	PF	Improved production technology of potato	1	Off	30	0	30	10	0	10
19.09.11, 30.11.11	RY	Seed production techniques of major vegetable crops	3	On	30	00	30	09	00	09

& 12.03.12										
15.09.11	PF	Production technology of cole crops in greenhouse	1	Off	30	00	30	10	00	10
12.03.12	PF	Improved production technology of okra	1	Off	25	00	25	10	00	10
13.03.12	PF	Management of major pest and diseases of Cucurbits	1	Off	25	00	25	10	00	10
28.11.11	PF	Identification of major diseases of potato	1	Off	30	00	30	10	00	10
16.07.11	PF	Care of new born kids	1	Off	10	20	30	10	20	30
23.07.11	PF	Poisonous plants and their effect on animal health	1	Off	20	10	30	10	05	15
24.12.11	PF	Care and handling of day old chicks	1	Off	15	15	30	05	10	15
24.09.11	PF	Animal shed disinfection	1	Off	20	10	30	10	00	10
16.07.11	PF	Techniques of paneer preparation	1	Off	08	22	30	00	10	10
27.08.11 & 17.09.11	PF	Cultivation techniques of rice bean	2	On	10	10	20	05	05	10
20.08.11, 27.08.11 & 17.09.11	RY	Poultry rearing	3	On	20	10	30	10	10	20
15.01.12	EF	New generation vaccine and immunization schedule for poultry	1	On	30	00	30	10	00	10
03.12.11	PF	Home made cattle feed preparation	1	Off	20	10	30	10	05	15
03.12.11 & 17.12.11	PF	Feeding techniques of mineral mixture for dairy cow	2	Off	35	25	60	10	10	20
15.01.12	PF	Schedule of fertilization and liming in fish culture ponds.	1	On	20	10	30	06	06	12
09.12.11	PF	Aquatic weeds and algal blooms in fish ponds, their control and utilization	1	Off	25	05	30	07	05	12
09.12.11	PF	Rearing pond preparation and management.	1	Off	22	08	30	05	03	8
12.12.11	PF	Disease management and prophylactic measures in composite fish culture ponds	1	Off	22	08	30	05	03	8
23.12.11	PF	Effects of liming in fish ponds	1	Off	20	10	30	06	06	12
13.03.12	PF	Integrated duck-cum-fish farming in back yard pond	1	Off	20	10	30	06	06	12
03.01.12	RY	Induced breeding of Indian major carp	1	On	20	10	30	06	06	12

23.12.11	PF	Monoculture of freshwater Prawn	1	Off	20	10	30	06	06	12
24.03.12	PF	Preparation and management of nursery pond	1	Off	25	05	30	06	05	11
19.07.11	PF	Integrated Pest Management (IPM) in rice	1	Off	30	00	30	10	00	10
23.07.11	PF	Integrated Pest Management (IPM) in rice	1	On	30	00	30	10	00	10
21.07.11	PF	Pest management of jute	1	Off	30	00	30	20	00	20
03.01.12	PF	Pest management of Brinjal	1	Off	30	00	30	10	00	10
21.09.11	PF	Pest Management through Bio-pesticides	1	On	30	00	30	10	00	10
23.11.11 & 03.12.11	PF	Pest Management in Potato	2	Off	60	00	60	15	00	15
24.11.11	PF	Pest Management in Mustard	1	On	30	00	30	10	00	10
12.12.11	PF	Pest Management in Mustard	1	Off	30	00	30	10	00	10
19.01.12- 23.01.12	RY	Improved Production Technology of Oyster Mushroom Cultivation	4	On	120	00	120	60	00	60
10.03.12	PF	Minimization of nutrients loss during processing food products	1	Off	00	30	30	00	15	15
10.03.12	PF	Storage loss minimization of fruits and vegetables	1	Off	00	30	30	00	15	15
24.02.12, 25.02.12	PF	Hands on training for preparation of Jam, Jelly, Squash and Pickles	2	On	00	60	60	00	20	20
24.03.12	PF	Feeding of infant (after 5 months) with weaning food	1	On	00	30	30	00	15	15

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			Number of persons employed else where
				M	F	Total	Type of units	No. of units	Number of persons employed	
Jute handicrafts	Entrepreneurship development	Preparation of jute handicrafts	7	00	210	210	SHG	2	16	08
Kantha stitch	Entrepreneurship development	Vocational training on Preparation of kantha stitch	7	00	210	210	SHG	2	16	10

(*)Training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes

S.N	Title	Thematic area	Month	Duration (days)	Client	No. of courses	No. of Participants							Sponsoring Agency
					PF/R/Y/EF		Male		Female		Total			
							Oth	SC/ST	Oth	SC/ST	Oth	SC/ST	Total	
1.	Application of Pellet Feed and its Management in Carp Culture	Composite fish culture	September, 2011	1	PF	1	21	07	00	00	21	07	28	CIFA Reg. Centre, Rahara
Total				1		1	21	07	00	00	21	07	28	

3.4. 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	9	210	60	270	-	-	-	210	60	270
Kisan Mela								0	0	
Kisan Ghosthi								0	0	
Exhibition	2	1200	350	1550	75	25	100	1275	375	1650
Film Show	30	750	255	1005	40	-	40	790	255	1045
Method Demonstrations (jute fibre extractor/ cono weeder)	2	82	15	97	7	5	12			119
Farmers Seminar	5	80	20	100	45	05	50	89	20	
Workshop								125	25	150
Group meetings								0	0	
Lectures delivered as resource persons	7	255	100	355	35	15	50	0	0	
Newspaper coverage	7							290	115	405
Radio talks								0	0	
TV talks	2							0	0	
Popular articles	3							0	0	
Extension Literature	10	795	200	995				0	0	
Advisory Services	405	375	75	450				795	200	995
Scientific visit to farmers field	85	672	143	815				375	75	450
Farmers visit to KVK	85	864	215	1079				672	143	815
Diagnostic visits	52	37	15	52				864	215	1079
Exposure visits	5	175	60	235				37	15	52
Ex-trainees Sammelan								175	60	235
Soil health Camp								0	0	
Animal Health Camp	25	755	365	1120 families				0	0	
Agri mobile clinic								755	365	1120 families
Soil test campaigns	2	45	0	45				0	0	
Farm Science Club Conveners meet	19	145	15	160	15	0	15	45	0	45
Self Help Group Conveners meetings	5	40	110	150				160	15	170
Mahila Mandals Conveners meetings	4	0	42	42				40	110	150
Celebration of important days (specify)	(4) 26 th January, 15 th August and World Vet. Day, World Food Day	147	58	205				0	42	42
Any Other								0	42	205
Technology week	1	112	63	175	-	-	-	147	58	
SAC meeting								0	0	
Total	769	6739	2161	8900	217	50	267	6956	2211	9167

3.5 Production and supply of Technological products**a. Village seed**

Sl. No.	Crop	Variety	Quantity (q)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Paddy	MTU 7029	2000	-	-
OILSEEDS	--	--	--	--	--
PULSES	--	--	--	--	--
VEGETABLES	--	--	--	--	--
FLOWER CROPS	--	--	--	--	--
OTHERS (Specify)	--	--	--	--	--

b. KVK farm

Sl. No.	Crop	Variety	Quantity (q)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Paddy (Certified seed)	MTU 7029	250	Not yet sold	
PULSES					
VEGETABLES	Tomato seedling	Avinash 3	20000 nos.	14000	50
	Cauliflower	Early Kunwari	3000 nos.	9750	-
FLOWER CROPS					
Spices & plantation crop					
OTHERS (Specify)	-	-	-	-	-

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS	--	--	--	--	--
SPICES	--	--	--	--	--
VEGETABLES	Tomato Brinjal		23000	23750	50
FOREST SPECIES	--	--	--	--	--
ORNAMENTAL CROPS	--	--	--	--	--
PLANTATION CROPS	--	--	--	--	--
Others (specify) 1					

Production of Bio-Products

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
	--	--	--	--	--	--
BIOAGENTS	--	--	--	--	--	--
BIOFERTILIZERS	--	--	--	--	--	--
BIO PESTICIDES	--	--	--	--	--	--

Production of LIVESTOCK

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	Kgs		
Cattle	--	--	--	--	--	--
SHEEP AND GOAT	--	--	--	--	--	--
POULTRY						

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

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

(B) Literature developed/published : *Annexure II*

Item	Title	Authors name	Number
Research papers	-	-	4
Technical reports	-	-	-
News letters	-	-	-
Technical Bulletin	1. Seed production technology of vegetables	S. Sarkar, S.S. Kundu, F. H. Rahman and B. S. Mahapatra	CRIJAF/KVK/2012/4
	2. Greenhouse production of capsicum in subtropical plains of India	S. Sarkar, S.S. Kundu, F. H. Rahman and B. S. Mahapatra	CRIJAF/KVK/2012/5
	3. Technology for broiler production in hot and humid climate	C. Jana and F. H. Rahman	Bulletin no. 31/2012
Popular articles	Dhaner prodhan kayekti rog o tar protikar	S. Garai	2
	Paschimbange krishi projukti samprasarone prodhan charti ganamadhyam	S Garai	
Extension literature	1. Seed village and seed production 2. Preparation of Vegetable seedling 3. Organic pesticide preparation and its application 4. System of rice intensification – an alternative system 5. Pest and disease of paddy 6. Vaccination schedule for animal 7. Rearing of Khaki Campbell duck 8. Preventive measures against PPR 9. Oyster mushroom – a profitable enterprise 10. Ricebean-impact in animal nutrition	F.H. Rahman, D. Kumar & B.S.Mahapatra S. Sarkar S. Sarkar D. Ghorai S. Garai & SS Kundu C. Jana C.Jana C.Jana S. Garai C. Jana	10
Others (Pl. specify)			
TOTAL	Nineteen (19)		

C) Details of Electronic Media Produced :

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
1.			
2.			

D) Details of personnel development

Title of training/ winter school	Venue and date	Scientists attended
Seed quality control	National Seed Corporation, New Delhi, 23-27 th Aug. 2011	Mr. S. S. Kundu
Farm mechanization extension	SAMETI, Narendrapur, Kolkata, 12-14 th March, 2012	Mr. S. S. Kundu

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

Success stories: Two Nos.

Sustainable Income through Integrated farming System

Integrated farming systems is based on the principle where the wastes from one operation can be used as input for other and reduce the risks as well as costs of production; improves soil fertility, provide balance nutrition and ensure enhanced holistic yields as well as income.

Krishi Vigyan Kendra Burdwan developed an integrated model and disseminated it through trainings and demonstrations. The IFS model consists of Crop + fish + poultry and Crop + fish + duck farming technologies. Best performance of integrated production system was observed through cultivation of tissue culture banana in bund area and pasture feed poultry rearing as meat purpose with IMC fish cultivation in pond. The model was taken up by MGNREGS cell, Burdwan and it was replicated in five different blocks of the district with the technical backstopping of KVK.

Sk. Shoyeb Hossain is a marginal farmer-cum-rural youth of village Jagulipara, Galsi-I of the district Burdwan. Although being a rural youth he has got a pragmatic view towards latest agricultural technologies and is keen to learn and as such he was chosen for developing the integrated farming system model in his backyard. He own one pond of 1 bigha with adjoining 1.5 bigha land including bund area. While the pond was mainly used for household purposes like washing with irregular or no pisciculture, the land area was used for growing seasonal vegetables for meeting the household needs and as a result he was hardly having any meaningful income from the resources. He was extensively trained by KVK personnel towards developing the same system in his backyard which he accomplished with success. To start with he was supplied with tissues cultured banana plantlets, vegetable seedlings, ducklings and IMC fingerlings. He developed a good banana orchard intercropped with vegetables like chili, tomato, brinjal, turmeric etc. Now he is earning an amount of Rs, 40,000/- yearly from his farm and inspiring other farmers to adopt this kind of intervention. He was awarded for his effort by ICAR during 2011.

It is worth mentioning here that this IFS model, developed by KVK, has gained such popularity in the area that the KVK has been entrusted by MGNREGS to replicate the same model in selected 200 ponds of the district. To start with KVK and state govt. personnel have selected initially 20 ponds in the blocks of Kanksa, Ausgram-1 & 2, Galsi- 1 &2, Khandaghosh etc.



2. Supplementation of Region Specific Mineral Mixture for Deshi Cow

Brief description of the technology: Minerals (P, Zn, Cu, Mn, Ca & Fe) in feedstuff and soil of Burdwan district were estimated and found that daily diet of lactating cow were deficient in P, Zn, Cu & Mn. So, to overcome the deficiency and production losses an area specific mineral mixture, composed of sulphate salt of minerals, was formulated and supplemented. Higher milk yield has

been noticed with increased in fat % in supplemented group with enhancement of lactation period in deshi cow.

Mineral contents (copper, zinc, manganese, and iron) of the feeds & forages were estimated by AAS. Phosphorus content was estimated colorimetrically. The program was formulated to develop a region specific mineral mixture for deshi cow by analyzing mineral status in locally available feed stuffs with the objective of improvement of productivity and reproduction efficiency. The trial was conducted in deshi cow (2nd lactation) under tradition feeding practices (3kg straw, 1 kg rice husk, 100 g oil cake and 20 g salt daily plus grazing) producing 1.8 to 1.9 kg milk/ day on an average having 3.2- 4.2 % fat. The parameter on milk yield and fat % were analyzed but record keeping on calving interval is continuing as calving interval in deshi cow is 20-22 months.

The trial was then taken into FLDs taking 50 number of demonstration in different villages and results have been obtained so promising.

Impact of the practice: Now the farmers of the district are purchasing the mixture packet from the KVK and in some cases farmers are preparing their own and feeding their cattle @ daily mineral supplementation (25 g/day) which significantly improved milk yield (0.5 kg/ day/ cow) which also reduced calving interval.



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

1. Productivity Augmentation through System of Rice Intensification

The methodology involves 10-12 day old seedling grown in raised beds, single seedling per hill, wider spacing (min. 25 x 25 cm), alternate wetting and drying of the main field until booting stage. The technology has been tried and recommended in case of *kharif* season only. It is recommended that organic matter/manure in any form (FYM, vermicompost, green manure, or any other) is to be supplemented with inorganic recommended fertilizer.

As very young seedlings are transplanted in this practice, rice plant can get more no. of phyllochrons thereby generating more tillers and ultimately more panicles. Also since single seedling is used in wider spacing, plants can thrive well having large volume of roots thereby taking up nutrients more efficiently than conventional practice. Alternate wetting and drying maintains soil health well and is conducive for proliferation of microbial flora and fauna, helpful for sound crop development. Although '*Cono weeder*' is recommended in case of SRI for weed management, our experience shows that new generation herbicides can serve the purpose effectively with only one manual weeding, if necessary.

2. Home feed preparation technology for dairy raisers : The technology for the preparation of Home made feed by using locally available feed ingredients has been disseminated through training and demonstration of the Feed mixture and feed grinder. The centre has created free access facility for using unit for preparing their own feeds as and when they need. By this way they are able to meet up the nutrition requirement of their livestock as well as they reduce the cost of milk/meat/egg production

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. N.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Goat and Cattle	Paste of leaves of kalmeg is made in water which is drenched orally.	Deworming for cattle and goat
2	Cattle	Leaves and twigs (20g) of neem are boiled in water (1 liter) till the colour of leaves turn iarrhe. The decoction, after cooling, is applied externally on the affected area	To control Foot and mouth disease in cattle
3	Goat and Cattle	Paste of branch of lonka suti (2 for adult cow and 1 for goat) in semi-solid form is fed to the affected animals for 2 days	For treatment of iarrhea of cattle and goat
4	Goat and Cattle	Black pepper is mixed with ghee and fed to the affected animals.	For treatment of fever (HS) for cattle and goat
5	Goat and Cattle	Paste of harjora is applied on the affected area which is fixed by using bamboo stick	Setting of fractured bone of small and large animals
6	Buffalo	Paste of raw turmeric and mustard cake is applied on the affected area with rice glue on back	Swelling and pain in hump of buffalo
7	Paddy/ wheat	Dried neem leaves are placed in different layers of grain during storage	To check pest attack in paddy/ wheat during storage

3.10 Indicate the specific training need analysis tools/methodology followed for

- Identification of courses for farmers/farm women :
Through multidisciplinary PRA method and Group discussion
- Rural Youth
Through multidisciplinary PRA method and Group discussion
- In-service personnel: Training and discussion using A/V aids

3.11 Field activities

- i. Number of villages adopted – 5 so far (*one during the year*)
- ii. No. of farm families selected- 1257 *during the year*
- iii. No. of survey/PRA conducted- 5 (*One PRAs during the year*)

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Functioning

1. Year of establishment : 2007- 2008
2. List of equipments purchased with amount :

Name of the equipment	Qty	Cost (Rs.)
Flame photometer	One	29813.00
Spectrophotometer	One	46283.00
Shaker	One	20756.00
Hot air oven	One	5344.00
Hot plate	One	14000.00
Glass distillation unit	One	28000.00
Conductivity bridge	One	10000.00
pH meter	One	9360.00
Refrigerator	One	12350.00
Electronic balance	One	12375.00
Grinder	One	19500.00
Kjeldahl N semi auto analyzer	One	250474.00
Shaker	One	12000.00

3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	310	150	10	-
Water Samples	40	45	7	-
Total	350	195	17	-

3.13 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
Four nos. (Micro irrigation)	One demonstration unit at KVK farm	-	200	10
Four nos. (Rain water harvesting)	Two demo unit at KVK	-	200	30

3.14 Technology week celebration

Type of activities	No of activities	No. of participants	Related crop/livestock technology
Training	5	500	Greenhouse technology, Vermicompost, meat processing, entrepreneurship dev
Field visit	3	300	SRI, Micro irrigation, Greenhouse, vermicompost, animal feed preparation etc
Farmer-scientist interaction	2	200	SRI technology, paddy seed production

3.15 In RAWA programme is KVK is involved?

No of ARS trained	No of days stayed

3.16 NICRA Project

Programme implemented	No. of village covered	No. of beneficiary covered	Amount of fund received	Amount of fund utilized

3.17 List of visitors including the officials of ZPD and DEE

Date	Name of the person	Purpose of visit
05.06.11	Dr. K. Narayana Gowda, Chairman, QRT/Hon'ble VC, UAS, Bengaluru	QRT visit
05.06.11	Dr. M.S. Basu, Member, QRT	QRT visit
10.05.11	Prof. B. S. Mahapatra, Director, CRIJAF	KVK visit
05.06.11	Dr. A. K. Singh, ZPD, Zone-II, Kolkata	QRT visit
16.10.11	Prof. D. Dutta Roy, ISI, Kolkata	World Food Day
28.09.11	Dr. P. K. Mukhopadhyay, PS & Head, RRC, CIFA (ICAR), Kolkata	Training programme
11.04.11	Dr. P. Palit, Pr. Scientist, CRIJAF(ICAR), Barrackpore	KVK visit
23.11.11	Mr. Sudhir Shah, Zonal Head, Mahindra & Mahindra Ltd., New Delhi	Training programme
10.08.11	Mr. Shyamal Dutta, Dy. Director of Agri.(Adm.), Burdwan	RKVY
16.10.11	Dr. B. Maity, Dy. Director, ARD, Burdwan	World Food Day

4. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Preparation of jute handicrafts	57	85	-	1600 p.m
Introduction of cultivation of jute in new areas	54	80	-	15000/ha
Cultivation of Oyster mushroom in new areas	280	25	-	1000/month
Preparation of kantha stitch	30	80	-	3000/month
Introduction of Khaki Campbell duck	25	80	-	300/month

4.2. *Cases of large scale adoption*

(Please furnish detailed information for each case)

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

Impacts of the different efforts by the KVK during 2010-11 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 : ITK refinement

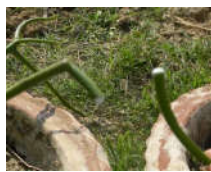
Management of animal diseases through refined ITK



Jagulipara, Galsi-I ,
Burdwan
(M) 9232794153
Graduate;
10 acre land holding

Sk. Sheikh Soyeab, 32 years old farmer of Burdwan district of West Bengal helped the fellow animal rearers through a modified ITK.

Description and utility: Diarrhea and foot and mouth disease are quite prevalent in the district causing death of a large number of cattle. A refinement of the ITK in this regard by Sk. Soyeab through feeding paste of branch of *lonka suti* (a local herb) (2 tsf for adult cow and 1 for goat) in semi-solid form to the affected animals for 2 days cured diarrhea of cattle. For controlling foot and mouth disease he applies the decoction (after cooling) externally on the affected part after boiling leaves and twigs (20g) of neem in water (1 liter)(till the colour of leaves turn fade). Though this application is yet to be scientifically tested but a few fellow farmers are successfully practicing this refined ITK to cure their animals.

*Lanka shuti**Plant's latex**Before treatment**After treatment*

4.5 Details of entrepreneurship development by the KVK

KVK conducted different trainings and demonstration on the following topics for entrepreneurship development

- Preparation of Jute handicraft – Ten of the trainees are generating income through handicraft preparation
- Preparation of Kantha Stitch – Twenty of the trainees (female) are supplementing family income
- Vermicompost production – Eight village level production units have been formed
- Mushroom cultivation – Twenty village level production units have been formed for domestic consumption

4.6 Any other initiative taken by the KVK

- **One Trial on Brown manuring conducted in KVK experimental farm in collaboration with CIMMYT :** One on station demonstration was conducted at KVK, Burdwan in an area of 0.4 ha on brown manuring in rice. The rice cultivar used was MTU 7029. Pre germinated paddy seed (@25 kg/ha) was broadcasted alongwith *sesbania* (@30 kg/ha) in soil after giving one shallow ploughing on 25.6.10. 1/4th of 75% recommended N (80 kg ha⁻¹) and 75% recommended P and K (40 kg ha⁻¹) were applied as basal. No herbicide was used before sowing. Half of the 75% recommended N was applied after 45 days after sowing (DAS) and rest was applied at 70 DAS. Herbicide 2,4-diethyl ester was applied two times, one after 30 DAS and another at 45 DAS. *Sesbania* was fully destroyed 55 DAS. Water management was done in conventional manner. It was found that productivity increase due to brown manuring was marginal (1.3 %) which may not speak in favour of brown manuring over conventional method of cultivation, but when benefit: cost ratio is considered, brown manuring was found to be much more effective over conventional method in diminishing cost of cultivation (B : C ratio of 1.15 as compared to 0.74 in conventional). The main reason for diminished cost of cultivation was much less fuel requirement for main field preparation. Also the labour requirement is also less in brown manuring (152 nos.) as compared to conventional (170 nos.). Brown manuring has another advantage in regards of soil quality preservation and remediation. In conventional rice cultivation puddling has to be done to break down soil aggregates, reduce macro-porosity, disperse the clay fraction, and form a dense zone of compaction (i.e. 'plough pan') at depth. In addition to facilitating transplanting, puddling serves several functions including weed control and to reduce deep percolation losses of water.
- Implementation of Integrated Farming System (a model which was developed by KVK) in various ponds excavated in different villages of Burdwan District under MGNREGS scheme with the help of MGNREGS workers
- Workshop conducted with Indian Metrological Department, Govt of India at KVK on Effect of Climate on Agriculture and after that we collect the weather forecast from them and circulate the various stake holders for aware of the farmers of the Burdwan district about the weather forecast for next five days and accordingly they can plan fro their crop management.

4.7 Area not covered by the above or constraints or new proposal for XII plan

N/A

5.0 LINKAGES**5.1 Functional linkage with different organizations**

Name of organization	Nature of linkage
ATMA	- Governing body and management committee member - Conducting Farm school, trainings, demonstration etc.
RKVY	- Governing body and management committee member - Adhoc projects etc. - Training programmes on Greenhouse technology and micro irrigation on horticulture
MGNREGS	Convergence programmes were - Training of NREGA technical staff on Vermi-compost, Rainwater harvesting, horticulture, Composite fish culture, Integrated farming - Field demonstrations by KVKs on NREGA works on IMC culture, Duck rearing, integrated farming (Fish-livestock-horticulture) - Skill development of NREGA workers under SGSY through Preparation of jute handicrafts, kantha-stitch.
NABARD	Farmers club, Credit facility for farmers
Indian Metrological Deptt.	Weather forecasting etc.
Bidhan Chandra Krishi Viswavidyalaya, Mohanpur	Time to time planning execution; Planting material collection
West Bengal University of Animal and Fishery Science	Bio fertilizers collection; Resource persons
State Department of Agriculture, Burdwan	Feed and milk sample analysis
Animal Resource Development Department, Govt. of W.B.,	Time to time planning execution
National Seed Corporation, State Seed Corporation,	- Ducklings supply - Vaccination camp against FMD, PPR, Rani khet disease - Health camp against infertility
Department of Fisheries, Govt. of W.B	Foundation and certified paddy and potato seed etc.
CIFA, Bhubaneswar	Fish fingerlings supply; Training on fish culture, management
Regional Station for Forage Production Demonstration, Kalyani	Awareness camp on subsidized loan scheme, fisherman identity card
CIFA, Kalyani	Supply and Installation of Carp Hatchery
State Agricultural Management Extension Training Institute, Narendrapur	Training and fodder seed collection
CIFA, Kalyani	Exposure visit
CBI, SBI & RRBs ,Burdwan Region	Training on SREP preparation for ATMA programme
NGOs	Farmers club, Credit facility for farmers
Indian Inst. of Crop Processing Technology, Thanjavur	Farmers' tour , Training etc
Inst. of Engg. & Tech. of Burdwan	Collaborative workshop cum training programme for meat workers and for rural youth and women for entrepreneurship development
	KVK is member of Management Committee of CDTP

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

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

Name of the scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Adhoc project on Green House	Growing high value crops under green house	April, 2010	RKVY	8,85,000
Innovative projects and Technical package Dev.	Establishment of different demonstration units for farmers	June 2010	ATMA	6,80,000
Workshop cum Training on Meat Processing	Awareness for hygienic meat processing for the Butchers	March, 2011	Indian Inst. of Crop Processing Technology, Thanjavur	-
Workshop cum Training on small scale entrepreneur development	Awareness prog. For farm women for small scale entrepreneurship development	March, 2011	Indian Inst. of Crop Processing Technology, Thanjavur	-
Workshop for MGNREGS workers	Convergence programme of MGNREGS for implementation of various schemes	June, 2010	MGNREGS Burdwan	-

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1.	Portable carp hatchery	Under Construction	0.2 katha	IMC	To be operational coming season	-	-	-	
2.	Integrated farming system	2012	1 ha including water body of 0.75 ha	TCB, Kid production unit, fish culture unit, forest plant			1000.00	1450.00 till date	
3.	Greenhouse (Cauliflower)	2010	1008 sq.m	Early Kunwari	3000 pcs.	20	4000.00	9750.00	
4.	Greenhouse (veg. seedling)	2010	300 sq. m.	Avinash 3	Seedling	20000	4000.00	14000.00	
4.	Drip irrigation in fruit orchard	2011	1 ha	Fruit orchard	-	-	-	-	Orchard is at early stage
5.	Vermi-compost unit	2010	480 sq.ft	Compost		1 tonne	4000.00	--	Given to farmers for demonstration purpose

6.2 Performance of instructional farm (Crops) including seed production

Name Of the crop	DAS/DAT	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Input Cost	Gross income	
Cereals (paddy)	15.07.2011	25.11.2011	6 ha	MTU 7029	Certified seed	250 q	65,000	6,00,000 (Anticipated)	Not yet sold
Fodder (Rice bean)	14.1.2011	5.5.2011		Bidhan 1	TL seed	12 kg			
Seedlings (tomato)	12.09.2011	10.10.2010	-	Avinash 3	seedling	20000 nos.	4000	14000	

6.3 Performance of production Units (bio-agents/ bio pesticides/ bio fertilizers etc.)

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Vermicompost	2 tonnes	4000.00	--	Given to farmers as demonstration inputs

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	Black bengal	kid	3 nos.	--	900.00	

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)
April 11	--	--	--
May 11	--	--	--
June 11	50	50	--
July 11	75	75	--
August 11	100	100	--
September 11	75	75	--
October 11	56	56	--
November 11	50	50	--
December 11	105	105	--
January 12	65	65	--
February 13	50	50	--
March 14	180	180	

6.6 Utilization of staff quarters**Whether staff quarters has been completed:**

Completed and under process for taking over

No of staff quarters: Six (06)

Date of completion: March 2011

Occupancy

Months	Q I	QII	Q III	QIV	Q V	QVI
Yet to be occupied						

7. FINANCIAL PERFORMANCE**7.1 Details of KVK Bank accounts**

Bank account	Name of the bank	Location	Account Number
With Host Institute	State Bank of India	Barrackpore	10391779335

	Railway Station Branch, Barrackpore		
With KVK	State Bank of India Mankar	Mankar	30466431682

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2012
	Kharif 2011	Rabi 2011-12	Kharif 2011	Rabi 2011-12	
Inputs	-	-	-	-	Rs. 7,000.00
Extension activities	-	-	-	-	
TA/DA/POL etc.	-	-	-	-	
TOTAL	-	-	-	-	

* FLD on mustard conducted from contingency and results given in the page no 34

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2012
	Kharif 2011	Rabi 2011-12	Kharif 2011	Rabi 2011-12	
Inputs	-	-	-	-	Rs. Nil
Extension activities	-	-	-	-	
TA/DA/POL etc.	-	-	-	-	
TOTAL	-	-	-	-	

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2011
	Kharif 2010	Rabi 2010-11	Kharif 2010	Rabi 2010-11	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
TOTAL	-	-	-	-	-

7.5 Utilization of KVK funds during the year 2011-12 till date (Rs. In Lakh)

S. N.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	58.75	58.75	57.00
2	Traveling allowances	1.00	1.00	1.03
3	Contingencies (A+B+C+D+E+F+G+H+I+J)	13.00	13.00	12.40
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Training of extension functionaries			
F	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
G	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
	TOTAL (A)	72.75	72.75	70.43
B. Non-Recurring Contingencies				
1	Works	-	--	--
2	Equipments including SWTL & Furniture	0.25	0.25	0.25
3	Vehicle (Four wheeler/Two wheeler, please specify)	-		
4	Library (Purchase of assets like books & journals)	0.07	0.07	0.07

Burdwan KVK, CRIJAF (ICAR)			
TOTAL (B)	0.32	0.32	0.32
GRAND TOTAL (A+B)	73.07	73.07	70.75

7.6 Status of revolving fund (Rs. in lakhs) for the three years

Year	Opening balance as on 1 st April (Rs)	Income during the year (Rs)	Expenditure during the year (Rs)	Net balance in hand as on 1 st April of each year (Rs)
April 2009 to March 2010	9,022	2,63,036	2,31,496	40,562
April 2010 to March 2011	40,562	1,95,480	2,40,522	(-) 4480.00 plus Rs. 5,00,000 in kind of seed
April 2011 to March 2012	(-) 4480.00 plus kind of seed	5,12,212	5,36,972	28,660 plus Rs. 7,00,000 in kind of seed

(* refund back of Rs. 1.00 lakh to ICAR during 2010-11)

7.7 Any other significant achievements (provide full details with action photograph)

1. **Dr. F. H. Rahman**, PC of this KVK was recognized and awarded **the best KVK Professional Award 2011** by Society of Extension Education at Goa during sixth Congress of the Society for his outstanding contribution in the field of Transfer of Technology.
2. **Sk. Nijamul Haque**, Progressive farmer of Jgulipara, Galsi-I, Burdwan, one of the adopted village of KVK was awarded the '**Krishak Samrat Samman**' 2011 by Hon'ble MIC, Agri & FPI, GOI, org. by Mahindra Sammriddhi for breaking established stereotype and being instrumental in driving sustainable and scalable innovative farming technology (SRI in his case), thereby making a positive impact on the agricultural community.

7.8 Number of SHGs formed by KVKs/associated with SHGs formed by other organizations indicating the area of SHG activities. 65 nos.

7.9 Details of marketing and financial opportunity 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 created financial opportunity for many of the SHGs formed by linking them with NABARD, rural banks etc.

7.10 Special programme on Food and Nutrition :

i) On farm trials conducted on food and nutrition:

Title, results, no. of beneficiaries and other information.

ii) FLD conducted on food and nutrition

Title, results, no. of beneficiaries and other information

iii) Awareness programme conducted on food and nutrition for Anganwadi workers and others--- one

Observed 'World Food Day' with Anganwadi workers and others

iv) Total Anganwadi workers trained indicating area of training:

One training programme was conducted at Khan Para, Galsi 1 of Burdwan, participating 30 Anganwadi workers on "Feeding of infant (after 5 months) with weaning food"

v) Number of exhibition, fair, workshops organized on food and nutrition:

Seminar cum exhibition conducted at KVK on the eve of World Food Day on Oct 16, 2011 where 75 nos of Progressive Farmers participated

7.11 Community Radio Station : Not applicable

- i) Date of start of Community Radio Station
- ii) Details of programme aired through Community Radio Station and frequency of such programme
- iii) Whether any proposal is pending for establishment of CRS at KVK, if yes, date of submission of proposal

7.12 KMAS Service: Yet to start

Mobile Advisory								
No. of calls	No. of farmers covered	No. of messages	Type of messages					
			Crop (no.)	Livestock	Weather	Marketing	Awareness	Other enterprise

7.13 Performance of Automatic Weather Station/ Weather Station in KVK

Activity on weather forecast is carrying out in corroboration with Department of Meteorology, BCKV and agromet advisory services have been distributed weekly among farmers and Agricultural officials.

- i) **Parameters are being recorded**
- ii) **Advisory service based on weather data being provided to**
 - a) **Number of farmers**
 - b) **Departments with name and number**
 - c) **Other agency with name and number**

7.14 Joint activity carried out with line departments and ATMA

Name of activity	Season	With line department	With ATMA	Both
Village seed production	Kharif	State Agricultural Department, Govt. of W.B.		
Technology week	Year round	State Agricultural Department, Govt. of W.B.	ATMA	Both
Animal Health camp.	Year round	Department of Animal Resource Development, Govt. of W.B.		
Plantation of Tissue culture banana	Year round	RKVV		
Fodder demonstration	Kharif	RSFPD, Kalyani, Department of Animal Husbandry, Dairying and Fisheries, GOI.		