ANNUAL REPORT

April 2012- March 2013

Presented at
The Zonal Workshop for KVKs
Zone-II, ICAR

At
Rajendra Agricultural University
Pusa, Samastipur, Bihar

On
April 20-22, 2013

By
Rathindra Krishi Vigyan Kendra
Palli Siksha Bhavana (Institute of Agriculture)
Visva-Bharati
Sriniketan, Birbhum
West Bengal

CONTENTS

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and Address of KVK with Phone Number, Fax Number and E-Mail Address

Address	Telephone Number		Website & e-mail
Rathindra Krishi Vigyan Kendra Palli Siksha Bhavana Visva-Bharati, Sriniketan	Office	FAX	www.rkvk.ac.in rathindrakvk@gmail.com rathindrakvk@rediffmail.com
	03463-264771	03463-264771	

1.2. Name and Address of Host Organization with Phone Number, Fax Number and Website

Address	Telephone Number		Website
	Office	FAX	
Visva-Bharati, Santiniketan	03463-262451	03463-262672	www.visva-bharati.ac.in

1.3. Name of the Programme Coordinator with Phone Number and Mobile Number

Name	Telephone / Contact		
	Residence	Mobile	E-mail
Dr. Dulal Ch. Manna	03463-264415	9434079511	dcmanna@gmail.com

1.4. Year of sanction: F.2 (2)\ 93-AE-1 on 9th October, 1994. Actual month of start: April, 1995 (Reference of Sanction Order).

1.5. Staff Position (as on 31st. March, 2013)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Revised Pay Scale & present basic	Date of joining	Permanent /Temporary	Category (SC/ST/ Others)
1	Programme Coordinator	Dr.Dulal Chandra Manna	Programme Coordinator	Horticulture	PB- 4, Rs.37400-6700+RGP Rs.9000, (Rs.50910/-)	01.08.1996	Permanent	GC
2	Subject Matter Specialist	Dr. Prabuddha Ray	Subject Matter Specialist	Agriculture Extension	PB- 3 , Rs. 15600-39100/- +GP-Rs.5400/-,(Rs.15600/-)	19.06.2012	Permanent	GC
3	Subject Matter Specialist	Dr.Subrata Mandal	Subject Matter Specialist	Agronomy	PB- 3 , Rs. 15600-39100/- +GP-Rs.5400/-,(Rs.20440//-)	01.08.2004	Permanent	GC
4	Subject Matter Specialist	Sri Sourav Mondal	Subject Matter Specialist	Plant Protection	PB- 3 , Rs. 15600-39100/- +GP-Rs.5400/-,(Rs20440/-/-)	01.08.2004	Permanent	SC
5	Subject Matter Specialist	Vacant	Subject Matter Specialist	Animal Science	-	-	Permanent	-
6	Subject Matter Specialist	Mrs. Ruma Addy	Subject Matter Specialist	Home Science	PB- 3 , Rs. 15600-39100/- +GP-Rs.5400/-,(Rs. 25870/-)	06.06.1995	Permanent	GC
7	Subject Matter Specialist	Dr. Krishna Mitra	Subject Matter Specialist	Fishery	PB- 3 , Rs. 15600-39100/- + GP-Rs.5400/-,(Rs.17500/-)	26.05.2012	Permanent	GC
8	Programme Assistant (Farm Manager)	Vacant	Programme Assistant	-	PB-2 , Rs. 9300-34800/- + GP-Rs.4200/-	-	Permanent	-
9	Computer Programmer	Vacant	Programme Assistant	-	PB-2 , Rs. 9300-34800/- + GP-Rs.4200/-	-	Permanent	-
10	Programme Assistant (Horticulture)	Vacant	Programme Assistant	-	PB-2 , Rs. 9300-34800/- + GP-Rs.4200/-	-	Permanent	-
11	Sr. Assistant	Sri Madhu Sudan Chatterjee	Senior Assistant	-	PB-2, Rs. 9300-34800/- + GP-Rs.4600/-,(Rs.18300/-.)	13.04.1995	Permanent	GC
12	Stenographer	Sri Makbul Ahmed	Jr. Stenographer cum Computer Operator	-	PB-1, Rs. 5200-20200/- + GP-Rs.2400/-,(Rs 9560/-)	13.04.1995	Permanent	GC
13	Driver	Sri Krishna Bansi Chatterjee	Driver-Cum-Mechanic	-	PB-1, Rs. 5200-20200/ - + GP-Rs.2400/-,(Rs 9220/-)	06.05.1997.	Permanent	GC
14	Driver	Sri Bikash Chandra Ghosh	Driver-Cum-Mechanic	-	PB-1, Rs. 5200-20200/ - + GP-Rs.2400/-, (Rs 9220/-)	06.05.1997.	Permanent	GC
15	Supporting Staff	Md. Anwar Chowdhury	Supporting Staff	-	PB-1, Rs. 5200-20200/ - + GP-Rs.1900/-, (Rs 8200/-)	13.04.1995	Permanent	GC
16	Supporting Staff	Vacant	Supporting Staff	-	PB-1, Rs. 5200-20200/ - + GP-Rs.1900/-, (Rs 8200/-)	-	Permanent	

1.6. Total land with KVK (in ha): 15.64 ha

Sl. No.	Item	Area (ha)
1	Under Buildings	00.550
2.	Under Demonstration Units	00.002
3.	Under Crops	02.000
4.	Orchard / Agro-forestry	00.543
5.	Others	12.550
6.	Total	15.645

1.7. Infrastructural Development:

A) Buildings

Sl. No.	Name of building	Source of Fund	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expen-diture (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2003-04	550.0	29.85 lakh	-	-	-
2.	Trainees Hostel	ICAR	2006-07	305.0	26.17 lakh	-	-	-
3.	Staff Quarters (6)		Plan will be submitted.					
4.	Demonstration Units (2)	ICAR	2006-07	80X2 =160	10.81 lakh	-	-	-
5.	Go down	ICAR	2008-09	9.25 X 5.0	3,87,290.00			
6.	Threshing floor	ICAR	2008-09	18 X 10	1,83,200.00			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs. In lakh)	Kms. run during the Period	Total Kms. Run	Present status
BOLERO Plus	2010	6.0	17,182 km.	42,217 km.	Running
Rajdoot Motorcycle	1997	0.320	-	39013 km	Not in Running Condition
Toro Jaz Moped	1997	0.125	-	-	Not Running

C) Equipments and Audio-Visual Aids

Sl. No.	Name of the equipment	Quantity	Year of purchase	Cost (Rs.)	Present status
1.	Overhead Projector	1 no.	1994-95	24,477.55	Working condition
2.	Desiccators	1 no.	1995-96	1540.00	Working condition
3.	Sewing machine	2 nos	1995-96	3605.60	Working condition
4.	Aspee sprayer (10 lit.)	2 no.s	1995-96	2050.00	Working condition
5.	Aspee hand-sprayer	1 no.	1995-96	1090.00	Working condition
6.	Mixer cum grinder	1 no.	1995-96	3430.50	Working condition
7.	Weighing balance	1 no.	1995-96	1700.00	Working condition
8.	Paddy thresher	1 no.	1995-96	4000.00	Working condition
9.	Hand rotary duster	1 no.	1995-96	650.00	Working condition
10.	Word processor	1 no.	1995-96	2,100.00	Working condition
11.	Sony TV	1 no.	1998-99	20999.00	Working condition
12.	Sony audio system	1 no.	1998-99	5,990.00	Working condition
13.	Sharp VCR	1 no.	1998-99	13,750.00	Working condition
14.	Slide projector	1 no.	2001-02	14,672.00	Working condition
15.	PA system				Working condition
	Amplifier	1 no.	2001-02	6400.00	Working condition
	Microphone ASM580	2 no.s	2001-02	2700.00	Working condition
	Microphone ACM66	2 no.s	2001-02	1300.00	Working condition
	Speaker	2 no.s	2001-02	2500.00	Working condition
	DGT stand	1 no.	2001-02	290.00	Working condition
	DGN stand	1 no.	2001-02	490.00	Working condition

Sl. No.	Name of the equipment	Quantity	Year of purchase	Cost (Rs.)	Present status
16.	Canon photo copier	1 no.	2003-04	69,988.00	Working condition
17.	Stabiliser 2KVA	1 no.	2003-04	4,000.00	Working condition
18.	Mixer grinder kenstar	2 no.s	2004-05	5,000.00	Working condition
19.	Refrigerator whirlpool	2 no.s	2004-05	16,750.00	Working condition
20.	Stibiliser fizi	2 no.s	2004-05	2450.00	Working condition
21.	Shaker	1 no.	2004-05	24500.00	Working condition
22.	Oven	1 no.	2004-05	9000.00	Working condition
23.	Kelplus Digestation System Model KES 08L	1 no.	2004-05	85,719.00	Working condition
24.	Kelplus Distillation System elite ex	1 no.	2004-05	1,38,943.00	Working condition
25.	Systronics Micro controller based visible spectro-photometer	2 no.s	2004-05	53,064.00	Working condition
26.	Systronics P-H system	2 no.s	2004-05	21,582.00	Working condition
27.	Systronics Digital conductivity meter	2 no.s	2004-05	15,444.00	Working condition
28.	Systronics Flame photometer Type 128	2 no.s	2004-05	73405.00	Working condition
29.	Hotplate with energy regulator	1 no.	2004-05	2,340.00	Working condition
30.	Glass distillation apparatus flux	3 nos.	2004-05	15,617.00	Working condition
31.	Physical balance cap.250g with weight box	4 nos.	2004-05	6,310.00	Working condition
32.	Shimadzu Electronic Balance	2 nos.	2004-05	66,254.00	Working condition
33.	Kjeldal digestion unit	2 nos.	2004-05	6,205.00	Working condition
34.	Kjeldal distillation unit	2 nos.	2004-05	10,411.00	Working condition
35.	LCD projector	1 no.	2008-09	99,990.00	Working condition
36.	Camera	1 no.	2008-09	23,900.00	Working condition
37.	Generator	1 no.	2008-09	49,500.00	Working condition
38.	Microscope- Trinocular	1 no.	2010-11	47,069.00	Working condition
39.	Microscope – Stereo	1 no.	2010-11	21,055.00	Working condition
40.	BOD incubator	1 no.	2010-11	39,132.00	Working condition
41.	Autoclave- Vertical	1 no.	2010-11	21,814.00	Working condition
42.	Centrifuge	1 no.	2010-11	14,200.00	Working condition
43.	Microscope Image Projection System (MIPS)	1 no.	2010-11	31,885.00	Working condition
44.	Laminar Flow	1 no.	2010-11	53,465.00	Working condition
45.	Desiccators	4 nos.	2010-11	6,072.00	Working condition
46.	Rotary Shaker	1 no.	2010-11	21,700	Working condition
47.	Digital Weighing machine	2 nos.	2010-11		Working condition
48.	Power ripper	1 no.	2010-11		Working condition
49.	Zero Tillage machine	2 no.	2010-11		Working condition
50.	Mounted offset Disc harrow	1 no.	2010-11		Working condition
51.	Mould-board plough	1 no.	2010-11		Working condition
52.	Cono weeder	4 nos.	2010-11		Working condition

1.8. A) Details of the SAC meeting Conducted in the Period:

Details of the meeting of Scientific Advisory Committee held on 14.01.2013 in the Seminar Hall of Rathindra KVK, Palli Siksha Bhavana, Visva-Bharati.

Date	Sl. no	Salient recommendation	Action Taken
14.01.2013	1	The District Authority of National Horticulture Mission (NHM) is to be requested to set up a Drip Irrigation System in RKVK orchards. A copy of the previous application submitted on 07.04.2008 for setting of a Drip Irrigation system in RKVK orchard from NHM will be submitted to the Divisional Forest Officer, Birbhum for persuasion of sanction and the same is to be sent to the Office of the Zonal Project Director, Zone-II, ICAR, Kolkata for early sanction.	The photocopy of the application for sanction of a Drip Irrigation to Rathindra KVK which was submitted to the District Authority of National Horticulture Mission (MHM) dated 07.04.2008 was submitted to the Divisional Forest Officer, Birbhum, the Zonal Project Director, Zone-II, ICAR and District Horticultural Officer, Department of Food Processing Industries & Horticulture, Government of West Bengal for persuasion the case. The District Horticultural Officer will look after the matter on 22.02.2013.
	2	A compilation report of Service Providers of Birbhum District should be prepared and a copy of the same is to be sent to the Zonal Project Director, Zone-II, ICAR, Kolkata.	A compilation report of Service Providers of Birbhum District was submitted to the Office of the Zonal Project Directorate, Zone-II, ICAR, Kolkata on 30.03.2013.
	3	A report of the N.G.Os. of Birbhum District should be prepared along with their activities chronologically high lightening their agricultural activities for sending the same to the Zonal Project Director, Zone-II, ICAR, Kolkata.	A detail report of the N.G.Os. of Birbhum District was prepared along with their activities chronologically high lightening their agricultural activities and submitted the same to the Zonal Project Director, Zone-II, ICAR, Kolkata on 01.03.2013.
	4	The vegetables like Broccoli and Capsicum cultivation should be popularised.	To popularize the cultivation of Broccoli and Capsicum are kept in the Action Plan, 2013 - 2014 under FLD Programme.
	5	The Training Calendar of the Kendra should be prepared and it should be circulated to various stakeholders.	The Training Calendar will be prepared just after approval of Action Plan, 2013-2014 in the Zonal Workshop and the meeting of Scientific Advisory Committee to be held on 30.04.2013.
	6	The District Animal Resource Department will assist the Kendra, if farmers face any problem related to animal rearing.	The Kendra will take the facilities of the Department of Animal Resource, Suri, Birbhum from time to time.
	7	The On Farm Testing report should be supplemented with soil testing data. The findings of the On Farm Testing should be shared with the Line Departments and the Front Line Demonstration will be conducted on the findings of On Farm Testing.	The soil samples collected from the fields (FLD and OFT fields) of KVK adopted farmers are tested in the Soil Testing Laboratory of the Kendra regularly as a part of the programmes.
	8	The vacant posts of the Kendra such as Subject Matter Specialist (Animal Science), Farm Manager (Agronomy), Programme Assistant (Horticulture), Computer Programmer and one Supporting Staff will be recruited immediately.	The vacant posts were advertised on 19th. February, 2013. A of number of applications i.e.SMSs (Animal Science)-13 nos.; Programme Assistant (Farm Manager-35nos.; Programme Assistant(Horticulture) – 26 nos.; Computer Programmer- 75 nos.; and Supporting Staff- 12 nos. were received by the Kendra. The other processes of recruitment will be started at the earliest.

Date	Sl. no	Salient recommendation	**Action Taken**
	9	The farm plots for cultivation near Binapani Ashram may be examined and the report is to be submitted to Visva-Bharati Administration for further action.	**Proposal for the development of site near Binapani Ashram** This land is suitable for Horticultural crops as well as forest crops. Beside these crops, Pulses` can be grown as intercrops. As intensive cultivation vegetables and flowering crops can be grown. This site is not suitable for Rice Seed production. A pond about 1 acre can be dug for harvesting of rainwater, composite fishery and also may be prepared as model of Integrated Farming. Tissue culture Teak and Gamour can be planted at Northern and Western side of the plot. These plants will be acted as Wind Break trees for orchards. As the orchard will be Commercial orchard so that 40% plantation will be Hybrid mango variety Amrapali, 20% will be Mallika Hybrid mango variety Mallika, 20% will be Guava and citrus orchards, 20 % will be for different varieties of fruit crops including ponds. Infrastructures for the development of the Site: 1. Land levelling & shaping and Land development; 2. Irrigation facilities; 3. Installation of Transformer and electrification; 4. Digging of Pond; 5. Plantations; 6. Maintenance of farm. 7. Recruitment of Caretaker cum watchman on contractual basis;
	10	Retirement age and benefits etc. for RKVK employees will be settled by the University Administration.	Retirement age and benefits for KVK employees will be discussed with University Administration at the earliest

2. DETAILS OF DISTRICT

2.1 Major Farming Systems/Enterprises (based on the analysis made by the KVK)

Sl. No.	Farming System/Enterprise
1	**Upland**- Paddy, red gram, fruit crops
2	**Medium land**- Paddy, mustard, potato, sugarcane, sesame, black gram, vegetables, fruit crops, cow, goat, backyard poultry, fishery
3	**Lowland**- Paddy, sugarcane, wheat, potato, vegetables, duckery, fishery

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

The agro-climatic condition of the district is mainly influenced by the presence of a number of river, rivulets, dams, barrages and forests. The variation of temperature is 10.7^{o} C, to 28^{o} C in winter and from 26.5^{o} C to 39.4^{o} C in summer on an average. The average annual rainfall is 1453 mm. The predominant soil types are old alluvium to red late rite. This area is under sub-humid lateritic belt.

Sl. No.	Agro-climatic Zone	Characteristics
1	Red Lateritic	Soils of lateritic belt are highly coarse textured and well drained. Iron concentrations are dispersed on the surface and honeycomb structures of oxides of Fe and Al are present in the sub surface or exposed in some eroded areas. About 50-60 percent of lands are located on the higher situation, about 20-30 percent of the land on medium situation and 10-20 percent lands are on lower situation. Upland soils are strongly acidic and poor in organic matter, available P and available K and lime. The lands are lower situation are slightly rich in fertility status. Annual precipitation varies between 1100 mm and 1300 mm, about 80 % of which are precipitated between June and September during monsoon
2	Alluvial	The land of the alluvial belt has flat to rolling topography. Fields are generally bunded in Up and Medium situations and slopes are mostly terraced. The soils are light, medium and heavy in texture. Soil reaction is acidic to neutral (pH. 5 to 7). Soils in this region are low to medium in organic matter and available P and low to high in K. The average annual rainfall varies between 1300mm and 1500 mm.

Source: NARP (BCKV), 1990-91.

Sl. No	Agro- ecological situation	Characteristics
1	Completely eroded land	This situation predominantly occurs in some areas of Birbhum district particularly in Rajnagar block. The soil contains gravels and coarse sands. Land is very steep, eroded and stony rough. Depth of the soil is zero or negligible. There are no irrigation facilities. Land is not suitable for cultivation of annual crops. Only there is the permanent vegetation of natural forest.
2	Upland with light soil	The uplands of red and lateritic belt are locally known as *Tanrh* and *Baid*. These are composed of shallow to moderately deep soil with light surface texture and low organic matter content with low P^{H}. Major Crops are rice, wheat, red gram, black gram, vegetables etc. Major livestock's are cattle, buffalo, goat, poultry, pig etc.
3	Medium land with medium soils	These lands are locally known as *Kanali*. Depth of the surface layer varies from 135-160 cm. OM content and water holding capacity is to some extent higher. Acidity of these soil is lower than upland. Generally sandy loamy to sandy loam soils are found. Major crops are rice, wheat, mustard, sesame, potato etc.
4	Low land with medium to heavy soil	These soils are locally known as *Sole* or *Bahal*. Soils are deep and potentially productive in nature and silty loam to clayey in texture with pale brown to dark grayish brown in colour. Soil depth is more as compare to other situation. Acidity is lower and fertility is higher to some extent than other situation. Submergence of low land during monsoon months is found every year. Rice being the main crop in *kharif*, pulse, oilseeds, wheat, potato and vegetables are also cultivated during *rabi* and *summer* under irrigated condition

Source: NARP (BCKV), 1990-91.

2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area ('000 ha)
1	Light	Low fertility status, Productivity low	373.48
2	Medium	Low in N and P, medium in K content, productivity low to medium	85.48
3	Heavy	Medium to high in available Nitrogen, low in Phosphorus and medium in Potassium content, productivity medium to high	141.0

Source: District Plan, 2006-07.

2.4. Area, Production and Productivity of Major Crops cultivated in the district of BIRBHUM

Sl. No	Crop	Area ('000 ha)	Production ('000MT)	Productivity (qtl/ha)
1	Kharif Paddy -HYV	2,79,273.0	1340799.7	48.01
	Local	16,597.0	53976.3	32.1
2	Summer Paddy	52,057.0	271737.5	52.2
3	**Total Paddy**	3,47,927.0	1665513.5	47.9
4	Wheat	31.7	83.8	26.43
5	Potato	19.53	199.2	102.0
6	Sugarcane	1.9	142.6	750.6
7	Pulses	20.7	16.0	7.73
8	Tomato	1.86	26.18	140.8
9	Cabbage	2.55	67.21	363.6
10	Cauliflower	2.17	34.18	157.5
11	Brinjal	6.85	82.45	120.4
12	Cucurbits	8.28	119.42	144.2
13	Onion	1.38	10.06	72.9
14	Misc. Vegetables	22.0	114.3	51.9
15	**Total Vegetables**	45.10	453.79	100.6
16	Mango	0.917	13.07	142.5
17	Banana	0.650	10.37	159.5
18	Guava	0.943	14.20	150.6
19	Misc .Fruits	1.487	22.1	148.6
20	**Total Fruits**	3.997	59.74	149.5
21	Chilli	0.46	4.13	89.8
22	Ginger	0.71	6.87	96.8
23	Turmeric	0.48	1.69	35.2
24	**Total Flower**	95.43	6644.85 (lakh spike)	69.6(lakh spike)

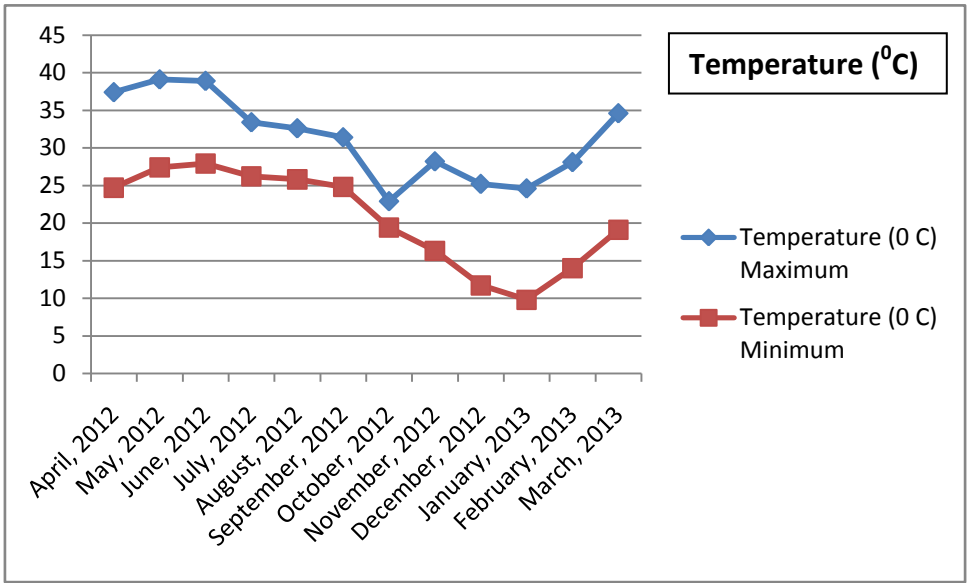
Source: Office of the PAO, Birbhum, Office of the FPI & Horticulture, Birbhum, 2009-10

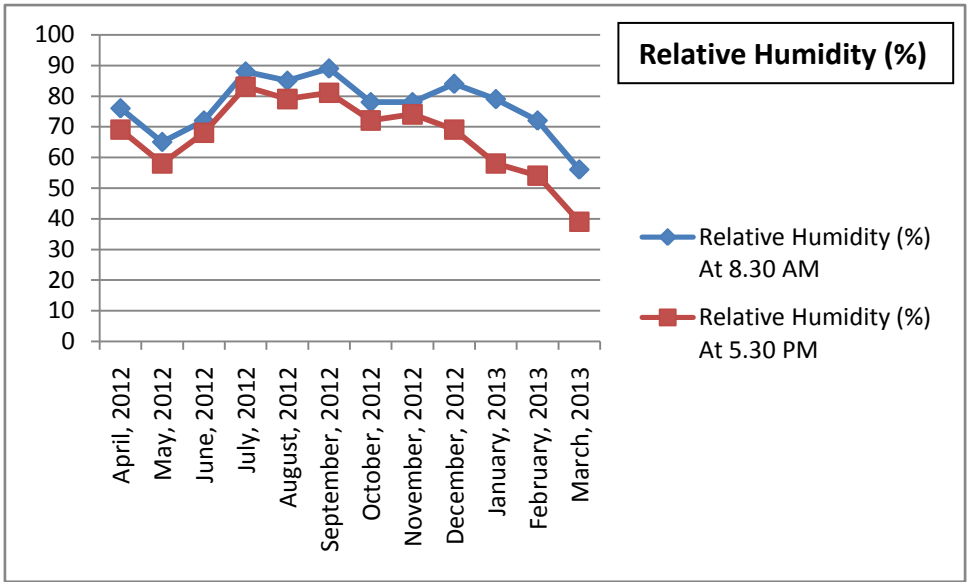
2.5. Weather Data

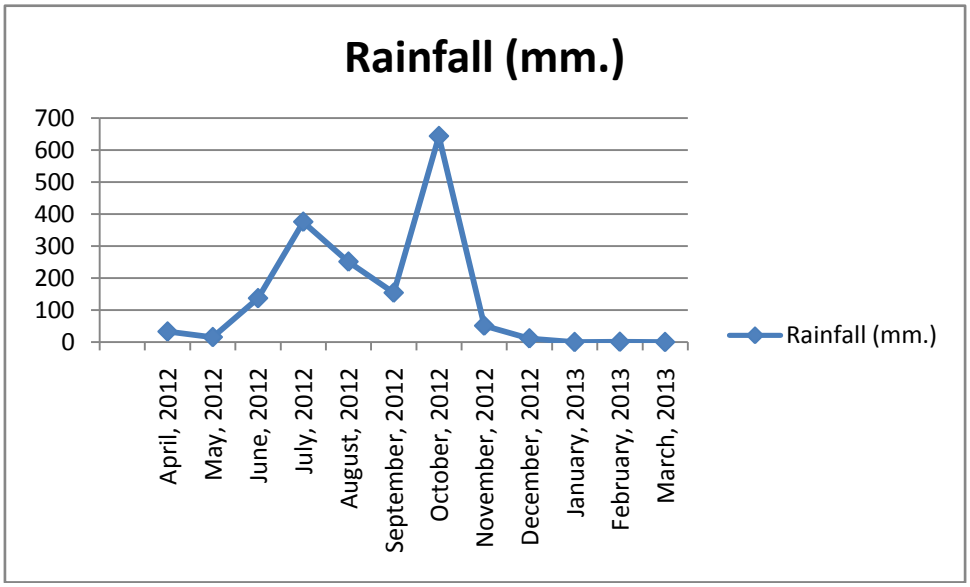
Month	Rainfall (mm.)	Temperature (^{0} C)		Relative Humidity (%)	
		Maximum	Minimum	At 8.30 AM	At 5.30 PM
April, 2012	032.8	37.4	24.7	76	69
May, 2012	015.4	39.1	27.4	65	58
June, 2012	136.9	38.9	27.9	72	68
July, 2012	375.5	33.4	26.2	88	83
August, 2012	251.02	32.6	25.8	85	79
September, 2012	154.0	31.4	24.8	89	81
October, 2012	643.02	22.9	19.4	78	72
November, 2012	051.0	28.2	16.3	78	74
December, 2012	011.4	25.2	11.7	84	69
January, 2013	000.00	24.6	9.8	79	58
February, 2013	000.7	28.1	14.0	72	54
March, 2013	000.0	34.6	19.1	56	39

Source: P. S. B.

Graphical Presentation of Weather Data:







2.6 Production and productivity of Livestock, Poultry, Fisheries etc. in the District

Category	Population	Production	Productivity
Cattle	999601	Milk production – 97000 tonnes/year(including cattle, buffalo, sheep & goat)	NA
Crossbred	46208		NA
Indigenous	953393		NA
Buffalo	61063		NA
Sheep	189214		NA
Crossbred	NA	NA	NA
Indigenous	NA	NA	NA
Goats	816123	NA	NA
Pigs	83653	NA	NA
Crossbred	NA	NA	NA
Indigenous	NA	NA	NA
Rabbits	NA	NA	NA
Poultry	2888407	Total egg production 169883000 nos	NA
Hens	1659044	NA	NA
Desi	NA	NA	NA
Improved	NA	NA	NA
Ducks	1218849	NA	NA
Turkey and others	10514	NA	NA
Fish	21376.9 ha total water area	67518.1 M ton	3.16 M.ton/ha

Source: Livestock Census Report, Govt. of WB. / 17th Quinquennial Livestock Census, 2004, Birbhum.

2.7 Details of Operational Area / Villages (April, 2012 – December, 2012)

Sl. No	Taluk / Gram Panchayat	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
	Kosba	Bolpur Sriniketan	Ghosaldanga	Rice, wheat, mustard, potato, redgram, balckgram etc. Vegetable like brinjal, chilli, tomato, Elephant foot yam, cucurbits, fruit plants like mango, guava, papaya, coconut, banana etc. and dairy, goatery, poultry, duckery, fishery, batique work, decorative candle, post harvest techno-logy of fruits and vegetables, health and nutrition	***Bio physical:*** **Low productivity of all major crops** • Poor and Marginal soil • Low yielding seeds and plants • Limited water resource for irrigation • Imbalanced use of manures and fertilizer • Inappropriate agronomic practices • Inappropriate horticultural practices • Indiscriminate use of chemical pesticide **Poor productivity of livestock** • Inadequate, descriptive and prolific breed • Poor health and management practices • Low quality feed **Poor fish productivity:** • Poor pond management • Poor quality fingerlings **Low income generation of rural women** • Lack of skill on income generating rural crafts • Lack of skill on fruits and vegetable preservation • Lack of skill on establishment of backyard nutrition garden **Poor health condition of women and child** • Lack of nutritious food resources • Lack of skill on establishment of backyard nutrition garden ***Socio Economic:*** • Lack of knowledge about soil testing based fertiliser application • Lack of knowledge on good agronomic and horticultural practices • Lack of knowledge on care handling of plant protection equipments • Lack of knowledge on good dairy, goatery, poultry management practices • Multi ownership of ponds • Tendency to lease out ponds • Lack of knowledge on different income generating programme for women • Lack of knowledge on low cost nutritious food for women and child • Lack of credit facilities	• Soil health management • Quality seeds/seedlings and saplings • Balanced crop nutrition • Good agronomic practices • Good horticultural practices • Appropriate Pest Management • Formation of Self Help Groups • Formation of Farmers Club • Organization of Exposure visits of Practicing Farmers, Farm Women and Rural Youths • Improved Extension Activities like Kissan Mobile Message Services • Improvement of livestock productivity • Enhancement of fish productivity • Improvement of women led vocation • Women and child care
	Sattore	Bolpur Sriniketan	Srichandrapur			
	Sattore	Bolpur Sriniketan	Bishnubati, Asadullapur, Bautizole			
	Sattore	Bolpur Sriniketan	Jadavpur			

2.8 Priority Thrust Areas

Sl. No	Thrust Area
1.	Quality Seed /seedling production
2.	Improved agronomic practices
3.	Improved horticultural practices
4.	Appropriate Pest, Disease & Weed Management
5.	Improvement of livestock productivity
6.	Enhancement of fish productivity
7.	Improvement of women led vocation

3. TECHNICAL ACHIEVEMENTS

Details of Target (as per Action Plan) and Achievement of Mandatory Activities by KVK during April, 2012 – March, 2013.

On Farm Trial (OFT)				Frontline Demonstration (FLD)			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
5	5	45	45	6	6	146	162

Training				Extension Activities			
Number of Courses		Number of Participants		Number of Activities		Number of Participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
63	75	1992	2427	395	561	2169	9258

3.1. Achievement on Technologies Assessed

A. Details of each On Farm Trial (OFT)

OFT- 1

1.	**Title of On Farm Trials**	Assessment of plant spacing in SRI method of paddy (var. IR-36) cultivation over conventional method during *Boro* season under irrigated medium land at lateritic soil of Birbhum
2.	**Problem diagnose**	In Birbhum District *boro* paddy is generally cultivated depending on underground water causing depletion of water table. Beside that minimum temperature goes down very low within a short period at the time of seedling raising and initial growth period of *boro* paddy. Random use of water, improper plant spacing and more seedlings per hill causes poor yield and net return.
3.	**Details of technologies selected for assessment**	**Farmers' Practice:** Transplanting of **6-8 seedlings** /hill of 45 days old, spacing **20 cm X 15 cm**, fertilizer dose **100:50:50** and without any organic manure. **Technology Opt -I**: Transplanting of **one seedling**/hill at 2 leaf stage (15-18 days old) with spacing of **25 cm X 25** cm and organic manure 10 ton/ha and fertilizer dose **as per soil testing report (75:62.5:50).** **Technology Option -II**: Transplanting of **one seedling**/hill at 2 leaf stage (15-18 days old) with spacing of **30 cm X 30** cm and organic manure 10 ton/ha and fertilizer dose **as per soil testing report (75:62.5:50)**
4.	**Source of the technology**	Technical Bulletin, ATMA, Birbhum
5.	**Production system Thematic area**	Rice-Mustard –Rice. Production technology
6.	**Performance of the Technology Performance indicators**	Performance of the technology was found statistically significant No. of effective tillers/m^2, grains /panicle, total yield, economics.
7.	**Final recommendation for micro level situation**	Transplanting of **one seedling**/hill at 2-leaf stage (15-18 days old) with spacing of **30 cm X 30** cm and organic manure 10 ton/ha and fertilizer dose as per soil testing report produced higher paddy yield and return without use of much water in summer seasons.
8.	**Constraints identified** **Feedback for research**	Due to very low temperature in last week of December to second week of January seedlings can not be attained at two leaf stage within 18 days. So seedling raising at February causes delay in transplanting and yield loss. Any other controlled method for seedling raising at December and January may be studied.
9.	**Process of farmers participation and their reaction**	Farmers helped the KVK scientist for data collection and implemented the technology very carefully. Day to day supervisory practices also one of the important participation. Beside this, farmers also invested different cost of cultivation except seed and fertilizer.

OFT- 2

1.	**Title of On Farm Trials**	Assessment of nutritional supplements in fish feed for increasing the growth of fish from fingerling to table size in lateritic belt of Birbhum district
2.	**Problem diagnose**	To enhance the growth of fish, it has been found that aquatic weeds such as azolla, *Wolffia salvinia* or pistia, if added to rice bran and mustard oil cake can increase the quality of feed as these aquatic weeds supply a lot of protein and mineral to the simple feed.
3.	**Details of technologies selected for assessment**	**Farmers practice:** Irregular feed application **Tech. opts. I:** Rice bran (50%) + M.O.C. (50%) **Tech. opts. II:** Rice bran (50%) + M.O.C. (40%) + Azolla (10%) **Tech. opts. III:** Rice bran (50%) + M.O.C. (30%) + Azolla (20%)
4.	**Source of the technology**	CIFA News Letter, Bhuabhaneswar, Odisha.
5.	**Production system** **Thematic area**	Extensive System Nutritional management
6.	**Performance of the Technology** **Performance indicators**	Performance of the Technology Option III i.e. regular feed application of Rice bran (50 %) + M. O. C. (30 %) + Azolla (20 %) was found satisfactory than other Technology Options and the Farmers' Practice. Average Weights in Grams of the harvested Fish.
7.	**Final recommendation for micro level situation**	Proper and scientific Management of the Ponds along with the regular feed application of Rice bran (50 %) + M. O. C. (30 %) + Azolla (20 %) is being recommended for micro level fish farming situation.
8.	**Constraints identified** **Feedback for research**	Quality of M. O. C. (30 %) is not uniform and good from each supply point. Mass production of Azolla (20 %) is problematic due to Azolla feeding habit of the Ducks. Proper maintenance of the pH of the Pond water is a crucial factor. Any other controlled method for nutritionals management of the fish fingerlings and Table fishes may be studied.
9.	**Process of farmers participation and their reaction**	Farmers helped the KVK scientist for data collection and implemented the technology very carefully. Day to day supervisory practices was also one of the important participation from the farmers' end. Beside this, farmers also invested different cost of cultivation like cost of lime, Azolla, Rice Bran and Fish Fingerlings.

OFT- 3

1.	**Title of On Farm Trials**	Assessment of organic manures on the growth and yield improvement of Broccoli during rabi season under irrigated medium land situation of Birbhum district.
2.	**Problem diagnose**	Broccoli is a high value vegetable and farmers are day by day interested for cultivation of Broccoli during Rabi season for good economic return. They use mainly Chemical fertilizers fir its cultivation. As a result, the growth and yield performance are not up to the mark.
3.	**Details of technologies selected for assessment**	**Farmers Practice :** 100-80-40 NPK kg/ha **Tech. opts -I. :** 150-100-50 NPK kg/ha **Tech. opts - II :** 75-50-25 NPK kg/ha + Vermi-compost- 7500 kg./ha.
4.	**Source of the technology**	Broccoli in Chapter – 8, Nutritional vegetables, pp. 157 – 160.
5.	**Production system Thematic area**	Vegetable – Fallow - Vegetable Production Technology
6.	**Performance of the Technology Performance indicators**	Statistically significant Curd size, Curd weight, Yield, B/C ratio
7.	**Final recommendation for micro level situation**	Technology opt-II i.e. 75:50:25 NPK Kg/ha +Vermicompost 75 qui/ha produced higher yield of broccoli
8.	**Constraints identified** **Feedback for research**	Quality seed of suitable variety for the zone is not available in the local market Identification of suitable varieties for the zone
9.	**Process of farmers participation and their reaction**	Farmers incurred all the cost of cultivation except seed, which was supplied by KVK. Beside this, they participated actively in observing the growth and yield parameters of the crop

OFT- 4

1.	**Title of On Farm Trials**	Assessment of Late Blight management of Potato
2.	**Problem diagnose**	In Birbhum District Potato is cultivated in the sandy loam soil, medium land situation. Sometimes, no seed treatment is done by the farmers. But, mostly the farmers use traditional pesticides for seed treatment. They are very reluctant to use recent Third Generation pesticides for Late Blight of potato.
3.	**Details of technologies selected for assessment**	**Farmers' practice:** Seed treatment (MEMC) + Blitox50% (COC50% 3-4 times) **Tech. opts. -I:** Seed treatment (*Tricoderma viridi* 6 g./kg of seed) **+** Mancozeb (2.5g/lit at 20 DAS) + COC50% (4g/lit at 35DAS) + Mancozeb (2.5g/lit at 45 DAS) **Tech. opts. -II**: Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Metalaxyl - Mancozeb (2.5g/lit at 3 5DAS) + Dimethomorph - Metera(1g+3g/lit at 45 DAS) **Tech. opts –III**: Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Corzet (2.5g/lit at 3 5DAS) + COC+Mancozeb (4g+2.5g/lit at 45 DAS)
4.	**Source of the technology**	Department of Plant Protection, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum
5.	**Production system Thematic area**	Rice-Potato –Rice. Disease Management
6.	**Performance of the Technology** **Performance indicators**	Performance of the Technology Option II i.e. Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Metalaxyl - Mancozeb (2.5g/lit at 3 5DAS) + Dimethomorph - Metera(1g+3g/lit at 45 DAS)was found satisfactory than other Technology Options and the Farmers' Practice. No. of Leaves affected/m^2, Percent of Disease incidence, Yield (t / ha)
7.	**Final recommendation for micro level situation**	Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Metalaxyl - Mancozeb (2.5g/lit at 3 5DAS) + Dimethomorph - Metera(1g+3g/lit at 45 DAS) may be recommended for higher production of Potato
8.	**Constraints identified** **Feedback for research**	The new fungicides are not always available at right time in the local market Limited number of fungicides for late blight of potato may be studied
9.	**Process of farmers' participation and their reaction**	Farmers helped the KVK scientist for data collection and implemented the technology very carefully. Day to day supervisory practices also one of the important participation. Beside this, farmers also invested different cost of cultivation except pesticides.

OFT -5

1	**Title of On Farm Trials**	Assessment of profitability within components of integrated farming systems under fish based production system in lateritic soil of Birbhum District
2	**Problem diagnose**	Lack of knowledge in integration of components in proper way for maximum profit
3	**Details of technologies selected for assessment**	**Framers practice:** Traditional Fish Farming (1 unit = 0.19 ha pond only + fallow land) **Technology opts. I**: Composite fish culture (IMC, prawn) + Poultry farming (RIR and Black Australorp 150 nos) + Pulses (Redgram-Blackgram) (1 unit= 0.19 ha pond + 150 nos. Of poultry + 0.13 ha utilsed land with pulse) **Technology opts. II:** Composite fish culture (IMC, prawn) + Poultry farming (RIR and Black Australorp 150 nos) + Vegetables (ladys' finger-capsicum) (1 unit= 0.19 ha pond + 150 nos. Poultry + 0.13 ha utilised land by vegetables)
4	**Source of technology**	DARE/ICAR Annual Report, 2008-09 Fertiliser News, 46(11)
5	**Production system** **Thematic area**	Fish Based Integrated Farming System
6	**Performance of the Technology** **Performance indicators**	Performance of the technology was found statistically significant Mandays and Economics of farming systems
7	**Final recommendation for micro level situation**	Tech. Opt.I i.e composite fish culture (IMC, prawn) + Poultry farming (RIR and Black Australorp 150 nos) + Pulses (Redgram- Blackgram) exhibited higher profit
8	**Constraints identified** **Feedback for research**	Improper monetary transaction in the lean period for better profitability Other components suitable in the lean period may be studied
9	**Process of farmers participation and their reaction**	Farmers helped the KVK scientist for data collection and implemented the technology very carefully. Day to day supervisory practices also one of the important participation. Beside this, farmers also invested different cost of cultivation except seed and fertilizer.

B. Technology Assessment in detail
(1) Thematic area: Production Technology

Problem definition: Lower no. of tiller and yield in inappropriate plant spacing in SRI

Technology assessed: Proper plant spacing in SRI method of *Boro* Paddy

KVK Birbhum, W.B conducted OFT in summer season during 2012 to assess plant spacing in SRI method of *boro* paddy in adopted villages. The result of the trial indicated that transplanting 1 seedling/hill of 18 days with plant Spacing of 30 cm X 30 cm produced higher number of effective tillers/hill (37.2) , yield (91.2 q/ha) and net return (Rs. 63225.00 / ha) as compared to recommended practice with net return of Rs. 61325/ha.

Table1: Assessment of plant spacing in SRI method of boro paddy (IR-36)

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
		No. of effective tillers/hill	No. of grains/ panicle	1000 grain weight (g)					
I.Farmer's practice: 6-8 seedlings/hill of 45 days. Spacing: 20cm X 15cm, No organic manure, 100:50:50	10	20.3	103.3	22.3	58.7	39225.00	58700.00	19475.00	1.5
II. 1 seedling/hill of 18 days. Spacing: 25cm X 25 cm Organic manure 10 t/ha, 75:62.5:50		33.4	174.3	22.9	89.3	27975.00	89300.00	61325.00	3.19
III. 1 seedling/hill of 18 days. Spacing: 30 cm X 30 cm Organic manure 10 t/ha, 75:62.5:50		37.2	180.7	23.1	91.2	27975.00	91200.00	63225.00	3.26
SEm+		1.43	7.71	NS	3.57				
CD(P=0.05)		4.15	22.41	-	10.34				

Initial soil test reports: N-High, P-Low, K-Medium, Irrigation for SRI plots- 16 nos each on average of 5 cm i.e 800 mm; for traditional plots-12 nos each on average of 10 cm i.e 1200 mm and for seedbed of traditional-6 nos irrigation each on average 10 cm i.e 600 mm, total for traditional rice- 1800 mm

(2) Thematic area: Nutrition Management

Problem Definition: Poor growth of Fish due to irregular feeding.

Technology Assessed: Scientific feeding supplemented with azolla.

KVK Birbhum, WB conducted OFT to assess the effect of Azolla supplementation in scientific feeding to increase the fish growth in the adopted villages. The result of the Trial indicated that the application of MOC (30 %) + Azolla (20 %) + Rice Bran (50 %) in fish pond produced better fish growth, fish yield (18.85 q/ha) and B:C Ratio (1.99) as compared to the Farmers' Practice [B:C Ratio (1.30)].

Table 2: Effect of Nutritional Supplements in Fish Feed in Growth of Fish

Technology option	No. of trials	Data related to problem addressed		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs. / ha)	BC Ratio
		Plankton Density (ml. / 50 lit.s of water)	Av. Fish Growth at 8 Months (g)					
Farmers practice: irregular feed application	08	0.8	200	5.63	30,270.00	39,410.00	9,140.00	1.5
Tech. opts. I: Rice bran (50%) + M.O.C. (50%)		2.0	500	14.80	1,10,250.00	1,48,000.00	37,750.00	1.34
Tech. opts. II: Rice bran (50%) + M.O.C. (40%) + Azolla (10%)		2.7	600	17.14	1,04,850.00	1,79,970.00	75,120.00	1.72
Tech. opts. III: Rice bran (50%) + M.O.C. (30%) + Azolla (20%)		2.7	650	18.85	99,450.00	1,97,925.00	98,475.00	1.99
SEm±		0.37	16.36	0.33				
CD (P = 0.05)		1.09	47.54	0.95				

(3) Thematic area: Production Technology

Problem definition: Lower yield due to less or no application of organic manure in broccoli

Technology assessed: Application of vermin-compost along with chemical fertilizer in broccoli

KVK Birbhum, W.B conducted OFT during rabi, 2012-13 to assess the effect of vermin-compost integrated with lesser amount of chemical fertilizer on broccoli in adopted villages. The result of the trial indicated that application of75:50:25 NPK Kg/ha + Vermicompost 75 qui/ha, produced higher yield (10.32 t/ha) and BC ratio (2.3) as compared to recommended practice (2.2).

Table3: Effect of vermin-compost on growth and yield of Broccoli

Technology option	No. of trials	Yield components		Yield (t/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		Curd size (cm)	Curd weight (gm)					
.Farmer's practice: 100:80:40 NPK kg/ ha (Totally inorganic)	10	5.19	352	5.62	1,09,890.00	1,49,450.00	39,560.00	1.4
I. Recommended 150:100:50 NPK kg/ ha (Totally inorganic)		6.49	516	8.24	98,900.00	2,17,500.00	1,18,600.00	2.2
II. 75:50:25 NPK Kg/ha + Vermicompost 75 qui/ha		8.31	646	10.32	1,20,870.00	2,74,500.00	1,53,630.00	2.3
SEm+		0.1	15.8	0.3				
CD(P=0.05)		0.4	45.8	0.7				

(4) Thematic area: Disease Management

Problem Definition: In Birbhum District Potato is cultivated in the sandy loam soil, medium land situation. Sometimes, no seed treatment is done by the farmers. But, mostly the farmers use traditional pesticides for seed treatment. They are very reluctant to use recent Third Generation pesticides for Late Blight of potato.

Technology Assessed: Seed treatment and third generation fungicide to control the late blight of potato.

KVK Birbhum, W.B conducted OFT during rabi, 2012-13 to assess late blight management of Potato in adopted villages. The result of the trial indicated that application Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Metalaxyl - Mancozeb (2.5g/lit at 3 5DAS) + Dimethomorph - Metiram(1g+3g/lit at 45 DAS), produced higher yield (33.7 t/ha) and BC ratio(3.0) as compared to farmers practice (2.5).

Table3: Effect of seed treatment and fungicides on late blight incidence and yield of potato.

Technology option	No. of trials	Yield components		Yield (t/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		No. of Leaves affected/m^2 (avg.)	% of Disease incidence (avg.)					
Farmers' practice: Seed treatment (MEMC) + Blitox50% (COC50% 3-4 times)	10	108.43	17.03	25.3	50,500.00	1,26,500.00	76,000.00	2.5
Tech. opts. -I: Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + COC50% (4g/lit at 35DAS) + Mancozeb (2.5g/lit at 45 DAS)		42.59	8.23	28.6	54,200.00	1,43,000.00	88,800.00	2.63
Tech. opts. -II: Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Metalaxyl - Mancozeb (2.5g/lit at 3 5DAS) + Dimethomorph - Metiram(1g+3g/lit at 45 DAS)		28.02	3.27	33.7	56,250.00	1,68,500.00	1,12,250.00	3.0
Tech. opts –III: Seed treatment (*Tricoderma viridi* 6 g./kg of seed) + Mancozeb (2.5g/lit at 20 DAS) + Corzet (2.5g/lit at 3 5DAS) + COC+Mancozeb (4g+2.5g/lit at 45 DAS)		33.44	5.02	31.2	56,400.00	1,56,000.00	99,600.00	2.76
SEm+		2.15	0.8	1.15				
CD(P=0.05)		6.25	2.33	3.35				

(5) Thematic area: Integrated Farming System

Problem definition: Lower profitability under fish based production system

Technology assessed: Integration of different components

KVK Birbhum, W.B started an OFT from January, 2012 to assess the profitability under fish based production system with poultry and pulses/vegetables in adopted villages. The result of the trial indicated that composite fish culture (IMC, prawn) + Poultry farming (RIR and Black Australorp 150 nos) + Pulses (Redgram- Blackgram) exhibited higher return (Rs. 57357/unit) and BC ratio(2.3) as compared to farmers practice (1.3).

Table7: Profitability under fish based integrated farming system

Technology option	No. of trials	Man days utilized per year	Cost of cultivation (Rs./unit*)	Gross return (Rs./unit)	Net Return (Rs /unit)	BC Ratio
.Farmer's practice: Traditional fish farming	7	18	6326.00	8386.00	2060.00	1.3
I. composite fish culture (IMC, prawn) + Poultry farming (RIR and Black Australorp 150 nos) + Pulses (Redgram- Blackgram)		225	42531.00	99888.00	57357.00	2.3
II. composite fish culture (IMC, prawn) + Poultry farming (RIR and Black Australorp 150 nos) + Vegetables (ladys' finger-capsicum)		260	59212.00	109589.00	50377.00	1.9
SEm±		11.11				
CD(P=0.05)		32.3				

- FP: 1 unit = 0.19 ha pond only + fallow land
- Opt-1: 1 unit= 0.19 ha pond + 150 nos. Of poultry + 0.13 ha utilsed land with pulse
- Opt-2: 1 unit= 0.19 ha pond + 150 nos. Poultry + 0.13 ha utilised land by vegetables

3.2 Achievements of Frontline Demonstration (FLD)

A. Details of FLDs implemented during April, 2012 – March, 2013 (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			
					Proposed	Actual	SC	ST	Others	Total
1.	**Fodder** Maize Sorghum Coix Rice Bean	Feed Management	**Variety of Crop –** Maize – J 1006 Sorghum – PC 23 Coix - Rice Bean – Bidhan 1	Kharif, 2012	0.40	0.40	8	3	8	19
2.	**Wheat**	Varietal replacement	**Variety of Crop –** HD 2733, HD 2824, PBW 343, HP 1761, HD 2985, HI 1563, PBW 373, HW 2045.	Rabi, 2012	5.00	5.00	16	02	25	43
3.	**Capsicum**	Varietal replacement	**Variety of Crop –** Bharat	Rabi, 2012	0.58	0.58	2	0	9	11
4.	**Sesame**	Varietal replacement	**Variety of Crop-** **Improved Selection 5**	Summer, 2013	5.00	5.00	8	5	24	37
5.	**Blackgram**	Varietal replacement	**Variety of the crop-** **WBU-108**	Summer, 2013	5.00	5.00	11	4	28	43

B. Details of farming situation

Sl. No.	Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date
1.	**Fodder** Maize Sorghum Coix Rice Bean	Kharif, 2012	Rainfed Upland, Lowland (Coix)	Sandy loam	L	L	M	fallow	20-27 June, 2012	15th. November – 15th. December, 2012.
2.	**Wheat**	Rabi, 2012	Irrigated Medium land	Sandy loam	M	L	M	Paddy – Var. IR – 36	25th. November – 20th. December, 2012.	Yet to be harvested finally
3.	**Capsicum**	Rabi, 2012	Irrigated Medium land	Sandy loam	M	L	M	Paddy – Var. IR – 36	25th. – 30th. November, 2012.	20 th Feb- 20 th March, 2013.
4.	**Sesame**	Summer, 2013	Irrigated Medium Land	Sandy loam	H	L	M	Potato/Mustard	10th – 25 th Feb, 2013	At early growth stages
5.	**Blackgram**	Summer, 2013	Irrigated Medium Land	Sandy loam	H	L	M	Potato/Mustard	25 th Feb- 15 th March, 2013	At early growth stage

C. Performance of FLD in other Crops

Crop	Thematic Area	Name of the technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase in yield	Other parameters			Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
					Demo	Check			Demo	Check	Gross cost	Gross return	Net return	BC ratio	Gross cost	Gross return	Net return	BC ratio
Fodder Maize Sorghum Coix Rice bean	Feed Management	Variety J-1006 PC-23 - Bidhan-1	19	0.1 0.1 0.1 0.1 0.4	392 273 410 165 310 (Av.)	222 (Goma)	39.6	Av. Crude Protein (%)	12.3	5.6	10125	17615	7490	1.7	8625	10900	2275	1.2
Wheat	Varietal replacement	**Variety** HD 2733, HD 2824, PBW 343, HP 1761, HD 2985, HI 1563, PBW 373, HW 2045.	43	5.0	Crop will be harvested in the month of April, 2013													
Capsicum	Varietal replacement	Bharat	11	0.58	42.8	20.1 (California wonder)	113	No. of branches/ plant	40.8.3	16.9	77,440	1,58,360	80,920	2.05	57,750	74,370	16620	1.29
								No. of fruits / plant	25.3	12.7								
								Weight of fruits (gm)	141.37	80.7								
Sesame	Varietal Replace-ment	Improved Selection -5	37	5.0	Crop now at growing stage													
Blackgram	Varietal Replace-ment	WBU-108	43	5.0	Crop now at growing stage													

D. Performance of FLD in Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of farmers	No. of units	Performance parameters	Major parameters		% change in BC ratio	Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
						Demo	Check		Gross cost	Gross return	Net return	BC ratio	Gross cost	Gross return	Net return	BC ratio
Prawn (Summer, 2012)	Giant prawn in Composite fish culture	Productivity-*Macrobrachium rosenberghi* (Galda) with composite fish	9	9 (1000 prawns per 0.13 ha)	Yield (kg/0.13ha)	49 (prawn) +267 (carp)	287 (carp)	54	75188	310500	235312	4.12	56438	150675	94237	2.67

E. Analytical Review of component demonstrations (details of each component for rain fed / irrigated situations to be given separately for each season)

Crop	Season	Component	Farming situation	Av. yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Green fodder (maize, sorghum, coix, rice bean)	Kharif, 2012	Seeds of improved variety	Rainfed upland, lowland(coix)	310.0	222.0 (Goma)	39.6
Capsicum, c.v. Bharat	Rabi, 2012-13	Seeds of improved variety	Irrigated medium land	42.8	20.1 (California wonder)	113

3.3. Achievements on training (including the sponsored and FLD training programmes):

A) ON-CAMPUS TRAINING. Practicing Farmers

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
I Crop Production													
Weed Management				0			0			0	0	0	0
Resource Conservation Technologies				0			0			0	0	0	0
Cropping Systems				0			0			0	0	0	0
Crop Diversification				0			0			0	0	0	0
Integrated Farming				0			0			0	0	0	0
Water management				0			0			0	0	0	0
Seed production	2	44		44	26		26			0	70	0	70
Nursery management				0			0			0	0	0	0
Integrated Crop Management				0			0			0	0	0	0
Fodder production				0			0			0	0	0	0
Production of organic inputs				0			0			0	0	0	0
Others, if any	1	24		24	8		8	5		5	37	0	37
II Horticulture													
a) Vegetable Crops													
Production of low volume & high value crops	1	14		14			0			0	14	0	14
Off-season vegetables				0			0			0	0	0	0
Nursery raising	1	19		19	2		2	1		1	22	0	22
Exotic vegetables like Broccoli	1	11		11			0			0	11	0	11
Export potential vegetables				0			0			0	0	0	0
Grading and standardization				0			0			0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0			0	0	0	0
Others, if any	2	23	13	36	11	2	13	4	3	7	38	18	56
b) Fruits													
Training and Pruning				0			0			0	0	0	0
Layout and Management of Orchards	2	40		40	18		18	2		2	60	0	60
Cultivation of Fruit				0			0			0	0	0	0
Management of young plants/orchards				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Export potential fruits				0			0			0	0	0	0
Micro irrigation systems of orchards				0			0			0	0	0	0
Plant propagation techniques				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
c) Ornamental Plants													
Nursery Management				0			0			0	0	0	0
Management of potted plants				0			0			0	0	0	0
Export potential of ornamental plants				0			0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
d) Plantation crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
e) Tuber crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
f) Spices													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
g) Medicinal and Aromatic Plants													
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management													
Soil fertility management	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	2	39	0	39	21	0	21	8	0	8	68	0	68
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management													
Dairy Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry Management	1	24	0	24	10	0	10	0	0	0	34	0	34
Piggery Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Feed management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	1	0	13	13	0	15	15	0	8	8	0	36	36
V Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Income generation activities for empowerment of rural Women	2	0	22	22	0	11	11	5	0	5	5	33	38
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
VI Agril. Engineering													
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
VII Plant Protection													
Integrated Pest Management	3	72	0	72	15	0	15	3	0	3	90	0	90
Integrated Disease Management	2	42	0	42	13	0	13	5	0	5	60	0	60
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	1	16	0	16	9	0	9	5	0	5	30	0	30
Others, if any	1	17	0	17	11	0	11	2	0	2	30	0	30
VIII Fisheries													
Integrated fish farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery mgt.	1	13	0	13	7	0	7	9	0	9	29	0	29
Carp fry and fingerling rearing	1	0	0	0	33	0	33	1	0	1	34	0	34
Composite fish culture	2	26	0	26	14	0	14	20	0	20	60	0	60
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	1	14	0	14	10	0	10	14	0	14	38	0	38
IX Production of Inputs at site													
Seed Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-agents production	1	25	0	25	5	0	5	0	0	0	30	0	30
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	2	50	0	50	5	0	5	0	0	0	55	0	60
Organic manures production	1	17	0	17	16	0	16	2	0	2	35	0	35
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics	0	0	0		0	0		0	0				
Leadership development	0	0	0	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	1	0	8	8	0	8	8	0	0	0	0	16	16
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	1	24	0	24	6	0	6	5	0	5	35	0	35
XI Agro-forestry	0	0	0		0	0		0	0				
Production technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	1	1	0	1	3	0	3	26	0	26	30	0	30
TOTAL	**35**	**555**	**56**	**611**	**243**	**36**	**279**	**112**	**16**	**128**	**910**	**108**	**1018**

3.3. Achievements on training (including the sponsored and FLD training programmes):

B) OFF-CAMPUS TRAINING. Practicing Farmers

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
I Crop Production													
Weed Management				0			0			0	0	0	0
Resource Conservation Technologies				0			0			0	0	0	0
Cropping Systems				0			0			0	0	0	0
Crop Diversification	1	25	0	25	5	0	5	0	0	0	30	0	30
Integrated Farming				0			0			0	0	0	0
Water management				0			0			0	0	0	0
Seed production				0			0			0	0	0	0
Nursery management				0			0			0	0	0	0
Integrated Crop Management	1	25	0	25	5	0	5	0	0	0	30	0	30
Fodder production				0			0			0	0	0	0
Production of organic inputs				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
II Horticulture													
a) Vegetable Crops													
Production of low volume and high value crops	1	0	39	39	0	0	0	0	0	0	0	39	39
Off-season vegetables				0			0			0	0	0	0
Nursery raising				0			0			0	0	0	0
Exotic vegetables like Broccoli				0			0			0	0	0	0
Export potential vegetables				0			0			0	0	0	0
Grading and standardization				0			0			0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0			0	0	0	0
Others, if any	5	0	37	37	2	27	29	0	63	63	2	127	129
b) Fruits													
Training and Pruning				0			0			0	0	0	0
Layout and Management of Orchards	1	0	8	8	0	0	0	0	0	0	0	8	8
Cultivation of Fruit				0			0			0	0	0	0
Management of young plants/orchards				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Export potential fruits				0			0			0	0	0	0
Micro irrigation systems of orchards				0			0			0	0	0	0
Plant propagation techniques				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
c) Ornamental Plants													
Nursery Management				0			0			0	0	0	0
Management of potted plants				0			0			0	0	0	0
Export potential of ornamental plants				0			0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
d) Plantation crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
e) Tuber crops													
Production and Management technology	1	42	7	49	7	7	14			0	49	14	63
Processing and value addition				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0
f) Spices													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others, if any				0			0			0	0	0	0

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
g) Medicinal and Aromatic Plants													
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management													
Soil fertility management	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	2	94	0	94	6	0	6	0	0	0	100	0	100
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management													
Dairy Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Feed management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
V Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	21	21	0	24	24	0	45	45
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	1	0	40	40	0	20	20	0	0	0	0	60	60
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Income generation activities for empowerment of rural Women	0	0	0	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and child care	1	0	0	0	30	0	30	20	0	20	50	0	50
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
VI Agril. Engineering	0	0	0		0	0		0	0				
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
VII Plant Protection													
Integrated Pest Management	3	94	0	94	50	0	50	6	0	6	150	0	150
Integrated Disease Management	1	46	0	46	4	0	4	0	0	0	50	0	50
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
VIII Fisheries													
Integrated fish farming	1	0	21	21	0	0	0	0	0	0	0	21	21
Carp breeding and hatchery mgt.	1	0	8	8	0	0	0	0	0	0	0	8	8
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	1	0	0	0	2	27	29	0	11	11	2	38	40
Hatchery management and culture of freshwater prawn	1	0	0	0	0	0	0	0	33	33	0	33	33
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	2	48	0	48	44	0	44	11	0	11	103	0	103
IX Production of Inputs at site													
Seed Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics													
Leadership development	1	38	0	38	2	0	2	0	0	0	40	0	40
Group dynamics	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	1	25	0	25	0	0	0	0	0	0	25	0	25
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	3	95	0	95	28	0	28	14	0	14	137	0	137
XI Agro-forestry													
Production technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	1	16	0	16	8	0	8	16	0	16	40	0	40
TOTAL	**31**	**548**	**160**	**708**	**193**	**102**	**295**	**67**	**131**	**198**	**808**	**393**	**1201**

3.3. Achievements on training (including the sponsored and FLD training programmes):
C) ON+OFF CAMPUS TRAINING. Practicing Farmers

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
I Crop Production													
Weed Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop Diversification	1	25	0	25	5	0	5	0	0	0	30	0	30
Integrated Farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Water management	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed production	2	44	0	44	26	0	26	0	0	0	70	0	70
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	1	25	0	25	5	0	5	0	0	0	30	0	30
Fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	1	24	0	24	8	0	8	5	0	5	37	0	37
II Horticulture													
a) Vegetable Crops													
Production of low volume and high value crops	2	14	39	53	0	0	0	0	0	0	14	39	53
Off-season vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery raising	1	19	0	19	2	0	2	1	0	1	22	0	22
Exotic vegetables like Broccoli	1	11	0	11	0	0	0	0	0	0	11	0	11
Export potential vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	7	23	50	73	13	29	42	4	66	70	40	145	185
b) Fruits													
Training and Pruning	0	0	0	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	3	40	8	48	18	0	18	2	0	2	60	8	68
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
c) Ornamental Plants	0												
Nursery Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
d) Plantation crops	0												
Production and Management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
e) Tuber crops	0												
Production and Management technology	1	42	7	49	7	7	14	0	0	0	49	14	63
Processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
f) Spices	0												
Production and Management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
g) Medicinal and Aromatic Plants													
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management	0												
Soil fertility management	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	2	39	0	39	21	0	21	8	0	8	68	0	68
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	2	94	0	94	6	0	6	0	0	0	100	0	100
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management													
Dairy Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry Management	1	24	0	24	10	0	10	0	0	0	34	0	34
Piggery Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Feed management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	1	0	13	13	0	15	15	0	8	8	0	36	36
V Home Science/Women empowerment	0												
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	21	21	0	24	24	0	45	45
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	1	0	40	40	0	20	20	0	0	0	0	60	60
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Income generation activities for empowerment of rural Women	2	0	22	22	0	11	11	5	0	5	5	33	38
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and child care	1	0	0	0	30	0	30	20	0	20	50	0	50
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
VI Agril. Engineering	0												
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
VII Plant Protection	0												
Integrated Pest Management	6	166	0	166	65	0	65	9	0	9	240	0	240
Integrated Disease Management	3	88	0	88	17	0	17	5	0	5	110	0	110
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	1	16	0	16	9	0	9	5	0	5	30	0	30
Others, if any	1	17	0	17	11	0	11	2	0	2	30	0	30
VIII Fisheries	0												
Integrated fish farming	1	0	21	21	0	0	0	0	0	0	0	21	21
Carp breeding and hatchery mgt.	2	13	8	21	7	0	7	9	0	9	29	8	37
Carp fry and fingerling rearing	1	0	0	0	33	0	33	1	0	1	34	0	34
Composite fish culture	3	26	0	26	16	27	43	20	11	31	62	38	100
Hatchery management and culture of freshwater prawn	1	0	0	0	0	0	0	0	33	33	0	33	33
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	3	62	0	62	54	0	54	25	0	25	141	0	141
IX Production of Inputs at site	0												
Seed Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-agents production	1	25	0	25	5	0	5	0	0	0	30	0	30
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	2	50	0	50	5	0	5	0	0	0	55	0	60
Organic manures production	1	17	0	17	16	0	16	2	0	2	35	0	35
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics													
Leadership development	1	38	0	38	2	0	2	0	0	0	40	0	40
Group dynamics	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	2	25	8	33	0	8	8	0	0	0	25	16	41
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0	0	0	0
Others, if any	4	119	0	119	34	0	34	19	0	19	172	0	172
XI Agro-forestry													
Production technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	2	17	0	17	11	0	11	42	0	42	70	0	70
TOTAL	**66**	**1103**	**216**	**1319**	**436**	**138**	**574**	**179**	**147**	**326**	**1718**	**501**	**2219**

3.3. Achievements on training :

A) ON-CAMPUS TRAINING

Rural Youth

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
Mushroom Production	1	11	1	12	8	1	9	4	0	4	23	2	25
Bee-keeping				0			0			0	0	0	0
Integrated farming				0			0			0	0	0	0
Seed production				0			0			0	0	0	0
Production of organic inputs				0			0			0	0	0	0
Integrated Farming				0			0			0	0	0	0
Planting material production				0			0			0	0	0	0
Vermi-culture				0			0			0	0	0	0
Sericulture				0			0			0	0	0	0
Protected cultivation of vegetable crops				0			0			0	0	0	0
Commercial fruit production				0			0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0			0	0	0	0
Nursery Management of Horticulture crops	1	20	0	20	3	0	3	3	0	3	26	0	26
Training and pruning of orchards				0			0			0	0	0	0
Value addition				0			0			0	0	0	0
Production of quality animal products				0			0			0	0	0	0
Dairying				0			0			0	0	0	0
Sheep and goat rearing				0			0			0	0	0	0
Quail farming				0			0			0	0	0	0
Piggery				0			0			0	0	0	0
Rabbit farming				0			0			0	0	0	0
Poultry production				0			0			0	0	0	0
Ornamental fisheries				0			0			0	0	0	0
Para vets				0			0			0	0	0	0
Para extension workers				0			0			0	0	0	0
Composite fish culture				0			0			0	0	0	0
Freshwater prawn culture				0			0			0	0	0	0
Shrimp farming				0			0			0	0	0	0
Pearl culture				0			0			0	0	0	0
Cold water fisheries				0			0			0	0	0	0
Fish harvest and processing technology				0			0			0	0	0	0
Fry and fingerling rearing				0			0			0	0	0	0
Small scale processing				0			0			0	0	0	0
Post Harvest Technology	1	0	2	2	0	9	9	0	4	4	0	15	15
Tailoring and Stitching				0			0			0	0	0	0
Rural Crafts				0			0			0	0	0	0
Others, if any	3	50	0	50	24	0	24	2	0	2	76	0	76
TOTAL	**6**	**81**	**3**	**84**	**35**	**10**	**45**	**9**	**4**	**13**	**125**	**17**	**142**

3.3. Achievements on training

A) ON-CAMPUS TRAINING

Extension Personnel

Thematic Area	No. of Courses	No. of participants											
		Others			SC			ST			Grand Total		
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	1	21	0	21	4	0	4	0	0	0	25	0	25
Integrated Pest Management	1	21	0	21	4	0	4	0	0	0	25	0	25
Integrated Nutrient management				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Protected cultivation technology				0			0			0	0	0	0
Formation and Management of SHGs				0			0			0	0	0	0
Group Dynamics and farmers organization				0			0			0	0	0	0
Information networking among farmers				0			0			0	0	0	0
Capacity building for ICT application				0			0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0			0	0	0	0
WTO and IPR issues				0			0			0	0	0	0
Management in farm animals				0			0			0	0	0	0
Livestock feed and fodder production				0			0			0	0	0	0
Household food security				0			0			0	0	0	0
Women and Child care				0			0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0			0	0	0	0
Production and use of organic inputs				0			0			0	0	0	0
Gender mainstreaming through SHGs				0			0			0	0	0	0
Any other (Pl. Specify)	1	12	0	12	1	0	1	0	3	3	13	3	16
TOTAL	**3**	**54**	**0**	**54**	**9**	**0**	**9**	**0**	**3**	**3**	**63**	**3**	**66**

3.4. Achievements on Training (including the Sponsored and FLD Training):

A. Details of Training Programmes:

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off / On Camps	Number of participants			Number of SC/ST					
								SC			ST		
					M	F	T	M	F	T	M	F	T
23.04.2012.	PF	Improved Package of Practices of Elephants' Foot yam Cultivation	01	Off	49	14	63	07	07	14	00	00	00
17.05.2012.	PF	Different Methods of IPM (Crop – Rice)	01	Off	50	00	50	15	00	15	03	00	03
18.05.2012	PF	Different Methods of IPM (Crop – Rice	01	Off	50	00	50	21	00	21	00	00	00
12.06.2012.	PF	Cultivation of Rainy Seasonal Vegetables	01	On	11	18	29	04	02	06	01	03	04
14.06.2012 – 15.06.2012.	PF	Layout and Planting of Mango and Guava	02	On	30	00	30	09	00	09	01	00	01
16.06.2012. – 17.06.2012.	PF	Management of guava and mango orchard	02	On	30	00	30	09	00	09	01	00	01
25.06. – 28.06.2012.	PF	Low Cost Fish Feed Preparation	04	Off	53	00	53	29	00	29	06	00	06
26 & 28.6. 2012	PF	Preparation and use of super compost	02	On	35	00	35	16	00	16	02	00	02
09.07. – 17.07.2012.	PF	Techniques of Kantha and Gujrati Stitch	07	On	00	13	13	00	05	05	00	05	05
12.07. – 15.07.2012.	PF	Integrated Pest, Disease and Weed Management in Kharif Paddy (Phase – I)	02	On	30	00	30	04	00	04	00	00	00
28.07. – 29.07.2012.	PF	Leadership Development among practicing farmers.	02	Off	40	00	40	02	00	02	00	00	00
09.08. – 12.08.2012.	PF	Integrated Pest, Disease and Weed Management in Kharif Paddy (Phase – II)	04	On	30	00	26	04	00	04	00	00	00
23.08.2012.	PF	Care and Management of Pregnant Women	01	Off	00	50	50	00	30	30	00	20	20
25.08. & 27.08.2012.	PF	Training Programme on Farmers' Perception on Farming Situation and Farmers' Meet	02	Off	48	00	48	04	00	04	00	00	00
27.08. – 28.08.2012.	PF	Integrated Pest, Disease and Weed Management in Kharif Paddy (Phase –III)	04	Off	50	00	50	04	00	00	00	00	00
27.08. – 28.08 and 30.08. – 31.08.2012.	PF	Composite Fish Culture	04	On	28	00	28	04	00	04	11	00	11
7. 9. 2012	PF	Collection of Soil sample	01	Off	50	00	50	02	00	02	00	00	00
9-10. 9.2012	PF	Preparation of soil sample for soil testing and interpretation	02	Off	50	00	50	04	00	04	00	00	00
10.9.2012	PF	Winter vegetable cultivation	01	Off	02	38	40	02	27	29	00	11	11
10.9.2012	PF	Composite Fish Culture	01	Off	02	38	40	02	27	29	00	11	11
11.09.2012.	PF	Nutritional Management of Pre-School Children	01	Off	00	60	60	00	20	20	00	00	00
11.9.2012	PF	Winter vegetable cultivation with special emphasis on brinjal, chilli and tomato	01	Off	00	21	21	00	00	00	00	00	00

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off / On Camps	Number of participants			Number of SC/ST					
								SC			ST		
					M	F	T	M	F	T	M	F	T
11.9.2012	PF	Fish based Integrated Farming	01	Off	00	21	21	00	00	00	00	00	00
12.9.2012	PF	Management practices of Mango and Guava orchard after monsoon	01	Off	00	08	08	00	00	00	00	08	08
12.9.2012	PF	Nursery Pond Management for Fingerling Production	01	Off	00	08	08	00	00	00	00	08	08
13.9.2012	PF	Cultivation of Cabbage and Cauliflower	01	Off	00	33	33	00	00	00	00	33	33
13.9.2012	PF	Giant Prawn Culture	01	Off	00	33	33	00	00	00	00	33	33
14.09. – 15.09.2012.	PF	Integrated Pest Management on Early Rabi Vegetables	02	On	30	00	30	07	00	07	03	00	00
14.09. – 20.09.2012.	PF	Carp Breeding and Hatchery Management	07	On	29	00	29	07	00	07	09	00	09
24-25.9. 2012	PF	Preparation and use of Vermicompost. Phase-I	02	On	30	00	30	05	00	05	00	00	00
27-28.9. 2012	PF	Preparation and use of Vermicompost. Phase-II	02	On	30	00	30	05	00	05	00	00	00
27.09. – 28.09.2012.	PF	Formation of New SHGs	02	On	00	16	16	00	08	08	00	00	00
27.09. – 28.09.2012.	PF	Formation of Farm Science Club	02	Off	37	00	37	21	00	21	01	00	00
29.9 & 1.10. 2012	PF	Multiplication of Azolla	02	On	30	00	30	05	00	05	00	00	00
05.10. – 09.10.2012.	PF	Scientific Poultry Farming	04	On	00	34	34	00	10	10	00	00	00
08.10. – 09.10.2012.	PF	Integrated Pest Management on Solanaceous Vegetables	02	On	30	00	30	07	00	07	03	00	00
11.10. – 16.10.2012.	PF	Scientific Goat Farming	06	On	00	36	36	00	15	15	00	08	08
11.10. – 16.10.2012.	PF	Composite Fish Culture with Giant Prawn	06	On	32	00	32	10	00	10	09	00	09
12.10. – 13.10.2012.	PF	Fishery Economics and Composite Fish Culture	02	On	38	00	38	10	00	10	14	00	14
19.10.2012	PF	Raising of capsicum and Broccoli seed bed	01	On	22	00	22	02	00	02	01	00	01
8-9.11.12	PF	Balanced nutrient management in potato cultivation	02	Off	30	00	30	05	00	05	00	00	00
8.11.12, 10-12.11.2012.	PF	Carp Fry and Fingerling rearing in Nursery Pond	04	On	34	00	34	33	00	33	01	00	01
10&12.11. 2012	PF	Paira cropping in late sown rice field with lentil, lathyrus etc.	02	Off	30	00	30	05	00	05	00	00	00
22.11. – 23.11.2012.	PF	Integrated Pest Management on Rabi Pulse and Wheat	02	On	30	00	30	06	00	06	02	00	02
10- 11. 12.2012.	PF	Formation of Self Help Groups among Fish Farmers	02	Off	25	00	25	00	00	00	00	00	00
20.12.2012	PF	Vegetable cultivation	01	Off	00	16	16	00	00	00	00	00	00
21.12.2012	PF	Vegetable cultivation	01	Off	00	19	19	00	00	00	00	19	19
17-18.01.2013	PF	Seed treatment of different crop	02	On	30	00	30	11	00	11	02	00	02
21.01.2013	PF	Cultivation of high value vegetables. i.e. Capsicum & Broccoli	01	Off	00	39	39	00	00	00	00	39	39

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off / On Camps	Number of participants			Number of SC/ST					
								SC			ST		
					M	F	T	M	F	T	M	F	T
28-29. 01.2013	PF	Preparation of different botanical pesticides	02	On	30	00	30	09	00	09	05	00	05
09.02.2013	PF	Sowing & fertilizer management of sesame	01	On	33	00	33	08	00	08	05	00	05
09-12.02.2013	PF	Cultivation of *Barmasia variety of Drum Stick*	04	On	27	00	27	07	00	07	03	00	03
14&16.02. 2013	PF	IPM in summer vegetable	02	Off	50	00	50	14	00	14	03	00	03
18-19.02.2013	PF	Seed production technologies of Black Gram & green Gram in Summer Season. (Phase -I)	02	On	35	00	35	13	00	13	00	00	00
18,21,22.02 .2013	PF	Improved package & practices of Capsicum	03	On	14	00	14	00	00	00	00	00	00
18-23.02.2013	PF	Preparation of *Agarbati*	06	On	00	25	25	00	06	06	00	00	00
19.02.2013	PF	Nutrition gardening	01	Off	00	45	45	00	21	21	00	24	24
22.02.2013, 1-2,03.2013	PF	Fish disease: Prevention & control	03	Off	50	00	50	15	00	15	05	00	05
23&25.02. 2013	PF	Improved cultural practices of *Broccoli*	02	On	11	00	11	00	00	00	00	00	00
25-26 02.2013	PF	Seed production technologies of Black Gram & Green Gram in summer season. Phase-II	02	On	35	00	35	13	00	13	00	00	00
25&28.02. 2013	PF	Ex-trainees meet	02	On	30	00	30	03	00	03	26	00	26
27.02.2013	PF	Cultivation of Sesame	01	On	37	00	37	08	00	08	05	00	05
28.02.2013	PF	Sowing and phosphate management of Black gram	01	On	35	00	35	13	00	13	03	00	03
08.03.2013	PF	Orientation about KVK activities (Phase-I)	01	Off	40	00	40	08	00	08	16	00	16
16.03.2013	PF	Orientation about KVK activities (Phase-II)	01	On	35	00	35	06	00	06	05	00	05
17.03.2013	PF	Nutrition gardening	01	Off	00	52	52	00	03	03	00	13	13
Total			**82**		**1718**	**501**	**2219**	**436**	**138**	**574**	**179**	**147**	**326**
24.6-23.07.2012	RY	Nursery and its management	28	On	26	00	26	03	00	03	03	00	03
22.11- 6.12. 2012 & 7-12.3.2013	RY	Routine analysis of soil. Phase-I	21	On	20	00	20	09	00	09	00	00	00
02.07. – 02.08.2012.	RY	Carp Breeding and Hatchery Management	30	On	24	00	24	09	00	09	00	00	00
18.12.2012. – 10.01.2013.	RY	Mushroom Seed Production and Cultivation	24	On	23	02	25	08	01	09	04	00	04
18.01.2013	RY	Improved cultivation practices of fruits	01	On	32	00	32	06	00	06	02	00	02
01-21.03. 2013	RY	Preservation & value addition of Fruits & Vegetables	15	On	00	15	15	00	09	09	00	04	04
Total			**119**		**125**	**17**	**142**	**35**	**10**	**45**	**9**	**4**	**13**
21 & 23. 6.2012	EF	Recent development in Horticulture	02	Off	13	03	16	01	00	01	00	03	03
01.03.2013	EF	Pulse seed production technologies	01	On	25	00	25	04	00	04	00	00	00
15.03.2013	EF	IPM on summer pulse and oilseeds	01	On	25	00	25	04	00	04	00	00	00
Total			**04**		**63**	**03**	**66**	**09**	**00**	**09**	**00**	**03**	**03**
Grand Total			**205**		**1906**	**521**	**2427**	**480**	**148**	**628**	**188**	**154**	**342**

(B) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			
				Male	Female	Total	Type of units	No. of units	No of persons employed	No. of person employed else where
Poor/ marginal soil	Soil health management	Routine analysis of soil	21	20	0	20	Soil testing kit	3	3	-
Vegetable/ Fruits	Planting material	Nursery and its management	28	26	0	26	Vegetable nursery, fruit nursery, flower& Ornamental nursery	3	3	2
Fish	Enhancement of fish productivity	Carp breeding and hatchery management	30	24	0	24	Portable/glass jar hatchery	5	12	0
Mushroom	Mushroom production	Mushroom production and processing	24	23	02	25	Home based mushroom bed	2	2	0
Fruits and Vegetables	Value Addition	Preservation & value addition of Fruits & Vegetables	15	00	15	15	Home based preservation & value addition unit	8	8	0
Fruits	Production Technology	Improved cultivation practices of fruits	01	32	00	32	Orchard	2	2	0
Total			**119**	**125**	**17**	**142**		**23**	**30**	**02**

(C) Sponsored Training Programmes

Sl. No	Title	Thematic area	Month	Duration (days)	PF/RY/EF	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
							O	SC	ST	O	SC	ST	O	SC	ST	Total	
1	Capacity Build Up Training on Wheat, Potato, Mustard and Rabi Vegetables Crop Management	Production technology	April, 12	2	EF	1	27	04	00	0	0	0	27	04	00	31	Tata Rallis Ltd.
2	Training for Head Master / Achiever Farmer	Production technology	May, 2012	5	PF	5	20	04	01	0	0	0	20	04	01	25	ATMA, Birbhum
3	Orientation Farmers' training Programme	Production technology	June, 12	1	PF	1	96	17	00	0	0	0	96	17	00	113	FIAC, ATMA, Burdwan
4	Orientation Farmers' training Programme	Production technology	June, 12	1	PF	1	53	16	03	0	0	0	53	16	03	72	FIAC, ATMA, Burdwan
	Total			**9**		**8**	**196**	**41**	**04**	**00**	**00**	**00**	**196**	**41**	**04**	**241**	

3.5 Extension Activities (including Activities of FLD Programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Official			Total		
		M	F	T	M	F	T	M	F	T
Field Day	18	425	160	585	8	3	11	433	163	596
Diagnostic Services										
Scientists' Visits to Farmers' Fields	69	337	79	416	5	1	6	342	80	422
Farmers' Visit to KVK	151	903	179	1082	5	1	6	908	180	1088
Radio talks	06	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Kisan Mela	01	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
TV Programme	03	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Popular/ scientific articles	06	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Extension literature	24	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Awareness Camp	02	107	00	107	1	00	1	108	00	108
CD shows	06	223	61	284	5	1	6	228	62	290
Kisan Mobile Advisory Service	275	5602	1152	6754	0	0	0	5602	1152	6754
Total	**561**	**7597**	**1631**	**9228**	**24**	**06**	**30**	**7621**	**1637**	**9258**

3.6 Production and Supply of Technological Products

A. VILLAGE SEED

	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Rice	MTU-7029, IR-36	80.00	1,20,000.00	220
PULSE	Black Gram	WB108	10.8 62.6	54,000.00 1,56,500.00	118 Consumed
OIL SEED	Mustard	B-9	29.0	72,500.00	596
VEGETABLES	Corm of Elephant's Foot Yam	Kavoor	300.00	2,40,000.00	62

B. KVK FARM

Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
Rice	MTU-7029	10.72	16,080.00	52
Fish	IMC	0.5	4,034.00	25

3.7 Literature Developed/Published (with Full Title, Author and Reference)

A. Literature Developed/Published

Title	Authors name	Number
Technical reports		
1. Annual Action Plan (April, 13 – March, 14)	**Rathindra KVK**	3
2. Annual Progress Report (April, 2012 - March, 2013)	**Rathindra KVK**	
3. SAC Report (April, 2012 – December, 2012.)	**Rathindra KVK**	
Research Papers		
Pharmaco-Anatomical and Histochemical Studies on Stems of Some Medicinal Plants. ***Journal of Interacademicia***. 16 (3): 592 – 597, 2012.	Sudipa Mandal and **Subrata Mandal**	6
Approaches in Integrated Pest Management (IPM) Practices: An Extension Point of View, **Theme: Agribusiness Policies and transfer of Technology in the Golden Jubilee Seminar on Advances in Agricultural Research towards Food Security and Environmental Sustenance,** organized by the **Institute of Agriculture, Palli Shiksha Bhavana**, **Visva-Bharati, Sriniketan** in the Palli Shiksha Bhavana, Visva-Bharati, Sriniketan, West Bengal India, held from 1st. September to 3rd. September, 2012, **Page No. T5-P004.**	**Prabuddha Ray** and Sarthak Chowdhury	
Transfer of Agricultural Technologies for Information Have Nots: A New Approach, **Theme: Agribusiness Policies and transfer of Technology in the Golden Jubilee Seminar on Advances in Agricultural Research towards Food Security and Environmental Sustenance,** organized by the **Institute of Agriculture, Palli Shiksha Bhavana**, **Visva-Bharati, Sriniketan** in the Palli Shiksha Bhavana, Visva-Bharati, Sriniketan, West Bengal India, held from 1st. September to 3rd. September, 2012, **Page No. T5-P007.**	Sarthak Chowdhury and **Prabuddha Ray**	
Facilitating Sustainable Agriculture from Extension Perspective **in the National Seminar on "Challenges of Livelihood and Inclusive Rural Development in the Era of Globalization",** organized by the **A. K. Dasgupta Centre for the Planning and Development, Department of Economics and Politics, Visva-Bharati, Santiniketan** in the Department of Economics and Politics**,** Visva-Bharati, Santiniketan held on 23rd. November, 2012, **Sl. No. – 14.**	**Prabuddha Ray** and Sarthak Chowdhury	
"Facilitating Sustainable Agriculture from Extension Perspective", **Chapter (No. 14)** in the Book titled, ***"Challenges of Livelihood and Inclusive Rural Development in the Era of Globalization"*** **[ISBN No. 978-93-81274-25-5],** edited by **Pranab Kumar Chattopadhyay** and **Sudipta Bhattacharya**, published by **New Delhi Publishers, New Delhi,** in the year 2012, Page No. 263 - 278.	**Prabuddha Ray** and Sarthak Chowdhury	
Field Level Constraints as Experienced by the Vegetable Growers regarding the Proper Use of Pesticides in French Bean Cultivation **in the International Conference on Extension Education in the Perspectives of Advances in Natural Resource Management in Agriculture (NaRMA – IV) Swami Keshawananda Rajasthan Agricultural University (SKRAU), Bikaner, Rajasthan, India** held in Swami Keshawananda Rajasthan Agricultural University (SKRAU), Bikaner, Rajasthan, India from 19.12.2012 to 21.12.2012, Published in the Proceedings Sl. No. C - 287.	**Prabuddha Ray and Dulal Chandra Manna**	
Extension literature		
1.Breeding of Galda in Fresh Water (*Mitha Jaley Galda Chingri*)	**K. Mitra**	24
2.Breeding and Cultivation Practices of Magur (*Magur Projanan and Chash Padhatti*)		
3. Utilization of Waste Materials (*Abarzana Samsaya Noi Upakari Sampad*)	**Subrata Mandal**	
4. Cultivation Of Paddy through SRI in brief (*SRI paddhatite Dhaner Sankhipstha Chas Paddhati)*		
5. Soil Sample Collection for Soil Testing (*Mati Parikshar janya Matir Namuna Sangraher Paddhati*)		
6. Preparation of Vermicompost (*Kencho Sar Prastuti*)		
7. Production of Paddy Seeds (*Dhan Beej Utpadan*)		
8. Intermediate Cropping of Sesame (*Tiler Madhyabartikalin Chash*)		
9. Summer Cultivation of Ground Nuts (*Grishmakalin China Badam Chash*)		
10. Cultivation of Sesame (*Til Chash*)		
11. Primary stage of wheat cultivation (*Gam Chaser Prathomik Parjay*)		
12. Cultivation of Isabgool (*Isabgool Chas Paddhati*)		
13. Intercultivation of wheat (*Gamer Antarborti kalin paricharya*)		

Title	Authors name	Number
14. Banana Cultivation (*Kala Chash*)	**D.C.Manna**	
15. Cultivation of Elephant's Footyam (*Oler Chash*)		
16. Cultivation of Papaya (*Peper Chash*)		
17. Conversion of Sour and Wild Ber to Sweet Ber (*Tak Jangli Kool Gachke Mishthi Kool Gache Rupantar*)		
18. Scented Lemon (Gandharaj), Lime and Lemon (Kagji) Cultivation (*Gandharaj Lebu, Pati Lebu oo Kagji Lebu Chash*)		
19. Summer Vegetables Cultivation (*Grishmakalin Shak Sabji Chash*)		
20. Integrated Pest Management on Rice (*Sushanhata Upaye Dhaner Rogpoka Niyantran*)	**Sourav Mondal**	
21. Prashikhan Karmasuchir Mulyana (Evaluation of Training Programmes)	**Prabuddha Ray**	
22. Domestic Animals rearing (*Gharoa Prani Palan*)		
23. Rearing of Cows (*Garu Palan*)		
24. Herbal Treatment of Animal Diseases (*Pashur Veshaj Chikitsa*)		
TOTAL		**33**

B. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
1	**CD**	Control of Parthenium	6
2.		Efficient use of water in agriculture	
3.		Hybrid rice seed production	
4.		Quality protein maize	
5.		Integrated Pest Management	
6		KVK Birbhum- at a glance	

C. Details of HRD programme undergone

Name & Designation	Training / Workshop	Institute where Deputed	Period
Dr. Dulal Chandra Manna, Programme Coordinator	Zonal Workshop of Zone II, ICAR	FTC, BCKV, Kalyani, Nadia, West Bengal	15.04.2012. – 17.04.2012.
	Training Programme on Use of Plastics in Agriculture	CIFRI, Salt Lake City, Kolkata	12.07.2012.
	Meeting on Community Radio station	SAMETI, Narendrapur, South 24 Parganas, West Bengal.	01.11.2012
	National Conference of KVK	Punjab Agricultural University, Ludhiana, Punjab, India	20.11.2012. – 22.11.2012.
Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	Training Programme on Use of Plastics in Agriculture	CIFRI, Salt Lake City, Kolkata	12.07.2012.
	Training Programme on Participatory, monitoring and evaluation	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	30-31.01.2013
Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	Model Training Course on "Production of Particle Board from Agro-residues"	National Institute of Research on Jute and Allied Fibre Technology (NIRJAFT), 12, Regent Park, Kolkata – 700040.	15.11.2012. – 22.11.2012.
	International Conference on Extension Education in the Perspectives of Advances in Natural Resource Management in Agriculture (NaRMA – IV)	Swami Keshawananda Rajasthan Agricultural University (SKRAU), Bikaner, Rajasthan, India.	19.12.2012. – 21.12.2012.
	Training Programme on Participatory, monitoring and evaluation	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	30-31.01.2013
	Workshop on Training Need Assessment	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	2-3,03.2013
Mr. Sourav Mondal, Subject Matter Specialist (Plant Protection)	Annual Nematological Workshop	SAMETI, Narendrapur, South 24 Parganas, West Bengal.	07.07.2012.
	Training programme on OFT design in Social Science	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	11.02.2013
	Training programme on Evaluation of Training	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	12.02.2013
Smt. Ruma Addy Subject Matter Specialist (Home Science)	Training programme on OFT design in Social Science	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	11.02.2013
	Training programme on Evaluation of Training	DEE, FTC, BCKV, Kalyani, Nadia, West Bengal	12.02.2013

3.8 Success Stories/Case studies:-

A. Fresh Water Giant Prawn in Composite Fish Culture:

A tribal self help group of village Kankutia, Birbhum showed interest in culture of giant prawn along with carp. In this regard a front line demonstration programme was undertaken. This tribal group of 25 members headed by Sri Kanka Soren was motivated by training to undertake this programme. Giant Prawn juvenile were introduced along with carps (except bottom dwellers). A number of 1000 prawn juveniles were stocked in the pond area of 0.13 ha. After a period of 6 months the prawns attained an average size of 90 g. The group sold a stock of 65 kg of prawn @ Rs. 300 per Kg with the gross return of Rs.19,500/- only from prawn. Another Rs. 16,000/- was obtained from selling carps. The cost of prawn juvenile and feed was found only Rs. 4,500/-. The result of prawn culture along with composite fish motivated other farmers for prawn culture. The farmers from other villages are now showing interest in prawn culture in the next year.

B. Cultivation of Broccoli- a Huge Success

Widespread adoption of Broccoli, a high end, high value vegetable crop in the adopted villages of Rathindra KVK is transforming lives of many small scale farmers and marginal subsistence farmers of the Birbhum District, West Bengal. Farmers like Sri Monotosh Ghosh, Sri Tapan Ghosh, Sri Sadai Mete and Sri Goutam Mete of village Bishnubati, Community Development Block Bolpur-Sriniketan, District- Birbhumpoint to the success as a result of untiring effort of the scientist of Rathindra KVK. Sri Monotosh Ghosh fetched a profit of Rs. 15,000 /- from a plot of 10 kathas (0.067 ha) while Sri Tapan Ghosh earned a profit of Rs. 12,200/- from a plot of 8 kathas(0.053 ha). Marginal farmers like Sri Sadai Mete and Sri Goutam Mete also earned a profit of Rs. 4,300/- and Rs. 5,300/- from their plots of 5 kathas (0.033 ha) and 4 kathas (0.027 ha) respectively. These Broccoli cultivators got a market price of Rs. 8/- to Rs. 12/- per pieces of Broccoli. This high value crop has a huge potential to be grown all over the District of Birbhum, as this crop has a heavy demand from the large chaines of Shopping Malls, Restaurants, Hotels as well as common people.

C. Commercial Cultivation of Capsicum- a success story

Capsicum, a high value (both financially and nutritionally) vegetable crop has a immense potential to be grown on a large scale commercial basis as this crop has a heavy national and state demand from shopping malls, restaurants, hotels and general people . Rathindra KVK has successfully spread the cultivation of this crop in the mandate District. The successes of the farmers like Sri Monotosh Ghosh, Sri Tapan Ghosh, Sri Pitambar Ghosh and Sri Bakul Mete of the village Bishnubati, Bolpur –Sriniketan Block, Birbhum supported the claim. Sri Monotosh Ghosh and Sri Tapan Ghosh earned a profit of Rs. 13,000/- and Rs. 8,390/- from the plot size of 5 katha(0.033 ha) and 3 kathas (0.02 ha) respectively. Sri Pitambar Ghosh a small farmer earned a huge profit of Rs. 14,250/- from a mere plot size of 4 kathas (0.027 ha), while a smaller plot of a size of 2 kathas gave a profit of Rs. 7,400/- to Sri Bakul Mete. Growers of capsicum fetched a market price of Rs. 30 to 35 /- per kilogram of capsicum on an average. Their production ranged from 6 quintals to 3 quintals. So, large scale commercial cultivation of capsicum can transform the agricultural scenario of the Tagore –land.

3.9 Details of innovative methodology or innovative technology of Transfer of Technology developed and used during the Period of April, 2012 – March, 2013.

Glass Jar Hatchery – An Innovative Approach For Hatching Carp Eggs In Rural Areas:

The idea of transparent Glass Jar Hatchery was first introduced by Bhowmick (1978). This was India's first ever hatchery in which the developing eggs can be watched in transparent containers at eye level and in which the hatchling are automatically transferred, untouched by hand, to storage '*Hapa'* Spawnery. The main components of Bhowmick's Glass Jar Hachery are an over head tank, fish breeding tank, incubation and hatchery Jars and a Spawnery to hold the post-larvae. Bhowmick engineered Glass Jar Hatchery at the Pond Culture Division of CIFRI. This Glass Jar Hatchery System received water supply from an over head tank of 5,500 litre capacity. The capacity of each of the 40 hatchery jars was 6.35 litres. The Spawnery comprised of two cement cistern each of the size 1.8 metre X 0.9metre X 0.9.metre which holds nylon 'Hapa' measuring 1.65 m X 0.8m X1.0m, projected above the cistern. Each jar is capable of holding 50,000 water hardened and swollen eggs at a time. The rate of water flow is 600 –800 ml per minute. This came to be accepted as a very successful system and is widely accepted by small fish farmers of rural areas.

Concept of Glass Jar Hatchery for Carp Eggs in Rural Areas:

The model of Glass Jar Hatchery was develop by the trainees at Rathindra Krishi Vigyan Kendra, Birbhum and demonstrated to observe the flow of water with rotation of artificial eggs in each jar. The training was held for 30 days on Fish breeding technique and glass jar method of spawning fish eggs. The materials used to prepare the

hatchery model were low cost ingredient e.g. transparent mineral water bottle (1 litre), inlets and outlets of polythene pipes, main supply pipe with out lets and over head tank (250 litres).

A larger device of Glass Jar Hatchery was developed at Rathindra Krishi Vigyan Kendra, Birbhum following the ideas of Bhowmick. Two Glass Jar Hatcheries were constructed with large plastic mineral water bottle (10 litre each) with out let and inlet pipes. Each Glass Jar is erected on metal stand and could be carried to the breeding site in village. For the first time successful spawning of common carp - *Cyprinus carpio* was observed in Glass Jar Hatchery by the villagers.

A breeding '*Hapa'* was set up in a pond. Gravid females (2 nos.) and ripe males (4 nos.) of *Cyprinus carpio* where kept in the cloth '*Hapa'* over night with floating aquatic weeds. Next morning the sticky fertilized eggs were collected from the '*Hapa'* and placed in the Glass Jar Hatcheries. Water was circulated through the hatcheries, continuously for 12 hours from an over head tank placed on the roof of a house. After 14-16 hours the young hatchlings were automatically collected through the upper out let of the Hatchery and collected in a cement cistern. The successful breeding of *Cyprinus carpio* has interested many fish farmers of this area. As *Cyprinus carpio* is a good breeder and does not require any Hormonal stimulation, they release their eggs in ponds, which the Indian major carps do not do. The eggs released in the ponds by *Cyprinus carpio* are destroyed by other fishes. Farmers do not get the required spawn of this fish. The Glass Jar Hatchery was the innovative step in rural areas for getting the desired hatchlings of carps. Many rural youths are now coming forward with the idea of breeding carps at low cost and selling the hatchlings at Rs. 300.00 per 'bati' (100 ml.) with the least cost of production and management.

3.10 Details of Indigenous Technology practiced by the Farmers in the KVK Operational Area, which can be considered for Technology Development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Paddy	20 gm paste of wood apple leaves or cow dung salary mixed with one liter of water	Reduce the infestation of bacterial leaf blight (BLB) of rice
2	Paddy	Mixing kerosene oil with urea and applying at the time of last land preparation	Reduces stem borer attack in paddy.
3.	Dairy product	Use of green lemon leaves during preparation of ghee is effective to preserve the ghee for long time	For preservation of ghee
4	Paddy	Mixing paste of neem leaf and bark with urea and applying for topdressing in paddy	Increases N use efficiency
5	Cattle	Feeding with banana leaves along with bamboo leaves to cattle	Check non specific diarrhea
6.	Cattle	Applying cow dung urine along with mud in the affected area of FMD (cloven foot)	Control the FMD of cattle

3.11The Specific Training Need Analysis Tools/Methodology followed for

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

The courses for Practicing farmers/ Farm Women and Rural Youths are identified by benchmark survey, applying PRA techniques and group discussion with the experienced farmers, eminent faculty members of Palli Siksha Bhavana and the selection of the field of in-service training are identified with the active participation of the district level higher officers of the different line departments. Further all the training programmes were verified with the SREP of Birbhum district.

3.12Field Activities

i. Number of Villages adopted - 5
ii. Number of Farm Families selected - 261

3.13 Activities of Soil and Water Testing Laboratory

I. Status of establishment of Lab: Established and ready for soil routine analysis
II. Year of establishment: Funds for purchasing equipments and glassware were received in the financial year 2004-05 and the items were purchased in due time. Next fund for the Laboratory set up works were received in the financial year 2005-06 and the works were completed in due time. Equipments were finally installed in the laboratory by the company representatives in the year 2006-07.

III. List of Equipments Purchased:

Sl. No	Name of the Equipment	Qty.
1.	Mixer grinder Kenstar	2 nos.
2.	Refrigerator Whirlpool	2 nos.
3.	Stabilizer Fizi	2 nos.
4.	Shaker	1 no
5.	Oven	1 no
6.	Kelplus Elect Digestation System Model KES 08L	1 no
7.	Kelplus Elect Distillation System Elite Ex	1 no
8.	Systronoc Micro controller based visible Spectrophotometer	2 nos.
9.	Systronoc P-H system	2 nos.
10.	Systronoc Digital Conductivity Meter	2 nos.
11.	Systronoc Flame Photometer Type 128	2 nos.
12.	Hotplate with energy regulator	1 no.
13.	Glass Distillation apparatus flux	3 nos.
14.	Physical Balance Cap.250g with weight box	4 nos.
15.	Shimadzu Electronic Balance	2 nos.
16.	Kjeldal digestion unit	2 nos.
17.	Kjeldal distillation unit	2 nos.
	Total	

IV. Details of Samples Analyzed so far (April, 2012 – March, 2013)

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	51	51	6	Soil samples were analyzed for routine analysis for conducting FLD/OFT programmes
Water Samples	37	37	5	Water samples were analyzed for pH only for FLD programmes
Total	88	88	11	

3.14. RAWE Programme

Is KVK involved? – Yes

No. of students trained	No. of days stayed
37	**1 day***
***As they are the student of Palli Siksha Bhavana, Visva-Bharati, so the student's hostels of PSB are used.**	

3.15 List of Visitors

Sl. No.	Name of VVIP/VIP	Date of visit	Purpose of visit	Comments in the visitors' book
01.	Mrs. N. Suneja, Director (Administration), Department Of Agriculture And Cooperation, Govt. Of India, New Delhi, India.	11.09.2012.	Review of the ATMA Linkage	The interaction with KVK Staff has been very useful. P.C., KVK seems very positive in developing convergence and synergy with ATMA. I appreciate the efforts and the Institute's willingness to make this linkage more effective and meaningful. All the best. Please keep it up.
02.	Dr. B. K. Paty. Director (OSPM), MANAGE, Hyderabad, Andhra Pradesh, India.	11.09.2012.	Review of the ATMA Linkage	This is an excellent Institute pursuing its mandates in the District under its jurisdiction. However, the Institute has ample scope to seek synergies for the farmers at the grass root level, if there is proper tie-up between ATMA and KVK.
03.	Dr. Manas Ghosh. Director, SAMETI, Narendrapur, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
04.	Dr. Pradip Kumar Mondol, Deputy D. A. (West Bengal), Dept. of Agriculture, Govt. of West Bengal, Suri, Birbhum, India.	11.09.2012.	Review of the ATMA Linkage	
05.	Dr. Sibnath Ghosh, Assisstant D.A. (Administration), Dept. of Agriculture, Govt. of West Bengal, Suri Sadar, Suri, Birbhum, west Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
06.	Dr. Satyendra Nath Ghosh, Assisstant D. A. (Administration), Dept. of Agriculture, Govt. of West Bengal, Bolpur, birbhum, West Bengal, India	11.09.2012.	Review of the ATMA Linkage	
07.	Dr. Sibabrata Ghatak, Deputy D. A. (Training), Dept. of Agriculture, Govt. of West Bengal, Headquarter, Writer' Building, Kolkata, west Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
08.	Dr. Arindam Chakraborty, Assistant D. A., Bolpur-Sriniketan, Dept. of Agriculture, Govt. of West Bengal, Birbhum, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
09.	Dr. Faizul Haque, Assistant D. A., Nanoor, Dept. of Agriculture, Govt. of West Bengal, Birbhum, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
10.	Dr. Nandita Bhattacharya, Assisstant D. A., Illambazar, Dept. of Agriculture, Govt. of West Bengal,Birbhum, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
11.	Dr. Sandip See, Assistant D. A. (Technical), Dept. of Agriculture, Govt. of West Bengal, Birbhum, Suri, Birbhum, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
12.	Dr. Debtanu Maity, Assistant D. A., Ausgram – I, Dept. of Agriculture, Govt. of West Bengal, Burdwan, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
13.	Dr. Amal Kumar Saha, Assistant D. A. (S. M.), Bolpur-Sriniketan, Dept. of Agriculture, Govt. of West Bengal, Birbhum, West Bengal, India.	11.09.2012.	Review of the ATMA Linkage	
14.	Mr. T. Sengupta, Deputy Director, TNS, Ministry of Finance, Govt. of India, Kolkata, West Bengal, India.	14.12.2012.	Visit of CAG Audit Team	This is a unique place to visit again and again. The efforts, works and the Officials of the KVK are notable and require more support for betterment. Wish all success to KVK.

Sl. No.	Name of VVIP/VIP	Date of visit	Purpose of visit	**Comments in the visitors' book**
15.	Prof. S. Dattagupta, Vice Chancellor, Visva-Bharati, Santiniketan, Bolpur, Birbhum, West Bengal, India.	14.01.2013.	XVIIth. SAC Meeting	
16.	Dr. A. K. Singh, Zonal Project Director, Zone II, ICAR, Bhumi Vihar Complex, Salt Lake City, Kolkata, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
17.	Dr. D. Gunasekaran, Registrar, Visva-Bharati, Santiniketan, Bolpur, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
18.	Dr. K. S. Mankar, D. F. O., Birbhum, Govt. of West Bengal, Basabagan, Suri, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC. Meeting	
19.	Dr. Prasanta Kumar Ghosh, Principal, PSV, Visva-Bharati, Sriniketan, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
20.	Dr. Subrata Manna, Assistant Horticultural Officer, Office of the District FPI & Horticulture, Govt. of West Bengal, Suri, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
21.	Dr. R. K. Misra, Principal, Bankers' Institute of Rural Development (BIRD), Bolpur, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
22.	Mr. B. Roy, LDM, Govt. of West Bengal, Suri, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
23.	Mr. G. Datta, Finance Officer (Officiating), Visva-Bharati, Santiniketan, Bolpur, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
24.	Mr. C. R. Saha, AAO (SRK), Dept. of Agriculture, Govt. of West Bengal, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
25.	Mr. K. R. Chatterjee, O S D in-charge Audit, Visva-Bharati, Santiniketan, Bolpur, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
26.	Dr. Basudeb Maity, D. D., A.R.D. & P. O. Birbhum, West Bengal, India	14.01.2013.	XVIIth SAC Meeting	
27.	Prof. Debasis Bhattacharya, Head of the Department of EES, PSB, Visva-Bharati, Sriniketan, Birbhum, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	
28.	Dr. S. K. Mondal, Senior Scientist, ZPD, Zone II, ICAR, Bhumi Vihar Complex, Salt Lake City, Kolkata, West Bengal, India.	14.01.2013.	XVIIth SAC Meeting	

4.0 IMPACT

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

Name of the specific technology/ skill transferred	**No. of participants**	**% of adoption**	**Change in income (Rs./Unit)**	
			Before Training	**After Training**
Seed production technologies in green gram	25	65	Rs.10,000/- per ha	Rs.23,000/- per ha
Cultivation of Elephant Foot Yam using variety Kavoor	15	87	Rs.1,58,400/-per ha	Rs.5,07,712/- per ha
Scientific poultry farming	30	50	Rs.200/-per 100 bird in 45 days	Rs.600/-per 100 bird in 45 days
Low cost fish feed preparation using natural resources like water hyacinth, banana leaf & rice bran	25	75	Rs.3300/- per 0.13 ha	Rs.5200/- per 0.13 ha
Preparation and use of vermicompost in small scale basis	25	60	-	Rs. 7000/- per 2.5 ft X 2.0 ft X 3.0 ft area /year

N.B.: The report was based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of Large-scale Adoption

A. Large-scale Adoption of the Technology [Cultivation of Elephant Foot Yam (var. Kavoor)]:

1. Technology was given as per need of the cultivators.
2. It was a remunerative crop.
3. Higher yield than local selection variety could be achieved.
4. Less management practices were involved.
5. The crop was less susceptible to pests and diseases.
6. The Crop fetched good market price because it is harvested during lean period of the vegetable.
7. The Crop had good storage capacity. It was not a perishable vegetable.
8. It could be marketed throughout the year.
9. The Crop required less amounts of fertilizer and chemical pesticides.
10. As it was a root crop; therefore there was no possibility of cattle grazing and theft.

B. Large-scale Adoption of the Technology [Low Cost Fish Feed]:

1. Technology was given as per need of the fish farmers.
2. The cost of feed was minimum i.e. Rs. 4/- per kg which is readily affordable by the farmers.
3. The feed could be easily prepared with the help of local ingredients.
4. The feed helped in the growth of all species of fish within a short span of time.
5. Feed could be stored in dry condition and applied in fish ponds whenever necessary.

5.0 LINKAGES

5.1 Functional Linkage with Different Organizations

Name of Organisation	**Nature of Linkages**
DDM, NABARD, Birbhum	Financial strengthening of KVK sponsored Farm Science Club, Training on SRI programmes
Agriculture Department, Govt. of W.B	ATMA programme, Seed Testing, Practising Farmers Training and In-service Training, Collaborative Training
State Seed Corporation, Suri	Purchase of Different Seed Materials and Farm equipments.
Animal Resource Development Deptt. , Govt. of W.B	Participation in village clinic for the domestic animals
All India Radio, Santiniketan	Broadcasting for dissemination of updated technologies
Doordarshan	Telecast of improved technologies
State Poultry and Duck Farm, Durgapur, Burdwan	Local breed improvement by KC Ducklings and RIR Cockrel and feed
NRC Weed Control, Jabbalpur, MP	Organize Parthenium Awareness Week
DIC, Suri, Birbhum	Training
Rural Extension Centre , Visva Bharati	Training
Tagore Society For Rural Development, Santiniketan	Sponsored Training and Demonstration
Dhanuka Agro Tech Ltd.	Demonstration of Seed Treatment
District Administration	Implementation of ATMA
Birbhum Zila Parisad	Implementation of different Programmes of SHGs, ATMA, NHM
SAMETI, Narendrapur	Training and Visit, PGDAEM course.
IIT, Kharagpur	Resource Person for In-service Training
IFFCO	Training and Visit
Tata Chemicals	In-service Training
Tata Rallis	Training and placement of rural youth

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Capacity Build Up Training on Wheat, Potato, Mustard and Rabi Vegetables Crop Management	April, 12	Tata Rallis India Ltd.	Total cost is born by them.
Orientation Farmers' training Programme	June, 12	FIAC, ATMA, Burdwan	Rs. 42,500.00
Orientation Farmers' training Programme	June, 12	FIAC, ATMA, Burdwan	
Training for Head Master / Achiever Farmer	May, 2012	ATMA, Birbhum	

5.3 Details of Linkage with ATMA

A. Is ATMA implemented in your district?

Yes, it was implemented in the year 2007.

B.

S. No.	Programme	Nature of linkage	Remarks
1	Orientation training programme	Farmers of different blocks of Birbhum & Burdwan under FIAC, ATMA visited KVK for orientation training & visit	Programmes- 2 Farmers – 185
2	Training for Head Masters / Achiever Farmers	Sponsored by ATMA Birbhum	Programmes- 1 Farmers – 25
3	Short Term Research	Sponsored by ATMA, Birbhum	One programme on fishery is going on

6.0 PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Utilization of Hostel Facilities

Accommodation available (No. of beds): 27 nos.

Month	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Apri, 2012	21	210 (10)	
May, 2012	67	172 (9)	
June, 2012	-	-	
July, 2012	50	1448 (58)	
August, 2012	21	210 (10)	
September, 2012	10	10(1)	
October, 2012	-	-	
November, 2012	15	15 (1)	
December, 2012	44	885 (39)	
January, 2013	25	250(10)	
February,2013	-	-	
March, 2013	35	345(21)	
Total	**288**	**3545 (177)**	

- Beside above trainees, another 158 persons stayed for another 150 days (Other persons mean Scientists, Professors, Scholars, Visitors, Trainees from other Institutes like different universities, ICAR, IFFCO etc.)

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

	Name of the Bank	Location	Account No.	Bank Code
a. With Host Institute				
b. With KVK	State Bank of India	Santiniketan	10598447180	2121

7.2 Utilization of funds under FLD on Oilseed (Rs. In Lakhs), 2012-13

Item	Released by ICAR		Expenditure		Unspent balance as on 01.04.2012
	Kharif 2012	Rabi 2012-13	Kharif 2012	Rabi 2012-13	
Inputs	-	-	-	-	6320.56
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
Total		-	-	-	6320.56

7.3 Utilization of funds under FLD on Pulses (Rs. In Lakhs), 2012-13

Item	Released by ICAR		Expenditure		Unspent balance as on 01.04.2012
	Kharif	Rabi/Summer	Kharif	Rabi/ Summer	
Inputs	-	-	-	-	13,296.58
Extension activities	-	-	-	-	
TA/DA/POL etc.	-	-	-	-	
Total	-	-	-	-	13,296.58

Expenditure incurred from unspent balance of 01.04.10 Rs.22,549.58

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2012
	Kharif	Rabi	Kharif	Rabi	
Inputs	The FLD programme on cotton was not conducted during kharif, 2012. Because the Kendra did not receive any allotment from the Office of the Zonal Project Directorate				28450.00
Extension activities					
TA/DA/POL etc.					
TOTAL					28450.00

7.5 Utilization of KVK funds during the year 2011-12 and 2012-13 (year-wise separately) {current year and previous year}

For the Financial Year 2011-12 (audited) ***(Rs. In Lakhs)***

Sl.No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	65.75	65.75	65.659
2	**Traveling allowances**	00.40	00.40	00.213
3	**Contingencies**			
a	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
b.	POL, repair of vehicles, tractor and equipments	02.82	02.82	02.869**
c.	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained). i)Training of farmers ii)Training of rural youth iii) Training of extension functionaries			
d.	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	02.33	02.33	02.542**
e.	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	00.60	00.60	00.256
f.	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	00.75	00.75	00.583
g.	Maintenance of buildings			
h.	Establishment of Soil, Plant & Water Testing Laboratory			
i.	Library			
	TOTAL (A)	**72.65**	**72.65**	**72.122**
B. Non-Recurring Contingencies				
1	Works (Portable carp hatchery/ (i)Renovation of administrative building	-	-	4.08*
	(ii) Bore well	5.00	5.00	-
	(iii)Fencing	4.85	4.85	-
2	Equipments, Furniture and furnishing (Hostel furniture and furnishing Rs.1.00 lakh , thresher and rotovator Rs.2.00lakh, Office furnishing Rs. 3.00 lakh)	6.00	6.00	3.979
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)	00.05	00.05	00.049
	TOTAL (B)	**15.90**	**15.90**	**08.108**
C. REVOLVING FUND				
	GRAND TOTAL (A+B+C)	**88.55**	**88.55**	**80.230**

- ***Expenditure incurred under works head (renovation of administrative building) Rs. 4.08 lakh after receiving of revalidation/no objection order from ICAR against previous year unspent balance of Rs.4.56 lakh vide letter no F. ZPD -11/KVK/Birbhum 2011-12/7022 dated 5.8.2011.**
- ****Excess expenditure incurred against sanction amount after receiving re-appreciation order from ICAR vide letter no ZPD -11/RE/2011-12/10155 dt 31.03.12**

For the Financial Year 2012-13 (upto February, 2012) ***(unaudited)*** ***(Rs. In Lakhs)***

S. No.	Head/Particulars	Revised Sanctioned 2012-13	Released, 2011-12 upto Feb, 12	Expenditure upto Feb, 2012-13
A. Recurring Contingencies				
1	**Pay & Allowances**	66.20	66.20	65.424
2	**Traveling allowances**	1.20	1.20	1.095
3	**Contingencies**			
a.	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
b.	POL, repair of vehicles, tractor and equipments	4.00	4.00	3.992
c.	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained). i) Training of farmers ii) Training of rural youth iii) Training of extension functionaries			
d.	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
e.	Training of extension functionaries			
f.	Training of Rural Youth	3.70	3.70	3.687
g.	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	0.68	0.68	0.661
h.	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.87	0.87	0.863
i..	Maintenance of buildings	0.50	0.50	0.473
j.	Soil & Water Testing Laboratory	-	-	-
TOTAL (A)		**77.15**	**77.15**	**76.195**
B. Non-Recurring Contingencies				
1	Works(Bore well Rs. 5.00 lakh, Fencing Rs. 4.85 lakh)	-	-	9.062*
2	Equipments , Furniture & Furnishing	-	-	-
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		**-**	**-**	**9.062**
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**77.15**	**77.15**	**85.257**

*****Expenditure under works shade, bore well and fencing Rs. 9.062 lakh incurred after receiving of revalidation order from ZPD, Zone-II, ICAR against previous year, 2011-12 unspent balance Rs. 9.85 lakh vide letter no. F No. ZPD- II/ RE/2011-12/10860 dated 16.8.2012

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April, 2010 to March 2011	1,94,970.38	69,390.00	10,925.00	2,53,435.38
April, 2011 to March,2012	2,53,435.38	6,908.00	42,578.00	2,17,765.38
April, 2012 to March,2013	2,17,765.38	20126.00	3290.00	2,34,601.38

8.0 Any other Significant Achievements

A training programme on carp breeding and hatchery management was conducted during the last year. A trainee, Sri Sunil Das, Srichandrapur, Sattore, Birbhum prepared a model of glass jar hatchery using low cost materials. This innovative approach was sent to ICAR and the farmer was invited to demonstrate the model at Mysore. It was praised by Honourable Director General, ICAR and offered a valuable certificate to the farmer. Further, Sri Das went to Udaipore at National Conference of KVK and presented the model of glass jar hatchery to the Honourable President of India and other dignitaries. Sri Sunil Das, the KVK farmer obtained a memento for his innovative approach on glass jar hatchery.

9.0 Number of SHGs formed by KVK/associated with SHGs formed by other organization

During this year no. of SHGs formed by KVK: 2

Associated with SHGs formed by other organization: 14