ANNUAL REPORT

April 2013 – March 2014

Presented at
The Zonal Workshop of Krishi Vigyan Kendras (KVKs) of Zone – II, ICAR

At
National Institute of Research on Jute & Allied Fibre Technology (NIRJAFT), 12, Regent Park, Kolkata – 700040, West Bengal

On June 2nd. – 3rd., 2014

By

Rathindra Krishi Vigyan Kendra
Palli Siksha Bhavana
Visva-Bharati
Sriniketan, Birbhum
West Bengal

CONTENTS

ANNUAL REPORT 2013 (April 2013 to March 2014)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E-Mail
	Office	**FAX**	**rathindrakvk@gmail.com**
Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal.	03463-264771	03463-264771	**rathindrakvk@rediffmail.com**

1.2 .Name and Address of Host Organization with Phone, Fax and E-Mail

Address	Telephone		E-Mail
	Office	**FAX**	**Vice-Chancellor:** **vice-chancellor@visva-bharati.ac.in**
Visva-Bharati, Santiniketan, P. O. – Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal.	03463-262451	03463-262672	**Registrar:** **registrar@visva-bharati.ac.in**

1.3. Name of the Programme Coordinator with Phone & Mobile No.

Name	Telephone / Contact		
Dr. Dulal Ch. Manna	**Residence:** 03463-264415	**Mobile:** 09434079511	**E-Mail** dcmanna@gmail.com

1.4. Year of sanction of KVK: Memo No. F.2 (2)\ 93-AE-1 of ICAR on 9th October, 1994.

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

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Programme Coordinator	Dr.Dulal Chandra Manna	Programme Coordinator	Horticulture	PB- 4, Rs.37400-6700+RGP Rs.9000 (Rs.52710/-)	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.16230/-)	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.21220/-)	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/- (Rs21220/-)	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. 27450/-)	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.18190/-)	26.05.2012	Permanent	GC
8	Programme Assistant	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	Farm Manager	Vacant	Programme Assistant	-	PB-2 , Rs. 9300-34800/- + GP-Rs.4200/-	-	Permanent	-
11	Accountant / Superintendent	Sri Madhu Sudan Chatterjee	Senior Assistant	-	PB-2, Rs. 9300-34800/- + GP- Rs.4600/- (Rs.19420/-.)	13.04.1995	Permanent	GC
12	Stenographer	Sri Makbul Ahmed	Jr. Stenographer cum Computer Operator	-	PB-1, Rs. 5200-20200/- + GP-Rs.2400/- (Rs. 10140/-)	13.04.1995	Permanent	GC
13.	Driver	Sri Krishna Bansi Chatterjee	Driver-Cum-Mechanic	-	PB-1, Rs. 5200-20200/ - + GP- Rs.2400/- (Rs. 10210/-)	06.05.1997	Permanent	GC
14.	Supporting staff	Sri Bikash Chandra Ghosh	Driver-Cum-Mechanic	-	PB-1, Rs. 5200-20200/ - + GP- Rs.2400/- (Rs. 10210/-)	06.05.1997	Permanent	GC
15.	Supporting staff	Md. Anwar Chowdhury	Supporting Staff	-	PB-1, Rs. 5200-20200/ - + GP- Rs.1900/- (Rs. 8510/-)	13.04.1995	Permanent	GC
16.	Supporting staff	Vacant	Supporting Staff	-	PB-1, Rs. 5200-20200/ - + GP- Rs. 1900/-	-	Permanent	-

1.6. Total land with KVK (in 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 with details	12.550
Total		**15.645**

1.7. Infrastructure Development:

A) Buildings and others

Sl. No.	Name of building	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (sq.m)	Under use or not*	Source of funding
1.	Administrative Building					Totally completed	550.00	Under use	ICAR
2.	Farmers Hostel					Totally completed	305.00	Under use	ICAR
3.	Staff Quarters (6)	Not yet started							
4.	Piggery unit	Not yet started							
5.	Fencing	Not yet started							
6.	Rain Water harvesting structure	Not yet started							
7.	Threshing floor					Totally completed	180.00	Under use	ICAR
8.	Farm go-down					Totally completed	46.25	Under use	ICAR
9.	Dairy unit	Not yet started							
10.	Poultry unit					Totally completed	80.00	Not in use since 2012 due to vacancy in the Post of SMS (Animal Science)	ICAR
11.	Goatary unit	Not yet started							
12.	Mushroom Lab	Not yet started							
13.	Mushroom production unit	Not yet started							
14.	Shade house	Not yet started							
15.	Soil test Lab					Totally completed		Under use	ICAR
16.	(Others, Please Specify) Portable Carp Hatchery for Fish Breeding					Totally completed	15.00	Under use	ICAR

17.	(Others, Please Specify) Duckery unit					Totally completed	80.00	Not in use since 2012 due to Vacancy in the Post of SMS (Animal Science)	ICAR
18.	(Others, Please Specify) Plant Diagnostic Laboratory					Totally completed	25.00	Under use	ICAR

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

B) Vehicles

Type of Vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Multi Utility Vehicle (Bolero Plus)	2010	6,00,000.00	57,422	In running condition
Motor Bike (Rajddot)	1997	32,000.00	39,013	Not in running condition
Moped (Toro Jaz)	1997	12,500.00		Not in running condition

C) Equipment & AV Aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab Equipment				
Desiccators	1995-96	1540.00	Working condition	ICAR
Sewing machine	1995-96	3605.60	Working condition	ICAR
Mixer cum grinder	1995-96	3430.50	Working condition	ICAR
Weighing balance	1995-96	1700.00	Working condition	ICAR
Mixer grinder kenstar	2004-05	5,000.00	Working condition	ICAR
Refrigerator whirlpool	2004-05	16,750.00	Working condition	ICAR
Stibiliser fizi	2004-05	2450.00	Working condition	ICAR
Shaker	2004-05	24500.00	Working condition	ICAR
Oven	2004-05	9000.00	Working condition	ICAR
Kelplus Digestation System Model KES 08L	2004-05	85,719.00	Working condition	ICAR
Kelplus Distillation System elite ex	2004-05	1,38,943.00	Working condition	ICAR
Systronics Micro controller based visible spectro-photometer	2004-05	53,064.00	Working condition	ICAR
Systronics P-H system	2004-05	21,582.00	Working condition	ICAR
Systronics Digital conductivity meter	2004-05	15,444.00	Working condition	ICAR
Systronics Flame photometer Type 128	2004-05	73405.00	Working condition	ICAR
Hotplate with energy regulator	2004-05	2,340.00	Working condition	ICAR
Glass distillation apparatus flux	2004-05	15,617.00	Working condition	ICAR
Physical balance cap.250g with weight box	2004-05	6,310.00	Working condition	ICAR
Shimadzu Electronic Balance	2004-05	66,254.00	Working condition	ICAR
Kjeldal digestion unit	2004-05	6,205.00	Working condition	ICAR
Kjeldal distillation unit	2004-05	10,411.00	Working condition	ICAR
Microscope- Trinocular	2010-11	47,069.00	Working condition	ICAR
Microscope – Stereo	2010-11	21,055.00	Working condition	ICAR
BOD incubator	2010-11	39,132.00	Working condition	ICAR

Autoclave- Vertical	2010-11	21,814.00	Working condition	ICAR
Centrifuge	2010-11	14,200.00	Working condition	ICAR
Microscope Image Projection System (MIPS)	2010-11	31,885.00	Working condition	ICAR
Laminar Flow	2010-11	53,465.00	Working condition	ICAR
Desiccators	2010-11	6,072.00	Working condition	ICAR
Rotary Shaker	2010-11	21,700	Working condition	ICAR
Digital Weighing machine	2010-11		Working condition	ICAR
b. Office Equipments				
Word processor	1995-96	2,100.00	Working condition	ICAR
Canon photo copier	2003-04	69,988.00	Working condition	ICAR
Stabilizer 2KVA	2003-04	4,000.00	Working condition	ICAR
Generator	2008-09	49,500.00	Working condition	ICAR
c. AV Aids				
Overhead Projector	1994-95	24,477.55	Working condition	ICAR
Sony TV	1998-99	20999.00	Working condition	ICAR
Sony audio system	1998-99	5,990.00	Working condition	ICAR
Sharp VCR	1998-99	13,750.00	Working condition	ICAR
Slide projector	2001-02	14,672.00	Working condition	ICAR
PA system			Working condition	ICAR
Amplifier	2001-02	6400.00	Working condition	ICAR
Microphone ASM580	2001-02	2700.00	Working condition	ICAR
Microphone ACM66	2001-02	1300.00	Working condition	ICAR
Speaker	2001-02	2500.00	Working condition	ICAR
DGT stand	2001-02	290.00	Working condition	ICAR
DGN stand	2001-02	490.00	Working condition	ICAR
LCD projector	2008-09	99,990.00	Working condition	ICAR
Camera	2008-09	23,900.00	Working condition	ICAR

D) Farm Implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
ASPEE Sprayer (10 litres)	1995 - 96	2,050.00	Working condition	ICAR
ASPEE Hand Sprayer	1995 - 96	1,090.00	Working condition	ICAR
Paddy Thresher	1995 - 96	4,000.00	Working condition	ICAR
Hand Rotary Duster	1995 - 96	650.00	Working condition	ICAR
Rotary Shaker	2010 - 11	21,700.00	Working condition	ICAR
Power Ripper	2010 - 11	Free Supply	Working condition	ICAR
Zero Tillage Machine	2010 - 11	Free Supply	Working condition	ICAR
Mounted Offset Disc Harrow	2010 - 11	Free Supply	Working condition	ICAR
Mould Board Plough	2010 - 11	Free Supply	Working condition	ICAR
Cono Weeder	2012 - 13	Free Supply	Working condition	ICAR
Drum Seeder	2012 – 13	Free Supply	Working condition	ICAR

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

Sl. No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1	30.04.2013	23	One day workshop for Bankers to be organized under active supervision of Rathindra KVK.	As per recommendation of the members of Scientific Advisory Committee, the Programme Co-ordinator, RKVK requested to Lead Bank District Manager, Suri, Birbhum to depute Bank Officers in one day workshop to be organized by KVK. The Lead Bank District Manager informed to KVK after discussion with District Coordinators of different Banks that the Bank	

				Manager/ Officers are very much busy with their programmes. Therefore, the Bank Manager/Officers could not attend the workshop.	
2	30.04.2013		The Officials of the Line Departments assured to extend their help regarding the placement of their staff for In-service Training programmes.	The Deputy Director of Agriculture (Administration) deputed their staff for the In-service Training Programmes of KVK.	
3	30.04.2013		More emphasis will be required for crop-diversification	The Kendra organized FLD on Broccoli, Capsicum, Elephant's Foot Yam, Drumstick variety *Barmasia* under Crop Diversification programmes.	
4	30.04.2013		Kharif Onion cultivation may be tested in KVK field.	The Kendra had sown onion in its instructional farm. The seeds were collected from BCKV and from the Teacher of Palli Siksha Bhavana. But due to heavy rainfall, most of the seedlings were damaged. The growth of onion plants is less than Rabi Seasonal crop.	
5	30.04.2013		Regarding Gratuity and Leave Encashment, correspondence will be made with ICAR.	The Correspondence will be made for the payment of Gratuity and Leave encashment.	
6	25.11.2013	21	Khaki Campbell Ducklings may be incorporated as a component of the On Farm Trial (OFT) on Integrated Farming System (IFS) being conducted by the Rathindra KVK	Already Official Procedure of procuring Khaki Campbell Ducklings for incorporation into the the On Farm Trial (OFT) on Integrated Farming System (IFS) being conducted by the Rathindra KVK.	
7	25.11.2013.		More emphasis should be given on Crop Diversification by the Rathindra KVK.	Already the Rathindra KVK has been conducting regular Training Programmes as well as the OFT and Front Line Demonstration (FLD) on diversified crops like Elephant's Foot Yam, Drum Sticks, Broccoli, Capsicum, Pulses and Oil Seeds etc.	
8	25.11.2013.		Model Integrated Farming Systems (IFSs) in 2 villages under ATMA, Birbhum should be taken up by the KVK.	The matter will be discussed with the Project Director, ATMA, Birbhum.	
9	25.11.2013.		The Rathindra KVK should start cultivation of Asparagus in joint venture with the Bose Institute, Kolkata.	The matter will be communicated with the Bose Institute, Kolkata later on.	
10	25.11.2013		The Rathindra KVK should replace Black Austalorp with	The Rathindra KVK will replace Black Austalorp with Rhode Island Red (RIR) Chicks as a component of the On Farm Trial (OFT) on Integrated Farming System (IFS) being conducted	

			Rhode Island Red (RIR) Chicks as a component of the On Farm Trial (OFT) on Integrated Farming System (IFS) being conducted by the Rathindra KVK.	by the Rathindra KVK whenever Chicks would be inducted as a component of IFS.	

** Salient recommendation of SAC in bullet form*
Attach a copy of SAC proceedings along with list of participants

2. District Level Data on Agriculture, Livestock and Farming Situation (2013-14)

2.1 Major Farming system/enterprise

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 Agro-climatic Zone

Agro Ecological Sub Region (ICAR):- Assam And Bengal Plain, Hot Subhumid To Humid (Inclusion Of Perhumid) Eco-Region. (15.1)

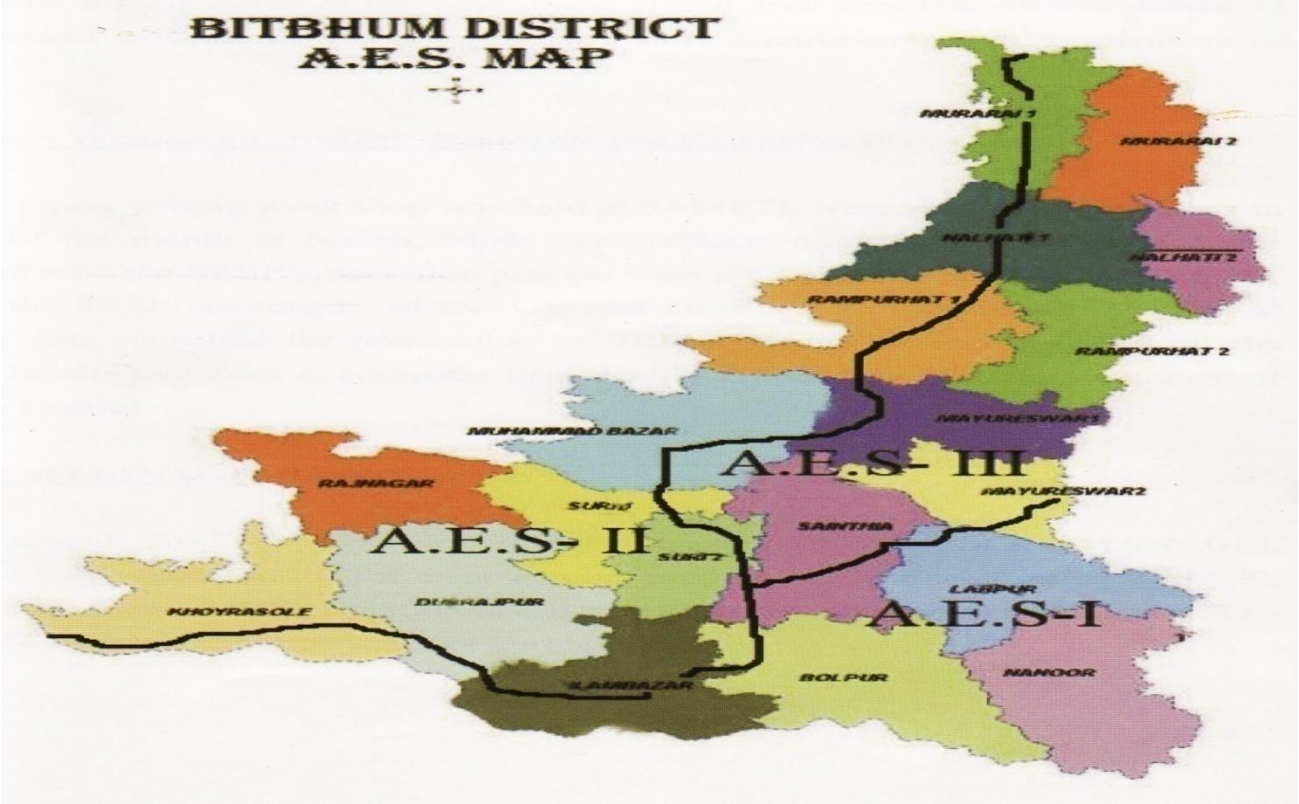
Eastern plateau (chhotanagpur) And Eastern Ghats, Hot Subhumid Eco-Region (12.3)

Agro-Climatic Zone (Planning Commission):- Lower Gangetic Plain Region (III)

Agro Climatic Zone (NARP):- Red and lateritic Zone (WB-5)

2.3 Agro ecological situation

The Birbhum District is divided into three Agro-Ecological Situtation viz. AES – I, AES – II and AES – III. The Rathindra KVK is situated in the AES – I. The Map and detailed features of the Ago-ecological Situations of the District of Birbhum are given here under.



Source: - SREP, Birbhum – 2009.

Agro-ecological Situations of the District of Birbhum

Characteristics	AES - I	AES – II	AES – III
Blocks covered	Blocks under this AES are Bolpur-Sriniketan, Nanoor, Sainthia, parts of Mayureswar – I and Mayureswar – II. parts of Labhpur, Illambazar	Blocks under this AES are Rajnagar, Dubrajpur, Khyrasole, parts of Nalhati – I, Rampurhat – I, Murarai – I, Mayureswar – I, Illambazar, Labhpur, Suri – I and Md. Bazar.	Blocks under this AES are Rampurhat – II, parts of Murarai – I, Murarai – II, Nalhati I, Nalhati – II, Md. Bazar, Suri – I and Suri – II.
Soil Type	Fertile loamy clay soil, 60 percent of cultivable area under loam – clay loam soil. pH – 4.5 – 6.5	Sandy to sandy clay soil. 80 percent of cultivable area under clay soil and slightly acidity problem soil. pH – 5.2 – 6.5	Clay to clay loam soil. 70 percent clay soil with 30 percent loam to clay loam soil. pH – 4.8 – 6.5
Irrigation	75 percent of the total cultivable area is under irrigation out of which 51 percent of area is under surface irrigation.	30 percent of the total cultivable area is under irrigation out of which 20 percent of the area is irrigated from surface water and the rest area is irrigated from minor irrigation sources.	70 percent of the total cultivable area is under irrigation out of which 60 percent of the area is irrigated from available groundwater. Surface irrigation area is only 10 percent. Ground

		Ground water is not easily available.	water is easily available for irrigation purpose.
Important River	Ajoy, Mayurakshi, Dwaraka, Kopai	Hinglow, Bakreswar, Shaal, Ajoy, Chandrabhaga	Dwaraka, Brahmani, Mayurakshi, Pagla, Bansloi
Flood / Draught Proneness	Moderate flood prone area	Moderate draught prone area	Flood prone area
Available Water Area for Fish Cultivation	30 percent of ponds of the district of Birbhum are situated. Sweet water is available for fisheries.	20 percent of ponds of the District of Birbhum are under this AES. A vast sweet water resource is available for fish cultivation.	50 percent of the ponds of the District of Birbhum are under this AES. Sweet water area is available for fish cultivation.
Animal Resources	20 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. Only 15 percent of the total Goat population of the District of Birbhum and 30 percent of the Poultry Population of the District of Birbhum are available in this AES.	50 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. 60 percent of the total Goat population of the District of Birbhum and 40 percent of the Poultry Population of the District of Birbhum are available in this AES.	30 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. Only 25 percent of the total Goat population of the District of Birbhum and 30 percent of the Poultry Population of the District of Birbhum are available in this AES.
Major Crops:			
Paddy -	Pre-Kharif, Kharif and Boro Paddy	Pre-Kharif, Kharif and Boro Paddy	Pre-Kharif, Kharif and Boro Paddy
Oil Seeds –	Mustard, Groundnut and Sesame	Mustard and Groundnut and Sesame in limited areas.	Mustard, Groundnut and Sesame
Pulses –	Black and Green Gram, Lentil, Bengal Gram, Kulthi	Khesari, Black and Green Gram, Lentil, Bengal Gram, Kulthi	Black and Green Gram
Vegetables –	Seasonal vegetable round the year	Seasonal vegetables round the year	Seasonal vegetables round the year
Fruits -	Mango, Guava, Citrus, Banana, Coconut	Mango, Guava, Citrus, Banana, Coconut	Mango, Guava, Citrus, Banana, Coconut

Source: - SREP, Birbhum – 2009.

2.4 Soil Type

The predominant soil types are old alluvial and red lateritic with low to medium in organic carbon and phosphate content and medium to high in potash. The soil is acidic in nature with pH range of 5.0 to 6.5.

This district (Birbhum) is enriched by various types of soil namely, Metal (Clay soil retentive of moisture which is best suited for growing winter paddy, sugarcane, wheat, gram and kalai); Ental (a sticky brownish clay, it is poor soil and is capable of producing paddy only if manured); Bagha Ental (ental having colour or tiger, it is poor soil capable of producing paddy only if manured); Beley (is a whitish loose and poor soil , capable of growing paddy and vegetable); Kankure ((it is a redish, loose laterite soil capable of growing bajra, maize, kurthi, bean and marual); Bastu (it is a blackish friable rich soil and is largely used for rabi crops); Bindi (it is a poor sandy soil which improves with continued cultivation, capable of producing paddy but can also grow rabi crops if irrigated); Reti Rfi (is lighter variant of Pali, it does not grow paddy it is best suited for vegetables, wheat, barley etc.) Pali (deposit of soil is bed of river or in areas subject to riverine inundation; it is very rich soil and is well suited for sugarcane, wheat, gram, potato and other vegetables. It is generally reserved for more valuable crops rather than paddy).

2.5 Productivity of Major 2-3 Crops under Cereals, Pulses, Oilseeds, Vegetables, Fruits and Others

Yield Rates of Some Selected Crops in the District of Birbhum and West Bengal

(Kilogram per hectare)

Crops	2003-04		2004-05		2005-06		2006-07		2007-08	
	District	West Bengal	District	West Bengal	District	West Bengal	District	West Bengal	District	W.B.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Rice	2981	2504	2805	2574	3029	2509	3128	2593	3098	2573
Wheat	2630	2315	2568	2103	2511	2109	2643	2281	2952	2602
Gram	1262	1026	792	1024	826	911	792	768	1166	984
Jute	3240	2428	3204	2484	3258	2572	3204	2545	3006	2425
Rapeseed & Mustard	1108	928	786	749	934	909	1019	803	1161	888
Potato	21067	24711	19139	22170	20511	21053	8538	12384	22111	24704
Tea	-	1769	-	1891	-	1899	-	2091	-	1983

Sources:- 1. Directorate of Agriculture, Govt. of W.B. 2. BAE&S, Govt. of W.B.. 3. Tea Board of India

Index numbers of Agricultural Area, Production & Productivity in the district of Birbhum

Base: Triennium ending crop year 1981-82 = 100

Year	Area		Production		Productivity	
	Cereals	All Crops combined	Cereals	All Crops combined	Cereals	All Crops combined
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2003-04	**108.31**	**109.66**	**200.34**	**203.56**	**184.97**	**185.63**
2004-05	111.09	112.99	195.79	196.51	176.24	173.92
2005-06	106.20	108.74	203.49	207.82	191.61	191.12
2006-07	110.60	114.08	216.70	213.82	195.93	187.43
2007-08	**113.58**	**115.99**	**220.84**	**232.14**	**194.44**	**200.14**

Source: B.A.E.& S., Govt. of W.B.

Coverage and Productivity of Major Crops in the District of Birbhum

Sl. No.	Name of the Crop	Coverage (ha.)		Yield Rate (kg. / ha.)	
		Year 2003 - 04	Year 2011 – 12	Year 2003 -04	Year 2011 - 12
1	Pre-Kharif Paddy	5100	2554	2399	3466
2	Kharif Paddy	300600	326412	2921	4324
3	Boro Paddy	70600	57912	3118	4664
	Total Paddy	376300	386878	2981	4369
4	Wheat	30200	32998	2630	2612
5	Barley	200	15	1310	1217
6	Bhadio Maize		154		1574
7	Rabi Maize		-		-
8	Summer Maize		75		1600
	Total Maize	200	229	1563	1581
9	Kulthi		179		403
10	Mator		122		1178
11	Khesari		1460		1280
12	Kharif Moong		-		-
13	Rabi Moong		-		-
14	Summer Moong		1100		692
	Total Moong		110		692
15	Kharif Maskalai		57		282
16	Rabi Maskalai		-		-
	Total Maskalai		57		282
17	Gram		7147		1076
18	Tur	-	11	-	329
19	Musur		5803		628
	Total Kharif Pulses		507		418
	Total Rabi Pulses		15912		893
	Total Pulses	16500	16419	1092	878
20	Bhadui Til		-		-
21	Winter Til		-		-
22	Summer Til		5422		543

	Total Til		5422		543
23	Rape and Mustard	37400	32282	1108	923
24	Linseed	200	136	58	149
25	Sunflower		44		950
26	Bhadui Groundnut		-		-
27	Rabi Groundnut		7		1400
28	Summer Groundnut		-		-
	Total Groundnut		7		1400
29	Niger		-		-
	Kharif Oilseed		-		-
	Rabi Oilseed		37908		866
	Total Oilseed	39500	37908	1091	866
30	Jute	100	293	18.0	18.7
31	Mesta	-	-	-	-
32	Sunhemp		114		3.4
33	Sugarcane	1000	843	58553	85987
34	Potato	9800	17918	21067	30013

Source:- :- 1. Evaluation Wing, Directorate of Agriculture, Govt. of West Bengal.

2. BAE&S, Govt. of West Bengal

Horticultural Development in Major Crops in Birbhum District in Terms Of Area and Yield

Major fruits and vegetables						
Crops	**2004 -2005**		**2006 - 2007**		**2012 - 2013**	
	Area (ha)	**Productivity (q/ha)**	**Area (ha)**	**Productivity (q/ha)**	**Area (ha)**	**Productivity (q/ha)**
Tomato	1680.00	55.00	1860.00	140.80		
Tomato (Winter)					900.00	164.45
Tomato (Spring)					1050.00	163.81
Cabbage	2370.00	86.00	2550.00	363.60		
Cabbage (Winter)					1200.00	267.00
Cauliflower	2130.00	52.00	2170.00	157.50		
Cauliflower (Winter)					1300.00	184.23
Cauliflower (Spring)					900.00	183.89
Peas					800.00	41.00
Brinjal	6410.00	87.00	6850.00	120.40		
Brinjal (Rainy)					2400.00	116.67
Brinjal (Winter)					5300.00	215.00
Brinjal (Summer)					2600.00	112.39
Cucurbits	8340.00	121.00	8280.00	144.20		
Cucurbits (Rainy)					300.00	100.00
Cucurbits (Winter)					900.00	177.78
Cucurbits					8200.00	147.56

(Summer)						
Onion	1090.00	70.00	1380.00	72.90	1455.00	112.37
Lady's Finger (Rainy)					1520.00	90.13
Lady's Finger (Winter)					420.00	100.00
Sweet Potato					850.00	220.59
Beans					760.00	31.19
Radish (Winter)					600.00	133.33
Radish (Spring)					1230.00	121.95
Watermelon					1000.00	160.00
Elephant's Foot Yam					830.00	234.94
Arum					750.00	142.67
Leafy Vegetables (Rainy)					50.00	240.00
Leafy Vegetables (Winter)					40.00	200.00
Leafy Vegetables (Spring)					1000.00	70.00
Leafy Vegetables (Summer)					20.00	15.00
Others (Rainy)					4500.00	07.11
Others (Winter)					3900.00	15.77
Others (Spring)					1150.00	15.04
Others (Summer)					3000.00	09.83
Misc. Vegetables	10350.00	14.90	22000.00	51.90		
Total Vegetables	**32370.00**	**56.00**	**45100.00**	**100.60**		
Total Vegetables (Rainy)					**10350.00**	**76.62**
Total Vegetables (Winter)					**15360.00**	**149.98**
Total Vegetables (Spring)					**8230.00**	**136.68**
Total Vegetables (Summer)					**18737.50**	**111.93**
Mango	820.00	120.00	917.00	142.50	1640.00	58.54
Banana	520.00	80.00	650.00	159.50	950.00	137.38
Guava	770.00	110.00	943.00	150.60	1205	146.47
Pine Apple					05.00	180.00
Papaya					615.00	285.90
Jack Fruit					80.00	107.50
Litchi					50.00	48.00
Mandarin Orange						
Other Citrus					620.00	61.29
Sapota					190.00	105.00
Temperate Fruits						
Misc. Fruits	1100.00	140.00	1487.00	148.60	280.00	82.14
Total Fruits	**3210.00**	**45.00**	**3997.00**	**149.50**	**5635.00**	**119.20**
Chilli	240.00	30.00	460.00	89.80		
Ginger	550.00	50.00	710.00	96.80		
Turmeric	320.00	10.00	480.00	35.20		
Total Flower	**6500.00**	**46.20 lakh spikes**	**95430.00**	**69.6 lakh spikes**	**Not Available**	**Not Available**

Source: - Dept. of Horticulture and Food Processing Industries, Govt. of West Bengal.

2.6 Mean Yearly Temperature, Rainfall, Humidity of the District

The climate of the district is generally dry, mild and healthy. The hot weather usually last from the middle of March to the middle of the June, the rainy season from the middle of June to the middle of October, and the cold weather from middle of October to the middle of March. They do not always correspond to this limit. As a rule, the wind is from south-east in summer and from the north-west in winter.

Summer Temperature: Max: 40^0 C

Winter Temperature: Min: 10^0 C

Rain Fall (RF) (Ten Years Average 1998-2007):-

SW Monsoon (June - September): 1196.1 Normal RF (mm)

NE Monsoon (October - December): 152.3 Normal RF (mm)

Winter (January - March): 67.1 Normal RF (mm)

Summer (April - May): 157.4 Normal RF (mm)

Annual: 1572.9 Normal RF (mm)

Normal Onset of Monsoon: 1st. week of June

Normal Cessation of Monsoon: 4th. week of September

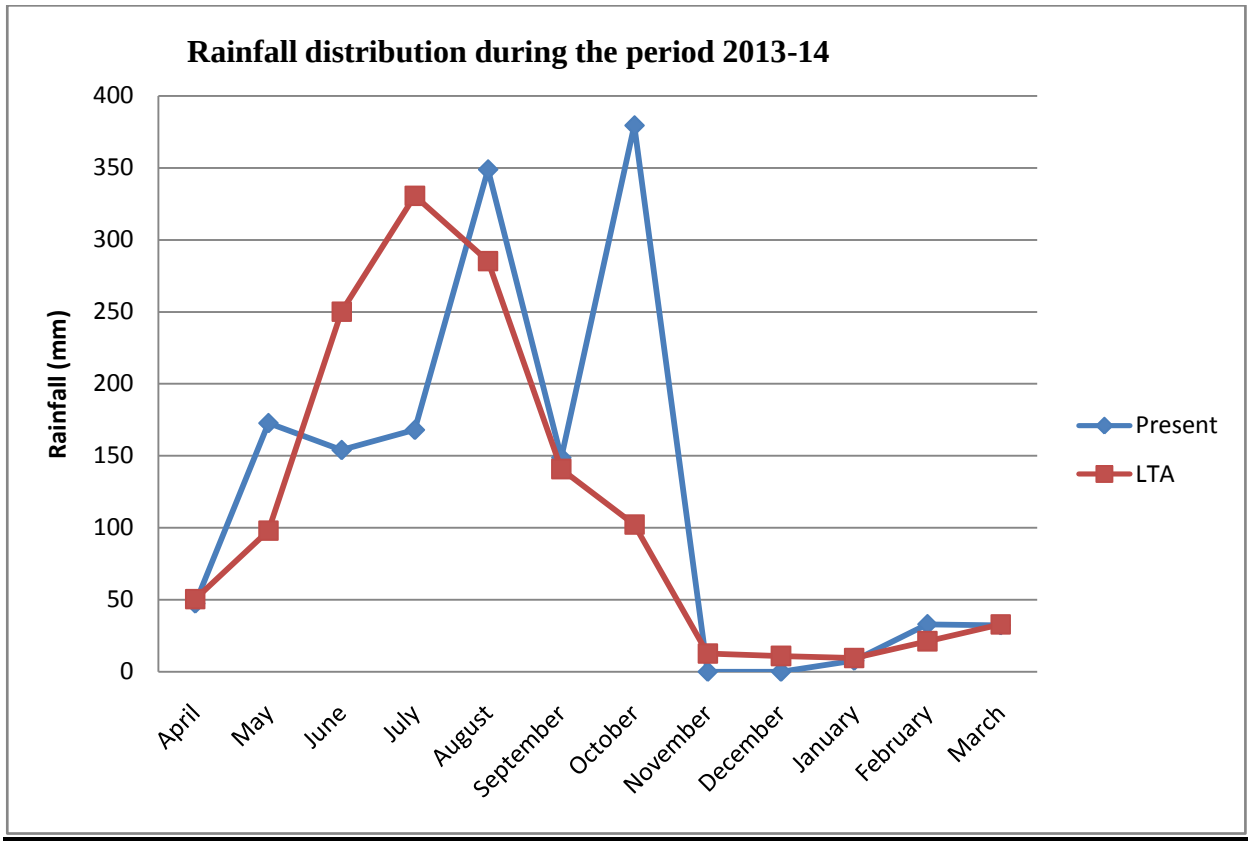
Weather Data

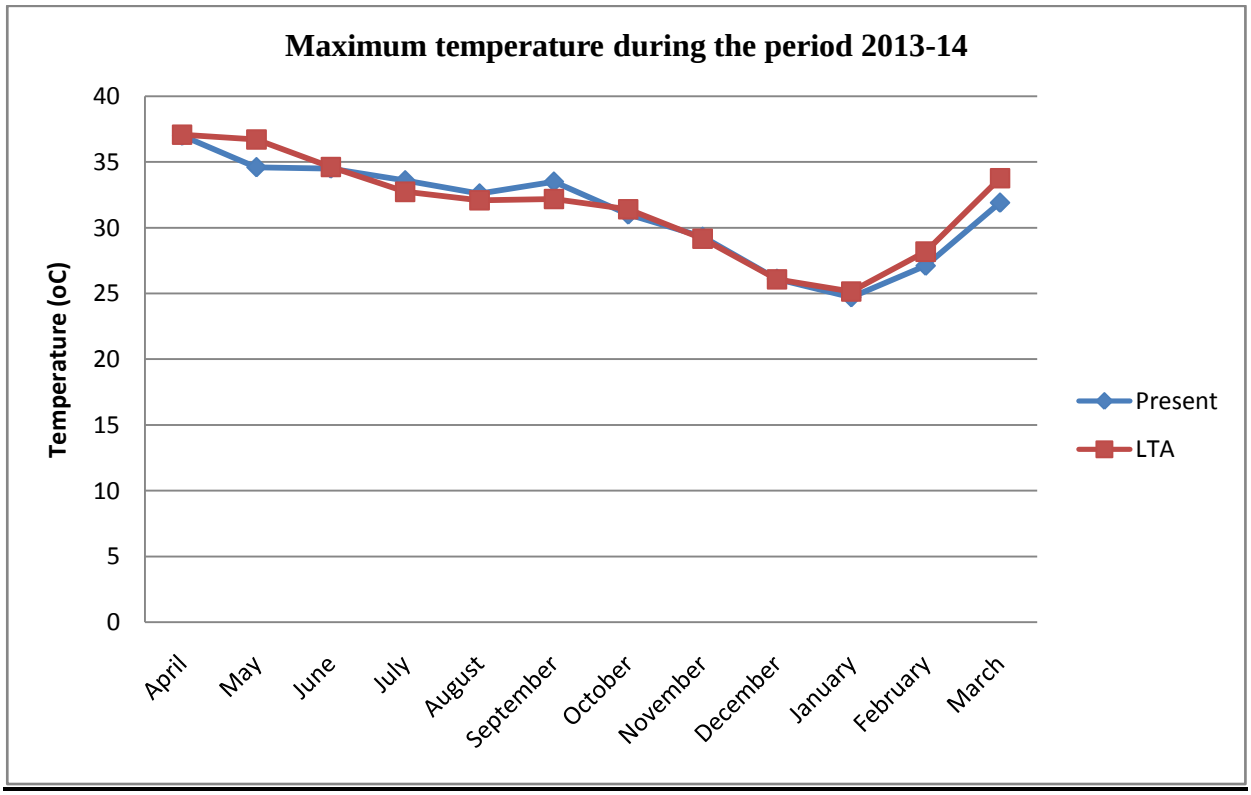
Month	Rainfall (mm.)	LTA Rainfall (mm.)	Temp. (^{0} C)	LTA Temp. (^{0} C)	Temp. (^{0} C)	LTA Temp. (^{0} C)	Relative Humidity (%)		LTA Relative Humidity (%)
			Maximum	Maximum	Minimum	Minimum	At 8.30 AM	At 5.30 PM	Average
April, 2013	47.4	50.52	37.0	37.07	23.2	23.71	64.00	46.00	61.05
May, 2013	172.7	98.09	34.6	36.71	25.1	25.03	82.00	72.00	73.07
June, 2013	154.0	250.09	34.5	34.61	26.4	25.71	81.00	77.00	80.06
July, 2013	168.0	330.47	33.6	32.73	26.4	25.88	81.00	79.00	84.59
August, 2013	348.9	285.13	32.6	32.08	25.9	25.77	86.00	83.00	87.11
September, 2013	148.7	140.80	33.5	32.18	25.8	25.25	82.00	82.00	85.04
October, 2013	379.5	102.29	31.0	31.41	23.2	22.44	87.00	86.00	76.46
November, 2013	0.0	12.71	29.3	29.17	15.7	17.34	78.00	73.00	72.19
December, 2013	0.0	11.02	26.8	26.07	12.3	12.61	81.00	70.00	71.50
January, 2014	7.7	9.61	24.7	25.15	11.2	11.86	85.00	67.00	73.56
February, 2014	33.0	21.25	27.1	28.18	13.4	14.48	75.00	59.00	62.35
March, 2014	32.3	32.96	31.9	33.76	18.2	19.59	67.00	53.00	56.38

LTA = Long Term Average of 26 Years

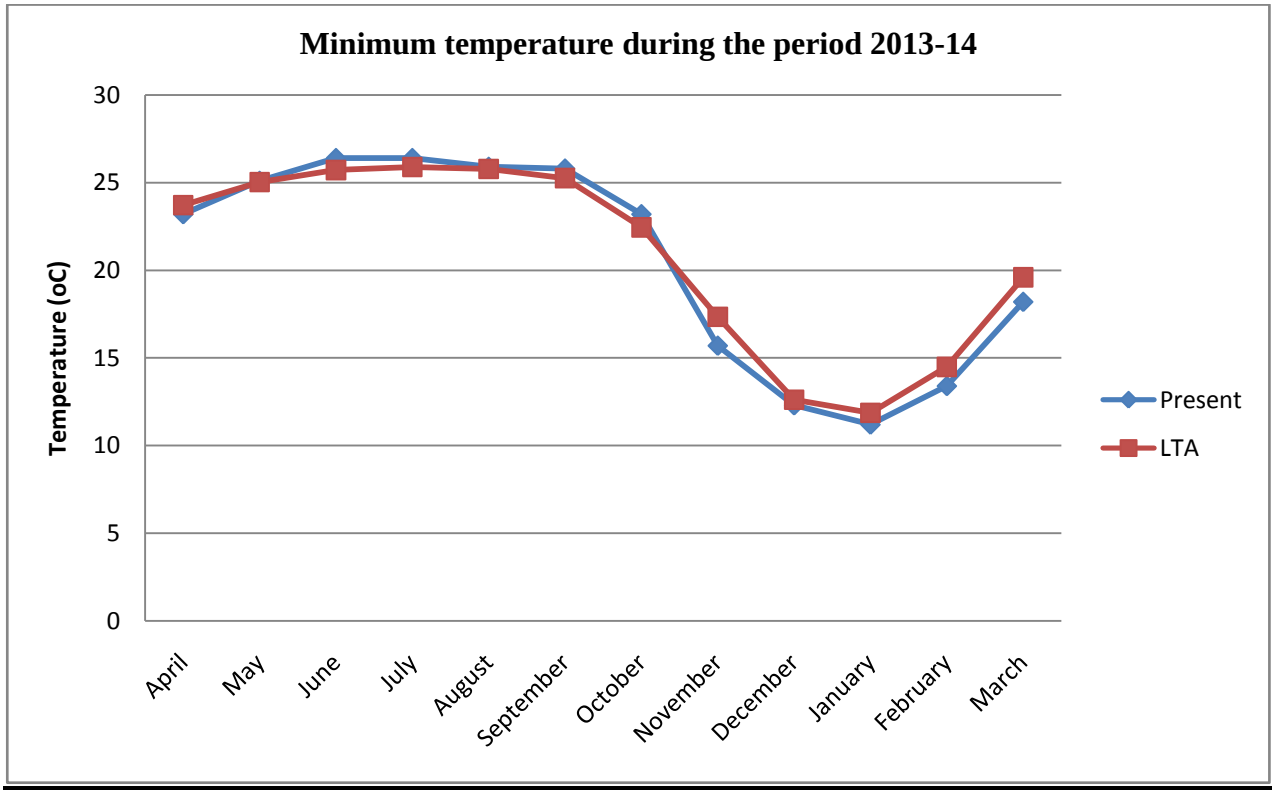
Source: - Meteorological Observatory Office, Dept. of Meteorology, Govt. of India, Sriniketan, Birbhum, West Bengal.

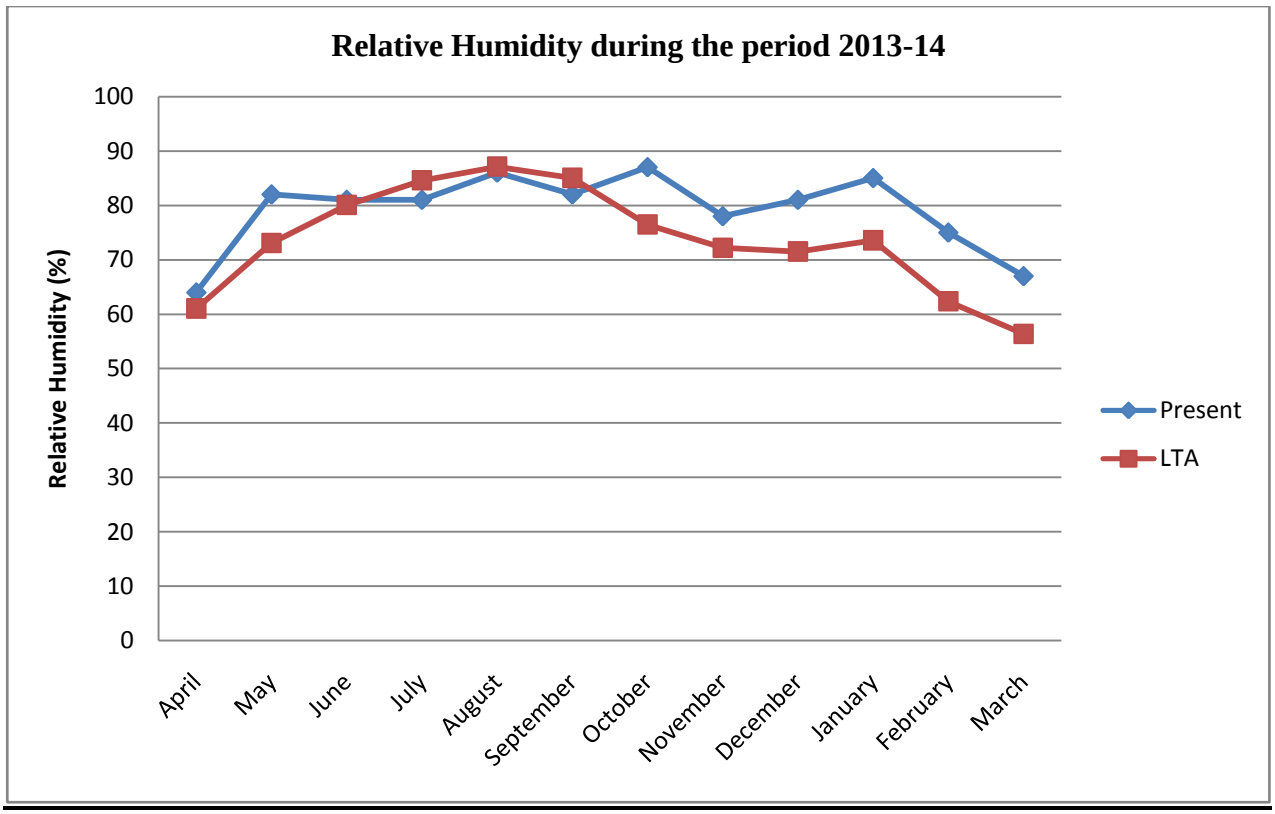
Weather Condition in Birbhum District during 2013-14





Weather Condition in Birbhum District during 2013-14





2.7 Production of Major Livestock Products like Milk, Egg, Meat etc.

Live-Stock and Poultry in the District of Birbhum

(Number)

Category		Year - 1989	Year - 1994	Year - 1997	Year - 2003	Year - 2007
(1)		(2)	(3)	(4)	(5)	(6)
1	Cattle:					
	Cows	255381	266217	274094	282145	372662
	Bulls and Bullocks	307844	347593	357919	294845	308308
	Young Stock	328898	381066	392321	421336	452384
	Total Cattle	892123	994876	1024334	998326	1133354
2	Buffaloes:					
	Cows	7627	7043	7132	8688	23492
	Bulls and Bullocks	37258	45182	45753	47100	44088
	Young Stock	6685	8076	8178	11075	..
	Total Buffaloes	51570	60301	61063	66863	67580
3	Sheep	163854	189122	189214	186280	216888
4	Goats	598010	736251	816123	728113	941989
5	Horses and ponies	366	96	96	59	39
6	Pigs	77437	77572	83653	57680	49177
7	Other Live-stock	..	..	. .	87735	93849
	Total Live-stock	1783360	2058218	2174483	2125056	2502876
8	Poultry :					
	Fowls	1489187	1506982	1659044	2303418	3071493
	Ducks	828231	1076333	1218849	1274104	1150029
	Others	11275	20416	10514	3135	1609
	Total Poultry	2328693	2603731	2888407	3580657	4223131

Source: Live-Stock Census Report, Govt. of W.B.

Estimated Production of Milk (Cow, Buffalo & Goat) and Egg (Hen & Duck) in Birbhum

Year	Milk (thousand tonnes)		Egg (number in thousands)	
	District	West Bengal	District	West Bengal
(1)	(2)	(3)	(4)	(5)
2003-04	97	3686	169883	2820317
2004-05	99	3790	175916	2887649

2005-06	100	3892	182064	2963720
2006-07	119	3984	233971	3038645
2007-08	119	4077	238117	3057342

Source:- Live-Stock Census Report, Govt. of W.B.

Profile of Fisheries in the District of Birbhum

A. Capture

i) Marine

Inland Boat: 5

No. of fishermen: Nil

Boats – Mechanized – Nil **Non-mechanized** - Nil

Nets – Mechanized (Trawl nets, Gill nets) - Nil

Non-mechanized (Shore Seines, Stake and Trap Nets) - Nil

Storage Facilities (Ice plants etc.) - Nil

ii) Inland (**Fish Farmers** - 30112, **Fishermen** - 200747, **FC** - 20, **SHG** - 391)

No. Farmer owned Ponds - 85504 (Tank and Pond)

No. of Reservoirs – 6

No. of Village Tanks – Nil

B. Culture

i) Brackish Water –

Water Spread Area (ha) – Nil
Yield (t/ha) – Nil
Production ('000 tons) - 18 ton Prawn

ii) Fresh Water –

Culturable Area: 15720.62 ha.

Semi-Derelict Area: 1596.57ha.

Derelict Area: 413.54 ha.

Yield (t/ha) – From Ponds under FFDA Scheme = 4.4 t/ha.

Production ('000 tons) - 115174 ton Fish (2008-09)

Source: - NICRA CONTINGENCY PLAN WestBengal 3-Birbhum-31.12.2011.pdf

2.8 Details of Operational Area / Villages (2013-14)

Sl. No	Name of Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified (Crop wise)	Identified Thrust Areas
1.	Kosba	Bolpur - Sriniketan	Ghosal danga	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 • Market led Extension
2.	Sattore	Bolpur - Sriniketan	Srichandrapur			
3.	Sattore	Bolpur - Sriniketan	Bishnubati, Asadullapur, Bautizole			
4.	Sattore	Bolpur - Sriniketan	Asadullapur			
5.	Sattore	Bolpur - Sriniketan	Bautizole			
6.	Sattore	Bolpur - Sriniketan	Jadavpur			
7.	Bahiri Panchshoyaa	Bolpur - Sriniketan	Dhanyasara			

8.	Bahiri Panchshoyaa	Bolpur - Sriniketan	Durgapur			
9.	Bahiri Panchshoya	Bolpur - Sriniketan	Geetgram			
10.	Bahiri Panchshoya	Bolpur - Sriniketan	Mohuli			

2.9 Priority Thrust Areas

Sl. No.	Thrust Areas
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
8.	Market-led Extension

3. TECHNICAL ACHIEVEMENTS

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

OFT				**FLD**			
Number of OFTs		**Number of farmers**		**Number of FLDs**		**Number of farmers**	
Target	**Achievement**	**Target**	**Achievement**	**Target**	**Achievement**	**Target**	**Achievement**
07	08	56	71	350	571	350	571

Training				**Extension activities**			
Number of Courses		**Number of Participants**		**Number of activities**		**Number of participants**	
Target	**Achievement**	**Target**	**Achievement**	**Target**	**Achievement**	**Target**	**Achievement**
81	92	2740	3101	395	1874	2169	10776

Seed production (q)		**Planting material (Nos.)**	
Target	**Achievement**	**Target**	**Achievement**
Black Gram – 1.0	A. Black Gram (Var. – WBU – 108) – 1.58 B. Lentil (Var. – WBL – 58) – 0.36 C. Mustard (Var. – B – 9) – 1.34 D. Mustard (Var. – Pusa Mahek) – 0.92	Vegetables – 500	A. Vegetables – Drum Sticks (Var. – PKM – 1) – 100 B. Broccoli (Var. – F – 1 Hybrid Fiesta) – 1000 C. Capsicum (Var. – Bharat) -

	E. Mustard (Var. – Pusa Bahar) – 0.52 F. Mustard (Var. PT – 303) – 0.35 G. Elephant's Foot Yam (Var. – Bidhan Kusum) – 7.5		1000

@Target should match with your midterm report

3.1. Achievement on technologies assessed and refined

(I) Thematic area: Integrated Farming System (Summer, 2013)

Problem definition: Lower profitability under fish based production system

Technology assessed: Assessment of profitability due to integration of different components under fish based production systems

Table1: Profitability under fish based integrated farming system

Technology option	No. of trials		Cost of cultivation (Rs./unit*)	Gross return (Rs./unit)	Net Return (Rs /unit)	BC Ratio
		Man days utilized per year				
.Farmer's practice: Traditional fish farming	7	14	27450.00	35000.00	1737.00	1.28
I. composite fish culture (IMC) + Poultry farming (Black Australorp 71 nos) + Pulses (Redgram- Blackgram)		245	45,035.00	1,04,400.00	50521.00	2.32
II. composite fish culture (IMC) + Poultry farming (Black Australorp 71 nos) + Vegetables (ladys' finger-capsicum)		260	67,516.00	1,34,200.00	66684.00	1.99

- 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

Result:

The result of the trial (Table-1) indicated that Technology Option –I i.e. Composite fish culture +poultry +pulses exhibited higher BC ratio (2.32) than that of Technology Option-II (1.99) and farmers practice (1.28). Here it is to be mentioned that gross return and net return was higher in integrated farming system where vegetable cultivation was one of the component. It might be due to higher value of vegetables than pulses. But due to low cost of cultivation BC ratio was higher in integrated farming system where pulses was the component. Poultry litre was also used as feed of fishes in both Technology Option-I and II. But in Technology Option-I, the leftover materials of pulses were used as feed of fishes and poultry. So integration was more among the components in the Technology Option-I. Further, man days utilization (260 per year) was slightly higher in Technology Option –II than Technology Option-I (245 per year). In farmers practice man days utilization was very low (14 per year) and BC ratio was also very low (1.28). Therefore, it may be concluded that integrated farming system with composite fish culture, poultry farming and pulse cultivation in bank of the pond is very effective to integrate the components in profitable manner.

(II) Thematic area: Weed Management (Kharif season, 2013)

Problem definition: Only hand weeding cannot control the weeds of transplanted kharif rice. Due to scarcity of labour, hand weeding in proper time is not possible. Control of algal weeds, ferns, broad leaves is more laborious. Beside this, hand weeding is expensive which ultimately increase the cost of cultivation.

Technology assessed: Weed management in transplanted kharif rice

Table2: Assessment of different weed management practices in transplanted kharif rice (Var. MTU-7029)

Technology option	No. of trials	Yield Component			No. of weeds / m^2 At 60 DAT	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
		No. of effective tillers/ hill	No. of grains/ panicle	Test Weight (1000 grain weight, g)						
.Farmer's practice: Hand Weeding (2 times, 25 DAT and 45 DAT)	7	23.1	140.8	22.0	-	55.25	55575.00	71760.00	16025.00	129
I. Pyrazosulfuron-ethyl @ 25 g a.i. /ha (1-3 DAT)		24.5	141.2	22.3	18.32	55.44	50725.00	72020.00	21295.00	1.42
II. Metsulfuron- methyl + chlorimuron- ethyl @ 4 g a.i./ ha (7-12 DAT)		27.3	147.6	22.3	12.67	57.65	49325.00	74880.00	25555.00	1.52
III. Pretilachlor @ 1.0 lit a.i./ha (1-3 DAT)		21.3	138.2	31.2	26.56	53..4	51225.00	69420.00	18195.00	1.36
SEm±		0.86	1.63	NS	-	0.69				
CD(P=0.05)		2.48	4.71	-	-	2.02				

Results:

KVK Birbhum, W.B conducted an OFT in kharif season, 2013 to assess better weed management practices in kharif rice in adopted villages. The result of the trial indicated that the Technology Option-II i. e. use of herbicide Metsulfuron-methyl + chlorimuron-ethyl (Sathi) @ 4 g a.i. /ha at 7-12 DAT significantly produced more no. of effective tillers/ hill (27.3), grains/panicle (147.6) and higher yield (57.65 q/ha) than those of other technology options and farmers practice. It was found that at 60 DAT, there was no weed in the field due to hand weeding at 25 and 45 DAT. But before 25 DAT and 45 DAT the weeds present in the field reduced the grain yield in farmers practice. Further the fields were weed free in between 15 DAT to 5o DAT in Technology option –I and Technology option-II. So, the crop weed competetion was less at peak crop growth stage in those plots. From the economics of cultivation, it was found that use of herbicide is more economical than hand weeding irrespective of herbicide used and crop yield. Among the herbicides the Technology Option-II i. e.Metsulfuron-methyl + chlorimuron-ethyl (Sathi) @ 4 g a.i. /ha at 7-12 DAT fetched the higher BC ratio (1.52) than other technology opotions and farmers practice (1.29). This might be due to higher price of labour engaged in farmers practice. Beside that, the Technology Option- II helped the farmers to come out from the problem of labour scarcity.

(III) Thematic area: Fish Nutrition Management (Kharif season, 2013)

Problem definition: The survival rate of fish spawn is low in the nursery ponds and as well as rearing ponds. The farmers do not apply regular scientific fish feed supplemented with growth promoters. Therefore, due to malnutrition the fish spawn do not survive up to the level which causes economic losses in fish farming.

Technology assessed: Assessment of specific vitamins as growth promoters in carp spawn and fry feed to increase the survival rate to a profitable manner

Table3: Effect of growth promoters and vitamins on spawn survivality

Technology option	No. of trials	Survival rate (%) of fish spawn after 20 days	Growth of spawn (fry stage) at 30 days (Kg / ha)	Fish Yield at 6 month (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
Farmer's practice: Irregular feed application without growth promoter	5	50	820	4.7	41475.00	47000.00	5525.00	1.13
I.Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed		95	1710	12.0	51150.00	120000.00	68850.00	2.35
II. Yeast (2 %) + Vitamin C (0.5%) +Scientific feed		82	1477	9.8	51598.00	98000.00	46402.00	1.90
III. Yeast (2%) + Vitamin B complex (0.01%) + Scientific feed		79	1425	9.1	51184.00	91000.00	39816.00	1.78
SEm+		3.53	66.02	0.66				
CD(P=0.05)		10.23	125.45	1.9				

Scientific Feed= Rice bran (50%) + Mustard Oil Cake (50%)

Result:

The data from table-3 indicated that the Technology Option –I i.e. application of Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed in the nursery pond increased significantly the survival rate (95%) of fish spawn after 20 days of release and also increased the early growth (fry stage) at 30 days (1710 kg/ha). In those ponds the achieved fry were disease free and healthy. This might be due to application of growth promoters and vitamins. Further the Technology Option-I produced significantly higher fish yield (12 q/ha) at 6 month than those of other options and farmers practice (4.7 q/ha). Accordingly, the BC ratio was also higher (2.35) in the Technology Option –I than others. There was no significant difference between Technology Option –II and Technology Option-III in producing yield and survival rate. But the Technology Option-II fetched slightly higher BC ratio (1.90) than that of Technology Option-III (1.78).

(IV) Thematic area: Nutrient Management (Rabi Season, 2013-14)

Problem definition: Imbalanced use of NPK particularly higher dose of nitrogen causes poor yield of yellow sarsoon under irrigated lateritic soil.

Technology assessed: Assessment of balanced NPK management for increasing yield of Yellow Sarson var. B-9

Table 4: Effect of balanced NPK management in yellow sarsoon var. B-9

Technology option	No. of trials	Yield Component			Aphid infestation (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
		No. of branches / plant	No. of siliquae / plant	Test Weight (1000 grain weight, g)						
.Farmer's practice: 80:20:20 Kg N, P_2O_5 , K_2O/ ha using the source of 10:26:26 and Urea	15	9.1	132.9	3.11	27	6.83	11520.00	27320.00	15800.00	2.37
I. State recommendation (60:30:30 Kg N, P_2O_5 , K_2O/ ha) using the source of Urea, SSP and MOP		9.3	150.8	3.40	12	8.15	12288.00	32600.00	20312.00	2.89
II. Soil Testing Based NPK management using the source of Urea, SSP and MOP		11.5	167.2	3.48	4	9.40	12647.00	37600.00	24953.00	2.97
SEm+		0.68	3.88	0.09		0.38				
CD(P=0.05)		1.98	11.22	0.25		1.10				

- Nutrients in Technology Option –I and II were applied irrespective of sulfur as the source of phosphate like SSP contains sulfur

Result:

KVK Birbhum, W.B conducted an OFT in rabi season, 2013-14 to assess the effect of balanced NPK management through soil testing in yellow sarsoon var. B-9. Farmers use higher nitrogen than phosphorus and potassium in the form of 10:26: 26 and urea. In this case no sulfur is used. But in the case of Technology Option –I and II nutrients were applied through Urea, SSP and MOP. The sulfur present in the SSP mitigated the demand of sulfur nutrients. Through the soil testing, generally it was found that more phosphate and potassium are required in the Technology Option-II than Technology Option-I and farmers practice. Therefore more SSP was used in Technology Option-II which means more sulfur application. Now, the perusal of the data (Table-4) revealed that significantly higher number of branches/ plant (11.5), number of siliquae/ plant, Test Weight (3.48g) and yield (9.40 q/ha) was obtained from Technology Option-II i.e. Soil Testing Based NPK management than those of State recommendation and farmers practice. Though the cost of cultivation was slightly higher in Technology Option-II, but due to higher yield it fetched higher BC ratio (2.97) than farmers' practice (2.37) and state recommendation (2.89).

(V) Thematic area: Variety Replacement (Summer Season, 2014)

Problem definition: The farmers incur heavy loss due to infestation of bacterial wilt of brinjal

Technology to be assessed: Assessment of location specific bacterial wilt tolerant brinjal varieties

Table 5:Performance of different bacterial wilt tolerant brinjal varieties

Technology option	No. of trials	Yield Component				Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
.Farmer's practice: Local selection	10	Crop just sown in the month of March, 2014								
I. Indam-504										
II.Indam-902										
SEm+										
CD(P=0.05)										

(VI) Thematic area: Variety Replacement (Summer Season, 2014)

Problem definition: The farmers incur heavy loss due to infestation of powdery mildew of cucumber

Technology to be assessed: Assessment of location specific powdery mildew tolerant cucumber varieties

Table 6:Performance of different powdery mildew tolerant cucumber varieties

Technology option	No. of trials	Yield Component				Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
.Farmer's practice: Local selection	10	Crop just sown in the month of March, 2014								
I. Snow white										
II.Swadisht										
SEm+										

CD(P=0.05)		

(VII) Thematic area: Weed Management (Summer Season, 2014)

Problem definition: The farmers sow pulse seeds by broadcasting. After a few days weeds compete with the crop. No mechanical weeding is possible in broadcasted field.

Technology to be assessed: Assessment of effect of different herbicides in weed management in summer pulses

Table 7: Effect of different herbicides in weed management in summer pulses

Technology option	No. of trials	Yield Component				Weed Population per metre square	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
		No. of Branches per Plant	No. of Pods per Branch	No. of Seeds per Pod	Test Weight (1000 Seed weight in gm)						
.Farmer's practice: No weeding	10	Crop just sown in the month of March, 2014									
I. Pendimethalin @ 0.75 lit a.i./ha as pre emergence (0-3 DAS)											
II. Quizalofop- P-ethyl @ 50 ml a.i./ha as early post emergence (15-20 DAS)											
III. Fenoxaprop-P-ethyl @ 60 ml a.i./ ha as early post emergence (15-20 DAS)											
SEm+											
CD(P=0.05)											

(VIII) Thematic area: Integrated Farming System (Summer, 2014)

Problem definition: Lower profitability under fish based production system

Technology to be assessed: Assessment of profitability due to integration of different components under fish based production systems

Table8: Profitability under fish based integrated farming system

Technology option	No. of trials		Cost of cultivation (Rs./unit*)	Gross return (Rs./unit)	Net Return (Rs /unit)	BC Ratio

		Man days utilized per year				
.Farmer's practice: Traditional fish farming	7	Programme has been started in the month of March, 2014				
I. composite fish culture (IMC) + Duck farming (Khaki Campbell 21 nos) + *Azolla* + Pulses (Redgram-Blackgram)						
II. composite fish culture (IMC) + Duck farming (Khaki Campbell 21 nos) + *Azolla* + Vegetables (ladys' finger-capsicum)						

- FP: 1 unit = 0.19 ha pond only + fallow land
- Opt-1: 1 unit= 0.19 ha pond + 21 nos. of Ducks + 0.13 ha utilsed land with pulse
- Opt-2: 1 unit= 0.19 ha pond + 21 nos. of Ducks + 0.13 ha utilised land by vegetables

3.2 Achievements of Frontline Demonstration (FLD)

A. Details of FLDs implemented during April, 2013 – March, 2014

Sl. No	Crop	Thematic area	Technology Demonstrated with Detailed Treatments	Area (ha)		No. of farmers/demonstration				Reasons for short fall in Achievement
				Proposed	Actual	SC	ST	Others	Total	
1	**Prawn (2012 – 2013) (Summer – 2013)**	Giant Prawn in Composite Fish Culture	**Productivity- *Macrobrachium rosenberghi* (Galda) with Composite fish**	1.17	1.17	1	6	2	9	
2	**Sesame (2012 -2013) (Summer – 2013)**	Varietal Replacement	**Variety of Crop - Improved Selection 5**	5.00	5.00	8	5	24	37	
3	**Black gram (2012 – 2013) (Summer – 2013)**	Varietal Replacement	**Variety of the Crop - WBU-108**	5.00	5.00	11	4	28	43	
4	**Dhaincha (2013 – 2014) (Kharif – 2013)**	Soil Health Management	**Green Manuring in rainy season paddy var. MTU-7029**	2.5	2.5	1	8	11	20	
5	**Rotavator used in paddy (2013 – 2014) (Kharif – 2013)**	Production Technology	**Use of Rotavator in land preparation for Paddy cultivation**	4.0	4.0	8	4	17	29	
6	**Seed Treatment with *Trichoderma viridae* (2013 – 2014) (Kharif – 2013)**	Integrated Pest Management	**Seed Treatment with *Trichoderma viridae* in paddy variety MTU-7029**	10	10	12	13	50	75	
7	**Elephant's Foot Yam (2013 – 2014) (Kharif – 2013)**	Varietal Replacement	**Improved variety- Bidhan Kusum**	1.4	1.4	10	2	18	30	
8	**Drumstick (2013 – 2014) (Kharif – 2013)**	Varietal Replacement	**Barmasia (Round the year) variety- PKM-1**	1.02	2.0	19	8	37	64	
9	**Black gram (2013 – 2014) (Post Kharif –**	Varietal Replacement	**Variety of the Crop – WBU-108**	-	4.0	11	1	18	30	

	2013)									
10	**Capsicum (2013 – 2014) (Rabi – 2013 – 2014)**	Varietal replacement	**Improved variety- Bharat**	0.85	0.85	9	2	2	13	
11	**Broccoli (2013 – 2014) (Rabi – 2013 – 2014)**	New Crop Introduction	**Improved variety- F1 Hybrid-Fiesta**	0.85	0.85	9	2	2	13	
12	**Lentil (2013 – 2014) (Rabi – 2013 – 2014)**	Varietal replacement	**Improved variety- WBL-58**	5.0	5.0	10	3	19	32	
13	**Wheat (2013 – 2014) (Rabi – 2013 – 2014)**	Varietal replacement	**Improved variety-HD-2824**	-	2.7	6	5	2	13	
14	**Prawn (2013 – 2014) (Rabi – 2013 – 2014)**	Giant Prawn in Composite Fish Culture	**Productivity- *Macrobrachium rosenberghi* (Galda) with composite fish**	1.17	1.17	1	6	2	9	
15	**Sesame (2013 – 2014) (Summer - 2014)**	Varietal Replacement	**Improved variety- Sabitri (SWB-32-10-1)**	4	4	8	8	36	52	
16	**Greengram (2013 – 2014) (Summer – 2014)**	Varietal Replacement	**Improved variety- PDM-84-139**	5	5	19	1	45	65	
17	**Blackgram (2013 – 2014) (Summer – 2014)**	Varietal Replacement	**Improved variety- WBU-108**	-	4.0	5	4	28	37	

B. Details of farming situation

Sl. No.	**Crop**	**Season**	**Farming situation (RF/Irrigated)**	**Soil type**	**Status of soil**			**Previous crop**	**Sowing date**	**Harvest date**	**Seasonal rainfall (mm)**	**No. of rainy days**
					N	**P_2O_5**	**K_2O**					
1	**Prawn**	Rabi, 2012-13	-	-	-	-	-	-	5th. Jan, 2013.	26thJune -10th July, 2013	464.3	28
2	**Sesame**	Summer, 2013	Irrigated Medium Land	Sandy Loam	H	L	M	Potato/Mustard	10th – 25 th Feb, 2013	2nd May- 20th May, 2013	195.4	17
3	**Black gram**	Summer, 2013	Irrigated Medium Land	Sandy loam	H	L	M	Potato/Mustard	25 th Feb- 15 th March, 2013	17th May- 29th May, 2013	195.4	17
4	**Dhaincha**	Pre-Kharif, 2013	Irrigated / Rainfed Medium Land	Sandy loam, clay loam	M	L	M	Sesame	10-15th June,2013	1-10th August, 2013	594.7	61

5	**Rotavator in paddy**	Kharif, 2013	Rainfed/ Irrigated Medium Land	-	-	-	-	-	-	-	325.8	29
6	**Seed Treatment with *Trichoderma viridae***	Kharif, 2013	Irrigated / Rainfed Medium Land	Sandy loam, clay loam	M	L	M	Fallow	1-10thAugust, 2013	2-5th Dec., 2013	859.4	50
7	**Elephant's Foot Yam**	Kharif, 2013	Rainfed Upland	Sandy loam	L	L	M	Fallow	27th July- 7th Aug. 2013	15th Dec.- 30th Dec, 2013	1023.4	53
8	**Drumstick**	Kharif, 2013	Rainfed Upland	Sandy loam	L	L	M	Fallow	28th July- 29th August, 2013	At early flowering stage	932.4	60
9	**Black gram**	Post Kharif, 2013	Rainfed Upland/ Medium Land	Sandy loam	L	L	M	Fallow	15 th Sept.- 20th Sept., 2013	1-5 th Dec., 2013	533.6	21
10	**Capsicum.**	Rabi, 2013-14	Irrigated Medium Land	Sandy loam	M	L	M	Short duration paddy	10-20th Nov., 2013	10th Feb.,- 10th March, 2014	73.0	07
11	**Broccoli**	Rabi, 2013-14	Irrigated Medium Land	Sandy loam	M	L	M	Short duration paddy	20-30th Nov., 2013	15th Feb., - 15th March, 2014	73.0	07
12	**Lentil**	Rabi, 2013-14	Rainfed / Irrigated Medium Land	Sandy loam, clay loam	M	L	M	Short duration paddy	16-26th Nov., 2013	21th -28th Feb., 2014	73.0	03
13	**Wheat**	Rabi, 2013-14	Irrigated Medium Land	Sandy loam	M	L	M	Short duration paddy	25th Nov.,- 20th Dec., 2013	Crop now at ripening stage	73.0	07
14	**Prawn**	Rabi, 2013-14	-	-	-	-	-	-	7th Mar., 2014	Yet to be harvested	73.0	07
15	**Sesame**	Summer, 2014	Irrigated Medium Land	-Sandy loam and clay loam	M	L	H	Potato / Mustard	22nd Feb-7th March, 2014	Crop at early growth stage	73.0	06
16	**Green gram**	Summer, 2014	Irrigated Medium Land	Sandy loam and clay loam	M	L	M	Potato / Mustard	20-28th Feb., 2014	Crop now at branching stage	73.0	06
17	**Black gram**	Summer, 2014	Irrigated Medium Land	Sandy loam and clay loam	M	L	M	Potato / Mustard	1st -10th March, 2014	Crop now at two leaf stage	73.0	04

C. Performance of FLD

Oilseeds

Crop	Thematic Area	Name of the technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
					Demo	Check		Gross cost	Gross return	Net return	BC ratio	Gross cost	Gross return	Net return	BC ratio
Sesame, Summer, 2013	Varietal Replace-ment	Improved Selection -5	37	5.0	10.2	8.4 (Tilottoma)	21.4	11520	28560	17040	2.48	10860	23520	12660	2.2

Pulses

Crop	Thematic Area	Name of the technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
					Demo	Check		Gross cost	Gross return	Net return	BC ratio	Gross cost	Gross return	Net return	BC ratio
Black gram, Summer, 2013	Varietal Replacement	WBU-108	43	5.0	9.5	7.9 (B-76)	20.3	14014	38000	23986	2.71	13225	31600	18375	2.3
Black gram, Post-Kharif, 2013	Varietal Replacement	WBU-108	30	4.0	7.3	6.2 (B-76)	17.7	12924	29200	16276	2.25	12135	24800	12665	2.0
Lentil Rabi, 2013-14	Varietal Replacement	WBL-58	32	5.0	10.5	8.3 (Asha)	26.5	15520	42000	26480	2.71	14620	33200	18580	2.27

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
Dhaincha Pre kharif, 2013	Soil Health Manage-ment	Green Manuring in rainy season paddy var. MTU-7029	20	2.5	59.1 (Paddy yield)	51.6 (Paddy yield)	14.5	No. of panicles/ m^2	389	364	56120	76830	20710	1.36	57250	67080	9830	1.17
								No. of grains/ panicle	151	137								
Paddy Seed treatment, Kharif, 2013	IPM	Seed Treatment with Trichoderma viride in paddy var. MTU-7029	75	10	55.6	50.9	9.2	No. of panicles/ m^2	375	360	55950	72280	16330	1.29	57250	66170	8920	1.16
								No. of grains/	139	137								

								panicle										
Elephant's Foot Yam	Varietal Replace-ment	Bidhan Kusum	30	0.14	709.0	196.8	260	Corm Size (cm)	26.8	10.3	4,72,500	14,17,500	9,45,000	3.0	1,89,000	2,36,250	47,250	1.25
Capsicum Rabi, 2013-2014	Varietal Replacement	Bharat	13	0.85	44.5	21.9 (California wonder)	103	No. of branches/ plant	42.2	17.8	88,056	1,81,200	93,144	2.06	69,200	89,450	20,250	1.29
								No. of fruits / plant	26.0	11.5								
								Weight of fruits (gm)	145. 0	81.3								
Broccoli, Rabi, 2013-2014	New Crop Introduction	Fiesta	13	0.85	11.34	-	-	Av. Height (cm)	63.5	-	1,31,810	3,00,950	1,69,140	2.28	-	-	-	-
								No. of leaves / plant	16.0	-								
								Curd Size (cm)	22.45	-								
								Weight of Fruits (gm)	720.0	-								

Fisheries:

Category	**Thematic area**	**Name of the technology demonstrated**	**No. of farmers**	**No. of units**	**Major parameters Yield (kg/ha)**		**% change in Major Parameter (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 (Rabi, 2012-13)	Giant prawn in Composite Fish Culture	Productivity-*Macrobrachium rosenberghi* (Galda) with composite fish	9	9 (1000 prawns per 0.13 ha)	473.13 (prawn) +3070 (carp)	5289 (carp)	20	267000	476700	209700	1.79	247500	370230	122730	1.49

Farm implements and machinery

Name of the implement	Crop	Name of the technology demonstrated	No. of farmers	Area (ha)	Field Observation (Output/ man hour)		% change in the major parameter	Labour Reduction (Mandays)	Cost reduction (Rs./ha)
					Demon.	Local check			
Rotavator	Paddy, Kharif 2013	**Use of Rotavator in land preparation for Paddy cultivation**	29	4.0	0.25 ha	0.13 ha (Tractor Drawn Cultivator)	92	1 (One) Manday per hectare	3075.00

D. Demonstration Details on Crop Hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
Cereals				**Demo**	**Local check**	**% change**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR**
Bajra										
Maize										
Paddy										
Sorghum										
Wheat										
Others (pl.specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower										
Groundnut										
Soybean										
Others (pl.specify)										
Total										
Pulses										
Greengram										
Blackgram										
Bengalgram										
Redgram										
Others (pl.specify)										

Total										
Vegetable crops										
Bottle gourd										
Capsicum										
Cucumber										
Tomato										
Brinjal										
Okra										
Onion										
Potato										
Field bean										
Others (pl.specify)										
Total										
Commercial crops										
Cotton										
Coconut										
Others (pl.specify)										
Total										
Fodder crops										
Napier (Fodder)										
Maize (Fodder)										
Sorghum (Fodder)										
Others (pl.specify)										
Total										

E. Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Feed Back
1	**Prawn (2012 – 2013)**	The rearing of Fresh water Giant Prawn (*Macrobrachium rosenberghi*) along with Carps in Composite Fish Culture is accepted by the farmers. The growth of Prawns is satisfactory (80 -90 grams in 6 months) when the bottom dwelling carps are not stocked in Ponds.
2	**Sesame (Summer, 2013)**	The cultivation of summer sesame effectively utilized the residual fertility of potato fields. The Sesame Variety – Improved Selection – 5 produced more yields. It is very remunerative alternative crop of Boro Paddy. The use of Urea, SSP and MOP increased the yield of Sesame than that of the complex fertilizers like 10-26-26.
3	**Black gram (Summer, 2013)**	Most of the Year the fields except the Summer Paddy area are kept vacant in Summer season. But the Short Duration Crop like Black Gram was found acceptable by the farmers due to easy cultivation and low cost of cultivation. The height of the Crop is not much more. But due to heavy branching, the crop covered the field very quickly and also acted as a cover Crop. The growth, yield, colour and shape of the seeds of the Variety WBU – 108 are very much preferable by the farmers. So, this Variety is suitable for better utilization of lands in Summer Season and very much profitable.
4	**Dhaincha (Pre kharif, 2013)**	After cultivation of Dhaincha, no Nitrogenous fertilizers were required in the next Paddy cultivation in the same field.
5	**Rotavator used in paddy cultivation (Kharif, 2013)**	Rotavator was very useful to prepare the paddy field in short period and cost of land preparation was lower.
6	**Seed Treatment with *Trichoderma viridae* (Kharif, 2013)**	Seed treatment of Paddy Variety MTU – 7029 with *Trichoderma viridae* decreased the infestation of Sheath Blight and use of the pesticides in the main field was less.
7	**Elephant's Foot Yam (Kharif, 2013)**	Elephant's Foot Yam Var. – Bidhan Kusum, is more or less six months crop, its yield is higher than local varieties and its culinary effects are smooth. If more short duration Variety is developed then in medium land situation, two crops can be grown during Kharif Season. It is a remunerative crop and its growth mainly depends on organic manure.
8	**Drumstick (Kharif, 2013)**	The Programme is going on.
9	**Black gram (Kharif, 2013)**	In the absence of adequate Rainfall, the Crop of Black Gram, Var. - WBU – 108 was very much successful both in the agronomic and economic parameters. It also fetches a good price in the market sometimes better than the Paddy which it replaces as the field crop in contingent situations.
10	**Capsicum (Rabi, 2013-14)**	The Capsicum Variety – Bharat is dwarf in type, its branching is more, fruiting setting is more and average fruit sizes are also more than locally available Varieties. The Carsicum Variety – Bharat gives satisfactory yields even in late planted cases.
11	**Broccoli (Rabi, 2013-14)**	The Crop of Broccoli is a new crop in the District of Birbhum and it has a great potential both in horticultural as well as in economic terms.
12	**Lentil (Rabi, 2013-14)**	The cultivation of Lentil can utilize the residual moisture of soil under Kharif Paddy. The Lentil variety – WBL – 58 gave more yield and the seed size of this Variety is bigger than the prevalent Variety – Asha.
13	**Wheat (Rabi, 2013-14)**	The Programme is going on.
14	**Prawn (2013 – 2014)**	The Programme is going on.
15	**Sesame (Summer, 2014)**	The Programme is going on.
16	**Greengram (summer, 2013-14)**	The Programme is going on.
17	**Blackgram (summer, 2013-14)**	The Programme is going on.

F. Extension and Training Activities under FLD

Sl. No.	Activity	Date	No. of Activities Organized	Number of Participants	Remarks
1.	Field days	16.08.2013; 21.08.2013; 23.08.2013; 29.08.2013; 23.09.2013; 24.09.2013; 25.09.2013; 27.09.2013; 01.10.2013; 15.11./2013; 19.11.2013; 06.01.2014; 07.01.2014; 08.01.2014; 20.01.2014; 30.01.2014; 08.02.2014	17	809	
2.	Farmers' Training	16.05.2013 to 17.05.2013; 18.05.2013; 20.05.2013; 11.06.2013; 08.07.2013 to 09.07.2013; 04.07.2013 to 06.07.2013; 16.08.2013; 07.09.2013; 17.09.2013 to 20.09.2013; 01.10.2013; 04.10.2013 to 05.10.2013; 02.12.2013; 05.12.2013; 08.02.2014; 25.02.2014; 28.02.2014	16	562	
3.	Media coverage	02.11.2013; 18.01.2014; 08.02.2014 02.09.2013; 13.11.2013; 03.02.2014; 06.02.2014; 06.02.2014	A.I.R – 03 T. V. - 05	-	
4.	Training for extension functionaries	27.09.2013; 15.11.2013; 16.11.2013; 09.12.2013	04	79	

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

A. Farmers and farm women (on campus)

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	1	1	0	1	0	0	0	10	7	17	11	7	18
Crop Diversification	1	18	0	18	11	0	11	1	0	1	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	17	0	17	10	0	10	71	0	71
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	10	0	10	16	0	16	4	0	4	30	0	30
Others, if any	0	0	0	0	0	0	11	1	0	1	30	0	30
II Horticulture													
a) Vegetable Crops													
Integrated Nutrient management	1	1	0	1	0	0	0	10	7	17	11	7	18
Water management	0	0	0	0	0	0	0	0	0	0	0	0	0
Enterprise development	0	0	0	0	0	0	0	0	0	0	0	0	0
Skill development	0	0	0	0	0	0	0	0	0	0	0	0	0
Yield increment	3	45	0	45	26	0	26	5	0	5	76	0	76
Production of low volume & high value crops	2	7	0	7	29	0	29	5	0	5	41	0	41

Off-season vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0
b) Fruits													
Training and Pruning	0	0	0	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	2	10	0	10	40	0	40	6	0	6	56	0	56
Cultivation of Fruit				0			0			0	0	0	0
Management of young plants/orchards	1	9	0	9	4	0	4	6	0	6	19	0	19
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													
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													
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	0	0	0	0	0	0	0	0	0	0	0	0
Production and Management technology	2	51	0	51	13	0	13	6	0	6	70	0	70
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													
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													
Soil fertility management	1	16	0	16	11	0	11	3	0	3	30	0	30
Soil and Water Conservation	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	2	32	0	32	12	0	12	10	0	10	54	0	54
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	18	0	18	13	0	13	18	0	18	49	0	49
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	1	25	0	25	13	0	13	4	5	9	42	5	47
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	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
Enterprise development				0			0			0	0	0	0
Value addition	1	0	3	3	0	0	0	0	24	24	0	27	27
Income generation activities for empowerment of rural Women	2	0	10	10	0	3	3	0	27	27	0	40	40
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	1	0	1	1	0	0	0	0	24	24	0	25	25
Capacity building	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 (Rotavator)	1	17	0	17	8	0	8	4	0	4	29	0	29

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	56	0	56	27	0	27	27	0	27	110	0	110
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery mgt.	1	7	0	7	12	0	12	7	0	7	26	0	26
Carp fry and fingerling rearing	1	15	0	15	4	0	4	10	0	10	29	0	29
Composite fish culture & fish disease	2	29	0	29	10	0	10	48	0	48	87	0	87
Fish feed preparation & its application to fish ponds like nursery, rearing & stocking pond	1	9	0	9	2	0	2	13	0	13	24	0	24
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	0	0	0	0	0	0	0	0	0	0	0	0	0
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	3	28	0	28	34	0	34	0	21	21	62	21	83
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	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	12	0	12	19	0	19	2	0	2	33	0	33
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 (Market led Extension)	5	90	0	90	69	0	69	33	0	33	192	0	192
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)	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**43**	**550**	**14**	**564**	**390**	**3**	**393**	**242**	**115**	**357**	**1182**	**132**	**1314**

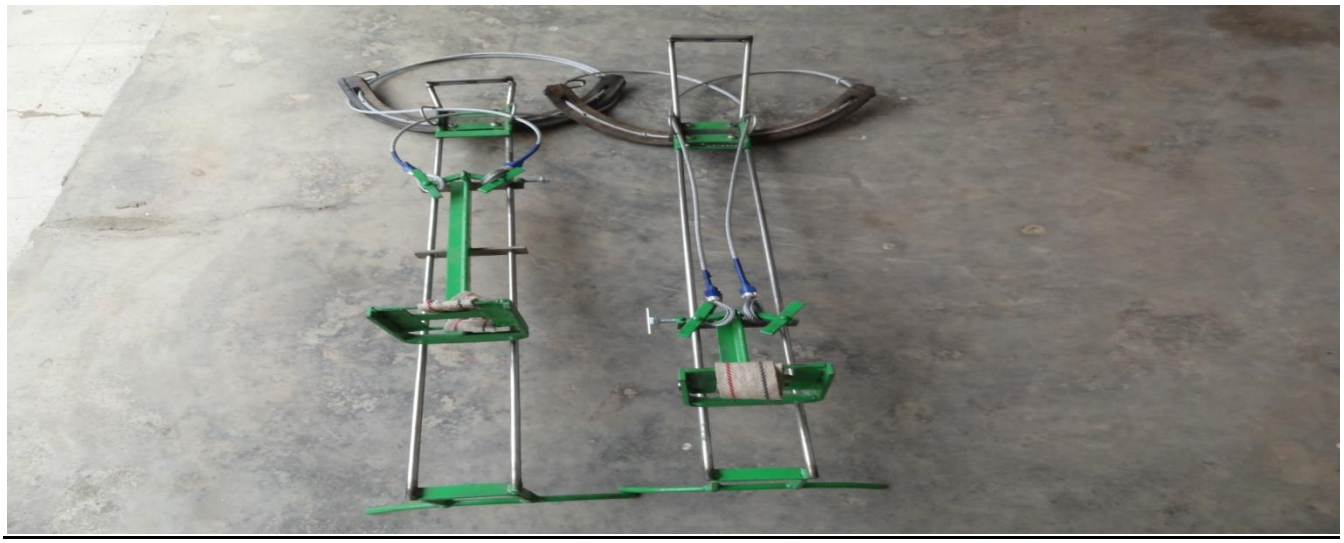
B. Rural Youth (on campus)

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	10	0	10	10	0	10	0	0	0	20	0	20
Bee-keeping	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed production **(FISH)**	1	17	0	17	8	0	8	0	0	0	25	0	25
Production of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Farming	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
Vermi-culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial fruit production **(Friends of Coconut Trees - FOCT)**	1	12	0	12	9	0	9	1	0	1	22	0	22
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0

Nursery Management of Horticulture crops	1	18	0	18	12	0	12	0	0	0	30	0	30
Training and pruning of orchards	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
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	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
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing	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
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	1	0	12	12	0	9	9	0	0	0	0	21	21
Others, (Soil Testing)	1	19	0	19	10	0	10	0	0	0	29	0	29
TOTAL	**6**	**76**	**12**	**88**	**49**	**9**	**58**	**1**	**0**	**1**	**126**	**21**	**147**

Rural Youths undergoing Practical Classes in the Training Programme on Friends of the Coconut Trees (FOCT) (first of its kinds in the State of West Bengal) jointly organized by the Rathindra KVK and the Coconut Development Board, West Bengal State Centre

The Innovative Coconut Climbing Machine



Dr. A. K. Singh, the Zonal Project Director, Zone – II, ICAR, Kolkata and Prof. P. S. Munsi, Principal, PSB, Visva-Bharati attending the Training Programme on the Friends of the Coconut Trees (FOCT)

C. Extension Personnel (on campus)

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	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
Integrated Pest Management	1	28	0	28	2	0	2	0	0	0	30	0	30
Integrated Nutrient management	1	28	0	28	3	0	3	1	0	1	32	0	32
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	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
Management in farm animals	0	0	0	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Household food security	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
Low cost and nutrient efficient diet designing	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
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Any other (Pl. Specify) (Plant Propagation Practices)	1	10	0	10	22	0	22	2	0	2	34	0	34
TOTAL	**3**	**66**	**0**	**66**	**27**	**0**	**27**	**3**	**0**	**3**	**96**	**0**	**96**

D. Farmers and farm women (off campus)

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	1	1	0	1	28	0	28	0	0	0	29	0	29
Cropping Systems	1	25	0	25	6	0	6	19	0	19	50	0	50
Crop Diversification	4	69	0	69	31	0	31	8	0	8	108	0	108
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	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 Crop Management	0	0	0	0	0	0	0	0	0	0	0	0	0
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,(cultivation of crop)	0	0	0	0	0	0	0	0	0	0	0	0	0
II Horticulture													
a) Vegetable Crops													
Integrated Nutrient management	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
Enterprise development	0	0	0	0	0	0	0	0	0	0	0	0	0
Skill development	0	0	0	0	0	0	0	0	0	0	0	0	0
Yield increment	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of low volume and high value crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0

Nursery raising	1	2	0	2	7	0	7	2	0	2	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 (Crop Diversification)	4	70	5	75	39	0	39	3	0	3	112	5	117
b) Fruits													
Training and Pruning	0	0	0	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
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													
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													
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													
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
f) Spices													
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													
Soil fertility management	1	19	0	19	10	0	10	3	0	3	32	0	32
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	1	40	0	40	5	0	5	0	0	0	45	0	45
Soil and Water Testing	2	51	0	51	25	0	25	25	0	25	101	0	101
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	6	0	110	110	0	36	36	1	70	71	1	216	217
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	1	0	2	2	0	23	23	0	8	8	0	33	33
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Enterprise development	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
Capacity building	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and child care	2	0	8	8	0	24	24	0	77	77	0	109	109
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	6	183	0	183	79	0	79	38	0	38	300	0	300
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-control of pests and diseases	1	41	0	41	21	0	21	13	0	13	75	0	75
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed treatment	0	0	0	0	0	0	0	0	0	0	0	0	0
VIII Fisheries													
Integrated fish farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery mgt.	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture & fish disease	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish feed preparation & its application to fish ponds like nursery, rearing & stocking pond	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0

fishes													
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	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0
Group dynamics	1	11	0	11	19	0	19	1	0	1	31	0	31
Formation and Management of SHGs	1	30	0	30	16	0	16	6	0	6	52	0	52
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 (Linkage Development)	1	20	0	20	11	0	11	19	0	19	50	0	50
Others, if any (Market led Extension)	1	28	0	28	14	0	14	8	0	8	50	0	50
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) (Fish based Integrated Farming System)	1	26	0	26	22	0	22	1	0	1	49	0	49
TOTAL	**36**	**616**	**125**	**741**	**333**	**83**	**416**	**147**	**155**	**302**	**1096**	**363**	**1459**

E. Rural Youth (off campus)

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed 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
Integrated Farming	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
Vermi-culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	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
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	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
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	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
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing	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
Tailoring and Stitching	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
Others, if any (Soil Testing and Nutrient Management)	1	6	0	6	31	0	31	1	0	1	38	0	38
TOTAL	**1**	**6**	**0**	**6**	**31**	**0**	**31**	**1**	**0**	**1**	**38**	**0**	**38**

F. Extension Personnel (off campus)

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	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
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient management	1	11	0	11	1	0	1	0	0	0	12	0	12
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	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
Management in farm animals	0	0	0	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Household food security	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

Low cost and nutrient efficient diet designing	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
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Any other (Pl. Specify) (Crop Diversification of Horticultural Crops)	2	26	0	26	4	2	6	2	1	3	32	3	35
TOTAL	**3**	**37**	**0**	**37**	**5**	**2**	**7**	**2**	**1**	**3**	**44**	**3**	**47**

G. Farmers and farm women (on and off campus)

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	1	1	0	1	28	0	28	0	0	0	29	0	29
Cropping Systems	2	26	0	26	6	0	6	29	7	36	61	7	68
Crop Diversification	5	87	0	87	42	0	42	9	0	9	138	0	138
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	17	0	17	10	0	10	71	0	71
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	10	0	10	16	0	16	4	0	4	30	0	30
Others, if any	0	0	0	0	0	0	0	0	0	0	0	0	0
II Horticulture													
a) Vegetable Crops													
Integrated Nutrient management	1	1	0	1	0	0	0	10	7	17	11	7	18
Water management	0	0	0	0	0	0	0	0	0	0	0	0	0
Enterprise development	0	0	0	0	0	0	0	0	0	0	0	0	0
Skill development	0	0	0	0	0	0	0	0	0	0	0	0	0
Yield increment	3	45	0	45	26	0	26	5	0	5	76	0	76
Production of low volume and high value crops	2	7	0	7	29	0	29	5	0	5	41	0	41
Off-season vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery raising	1	2	0	2	7	0	7	2	0	2	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 (Crop Diversification)	4	70	5	75	39	0	39	3	0	3	112	5	117
b) Fruits													
Training and Pruning	0	0	0	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	2	10	0	10	40	0	40	6	0	6	56	0	56
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	1	9	0	9	4	0	4	6	0	6	19	0	19
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													
Production and Management technology	2	51	0	51	13	0	13	6	0	6	70	0	70
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													
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	1	16	0	16	11	0	11	3	0	3	30	0	30
Soil and Water Conservation	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	3	51	0	51	22	0	22	13	0	13	86	0	86
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	1	40	0	40	5	0	5	0	0	0	45	0	45
Soil and Water Testing	2	51	0	51	25	0	25	25	0	25	101	0	101
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	18	0	18	13	0	13	18	0	18	49	0	49
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	1	25	0	25	13	0	13	4	5	9	42	5	47
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	6	0	110	110	0	36	36	1	70	71	1	216	217
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	1	0	2	2	0	23	23	0	8	8	0	33	33
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Enterprise development	0	0	0	0	0	0	0	0	0	0	0	0	0
Value addition	1	0	3	3	0	0	0	0	24	24	0	27	27
Income generation activities for	2	0	10	10	0	3	3	0	27	27	0	40	40

empowerment of rural Women													
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	1	0	1	1	0	0	0	0	24	24	0	25	25
Capacity building	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and child care	2	0	8	8	0	24	24	0	77	77	0	109	109
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 (Use of Rotavator)	1	17	0	17	8	0	8	4	0	4	29	0	29

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	9	239	0	239	106	0	106	65	0	65	410	0	410
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio-control of pests and diseases	1	41	0	41	21	0	21	13	0	13	75	0	75
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	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery mgt.	1	7	0	7	12	0	12	7	0	7	26	0	26
Carp fry and fingerling rearing	1	15	0	15	4	0	4	10	0	10	29	0	29
Composite fish culture & fish disease	2	29	0	29	10	0	10	48	0	48	87	0	87
Fish feed preparation & its application to fish ponds like nursery, rearing & stocking pond	1	9	0	9	2	0	2	13	0	13	24	0	24
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	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	3	28	0	28	34	0	34	0	21	21	62	21	83
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	0	0	0	0	0	0	0	0	0	0	0	0	0
Group dynamics	1	11	0	11	19	0	19	1	0	1	31	0	31
Formation and Management of SHGs	2	42	0	42	35	0	35	8	0	8	85	0	85
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 (Linkage Development)	1	20	0	20	11	0	11	19	0	19	50	0	50
Others, if any (Market led Extension)	6	118	0	118	83	0	83	41	0	41	242	0	242
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) (Fish based Integrated Farming System)	1	26	0	26	22	0	22	1	0	1	49	0	49
TOTAL	**79**	**1166**	**139**	**1305**	**723**	**86**	**809**	**389**	**270**	**659**	**2278**	**495**	**2773**

H. Rural Youth (on and off campus)

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	10	0	10	10	0	10	0	0	0	20	0	20
Bee-keeping	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed production (Fish)	1	17	0	17	8	0	8	0	0	0	25	0	25
Production of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Farming	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
Vermi-culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0	0	0	0

Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial fruit production (FOCT)	1	12	0	12	9	0	9	1	0	1	22	0	22
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	1	18	0	18	12	0	12	0	0	0	30	0	30
Training and pruning of orchards	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
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	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
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing	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
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	1	0	12	12	0	9	9	0	0	0	0	21	21
Others, if any (Soil Testing and Nutrient Management)	2	25	0	25	41	0	41	1	0	1	67	0	67
TOTAL	**7**	**82**	**12**	**94**	**80**	**9**	**89**	**2**	**0**	**2**	**164**	**21**	**185**

I. Extension Personnel (on and off campus)

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	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
Integrated Pest Management	1	28	0	28	2	0	2	0	0	0	30	0	30
Integrated Nutrient management	2	39	0	39	4	0	4	1	0	1	44	0	44
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0	0	0	0

Care and maintenance of farm machinery and implements	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
Management in farm animals	0	0	0	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Household food security	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
Low cost and nutrient efficient diet designing	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
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Any other (Pl. Specify) (Plant Propagation Practices)	1	10	0	10	22	0	22	2	0	2	34	0	34
Any other (Pl. Specify) (Crop Diversification of Horticultural Crops)	2	26	0	26	4	2	6	2	1	3	32	3	35
TOTAL	**6**	**103**	**0**	**103**	**32**	**2**	**34**	**5**	**1**	**6**	**140**	**3**	**143**

J. Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			Number of persons employed else where
				Male	Female	Total	Type of units	Number of units	Number of persons employed	
Soil health and fertility management	Soil health management	Routine analysis of soil	21	29	00	29	Soil Testing Kit	03	03	-
Soil health and fertility management	Soil health management	Soil testing & nutrient management	01	32	00	32	-	-	-	-
Vegetables, Flower and Fruit Crops	Quality seeds/seedlings and saplings	Nursery and its management	30	30	00	30	Vegetable Nursery, Fruit Nursery, Flower and Ornamental Nursery etc.	3	3	2
Coconut Trees	Good Horticultural Practices	Training programme on "Friends of Coconut Trees (FOCT)"	06	22	00	22	Master Trainer on Use of Coconut Climbing Machine	2	2	1
Fish	Enhancement of fish productivity	Breeding of IMC and hatchery management with feed preparation	30	25	00	25	Hapa and Chinese Hatchery Breeding	4	8	-
Mushroom	Quality seeds/seedlings and saplings	Mushroom cultivation & seed production	21	20	00	20	Home based Mushroom Bed	2	2	-
Rural Craft	Rural Crafts	Jute Craft	15	00	20	20	-	-	-	-

K. Sponsored Training Programmes

Sl. No	Title	Thematic area	Month	Duration (days)	Client	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
					PF/RY/EF		Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1.																	
2.																	
3.																	
4																	

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

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	20	**779**	**118**	**897**	**5**	**1**	**6**	**784**	**119**	**903**
Kisan Mela	**01**									
Kisan Ghosthi										
Exhibition										
Film Show										
Method Demonstrations										
Farmers Seminar										
Workshop										
Group meetings										
Lectures delivered as resource persons										
Advisory Services	**1338**	**945**	**393**	**1338**	**5**	**1**	**6**	**950**	**394**	**1344**
Scientific visit to farmers field	**83**	**453**	**134**	**587**	**5**	**1**	**6**	**458**	**135**	**593**
Farmers visit to KVK	**164**	**348**	**94**	**442**	**5**	**1**	**6**	**353**	**95**	**448**
Diagnostic visits	**150**	**452**	**34**	**486**	**5**	**1**	**6**	**457**	**35**	**492**
Exposure visits										
Ex-trainees Sammelan	**02**	**151**	**21**	**172**	**5**	**1**	**6**	**156**	**22**	**178**
Soil health Camp										
Animal Health Camp										
Agri mobile clinic										
Soil test campaigns										
Farm Science Club Conveners meet										
Self Help Group Conveners meetings										
Mahila Mandals Conveners meetings										
Celebration of important days (specify) World Environment Day	**01**	**58**	**07**	**65**	**5**	**1**	**6**	**63**	**8**	**71**
Any Other (Specify) Awareness Camp on Control of *Parthenium*	**01**	**46**	**24**	**70**	**5**	**1**	**6**	**51**	**25**	**76**
Any Other (Specify) Farmer to Farmer Technology Dissemination	**01**	**50**	**00**	**50**	**5**	**1**	**6**	**55**	**01**	**56**
Any Other (Specify) Kisan Mobile Advisory Service (KMAS)	**61**	**4009**	**796**	**4805**				**4009**	**796**	**4805**

Total	**1822**	**7291**	**1621**	**8912**	**45**	**9**	**54**	**7336**	**1630**	**8966**

B. Other Extension activities

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Newspaper coverage										
Radio talks	**08**									
TV talks	**07**									
Popular articles										
Extension Literature	**10**	**1471**	**124**	**1595**	**190**	**25**	**215**	**1661**	**149**	**1810**
Total	**25**									

3.5 Production and supply of Technological products

A. Village Seed

Crop	Variety	Quantity of Seed (q)	Value (Rs)	Number of Farmers Provided
Paddy	Lalat, MTU-1010,IET-4786, IR-64, Rajendra Masuri, Pratiksha, MTU-7029, ESR-101	108.00	Yet to be sold	-
Wheat	HD 2733, HD 2824, PBW 343, HP 1761, HD 2985, HI 1563, PBW 373, HW 2045	92.67	2,96,544.00	540
Black Gram	WBU - 108	47.5	1,90,000.00	793
Lentil	WBL- 58	41.5	Yet to be sold	-
Sesame	Improved Selection - 5	51.0	1,27,500.00	853
Total		**340.67**	**6,14,044.00**	**2186**

B. KVK Farm

Crop	Variety	Quantity of Seed (q)	Value (Rs)	Number of Farmers Provided
Black Gram	WBU - 108	1.58	11,060.00	52
Lentil	WBL - 58	0.36	1,800.00	Kept in KVK go-down
Mustard	B - 9	1.34	5,360.00	Kept in KVK go-down
	Pusa Mahek	0.92	3,680.00	Kept in KVK go-down
	Pusa Bahar	0.52	2,080.00	Kept in KVK go-down
	PT - 303	0.35	1,400.00	Kept in KVK go-down
Grand Total		**5.07**	**25,380.00**	**52**

C. Production of planting materials by the KVK

Crop	Variety	Quantity of Seed (q)	Value (Rs)	Number of Farmers Provided
Vegetable seedlings				

Cauliflower				
Cabbage				
Tomato				
Brinjal				
Chilli				
Onion				
Others Drumstick	PKM - 1	100 in numbers	1,500.00	10
Broccoli	F – 1 Hybrid Fiesta	1000 in numbers	5,000.00	15
Capsicum	Bharat	1000 in numbers	5,000.00	15
Fruits				
Mango				
Guava				
Lime				
Papaya				
Banana				
Others				
Ornamental plants				
Medicinal and Aromatic				
Plantation				
Spices				
Turmeric				
Tuber				
Elephant's Foot Yams	Bidhan Kusum	7.50 q	15,000.00	Kept in KVK go-down
Fodder crop saplings				
Forest Species				
Others, pl.specify				
Total			22,500.00	40

D. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilizers	*Azolla*	120.00	1,800.00	15
Bio-pesticide	-	-	-	-
Bio-fungicide	-	-	-	-
Bio Agents	-	-	-	-
Others	Vermin-Compost	145.00	1,160.00	08
Total		265.00	2,.960.00	23

E. Production of Livestock Materials

Particulars of Live Stock	Name of the Breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				

Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Grand Total				

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

Item	Title	Authors' Names	Number	Circulation
Research paper	1. "Food fodder intercropping and phosphorus management in Oat (*Avena sativa* L.), Chickpea (*Cicer arietinum* L.), Lentil (*Lens culinaris* Medikus), Greengram (*Vigna radiate* L. Wilczek), Rice (*Oryza sativa* L.) cropping sequence under lateritic soil", ***Journal of Biological and Scientific Opinion***, Vol.1(3), 2013, pp. 205-208.	1. **Subrata Mandal,** A.K. Ghosh and D.C. Ghosh	**02 (Two)**	-
	2. "Studies on Screening and Histo-Chemical Localization of Phyto-chemicals in the Medicinal Plant *Barleria lupulupulina Lindl*.", International journal of Pharmaceutical development and Technology, Vol. – 4, No. – 2, pp. 95 – 97.	2. Sudipa Mandal and **Subrata Mandal**		-
Seminar/conference/ symposia papers	1. "Assessment of Profitability within Components of Integrated Farming Systems (IFSs) under Fish based Production System in Lateritic Belt of West Bengal", published and presented in the 5th. Indian Youth Science Congress organized by Visva-Bharati and M. S. Swaminathan Research Foundation at the Visva-Bharati, Santiniketan, Birbhum on 6th. To 9th. December, 2013, Book of Abstracts, 5th. Indian Youth Science Congress, Page No. – 164.	1. **Dr. Subrata Mandal, Dr. Prabuddha Ray, Dr. Krishna Mitra and Dr. Dulal Chandra Manna**	**02 (Two)**	-
	2. "Summer Paddy (IR – 36) Cultivation through SRI Method using Different Plant Spacing in Lateritic Belt of West Bengal", published and presented in the National Seminar on Agriculture and Bio-Security in Changing	2. **Dr. Subrata Mandal and Dr. Prabuddha Ray**		

	Scenario, organized by the Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum held on 1st. to 3rd. February, 2014 at the Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum, Book of Abstracts of the National Seminar on Agriculture and Bio-Security in Changing Scenario, Page No. - 22.			
Books	-	-	-	-
Bulletins	-	-	-	-
News letter	-	-	-	-
Popular Articles	-	-	-	-
Book Chapter	1. "Dissemination of Farm Technologies for Poor Farmers"; In Prof. Pranab Kumar Chattopadhyaya edited "Some Empirical Aspects of Economic Growth and Diversification In India's Emerging Economy", 2014, ISBN No. 978-93-81274-54-5, New Delhi Publishers, pp. 149 – 154. 2. "Field level Constraints as Experienced by the Vegetable Growers Regarding the Proper Use of Pesticides in Vegetable Cultivation"; In Prof. Pranab Kumar Chattopadhyaya edited "Some Empirical Aspects of Economic Growth and Diversification In India's Emerging Economy", 2014, ISBN No. 978-93-81274-54-5, New Delhi Publishers, pp. 331 - 342.	**1.** Prof. Sarthak Chowdhury and **Dr. Prabuddha Ray** 2. **Dr. Prabuddha Ray** and Prof. Sarthak Chowdhury	**02 (Two)**	-
Extension Pamphlets/ literature	1. Preliminary Phase of Sugarcane Cultivation (*Aakh Chasher Prathomik Parjay*) 2. Cultivation of Various Oilseeds (*Bibhinna Taila Bijer Chash*) 3.Modern Potato Cultivation Practices (*Adhunik Padhatitey Aloo Chash)* 4. Potato Seed Preparation (*Beej Aloo Tairir Padhati)*	**Dr. Subrata Mandal**	**11 (Eleven)**	**1810 (One thousand eight hundred ten)**
	5. Integrated Pest Management Practices of Oilseed Crops (*Sushanghata Upaye Taila Bijer Rog Poka Niyantran*) 6. Integrated pest Management Practices of Potato Crops (*Sushanghata Upaye Aloor Rog Poka Niyantran*)	**Mr. Sourav Mondal**		

	7. Self Help Groups – Build Up Your Own Future (*Swasayahak Goshthi Gathan Karun – Nijer Bhabisath Nijey Garey Tulun)* 8. Kisan Credit Card – A Farmer's Weapon (*Kisan Credit Card – Krishaker Hatiyar*) 9. Farmers' Clubs – A New Approach for Development of the Farmers [*Krishak Club (Farmers' Club) – Krishaker Unnanayaner Natun Path]* 10. Crop Insurance – Save from Insecurity (*Sashya Bimar Sujog Nin – Anischayatar Hath Theke Bachun)* 11. Question Schedule on Training Need Assessment of the Trainees *(Krishak abong Gramin Yubak Yubatider Prashikshan Prayojaniyater Mulyan)*	**Dr. Prabuddha Ray**		
Technical reports	1. Half Yearly Progress Report (April, 2013 – September, 2013) 2. Information pertaining Skill Development Training for Farmers and Rural Youth 3. Report on Celebration of the World Environment Day – 2013 4. Filled Up Pro-forma for Base-line Information concerning IPM 5. Report on the Observance of *Parthenium* Week – 2013 6. NAAC Evaluative Report on Rathindra KVK 7. Mid Term Review Report of Rathindra KVK 8. Progress Report of Rathindra KVK from April, 2013 to September, 2013 9. Role of Rathindra KVK in the Development of Agriculture and alied Sectors of Birbhum District, West Bengal 10. List of One Thousand One Hundred Farmers of Rathindra KVK 11. 20 Years Consolidated Report on Rathindra KVK 12. Annual Report April, 2013 to March, 2014 on Rathindra KVK	**Rathindra KVK**	**Twelve (12)**	Among all the concerened.
Electronic Publication (CD/DVD etc)	1. Control of *Parthenium* 2. Efficient Use of Water in Agriculture 3. Hybrid Paddy Seed Production 4. Quality Protein Maize 5. Integrated Pest Management 6. Rathindra KVK, Birbhum- at A Glance	**Rathindra KVK**	**06 (Six) [01 Copy for each Title]**	**-**
TOTAL	**34**			

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

(B) Details of HRD Programmes undergone by KVK Personnel:

Sl. No.	Name of Programme	Name of KVK Personnel and Designation	Date and Duration	Organized by
1.	"Zonal Workshop on Krishi Vigyan Kendras of Zone II, ICAR"	Dr. Dulal Chandra Manna, Programme Coordinator	20.04.2013 – 22.04.04.2013. (03 Days)	Zonal Project Directorate, ICAR, Zone II, Salt Lake, Kolkata
2.	"Brainstorming Session" on "Improving Research in Agricultural Extension: Issues and Way Forward"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	26.04.2013. (01 Day)	Zonal Project Directorate, ICAR, Zone II, Salt Lake, Kolkata
3.	"Sensitization Workshop" on "PPV & FR"	Dr. Dulal Chandra Manna, Programme Coordinator	17.12.2013. (01 Day)	Zonal Project Directorate, Zone – II, ICAR, Kolkata
4.	"Sensitization Workshop on PPV & FR"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	17.12.2013. (01 Day)	Zonal Project Directorate, Zone – II, ICAR, Kolkata
5.	HRD Programme for the KVK personnel on "Convergence of Activities of KVKs and ATMA"	Sri Sourav Mondal, Subject Matter Specialist (Plant Protect ion)	21.12.2013 to 23.12.2013 (03 Days)	Directorate of Research, Extension and Farms, West Bengal University of Animal and Fishery Sciences and 68, Kshudiram Bose Sarani, Kolkata – 700037
6.	HRD Programme for the KVK personnel on "Convergence of Activities of KVKs and ATMA"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	21.12.2013 to 23.12.2013 (03 Days)	Directorate of Research, Extension and Farms, West Bengal University of Animal and Fishery Sciences and 68, Kshudiram Bose Sarani, Kolkata – 700037
7.	"Masters' Training Programme" on "Revisiting Strategic Research and Extension Plan (SREP)"	Sri Sourav Mondal, Subject Matter Specialist (Plant Protect ion)	13.01.2014 to 17.01.2014 (05 Days)	State Agricultural Management and Extension Training Institute (SAMETI) and Agricultural Training Centre (ATC), Ramakrishna Mission Aashrama, Narendrapur, Kolkata - 700103
8.	"Workshop-cum-Training Programme" on "Enhancing the Outreach of the KVKs"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	15.01.2014 (01 Day)	Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia
9.	"Technology Backstopping Workshop"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	16.01.2014 to 17.01.2014. (02 Days)	Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya,

				Lake Hall, Kalyani, Nadia
10.	"Training Programme" on "Participatory Monitoring and Evaluation of Agricultural Projects"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	27.01.2014 to 30.01.2014 (04 Days)	State Agricultural Management and Extension Training Institute (SAMETI) and Agricultural Training Centre (ATC), Ramakrishna Mission Aashrama, Narendrapur, Kolkata - 700103
11.	"National Seminar on Agriculture and Bio-Security in Changing Scenario"	Dr. Dulal Chandra Manna, Programme Coordinator	01.02.2014 to 03.02.2014 (03Days)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum
12.	"National Seminar on Agriculture and Bio-Security in Changing Scenario"	Smt. Ruma Addy, Subject Matter Specialist (Home Science)	01.02.2014 to 03.02.2014 (03Days)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum
13.	"National Seminar on Agriculture and Bio-Security in Changing Scenario"	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	01.02.2014 to 03.02.2014 (03Days)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum
14.	"National Seminar on Agriculture and Bio-Security in Changing Scenario"	Sri. Sourav Mondal, Subject Matter Specialist (Plant Protection)	01.02.2014 to 03.02.2014 (03Days)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum
15.	"National Seminar on Agriculture and Bio-Security in Changing Scenario"	Dr. Krishns Mitra, Subject Matter Specialist (Fishery)	01.02.2014 to 03.02.2014 (03Days)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum
16.	"National Seminar on Agriculture and Bio-Security in Changing Scenario"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	01.02.2014 to 03.02.2014 (03Days)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum

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

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.

Photographs on Fresh Water Giant Prawn in Composite Fish Culture


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 chains of Shopping Malls, Restaurants, Hotels as well as common people.

Photographs on Broccoli Cultivation

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.

Photographs on Capsicum Cultivation

D. Preparation of Agar-Batti:

During agro-ecosystem analysis by the Rathindra KVK at village Digha, Nimgaria and Meherpur of the Birbhum District some women showed their interest for formation of self help group. Smt. Tapati Thakur, Village – Digha, P.O. - Nimgaria was one of them. According to the need of the village women, two groups were formed at village Digha. Smt Thakur is one of the group leaders. Through agro –ecosystem analysis it was found that the main source of income of the villages is agriculture. But most of the women are house wives.

According to the need of the house wives the Home Science unit of RKVK planned for imparting some skill oriented training programmes. Among these training programmes "Preparation of Agarbati" was organised in the year 2006 and Smt Tapati Thakur was one of the trainees. She completed the training very successfully and she trained the other 5 members of her group. After that Smt Thakur and the other 5 members of her group planned to produce agarbati. For this purpose Tapati came to KVK for raw material KVK arranged for her bank loan and raw material from Kolkata.

After collection of raw materials she started to produce agarbati with the help of other 5 members from January, 2007. She gives the charge to other members Rs.20 per kg of sticks. Now, she is earning Rs. 850/- per month apart from all expenses. The other members are also earning Rs. 15/- to 20/- per day by producing 1 kg sticks. In this way she is using her leisure time and earning money to help her family as house wife. Already she had repaid her first loan and applied for 2nd loan for large scale production.

Seeing her success the other house wives in the villages are encouraged.

E. Small Scale Seed Production:

Use of good quality seed is necessary to achieve satisfactory crop yield. Seed replacement rate is still behind the recommended rate for most of the crops. Similar situation exists in Birbhum district. The farmers do not get good seed at reasonable rate. They are often cheated by the malpractices of seed sellers. Seed production and seed replacement rate are correlated. In this context, Rathindra KVK arranged training programmes to train the farmers to produce quality seeds of different crops. After completion the training programmes Sri Jogen Ghosh, a small farmer of village Kartik Danga, P.O. Raipur, Dist. Birbhum, produced seeds of paddy, wheat, sesame, black gram, green gram of different varieties as per the instruction of the KVK scientists and sold nearly 1065 kg pure seeds as TL seeds to different farmers of 10 different villages in the year 2006-07. In this way he earned extra Rs. 15,700.00 from seeds beside the normal production of different crops. Now, he is popular as an honest seed producer among the farmers. Regional Training Centre, NABARD, Bolpur also presented him as a successful farmer in a Workshop held at RTC, Bolpur on. Seeing his success, other farmers showed their interest to produce seeds for extra earning.

Crop	Variety	Quantity sold (Kg.)	Amount earned (Rs.)
Paddy	Khitish	700	7000.00
	Niranjana	100	1000.00
Wheat	Sonalika	50	1000.00
Black gram	WBU 108	55	1650.00
Green gram	PDM-84-139	70	2800.00
Mustard	RW-351	60	1500.00
Sesame	B-67	30	750.00
Total		1065	15700.00

F. Nursery and its Management:

Rathindra Krishi Vigyan Kendra organizes the long duration skill-oriented entrepreneurship development-training programme for the rural youths. Nursery and its management is an entrepreneurship training programme for rural youths. The Kendra organized a training programme on Nursery and its management in the year 2005. Sri Anil Das son of Sri Hiralal Das, vill- Palashdanga, P.O.- Konarpur, Block- Sainthia, Dist- Birbhum. Before the training, he had no idea about the multiplication as well as production of planting materials. In the year, 2006 he produced 18000 nos planting materials in his nursery. After sale of the planting materials (fruit plants like papaya, limes, lemons etc., forest saplings like sonajhuri, sissoo etc., and vegetables seedlings like brinjal, chlli, cauliflower, cabbage, tomato etc.) he got Rs. 21000.00 as net profit. Again in the year 2007, there was 25000 nos. plants were produced in his nursery and after sale of the planting materials he had obtained Rs.34000.00 as net profit.

Beside these, he trained 4 persons who worked with him in his nursery. Out of these four people, 2 persons were women. These women belonged to two Self Help Groups called Maa Durga Swanirbhar Dal and Maa Sitala Swanirbhar Dal. These SHGs produced 28000 numbers of plants and supplied to their local Panchayats. They earned a good amount of money.

G. Small Scale Vermin-Compost Production:

At present, the demand of high quality organic manure like vermicompost is very high. But availability in the market is very less. In this context, Rathindra KVK organised **training programme on preparation and use of vermin-compost** in the year

2006-07. After completion of training programme, Sri Biren Saha, a small farmer of village Raipur, P.O.- Raipur, Birbhum started vermin-composting with two small units each having the size of 2.5 ft X 2.0 ft X 3.0 ft. Initially he invested Rs.- 1000.00/- for installation this unit. Sri Saha used all the homestead organic wastes. After one month he harvested his first product. For the next production he needs only Rs. 100.00 for the cost of cow dung for each unit. Every time he harvested one quintal of vermicompost from each unit. Within one year he produced ten times from both the units. Thus the total production was 20 quintal in a year. The cost and return in one year is given below.

	Total Cost (Rs.)		**Total Return (Rs)**
Installation Cost (One time)	1000.00	Vermicompost 20 q. @ Rs. 400.00/ q.	8000.00
Cost for Worm (One time)	400.00	Worms 5000 nos @ Rs. 50.00/100	2500.00
Total cost for cow dung	2000.00		
Total	**3400.00**	**Total**	**10500.00**
Net return in the initial year: 10500.00 - 3400.00 = 7100.00			

After this success Sri Biren Saha likes to invest more for medium scale production. Seeing his success many farmers started to produce Vermin-compost in small scale with their homestead organic wastes.

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

Monitoring and Evaluation of the FLDs and OFTs: Concept and Approach

In India, performance of agricultural development programs/projects has mixed response in attaining the desired objectives. It has been observed that even well conceived agricultural projects have suffered from implementation problems. Partial or complete failure of these projects/programs is attributed to a number of reasons such as absence of meticulous planning and non-adherence to the plan in terms of the agreed processes, lack of sufficient preparatory time before initiation of field work, insufficient fund and delays in disbursement and procurement; institutional weaknesses, delayed staff recruitment and frequent transfers, absence of an effective and efficient coordination mechanism (applicable especially in case of multi-disciplinary and multi-implementation-agency projects), lack of ownership among line departments, traditional mind set of bureaucracy, poor research-extension linkage, inadequate attention to social issues and poor beneficiary/government interaction, lack of involvement of the ultimate stakeholders in planning and implementation leading to absence of ownership among them, and low priority given to monitoring and evaluation of project activities.

Of late, it has been realized that an effective monitoring and evaluation mechanism is an essential component for the success of any project both at the top and field level and the target group consists of diverse categories of disadvantaged people. It is also necessary because a number of institutional and operational mechanisms, which require effective vertical and horizontal integration as well as systemization aiming towards, decentralized well-coordinated decision making and functioning.

Monitoring in the present KVK context was mainly to keep an eye, which, with the help of mind, can see, observe, interpret, analyze and provide feedback on the implementation of activities. Since various functionaries are involved in the implementation process, monitoring takes the form of Performance Monitoring (performance in terms of physical achievements) and adoption of desired processes. Monitoring and evaluation (M&E) mainly focuses on both (1) the progress monitoring (input-output monitoring or target-achievement monitoring) and (2) process monitoring.

The progress monitoring emphasizes on physical achievements vis-à-vis targets i.e. performance of associated institutions/agencies with respect to activities they are supposed to carry out and the output they are expected to generate. While the process monitoring

focuses on the steps being followed by them in carrying out these tasks while progress monitoring focuses on the achievement with respect to established milestones of physical and financial targets, quality of services and process adherence. All these helped the project in providing feedback to the top management for timely corrective measures to keep the project on right track.

Evaluation may also be concurrent or terminal. The concurrent evaluation system allows mid-way interventions (in terms of introducing required strategic changes) in project implementation along with providing an assessment of degree of attainment of project objectives. While terminal evaluation system provides an assessment of achievements of the project interventions in terms of project targets/goals and objectives, but after completion of the implementation leaving no room for initiating corrective measures.

Effective Monitoring and Evaluation system helps in indicating the path of progress of the project through the project implementation process and puts the project on right track by facilitating timely corrective measures, while the evaluation system provides information on whether the project has reached the right destination (in terms of fulfilment of objectives) and in timely fashion, cost effective way, and through right route. This also provides better alternative routes to reach the same destination in a more cost effective manner.

Tools and Methods

In case of both the FLD and OFT projects of Rathindra KVK, M & E is based on simple and easily measurable indicators that can describe or measure change (both process and progress) in various activities/components across locations and over time. Finally, they provide useful relevant information about the performance of the project in achieving the intended objective as end result. These indicators provide valuable insights to the project implementing agency like a traveller that how far the project has travelled and how far still it has to travel and by which route to achieve the desired result in specified time. Indicators used in these projects are both qualitative and quantitative, reflecting achievements of physical and financial targets and improvement in the quality of services delivered by the project interventions.

The relevant information for estimating the values of indicators are collected through specifically designed format and code sheets by qualified and well-trained field functionaries (Project Assistants, volunteers from adopted villages of Rathindra KVK and trained by the Rathindra KVK on nitty-gritty of M&E) fully acquainted with the area and has interest to spent adequate time in the field. Besides, active cooperation of the field project staff and regular interaction with Project Co-ordination Unit (PCU) as well as Project In-charge are also maintained. The information collected from the field are regularly computerised to develop data base through MIS so that required information can be obtained easily and well in time to make necessary changes in the direction of the project implementation process. Monitoring and evaluation is being carried out by a combination of various methods including review of progress reports, on-site crosscheck, interactive discussion with implementers and the recipient group, sample household survey, and PRA with especial focus on participatory monitoring and evaluation approach.

In brief, for carrying out concurrent project implementation monitoring following steps/processes is being adopted:

• Designing of activity schedules for each and every project activity with details of responsible person/agency, time requirement, and resource allocation.

• Development of performance indicators (qualitative and quantitative) and format for data collection in the field on the basis of activity schedule Periodic review with special focus on time and quality adherence in the execution of project activities and identification of gaps and constraints faced by the field staff in carrying out their task.

• Regular and timely reporting of short and detailed observation to the Project In-charge concerned functionaries and top management i.e. Project Co-ordination Unit (PCU).

• Such report is primarily action-oriented report and contains specific action point/area of corrective measures required by concerned person. The issues requiring immediate attention of the project management are indicated through a brief note, exclusively prepared for urgent action and given to the Project In-charge with a copy to PCU for follow up action.

• In the next visit these actions are again reminded to the Project In-charge and PCU s as well as discussed in the monthly meeting of all the Scientists being organized at the KVK level.

• The compliances of line departments are reviewed and further action is taken on pending observations requiring attention.

• Performance/functioning of new mechanisms/interventions as well as success stories are also properly documented.

• Regular dialogue between Programme Co-ordinator of the KVK, Project In-charge and Project Coordination Unit are maintained and findings are personally discussed in regular meetings with field functionaries and PCU staff.

However, it was noticed that rigid M&E system do not work for the types of FLD and OFT projects that involves innovative processes with considerable flexibility leading to day-to-day changes in implementation methodology depending upon location-specific problems.

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

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Paddy	20 gm paste of Wood Apple leaves or Cow dung slurry mixed with one liter of water	Reducing the infestation of Bacterial Leaf Blight (BLB) of Paddy
2.	Paddy	Mixing kerosene oil with urea and applying at the time of last land preparation	Reducing 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 top-dressing in Paddy	Increasing N use efficiency

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

Need Assessment of Rathindra KVK Clientele

i. Practicing Farmers and Farm Women: - Rathindra KVK family coordinates the work of all scientists for smooth functioning of the KVK as well as for the benefit of the rural people of that particular area. Programme Co-ordinator is liaisoning with other line departments for coordination and effective implementation of different programs of the KVK in the adopted village. Rathindra KVK tried to adopt a Cluster of 4 to 6 economically, culturally and technologically backward villages situated within 10-20 Kms radius of the KVK. These villages are not too small or too large. Before adoption a detailed survey of the village was conducted to study the socio-economic and cultural status of that village. Now-a-days Participatory Rural Appraisal (PRA) tool was used to conduct the survey in which the village people are actively participated in the process.

The village map was drawn by the help of different colour by the villagers themselves and different prominent structures of the village such as school, temple, river, club etc. were depicted in that map. These structures will help the scientists to conduct the survey easily and smoothly. Basing upon the survey the field crop maps, animal resource map and other ancillary maps were prepared for future use. After the survey work detailed plan of work was chalked out and depending upon the requirement different activities was undertaken in different areas by the Rathindra KVK scientists.

ii. Rural Youth: - Rathindra KVK assesses the needs of the Rural Youth mainly through Participatory Tools like Resource map, Transact map, Employment Opportunity Analysis, Job Availability Matrix, Job Choice Matrix, Un-Employment Problem Cause Diagram etc. and also administering them a Structured Question Schedule regarding the needs of the Rural Youth prepared by the Rathindra KVK in consultation with other experts of ICAR and Visva-Bharati.

iii. Extension Functionaries: - Rathindra KVK assesses the need of the Extension Functionaries mainly through questioning the respective clientele about their needs and their job needs and the needs of their sponsoring agencies. Here mainly PRA tools like problem – cause diagram, Resource map, Organizational Diagram, Job Analysis, Job Satisfaction Matrix etc. are used.

3.11. A. Details of Equipment Available in Soil and Water Testing Laboratory

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.	Systronics Micro controller based visible Spectrophotometer	2 nos.
9.	Systronics P-H system	2 nos.
10.	Systronics Digital Conductivity Meter	2 nos.
11.	Systronics 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		**32 nos.**

3.11.B. Details of Samples Analyzed So Far:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	53	53	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	**90**	**90**	**11**	

3.12. Activities of rain water harvesting structure and micro irrigation system: Not Applicable

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

3.13 Technology week celebration: Nil

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

			technology

3.14 RAWE Programme - Is KVK Involved? Yes, the Rathindra KVK is involved in the RAWE Programme.

No. of Students/ARS Trained	No. of Days Stayed
37	1 day*
*As they are the student of Palli Siksha Bhavana (PSB), Visva-Bharati, so the student's hostels of PSB are used.	

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

Date	Name of the Person	Purpose of Visit
30.04.2013.	Dr. S. K. Ray, Principal Scientist, ZPD, Zone – II, ICAR, Kolkata	To attend the XVIIIth. SAC Meeting of the Rathindra KVK
25.11.2013.	Dr. P .P. Pal, Principal Scientist, ZPD, Zone – II, ICAR, Kolkata	To attend the XIXth. SAC Meeting of the Rathindra KVK
13.01.2013.	Dr. Khokan Debnath, Director, Coconut Development Board, West Bengal State Centre, Salt Lake City, Kolkata	To attend the Training Programme of the Rural Youths on "Friends of Coconut Trees (FOCT)"
16.01.2014.	Dr. A. K. Singh, Zonal Project Director, Zone – II, ICAR, Kolkata	To attend the Training Programme of the Rural Youths on "Friends of the Coconut Trees (FOCT)"
16.02.2014.	Dr. A. K. Singh, Zonal Project Director, Zone – II, ICAR, Kolkata	To attend the Interview for the Vacant Posts of the Rathindra KVK

4.0 IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Seed Production of Paddy	70	85.72	Rs. 67,080.00 per ha	Rs. 1,03,200.00 per ha
Seed Production of Pulses	230	52.18	Rs.31,600.00 per ha	Rs.66,500.00 per ha
Varietal Replacement of Mustard with Improved Mustard Variety RW - 351	170	88.24	Rs. 23,520.00 per ha	Rs. 73,800.00 per ha
Improved Method of Elephant's Foot Yam Cultivation	207	89.00	Rs. 2,36,250.00 per ha	Rs. 14,17,500.00 per ha
Low Cost Fish Feed Preparation	51	49.02	Rs. 20,000.00 per Year	Rs. 96,000.00 per Year
Kantha Stitch Work	71	56.34	Nil	Rs. 12,000.00 to Rs. 36,000.00 per Year
Preparation and Use of Vermin-Composting	290	62.07	Nil	Rs. 19,000.00 per 2.5 ft X 2.0 ft X 3.0 ft area /year

4.2 Cases of large scale adoption
(Please furnish detailed information for each case)

Horizontal Spread of Technologies	
Technology	**Horizontal spread**
Seed Production of Paddy	60 farmers Trained in the Rathindra KVK on various aspects of Paddy Seed Production adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 120 numbers of farmers of whom 32 numbers of farmers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 40 numbers of farmers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 24 farmers resided within 10.1 – 15 kms. radius of the Rathindra KVK and the rest 24 numbers of the

	farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Seed Production of Pulses	120 farmers Trained in the Rathindra KVK on various aspects of Pulse Seed Production adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 70 numbers of farmers of whom 19 numbers of farmers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 23 numbers of farmers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 14 farmers resided within 10.1 – 15 kms. radius of the Rathindra KVK and the rest 14 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Varietal Replacement of Mustard with Improved Mustard Variety RW - 351	150 farmers Trained in the Rathindra KVK on various aspects of Cultivation of Improved Mustard Variety RW – 351 adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 100 numbers of farmers of whom 27 numbers of farmers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 34 numbers of farmers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 20 farmers resided within 10.1 – 15 kms. radius of the Rathindra KVK and the rest 19 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Improved Method of Elephant's Foot Yam Cultivation	185 farmers Trained in the Rathindra KVK as well as 110 of them were involved in the FLD Programmes of Rathindra KVK on various aspects of improved method of Elephant's Foot Yam Cultivation adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 118 numbers of farmers of whom 31 numbers of farmers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 39 numbers of farmers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 24 farmers resided within 10.1 – 15 kms. radius of the Rathindra KVK and 20 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK. **It was necessary to mention here that 4 numbers of farmers of the neighbouring Dumka District of the Jharkhand State also adopted the above mention Technology through the horizontal spread of the Technology.**
Low Cost Fish Feed Preparation	25 farmers Trained as well as getting involved in the FLD Programmes of the Rathindra KVK on various aspects of low cost fish feed preparation adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 12 numbers of farmers of whom 03 numbers of farmers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 04 numbers of farmers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 02 farmers resided within 10.1 – 15 kms. radius of the Rathindra KVK and the rest 03 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Kantha Stitch Work	40 farm women and female rural youths Trained in the Rathindra KVK on various aspects of Kantha Stitch Work adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 25 numbers of farm women and female rural youths of whom 07 numbers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 08 numbers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 05 numbers of farm women and female rural youths resided within 10.1 – 15 kms. radius of the Rathindra KVK and the rest 05 numbers of the farm women and female rural youths resided within 15.1 kms and above radius of the Rathindra KVK.
Preparation and Use of Vermin-Composting	180 farmers Trained in the Rathindra KVK on various aspects of preparation and use of Vermin-Composting adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 110 numbers of farmers of whom 29 numbers of farmers resided within 0.1 – 5 kms. radius of the Rathindra KVK; 37 numbers of farmers resided within 5.1 – 10 kms. radius of the Rathindra KVK; 22 farmers resided within 10.1 – 15 kms. radius of the Rathindra KVK and the rest 22 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.

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

Over All Impact of Rathindra KVK

A. Rationale

The Rathindra KVK used the working definition of "impacts" as "sustained changes in people/farmers' lives brought about by specific interventions". Therefore, impact analysis presented here referred not to any immediate outputs or effects of a programme but to the everlasting and sustained changes brought about. In light of the above, impact assessment is therefore, an evaluation of how, and to what extent change had occurred". This required an understanding of the perspectives of various stakeholders

particularly the local population.. The Rathindra KVK has taken up initiatives such as organizing women and men farmers providing technologies for Crop Diversification , promoting activities to supplement peoples income and relevant infrastructure, developing entrepreneurships for Rural Youths so that, collectively the Rathindra KVK can achieve the KVK mandate and the goals of social, economic and institutional development. The Process of impact assessment examined the factors of efficiency, effectiveness and consistency of the interventions. The specific activities implemented based on the mandate of KVK were already explained in detail in the previous chapters.

B. Institutional / Social Impacts

The Rathindra KVK provided the much needed organizational and institutional base in the form of Farm Science Clubs, Farmers' Clubs and Self Help Groups (SHGs) to the women and men farmers and rural youths. Later the Rathindra KVK got involved in building social and technical awareness, transfer of technology, empowering communities and brings about economic and social change. The primary target group is practicing farmers, farm women and rural youths, who have become the core of delivery system. Over **30,880** practicing farmers, farm women, rural youths and extension functionaries have been trained in knowledge and skill aspects of various technologies in the operational area of the Rathindra KVK.

Right from the beginning, the Rathindra KVK has paid much attention to intensify the involvement of the practicing farmers, farm women and rural youth at village level and develop necessary skills to build up the capacity among these stakeholders. These clientele of the Rathindra KVK are partners in development in the truest sense for they are involved in the practical implementation of the training programmes The participatory approach in imparting the trainings have developed self confidence in the Trainees.

Role of the Rathindra KVK in helping the vulnerable sections of the Rural Population viz. SC, ST, Minorities, Women and Rural Youth:-

The main thrusts of the Rathindra KVK is the human resource building at the grass-root level for effective and area specific transfer of technology and promote its adoption at the micro level. Keeping in view the primary necessities of the above mentioned vulnerable target group, the mandate of the Rathindra KVK have been designed to "help people to help themselves" in acquiring the skills to meet their needs. As agricultural labourers and small cultivators have no steady income, trainings are imparted in various appropriate income generation programmes like low volume high value horticulture, vermin culture, fishery, poultry and duckery, handi-crafts, kantha stitch, Batique work methods etc. Location specific trainings are given to the women farmers so as to upgrade their existing available natural resources. To bridge the gap between research and extension, demonstrations form an integral part of trainings to expose farmers to latest management practices in agriculture. On farm trails have been conducted on the cultivators' fields to create awareness about the latest management methods and dissemination of proven technology. This has helped in establishing feedback mechanism between the scientists and society resulting in modification of the technology to suit to the locality, socio-economic and cultural situations.

Further, KVK investigators have interviewed a group of 20 randomly selected men and women ex-trainees of the Rathindra KVK about their perception of change over a period of time in 2013 -2014. They came out with the following information:-

i. All their children are attending schools more regularly.

ii. Health and sanitation improvements have become possible.

iii. Perception of own wellbeing and better-off living conditions was felt by the trainees..

iii. The trainees clearly perceived positive changes in quality of life due to increased productivity, support availability and income improvement.

iv. The trainees also felt that the quality of diet and nutritional security had improved than before.

V. Las but not the least the Trainees clearly perceived that there was a huge improvement in technical knowledge and skills regarding farming and related activities as well as non-farming activities.

C. Economic Impacts

Economic impact of the Rathindra KVK has come about through

i. Adoption of yield raising technologies i.e. FLDs/OFTs and other extension activities supported by the Rathindra KVK budget.

ii. Training and capacity building activity contributed in implementing value added activities through Income generating activities - micro enterprises at individual level and group level.

iii. Technologies transferred to project area are manifold which can broadly be listed into the following:-

a. Introduction of new varieties particularly in high volume low cost horticultural crops like Elephant's Foot Yam, Drumsticks and low volume high cost vegetables like Capsicum and Broccoli, agronomic crops like Pulses like Black Gram, Green Gram etc. and Oilseeds Crops like Sesame, Lentil, Rape Seeds, Mustard etc.

b. Skills in grafting and nursery

c. Mixed Fish farming with Indian Major Carps along with Giant Prawns

d. Integrated Poultry Management

e. Integrated Goatery Management based on **Black Bengal Breed**

f. Scientific Dairy Management

c. Integrated Pest Management (IPM)

d. Integrated Nutrition Management (INM) based Soil Testing

The fact that the Rathindra KVK follows group oriented strategies, KVK's activities have got intertwined to give a **synergy** to productivity increases in the area through technology transfer. The cropping intensity in the project area i.e. the District of Birbhum has gone up from less than 80 percent in the pre-independence era to 161.88 percent in 2011 – 2012. Thus, the overall impact and its benefits in Birbhum District (Targeted area) are manifold.

D. Technology Impacts

The Rathindra KVK conducted a group exercise of participatory nature with ex-trainees in Kankutia, Senkapur, Deuli, Kartickdanga, Srichandrapur and Bishnubati villages of the District of Birbhum to ascertain the impact created by activities of the Rathindra KVK. The following table describes the process using the participatory tool called trend analysis to obtain the results.

The Methodology

KVK invited those ex-trainees who participated at least in one of the Two Days On Campus and in one of the Three Days Off Campus Training Programmes conducted by the Rathindra KVK. The farmers (87 in numbers belonging to various villages) were given tamarind seeds and the staff explained the purpose of exercise. The impact/ learning outcomes were listed as knowledge, information, adoption and economic benefit. The ex-trainee was expected to give a rating for before (before the intervention of the Rathindra KVK) and present periods, 'then' and 'now'. Depending on their assessment, they placed a number of tamarind seeds. As could be seen in the Table, there was multifold improvement in every aspect as assessed by the farmers of Kankutia, Senkapur, Deuli, Kartickdanga, Srichandrapur and Bishnubati villages adopted by the Rathindra KVK in the Year 2013 - 2014.

Impact of the activities of the Rathindra KVK as assessed by the 87 farmers

Sl. No.	Impacts	Average Impact as perceived by the Trainees (Then)	Average Impact as perceived by the Trainees (Now)	Percentage of Change as perceived by the Trainees
01.	**Impact on Knowledge**	000	00000000	266.67
02.	**Impact on Information**	00	0000000	350.00
03.	**Impact on Adoption**	0	000000	600.00
04.	**Economic Impact**	**0000**	**000000**	**150.00**

N.B.:- Here "0" means a Tamarind Seed.

4.4 Details of Innovations recorded by the Rathindra KVK

Thematic area	Resource Conservation Technologies
Name of the Innovation	Innovative Portable SRI Marker (4 Rows)
Details of Innovators	The Innovative Portable Marker (4 Rows) developed by Sri. Tapan Ghosh, son of Late Narayan Chandra Ghosh, aged about 38 Years (Mobile Phone No. - 09531786564) and Sri. Monotosh Ghosh, son of Sri. Haradhan Ghosh, aged about 38 Years, (Mobile Phone No.- 08670443344) , residents of the Village:- Bishnubati, P. O. - Sattore, Police Station:- Parui, Dist. – Birbhum, Pin. – 731236, West Bengal with active help and supervision of the Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal, India has shown remarkable results both in the field trials and as well as in day-to-day use also.
Back Ground of Innovation	SRI is an acronym for System of Rice Intensification. This improved method of rice cultivation was developed in 1983 in Madagaskar and has now spread to many parts of the world. SRI is not a new variety or a hybrid. It is only a method of cultivation. SRI is showing promising results in all rice varieties - local or improved. Marking the plot before transplantation to ensure proper rows and spacing, and weeding are necessitating development of appropriate implements. Transplanting at wider spacing (10 x 10 inches or 25 x 25 cm)allows enough sunlight to reach the leaves of each rice plant thus reducing competition for water, space and nutrients resulting in the spread of roots and healthy growth of plants (the distance can be increased depending on soil fertility). Preparation of the main field in SRI is the same as in conventional method. Field should be evenly levelled and there should not be standing water in the field during transplantation. In SRI method, seedlings are widely spaced (10 x 10 inch or 25 x 25cm) and only one seedling is transplanted per hill (3-4 seedlings per hill in conventional system). SRI method can accommodate only 16 hills /sq. meters as against 33-40 hills/ square meter in conventional method. Uniform spacing is also required for easy weeding by implements. To maintain uniform spacing, different methods can be employed. Small pegs can be tied to a rope at 25 cm or 10 inch distance and by using this rope; row after row transplantation can be done. Different types of 'Markers' are being developed for this purpose. These markers need to be run over the prepared field lengthwise and width wise. Transplanting at the marked intersection gives the required 25 x 25 cm spacing. Some of the newly developed markers draw 8 rows and columns simultaneously. These markers need to be pulled at an even pace for proper marking. To have the lines straight, it is advisable to tie a rope and pull the marker alongside the rope. For smooth transplantation, field operations like bunding, levelling and marking with marker should be completed a day before the transplantation.

Technology Details	• Adjustable Plant Spacing of Paddy Seedlings (25 cm X 25 cm and 30 cm X 30 cm) can be marked using the Innovative Portable SRI Marker. • In case of 25 cm X 25 cm Plant Spacing - 4 rows of Paddy Seedlings can be marked. • In case 30 cm X 30 cm Plant Spacing – 3 rows of Paddy Seedlings can be marked. • This Innovative SRI Marker is light weight, made of locally available GI pipes and iron rods. • The Innovative SRI Marker (4 Rows) is easily dismantlable and transportable. • This is a very low cost implement, costing only Rs. 2,400.00 (Rupees Two thousand four hundred) only. • The maintenance cost of this Implement is also low. • The Working Efficiency of the Innovative Portable SRI Marker is 0.3 - 0.4 ha per day (8 hours). • The Cost of transplanting 1 ha area using this implement is Rs. 2,730.00 (cost of Labour and Seeds) • Cost of transplanting 1 ha area in traditional method is Rs. 6,300.00 only (cost Labour and Seeds).
Practical Utility of Innovation	This Innovative Portable SRI Marker is a very low cost locally made Implement costing about Rs. 2,400.00 only. This Implement is a labour and time saving device. In Traditional Method, 40 labours are required for Transplanting Paddy Seedlings, while using the Innovative SRI portable Marker only 18 labours are required. It is also of utmost importance that in the Traditional Method, 7.5 kgs. of Paddy Seedlings is required while using this Implement, only 1 kg of Paddy Seed is required for 1 ha of Paddy Fields. It is to be noted that the Cost of transplanting 1 ha area using this implement is Rs. 2,730.00 (cost of Labour and Seeds); while the cost of transplanting 1 ha area in traditional method is Rs. 6,300.00 only (cost Labour and Seeds). The savings using this Innovative Implement is Rs. 3,570.00 which is higher than the actual cost of the Implement i.e. Rs. 2,400.00 only. So this Innovative Portable SRI Marker is highly economic and viable in the field level functioning.

4.5 Details of Entrepreneurship Development

Entrepreneurship development	
Name of the enterprise	Commercial Pisciculture
Name & complete address of the entrepreneur	**A. Name:- Sri Abhijeet Mondal.** **B. Age:- 24 Years** **C. Address:- Village – Balta, P. O. - Batikar, P. S. – Parui, Dist. – Birbhum, Pin. – 731147, West Bengal, India.** **D. Mobile Phone No.:- 07797640384** **E. E-Mail ID.:- Not available**
Intervention of KVK with quantitative data support:	Sri Abhijeet Mondal's pisciculture unit got a boost when he got 02 (Two) Numbers of Trainings: 01 (One) training of 4 days duration on **"Carp Fry and Fingerling Rearing"** in July, 2010 and another of 1 Month (One month) duration residential Training Programme for Rural Unemployed Youths on **"Carp Breeding and Hatchery Management"** in September – October, 2010 in the Financial Year of 2010 – 11 and 01 (One) Number of Training of One (01) month Duration Residential Training Programme for Rural Unemployed Youths on **"Fish Breeding and Hatchery Management"** in July – September, 2011 from Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. - 731236, West Bengal, India.
Time line of the entrepreneurship development	Sri Abhijeet Mondal started commercial pisciculture in the year 2006, after establishing a Submersible Shallow Tube Well for cultivating field crops at a cost of Rs. 50,000 /- (Rupees Fifty thousand) only. At that time he got a leasehold of a water body of 0.33 Acres of area nearby the Submersible Shallow Tube Well at a cost of Rs. 5,000 /- (Rupees Five thousand) only of yearly lease value. He started use his newly dug Submersible shallow Tube Well for irrigating his leased in water body also. In 2006 A.D., when Sri Abhijeet Mondal started his fishery unit through leasing in a water body of only 0.33 Acres, his initial investment was Rs. 5,000 /- (Rupees Five thousand) only as Yearly Lease Rent and

	Rs. 7,500 /- (Rupees Seven thousand five hundred) only for preparing the water body, fish fingerlings, fish feeds, medicines, labour costs etc. and he sold his products in the local fish market at a total price of Rs. 25,000 /- earning a Net Profit of Rs. 12,500 /- (Rupees Twelve thousand five hundred) only in an year without any training. After getting trainings from Rathindra Krishi Vigyan Kendra, Birbhum, Sri Abhijeet Mondal is now producing Fish Fingerlings and Table Fishes such as Indian Major Carps (Rohu, Katla and Mrighel) and Foreign Major Carps (Grass Carp, Cyprinus and Silver Carp) in a water body of 13.2 Acres through Intensive Fish Fingerling Production System and Intensive Mixed Pisciculture. After getting Training from Rathindra KVK, Birbhum, Sri Abhijeet Mondal is now growing fish fingerlings and Table fishes in a total area of 13.2 Acres of Water body, a major portion (nearly 90 percent) of which is leased in and a minor portion (only 10 percent) is co-owner. Now he is spending Rs. 1,50,000 (Rupees One lakh fifty thousand) only for Lease Rent, Rs. 25,000 /- (Rupees Twenty five thousand) only for Fish Medicines, Rs. 50,000 /- (Rupees Fifty thousand) only for Fish Feeds such as Mustard Cake, Mohuya Cake etc. and Rs. 50,000 /- (Rupees Fifty thousand) only for Labour Charges in an Year, summing up to an expenditure of Rs. 2,75,000 /- (Rupees Two lakhs seventy five thousand) only in an Year. Now he is producing 3 – 3.5 Quintals of Table Fishes and 20 Quintals of Fish Fingerlings in a year. Half of the Fish Fingerlings produced is used by Sri Mondal himself for further breeding and rest half of the fish fingerlings is sold among the villagers. **Now Sri Mondal sold his produce (both Fish Fingerlings and Table Fishes) in local Markets as well as Markets of Municipal areas such as Bolpur, Suri etc. at a Total Price of Rs. 4,00,000 /- (Rupees Four lakhs) only in an Year. Thus now Sri Mondal is earning a Net Income of Rs. 1,25,000 /- (Rupees One lakh twenty five thousand) only in a year which is a big jump from a meager Yearly Income of Rs. 12,500 /- (Rupees Twelve thousand five hundred) only just 6 (six) years back.**
Technical Components of the Enterprise	After getting trainings from Rathindra Krishi Vigyan Kendra, Birbhum, Sri Abhijeet Mondal is now producing Fish Fingerlings and Table Fishes such as Indian Major Carps (Rohu, Katla and Mrighel) and Exotic Carps (Grass Carp, Cyprinus and Silver Carp) in a water body of 13.2 Acres through Intensive Fish Fingerling Production System and Intensive Mixed Pisciculture. After getting Training from Rathindra KVK, Birbhum, Sri Abhijeet Mondal is now growing fish fingerlings and Table fishes in a total area of 13.2 Acres of Water body, a major portion (nearly 90 percent) of which is leased in and a minor portion (only 10 percent) is co-owner. Now he is spending Rs. 1,50,000 (Rupees One lakh fifty thousand) only for Lease Rent, Rs. 25,000 /- (Rupees Twenty five thousand) only for Fish Medicines, Rs. 50,000 /- (Rupees Fifty thousand) only for Fish Feeds such as Mustard Cake, Mohuya Cake etc. and Rs. 50,000 /- (Rupees Fifty thousand) only for Labour Charges in an Year, summing up to an expenditure of Rs. 2,75,000 /- (Rupees Two lakhs seventy five thousand) only in an Year. Now he is producing 3 – 3.5 Quintals of Table Fishes and 20 Quintals of Fish Fingerlings in a year. Half of the Fish Fingerlings produced is used by Sri Mondal himself for further breeding and rest half of the fish fingerlings is sold among the villagers.
Status of entrepreneur before and after the enterprise	**Now Sri Mondal sold his produce (both Fish Fingerlings and Table Fishes) in local Markets as well as Markets of Municipal areas such as Bolpur, Suri etc. at a Total Price of Rs. 4,00,000 /- (Rupees Four lakhs) only in an Year. Thus now Sri Mondal is earning a Net Income of Rs. 1,25,000 /- (Rupees One lakh twenty five thousand) only in a year which is a big jump from a meager Yearly Income of Rs. 12,500 /- (Rupees Twelve thousand five hundred) only just 6 (six) years back.**
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the	After getting Training from Rathindra KVK, Birbhum, Sri Abhijeet Mondal is now growing fish fingerlings and Table fishes in a total area of 13.2 Acres of Water body, a major portion (nearly 90 percent) of which is leased in and a minor portion (only 10 percent) is co-owner. Now he is spending Rs. 1,50,000 (Rupees One lakh fifty thousand) only for Lease Rent, Rs. 25,000 /- (Rupees Twenty five thousand) only for Fish Medicines, Rs. 50,000 /- (Rupees Fifty thousand) only for Fish Feeds such as Mustard Cake, Mohuya Cake etc. and Rs. 50,000 /- (Rupees Fifty thousand) only for Labour Charges in an Year, summing up to an expenditure of Rs. 2,75,000 /- (Rupees Two lakhs seventy five thousand) only in an Year. Now he is producing 3 – 3.5 Quintals of Table Fishes and 20 Quintals of Fish Fingerlings in a year. Half of the Fish Fingerlings produced is used by Sri Mondal himself for further breeding and rest half of the fish fingerlings is sold among the villagers. **Now Sri Mondal sold his produce (both Fish Fingerlings and Table Fishes) in local Markets as well as Markets of Municipal areas such as Bolpur, Suri etc. at a Total Price of Rs. 4,00,000 /- (Rupees Four lakhs) only in an Year.**

enterprise):	**The enterprise is now economically viable as we can find out that Sri Mondal is earning a Net Income of Rs. 1,25,000 /- (Rupees One lakh twenty five thousand) only in a year which is a big jump from a meager Yearly Income of Rs. 12,500 /- (Rupees Twelve thousand five hundred) only just 6 (six) years back.**
Horizontal spread of enterprise	12 farmers in and around the villages of Sri Abhijit Mondal have taken up commercial fish cultivation in a large scale seeing the success of Sri Mondal.

4.6 Any other Initiative taken by the Rathindra KVK

Minikit Demonstrations of different Varieties of Wheat and Paddy under IARI Outreach Programme, PUSA, Samastipur

Crop	Thematic Area	Name of the varieties	No. of farmers	Area (ha)	Yield (q/ha)		% increase in yield
					Demo	Check	
Wheat Rabi, 2012-13	Varietal replacement	1.HD 2733 2.HD2824 3.PBW 343 4.HP1761 5.HD 2985 6.HI 1563 7.PBW373 8.HW 2045	43	5.0	25.8 32.3 24.8 23.9 21.9 27.3 29.1 25.7	21.2 (Sonalika)	21.7 35.6 17.0 12.7 3.3 28.8 37.3 21.2
Paddy Kharif, 2013	Varietal replacement	1. Pusa-44 (130 days) 2. Pusa Sugandh- 5 (120 days) 3. PNR-381 (110 days) 4. Pusa-1176 (140 days)	18	1.3	34.0 31.3 26.5 53.2	30.1 (IR36) 30.1 (IR36) 25.5 (Annada) 51.6 (MTU 7029)	13.0 4.0 3.9 3.1
Wheat Rabi, 2013-14	Varietal replacement	1. HD2733 2.HD2824 3.HD2967 4. HI1544 5.HI1563 6.HD2985 7.HW2045 8.HD2888	33	4.0	Crop now at ripening stage		

5.0 LINKAGES

5.1 Functional Linkage with Different Organizations

Name of Organization	Nature of Linkage
Palli Sanghatana Vibagh, Visva-Bharati, Sriniketan, Birbhum	This linkage is mainly focusing on organizing joint Training programmes for the villagers as well as giving exposure to the clientele of the Rathindra KVK as about the field level situation
All India Radio, Santiniketan Kendra, Birbhum, West Bengal	Broadcasting of different Rathindra KVK activities as well as live Phone –In Programmes are being organized. As a result a vast number of farmers, farm

	women and rural youth are being exposed to multiple information regarding multiple issues. This is necessary to mention that already AIR, New Delhi has awarded three adopted farmers and regular listeners of AIR Programmes of the Rathindra KVK for their excellent contribution to farming activities.
Doordarshan, Santiniketan Kendra, Birbhum, West Bengal	Telecasting of different Rathindra KVK activities as well as live phone –In Programmes are being organized. As a result a vast number of farmers, farm women and rural youth are being exposed to multiple information regarding multiple issues. This is necessary to mention that the viewers of these Programmes have been immensely benifited by viewing Method Demonstration on various new Technologies.
Bidhan Chandra Krishi Viswavidyalaya, West Bengal	This linkage is mainly on the following aspects:- - Conducting regular basis Human Resource Development Training Programme in different discipline. - Facilitate for Annual Action Plan Development. - Facilitate On Farm Testing .Modules. - Provide different location specific germ-plasm. All the linkage activities profoundly help the Rathindra KVK clientele in updating their knowledge, skill and attitude.
IARI, Regional Station, Samastipur, Bihar	The linkage is mainly based on Collaborative Demonstration Programmeon newer Wheat and Paddy varieties. As a result of this linkage, the farmers of Birbhum District are being exposed to nearly Thirty (30) newer varieties of Wheat anf Four (04) varieties of scented as well as non-scented paddy varieties. Some varieties have shown very good potential for future introduction in the District. - Provide Weather related for Crop based Action Plan Development.
CIFRI, Barackpur, 24 Parganas (North), West Bengal	• - This linkage is basically focussed on getting Technical Support on Glass Jar Hatchery and low cost Fish Feed Preparation. Utilizing this linkage a farmer named Sri Sunil Das, Village – Srichandrapur, P. O. – Sattore, Dist. – Birbhum, West Bengal (Mobile Phone No. – 09679885667) prepared a model of Glass Jar Hatchery using low cost materials. This innovative approach was sent to ICAR. The Model of Low Cost Glass Jar Hatchery innovated by Sri Sunil Das was detailed in the Compilation titled, "Farm Innovators", published by the ICAR in October, 2010 (Page No. – 148).
Line Departments like Agriculture, Horticulture and Food Processing Industries,	This linkage is basically on Technological back-stopping.

Animal Resource Development, Fisheries etc. Of the Govt. Of West Bengal, Birbhum, West bengal	
National Research Centre on Weed Control, Jabbalpur, Madhya Pradesh	The linkage is now focussing on Technical Support for organizing Training and Awareness Camps for controlling weeds specifically weeds like Parthenium. The farmers of this District get immense benefit as they get exposure on Parthenium and other weeds through participating in "Parthenium Control Week Programme".
ATMA, Birbum, West Bengal	The linkage is now focussing on Orientation Farmers' training and Programme Training for Head Master / Achiever Farmer. Various Short Term Researches on Topics related with Fishery, Agronomy etc. Are also being performed utilizing these linkages Programme.
NABARD, Birbhum, West Bengal	The linkage mainly focuses on formation of Farmers Club, organizing Training for vulnerable areas, Organizing Technology Weeks etc. Some Farmers' Clubs are doing excellent work and they are benefitted from this Linkage.
State Agricultural Management, Extension and Training Institute (SAMETI), Narendrapur, 24 Parganas (South), West Bengal.	This linkage is mainly on the following aspects - Conducting regular basis Human Resource Development Training Programme in different discipline for Scientists of the Rathindra KVK. - All the linkage activities profoundly help the Rathindra KVK clientele in updating their knowledge, skill and attitude.
IFFCO, Kolkata, West Bengal	The linkage basically focuses on Training and Visit of the farmers' fields. The farmers get benefit through getting information on nutritional status of the soil as well as the proper fertilizer and manuring procedures.
Fertilizer Association of India (FAI), Kolkata, West Bengal	The linkage basically focuses on performing various Short Term Research on various crop nutrition and related issues, Training and Visit of the farmers' fields. The farmers get benefit through getting information on nutritional status of the soil as well as the proper fertilizer and manuring procedures..
Coconut Development Board, State Centre, Salt Lake City, Kolkata, West Bengal	• This linkage is basically giving Residential Training to selected Rural Youths on "Friends of Coconut Trees (FOCT)" and d popularizing Innovative Machine for raising ut in the Coconut Trees. The first of this Type Training has been organized in collaboration with nRathindra KVK at the Rathindra KVK this Year. Sri Ashutosh Garai, Son of Sri Ajit Kumar Garai, a resident of Village – Pundra, CD Block – Nanoor, Police Station – Nanoor, Dist. – Birbhum (Mobile Phone No. – 09475171233) and Sri Malay Das, Son of Sri Ananta Das, a resident of Village – Pundra, CD Block – Nanoor, Police Station – Nanoor, Dist. – Birbhum (Mobile Phone No. – 08101415057) were selected as First and Second Rank holder respectively among the 22 trainees in the Six Days Residential Training Programme on "Friends of Coconut Trees (FOCT)" **(First of its kind Training Programme organized in the**

	State of West Bengal") jointly organized by the Coconut Development Board, State Centre, West Bengal, Salt Lake City, Kolkata and Rathindra Krishi Vigyan Kendra at the Rathindra Krishi Vigyan Kendra Campus from 13.01.2014 to 18.012014 and now they are performing as **Master Trainers** throughout the State.
TATA Rallis India Ltd., Kolkata, West Bengal	This linkage is basically focuses on Capacity Build Up Training for clientele of Rathindra KVK on Wheat, Potato, Mustard and Rabi Vegetables Crop Management.
Tagore Society For Rural Development, Santiniketan, Birbhum West Bengal	This linkage gives importance as well as focuses on Training and Demonstration for stakeholders for far flung areas of Birbhum District where normal working linkage of KVK with villagers of those areas are very weak.
Luthern World Services, Kolkata, West Bengal	This linkage gives importance as well as focuses on Training and Demonstration for stakeholders for far flung areas of Birbhum District, especially areas bordering Jharkhand State where normal working linkage of KVK with villagers of those areas are very weak.
Asansol Burdwan Seva Kendra, Burdwan, West Bengal	This linkage gives importance as well as focuses on joint Training and Demonstration for stakeholders for various non-adopted villages of Birbhum District as well as far flung areas of Birbhum District, especially areas where normal working linkage of KVK with villagers of those areas are very weak.
Manab Jamin, Birbhum, West Bengal.	This linkage gives importance as well as focuses on joint Training and Demonstration for stakeholders for various non-adopted villages of Birbhum District.
Development Research Communication and Service Centre, Kolkata, west Bengal.	This linkage mainly emphasizes on giving quality Training to the Rural Youth getting admitted in the Community College run by this NGO at Bolpur through delivering Lectures and giving exposures to hands-on field level situation by the experts from the Rathindra KVK who work as Resource Persons on various subjects like fishery, soil testing, horticulture etc.
Bolpur Krishija Samabay Samity, Bolpur, Birbhum, West Bengal	This linkage is basically focuses on supply of quality agricultural inputs for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benifitted through experiencing newer and better quality agricultural inputs.
Comprehensive Area Development Corporation (CADC) KVK, Sonamukhi, Bankura, West Bengal	This linkage is basically focuses on supply of quality breeder and foundation seeds of Pulses and Oilseeds for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benefitted through experiencing newer and better quality seeds.
Comprehensive Area Development Corporation (CADC), Ranaghat – II, Arangghata, Nadia, West Bengal	This linkage is basically focuses on supply of quality breeder and foundation seeds of Pulses for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benifitted through experiencing newer and better quality seeds.
National Seed Corporation, Kolkata, West Bengal	This linkage is basically focuses on supply of quality breeder and foundation seeds of various Crops for various FLD and OFT Programmes of the

	Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benifitted through experiencing newer and better quality seeds.
West Bengal State Seed Corporation, Kolkata, West Bengal	This linkage is basically focuses on supply of quality breeder and foundation seeds of various Crops for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benifitted through experiencing newer and better quality seeds.
Panchayati Raj Institutions (PRIs), Birbhum, West Bengal	This linkage helps the Rathindra KVK to get base-line information for choosing Target Areas both on Geographical Terms as well as on Technological Terms by going through various surveys and reports generated by the PR Institutions of the Birbhum District.
Other Krishi Vigyan Kendras (KVKs)	This linkage helps the farmers of various Districts to have an exposure and visit to Rathiondra KVK and exchange ideas and experiences with farmers of the District of Birbhum and Scientists of the Rathindra KVK.

5.2. List special programmes undertaken during 2013-14 by the KVK, which have been financed by ATMA/ Central Govt./ State Govt./NHM/NFDB/Other Agencies (information of previous years should not be provided)
A) Programmes for Infrastructure Development

Name of the Programme/Scheme	Purpose of Programme	Date/ Month of Initiation	Funding Agency	Amount (Rs.)
Short Term Research	To find out the performance of different sources of vermin-composting	08.02.2014.	ATMA, Birbhum	1,24,000.00
Total				1,24,000.00

(B) Programme for other activities (Training, FLD, OFT, Mela, and Exhibition etc.)

Name of the Programme/Scheme	Purpose of Programme	Date/ Month of Initiation	Funding Agency	Amount (Rs.)
Training of WADI Members on different aspects of Vermin-composting	To develop knowledge, information and skill of the trainees on different aspects of vermin-composting	05.09.2013 to 06.09.2013	Gramin Vikas Trust, KRIBHCO, Purulia	The total cost of the programme was borne by the funding agency.
Orientation Training of the Farmers of the FIAC of the Gangarampur Block, Dist.- Dakshin Dinajpur	To make the farmers aware and give them an exposure about the activities of The Rathindra KVK and various Agriculture and related topics relevant for the farmers	09.09.2013 to 10.09.2013	ATMA, Dakshin Dinajpur	The total cost of the programme was borne by the funding agency.

Exposure Visit of a Team of Progressive Farmers of Krishi-O-Krishak Kalyan Kendra, Maguria, Narayangarh Block, Paschim Medinipur	To give the farmers an exposure about the activities of The Rathindra KVK and various Agriculture and related topics relevant for the farmers	18.11.2013	ATMA, Paschim Medinipur	The total cost of the programme was borne by the funding agency.
Residential Training of Rural Youths on "Friends of the Coconut Trees (FOCT)"	To develop knowledge, information and skill of the trainees on different aspects of Coconut Cultivation and maintenance of the coconut trees as well.	13.01.2013 to 19.01.2014.	Coconut Development Board, West Bengal State Centre, Salt Lake City, Kolkata	The total cost of the programme was borne by the funding agency.
Exposure Visit of Trainees of Agricultural Training Centre, Malda, West Bengal	To give the farmers an exposure about the activities of The Rathindra KVK and various Agriculture and related topics relevant for the farmers	24.02.2014	Agricultural Training Centre (ATC), Dept. of Agriculture, Govt. of West Bengal, Malda, West Bengal	The total cost of the programme was borne by the funding agency.
Training of WADI Members on different aspects of Intercropping	To develop knowledge, information and skill of the trainees on different aspects of Inter-cropping	18.03.2014.	Gramin Vikas Trust, KRIBHCO, Purulia	The total cost of the programme was borne by the funding agency.

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm): Nil

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

6.2 Performance of instructional farm (Crops)

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.(q)	Cost of inputs	Gross income	
Black Gram	20.09.2013.	05.12.2013.	0.22	WBU - 108	Pulse Seeds	1.58	Rs. 900.00	Rs. 11,060.00	Totally sold.
Lentil	26.11.2013.	28.02.2013.	0.04	WBL - 58	Pulse Seeds	0.36	Rs. 250.00	-	Kept in KVK go-down
Mustard	23.11.2013.	20.02.2014.	0.17	B - 9	Oil Seeds	1.34	Rs. 780.00	-	Kept in KVK go-down
	23.11.2013.	04.03.2014.	0.13	Pusa Mahek	Oil Seeds	0.92	Rs. 670.00	-	Kept in KVK go-down
	03.12.2013.	14.03.2014.	0.07	Pusa Bahar	Oil Seeds	0.52	Rs. 580.00	-	Kept in KVK go-down
	03.12.2013.	15.03.2014.	0.04	PT - 303	Oil Seeds	0.35	Rs. 400.00	-	Kept in KVK go-down
Elephant's Foot Yam	28.07.2013.	06.12.2013.	0.01	Bidhan Kusum	Corm	7.5	Rs. 3000.00	-	Kept in KVK go-down

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

Sl. No.	Name of the Product	Qty (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	*Azolla*	120.00	Rs. 200.00	Rs. 1,800.00	30 kgs. of Azolla was supplied to 15 numbers of the farmers and rest was kept in the KVK ponds.
2.	Vermin-Compost	145.00	Rs. 400.00	Rs. 1,110.00	35 kg.s of Vermin-Compost was supplied to 08 numbers of the farmers and the rest amount was kept in the KVK.

6.4 Performance of instructional farm (livestock and fisheries production): Nil

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

6.5 Utilization of hostel facilities

Accommodation available (No. of beds) 27

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April, 2013	00	00	**N. A.**
May, 2013	00	00	**N. A.**
June, 2013	21	630 (30 Days)	**N. A.**
July, 2013	21	651 (31 Days)	**N.A.**
August, 2013	00	00	**N. A.**
September, 2013	00	00	**N.A.**
October, 2013	00	00	N.A.
November, 2013	23	444 (24 Days)	N.A.
December, 2013	19	34 (10 Days)	N.A.
January, 2014	67	587 (35 Days)	N. A.
February, 2014	22	26 (06 Days)	N.A.
March, 2014	78	401 (60 Days)	N. A.
Total :	**251**	**2773 (196 Days)**	**N. A.**

(For whole of the year)

6.6 Utilization of staff quarters

Whether staff quarters has been completed: Not yet started

No. of staff quarters:

Date of completion:

Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Visva-Bharati University A/c. Krishi Vigyan Kendra A/c. No. 10598447180	**State Bank of India**	**Santiniketan, P. O. – Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal.**	**10598447180**

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st. April, 2013
	Kharif	Rabi	Kharif	Rabi	
	Nil	Nil	Nil	Nil	Rs. 6,320.56
	Nil	Nil	Nil	Nil	
	Nil	Nil	Nil	Nil	
	Nil	Nil	Nil	Nil	

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2013
	Kharif	Rabi	Kharif	Rabi	
	Nil	Nil	Nil	Nil	Rs. 13,296.58
	Nil	Nil	Nil	Nil	

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2013
	Kharif	Rabi	Kharif	Rabi	
	Nil	Nil	Nil	Nil	Nil
TOTAL	Nil	Nil	Nil	Nil	Nil

7.5 Utilization of KVK funds during the year 2013 -14 (Not audited) Rs. In Lakhs

Sl. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	73.70	73.70	72.15
2	Traveling allowances	0.70	0.70	0.68
3	HRD	0.15	0.15	0.14
3	Contingencies	10.55	10.55	10.54
A				
B				
C				
D				
E				
F				
G				
H				
I				
J				
TOTAL (A)		85.10	85.10	83.51
B. Non-Recurring Contingencies				
1		Nil	Nil	Nil
2		Nil	Nil	Nil
3		Nil	Nil	Nil
4		Nil	Nil	Nil
TOTAL (B)		Nil	Nil	Nil
C. REVOLVING FUND		Nil	Nil	Nil
GRAND TOTAL (A+B+C)		85.10	85.10	83.51

7.6. Status of revolving fund (Rs. in lakh) for last 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 (Kind + cash)
2011-12	2.53	0.07	0.43	2.17
2012-13	2.17	0.20	0.18	2.19
2013-14	2.19	0.21	0.08	2.32

7.6.(i) Number of SHGs formed by KVKs (ii) association of KVKs with SHGs formed by other organizations indicating the area of SHG activities:- 02 (Two) SHGs were formed by the Rathindra KVK mainly for women economic empowerment through establishing rural handicrafts enterprises and "Kantha Stitch" works.

7.7 Details of marketing channels created for the SHGs: Nil

7.8. Special programme on Food and Nutrition: Nil

7.9. Community Radio Station : Not Applicable

7.10. Joint activity carried out with line departments and ATMA

Name of Activity	Season	With Line Department	With ATMA	Both
Farmer to Farrmer Technology Dissemination	Winter Season	-	With ATMA	-
Farmer to Farrmer Technology Dissemination	Winter Season	-	With ATMA	-
Farmer to Farrmer Technology Dissemination	Winter Season	-	With ATMA	-

8. Other information

8.1. Prevalent diseases in Livestock/Crops

Name of the disease	Crop/animal	Date of outbreak	Number of death/ % crop loss	Number of animals vaccinated

8.2. Nehru Yuva Kendra (NYK) Training: Not Applicable

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

8.3. PPV & FR Sensitization Training Programme: Not Applicable

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

8.4. KMAS /SMS Portal

KISAN MOBILE ADVISORY SERVICE

No. of calls	No. of farmers covered	No. of messages	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other
61	4805	4805	21	10	12	8	10	-

8.5. SMS PORTAL [List of One thousand one hundred farmers was submitted and Registration of of the Rathindra KVK with www.farmers.gov.in is awaiting authorization from the designated Authorities.]

Date of start of functioning of SMS portal

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

8. 6.Programme with Seema Suraksha Bal (BSF)

Title of Programme	Date	No. of participants

8.7. A. Utilization of HRD Fund (Rs 0.50 Lakh provided to KVKs)

Training programme/ Seminar/ Symposia/ Workshop etc attended	Duration	Name of the participants	Designation	Organizer of the training Programme	Amount spent for the purpose (Rs.)
HRD Programme for the KVK personnel on "Convergence of Activities of KVKs and ATMA"	21.12.2013 to 23.12.2013 (03 Days)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protect ion)	Directorate of Research, Extension and Farms, West Bengal University of Animal and Fishery Sciences and 68, Kshudiram Bose Sarani, Kolkata – 700037	**14,000.00**
HRD Programme for the KVK personnel on "Convergence of	21.12.2013 to 23.12.2013	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural	Directorate of Research, Extension and Farms, West	

Activities of KVKs and ATMA"	(03 Days)		Extension)	Bengal University of Animal and Fishery Sciences and 68, Kshudiram Bose Sarani, Kolkata – 700037	
"Masters' Training Programme" on "Revisiting Strategic Research and Extension Plan (SREP)"	13.01.2014 to 17.01.2014 (05 Days)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protect ion)	State Agricultural Management and Extension Training Institute (SAMETI) and Agricultural Training Centre (ATC), Ramakrishna Mission Aashrama, Narendrapur, Kolkata - 700103	
"Workshop-cum-Training Programme" on "Enhancing the Outreach of the KVKs"	15.01.2014 (01 Day)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia	
"Technology Backstopping Workshop"	16.01.2014 to 17.01.2014. (02 Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia	
"Training Programme" on "Participatory Monitoring and Evaluation of Agricultural Projects"	27.01.2014 to 30.01.2014 (04 Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	State Agricultural Management and Extension Training Institute (SAMETI) and Agricultural Training Centre (ATC), Ramakrishna Mission Aashrama, Narendrapur, Kolkata - 700103	
"National Seminar on Agriculture and Bio-Security in Changing Scenario"	01.02.2014 to 03.02.2014 (03Days)	Dr. Dulal Chandra Manna	Programme Coordinator	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum	
"National Seminar on Agriculture and Bio-Security in Changing Scenario"	01.02.2014 to 03.02.2014 (03Days)	Smt. Ruma Addy	Subject Matter Specialist (Home Science)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum	
"National Seminar on Agriculture and Bio-Security in Changing	01.02.2014 to 03.02.2014	Dr. Subrata Mandal	Subject Matter Specialist (Agronomy)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-	

Scenario"	(03Days)			Bharati, Sriniketan, Birbhum	
"National Seminar on Agriculture and Bio-Security in Changing Scenario"	01.02.2014 to 03.02.2014 (03Days)	Sri. Sourav Mondal	Subject Matter Specialist (Plant Protection)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum	
"National Seminar on Agriculture and Bio-Security in Changing Scenario"	01.02.2014 to 03.02.2014 (03Days)	Dr. Krishna Mitra	Subject Matter Specialist (Fishery)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum	
"National Seminar on Agriculture and Bio-Security in Changing Scenario"	01.02.2014 to 03.02.2014 (03Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	The Department of ASEPAN, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum	

B. HRD Fund utilized for other purposes

Head	Amount (Rs.)
Contingencies	**35,000.00**

8.8.Performance of Automatic Weather Station in KVK

Date of establishment	Source of funding i.e. IMD/ICAR/Others (pl. specify)	Present status of functioning

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

- **I Name of Crop**
- **II No. of farmers involved**
- **III Area (ha.)**
- **IV Date of sowing**
- **V Crop Season**
- **VI Result of trial with photographs however detailed results/observation should be sent as per performance after crop harvest**
- **VII Amount Spent**

8.10. Achievement under TSP Project (Saraikella, Godda, Sahibganj, Dumka, Giridih, Pakur)

Name of the village adopted under TSP	Block	Population of the village			ST Population of the village			Percentage of ST population to total population
		M	**F**	**T**	**M**	**F**	**T**	

Details of Activities under TSP Project

Activities		No. of participants			Approx. expenditure (Rs.)
		M	**F**	**T**	

No. of on-farm trials					
Frontline demonstrations					
Farmers trained					
No of extension activities					
Input made available					
Seed (q)					
Planting material (No)					
Livestock strains and finger lings					
No of poultry, duck, pig, goat provided					
No of farm implements provided					
Others, if any, please specify					
Exposure visit					
Exhibition					
Kisan Mela					

8.11 PROGRESS REPORT OF NICRA KVK (Technology Demonstration component) 2013-14
(Applicable for KVKs identified under NICRA)

Natural Resource Management

Name of intervention undertaken	Numbers under taken	No of units	Area (ha)	No of farmers covered / benefitted	Remarks

Crop Management

Name of intervention undertaken	Area (ha)	No of farmers covered / benefitted	Remarks

Livestock and fisheries

Name of intervention undertaken	Number of animal covered	Number of units	Area (ha)	No of farmers covered /	Remarks

				benefitted	

Institutional interventions

Name of intervention undertaken	No of units	Area (ha)	No of farmers covered / benefitted	Remarks

Capacity building

Thematic area	No. of Courses	No. of beneficiaries		
		Males	Females	Total

Extension activities

Thematic area	No. of activities	No. of beneficiaries		
		Males	Females	Total

Detailed report should be provided in the circulated Performa

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

Name of the fodder crop	Date of sowing	Area (ha)	No. of farmers involved	Demonstration Yield (q/ha)			Check Yield			% increase
				H	L	A	H	L	A	

Economic of Demonstration

Name of the fodder crop	Demonstration Cost/Rs/ha			Check Cost (Rs/ha)		
	Gross cost	Gross return	BC ratio	Gross cost	Gross return	BC ratio

8.13. A. Awards/Recognition received by the KVK

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

B. Awards received by Farmers from the KVK district

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
01.	Sequel to the listening of "Kishanvani Programme"	Sri Debesh Mitra	2008	Director General of All India Radio, Prasar Bharati, Broadcasting Corporation of India		For disseminating modern agricultural techniques and encouraging fellow farmers as a sequel to the listening of "Kishanvani Programme"
02.	Sequel to the listening of "Kishanvani Programme"	Sri Jogen Ghosh	2008	Director General of All India Radio, Prasar Bharati, Broadcasting Corporation of India		For disseminating modern agricultural techniques and encouraging fellow farmers as a sequel to the listening of "Kishanvani Programme"
03.	Sequel to the listening of "Kishanvani Programme"	Sri Mahadeb Ghosh	2008	Director General of All India Radio, Prasar Bharati, Broadcasting Corporation of India		For disseminating modern agricultural techniques and encouraging fellow farmers as a sequel to the listening of "Kishanvani Programme"
04.	"Certificate of Appreciation" for contribution and participation in the National Farm Innovators' Meet – 2010 held at the JSS Krishi Vigyan Kendra, Suttur, Mysore, Karnataka.	Sri Sunil Das	2010	Dr. S. Ayappan, Honourable Director General, ICAR		Sri Sunil Das's effort was lauded as an encouragement for reshaping the farmer oriented farm technologies across the country.
05.	A memento from the Indian Council of Agricultural Research (ICAR)	Sri Sunil Das	2010	The Honourable President of India		Sri Sunil Das, the innovative farmer, obtained a memento from the Indian Council of Agricultural Research (ICAR) for his innovative approach on Glass Jar Hatchery.
06.	First Prize in the Krishi Mela organized by the Bolpur – Sriniketan Community Development Block Office, Govt. of West Bengal in 2010 for Giant Prawn Cultivation	SUHRIT, a Self Help Group consisting of mainly Schedule Tribe Community members of	2010	The Bolpur – Sriniketan Community Development Block Officer, Govt. of West Bengal in 2010 for Giant Prawn Cultivation		Popularization of Giant Prawn Cultivation in a commercial basis.

		Village:- Kankutia, P. O. – Raipur, Dist. – Birbhum				
07.	The "Mahindra Samriddhi Agri Award - 2014"	Sri Abhishek Mondal	2014	Sri Anand Mahindra		To popularize Mechanization in Potato Planting

Annexure – I

Details of Training Programmes

Date (Starting Date of the Programme)	Clientele	Title of the Training Programme	Duration	Venue ON/OFF	Number of participants			Number of SC/ST					
									SC			ST	
					M	F	T	M	F	T	M	F	T
		AGRONOMY					0			0			0
23.05.13	PF	Collection of soil sample	2	OFF	51	0	51	13	0	13	12	0	12
27.05.13	PF	Preparation of soil sample for soil testing	2	OFF	50	0	50	12	0	12	13	0	13
04.06.13	PF	Cultivation of green manure crops	2	ON	30	0	30	11	0	11	3	0	3
11.06.13	PF	Sowing & Phosphate management in *Dhaincha*	1	ON	20	0	20	8	0	8	1	0	1
05.09.13	PF & PFW	Vermin-Composting	2	ON	02	21	23	0	0	0	0	21	21
07.09.13	PF	FLD training on cultivation of Black Gram as a part of contingent plan	1	ON	30	0	30	11	0	11	1	0	1
09.09.13	PF	Preparation & use of vermin-compost (Phase - I)	2	ON	30	0	30	16	0	16	0	0	0
21.09.13	PF	Preparation and use of vermin-compost (Phase - II)	2	ON	30	0	30	18	0	18	0	0	0
24.09.13	PF	Multiplication of *Azolla*	2	ON	30	0	30	16	0	16	4	0	4

27.09.13	EF	Integrated nutrient management in Rabi crop	1	ON	32	0	32	3	0	3	1	0	1
05.10.13	PF	Paira cropping in late sown Paddy field with lentil, lathyrus etc.	2	OFF	50	0	50	6	0	6	19	0	19
28.10.13	PF	SRI in Boro Paddy	1	OFF	29	0	29	28	0	28	0	0	00
15.11.13	EF	Integrated crop nutrient management in Rabi/Summer Season	1	OFF	12	0	12	1	0	1	0	0	0
18.11.13	RY	Routine analysis of soil	21	ON	29	0	29	10	0	10	0	0	0
05.12.13	PF	*Rizobium* inoculation & phosphate management in lentil	1	OFF	32	0	32	10	0	10	3	0	3
20.01.14	PF	Plant nutrient for saving the polluted environment	1	OFF	45	0	45	05	0	05	0	0	0
30.01.14	RY	Soil testing & nutrient management	1	OFF	38	0	38	31	0	31	1	0	1
08.02.14	PF	Improved practices on summer pulse & oilseeds	1	OFF	18	0	18	1	0	1	2	0	2
25.02.14	PF	Improved variety & *Rizobium* treatment on Green Gram in summer	1	OFF	32	0	32	17	0	17	0	0	0
28.02.14	PF	Improved variety & phosphate management in black gram in summer	1	OFF	30	0	30	06	0	06	0	0	0
03.03.14	PF	Seed Production Technologies of Summer Pulses viz. Green Gram and Black Gram: Phase - I	2	ON	35	0	35	09	00	09	03	00	03
07.03.14	PF	Improved Variety and Fertilizer Management of Sesame	1	ON	34	0	34	04	00	04	09	00	09
08.03.14	PF	Inter-culture Operation of Green Gram	1	OFF	28	0	28	07	00	07	06	00	06
13.03.14	PF	Seed Production Technologies of Summer Pulses viz. Green Gram and Black Gram: Phase - II	2	ON	36	00	36	08	00	08	07	00	07
18.03.14	PF & PFW	Intercropping practices	1	ON	11	7	18	0	0	0	10	7	17
		HORTICULTURE											
16.05.13	PF	Layout and planting of Elephant's Foot Yam	2	ON	35	0	35	6	0	6	4	0	4
18.05.13	PF	Improved management of Elephant's Foot Yam	2	ON	35	0	35	7	0	7	2	0	2
21.05.13	PF	Improved package & practices of rainy seasonal vegetables	1	ON	33	0	33	6	0	6	2	0	2
26.06.13	RY	Nursery and its management	30	ON	30	0	30	12	0	12	0	0	0
04.07.13	PF	Cultivation of Drumstick	3	ON	19	0	19	4	0	4	6	0	6
16.08.13	EF	Plant propagation practices	3	ON	34	0	34	22	0	22	2	0	2
21.08.13	PF &	Cultivation of Drumstick	1	OFF	22	5	27	8	0	8	0	0	0

	PFW												
29.08.13	PF	Cultivation of Drumstick	1	OFF	38	0	38	10	0	10	2	0	2
10.09.13	PF	Layout & planting of orchard (Mango & Guava)	2	ON	28	0	28	20	0	20	3	0	3
13.09.13	PF	Management of orchard (Mango & Guava)	2	ON	28	0	28	20	0	20	3	0	3
17.09.13	PF	Improved package & practices of Broccoli & Capsicum	3	ON	28	0	28	20	0	20	3	0	3
23.09.13	PF & PFW	Homestead Nutrition Garden	1	OFF	1	32	33	0	0	0	1	32	33
24.09.13	PFW	Homestead Nutrition Garden	1	OFF	0	30	30	0	28	28	0	0	0
25.09.13	PFW	Homestead Nutrition Garden	1	OFF	0	49	49	0	8	8	0	0	0
01.10.13	PF	Rasing of winter vegetable seedlings	1	OFF	11	0	11	7	0	7	2	0	2
04.10.13	PF	Improved cultural practices of Capsicum	2	ON	13	0	13	9	0	9	2	0	2
16.11.13	EF	Crop diversification of horticultural crops	1	OFF	11	0	11	1	0	1	0	0	0
02.12.13	PF	Crop diversification of horticultural crop	1	OFF	21	0	21	6	0	6	1	0	1
09.12.13	EF	Crop diversification of horticultural crops	1	OFF	21	3	24	3	2	5	2	1	3
04.01.14	PF	Improved package & practices of Cucumber cultivation	1	ON	31	0	31	12	0	12	2	0	2
06.01.14	PFW	Kitchen gardening	1	OFF	0	33	33	0	0	0	0	33	33
07.01.14	PFW	Kitchen gardening	1	OFF	0	35	35	0	0	0	0	0	0
08.01.14	PFW	Kitchen gardening	1	OFF	0	37	37	0	26	26	0	5	5
13.01.14	RY	Training programme on Friends of Coconut Trees (FOCT)	6	ON	22	0	22	9	0	9	1	0	1
20.01.14	PF	Crop diversification of horticultural crops	1	OFF	31	0	31	15	0	15	0	0	0
24.01.14	PF	Cultivation of Cucumber & Brinjal	2	ON	12	0	12	8	0	8	1	0	1
18.03.14	PF & PFW	Intercropping & vegetable cultivation	1	ON	11	7	18	0	0	0	10	7	17
		PLANT PROTECTION											
11.06.13	PF	Different components of IPM	2	OFF	50	0	50	11	0	11	4	0	4
17.06.13	PF	Integrated pest, weed& disease management in Kharif Paddy (Phase - I)	2	OFF	50	0	50	13	0	13	7	0	7
15.07.13	PF	Integrated pest, disease &weed management in Kharif Paddy (Phase - II)	2	ON	30	0	30	7	0	7	3	0	3
16.08.13	PF	Seed treatment with *Trichoderma viridi*	1	OFF	75	0	75	21	0	21	13	0	13
23.08.13	PF	Pest & disease management in early winter seasonal vegetables	2	OFF	50	0	50	17	0	17	7	0	7

19.09.13	PF	Pest and diseases management of Rabi pulse and oilseeds	2	ON	50	0	50	13	0	13	5	0	5
08.10.13	EF	IPM of Solanaceous crops	1	ON	30	0	30	2	0	2	0	0	0
19.11.13	PF	IPM on wheat & sugarcane	2	OFF	50	0	50	12	0	12	6	0	6
23.11.13	PF	Identification of different seed born diseases & their treatments	2	ON	30	0	30	7	0	7	7	0	7
02.01.14	RY	Mushroom cultivation & seed production	21	ON	20	0	20	10	0	10	0	0	0
10.02.14	PF	IPM in summer vegetables	2	OFF	50	0	50	14	0	14	8	0	8
26.02.14	PF	Pest & disease management in Summer pulse & oilseeds.	1	OFF	50	0	50	12	0	12	6	0	6
		ANIMAL SCIENCE											
26.04.13	PF	Management practices of rearing poultry birds	3	ON	49	0	49	13	0	13	18	0	18
26.07.13	PF	Identification & control of poultry disease with special reference to Bird Flue	3	ON	42	5	47	13	0	13	4	5	9
		FISHERY											
27.05.13	PF	Composite fish culture	4	ON	57	0	57	7	0	7	36	0	36
17.06.13	PF	Breeding & culture of Air breathing fishes	4	ON	26	0	26	12	0	12	7	0	7
04.07.13	RY	Breeding of IMC and hatchery management with feed preparation	30	ON	25	0	25	8	0	8	0	0	0
27.08.13	PF	Low cost fish feed preparation	3	ON	24	0	24	2	0	2	13	0	13
19.09.13	PF	Composite fish culture with Giant Prawn	5	ON	30	0	30	3	0	3	12	0	12
23.01.14	PF	Fish based Integrated Farming	4	OFF	49	0	49	22	0	22	1	0	1
17.02.14	PF	Carp fry & fingerling rearing in Nursery Pond	4	ON	29	0	29	4	0	4	10	0	10
		HOME SCIENCE											
01.06.13	PFW	Care & management of pregnant mothers	1	OFF	0	59	59	0	24	24	0	27	27
03.06.13	PFW	Value addition & preservation of Mango fruits	5	ON	0	27	27	0	0	0	0	24	24
18.06.13	PFW	Nutritional requirement of pre-school children	1	OFF	0	50	50	0	0	0	0	50	50
07.11.13	PFW	Technique of Tie & Die work	5	ON	0	25	25	0	0	0	0	24	24
14.11.13	PFW	Preparation of Agar-batti	4	ON	0	20	20	0	0	0	0	20	20
23.01.14	PFW	Formation of new SHG	2	OFF	0	33	33	0	23	23	0	8	8
27.02.14	PFW	Training programme on Batik work	6	ON	0	20	20	0	3	3	0	7	7
07.03.14	RY	Training programme on Jute craft	15	ON	0	21	21	0	9	9	0	0	0
		AGRICULTURAL EXTENSION											

10.05.13	PF	Marketing mechanism of farm produce	2	ON	47	0	47	19	0	19	6	0	6
23.05.13	PF	Mechanism & use of Kisan Credit Card	2	ON	50	0	50	17	0	17	11	0	11
14.06.13	PF	Formation of Farmers' Club	2	OFF	31	0	31	19	0	19	1	0	1
08.07.13	PF	Use & functioning of Rotavator in Paddy cultivation	2	ON	29	0	29	8	0	8	4	0	4
29.08.13	PF	Crop Insurance	2	ON	33	0	33	10	0	10	0	0	0
05.09.13	PF	Formation of New SHGs	3	ON	33	0	33	19	00	19	02	00	02
07.11.13	PF	Linkage with different developmental organisations	2	OFF	50	0	50	11	0	11	19	0	19
28.11.13	PF	Formation of linkage between farmers & banks	3	ON	30	0	30	15	0	15	6	0	6
09.12.13	PF	Formation of SHGs among fish farmers	3	OFF	52	0	52	16	0	16	6	0	6
14.02.14	PF	Development of Farmers' Clubs as Business Facilitator	2	ON	32	0	32	8	0	8	6	0	6
21.02.14	PF	Development of marketing channel for SHG products	2	OFF	50	0	50	14	0	14	8	0	8
		Total			**2582**	**519**	**3101**	**835**	**97**	**932**	**396**	**271**	**667**