

ANNUAL REPORT 2016 (April 2016 to March 2017)

1. GENERAL INFORMATION ABOUT THE KVK

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

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

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

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

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

Name	Telephone / Contact		
	Residence	Mobile	E-mail
Smt. Ruma Addy	-	9474413964	ruma.addy1958@gmail.com

1.4. Year of sanction: F.2 (2)\ 93-AE-1 on 4th October, 1994. Actual month of start: April, 1995 (Reference of Sanction Order).

1.5. Staff Position (as on 1st April, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent / Temporary	Category (SC / ST / OBC / Others)
1	Programme Coordinator	Vacant	-	-	PB - 4, Rs. 37400 - 67000/- + RGP - Rs. 9000/-	-	Permanent	-
2	Subject Matter Specialist	Mrs. Ruma Addy	Subject Matter Specialist	Home Science	PB - 3, Rs. 15600-39100/- + GP - Rs. 5400/- (Rs. 33100/-)	06.06.1995	Permanent	GC
3	Subject Matter Specialist	Dr. Subrata Mandal	Subject Matter Specialist	Agronomy	PB - 3, Rs. 15600-39100/- + GP - Rs. 5400/- (Rs. 24650/-)	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/- (Rs. 24650/-)	01.08.2004	Permanent	SC
5	Subject Matter Specialist	Dr. Krishna Mitra	Subject Matter Specialist	Fishery	PB - 3, Rs. 15600-39100/- + GP - Rs. 5400/- (Rs. 21300/-)	26.05.2012	Permanent	GC
6	Subject Matter Specialist	Dr. Prabuddha Ray	Subject Matter Specialist	Agricultural Extension	PB- 3, Rs. 15600-39100/- + GP - Rs. 5400/- (Rs. 18240/-)	19.06.2012	Permanent	GC
7	Subject Matter Specialist	Dr. Madhuchhanda Khan	Subject Matter Specialist	Animal Science	PB - 3, Rs. 15600-39100/- + GP - Rs. 5400/-+ NPA 25% (Rs. 16880/-)	10.06.2014	Permanent	GC
8	Programme Assistant	Vacant	Programme Assistant	-	PB - 2, Rs. 9300-34800/- + GP - Rs. 4200/-	-	Permanent	-
9	Computer Programmer	Sri Suraj Kumar Bhakta	Programme Assistant	-	PB - 2, Rs. 9300-34800/- + GP - Rs. 4200/- (Rs. 10130/-)	16.06.2014	Permanent	OBC

10	Farm Manager	Sri Palash Ankure	Programme Assistant	-	PB - 2, Rs. 9300-34800/- + GP - Rs. 4200/- (Rs. 10130/-)	18.09.2014	Permanent	SC
11	Accountant / Superintendent	Vacant	-	-	PB-2, Rs. 9300-34800/- + GP - Rs.4600/-	-	Permanent	-
12	Stenographer	Sri Makbul Ahmed	Jr. Stenographer cum Computer Operator	-	PB - 1, Rs. 5200-20200/- + GP - Rs. 2400/- (Rs. 11740/-)	13.04.1995	Permanent	GC
13.	Driver	Sri Krishna Bansi Chatterjee	Driver-Cum-Mechanic	-	PB - 2, Rs. 9300-34800/ - + GP - Rs. 4200/- (Rs. 11560/-)	06.05.1997	Permanent	GC
14.	Driver	Sri Bikash Chandra Ghosh	Driver-Cum-Mechanic	-	PB - 2, Rs. 9300-34800/ - + GP - Rs.4200/- (Rs. 11560/-)	06.05.1997	Permanent	GC
15.	Supporting staff	Sri Chowdhury Md. Anwar	Supporting Staff	-	PB - 1, Rs. 5200-20200/ - + GP- Rs. 1900/- (Rs. 9850/-)	13.04.1995	Permanent	GC
16.	Supporting staff	Sri Naran Tudu	Supporting Staff	-	PB-1, Rs. 5200-20200/ - + GP - Rs. 1800/- (Rs. 6090/-)	05.06.2014	Permanent	ST

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 for Demonstration	02.000
4.	Orchard/Agro-forestry	01.000
5.	Under Seed Production	04.000
6.	Stocking and Rearing Pond	01.000
7.	Nursery Pond	00.013
8.	Under Fallow and farm roads	07.080
6.	Total	15.645

1.7. Infrastructure Development:

A) Buildings and others

Sl. No.	Name of infrastructure	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)								
4.	Piggery unit								
5.	Fencing								
6.	Rain Water harvesting structure								
7.	Threshing floor					Totally completed	180.00	Under use	ICAR
8.	Farm go-down					Totally completed	46.25	Under use	ICAR
9.	Dairy unit								
10.	Poultry unit					Totally completed	80.00	Under use	ICAR
11.	Goatary unit								
12.	Mushroom Lab								
13.	Mushroom production unit								
14.	Shade house								
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	Under use	ICAR
18.	(Others, Please Specify) Plant Diagnostic Laboratory					Totally completed	25.00	Under use	ICAR

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Motor Bike (Rajdoot)	1997	32,000.00	39,013	Not in running condition
Moped (Toro Jaz)	1997	12,500.00		Not in running condition
Multi Utility Vehicle (Bolero Plus)	2010	5,20,495.00	103080	In running condition
Motor Bike (Hero Splendor Pro)	2016	59,223.00	2249	In running condition
Scooter (Hero Edge LX)	2016	60,323.00	611	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
Stabilizer 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 spectra-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	21,700.00	Working condition	ICAR
Digital Weighing machine	2010-11		Working condition	ICAR
Soil Testing Mini-Lab Mrishaparikshak Solar Operated	2015-16	70,000.00	Working condition	ICAR
Bardizzo Castrator	2016-17	1,600.00	Working condition	ICAR
Auto Vaccinator	2016-17	3,400.00	Working condition	ICAR

pH. Meter	2016-17	1,431.00	Working condition	ICAR
Room Thermometer	2016-17	295.00	Working condition	ICAR
Stethoscope	2016-17	500.00	Working condition	ICAR
Dissolved Oxygen Meter	2016-17	12,022.00	Working condition	ICAR
pH. Meter	2016-17	1,431.00	Working condition	ICAR
Digital Electronic Balance (5.0 milli grams – 300.00 grams)	2016-17	13,400.00	Working condition	ICAR
b. Farm machinery				
Bench Floor Scale (Capacity – 200 kg) Model Sana	2010-11	8,000.00	Working condition	ICAR
Precision Scale (Capacity – 600 gms) Model Sana	2010-11	11,200.00	Working condition	ICAR
Portable Carp Hatchery	2010-11	2,21,956.00	Working condition	ICAR
Seed Processing Machine Model 15X/C.H. Standard Capacity 1.5 ton / Hour	2015-16	2,57,800.00	Working condition	ICAR
Elevator 16 Feet complete with 1.5 HP 440 Volt Electric Motor	2015-16	55,000.00	Working condition	ICAR
Mini Grinder	2015-16	73,500.00	Working condition	ICAR
Palletizer Machine	2015-16	39,900.00	Working condition	ICAR
Generator 15 KVA 3 Phase Model CD- 15 of Copper Corporation	2015-16	3,95,025.00	Working condition	ICAR
Laptop HP G 240	2015-16	43,000.00	Working condition	ICAR
Desktop All-in-One HP 20	2015-16	44,430.00	Working condition	ICAR
UPS APC 600 VA	2015-16	2,300.00	Working condition	ICAR
Printer Laserjet M 126 nw	2015-16	12,900.00	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. Office Equipments				
Word processor	1995-96	2,100.00	Working condition	ICAR
Canon photo copier	2003-04	69,988.00	Not in working condition	ICAR
Stabilizer 2 KVA	2003-04	4,000.00	Working condition	ICAR
Generator	2008-09	49,500.00	Working condition	ICAR
Finger Print based Attendance Register Eurovigil I Deter 200	2015-16	20,600.00	Working condition	ICAR
Printer HP L3 1020 Plus	2015-16	8,200.00	Working condition	ICAR
Canon Photo Copier	2016-17	80,273.00	Working condition	ICAR

D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
ASPEE Sprayer (10 liters)	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
Spray Machine 16 lit. Capacity PVC Burret	2009-10	2,300.00	Working condition	ICAR
Mould Board Plough Model – Bengal Motor Works	2009 - 10	30,000.00	Working condition	ICAR
Mounted Offset 10”X20” Disc Harrow Model – Bengal Motor Works	2009 - 10	35,000.00	Working condition	ICAR
Self Propelled Power Ripper Model Kumco KB - 120	2010 - 11	81,156.00	Working condition	ICAR
Zero Tillage Machine 11 Tynes	2010 - 11	40,000.00	Working condition	ICAR
Cono Weeder	2012 - 13	Free Supply	Working condition	ICAR
Drum Seeder	2012 – 13	Free Supply	Working condition	ICAR

1.8. Details SAC meeting* conducted in the year

Sl. No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1.	30.01.2017.	26	1. Increase Pulse and Oilseed production 2. Production of Short Duration Crops 3. Connection of beneficiaries to Digital India by KVK Portal 4. More distribution of Universal Soil Health Cards 5. SWACCH BHARAT Campaign to reduce the use of Pesticides 6. More emphasis on Fodder Cultivation 7. More numbers of Planting Materials Production by the Rathindra KVK Instructional farm 8. More emphasis on Medicinal garden	SAC Meeting has just been conducted. Work recommended is in progress.	Not Applicable

2.a. District level data on agriculture, livestock and farming situation (2015-16)**2.a.1 Major Farming system/enterprise**

Sl. No.	Farming System/Enterprise
1.	Upland- Paddy, red gram, fruit crops
2.	Mediumland- 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.a.2 Agro-climatic Zone

Agro Ecological Sub Region (ICAR):- Assam and Bengal Plain, Hot Sub-humid to Humid (Inclusion of Per-humid) Eco-Region. (15.1)

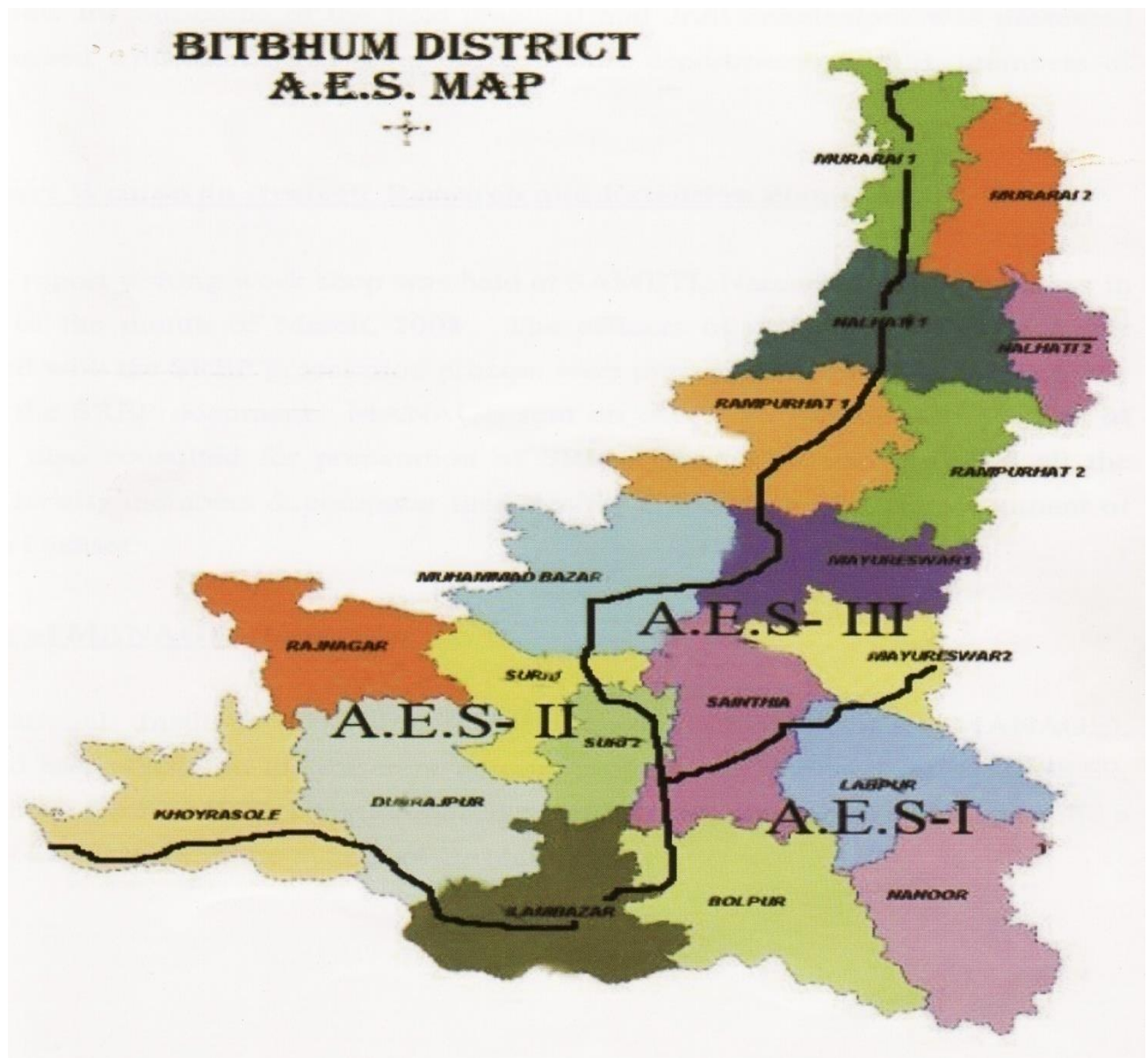
Eastern plateau (Chotanagpur) And Eastern Ghats, Hot Sub-humid Eco-Region (12.3)

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

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

2.a.3 Agro-ecological situation

The Birbhum District is divided into three Agro-Ecological Situation 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. Ground water is not easily available.	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 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	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	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.

available in this AES. 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	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.a.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.a.5 Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others

Sl. No.	Year	Crops	Area ('000 ha)	Production ('000 tonnes)	Yield rate (kg.s / ha)
01.	1980-81	Total Cereals	378.8	620.5	1638
02.	1990-91		391.9	838.7	2140
03.	2000-01		345.7	875.3	2532
04.	2008-09		429.4	1311.6	3055

05.	2009-10		392.0	1050.7	2681
06.	2010-11		282.2	836.4	2964
07.	1980-81	Total Pulses	28.9	14.4	498
08.	1990-91		08.6	05.4	626
09.	2000-01		20.2	16.8	832
10.	2008-09		16.3	15.3	937
11.	2009-10		15.8	14.1	891
12.	2010-11		17.0	17.1	1004
13.	1980-81	Total Food-Grains	407.7	634.9	1557
14.	1990-91		400.5	844.1	2108
15.	2000-01		365.9	892.1	2438
16.	2008-09		445.7	1326.9	2977
17.	2009-10		407.8	1064.8	2611
18.	2010-11		299.2	853.5	2852

Source:- Economic Review 2011-2012, Govt. of West Bengal

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

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
2008-09	114.31	117.29	219.00	214.71	169.94	188.72
2009-10	104.35	107.64	177.34	203.14	181.99	194.76
2010-11	75.14	82.58	136.75	160.84	145.06	146.23

Source: B.A.E.& S., Govt. of W.B. and Economic Review 2011-2012, Govt. of West Bengal

Coverage and Productivity of Major Crops in the District of Birbhum

Sl. No.	Name of the Crop	Coverage (ha.)		Yield Rate (kg. / ha.)	
		Year	Year	Year	Year
		2003 - 04	2011 - 12	2003 -04	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 and 2. BAE&S, Govt. of West Bengal

Coverage, Productivity and Production of different Crops of Birbhum

Name of Crop	Normal Target (ha)	2011-12			2012-13			2013-14		
		Coverage 2011-12	Yield (Kg/ha)	Production (MT)	Coverage 2012-13	Yield (Kg/ha)	Production (MT)	Coverage 2013-14	Yield (Kg/ha)	Production (MT)
Aman (HYV)		296077	4343.7	1286070	278124	4398	1223189	267692	4274.66	1144292
Aman(local)		6055	2694	16312	4827	2741	13231	3720	2715	10100
Aus Paddy		3767	3803	14326	3500	3592	12572	3540	3666.66	12980
Boro Paddy	68650	61224	4750	290814	53473	4867	260253	79310	5139.00	407574
Jute		169	6.3	1	209	6.3	1	197	6.5	1
Bhadoi Maize				0	369	890	328	423	885	374
Bhadoi Kalai		1240	408	506	1321	502	663	1052	622	654
Soyabean		37	530	20	43	540	23	37	530	20

Bhadoi G/Nut		73	1038	76	47	1035	49	46	1037	48
Mustard	42800	31840	1096	3489 7	32100	1103	35406	31690	1141	36158
Linseed	1490	821	588.5	483	666	592	394	582	600	349
Sunflower	430	44	950	42	75	545	41	56	586	33
Safflower	95	17	406	7	21	410	9	56	879	49
Arhar		576	617	355	534	620	331	541	622	337
Lentil	10000	6570	618	4060	10026	623.3	6249	10908	830	9054
Khesari	4185	1834	617	1132	1831	625	1144	1815	638	1158
Gram	19900	10750	948	1019 1	13415	973	13053	11206	967	10836
Pea	855	471	625.7	295	538	635	342	513	651	334
Kulthi		179	403	72	138	406.6	56	94	420	39
Other Pulse (Black Pea)	540	90	290	26	90	310	28	60	320	19
Potato	23300	17930	27303. 6	4895 54	19120	28432	543620	18795	23314. 38	438194
Wheat	47100	30440	2929	8915 9	30810	2986	91999	28720	3044	87424
Barley	95	16	1217	19	16	1206	19	24	1216	29
R/Maize	390	119	930	111	61	945	58	9	940	8
S/Maize	950	75	1600	120	31	1626	50	114	1623	185
Sesamum	7150	5120	962	4925	5350	952	5093	4382	933	4088
S/Moong	1800	1036	605	627	1918	598.3	1148	1947	540	1051
S/Kalai	950			0			0			0
S/Cane	1850	1759	77373	1360 99	1722	77233	132995	1520	77817	118282
R-S/G Nut	250	127	1265	161	181	1042	189	139	1590	221

Source – Dept. of Agriculture, Birbhum District, Govt. of West Bengal.

Internet Source - DDA,%20Birbhum.html

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

Crops	Major fruits and vegetables					
	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 (Summer)					8200.00	147.56
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.a.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: 40⁰ C

Winter Temperature: Min: 10⁰ 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

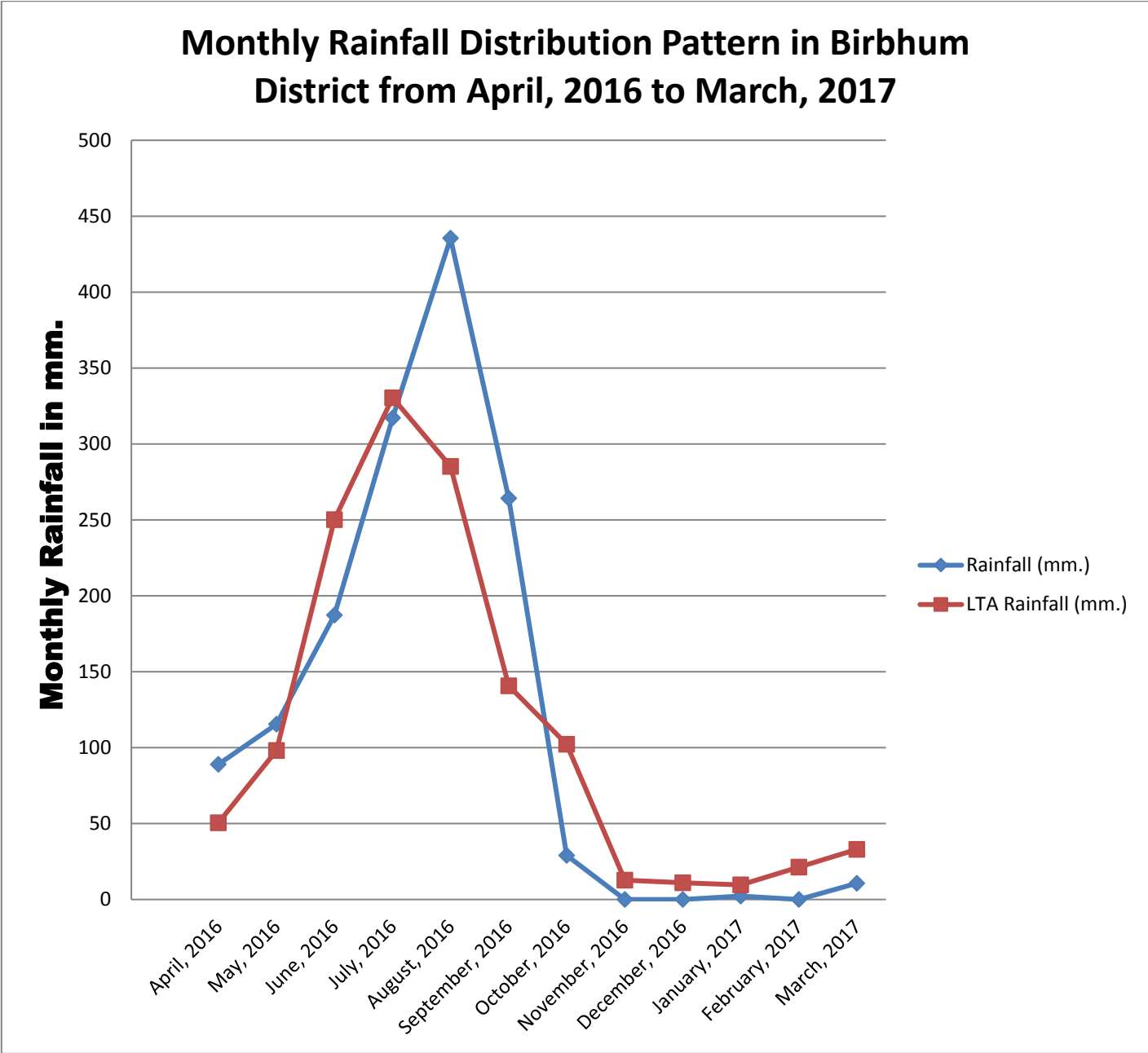
Weather Data of Birbhum District

Month	Rainfall (mm.)	LTA Rainfall (mm.)	Temp. (° C) Maximum	LTA Temp. (° C) Maximum	Temp. (° C) Minimum	LTA Temp. (° C) Minimum	Relative Humidity (%)		Average LTA Relative Humidity (%)
							At 8.30 AM	At 5.30 PM	
April, 2016	89.0	50.52	34.00	37.07	22.00	23.71	74.00	63.00	61.05
May, 2016	115.49	98.09	36.65	36.71	24.70	25.03	70.65	61.25	73.07
June, 2016	187.34	250.09	35.32	34.61	25.92	25.71	76.73	71.43	80.06
July, 2016	317.20	330.47	33.24	32.73	26.28	25.88	83.16	81.41	84.59
August, 2016	435.50	285.13	33.10	32.08	26.01	25.77	83.61	82.45	87.11
September, 2016	264.32	140.80	32.53	32.18	25.84	25.25	83.83	84.00	85.04
October, 2016	29.00	102.29	33.82	31.41	22.96	22.44	77.09	77.58	76.46
November, 2016	00.00	12.71	30.72	29.17	16.56	17.34	74.86	71.06	72.19
December, 2016	00.00	11.02	27.36	26.07	12.51	12.61	83.19	69.87	71.50
January, 2017	02.20	9.61	26.40	25.15	10.95	11.86	76.52	62.35	73.56
February, 2017	00.00	21.25	23.98	28.18	14.23	14.48	67.75	50.21	62.35
March, 2017	10.60	32.96	33.40	33.76	18.79	19.59	64.87	48.25	56.38

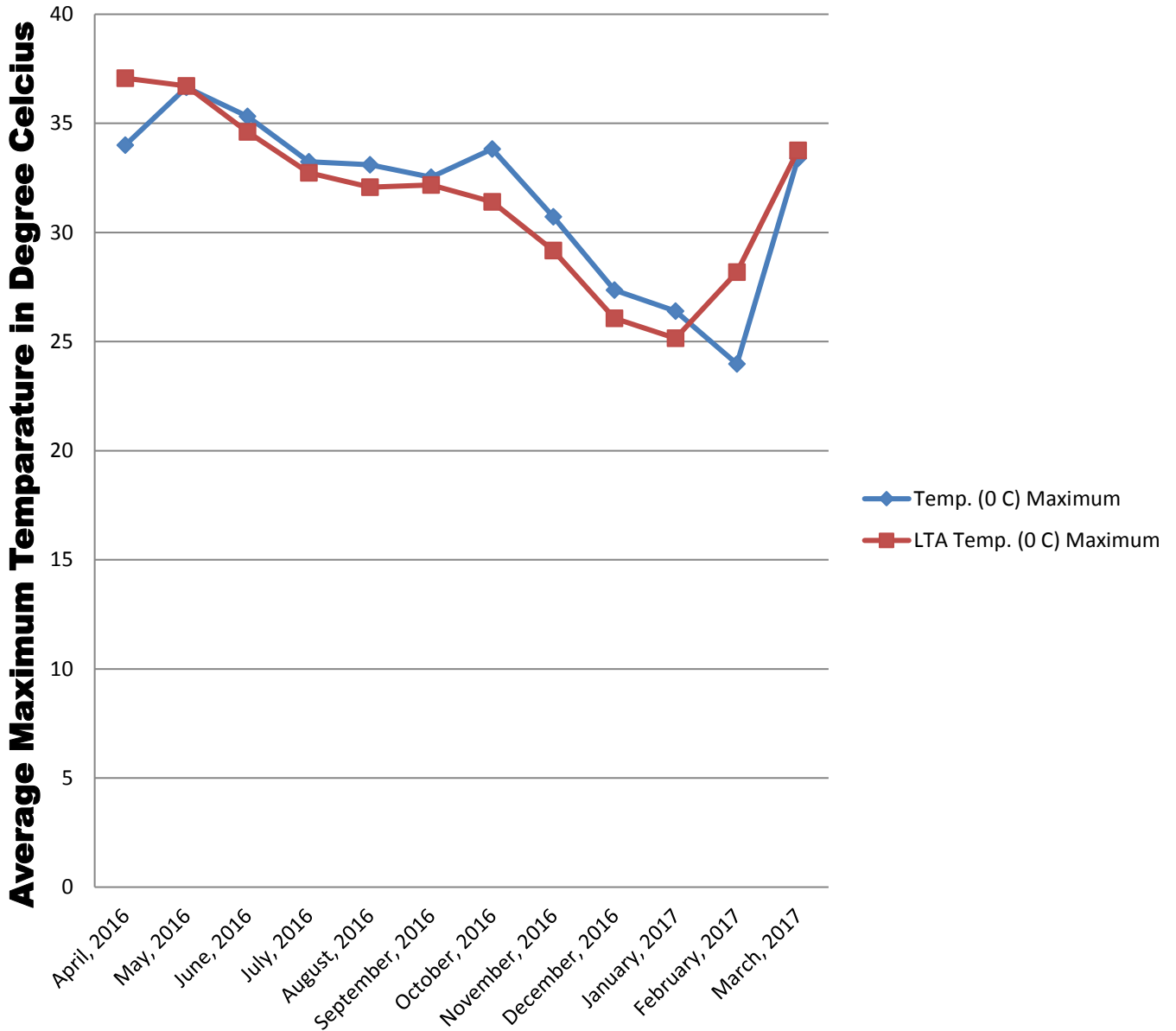
LTA = Long Term Average of 26 Years

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

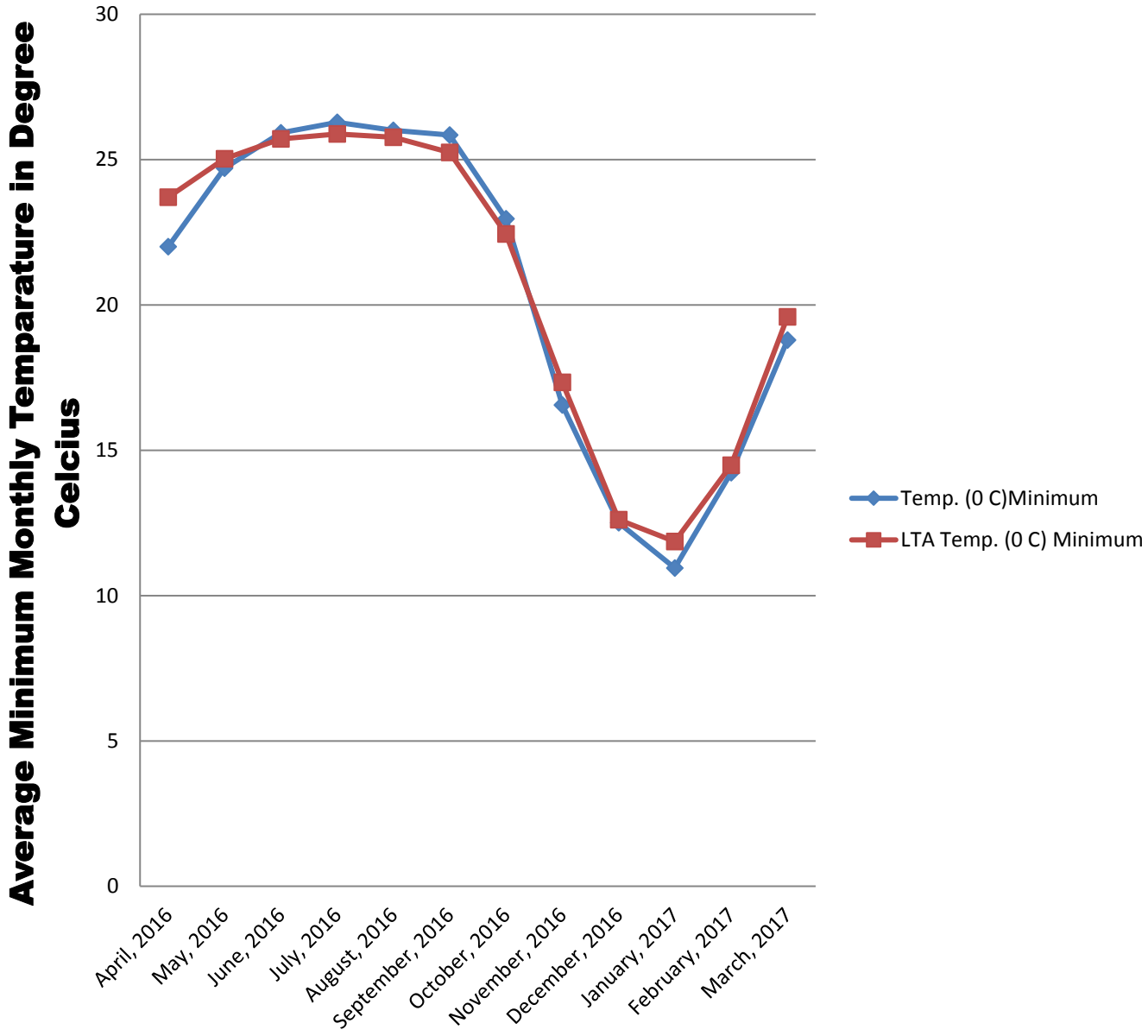
Weather Condition in Birbhum District from April, 2016 to March, 2017



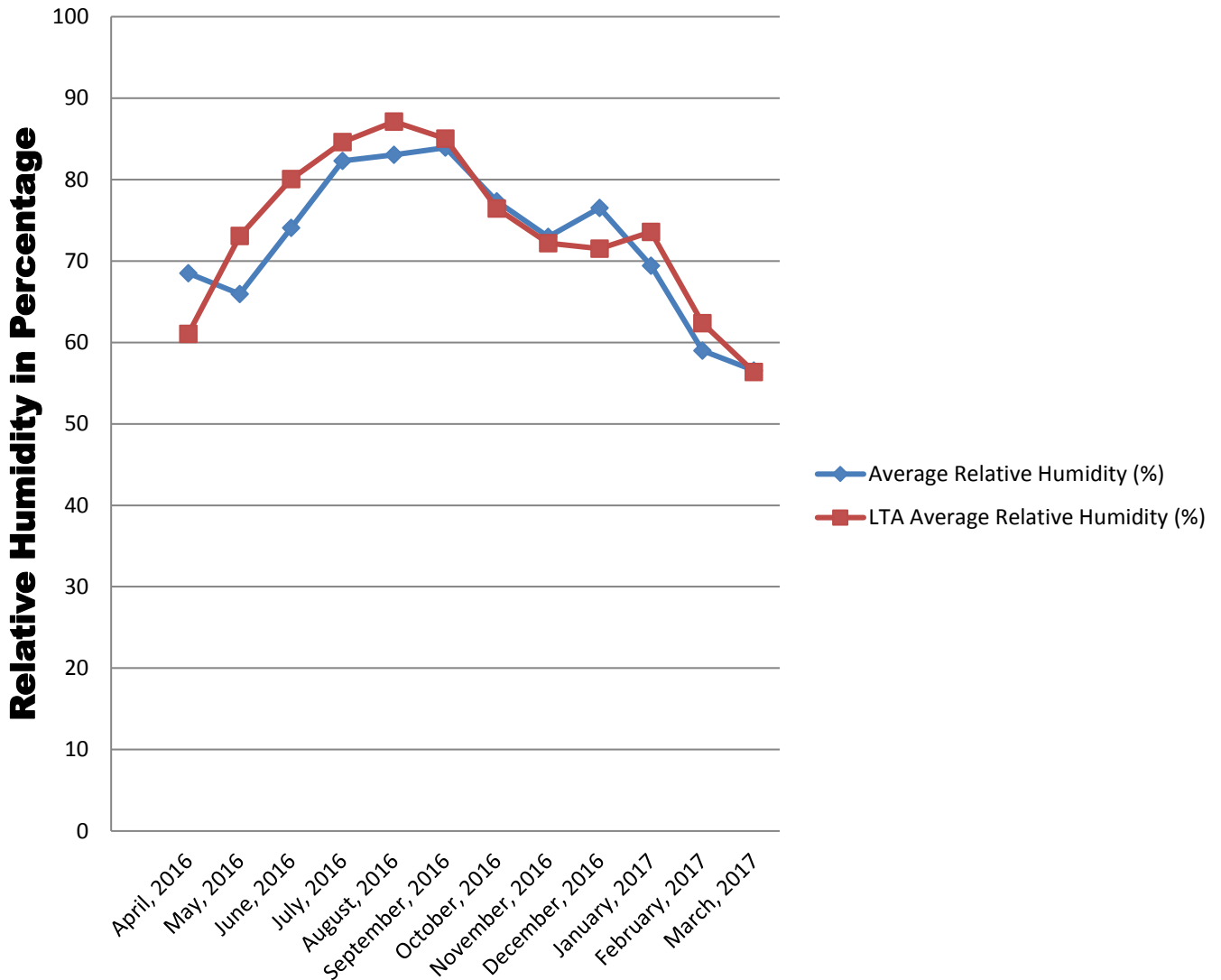
Distribution of Average Maximum Monthly Temperature in Birbhum District from April, 2016 to March, 2017



Distribution of Average Minimum Monthly Temperature in Birbhum District from April, 2016 to March, 2017



Distribution Pattern of Average Monthly Relative Humidity in Birbhum District from April, 2016 to March, 2017



2.a.7 Production of major livestock products like milk, egg, meat etc.

Live-Stock and Poultry in the District of Birbhum

Category		(Number)							
		Year - 1989	Year - 1994	Year - 1997	Year - 2003	Year - 2007	Year 09-10	Year 10-11	Year 11-12
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
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	1163975	1180031	1196623
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	63120	61002	58955
3	Sheep	163854	189122	189214	186280	216888	229300	235770	242422
4	Goats	598010	736251	816123	728113	941989	1066464	1134740	1207387
5	Horses and ponies	366	96	96	59	39	30	26	23
6	Pigs	77437	77572	83653	57680	49177	46814	45676	44565
7	Other Live-stock	87735	93849	98391	100786	103280
	Total Live-stock	1783360	2058218	2174483	2125056	2502876	2668094	2758031	2853255
8	Poultry :								
	Fowls	1489187	1506982	1659044	2303418	3071493	3753562	4222424	4805424
	Ducks	828231	1076333	1218849	1274104	1150029	1165248	1097777	1086352
	Others	11275	20416	10514	3135	1609	1591	1582	1573
	Total Poultry	2328693	2603731	2888407	3580657	4223131	4920401	5321783	5893349

Source:- Live-Stock Census Report, Govt. of W. B. and Annual Administrative Reports of Animal Resources Development Department, Govt. of West Bengal.

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
2009-10	121.785	4300.17	290847	3697840
2010-11	123.605	4472.20	320083	4001062
2011-12	126.139	4660.23	347536	4337272
2012-13	128.518	4860.02	379785	4707268

2013-14	126.500	4906.21	386015	4746013
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Source: - Live-Stock Census Report, Govt. of W.B. and Annual Administrative Reports of Amlal Resources Development Department, Govt. of West Bengal.

Production of Meat and Wool in the District of Birbhum

Sl. No.	Year	Meat Production (Metric Ton)	Wool Production (Metric Ton)
01.	2009-10	22177	108.373
02.	2010-11	23464.05	109.586
03.	2011-12	24775.00	110.846
04.	2012-13	26000.00	112.345
05.	2013-14	26408.00	112.731

Source: - Live-Stock Census Report, Govt. of W.B. and Annual Administrative Reports of Amlal Resources Development Department, Govt. of West Bengal.

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

Fish Seed Production in the District of Birbhum during 2010-11

174.00 million Numbers.

Fish Production in the District of Birbhum during 2010-11

65045.00 tons

Fisher Folk Population in the District of Birbhum in 2010-11

- a) Number of fishing Villages: - 483
- b) Number of Fisher Folk Families: - 37162
- c) Fisher Folk Population: - i. Male: - 113526; ii. Female: - 87221 and iii. Total: - 200747

Number of Privately owned IMC Hatcheries in the District of Birbhum in 2010-11

07 (Seven)

Numbers of Primary Fishermen's Cooperative Societies in the District of Birbhum in 2010-11

10 (Ten)

Source: - Annual Report 2010-11, Department of Fisheries, Govt. of West Bengal.

2.b. Details of operational area / villages (2016-17)

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.	Sattore	Bolpur - Sriniketan	Srichandrapur	Rice, wheat, mustard, potato, redgram, balckgram etc. Vegetable like brinjal, chilli, tomato, Elephant foot yam, cucurbits, fruit plants	Bio physical: Low productivity of all major crops <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Inadequate, descriptive and prolific breed • Poor health and management practices 	<ul style="list-style-type: none"> • 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
2.	Sattore	Bolpur - Sriniketan	Bishnubati			

3.	Sattore	Bolpur - Sriniketan	Asadullapur	like mango, guava, papaya, coconut, banana etc. and dairy, goatery, poultry, duckery, fishery, batik work, decorative candle, post harvest technology of fruits and vegetables, health and nutrition	<ul style="list-style-type: none"> • Low quality feed Poor fish productivity: <ul style="list-style-type: none"> • Poor pond management • Poor quality fingerlings Low income generation of rural women <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Lack of nutritious food resources • Lack of skill on establishment of backyard nutrition garden Socio Economic: <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
4.	Sattore	Bolpur - Sriniketan	Bautizole			
5.	Shian Muluk	Bolpur - Sriniketan	Dhanyasara			
6.	Shian Muluk	Bolpur - Sriniketan	Durgapur			
7.	Bahiri Panchshoya	Bolpur - Sriniketan	Chota Shimulia			

2. c. Details of village adoption programme:

Name of the villages adopted by PC and SMS in 2016-17 for its development and action plan

Name of village	Block	Action taken for development
Boro Shimulia (Dr. D. C. Manna)	Bolpur-Sriniketan	<p>A. Skill development Training Programmes on Horticultural Crop diversification, Cultivation of Cucurbitaceous Crops, Cultivation of Solanaceous Crops, Lay out and planting of Mango and Guava Orchards, Improved package and practices of Kharif Vegetables, Improved Method of Elephant Foot Yam Cultivation, Improved Production Practices of <i>Barmasia</i> Drum Sticks, Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc.</p> <p>B. Skill development Training Programme on Collection Soil Sample for Soil Testing and Green Manuring through <i>Dhaincha</i> Cultivation.</p> <p>C. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>D. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>E. Front Line Demonstrations (FLDs) on (i) Dhaincha; (ii) Elephant Foot Yam Var. Bidhan Kusum; (v) Drum Sticks Var. PKM – 1; (vi) Capsicum Var. Bharat and Mahabharat and (vii) Broccoli Var. Green Magic (F₁ Hybrid)</p> <p>F. On Farm Testing (OFT) on Assessment of Performane of various Micro-Nutrients in Does (Goats)</p> <p>G. Vaccination Camp for Cattles and Birds.</p> <p>H. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.</p>
Asadullahpur (Smt. R Addy)	Bolpur-Sriniketan	<p>A. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>B. Women Empowerment through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen</p>

		<p>Gardening.</p> <p>C. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>D. Front Line Demonstrations (FLDs) on Area Specific Mineral Mixture Supplement for Lactating Deshi Cow</p> <p>E. Awareness Generation of rural women on Health and Hygiene Issues.</p> <p>F. On Farm Testing (OFT) on Assessment of Various Component Combinations of Fish Feed</p> <p>G. Front Line Demonstrations (FLDs) on (i) Introduction of <i>Bhetki</i> as a Component if Composite Fish Culture.</p>
Bautizole (Dr. S. Mandal)	Bolpur-Sriniketan	<p>A. Skill development Training Programmes on Horticultural Crop diversification.</p> <p>B. Skill development Training Programme on Culture and Use of <i>Dhaincha</i> and <i>Azolla</i>.</p> <p>C. Skill development Training Programme on Nursery Pond Preparation, Composite Fish Culture, Fish Feed Management and Fish Disease Management.</p> <p>D. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>E. Women Empowerment through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening.</p> <p>F. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>G. Front Line Demonstrations (FLDs) on (i) Mustard Var. Pusa Bahar and Pusa Mahek and (ii) Wheat Var. HD – 2824.</p> <p>H. Cluster Front Line Demonstrations (Cluster FLDs) on Mustard Var. Pusa Mahek.</p> <p>I. On Farm Testing (OFT) on Assessment of Balanced N-P-K Management for Increasing Yield of Yellow Sarson</p> <p>J. Awareness Generation of rural women on Health and Hygiene Issues.</p> <p>K. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.</p>
Dhanyasara (Sri S. Mondal)	Bolpur-Sriniketan	<p>A. Skill development Training Programmes on Horticultural Crop diversification, Cultivation of Cucurbitaceous Crops, Cultivation of Solanaceous Crops, Lay out and planting of Mango and Guava Orchards, Improved package and practices of Kharif Vegetables, Improved Method of Elephant Foot Yam Cultivation, Improved Production Practices of <i>Barmasia</i> Drum Sticks, Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc.</p> <p>B. Skill development Training Programmes on Collection of Soil Sample for Soil Testing, Sowing and Phosphate Management in <i>Dhaincha</i>, Rice Seed Production Technology in Kharif Season and Cultivation of Rabi Crops with Especial Emphasis on Weed Management.</p> <p>C. Skill development Training Programme on Nursery Pond Preparation and Composite Fish Culture.</p> <p>D. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>E. Women Empowerment through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening.</p> <p>F. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>G. Front Line Demonstrations (FLDs) on (i) <i>Dhaincha</i>; (ii) Mustard Var. Pusa Bahar and Pusa Mahek; (iii) Wheat Var. HD – 2824; (iv) Elephant Foot Yam Var. Bidhan Kusum; (v) Drum Sticks Var. PKM – 1; (vi) Capsicum Var. Bharat and Mahabharat and (vii) Broccoli Var. Green Magic (F₁ Hybrid</p> <p>H. On Farm Testing (OFT) on Assessment of location specific Late Kharif or Early Winter Cabbage varieties and Assessment of location specific Late Kharif or Early Winter Cauliflower varieties</p> <p>I. Awareness Generation of rural women on Health and Hygiene Issues.</p> <p>J. Vaccination Camp for Cattles and Birds.</p> <p>K. Animal Infertility Treatment Camp.</p>

		L. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.
Durgapur (Dr. K. Mitra)	Bolpur-Sriniketan	<p>A. Skill development Training Programmes on Horticultural Crop diversification, Cultivation of Cucurbitaceous Crops, Cultivation of Solanaceous Crops, Lay out and planting of Mango and Guava Orchards, Improved package and practices of Kharif Vegetables, Improved Method of Elephant Foot Yam Cultivation, Improved Production Practices of <i>Barmasia</i> Drum Sticks, Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc.</p> <p>B. Skill development Training Programmes on Collection of Soil Sample for Soil Testing, Sowing and Phosphate Management in <i>Dhaincha</i> and Rice Seed Production Technology in Kharif Season.</p> <p>C. Skill development Training Programme on Nursery Pond Preparation, Composite Fish Culture, Portable Carp Hatchery, Fish Feed Management and Fish Disease Management.</p> <p>D. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>E. Women Empowerment through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening.</p> <p>F. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>G. Front Line Demonstrations (FLDs) on (i) Introduction of <i>Bhetki</i> as a component of Composite Fish Culture; (ii) Area Specific Mineral Mixture Supplementation for Deshi Milch Cows; (iii) <i>Dhaincha</i>; (iv) Mustard Var. Pusa Bahar and Pusa Mahek; (v) Breed Replacement of Poultry Birds in Back Yard Farming Situation by introducing Rhode Island Red (RIR); (vi) Wheat Var. HD – 2824; (vii) Elephant Foot Yam Var. Bidhan Kusum; (viii) Drum Sticks Var. PKM – 1; (ix) Capsicum Var. Bharat and Mahabharat and (x) Broccoli Var. Green Magic (F₁ Hybrid).</p> <p>H. On Farm Testing (OFT) on (i) Assessment of Various Component Combinations of Fish Feed; (ii) Assessment of location specific Late Kharif or Early Winter Cabbage varieties; (iii) Assessment of location specific Late Kharif or Early Winter Cauliflower varieties and (iv) Fish based Integrated Farming System (IFS).</p> <p>I. Awareness Generation of rural women on Health and Hygiene Issues.</p> <p>J. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.</p>
Bishnubati (Dr. P. Ray)	Bolpur-Sriniketan	<p>A. Skill development Training Programmes on Horticultural Crop diversification and Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc.</p> <p>B. Skill development Training Programmes on Sowing and Phosphate Management in <i>Dhaincha</i> and Cultivation of Rabi Crops with special Emphasis on Weed Management.</p> <p>C. Skill development Training Programme on Nursery Pond Preparation, Composite Fish Culture, Portable Carp Hatchery, Fish Feed Management and Fish Disease Management.</p> <p>D. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>E. Women Empowerment through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening.</p> <p>F. Formation of Two (02) Women led Self Help Groups (SHGs).</p> <p>G. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>H. Front Line Demonstrations (FLDs) on (i) Introduction of <i>Bhetki</i> as a Component of Composite Fish Culture; (ii) Area Specific Mineral Mixture Supplementation for Deshi Milch Cows; (iii) Breed up-gradation of Poultry Birds through Introduction of Improved Birds like Rhode Island Red (RIR); (iv) Wheat Var. HD – 2824; (v) Capsicum Var. Bharat and Mahabharat; (ix) Broccoli Var. Green Magic (F₁ Hybrid); (vi) Fodder Oat Var. Kent and (vii) Fodder Rice Bean Var. Bidhan – 2.</p> <p>I. On Farm Testing (OFT) on (i) Assessment of Different Components Combination of Fish Feed as Growth Promoters in Carp Spawns and Fry Feed to Increase their Survival Rate to A Profitable Extent, (ii) Fish based Integrated Farming System and (iii) Evaluation of Performance of Different Components of Micro-Nutrients as Feed</p>

		<p>Supplementation for Goats.</p> <p>J. Awareness Generation of rural women on Health and Hygiene Issues.</p> <p>K. Vaccination Camp for Cattles and Birds.</p> <p>L. Animal Health Camp.</p> <p>M. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.</p>
Srichandrapur (Dr. M. Khan)	Bolpur-Sriniketan	<p>A. Skill development Training Programme on Nursery Pond Preparation, Composite Fish Culture, Portable Carp Hatchery, Fish Feed Management and Fish Disease Management.</p> <p>B. Skill development Training Programmes on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables.</p> <p>C. Women Empowerment through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening.</p> <p>D. Knowledge development Training Programmes on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self Help Groups (SHGs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products and Protection of Plant Varieties and Farmers' Rights Act, 2001.</p> <p>E. Front Line Demonstrations (FLDs) on (i) Mustard Var. Pusa Bahar and Pusa Mahek; (ii) Wheat Var. HD – 2824; (iii) Fodder Oat Var. Kent; (iv) Fodder Rice Bean Var. Bidhan – 2 and (v) Breed up-gradation of Poultry Birds through Introduction of Improved Birds like Rhode Island Red (RIR) .</p> <p>F. Cluster Front Line Demonstrations (Cluster FLDs) on Sesame Var. Sabitri.</p> <p>G. Awareness Generation of rural women on Health and Hygiene Issues.</p> <p>H. Vaccination Camp for Cattles and Birds.</p> <p>I. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.</p>

2. d. Sansad Adarsh Gram Yojona

- i) **Name of the village under Sansad Adarsha Gram Yojona:**
- ii) **Contribution of KVK in the programme:**

2.1 Priority thrust areas

Sl. No.	Thrust Areas
1.	Crop diversification through introduction of pulses, oilseeds, major millets, horticultural crops like elephant's foot yam, drum stick and high value low volume horticultural products like capsicum, broccoli etc.
2.	Popularization of High Yielding Varieties (HYVs) of major crops like paddy, wheat, mustard, potato etc. as well as traditional varieties of those crop also.
3.	Cultivation of field crops which require least water in the Arid and Semi-Arid regions of the district and cultivation of suitable horticultural crops in those regions.
4.	Popularization of improved management practices of Animals and Fishes
5.	Market led extension, crop insurance and institutional rural credit flow mechanism

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievement of mandatory activities by KVK during 2016-17

OFT				FLD			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
12	12	152	152	441	448	441	448

Training				Extension activities			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
128	115	2707	3942	300	368	19000	40907

Seed production (q)		Planting material (Nos.)	
Target	Achievement	Target	Achievement
A. Lentil – 0.21	A. Lentil (Var. – WBL – 58) – 1.15	A. Vegetables – 5000	A. Vegetables
B. Mustard (Var. – B – 9) – 0.04	B. Mustard (Var. – B – 9) – 0.05		i. Cauliflower (Var. PAN – 1008) – 2,000 in numbers,
C. Mustard (Var. – Pusa Mahek) – 0.30	C. Mustard (Var. – Pusa Mahek) – 0.40		ii. Cabbage (Var. Seminis – 111) – 2,000 in numbers,
D. Sesame (Var. – Sabitri) – 0.10	D. Sesame (Var. – Sabitri) – 0.40		iii. Broccoli (Var. Green Magic) – 1464 in numbers,
E. Wheat (Var. PBW – 343) – 2.0	E. Wheat (Var. – PBW – 343) – 4.0		iv. Capsicum (Var. Bharat, Mahabharat) – 2,000 in numbers
F. Linseed (Var. Deepika) – 0.50	F. Linseed (Var. – Deepika) – 1.00		v. Chilli (Var. PAN – 1498) – 1,000 in numbers and
	G. Oat (Var. – Kent) – 0.40		vi. Drum Sticks (Var. PKM – 1) – 600 in numbers.
	H. Chick Pea (Var. – Anuradha) – 0.25		
	I. Black Gram (Var. WBU – 108) – 0.60		
	J. Red Gram (Var. ICPL 87 – 139) – 0.40		
	K. Elephant Foot Yam [Var. Gajendra (Kavoor)] – 1.00		
	L. Paddy (Var. MTU – 7029) – 0.46		
	M. Poultry Breed – Rhode Island Red (RIR) – (Advanced Grower) – 40 Nos		
	N. Fish Spawns – Catla (<i>Catla catla</i>) – 4,00,000		
	Fish Spawns – Mrighel (<i>Cirrhinus mrigala</i>) – 1,00,000		

3.1 Achievements on technologies assessed and refined

OFT-1

1.	Title of On farm Trial	Assessment of profitability due to integration of different components under fish based production systems
2.	Problem diagnosed	Lack of technological knowhow in integration of components in proper way for higher profitability
3.	Details of technologies selected for assessment/refinement	Farmer's practice: Traditional fish farming
		I. composite fish culture (IMC) + Duck farming (20 nos) + <i>Azolla</i> + Pulses (Redgram-Blackgram)
		II. composite fish culture (IMC) + Duck farming (20 nos) + <i>Azolla</i> + Vegetables (ladys' finger-capsicum)
4.	Source of Technology	DARE/ICAR Annual Report, 2008-09, Page12-14 & Fertiliser News, 46 (11), pp 53-55 & 57-58
5.	Production system and thematic area	Fish based production and Integrated Farming System
6.	Performance of the Technology with performance indicators	Technology Option –I performed better than others economically viable
7.	Final recommendation for micro level situation	It may be concluded that integrated farming system with composite fish culture, duck farming, azolla and pulse cultivation (Technology option-I) in bank of the pond is very effective to integrate the components in profitable manner in Birbhum District.
8.	Constraints identified and feedback for research	Improper monetary transaction in the lean period for better profitability
		Other components suitable in the lean period may be studied
9.	Process of farmers participation and their reaction	Farmers helped the KVK scientists for data collection and implementation of the technology very carefully. Day to day supervisory practices was also important participation. Beside this, farmers also invested different cost of cultivation like labour etc.

Thematic area: Integrated Farming System (Summer, 2016)

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

Table 1: Profitability under fish based integrated farming system

Technology option	No. of trials	Man days utilized per year	Cost of cultivation (Rs./unit*)	Gross return (Rs./unit)	Net Return (Rs /unit)	BC Ratio
Farmer's practice: Traditional fish farming	7	15	39,860.00	45,320.00	5,460.00	1.14
I. composite fish culture (IMC) + Duck farming (20 nos) + <i>Azolla</i> + Pulses (Redgram- Blackgram)		250	60,950.00	1,38,673.00	77,723.00	2.28
II. composite fish culture (IMC) + Duck farming (20 nos) + <i>Azolla</i> + Vegetables (ladys' finger-capsicum)		265	90,640.00	1,88,500.00	97,860.00	2.08

- FP: 1 unit = 0.19 ha pond only + fallow land
- Opt-1: 1 unit= 0.19 ha pond + 20 nos. of Ducks + 0.13 ha utilised land with pulse
- Opt-2: 1 unit= 0.19 ha pond + 20 nos. of Ducks + 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 farming +Azolla+ Pulses exhibited higher BC ratio (2.28) than those of Technology Option-II (2.08) and farmers practice (1.14). 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 were the component. Droppings of ducks were also used as feed of fishes in both Technology Option-I and II. But in Technology Option-I, the leftover materials of pulses were also used as feed of fishes and ducks. So integration was more among the components in the Technology Option-I. Moreover, azolla was also used as feed of fish and ducks. Besides that, the azolla was also used as organic manure and bio fertilizer in pulses and vegetables. Further, man day's utilization (265 per year) was slightly higher in Technology Option –II than Technology Option-I (250 per year). In farmers practice, man days utilization was very low (15 per year) and BC ratio was also very low (1.14). Therefore, it may be concluded that integrated farming system with composite fish culture, duck farming, azolla and pulse cultivation in bank of the pond is very effective to integrate the components in profitable manner in Birbhum District.

OFT-2

1.	Title of On farm Trial	Assessment of different herbicides in weed management in summer pulse, blackgram var. WBU-108
2.	Problem diagnosed	The farmers sow pulse seeds by broadcasting. After a few days weeds compete with the crop. No mechanical weeding is possible in broadcasted field.
3.	Details of technologies selected for assessment/refinement	Farmer's practice: No weeding 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)
4.	Source of Technology	Annual Report of All India Coordinated Research Project on Weed Control (AICRP-WC) - 2005, Visva-Bharati Centre, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, pp. 30.
5.	Production system and thematic area	Rice-mustard-green gram/blackgram., Rice-potato- green gram/blackgram Weed Management
6.	Performance of the Technology with performance indicators	Performance of the technology of weed control was found statistically significant
7.	Final recommendation for micro level situation	Technology Option-III i. E. Use of herbicide Fenoxaprop-P-ethyl @ 60 ml a.i./ ha as early post emergence (15-20 DAS) significantly reduced the weed population and produced more no. of branches per plant , pods/m ² , seeds per pod and higher yield than those of other technology options and farmers practice.
8.	Constraints identified feedback for research	Application of these low dose high efficiency herbicide was found difficult The efficiency of these herbicides in rainy season pulses may be studied
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring of the crop, counting pest population, and data collection with KVK scientists. Farmers incurred all the cost of cultivation except herbicide

Thematic area: Weed Management (Summer Season, 2016)

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 different herbicides in weed management in summer pulse, blackgram var. WBU-108

Table 2: Effect of different herbicides in weed management in blackgram var. WBU-108

Technology option	No. of trials	Yield Component				Weed Population / m ² At 45 DAS	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 /m ²	No. of Seeds per Pod	Test Weight (1000 Seed weight in gm)						
Farmer's practice: No weeding	7	7.02	185.50	5.85	27.15	60.25	6.60	18600.00	36300.00	17700.00	1.95
I. Pendimethalin @ 0.75 lit a.i./ha as pre emergence (0-3 DAS)		10.82	255.42	7.29	30.98	28.49	8.75	18350.00	48125.00	29775.00	2.62
II. Quizalofop- P-ethyl @ 50 ml a.i./ha as early post emergence (15-20 DAS)		11.60	268.25	7.37	31.42	4.84	9.22	19,010.00	50,710.00	31700.00	2.67
III. Fenoxaprop-P-ethyl @ 60 ml a.i./ha as early post emergence (15-20 DAS)		12.45	274.20	7.55	32.15	3.28	9.85	19010.00	54,175.00	35165.00	2.85
Sem±		0.33	2.58	0.29	0.21	0.94	0.12				
CD(P=0.05)		1.02	7.97	0.89	0.65	2.90	0.41				

Results:

An OFT in summer season, 2016 was conducted to assess better weed management practices in summer black gram (Var. WBU-108) in adopted villages. The result of the trial (Table-2) indicated that the Technology Option-III i. e. Use of herbicide Fenoxaprop-P-ethyl @ 60 ml a.i./ ha as early post emergence (15-20 DAS) significantly produced more no. of branches per plant (12.45), pods/m² (274.20), seeds per pod (7.55) and higher yield (9.85 q/ha) than those of other technology options and farmers practice. It was found that at 45 DAT, there was heavy infestation of weed in the field of farmers practice where no weeding is done. Further the fields were almost weed free in Technology option –II and Technology option-III at peak period of crop weed competition. From the economics of cultivation, it was found that use of herbicide is more economical than no weeding. Among the herbicides the Technology Option-III Fenoxaprop-P-ethyl @ 60 ml a.i./ ha as early post emergence (15-20 DAS) fetched the higher BC ratio (2.85) than other technology options and farmers practice (1.95).

OFT-3

1.	Title of On farm Trial	Weed management in transplanted kharif rice under lateritic soil
2.	Problem diagnosed	Due to scarcity of labour hand weeding in proper time is not possible. Beside that hand weeding of algal weeds, ferns broad leaves is laborious and not possible successfully. The high cost of labour also increase the cost of cultivation.
3.	Details of technologies selected for assessment/refinement	Farmers' Practice: Hand Weeding
		Technology Opt -I: Pyrazosulfuron-ethyl @2.5 g a.i /ha as pre emergence (1-3 DAT)
		Technology Option -II: Metsulfuron-methyl +chlorimuron- ethyl @ 4 g a.i /ha at 7-12 DAT
		Technology Option-III: Pretilachlor @ 1.0 lit a.i /ha as pre emergence (1-3 DAT)
4.	Source of Technology	Annual Progress Report of All India Coordinated Research Project on Weed Control (AICRP-WC) - 2000, Visva-Bharati Centre, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, pp. 27.
5.	Production system and thematic area	Rice-fallow, Rice-mustard, Rice-Wheat Weed Management
6.	Performance of the Technology with performance indicators	Performance of the technology of weed control was found statistically significant
7.	Final recommendation for micro level situation	Technology Option-II i. E. Use of herbicide Metsulfuron-methyl +chlorimuron- ethyl @ 4 g a.i /ha at 7-12 DAT significantly reduced the weed population and produced more no. of effective tillers, grains/panicle and higher yield than those of other technology options and farmers practice.
8.	Constraints identified	Application of these low dose high efficiency herbicide was found difficult
	feedback for research	The efficiency of these herbicides in summer season paddy may be studied
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring of the crop, counting pest population, and data collection with KVK scientists. Farmers incurred all the cost of cultivation except herbicide

Thematic area: Weed Management (Rainy Season, 2016)

Problem definition: Due to scarcity of labour hand weeding in proper time is not possible. Beside that hand weeding of algal weeds, ferns broad leaves is laborious and not possible successfully. The high cost of labour also increases the cost of cultivation.

Technology to be assessed: Assessment of different herbicides in weed management in rainy paddy, var. MTU-7029

Table 3: Effect of different herbicides in weed management in rainy paddy var.MTU-7029

Technology option	No. of trials	Yield Component			Weed Population / 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 tiller/hill	No. of grains/panicle	Test Weight (1000 Seed weight in gm)						
Farmers' Practice: Hand Weeding	7	18.2	134.6	22.1	-	51.12	60850.00	66456.00	5606.00	1.09
Technology Opt -I: Pyrazosulfuron-ethyl @2.5 g a.i /ha as pre emergence (1-3 DAT)		27.2	143.2	22.5	16.2	58.72	59440.00	76336.00	16896.00	1.28
Technology Option -II: Metsulfuron-methyl +chlorimuron- ethyl @ 4 g a.i /ha at 7-12 DAT		29.8	148.3	22.5	10.1	59.35	59530.00	77155.00	17625.00	1.30
Technology Option-III: Pretilachlor @ 1.0 lit a.i /ha as pre emergence (1-3 DAT)		23.1	137.1	22.3	21.8	55.32	58800.00	71916.00	13116.00	1.22
Sem±		0.85	1.61	NS	-	0.62				
CD(P=0.05)		2.63	4.99	-	-	1.92				

Results:

An OFT in rainy season, 2016 was conducted to assess better weed management practices in *kharif* paddy (Var. MTU 7029) in adopted villages. The result of the trial (table-3) indicated that the Technology Option-II i. E. Use of herbicide Metsulfuron-methyl +chlorimuron- ethyl @ 4 g a.i /ha at 7-12 DAT as early post emergence significantly produced more no. of effective tillers per hill (29.8), grains/panicle (148.3), Test Weight (22.5) and higher yield (59.35 q/ha) than those of other technology options and farmers practice. It was found that at 60 DAT, there was again infestation of weed in the field of farmers practice done. Further the fields were almost weed free in Technology option –II and Technology option-I at peak period of crop weed competition. From the economics of cultivation, it was found that use of herbicide is more economical than hand weeding. Among the herbicides the Technology Option-II Metsulfuron-methyl +chlorimuron- ethyl @ 4 g a.i /ha at 7-12 DAT as early post emergence fetched the higher BC ratio (1.30) than other technology options and farmers practice (1.09).

OFT-4

1.	Title of On farm Trial	Assessment of Location Specific Early Cabbage Varieties for Lateritic Area of Birbhum District
2.	Problem diagnosed	There is a high demand of early cabbage in the local market of Birbhum. It is only brought from Ranchi. So, the price is very high. On the other hand normal season cabbage does not give much profit. Therefore, the farmers are interested to cultivate early variety of Cabbage for better market price
3.	Details of technologies selected for assessment/refinement	Farmer's practice: M-111
		Technology option I. Indum-1299
		Technology option II. Super Helmate
4.	Source of Technology	Vegetable Seed News and Events, Seminis Vegetable Seed, Inc., Internet Source:- http://www.monsanto.mediaroom.com Product Catalogue "Our Products", Indo-American Hybrid Seeds Ltd. Cabbage Advantage, SAKATA, Sakata Seed America, Inc.
5.	Production system and thematic area	Vegetables- fallow- vegetables Variety Replacement
6.	Performance of the Technology with performance indicators	Performance of the technology of early cabbage variety was found statistically significant
7.	Final recommendation for micro level situation	Technology Option –II i.e. Super Helmate variety of early cabbage exhibited significantly higher yield (75.92 t/ha) than those of farmer's practice and Technology Option-I i.e. Indum-1299.
8.	Constraints identified	Seedling raising is sometimes was found difficult due to heavy rainfall in rainy season
	feedback for research	Early variety of other rabi seasonal crops may be studied in this way
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring of the crop, and data collection with KVK scientists. Farmers incurred all the cost of cultivation except seeds, seed tray, pack etc.

Thematic area: Variety Replacement (early Rabi Season, 2016-17)

Problem definition: The farmers are interested to cultivate early variety of Cabbage for better market price

Technology to be assessed: Assessment of Location Specific Early Cabbage Varieties for Lateritic Area of Birbhum District

Table 4: Performance of different early varieties of cabbage

Technology option	No. of trials	Av. Height of the plant (cm)	Av. Head Size (cm)	Av. Head Weight (Kg)	Yield (t/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
Farmer's practice: Milleneum-111	10	25.41	15.65	0.75	21.66	64,500.00	80142.00	15,642.00	1.24
Technology option I. Indum-1299		31.10	18.05	2.05	48.72	77,100.00	180264.00	103164.00	2.34
Technology option II. Super Helmate		37.75	22.25	2.80	74.33	85,400.00	275021.00	189621.00	3.22
Sem±		0.38	0.26	0.07	2.61				
CD(P=0.05)		1.15	0.82	0.20	7.83				

Result:

The result of the trial (Table-4) revealed that Technology Option –II i.e. Super Helmate variety of early cabbage exhibited significantly higher yield (74.33 t/ha) than those of farmer's practice and Technology Option-I i.e. Indum-1299. It was also observed that Technology Option-II (Super Helmate) produced significantly greater Head size (22.25 cm) and Head Weight (2.80 kg) than those of technology Option-I and farmers practice. The early cabbage variety Super Helmate fetched more BC Ratio (3.22) than Indum-1299 (2.34) and Milleneum-111 (1.24),

OFT-5

1.	Title of On farm Trial	Assessment of Location Specific Early Cauliflower Varieties for Lateritic Area of Birbhum District
2.	Problem diagnosed	There is a high demand of early cabbage in the local market of Birbhum. It is only brought from Ranchi. So, the price is very high. On the other hand normal season cabbage does not give much profit. Therefore, the farmers are interested to cultivate early variety of Cabbage for better market price
3.	Details of technologies selected for assessment/refinement	Farmer's practice: Pan-1008
		Technology option I. Don-175
		Technology option II. Seminis-4151
4.	Source of Technology	Vegetable Seed News and Events, Seminis Vegetable Seed, Inc., Internet Source:- http://www.monsanto.mediaroom.com
5.	Production system and thematic area	Vegetables- fallow- vegetables Variety Replacement
6.	Performance of the Technology with performance indicators	Performance of the technology of early cauliflower variety was found statistically significant
7.	Final recommendation for micro level situation	Technology Option –II i.e.Suminis-4151 (Early cauliflower hybrid) variety exhibited significantly higher yield than those of farmer's practice (Pan-1008).
8.	Constraints identified	Seedling raising is sometimes was found difficult due to heavy rainfall in rainy season
	feedback for research	Early variety of other rabi seasonal crops may be studied in this way
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring of the crop, and data collection with KVK scientists. Farmers incurred all the cost of cultivation except seeds, seed tray, pack etc.

Thematic area: Variety Replacement (early Rabi Season, 2016-17)

Problem definition: The Farmers are interested to cultivate early variety of cauliflower to get higher market price.

Technology to be assessed: Assessment of Location Specific Early Cauliflower Varieties for Lateritic Area of Birbhum District

Table 5: Performance of early cauliflower varieties

Technology option	No. of trials	Av. Height of plant (cm)	Av. Curd Size (cm)	Av. Curd Weight (Kg)	Yield (t/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
Farmer's practice: Pan-1008	10	43.85	10.21	0.57	13.65	89120.00	177450.00	88330.00	1.99
Technology option I. Don-175		57.10	13.00	0.78	17.50	102500.00	227500.00	125000.00	2.22
Technology option II. Suminis-4151		63.45	15.94	1.40	35.49	109450.00	461370.00	351920.00	4.21
Sem±		0.45	0.33	0.05	1.12				
CD(P=0.05)		1.34	0.98	0.17	3.30				

Result:

The result of the trial (Table-5) pointed out that Technology Option –II i.e. Suminis-4151 (Early cabbage hybrid) variety exhibited significantly higher yield (35.49 t/ha) than those of farmer's practice (Pan-1008). It was also observed that Technology Option-II (Suminis-4151) produced significantly higher curd size (15.94 cm) and curd weight (1.40 kg) than those of other varieties. BC ratio was higher (4.21) with the cultivation of early cabbage variety Suminis-4151 than Don-175 (2.22) and Pan-1008 (1.99). Due to high price and demand in the market of early variety Sumins-4151 satisfied the farmers a lot.

OFT-6

1.	Title of On farm Trial	Assessment of specific vitamins as growth promoters in carp spawn and fry feed to increase the survival rate to a profitable manner
2.	Problem diagnosed	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.
3.	Details of technologies selected for assessment/refinement	Farmer's practice: Irregular feed application without growth promoter I. Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed II. Yeast (2%) + Vitamin C (0.5%) + Scientific feed III. Yeast (2%) + Vitamin B complex (0.01%) + Scientific feed
4.	Source of Technology	Fish and Fisheries of India - V. G. Jhingran, Hindustan Publishing Corporation (India), New Delhi, 1997, Page No. - 403.
5.	Production system and thematic area	Extension system Nutritional Management
6.	Performance of the Technology with performance indicators	Performance of the technology options was found statistically significant
7.	Final recommendation for micro level situation	Technology Option –I i.e. application of Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed in the nursery pond increased the survival rate (89%) of fish spawn after 20 days of release and also increased the early growth (fry stage) at 30 days
8.	Constraints identified feedback for research	Calculation of the amount of vitamins and growth promoters creates fear among the farmers Mustard Oil Cake may be replaced by azolla and any other ingredients in preparation of scientific fish feed
9.	Process of farmers participation and their reaction	Farmers shared the cost of scientific fish feed and participated actively in maintaining the pond carefully and data collection with KVK scientists effectively

Thematic area: Fish Nutrition Management (Kharif season, 2016)

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

Table 6: 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	47.9	587.5	4.99	47200.00	49900.00	2700.00	1.05
I. Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed		88.8	1131.33	10.95	57670.00	114975.00	57305.00	2.00
II. Yeast (2 %) + Vitamin C (0.5%) +Scientific feed		80.1	1025.58	9.38	57650.00	98490.00	40840.00	1.71
III. Yeast (2%) + Vitamin B complex (0.01%) + Scientific feed		71.1	965.47	7.77	57380.00	81585.00	24205.00	1.42
Sem+		1.75	16.13	0.12				
CD(P=0.05)		5.40	49.71	0.37				

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

Result:

The perusal of the data (Table-6) revealed that the Technology Option –I i.e. application of Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed in the nursery pond increased the survival rate (89%) of fish spawn after 20 days of release and also increased the early growth (fry stage) at 30 days (1131.33 kg/ha) significantly. 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 (10.95 q/ha) at 6 month than those of other options and farmers practice (4.99 q/ha). Accordingly, the BC ratio was also higher (2.00) in the Technology Option –I than others. All the technology options produced significantly higher results than farmers practice. But Technology Option –I i.e. application of Yeast (2%) + Cobalt Chloride (0.1%) + Scientific feed in the nursery pond is the best option according to the statistical analysis.

OFT-7

Title	Evaluation of Shelf-Life of Vegetables stored in a modified Earthen Pot Cool Chamber
Problem Definition	In Semi-Arid Red Lateritic Zone situation of Birbhum District, extreme hot climatic conditions prevail over a large majority of time in every year and the vegetables get spoiled due to this climatic situation very quickly especially in the absence of proper storing system. In addition to this, the villagers can avail fresh vegetables once in week from the Weekly Haat held at their villages.
Hypothesis	The Earthen Pot Cool Chamber may be a good storage system to keep the vegetables comparatively in fresh condition than storage in room temperature and storage in bamboo baskets covered with wet gunny bags. The Earthen Pot Cool Chamber may be an eco-friendly, energy saving and cost effective alternative method of storage of vegetables.
Thematic Area	Storage of Vegetables
Objective	To assess the physiological weight loss, organo-leptic qualities, bacterial population and fungal population in stored vegetables after 8 days of storing.
Farming Situation	The farm women mainly grow vegetables for home consumption in back-yard kitchen garden or they procure vegetables from local “Haats”.
Production System	Vegetables - Vegetables – Vegetables
Farmers’ Practice	Farm women are storing Vegetables in room temperature.
Time	June, 2016
Technology to be used	Modified Earthen Pot Cool Chamber
Details of Technology Assessment	Farmers’ Practice – Vegetables Stored in room temperature Technology Option – I: Vegetables Stored in Bamboo Baskets with Wet Gunny Bags Technology Option – II: Vegetables Stored in Modified Earthen Pot Cool Chambers
Source of Technology	Indian Journal of Traditional Knowledge, Vol. 10 (2), April 2011, pp. 375 – 379, Council of Scientific and Industrial Research (CSIR)
Numbers of Replications	10 (Ten)
Numbers of Earthen Pot Cool Chambers per Replication	01 (One)
Total Numbers of	10 (Ten)

Earthen Pot Cool Chambers	
Critical Input	a. KVK Share: Earthen Pot Cool Chamber b. Farmers' Share: Vegetables
Performance / Monitoring Indicators	Organoleptic Qualities, Average Weights of Vegetables, Average Bacterial Population and Average Fungal Population.

Thematic area: Storage of Vegetables (Winter Season, 2015-16)

Problem definition: In Semi-Arid Red Lateritic Zone situation of Birbhum District, extreme hot climatic conditions prevail over a large majority of time in every year and the vegetables get spoiled due to this climatic situation very quickly especially in the absence of proper storing system. In addition to this, the villagers can avail fresh vegetables once in week from the Weekly Haat held at their villages.

Technology to be assessed: Evaluation of Shelf-Life of Vegetables stored in a modified Earthen Pot Cool Chamber

Table 7: Performance of modified Earthen Pot Cool Chamber in loss of weight (gm)

Technology option	No. of trials	Tomato			Brinjal			Spinach		
		Date 1 i.e 3 rd day	Date 2 i.e 5 th day	Date 3 i.e 7 th day	Date1 i.e. 3 rd day	Date 2 i.e. 5 th day	Date 3 i.e. 7 th day	3 rd day i.e. 3 rd day	6 th day i.e. 5 th day	9 th day i.e. 7 th day
Farmers' Practice – Vegetables Stored in room temperature	10	168.5	277.5	409.0	64.9	137.5	126.5	249.0	462.5	500.0
Technology Option – I: Vegetables Stored in Bamboo Baskets with Wet Gunny Bags		52.4	118.5	272.0	79.4	95.8	93.0	20.0	402.0	468.0
Technology Option – II: Vegetables Stored in Modified Earthen Pot Cool Chambers		32.8	90.5	155.5	43.0	38.0	59.0	136.0	315.0	405.0
Sem _±		6.06	8.94	17.20	5.09	16.43	8.85	18.81	13.04	9.52
CD(P=0.05)		17.88	26.37	51.11	15.11	48.83	26.28	55.88	38.76	28.30

Result:

The perusal of the data (Table-7) revealed that the Technology Option –II i.e. Vegetables Stored in Modified Earthen Pot Cool Chambers performed significantly better in minimum loss of weight during all the date of observation for all the vegetables . It was also observed the Modified Earthen Pot Cool Chambers performed significantly better in case of Tomato and Brinjal than Leafy Vegetables (spinach). Among the vegetables brinjal was stored significantly better by Technology Option II followed by Technology Option I.

OFT-8

1.	Title of On farm Trial	Assessment of potentiality of food fodder intercropping for increasing crop productivity and profitability in Winter season under irrigated lateritic soil
2.	Problem diagnosed	Farmers are not willing to afford land for green fodder cultivation due to low crop productivity and profitability under sole fodder cultivation
3.	Details of technologies selected for assessment/refinement	Farmers Practice : Sole Oat
		Tech. Opt.- I : Oat + Chick pea (1:1)
		Tech. Opt.- II : Oat + Lentil (1:1)
		Tech. Opt.-III : Oat + Yellow Sarson (1:1)
4.	Source of Technology	Report of World Bank Contractual Forage Research Project, Palli-Siksha Bhavana, Visva-Bharati
5.	Production system and thematic area	Rice-Oat-Rice, Rice-Oat-sesame. Cropping System
6.	Performance of the Technology with performance indicators	Harvesting and threshing is going on.
7.	Final recommendation for micro level situation	
8.	Constraints identified feedback for research	
9.	Process of farmers participation and their reaction	

OFT-9

1.	Title of On farm Trial	Evaluation of efficacy of different Training Methods for Skill Development Trainings
2.	Problem diagnosed	<p>The selection of appropriate Training Methods is important for an effective learning. The Training Methods refer to a combination of various instructional media used for conducting the Training to achieve the learning objective efficiently and effectively.</p> <p>The selection of suitable Training Methods is largely influenced by the Training Objectives, Subject Matter handled, participants' nature, resources availability such as Time, Location and Budget, Organizational considerations and Trainers' capability.</p> <p>The choice of the Training Method will also depend upon whether the Training is intended to develop a general or specific level of knowledge and skill. The participants learning style, their experience and size of the group are also some of the factors that are to be kept in mind while deciding upon the Training Methods.</p>
3.	Details of technologies selected for assessment/refinement	<p>Prevalent Practice: Lecture Methods Technology Option – I: Group Discussion Technology Option – II: Case Study Technology Option – III: Field Visits Technology Option – IV: Demonstration Technology Option – V: Experiential Learning</p>
4.	Source of Technology	Concepts, Approaches and Methodologies for Technology Application and Transfer – A Resource Book for KVKs, Zonal Project Directorate, Zone – III, Indian Council of Agricultural Research, Umiam, pp. 103 – 152.
5.	Production system and thematic area	<p>Present Situation:- Generally the Lecture Method for Skill Development Training is being employed where a “Lecture” consisting of oral presentation of the subject matter along with the help of audio-visual aids such as black board, over-head projector, slides, charts etc., so as to help the listeners understand the concept, principle and method being presented.</p> <p>Thematic Area:- Training Methods</p>

6.	Performance of the Technology with performance indicators	Level of participation, Level of understanding, Level of knowledge gain, Degree of decision making skill, Degree of application skill, Degree of problem solving skill and Degree of proper concluding skill.
7.	Final recommendation for micro level situation	Experiential Learning should be used as Training Method for Skill Development trainings as far as possible.
8.	Constraints identified and feedback for research	It needs more time for proper planning, implementation and collection of feed back in Experiential Learning Methodology and also it is more costly as time consumption is more. Future thrust for research in this aspect should be more on designing the Training Methods which would incorporate the fundamentals of Experiential Learning, simplicity of Lecture Method and “Seeing is believing” Principle of Demonstration Method.
9.	Process of farmers participation and their reaction	The selected farmers are from the same Category i.e. Scheduled Tribe (ST) and marginal farmers. Six Groups of the selected Farmers, each of 10 (Ten) farmers in numbers have undergone the six different type of Training Methodology on the same Skill Development Training Topic and Training programme i.e. High Value Winter Vegetable Cultivation. The Trainee farmers ranked the Training Methods according to their own perception on various aspects of performance indicators of different training methods.

Thematic area: Training Methods

Problem definition: The selection of appropriate Training Methods is important for an effective learning. The Training Methods refer to a combination of various instructional media used for conducting the Training to achieve the learning objective efficiently and effectively.

The selection of suitable Training Methods is largely influenced by the Training Objectives, Subject Matter handled, participants’ nature, resources availability such as Time, Location and Budget, Organizational considerations and Trainers’ capability.

The choice of the Training Method will also depend upon whether the Training is intended to develop a general or specific level of knowledge and skill. The participants learning style, their experience and size of the group are also some of the factors that are to be kept in mind while deciding upon the Training Methods.

Technology assessed:

Prevalent Practice: Lecture Methods

Technology Option – I: Group Discussion

Technology Option – II: Case Study

Technology Option – III: Field Visits
Technology Option – IV: Demonstration

Technology Option – V: Experiential Learning

Table: 9 Evaluation of efficacy of different Training Methods for Skill Development Trainings

Technology option	No. of trials	Level of participation (According to the Trainees' Perception) (Participation Index)	Level of understanding (According to the Trainees' Perception) (Understanding Index)	Level of knowledge gain (According to the Trainees' Perception) (Knowledge Index)	Degree of decision making skill (Tested through Viva-Voce Examination of the Trainees) (Percentage of Marks)	Degree of application skill (Tested through Practical Examination of the Trainees) (Percentage of Marks)	Degree of problem solving skill [Tested through Practical Examination (100 Marks) + Theoretical Examination (100 Marks) of the Trainees] (Percentage of Marks)	Degree of proper concluding skill (Tested through Theoretical Examination of 100 Marks) (Percentage of Marks)	Total Score on 100 Point Scale	Rank
Prevalent Practice: : Lecture Methods	10	5.89	4.41	3.12	30.00	27.00	20.00	21.00	232.20	V
Technology Option – I: Group Discussion	10	6.41	5.52	4.71	41.00	39.00	27.00	26.00	299.40	IV
Technology Option – II: Case Study	10	4.02	3.01	3.09	31.00	18.00	11.00	30.00	191.20	VI
Technology Option – III: Field Visits	10	3.31	6.89	6.10	61.00	65.00	67.00	60.00	416.00	III
Technology Option – IV: Demonstration	10	7.19	7.70	7.79	79.00	69.00	79.00	63.00	516.80	II
Technology Option – V: Experiential Learning	10	8.12	9.10	8.11	91.00	71.00	81.00	79.00	575.30	I

Results: The Experiential Learning Training Method holds the First Rank in all the Performance Indicator Parameters for assessing the efficacy of the different Training methods distantly followed by Demonstration Method and Field Visit Method.

OFT-10

1	Title of the on farm trial	Evaluation of efficacy of non antibiotic growth promoter in broiler poultry
2	Problem diagnosed	Potential of antibiotic resistant strains of bacteria and transfer of antibiotic resistance genes from animal to human
3	Details of technologies selected for assessment/refinement	Control: Farmer's practice Technology option-I:Lactobacillus+Saccharomyces(Probiotic)- Technology option-II:- Xylanase+ Phytase+ Amylase+protease(multiple enzyme)- Technology option-III:Probiotic+Multiple enzyme-
4	Source of Technology	Deptt. of animal nutrition, WBUAFS
5	Production system and thematic area	Deep litter system ,Broiler management
6	Performance of the Technology with performance indicators	Body weight gain, Feed conversion ratio, Mortality percentage
7	Final recommendation for micro level situation	Programme is going on
8	Constraints identified and feedback for research	
9	Process of farmers participation and their reaction	

OFT-11

1.	Title of On farm Trial	Assessment of the effect of different water sanitizer on the performance of Broiler chicken under small scale farming system
2.	Problem diagnosed	Poor drinking water quality of commercial broiler farm negatively affected performance
3.	Details of technologies selected for assessment/refinement	<p>Control: Farmers' Practice</p> <p>Technology Option – I: Didecyl dimethyl ammonium chloride (1 ml. / 20 litres of water)</p> <p>Technology Option – II: Chlorine dioxide (1 ml / litre of water)</p> <p>Technology Option – III: Iodine (1 ml / 10 litres of water)</p>
4.	Source of Technology	Notes on Poultry Housing and Management, CARI, Ijatnagar.
5.	Production system and thematic area	Deep litter farming system, Broiler Management
6.	Performance of the Technology with performance indicators	Body Weight gain, Feed conversion Ratio, Mortality percentage
7.	Final recommendation for micro level situation	Programme is going on
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

OFT-12

1.	Title of On farm Trial	Evaluation of influence of different sources of mineral on production performance of Black Bengal Goat
2.	Problem diagnosed	No existing practice of supplementation of mineral at farmers door step
3.	Details of technologies selected for assessment/refinement	Control: Farmer's practice Technology Option – I: Organic Form of Micronutrient(As per NRC,USA,1995) Technology Option – II: Inorganic form of Micronutrient(As per NRC,USA,1995) Technology-III:-Nanoform of micronutrient(As per NRC,USA,1995)
4.	Source of Technology	Deptt. Of Animal Nutrition ,WBUAFS
5.	Production system and thematic area	Semi intensive system ,Nutrition Management
6.	Performance of the Technology with performance indicators	Fecundity, Birth Weight, Immunity status, Growth, nutrient utilization, stress parameter, fecal parameter
7.	Final recommendation for micro level situation	Programme is going on
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

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

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)					
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
Total																	

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

** BCR= GROSS RETURN/GROSS COST

Pulses

Frontline demonstration on pulse crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)					
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
Total																	

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

** BCR= GROSS RETURN/GROSS COST

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters			*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check			Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
1. Dhaincha Pre kharif, 2016	Soil Health Management	Green Manuring in rainy season paddy var. MTU-7029	29	6.0	59.4 (Paddy yield)	50.5 (Paddy yield)	17.6	No. of panicles/ m ²	378	359	59450	77220	17770	1.30	60932	65650	4718	1.08
								No. of grains/ panicle	160	139								
								No. of grains/ panicle	140	133								
2. Drumstick Kharif, 2016	Varietal replacement	PKM-1	68	3.2	Crop is now in growing stage													
3. Elephant Foot Yam Kharif, 2016	Varietal replacement	Bidhan Kusum	24	3.2	Crop now in harvesting stage													
4. Broccoli, Rabi, 2016-17	New Crop Introduction	F1 hybrid Fiesta	21	0.8	14.1	-	-	Curd size (cm)	24.50	-	18660	352500	169500	1.9	-	-	-	-
								Av. Wt (g)	724.3	-								
5. Yellow Sarson Rabi, 2016-17	Weed Management	Herbicides: Pendimethalin pre emergence @ 3 lt. / ha	40	5.0	9.55	7.11	34	Siliquae/ plant	49.2	31.15	17200	47750	30550	2.78	16300	35550	19250	2.18
								Seeds/ siliquae	18.9	15.4								

Vermicompost																
Sericulture																
Apiculture																
Others (pl.specify)																
Total																

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

** BCR= GROSS RETURN/GROSS COST

Women empowerment

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women	Group Formation for Accumulating Social Capital and Increasing Family Incomes (Formation and functioning of Self Help Groups)	03 [60 numbers of members of 3 Self Help Groups (20 members from each group)]	Average Monthly Income of Rs. 1413.00 per Member has been achieved after formation of the Group and functioning of the Group for consecutive Two (02) Years with emphasis on activities for production and marketing of Organic Vegetables, fish, vermin-compost and processed fruits and vegetables in the forms of pickles, jam, jelly, squash, chips, "Baris", spices etc.	Average Monthly Income of Rs. 689.00 per Person not belonging to any Group	Average Monthly Income per Person has increased up to 105.08 per cent over a period of 02 (Two) Years after initial formation of a Self Help Group.
Pregnant women					
Adolescent Girl					
Other women	Back Yard Nutrition Gardening	30	The Programme is going on.		
Children					

Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Feed Back
1	Dhaincha (Pre kharif, 2016)	After cultivation of Dhaincha, application of Nitrogenous fertilizers was reduced up to 21 per cent for the next Paddy cultivation in the same field.
2	Use of Drum Seeder for direct seeding of rice in lines (Kharif, 2016)	It is essential and cost effective as it reduces the labour requirement. The Cost reduction by using Drum Seeder is Rs. 11,600.00 per hectare with an average cost reduction of 64 per cent. But found difficult in rainy season if heavy rain comes within 3 days of sowing
3	Drumstick (Kharif, 2016 – 2017)	The <i>Baramasia</i> Drumstick Var. – PKM -1 in rain-fed up-land fetched very good yield of 38.75 q / ha with an economic return with a B:C Ratio of 2.61 in Rainy Season as well as in Winter Season in addition to the normal yield in Summer Season.
4	Capsicum (Rabi, 2016-17)	The Capsicum Variety – Bharatis dwarf in type, its branching is more, fruiting setting is more and average fruit sizes are also more than locally available Varieties. The Yield of Var. Bharat is The Capsicum Variety – Bharat gives satisfactory yields even in late planted cases and with an increased yield of 82.9 per cent over the local check and with a B:C Ratio of 1.96 .
5	Broccoli (Rabi, 2016-17)	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. The Broccoli has a yield of 13.4 q / ha and with a B:C Ratio of 2.02.
6	Wheat (Rabi 2016 – 2017)	The Wheat Variety HD – 2824 with an average yield of 39.4 q / ha and PBW 343 with an average of 37.8 q / ha both may be cultivated instead of Sonalika. The percentage yield of the Var. HD – 2824 increased 26.3 percentage and the percentage yield of the Var. PBW – 343 increased over 21.2 percent over the local check Sonalika. The seed rate should less in PBW 343 as it growth habit is more spreading. Both can give yield in slight late situation.
7	Use of Herbicide Pendimethalin for Yellow Sarson in Rabi in 2016 - 17	Use of Herbicide Pendimethalin for Yellow Sarson in Rabi in 2015 – 16 showed an average increase Yield of 33.4 per cent over the local check with a B: C Ratio of 2.77.
8	Use of Cono Weeder for Mechanical weeding in SRI (Summer, 2017)	It is essential and cost effective as it reduces the labour requirement. The Cost reduction by using Cono Weeder is Rs. 4,200.00 per hectare with an average cost reduction of 48 per cent.
9	Fodder Sorghum (Pre kharif, 2016)	Very luxuriant green fodder was produced with an increased Yield of 86 per cent over the local Check Goma, with CP Percentage of 9.12 over 6.55 of the local check and with an increased B:C Ratio of 2.22 over the local Check B:C Ratio of 1.38.
10	Fodder Maize (Kharif, 2016)	Very luxuriant green fodder was produced with an increased Yield of 44.4 per cent over the local Check Local Improved, with CP Percentage of 8.65 over 8.12 of the local check and with an increased B:C Ratio of 2.37 over the local Check B:C Ratio of 1.84.
11	Fodder Rice Bean (Kharif, 2016)	Rice Bean Var. Bidhan – 1 is a very luxuriant green fodder was produced with a CP Percentage of 27.1 and Rice Bean Var. Bidhan – 2 is a very luxuriant green fodder was produced with a CP Percentage of 27.3.
12	Hybrid Napier	The Programme is going.
13	Area Specific Mineral Mixture for Lactating Deshi Cow	Area Specific Mineral Mixture for Lactating Deshi Cow is very effective as far as Milk Yield is concerned, it is increased by 29.36 percentage point over the local check and Fat Percentage is increased by 4.78 percentage point over the local check and with a B:C ratio of 1.33 in case of Demonstration over the local check B:C ratio of 0.78.
14	Low cost concentration supplementation for flushing of does	The Programme is going on.
15	Cultivation of Bhetki	The Programme is going on.

	with composite fish culture	
16	Group formation for accumulating Social Capital and increasing Family Incomes	<p>Average Monthly Income of Rs. 1413.00 per Member has been achieved after formation of the Group and functioning of the Group for consecutive Two (02) Years with emphasis on activities for production and marketing of Organic Vegetables, fish, vermin-compost and processed fruits and vegetables in the forms of pickles, jam, jelly, squash, chips, “Baris”, spices etc.</p> <p>Average Monthly Income is Rs. 689.00 per Person not belonging to any Group. Average Monthly Income per Person has increased up to 105.08 per cent over a period of 02 (Two) Years after initial formation of a Self Help Group.</p>
17	Backyard Nutrition Gardening	The Programme is going on.

Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	03.04.2016	01	40	i. Area Specific Mineral Mixture Supplementation for Deshi Milch Cows
		14.04.2016	01	29	ii. Rural Back Yard Poultry Farming with Improved Breeds
		16.05.2016	01	41	iii. Lost Cost Concentrate for Black Bengal Does
		30.05.2016	01	25	iv. Cultivation of All the Year Fruiting Drumsticks (Var. PKM – 1)
		12.06.2016	01	56	v. Cultivation of Green Fodder like Rice Bean (Var. Bidhan – 2) and Sorghum (Var. MP Chari)
		18.07.2016	01	50	vi. Cultivation Practices of Dhaincha as a Green Manuring Crop
		30.07.2016	01	60	vii. Cultivation Practices of Green Fodders like Maize (Var. African Tall), Rice Bean (Var. Bidhan – 2) and Sorghum (Var. Jumbo)
		13.08.2016	01	51	viii. Nursery management for Horticultural Crops
		15.09.2016	01	60	ix. Composite fish culture

		18.09.2016	01	64	x. Integrated Pest Management in Kharif Crops
		29.10.2016	01	63	xi. Sowing of Rabi Oilseeds
		14.11.2016	01	61	xii. Land Preparation and Varieties for Rabi Pulses
		08.12.2016	01	60	xiii. Intercultural Operations for Rabi Oilseeds
		09.01.2017	01	42	xiv. Final Stages of Crop Growth for Rabi Oilseeds
		15.02.2017	01	40	xv. Intercultural Operations for Rabi Pulses
		29.03.2017	01	41	xvi. Final Stages, Harvesting, Storing and Processing of selected Rabi Pulses
			(Total No. – 16)	(Total No. – 783)	
2.	Farmers Training	22.06.2016;	01	18	i.FLD Training on Dhaincha
		26.09.2016 to 27.09.2016 and 29.09.2016;	01	23	ii. Improved Cultural Practices of Capsicum, Broccoli, Ornamental Cabbage, Lettuce
		16.10.2016;	01	40	iii. Improved Variety and Sowing of mustard
		30.10.2016;	01	24	iv. Improved Varieties of rabi pulses
		03.11.2016;	01	31	v. Sowing and Phosphate Management of Green Gram and Field Pea
		07.11.2016;	01	28	vi. Improved Variety and Sulphur Application in Rabi Oilseeds
		09.11.2016;	01	25	vii. Use of Bio-Fertilizers and Inorganic Phosphorus for Pulse Cultivation
		26.11.2016;	01	39	viii. Improved Variety and Sowing of Lentil and Chick Pea
		28.11.2016;	01	20	ix. Improved Fertilizer Management in Lentil and Field Pea

		07.12.2016;	01	33	x. Improved Variety and Irrigation Management in wheat cultivation
		15.01.2017;	01	10	xi. FLD Training on Low Cost Concentrate Supplement to Black Bengal Does
		12.02.2017;	01	29	xii. Seed Treatment and Phosphate Management of Black Gram
		16.02.2017;	01	30	xiii. Seed Treatment and Phosphate Management of Green Gram
		18.02.2017;	01	35	xiv. Land preparation and Sowing of Sesame
		20.02.2017;	01	25	xv. Fertilizer Management of Sesame
		29.02.2017	01	30	xvi. Group Approach for Economic activities and Social capital accumulation
		01.03.2017.	01	25	xvii. Use of Herbicides and Micro-Nutrients in Summer Pulses
			(Total No. – 17)	(Total No. – 465)	
3.	Media coverage	19.04.2016	01	Not assessed	i. Recorded Television Programme on Green Gram for E-Tv News
		21.06.2016	01	Not assessed	ii. Recorded Television Programme on Dhaincha for E-Tv News
		14.07.2016	01	Not assessed	iii. Live Radio Phone-In Programme on Group formation and Agricultural Loan for AIR
		28.08.2016	01	Not assessed	iv. Recorded Radio Programme on Dairy for AIR
		29.08.2016	01	Not assessed	v. Recorded Television Programme on Area Specific Mineral Mixture Supplementation and Fodder Cultivation for Doordarshan

		02.01.2017	01	Not assessed	vi. Live Radio Phone-In Programme on Intercultural Operations of Wheat for AIR
		18.02.2017	01	Not assessed	vii. Recorded Television Programme on Fodder Cultivation for E-Tv News
		28.02.2017	01	Not assessed	viii. Recorded Television Programme on Improved Rural poultry Breeds for E-Tv News
		29.02.2017	01	Not assessed	ix. Recorded Television Programme on Area Specific mineral Mixture for feeding the Animals for E-Tv News
		29.02.2017	01	Not assessed	x. Recorded Television Programme on Low Cost Concentrate for Goat Cultivation for E-Tv News
		16.03.2017	01	Not assessed	xi. Recorded Radio Programme on Rural Livelihood Development through Back Yard Farming for AIR
		24.03.2017	01	Not assessed	xii. Recorded Television Programme on Water Quality Management in broiler for Doordarshan
			(Total No. – 12)		
4.	Training for extension functionaries	04.06.2016 to 05.06.2016	01	17	i. Cultivation of Drumsticks Var. PKM – 1 (Barmasia Variety)
		05.06.2016	01	17	ii. Pest and Disease Management of Moringa
		05.06.2016	01	17	iii. Marketing Mechanism of produced Drumsticks
		29.01.2017	01	33	iv. Crop Diversifications of Horticultural Crops
		28.03.2017	01	30	v. Crop Diversification through cultivation of Pulses and Oilseeds
			(Total No. – 05)	(Total No. – 114)	

Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif 2016 and Rabi 2016-17:

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1	Pulses Kharif-2016 Black gram	Kali-50	5.2	102	156	480	Crop:- Kharif Black Gram Var. WBU 109 + Herbicides + Micronutrient spray	99	20	9.15	7.20	8.15	289	189	61
2	Crop:- Rabi Pulses-2016-17, Chick Pea Var. Anuradha + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and luxuriant shiny colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds	Late sown varieties are required to be incorporated in cropping sequence after long duration Kharif Paddy. Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Appropriate good quality <i>Rhizobium</i> culture should be ensured for supply among the farmers. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation	Crop :- Chick Pea Var. Anuradha + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and luxuriant shiny colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers	Late sown varieties are required to be incorporated in cropping sequence after long duration Kharif Paddy. Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Appropriate good quality <i>Rhizobium</i> culture should be ensured for supply among the farmers. Low cost quality herbicides and micro-nutrients should be encouraged for	Crop:- Chick Pea Var. Anuradha + Herbicides, Micronutrient spray

				the beneficiaries when the programme support would be withdrawn.		of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micronutrients, plant protection chemicals, irrigation water, labour etc.	facilities should be created by the Governmental agencies.						are greatly concerned about the rising prices of inputs like herbicides, micronutrients, plant protection chemicals, irrigation water, labour etc.	dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.	
3	Lentil	Asha	7.15	115	215	785	WBL-77 + Herbicides, Micronutrient spray	69	20	11.10	9.25	12.67	480	256	70
4	Field Pea	Local	3.15	5	762	1185	Rachna + Herbicides, Micronutrient spray	48	20	12.82	6.50	10.94	14680	102	65

5	Rabi Summer-2017-18, Greengram	Panna	Crop is now in flowering stage				PDM-84-139 + Herbicides, Micronutrient spray	79	20	Crop is now in growing stage					
6	Oilseed Kharif-2016 Sesame	Tilottoma	7.95	138	120	405	Var. SWB-32-10-1 + Herbicides, Micronutrient spray	69	20	11.8	8.05	10.47	183	210	62
7	Rabi Oilseeds-2016-17, Mustard	B-9	9.05	236	172	795	Var. Pusa Mahek + Herbicides, Micronutrient spray	70	30	12.95	9.35	12.02	126	173	37
8	Rabi Oilseeds-2016-17, Linseed	Local improved	4.14	186	114+	786	Var. Deepika + Herbicides, Micronutrient spray	60	30	7.88	4.50	7.15	162	364	38
9	Rabi Summer-2017-18, Sesame	Tilottoma	Crop is now in flowering stage				Var. SWB-32-10-1 + Herbicides, Micronutrient spray	65	20	Crop is now in growing stage					

B. Economic parameters

Sl. No.	Variety demonstrated & Technology demonstrated	Farmer's Existing plot				Demonstration plot			
		Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
1	Crop:- Pulses Kharif-2016, Black Gram Var. WBU 109 + Herbicides+ Micronutrient spray	13700	28600	14900	2.09	14550	44825	30275	3.08
2	Crop:- Rabi Pulses-2016-17, Chick Pea, Var. Anuradha + Herbicides, Micronutrient spray	15235	37500	22265	2.46	16637	69250	52613	4.16
3	Var.WBL-77 + Herbicides, Micronutrient spray	15317	42900	27583	2.80	17100	76020	58920	4.45

4	Var. Rachna + Herbicides, Micronutrient spray	11000	14175	3175	1.29	12650	49230	36580	3.89
5	Var. PDM-84-139 + Herbicides, Micronutrient spray	Crop is now in flowering stage							
6	Crop:- Oilseeds Kharif-2016, Sesame Var. SWB-32-10-1 + Herbicides, Micronutrient spray	13000	35775	22775	2.75	13850	47115	33265	3.40
7	Rabi Summer-2017-18, Pusa Mahek (Improved variety) + Herbicides, Micronutrient spray	18167	45250	27083	2.49	19000	60100	41100	3.16
8	Deepika/ Sekhar (Improved variety) + Herbicides, Micronutrient spray	13332	28980	15648	2.17	14410	50050	35640	3.47
9	Var. SWB- 32-10-1 + Herbicides, Micronutrient spray	Crop is now in growing stage							

C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Mandays/house hold)
1	Pulses Kharif - 2016 Black Gram Var. WBU 109	16300	250	55.00	Rest is kept for Dal processing and sowing seeds in the next season.	-	Payment for Labour bill, payment for fertilizer, pesticide expenditures and also family need	08
2	Crop:- Rabi Pulses-2016-17, Chick Pea Var. Anuradha	27700	145	50.00	Rest is kept for Dal processing and sowing seeds in the next season.	-	Payment for Labour bill, payment for irrigation, fertilizer and pesticide expenditures.	10

3	Lentil Var. WBL-77	25340	240	60.00	Rest is kept for Dal processing and sowing seeds in the next season.	-	Payment for Labour bill, payment for irrigation, fertilizer and pesticide expenditures.	15
4	Field Pea Var. Pravat	21880	260	45.00	Rest is kept for Dal processing and sowing seeds in the next season.	-	Payment for Labour bill, payment for irrigation, fertilizer and pesticide expenditures.	12
5	Green Gram Var. PDM-84-139	Crop is now in growing stage						
6	Crop:-Oilseeds Kharif-2016, Sesame Var. SWB- 32-10-1	20940	145	45.00	Rest is kept for extracting oil and sowing seeds in the next season	-	Payment of labour bill, Fertilizer and pesticide cost and family need	17
7	Rabi Oilseeds- 2016-17, Mustard Var. Pusa Mahek	36060	150	50.00	Rest is kept for extracting oil and sowing seeds in the next season.	-	Payment of labour bill, Fertilizer and pesticide cost	20
8	Rabi Oilseeds- 2016-17, Linseed var. Deepika	21450	100	70.00	Rest is kept for extracting oil and sowing seeds in the next season.	-	Payment of labour bill, Fertilizer and pesticide cost	13

9	Rabi Summer-2017-18, Sesame Var. SWB- 32-10-1	Crop is now in growing stage
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D. Oilseed Farmers' perception of the intervention demonstrated

Sl. No.	Technologies demonstrated (with name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
1.	Crop:- Pulses Kharif-2016 Black Gram Var. WBU 109 + Herbicides+ Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and shiny black colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	Improved Variety of White Colored seeds of Mustards should be tried out. Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.
2	Crop:- Rabi Pulses-2016-17, Chick Pea Var. Anuradha + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and luxurious shiny colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other	Late sown varieties are required to be incorporated in cropping sequence after long duration Kharif Paddy. Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Appropriate good quality <i>Rhizobium</i> culture

				fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.		farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	should be ensured for supply among the farmers. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.
3	Crop:- Lentil Var.WBL-77 + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer bold sized seeds and attractive brown colour of the seeds of the variety. Besides these, it can be easily boiled saving fuel.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	Late sown varieties are required to be incorporated in cropping sequence after long duration Kharif Paddy. Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Appropriate good quality <i>Rhizobium</i> culture should be ensured for supply among the farmers. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

4	Crop:- Field Pea Var. Rachna + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer this variety due to its potential for more yield in less areas. Its seeds can be easily boiled and used for preparation of “Ghoogny”, a local delicacy.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	Availability of seeds should be ensured in time. Appropriate good quality <i>Rhizobium</i> culture should be ensured for supply among the farmers. Low cost quality herbicides and micro- nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.
5	Crop:- Green Gram Var. PDM-84- 139 + Herbicides, Micronutrient spray	Crop is now in growing stage					
6	Var. SWB- 32- 10-1 + Herbicides, Micronutrient spray	Suitable to a large extent	Farmers prefer the new improved variety of sesame i.e. Savitri as the existing variety of local check tillotoma gives a yield and takes more time than new variety Savitri.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and	Availability of seeds should be ensured in time. Low cost quality herbicides and micro- nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

				when the programme support would be withdrawn.		the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients etc. But a good demand of the crop in the market is found.	
7	Var. Pusa Mahek + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer white colored seeds of Mustards.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	Improved Variety of White Colored seeds of Mustards should be tried out. Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.
8	Var. Deepika + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer the new improved variety of Linseed i.e. Deepika /	New improved variety seeds are affordable. However other components of package of	None	No, the improved variety and the technological supportive package of	Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Low cost quality

			<p>Sekhar; as the existing variety of Local Improved gives a very poor yield.</p>	<p>practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.</p>		<p>practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients etc. The demand in local market of the crop is not satisfactory.</p>	<p>herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.</p>
9	<p>Rabi Summer-2017-18, Sesame, Var. SWB- 32-10-1 + Herbicides, Micronutrient spray</p>	Crop is now in growing stage					

E. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers' Feedback
Crop:- Pulses Kharif-2016, Black Gram			
1. Duration	Shorter	New variety: 75 days Local check: 95 days	57 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 15375/ha than local check which is very much encouraging for blackgram cultivation in monocropped upland and medium land in kharif season instead of rice.
2.No. of branches/ plant	Highly branched	New technology: 8 Local check: 6	
3.No. of pods /plant	Higher	New technology: 44 Local check: 21	

Crop: Rabi Pulses-2016-17, Chick Pea			
2. No. of branches/ plant	Highly branched	New technology: 17 Local check: 9	84 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 30348/ha than local check which is very much encouraging for chickpea cultivation after short duration kharif rice.
3. No. of pods /plant	Higher	New technology: 44 Local check: 21	
Crop: Rabi Pulses-2016-17, Lentil			
1.No. of branches/ plant	Highly branched	New technology: 11 Local check: 6	77 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 31337/ha than local check which is very much encouraging for lentil cultivation under rice fallow situation
No. of pods /plant	Higher	New technology: 33 Local check: 16	
Crop: Rabi Pulses-2016-17, Field pea, var. Rachna			
1.No. of branches/ plant	Highly branched	New technology: 10 Local check: 6	247 % increase in yield was obtained through the new technology than local check. It is almost new introduction to most of the farmers. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 33405/ha than local check which is very much encouraging under rice fallow situation
No. of pods /plant	Higher	New technology: 30 Local check: 15	
Crop: Green gram, Var. PDM 84-139	Crop is now in growing stage		
Crop: Oilseeds Kharif-2016, Sesame			
i) Duration	Satisfactory	Technology: 85 days Local Check: 95 days	31 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 10490/ha than local check which is very much encouraging for sesame cultivation in kharif season instead of rice.
ii) No. of siliqua/plant	High	Technology: 41 Local Check: 29	
iii) Colour of the seed	Attractive	Technology: White Local Check: Brown	

Crop:Rabi Oilseeds-2016-17, Mustard, Var. Pusa Mahek			
1.Plant height (cm)	Height is more	New technology: 128 Local check:88	33 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 14017/ha than local check which is very much encouraging for mustard cultivation even in late sown condition
2.No. of branches/ plant	Highly branched	New technology: 8 Local check: 6	
3.No. of pods /plant	Higher	New technology: 44 Local check: 21	
Crop: Linseed, Var. Deepika			
1.No. of branches/ plant	Highly branched	New technology: 10 Local check: 6	73 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 19992/ha than local check which is very much encouraging for linseed cultivation even under rice fallow situation
No. of pods /plant	Higher	New technology: 31 Local check: 15	
Crop: Sesame, Var. SWB 32-10-1	Crop is now in growing stage		

F. Extension activities under FLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
01.	Field Visit on Black Gram Plot	05.04.2016. Village:- Dangan, Dist.:- Birbhum	11
02.	Field Visit on Sesame Plot	19.04.2016. Village:- Radhanagar, Dist.:- Birbhum	12
03.	Field Visit on Black Gram Plot	20.05.2016 Village:- Baidyanathpur, Dist.:- Birbhum	10
04.	Training of Grassroot Level Extension Functioneries on Cultivation of Black Ggram and Sesame as diversified crop in rainy season	14.07.2016. Rathindra KVK	21
05.	Telecasting of Recorded Television Programme on Cluster FLD on Black Gram with Improved variety for Crop Diversification through E-Tv News Channel	14.07.2016. Rathindra KVK	Not Assessed
06.	Telecasting of Recorded Television Programme on Cluster FLD on Seame with Improved variety for Crop Diversification through E-Tv News Channel	14.07.2016. Rathindra KVK	Not Assessed
07.	FLD Training of Practising Farmers on Land preparation, <i>Rhizobium</i> inoculation on Black Gram in Kharif season	16.07.2016 Village:- Baromalika, Dist. - Birbhum	30
08.	FLD Training of Practising Farmers on Phosphate management and micronutrient application in Black Gram in Kharif season	21.07.2016. Village:- Nurpur, Dist.:- Birbhum	30
09.	FLD Training of Practicing Farmers on Land preparation and sowing of Sesame in Kharif season.	23.07.2016. Village:- Rajatpur, Dist.:-	23

		Birbhum	
10.	FLD Training of Practicing Farmers on Fertilizer management and micronutrient application in Sesame in Kharif season.	26.07.2016. Village – Radhamohanpur Dist. – Birbhum	29
11.	Scientists of the Rathindra KVK has given suggestions on improved Package of Practices of Black Gram Cultivation in up-land situation in the South Bengal Edition of one of the most popular vernacular language Newspapers of West Bengal i.e. Anandabazar Patrika.	27.07.2016.	Not Assessed
12.	Telecasting of Recorded Television Programme on Sesame Cultivation in Kharif Season telecasted by E-Tv News	01.08.2016.	Not Assessed
13.	Training of Grassroot Level Extension Functioneries on Cultivation of Pulse and Oil seed for crop diversification in Kharif Season.	05.08.2016. Village:- Baidyanathpur, Dist. - Birbhum	09
14..	Field Visit by KVK Scientists	23.08.2016 Village – Bishnubati, Dist. – Birbhum	16
15.	Training of Rural Youths on Pulse cultivation towards sustainability.	11.08.2016. Rathindra KVK	58
16.	Training of Farm Women on Crop of Pulse for sustainable Soil health management	15.08.2016. Rathindra KVK	28
17.	Broadcasting of Live Phone-In Radio Programme on Cultivation of Black Gram and Sesame as Diversified Crop replacing Kharif Paddy	20.08.2016. All India Radio Santikietan Station	Not Assessed
18.	Training of Practicing Farmers on Sowing of Black Gram	20.08.2016. Village:- Dangal, Dist. - Birbhum	45
19.	Training of Practicing Farmers and Farm Women on Improved Pulse Production for nutrition security	17.09.2016. Rathindra KVK	23
20.	Field Visit by KVK Scientists	29.09.2016. Village – Digha, Dist. - Birbhum	30
21.	Training of Rural Youths on Land utilizations through cultivation of Oilseed replace paddy in Kharif season.	18.10.2016 Rathindra KVK	29
22.	Training of Practicing Farmers and Farm Women on Improved Pulse cultivation for nutritional security	24.10.2016 Rathindra KVK	18
23.	Training of Practicing Farmers on harvesting and threshing of Kharif Black Gram	27.10.2016 Village:- Patadanga, Dist.:- Birbhum	15
24.	Training of Practicing Farmers and Farm Women on Improved technology in Rabi pulse cultivation	10.11.2016 Village:- Kartickdanga, Dist.- Birbhum	35
25.	Scientists of the Rathindra KVK has provided “A Report: Profit by cultivating Pulse in Kharif under Cluster FLD Programme of RKVK” in the South Bengal Edition of one of the most popular vernacular language Newspapers of West Bengal i.e. Anandabazar Patrika.	11.11.2016.	Not Assessed
26.	Training of Practicing Farmers and Farm Women on Improved Technology in Rabi Oilseed cultivation	12.11.2016. Village:- Khanjanpur, Dist.:- Birbhum	10
27.	Field Day on Land Preparation and sowing of Lentil	13.11.2016. Village:- Maladang, Dist.:- Birbhum	30
28.	Field Day on Land Preparation and sowing of Chick	14.11.2016.	38

	Pea	Village:- Kamalakantapur, Dist.:- Birbhum	
29.	Field Visit by KVK Scientists	17.11.2016. Village – Kankutia, Dist. - Birbhum	11
30.	Scientists of the Rathindra KVK has given suggestions on improved Package of Practices of Rabi Oilseed Crops in the South Bengal Edition of one of the most popular vernacular language Newspapers of West Bengal i.e. Anandabazar Patrika.	02.12.2016.	Not assessed
31.	Field Day on Vegetative Growth Stage of Mustard	03.12.2016. Village:- Rajatpur, Dist.:- Birbhum	34
32.	Training of Practicing Farmers on Land preparation and sowing of pulse.	06.12.2016 Rathindra KVK	35
33.	Training of Practicing Farmers and Farm Women on Land preparation & sowing of Rabi oilseed.	07.12.2016 Rathindra KVK	25
34.	Scientists of the Rathindra KVK has provided “A Report: Success in Pulse cultivation using fallow land in Kharif by RKVK” in the vernacular language popular Newspaper “Panchayat-Oo-Aamra”	15.12.2016.	Not Assessed
35.	Field Visit by KVK Scientists	23.12.2016. Village – Kartickdanga, Birbhum	15
36.	Field Day on Flowering Stage on Linseed	12.01.2017 Village:- Bejana, Dist.:- Birbhum	30
37.	Field Visit on Pod formation of Field Pea	14.01.2017. Village;- Bandhghora, Dist.:- Birbhum	11
38.	Field Day on Flowering Stage of Mustard	29.01.2017. Village:- Ghoshaldanga, Dist. :- Birbhuim	38
39.	Field Day on Land Preparation and Sowing of Green Gram	03.02.2017 Village:- Kankutia, Dist.:- Birbhum	33
40.	Broadcasting of Recorded Radio Programme on Pulse Cultivation in Summer Season through All India Radio	04.02.2017. All India Radio Santiniketan station	Not assessed
41.	Training of Practicing Farmers on Intercultural Operation in Rabi Pulses Cultivation.	11.02.2017 Village:- Khanjanpur, Dist.:- Birbhum	34
42.	Field Day on Land Preparation and Sowing of Sesame	16.02.2017. Village:- Nurpur, Dist.:- Birbhum	34
43.	Training of Practicing Farmers on Improved Variety and Fertilizer Management in Summer Sesame.	17.02.2017 Village:- Daronda, Dist.:- Birbhum	41
44.	Training of Practicing Farmers on Harvesting Threshing & Strolling of Lentil, Chick Pea and Field Pea	23.02.2017 Village:- Bandh Nabagram, Dist.:- Birbhum	17
45.	Telecasting of Recorded Television Programme on	23.02.2017.	Not Assessed

	Cultivation Practices and Benefits of Chick Pea through E-Tv News Channel	E-Tv News Office	
46.	Telecasting of Recorded Television Programme on Cultivation Practices and Benefits of Lentil through E-Tv News Channel	23.02.2017. E-Tv News Office	Not Assessed
47.	Telecasting of Recorded Television Programme on Cultivation Practices and Benefits of Linseed through E-Tv News Channel	23.02.2017. E-Tv News Office	Not Assessed
48.	Telecasting of Recorded Television Programme on Seed Treatment and Rhizobium Inoculation of Summer Green Gram	25.02.2017. E-Tv News Office	Not Assessed
49.	Scientists of the Rathindra KVK has provided “A Report: Advice in Rabi pulse and Oilseed Cultivation by RKVK” in the South Bengal Edition of one of the most popular vernacular language Newspapers of West Bengal i.e. Anandabazar Patrika.	28.02.2017	Not assessed
50.	Field Day on Maturity and harvesting of Lentil	02.03.2017. Village:- Mahidapur, Dist.:- Birbhum	52
51.	Training of Practicing Farmers on Summer Pulses Oilseeds Cultivation	14.03.2017 Village:- Khairidanga, Dist.:- Birbhum	26
52.	Training of Practicing Farmers and Farm Women on Sowing and Fertilizer Management of Black Gram and Green Gram Cultivation.	16.03.2017 Village:- Kankutia, Dist.:- Birbhum	19
53.	Training of Practicing Farmers and Farm Women on Seed Production Technology of Black Gram and Green Gram Phase-I	20.03.2017 Rathindra KVK	41
54.	Training of Practicing Farmers and Farm Women on Seed Production Technology of Black Gram and Green Gram Phase-II	21.03.2017 Rathindra KVK	37

G. Sequential good quality photographs (as per crop stages i.e. growth & development)









H. Farmers' training photographs



I. Quality Photographs of field visits/field days and technology demonstrated.



Field visit of Mustard field



Field visit of Linseeds field



Field visit of sesame field

J. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Kharif, 2016, Pulse (Black Gram)	i) Critical input	1,50,000.00	1,32,485.00	17,515.00
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv) Publication of literature etc.			
Total		1,50,000.00	1,32,485.00	17,515.00

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Kharif, 2016, Oilseed (Sesame)	i) Critical input	60,000.00	58,304.00	1,696.00
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv)Publication of literature etc.			
Total		60,000.00	58,304.00	1,696.00

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Rabi, 2016- 17, Pulse (Chick Pea, Lentil, Field Pea)	i) Critical input	4,50,000.00	3,98,476.00	51,524.00
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv)Publication of literature etc.			
Total		4,50,000.00	3,98,476.00	51,524.00

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Rabi, 2016- 17, Oilseed (Rapeseed, Mustard, Linseed)	i) Critical input	1,80,000.00	1,42,085.00	37,915.00
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv)Publication of literature etc.			
Total		1,80,000.00	1,42,085.00	37,915.00

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Summer, 2017, Pulse	i) Critical input	1,50,000.00	1,21,000.00	29,000.00
	ii) TA/DA/POL etc. for monitoring			

(Green Gram)	iii) Extension Activities (Field day, training etc)			
	iv) Publication of literature etc.			
Total		1,50,000.00	1,21,000.00	29,000.00

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Summer, 2017, Oilseed (Sesame)	i) Critical input	Programme is going on.		
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv) Publication of literature etc.			
Total				

Boloram Ghosh	Lt. Ramanath Ghosh	Khanjanpur, Birbhum	Bolpur sriniketan			23°42'45.5"	87°39'23.7"										
Tapan Chatterjee	Panchkori Chatterjee	Khanjanpur, Birbhum	Bolpur sriniketan	890066 2069		23°42'45.2"	87°39'23.5"										
Sridham Chatterjee	Panchkori Chatterjee	Khanjanpur, Birbhum	Bolpur sriniketan			23°42'47.3"	87°39'20.0"										
Santanu Chatterjee	Swapan Chatterjee	Khanjanpur, Birbhum	Bolpur sriniketan	738453 2386		23°42'48.6"	87°39'19.5"										
Protap Ghosh	Sushanta Ghosh	Khanjanpur, Birbhum	Bolpur sriniketan	837281 4170		23°42'48.8"	87°39'20.3"										
Niranjan Ghosh	Sarat chandra Ghosh	Khanjanpur, Birbhum	Bolpur sriniketan	967932 6186		23°42'44.5"	87°39'24.6"										
Ananda Ghosh	Narayan Ghosh	Khanjanpur, Birbhum	Bolpur sriniketan	980089 0458		23°42'45.3"	87°39'23.6"										
Santi kumar Ghosh	Pashupati Ghosh	Khanjanpur, Birbhum	Bolpur sriniketan			23°42'45.2"	87°39'23.5"										

e) Crop 3: Rabi Pulses-2016-17, Field Pea

Name of farmer	Father's name	Village	Block	Mobil e No.	Email ID	GPS Coordinates (DDMMSS format)	S o i l t e s t i n g d o	Reco mme ndati ons base d on soil test value	Brief techn ology interv entio n	Variety	Seed quantit y used	Demo. Yield (q/ha)	Yield of local check q/ha	% increase
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h) Crop:- Rabi Summer Pulses-2017-18, Greengram

Sl. No.	Name of Farmer	Father's name	Address	Block	Mobile No.
1	Jagadish Ghosh	Dinabandhu Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9609673249
2	Laltu Pal	Sudhir Pal	Vill- Akamba, Post- Dumrut	Illambazar	8926176903
3	Mahadeb Ghosh	Lt Satkari Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9153069215
4	Biman Chandra Ghosh	Lt Bhagya Bhushan Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9153119500
5	Radha Charan Mandal	Lt Doman Mandal	Vill- Akamba, Post- Dumrut	Illambazar	
6	Pratap Mondal	Sadhu Charan Mandal	Vill- Akamba, Post- Dumrut	Illambazar	9153150665
7	Tapas Ghosh	Jiten Chandra Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	8670605645
8	Sukumar Ghosh	Lt Bhupati Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9732032325
9	Nabakumar Ghosh	Lt Kartik ghosh	Vill- Akamba, Post- Dumrut	Illambazar	
10	Fanibhushan Ghosh	Lt Achinta Gosh	Vill- Akamba, Post- Dumrut	Illambazar	
11	Dinabandhu Ghosh	Lt Bhanga Bhushan Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	8016976285
12	Binay Ghosh	Lt Shyamapada Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9153114027
13	Burdeb Ghosh	Lt Sanshak Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9153588113
14	Sahadeb Ghosh	Lt Sanshak Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	
15	Bhagyadhar Garai	Lt Paban Garai	Vill- Akamba, Post- Dumrut	Illambazar	8640838676
16	Gadadhar Garai	Lt Paban Garai	Vill- Akamba, Post- Dumrut	Illambazar	9832149655
17	Gunadhar Garai	Lt Paban Garai	Vill- Akamba, Post- Dumrut	Illambazar	
18	Samar Mete	Mucharam Mete	Vill- Akamba, Post- Dumrut	Illambazar	8016893610
19	Sudeb Ghosh	Lt Bhupati Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	
20	Ajit Ghosh	Muktipada Ghosh	Vill- Akamba, Post- Dumrut	Illambazar	9775780028
21	Bhabasindhu Ghosh	Sukumar Ghosh	Vill- Narayanpur, Post- Digha	Sainthia	9564958412
22	Anil Ghosh	Lt Dukhaharan Ghosh	Vill- Narayanpur, Post- Digha	Sainthia	
23	Ashish Ghosh	Lt Muktipada Ghosh	Vill- Narayanpur, Post- Digha	Sainthia	
24	Shishir Ghosh	Shankar Ghosh	Vill- Narayanpur, Post- Digha	Sainthia	
25	Amarendra Manhdal	Lt Muktipada Mandal	Vill- Narayanpur, Post- Digha	Sainthia	
26	Priyashish Ghosh	Shishir Kumar Ghosh	Vill+Post- Digha	Sainthia	9647680222
27	Jakir Shaha	Khalil Shaha	Vill+Post- Digha	Sainthia	7719113721
28	Jalal Shaha	Lt Iyad Ali Shaha	Vill+Post- Digha	Sainthia	
29	Khunsur Shaha	Khalek Shaha	Vill+Post- Digha	Sainthia	9002388586
30	Jalaluddin Shaha	Lt Ayub Shaha	Vill+Post- Digha	Sainthia	9609507810
31	Alauddin Shaha	Lt Ayub Shaha	Vill+Post- Digha	Sainthia	7718696202
32	Fursad Shaha	Naousad Shaha	Vill+Post- Digha	Sainthia	9609832726
33	Gandhi Shaha	Khalil Shaha	Vill+Post- Digha	Sainthia	7719113721

34	Safik Shaha	Sahaman Shaha	Vill+Post- Digha	Sainthia	9647003022
35	Hasem Shaha	Mira Shaha	Vill+Post- Digha	Sainthia	
36	Sarifuddin Shaha	Lt Ayub Shaha	Vill+Post- Digha	Sainthia	9083098316
37	Sanat Saha		Vill+Post- Digha	Sainthia	8942052015
38	Sanjit Ghosh	Lt Purna Chandra Ghosh	Vill+Post- Digha	Sainthia	9564221265
39	Ranjit Garai	Sagar Garai	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	7872267206
40	Ruma Murmu	Sujay Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	8926561814
41	Bagal Murmu	Mistri Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	
42	Shyam Murmu	Churdu Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	
43	Bishu Murmu	Lt Gopal Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	9083527031
44	Sumi Murmu	Bishu Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	8016836390
45	Lakhi Murmu	Jaladhar Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	7478915891
46	Chabi Murmu	Manik Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	
47	Sushil Murmu	Musui Murmu	Vill- Bidyadhar Pur, Post-Khanjanpur	Bolpur-Sriniketan	
48	Barun Kumar Pal	Tarashankar Pal	Vill+ Post- Ghurisha	Illambazar	9564632501
49	Bimal Kumar Garai	Lt Baidyanath Garai	Vill+ Post- Ghurisha	Illambazar	9153271956
50	Shyamal Garai	Lt Baidyanath Garai	Vill+ Post- Ghurisha	Illambazar	
51	Harisadhan Kar		Vill+ Post- Ghurisha	Illambazar	
52	Nasir		Vill+ Post- Ghurisha	Illambazar	
53	Niyamat		Vill+ Post- Ghurisha	Illambazar	
54	Asraf Alam		Vill+ Post- Ghurisha	Illambazar	
55	Akshay Pal	Lt Rakhahari Pal	Vill+ Post- Ghurisha	Illambazar	
56	Jiten Bagdi		Vill+ Post- Ghurisha	Illambazar	
57	Nande Bagdi	Lt Chandi Charan Bagdi	Vill+ Post- Ghurisha	Illambazar	
58	Nirmal Garai	Lt Baidyanath Garai	Vill+ Post- Ghurisha	Illambazar	
59	Sujan Ghosh	Biswanath Ghosh	Vill- Taltore, Post- Sriniketan	Bolpur-Sriniketan	8906883725
60	Ratan Ghosh	Lt Sudha Krishna Ghosh	Vill- Taltore, Post- Sriniketan	Bolpur-Sriniketan	9476256008

i) Crop:- Rabi Summer Oilseeds-2017-18, Sesame

Sl. No.	KVK	Name of Farmer	Father's name	(SC/ST/GEN)	Village	Post office	Block	Mobile No.
1	Birbhum	Dinobandhu Bhandary	Balaram Bhandary	Gen	Gopinathpur	Delera	Illambazer	9800637277
2		Gourchandra Ghosh	Rashbihari Ghosh	Gen	Gopinathpur	Delera	Illambazer	9635637390
3		Bidyut Ghosh	Lt- Basudeb Gahosh	Gen	Gopinathpur	Delera	Illambazer	9647717384
4		Khetro Ghosh	Manik Ghosh	Gen	Gopinathpur	Delera	Illambazer	9091039685
5		Prodip Ghosh	Lt-Jiten Ghosh	Gen	Gopinathpur	Delera	Illambazer	8116941989
6		Madhab Garain	Lt-Shyamapada Garain	Gen	Gopinathpur	Delera	Illambazer	9474049116
7		Pintu Ghosh	Sadai Ghosh	Gen	Gopinathpur	Delera	Illambazer	9531787950
8		Uttam Bhandary	Charan Bhandary	Gen	Gopinathpur	Delera	Illambazer	9734227839
9		Tanmoy Ghosh	Gour Ghosh	Gen	Gopinathpur	Delera	Illambazer	8348075515
10		Adhir Ghosh	Lt-Jiten Ghosh	Gen	Gopinathpur	Delera	Illambazer	9735129028
11		Jagadish Ghosh	Dinobandhu Ghosh	Gen	Akamba	Dumrut	Illambazer	9609673249
12		Laltu Pal	Sudhir Pal	Gen	Akamba	Dumrut	Illambazer	8926176903
13		Keshab Ghosh	Ranjit Ghosh	Gen	Akamba	Dumrut	Illambazer	
14		Shyamapada Ghosh	Akhil Ghosh	Gen	Akamba	Dumrut	Illambazer	
15		Alo Ghosh	Janadeb Ghosh	Gen	Akamba	Dumrut	Illambazer	

16		Parimal Pal	Banshai	Gen	Akamba	Dumrut	Illambazer	
17		Nilkontha Ghosh	Haradhan Ghosh	Gen	Akamba	Dumrut	Illambazer	
18		Ashok Ghosh	Jiten Ghosh	Gen	Akamba	Dumrut	Illambazer	7602801542
19		Sadha Sutradhar	Magaram	Gen	Akamba	Dumrut	Illambazer	
20		Bireswar Ghosh	Haradhan Ghosh	Gen	Akamba	Dumrut	Illambazer	
21		Bhabasindhu Ghosh	Sukumar Ghosh	Gen	Narayanpur	Digha	Sainthia	9564958412
22		Anil Ghosh	Lt-Dukhaharan Ghosh	Gen	Narayanpur	Digha	Sainthia	
23		Asish Ghosh	Lt-Muktipada Ghosh	Gen	Narayanpur	Digha	Sainthia	
24		Joydeb Ghosh	Lt-Sisir Ghosh	Gen	Narayanpur	Digha	Sainthia	
25		Sk Chand Mahamad	Sk Abuhossion	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9732346994
26		Abdur Roik	Soleman Sk	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9932346994
27		Mojammel Hoque	Sk Ansar	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	8670964512
28		Sabir Ahamed	Sk Saleman	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9593655677
29		Sk Nasiruddin	Sk Abuhossion	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	7076831066
30		Sk Abdul Hamid	Sk Abusona	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9775237937
31		Sk Asmat Ali	Md Mosha	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9734475682
32		Sk Anarul Hoque	Sk Abuhossion	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9732346994
33		Abdul Kader	Ayup Sk	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9647076406
34		Sk Yusuf	Israil	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	
35		Sk Raju	Sk Iyasin	Gen	Bejera	Singgi	Bolpur,Sriniketan	8537967394
36		Sk Pintu	Sk Abdul Lotib	Gen	Bejera	Singgi	Bolpur,Sriniketan	7063554124
37		Alimuiddin Khan	Muslim ali Khan	Gen	Bejera	Singgi	Bolpur,Sriniketan	8670145871
38		Gonesh Mondal	Gourada Mondal	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	9749411344
39		Sk Ibrahim	Abubakkor	Gen	Jahanabad	Ghidaha	Bolpur,Sriniketan	8975235291

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Seed production	02	50	19	69	09	03	12	04	02	06	63	24	87
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	01	24	00	24	09	00	09	09	00	09	42	00	42
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Enterprise development													
Para vets	02	18	05	23	09	01	10	09	03	12	36	09	45
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts	01	00	07	07	00	07	07	00	05	05	00	19	19
Others (Soil Testing)	01	15	00	15	02	00	02	03	00	03	20	00	20

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Others, if any													
VII. Plant Protection													
Integrated Pest Management	01	18	00	18	12	00	12	20	00	20	50	00	50
Integrated Disease Management	01	06	00	06	16	00	16	28	00	28	50	00	50
Bio-control of pests and diseases	02	75	00	75	22	00	22	03	00	03	100	00	100
Production of bio control agents and bio pesticides													
Others, if any													
VIII. Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease													
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics	02	15	51	66	04	32	36	00	01	01	19	84	103
Formation and Management of SHGs	02	02	32	34	03	53	56	00	08	08	05	93	98
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues	01	04	23	27	03	20	23	00	01	01	07	44	51
Others, if any (Linking of Rural Credit Supply with Crop Insurance)	01	21	04	25	22	00	22	00	00	00	43	04	47
Others, if any (Crop Insurance)	01	04	06	10	00	32	32	00	00	00	04	38	42
Others, if any (Institutional Credit	01	01	16	17	01	40	41	01	01	02	03	57	60

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
TOTAL	00	00	00	00	00	00	00	00	00	00	00	00	00

F) Extension Personnel (Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Productivity enhancement in field crops													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others (Crop Diversification)	01	00	07	07	00	02	02	00	00	00	00	09	09
TOTAL	01	00	07	07	00	02	02	00	00	00	00	09	09

G) Consolidated table (ON and OFF Campus)

i. Farmers & Farm Women

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
I. Crop Production													
Weed Management													
Resource Conservation Technologies	02	10	00	10	00	00	00	11	05	16	21	05	26

Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others if any (Crop Diversification)	02	18	08	26	02	02	04	00	00	00	20	10	30
TOTAL	02	18	08	26	02	02	04	00	00	00	20	10	30

H) Vocational training programmes for Rural Youth

Details of training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			
				Male	Female	Total	Type of units	No. of units	No of persons employed	No. of person employed else where
Pulse Cultivation	Crop Diversification	Pulse cultivation towards sustain ability	01	47	11	58	Wide Area under Pulse Cultivation	48	48	10
Horticultural Nursery	Nursery Management of	Nursery and Its Management	21	24	00	24	Horticultural Nursery	09	09	04

	Horticultural Crops										
Analysis of Soil Sample and Preparation of Soil Health Cards	Analysis of Soil samples	Analysis of Soil and preparation of Soil Health Card	21	20	00	20	Soil Analysis and Soil Health Card Preparation Unit	00	00	00	
Para-Vet	Improved Management Practices of Animals	Capacity Building up of RY as Para-Vets	30	19	08	27	Para-Vets	11	11	15	
Jute Crafts	Women Empowerment	Jute Crafts	10	00	19	19	Jute based Handi-Crafts	09	11	08	
Carp Breeding	Scientific Method of Carp Breeding and Hatchery Management	Carp breeding & Hatchery Management	30	16	00	16	Fish Hatchery	03	06	10	
Carp Breeding	Scientific Method of Carp Breeding and Hatchery Management	Hatchery Production Worker	25	19	01	20	Fish Hatchery	01	12	08	
Mushroom Production	Mushroom Production	Mushroom Cultivation	15	23	11	34	Mushroom Production Units	11	15	19	
Animal Health Service Provider	Improved Animal Health Management	Animal Health Worker	25	17	01	18	Animal Health Service Provider	08	08	10	
Total			178	185	51	236		100	120	84	

D) Sponsored Training Programmes

Sl. No.	Title	Thematic area	Month	Duration (days)	Client PF/R/Y/EF	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
							O	SC	ST	O	SC	ST	O	SC	ST	Total	
01.	Nutritional Gardening	Nutritional Security	August	01	PF W	01	00	00	00	15	09	02	15	09	02	26	Lok Kalyan Parishad, Birbhum
02.	Care and Management of Pregnant and Lactating Mothers	Nutritional Security	August	01	PF W	01	00	00	00	22	04	02	22	04	02	28	Lok Kalyan Parishad, Birbhum
03.	Care and Management of Children below 5 Years	Nutritional Security	August	01	PF W	01	00	00	00	20	03	02	20	03	02	25	Lok Kalyan Parishad, Birbhum

04.	Composite Fish Culture	Composite Fish Culture	August	01	PF W	01	00	00	00	15	09	02	15	09	02	26	Lok Kalyan Parishad, Birbhum
05.	Women Empowerment and Nutritional Security through Sustainable Agriculture – Emphasis on Organic Pest Management	Integrated Pest Management (IPM)	August	01	PF W	01	00	00	00	22	04	02	22	04	02	28	Lok Kalyan Parishad, Birbhum
06.	Composite Fish Culture	Composite Fish Culture	August	01	PF W	01	00	00	00	21	04	02	21	04	02	27	Lok Kalyan Parishad, Birbhum
07.	Fish Feed Preparation and Its Application in Ponds	Feed Preparation	August	01	PF W	01	00	00	00	20	04	02	20	04	02	26	Lok Kalyan Parishad, Birbhum
08.	Fishery in Integrated Watershed Management Programme	Integrated Farming System	August	01	PF and PF W	01	25	08	00	01	01	00	26	09	00	35	PIA-IWMP-I, Barua Gopalpur Watershed, DDA (Soil and Water Management), Dept. of Agriculture, Govt. of W. B. Suri, Birbhum
09.	Carp Seed rearing and Nursery Pond Management	Improved Fish Production Technologies	August	05	PF and RY	01	12	07	01	00	00	00	12	07	01	20	National Fisheries Development Board (NFDB), Huderabad
10.	Improved Package of Practices of Beet, Carrot, French Bean, Capsicum, Broccoli	Crop Diversification	August	02	PF W	01	00	00	00	15	08	02	15	08	02	25	Lok Kalyan Parishad, Birbhum

11.	Women Empowerment and Nutritional Security through Sustainable Agriculture in Plant Protection Issues	IPM	August	01	PF W	01	00	00	00	15	09	02	15	09	02	26	Lok Kalyan Parishad, Birbhum
12.	Crop Insurance	Market Led Extension	August	01	PF W	01	00	00	00	22	04	02	22	04	02	28	Lok Kalyan Parishad, Birbhum
13.	Improved Technology of Poultry rearing	Improved Animal Rearing Practices	August	01	PF W	01	00	00	00	22	04	02	22	04	02	28	Lok Kalyan Parishad, Birbhum
14.	Use of Kisan Credit Card (KCC) and other Institutional Credit Supply Mechanism for Agriculture and Allied Sectors	Institutional Credit Supply	August	01	PF W	01	00	00	00	22	04	02	22	04	02	28	Lok Kalyan Parishad, Birbhum
15.	Improved Goatery Management with Special Reference to Black Bengal Goat rearing	Improved Animal rearing Practices	August	04	PF W	01	00	00	00	21	04	02	21	04	02	28	Lok Kalyan Parishad, Birbhum
16.	Establishment of Back Yard Nutrition Garden	Nutritional Security	September	01	PF W	01	00	00	00	17	09	00	17	09	00	26	Lok Kalyan Parishad, Birbhum
17.	Cultivation of High Value Vegetables	Crop Diversification	September	01	PF W	01	00	00	00	15	10	00	15	10	00	25	Lok Kalyan Parishad, Birbhum
18.	Improved Livestock Management Practices	Improved Animal Management Practices	September	01	PF & PF W	01	01	01	00	15	08	00	16	09	00	25	Lok Kalyan Parishad, Birbhum

19.	Preparation of Scientific Fish Feed (Granular / Pellet) and Its Method of Application in Ponds	Feed Preparation	September	05	PF & RY	01	18	02	00	00	00	00	18	02	00	20	National Fisheries Development Board (NFDB) Huderabad
20.	Human resource Development for Composite Fish Culture and related Issues	Composite Fish Culture	September	01	PF & PF W	01	01	01	00	16	08	00	17	09	00	26	Lok Kalyan Parishad, Birbhum
21.	Improved Pulse Production for Nutritional Security	Crop Diversification	September	01	PF & PF	01	01	01	00	13	08	00	14	09	00	23	Lok Kalyan Parishad, Birbhum
Total				33		21	58	20	01	329	114	26	387	134	27	548	

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

Nature of Extension Activity	No. of activities	Farmers			Extension Official			Total		
		M	F	T	M	F	T	M	F	T
Field Day	22	476	197	673	57	24	81	533	221	754
Scientists' Visits to Farmers' Fields	129	302	110	412	57	24	81	359	134	493
Farmers' Visit to KVK	109	199	159	358	57	24	81	257	283	540
Radio talks	12	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Kisan Mela	03	359	211	570	19	04	23	378	215	593
TV Programme	10	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Popular/ scientific articles	07	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Extension literature	27	2217	1714	3931	05	02	07	2222	1716	3938
Awareness Camp	04	211	09	220	05	02	07	213	11	224
CD shows	01	201	54	255	05	02	07	206	56	262
Animal Health Camps	12	339	198	537	48	24	70	387	222	609
Farmers-Scientists Interaction	01	55	00	55	05	02	07	60	02	62
Kisan Mobile Advisory Service through National Farmers' Portal	31	24547	8661	33208	160	64	224	24707	8725	33432

Total	368	28906	11313	40219	418	172	588	29322	11585	40907
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B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	11
Radio talks	15
TV talks	18
Popular articles	12
Extension Literature	27
Other, if any	

3.5 Production and supply of Technological products

Village seed

Crop	variety	Quantity of seed (q)	Value (Rs)	Provided to number of farmers
Paddy	PNR – 381, Pusa – 44, Pusa – Sugandh 5, Lalat, MTU-1010, IET-4786, IR-64, Rajendra Masuri, Pratiksha, MTU-7029	290.00	Yet to be sold	-
Black Gram	WBU – 108	77.00	3,08,000.00	920
Sesame	Improved Selection – 5/ Sabitri	69.00	1,72,500.00	950
Total		436.00	4,80,500.00	1870

KVK farm

Crop	variety	Quantity of seed (q)	Value (Rs)	Provided to number of farmers
Wheat	PBW - 343	4.00	18,000.00	Kept in KVK go-down
Lentil	WBL 77	1.15	9,200.00	Kept in KVK go-down
Linseeds	Deepika	1.00	12,000.00	Kept in KVK go-down
Mustard	Pusa Mahek	0.40	2,400.00	Used in Cluster FLD
Mustard	B - 9	0.05	300.00	Kept in KVK go-down
Oat	Kent	0.40	1,400.00	Kept in KVK go-down
Chick Pea	Anuradha	0.25	2,000.00	Kept in KVK go-down
Sesame	Sabitri	0.40	3,200.00	Kept in KVK go-down
Black Gram	WBU- 108	0.60	4,800.00	Kept in KVK go-down
Red Gram	ICPL – 87 - 119	0.40	3,200.00	Kept in KVK go-down
Elephant Foot Yam	Gajendra (Kavoor)	1.00	6,000.00	Used in FLD
Paddy	MTU - 7029	0.46	1,380.00	Sold out
Grand Total		10.11	63,880.00	

Production of planting materials by the KVKs

Crop	Variety	No. of planting materials	Value (Rs)	Provided to number of farmers
Vegetable seedlings				
Cauliflower	PAN --1008	2000	4,000.00	12
Cabbage	Seminis - 111	2000	4,000.00	14
Tomato				
Brinjal				
Chilli	PAN --1498	1000	2,000.00	18
Onion				
Others (Drum Sticks)	PKM - 1	600	12,000.00	60
Others (Broccoli)	Green Magic	1464	5856.00	29
Others (Capsicum)	Mahabharat	804	3216.00	48
Others (Capsicum)	Bharat	1196	4784.00	20
Fruits				
Mango				
Guava				
Lime				
Papaya				
Banana				
Others				
Ornamental plants				
Medicinal and Aromatic				
Plantation				
Spices				
Turmeric				
Tuber				
Elephant yams				
Fodder crop saplings				
Forest Species				
Others, pl.specify				
Total		9064	35,856.00	201

Production of Bio-Products

Name of product	Quantity	Value (Rs.)	No. of Farmers
	Kg		
Bio Fertilisers (Vermin-Compost)	219.00	2190.00	69
Bio-pesticide			
Bio-fungicide			
Bio Agents [Earth Worm (<i>Eisenia foetidae</i>)]	1200	600.00	12
Others (<i>Azolla</i>)	280.00	14,500.00	98
Total		17,290.00	179

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	Rhode Island Red (RIR) (Advanced Growers)	40	4,000.00	
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
	Spawns of <i>Catla catla</i>	4,00,000	7,000.00	Provided to 10 Numbers of farmers
Indian carp	Spawns of <i>Cirrhinus mrigala</i>	1,00,000		
Exotic carp				
Others (Pl. specify)				
Grand Total		5,00,040	11,000.00	

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

Item	Title	Authors' Names	Number	Circulation
Research paper	1. "Comparative Performance of Vanaraja, RIR and Indigenous Birds under Back Yard System of rearing in Birbhum district of West Bengal", Accepted for Publication in the Indian Journal of Poultry Science, CARI in the December, 2016 issue (Paper ID MSID, 97/2016).	M. Khan, D. C. Manna, S. K. Mondal, J. K. Chatterjee and S. K. Pyne	01 (One)	-
Seminar/conference / symposia papers	1. "Front Line Demonstration on Lentil using Improved Varieties WBL - 58 and WBL - 77 for Increasing Productivity under lateritic Soil of Birbhum, West Bengal", at the <i>National Conference on Bringing Self-Sufficiency in Pulses for Eastern India</i> , organized by the Bihar Agricultural University, Sabour, Bhagalpur, Bihar - 813210, India in collaboration with the Indian Society of Pulses Research and Development (ISPRD), Indian Council of Agricultural Research (ICAR) - Indian Institute of Pulses Research (IIPR), Kanpur, Uttar Pradesh - 208024, India at the Bihar Agricultural University Campus, Sabour, Bhagalpur, Bihar from 5 th . August to 6 th . August, 2016. 2. "Extension Paradigm Fine-tuning for Ensuring Higher Production and Productivity of Lentil in Birbhum District, West Bengal", <i>Souvenir and Abstract of the National Conference on Bringing Self-Sufficiency in Pulses for Eastern India (ISBN No. 978-93-85516-73-3)</i> , organized by	Subrata Mandal, Prabuddha Ray, Sourav Mondal and D. C. Manna Dr. Prabuddha Ray and Prof. Sarthak Chowdhury	08 (Eight)	-

	<p>the Bihar Agricultural University, Sabour, Bhagalpur, Bihar – 813210, India in collaboration with the Indian Society of Pulses Research and Development (ISPRD), Indian Council of Agricultural Research (ICAR) – Indian Institute of Pulses Research (IIPR), Kanpur, Uttar Pradesh – 208024, India at the Bihar Agricultural University Campus, Sabour, Bhagalpur, Bihar from 5th. August to 6th. August, 2016, Paper Code – OP-05, pp. 210 –211.</p> <p>3. “Importance of Drumstick (<i>moringa olifera</i> L.) as a wonder Tree with Differential Medicinal Use – A Review”, Published in the Proceedings of UGC Sponsored National Seminar on Plants, the Natural Wonder: Issues and Concerns, organized by Sonamukhi College, Bankura, 4th. – 5th. October, 2016.</p> <p>4. “Importance of Roof Top Kitchen Garden for Supply of Fresh Vegetables, Nutrition, Environment and Entertainment to Urban People – A Review”, Published in the Proceedings of UGC Sponsored National Seminar on Food Security and Urbanization Equilibrium: A Sustainable System Approach, organized by Birbhum Mahavidyalaya, Suri, Birbhum, 22nd. – 23rd. November, 2016.</p> <p>5. “Fishery based Integrated Farming System (IFS) – An Experience of Rathindra Krishi Vigyan Kendra, Birbhum, West Bengal”, Published and presented at the International Symposium on “ECO – EFFICIENCY IN AGRICULTURE & ALLIED RESEARCH (EEAAR 17)” organizing by Crop and Weed Science Society (CWSS), Bidhan Chandra KrishiViswavidyalaya (BCKV) at Farmers’ Academy & Convention Centre (FACC), BCKV, Kalyani, Nadia, West Bengal, India during January 20-23, 2017.</p> <p>6. “Digitization of Agriculture and Allied Sectors in the Developing Countries in the Context of Eco-Efficiency”, Published and presented at the International Symposium on “ECO – EFFICIENCY IN AGRICULTURE & ALLIED RESEARCH (EEAAR 17)” organizing by Crop and Weed Science Society (CWSS), Bidhan Chandra KrishiViswavidyalaya (BCKV) at Farmers’ Academy & Convention Centre (FACC), BCKV, Kalyani, Nadia, West Bengal, India during January 20-23, 2017.</p> <p>7. “Performance of Khaki Campbell Duck and Effect of Duck Manuring in Integrated Fish-cum-Duck farming System Of Birbhum District of west Bengal”, Published and presented in the 1st. International Conference on “Bio-Resource, Environment and Agricultural Sciences (ICBEAS)” organized by and held at Palli-Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum from 4th February, 2017 to 6th. February, 2017.</p> <p>8. “Performance of Green Gram and Black Gram under FLD Programmes in Lateritic Soil of West Bengal”, published and presented in the National Seminar on “Maximizing fertilizer use efficiency and environmental health for posterity” on the occasion of the 4th. Annual Convention of the Society for Fertilizers and Environment held on March 8th., 2017 at the Integrated Rural Development and Management Faculty Centre at Narendrapur in collaboration with our Sasya Shyamala Krishi Vigyan Kendra, Ramakrishna Mission Vivekananda University, Narendrapur and organized by the Society for Fertilizer and Environment.</p>	<p>Sudipa Nag and Subrata Mandal</p> <p>Subrata Mandal and Sudipa Nag</p> <p>Dr. Prabuddha Ray, Dr. Subrata Mondal, Dr. Krishna Mitra and Dr.Madhuchhanda Khan</p> <p>Dr. Prabuddha ray</p> <p>M. Khan, K. Mitra, S. K. Mondal, P. Chatterjee, J. K. Chatterjee and S. K. Pyne</p> <p>Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure.</p>		
Books	-	-	-	-
Bulletins	-	-	-	-

News letter	-	-	-	-
Popular Articles	<p>1. “Jaldi Jawab in Bansh Chash (Question and Answers on Bamboo Cultivation)” in Ananda Bazar Patrika, South Bengal Edition, April 6th., 2016.</p> <p>2. “Jaldi Jawab in Suryamukhir Chash (Question and Answers on Sunflower Cultivation)” in Ananda Bazar Patrika, South Bengal Edition, April 20th., 2016.</p> <p>3. “Jaldi Jawab in Lime and Lemon (Question and Answers on Lime and Lemon)” in Ananda Bazar Patrika, South Bengal Edition, June 1st., 2016.</p> <p>4. “A Report on Krishi Mela and Advantages of Fasal Beema Yojona” in Anandabazar Patrika, south Bengal Edition, 8th. June, 2016.</p> <p>5. “Uchu Jamitey Kalo Kalai (Black Gram Cultivation in Up-Land)” in Ananda Bazar Patrika, South Bengal Edition, July 27th., 2016.</p> <p>6. “Rathindra Krishi Vigyan Kendrer Udoyegey Swadinata Dibas Udjapan (Celebration of Independence Day by Rathindra Krishi Vigyan Kendra)” in Panchayat Ooo Aamra, September 15th., 2016.</p> <p>7. “Azolla – Sar Ooo Go Khyadya (Azolla as Bio-Fertilizer and Cattle Fodder)” in Ananda Bazar Patrika, South Bengal Edition, October 19th., 2016.</p> <p>8. “Dal Beej Chash Korey Labher Aasha Chasider (Hope of profit from cultivation of Pulses)” in Ananda Bazar Patrika, South Bengal Edition, November 11th., 2016.</p> <p>9. “Biswa Mrittika Dibas Ooo Mati Pariksha (Internation Soil Day and Analysis of Soil)” in Ananda Bazar Patrika, South Bengal Edition, December 05th., 2016.</p> <p>10. “Pradhan Mantri fasal Beema Yoajanar upor Prashikshan Shibir (Training Camp on Pradhan Mantri Fasal Beema Yojana)” in Ananda Bazar Patrika, South Bengal Edition, December 6th., 2016.</p> <p>11. “Patit Jami Byabahar Korey Dal Chasher Safalata (Successful Pulse Cultivation in Degraded Lands)” in Panchayat Ooo Aamra, December 15th., 2016.</p> <p>12. “A Report: Advice in Rabi Pulse and Oilseed Cultivation by RKVK” in Ananda Bazar Patrika, South Bengal Edition, February 28th., 2017.</p>	<p>Dr. Subrata Mandal</p> <p>Dr. Subrata Mandal</p> <p>Dr. Subrata Mandal</p> <p>Dr. Prabuddha Ray</p> <p>Dr. Subrata Mandal</p> <p>Dr. Prabuddha Ray and Smt. Sumana Majumder</p> <p>Dr. Subrata Mandal</p> <p>Dr. Subrata Mandal</p> <p>Dr. Subrata Mandal</p> <p>Dr. Prabuddha Ray</p> <p>Dr. Subrata Mandal</p> <p>Dr. Subrata Mandal</p>	12 (Twelve)	-
Book Chapter	<p>1. “Improved Method of Elephant’s Foot Yam Cultivation: A Successful Initiative taken up by the Rathindra KVK for Economic Stabilization of the Farmers”, <i>Family Farming Challenges and Opportunities [ISBN No. 978-93-85502-22-4]</i>, edited by Bitan Mondal, Debasish Sarkar, Siddhartha Dev Mukhopadhyay, Souvik Ghosh, Bidhan Chandra Roy and Sarthak Chowdhury, Renu Publishers, New Delhi, 2016, pp. 86 – 92.</p> <p>2. “Inclusive Innovation: A Shift in Innovation Paradigms for reaching the Un-reached Farmers”, <i>Family Farming Challenges and Opportunities [ISBN No. 978-93-85502-22-4]</i>, edited by Bitan Mondal, Debasish Sarkar, Siddhartha Dev Mukhopadhyay, Souvik Ghosh, Bidhan Chandra Roy and Sarthak Chowdhury, Renu Publishers, New Delhi, 2016, pp. 252 – 266.</p>	<p>Prabuddha Ray, Subrata Mandal and Dulal Chandra Manna</p> <p>Prabuddha Ray and Sarthak Chowdhury</p>	06 (Six)	-

	<p>3. “Crop Insurance in India: A Historical Transverse and Issues related to Extension Efforts for Resource Poor Farmers”, <i>Family Farming Challenges and Opportunities [ISBN No. 978-93-85502-22-4]</i>, edited by Bitan Mondal, Debasish Sarkar, Siddhartha Dev Mukhopadhyay, Souvik Ghosh, Bidhan Chandra Roy and Sarthak Chowdhury, Renu Publishers, New Delhi, 2016, pp. 328 – 338.</p> <p>4. “Pluralistic extension in new age India – enhancing efficiencies of Krishi Vigyan Kendras (KVKs)”, <i>Development and Diversification – Aspects of Rural Development [ISBN No. 978-93-85502-27-9]</i>, edited by Pranab Kumar Chattopadhyay and Daya Shankar Kushwaha, Renu Publishers, New Delhi, 2016, pp. 49 – 59.</p> <p>5. “Organic farming – the challenges ahead”, <i>Development and Diversification – Aspects of Rural Development [ISBN No. 978-93-85502-27-9]</i>, edited by Pranab Kumar Chattopadhyay and Daya Shankar Kushwaha, Renu Publishers, New Delhi, 2016, pp. 61 – 69.</p> <p>6. “Participatory Message Development for Short Text Messaging (SMS): A New Tool for reaching the Client”, <i>Rural Health, Women Empowerment and Agriculture – Issues and Challenges [ISBN No. 978-93-85503-40-5]</i>, edited by Pranab Kumar Chattopadhyay and Daya Shankar Kushwaha, New Delhi Publishers, New Delhi, 2016, pp. 317 – 326.</p>	<p>Prabuddha Ray and Sarthak Chowdhury</p> <p>Prabuddha Ray and Sarthak Chowdhury</p> <p>Sarthak Chowdhury and Prabuddha Ray</p> <p>Prabuddha Ray and Sarthak Chowdhury</p>		
Extension Pamphlets/ literature	<p>1. Improved Cultivation of Ber (<i>Kuler Chash</i>)</p> <p>2. Improved Package of Practices of Mango (<i>Aam Chash</i>)</p> <p>3. Improved Cultivation Practices of Arum (<i>Kachu Chash</i>)</p> <p>4. Improved Package of Practices of Drum Sticks (Year round) (<i>Barmeshey Sajney Chash</i>)</p> <p>5. Improved Cultivation Practices of Capsicum, Broccoli, Brussels’ Sprout (<i>Capsicum, Broccoli, Brussels’ Sprout – Er Chash</i>)</p> <p>6. Improved Package of Practices of Coconut (<i>Narkel Chash</i>)</p>	Dr. Dulal Chandra Manna	27 (Twenty Seven)	4000 (Four thousand)
	<p>7. Processing and Value Addition of Sweet Potato (Misthi Aloor Prakriyajatakaran)</p> <p>8. Production of “Mora” through Cottage Industries (Basat Baritey Mora Tairi)</p> <p>9. “Fal Sangrakshan” “Fruit Preservation”</p>	Smt. Ruma Addy		
	<p>10. Improved Cultivation Practices of Linseed (<i>Tishi Chasher Bigyansammata Prajukti</i>)</p> <p>11. Summer Green Gram Cultivation (<i>Grishmakalin Moong Chash</i>)</p> <p>12. Kharif Black Gram cultivation</p> <p>13. Preliminary Phase of Wheat Cultivation (<i>Gom Chasher Prathamik Parjay</i>)</p> <p>14. Phospho-compost for Conservation of Soil Health: A Phosphorus rich Organic Fertilizer (<i>Matir Swasthyarakshay Phospo-compost: Eaikti Phosphorus Samriddha Jaiba</i>)</p>	Dr. Subrata Mandal		

	15. Mono Culture of Thailand Koi Fish (Thailand Koi Macher Ekak Chash Prajukti)	Dr. Krishna Mitra		
	16. Fish Breeding and Allied Work (Macher Prajanan Abong Anushangik Kaaj)			
	17. "Prakritik Biporjaya Mokabila" "Natural Disaster Management"	Dr. Prabuddha Ray		
	18. "Krishak Utpadak Sangsatha Gathan" "Formation of Farmers' Producers' Organizations"			
	19. "Swanirvar Dal Gathan" "Formation of Self Help Group"			
	20. "Pradhan Mantri Fasal Beema Yojona" "Prime Minister's Crop Insurance Scheme"			
	21. "Bibhinna Upayee Digital Payment" "Digital Payment Procedures"			
	22. "Tathya Prajukti Oo Krishi" "Information and Communication Technologies in Agriculture and Allied Sectors"			
	23. "Digital Bharat" "Digital India"			
	24. "BHIM App Babyahar" "Application of BHIM App"			
	25. Important Infectious Diseses of Animals and their Vaccines (<i>Grihapalita Pashu Pakhir Gurutwapurna Sankramak Rog Abong Taar Pratishedhak Tika</i>)	Dr. Madhuchhanda Khan		
	26. Primary Lessons Of Animal Health Management (<i>Prani Chikitsar Pratham Path</i>)			
	27. Crop Seed Tratment (<i>Beej Shodhon</i>)	Sri Sourav Mondal		
Technical reports	1. Annual Progress Report (April, 2015 – March, 2016) of Rathindra KVK 2. Compilation of Five Thusand Farmers' Details of Birbhum District 3. Report on the Training Programme on "Creation of Awareness Among the Farmers and Other Stakeholders about the Provisions of PPV & FR Act – 2001" 4. Report on the Participation of the Rathindra Krishi Vigyan Kendra in the Especial Agriculture and Related Sector Campaigns of Govt. of West Bengal 5. Training Need Assessment and Training Plan of the Staff of Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, P. O. — Sriniketan, Dist. – Birbhum, West Bengal – 731236 6. Introduction of Giant Prawn (<i>Macrobrachium rosenbergii</i>) as A New Component of Composite Fish Culture in Birbhum District, West Bengal: A Successful Intervention by the Rathindra KVK, Birbhum 7. Crop Diversification through Cultivation of Broccoli: A Successful Intervention by the Rathindra KVK, Birbhum 8. Crop Diversification through Introduction of Commercial Cultivation of All the Year Round Drumstick: A Successful Intervention by the Rathindra KVK, Birbhum 9. Successful Farmers and Farm Women attached to Rathindra KVK, Birbhum 10. Report on the Cluster FLD of Rabi Pulses in 2015-16 organized by the Rathindra KVK	Rathindra KVK	Sixteen (16)	Among all the concerned.

	<p>11. Report on the Cluster FLD of Rabi Oilseeds in 2015-16 organized by the Rathindra KVK</p> <p>12. Report on the Cluster FLD of Kharif Pulses in 2016-17 organized by the Rathindra KVK</p> <p>13. Report on the Cluster FLD of Kharif Oilseeds in 2016-17 organized by the Rathindra KVK</p> <p>14. Report on the Demonstrations on Wheat Varieties supplied by the IARI, Pusa, Samastipur, Bihar</p> <p>15. Feedback on cost norms of ASCI skill training programme</p> <p>16. NFDB Training details</p>			
Electronic Publication (CD/DVD etc)	-	-	-	-
TOTAL			Seven	ty
			(70)	

(B) Details of HRD programmes undergone by KVK personnel:

Sl. No.	Name of Programme	Name of Course	Name of KVK Personnel and Designation	Date and Duration	Organized by
01.	Workshop on “National Fishery Development Board (NFDB) Sponsored Fishery Sector Projects”	“National Fishery Development Board (NFDB) Sponsored Fishery Sector Projects”	Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	08.06.2016 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata - -700097.
2.	Workshop on “National Fishery Development Board (NFDB) Sponsored Fishery Sector Projects”	“National Fishery Development Board (NFDB) Sponsored Fishery Sector Projects”	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	08.06.2016 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata - -700097.
3.	Workshop on “Tracking Adoption of Lentil Improved Cultivars in West Bengal”	“Tracking Adoption of Lentil Improved Cultivars in West Bengal”	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	09.06.2016 (01 Day)	International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Indian Council of Agricultural Research – Indian Institute of Pulses Research (ICAR-IIPR) and the Directorate of

					Research, Bidhan Chandra Krishi Viswavidyalaya, Farmers' Academy and Convention Centre (FACC), Kalyani.
4.	Training Programme on "Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency – ATMA Convergence"	"Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency – ATMA Convergence"	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	27.06.2016 to 02.07.2016 (06 Days)	ICAR-National Institute of Agricultural Extension Management (MANAGE), Hyderabad, Telengana, India.
5.	Training Programme on "Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency – ATMA Convergence"	"Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency – ATMA Convergence"	Sri Sourav Mondal, Subject Matter Specialist (Plant Protection)	27.06.2016 to 02.07.2016 (06 Days)	ICAR-National Institute of Agricultural Extension Management (MANAGE), Hyderabad, Telengana, India.
6.	Training Programme on "Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency – ATMA Convergence"	"Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency – ATMA Convergence"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	27.06.2016 to 02.07.2016 (06 Days)	ICAR-National Institute of Agricultural Extension Management (MANAGE), Hyderabad, Telengana, India.
7.	Training of Trainers on "Skill Training Job Roles / QPs and Affiliation to ASCI"	"Skill Training Job Roles / QPs and Affiliation to ASCI"	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	09.11.2016 to 11.11.2016 (03 Days)	Agricultural Skill Council of India, New Delhi.
8.	Short Course Training on "Empowerment of Farm Women through Livestock and Poultry Intervention"	"Empowerment of Farm Women through Livestock and Poultry Intervention"	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	21.11.2016 to 30.11.2016 (10 Days)	ICAR – Central Institute for Women in Agriculture, Bhubaneswar, Odisha, India
9.	Training Programme on "Preparation of Fisheries Project"	"Preparation of Fisheries Project"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	28.11.2016 to 02.12.2016 (05 Days)	National Fisheries Development Board, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telengana, India.
10.	National Seminar on "Recent Trends in Agriculture and Allied Sciences for better Tomorrow (MSRTAS – 2016)"	"Recent Trends in Agriculture and Allied Sciences for better Tomorrow (MSRTAS – 2016)"	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	04.12.2016 (01 Day)	Palli Siksha Bhavana, Visva-Bharati, Sriniketan and Society of Bio-Resources, Environment and

					Agricultural Resources, Santiniketan, Birbhum.
11.	Training Programme on “Skill Development of Laboratory Work”	“Skill Development of Laboratory Work”	Sri Suraj Bhakta, Programme Assistant (Computer Programmer)	19.12.2016 to 21.12.2016 (03 Days)	Directorate of Extension Education, Bidhan Chandra Krishi Viswavidyalaya, Farmers’ Academy and Convention Centre (FACC), Lake Hall, Kalyani, Nadia, West Bengal.
12.	Training Programme on “Strengthening of Production System for Sustainable Animal Husbandry and Farming Practices”	“Strengthening of Production System for Sustainable Animal Husbandry and Farming Practices”	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	04.01.2017 to 06.01.2017 (3 Days)	Directorate Research, Extension and Farms, West Bengal University of Animal Fishery Sciences, Kshudiram Basu Sarani, Kolkata
13.	National Workshop on “Skill Development”	“Skill Development”	Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	05.01.2017 (1 Day)	ICAR-ATARI, Kanpur at National Agricultural Science Complex (NASC), Pusa, New Delhi
14.	National Workshop on “Skill Development”	“Skill Development”	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	05.01.2017 (1 Day)	ICAR-ATARI, Kanpur at National Agricultural Science Complex (NASC), Pusa, New Delhi
15.	Training of Trainers on “Skill Training Job Roles / QPs and Affiliation to ASCI”	“Skill Training Job Roles / QPs and Affiliation to ASCI”	Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	06.01.2017 to 08.01.2017 (03 Days)	Agricultural Skill Council of India, New Delhi at GB Pant University of Agriculture and Technology
16.	Training of Trainers on “Skill Training Job Roles / QPs and Affiliation to ASCI”	“Skill Training Job Roles / QPs and Affiliation to ASCI”	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	06.01.2017 to 08.01.2017 (03 Days)	Agricultural Skill Council of India, New Delhi at GB Pant University of Agriculture and Technology
17.	Training Programme on “Advances in Training Method and Training Management”	“Advances in Training Method and Training Management”	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	14.02.2017 to 17.02.2017 (4 Days)	SAMETI, West Bengal, Ramakrishna Mission Ashram Complex, Narendrapur, Kolkata and Extension Education Institute, Jorhat, Assam
18.	Training Programme on “Recent Development in Organic Farming for Sustainable Agriculture and Its Allied Sector”	“Recent Development in Organic Farming for Sustainable Agriculture and Its Allied Sector”	Sri Palash Ankure, Programme assistant (Farm Manager)	27.02.2017 to 01.03.2017 (3 Days)	Directorate Research, Extension and Farms, West Bengal University of Animal Fishery Sciences, Kshudiram Basu Sarani,

					Kolkata
19.	Workshop on “Technology Application in Animal and Fishery Sciences”	“Technology Application in Animal and Fishery Sciences”	Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	16.03.2017 to 17.03.2017 (2 Days)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata - 700097.
20.	Workshop on “Technology Application in Animal and Fishery Sciences”	“Technology Application in Animal and Fishery Sciences”	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	16.03.2017 to 17.03.2017 (2 Days)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata - 700097.

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

Farmer’s Name: Sri Ashutosh Biswas

Address: Village: - Srichandrapur, P. O. – Daronda, Police Station: - Illumbazar, C D Block: - Illumbazar, Pin. – 731236, Dist. – Birbhum.

Phone No.:- 9932675161

Name of Crop: Sesame (Season: - Kharif and Year: - 2016-2017)



1. How and why he / she brought under CFLD?

Sri Ashutosh Biswas and several other practicing farmers and farm women of the locality of the Village: - Srichandrapur, C. D. Block: - Illumbazar, District: - Birbhum have undergone various skill development training programmes on the Topic of “Crop Diversification through introduction of improved oilseeds and pulses in both Kharif and Rabi Seasons”, organized by the Rathindra KVK, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum. The area in and around the Village: - Srichandrapur is up land under mono crop situation with Kharif Paddy cultivation which is losing its economic competitiveness with respect to other non-traditional crops as well as economic viability. In this context, this farmer along with several other farmers of his locality has shown keen interest on growing Kharif Oilseed cultivation especially of Sesame instead of Kharif Paddy. Among this group of farmers, Sri Biswas maintained a high level of interest and lead the other fellow farmers to become the Partner Farmers in the Cluster Front Line Demonstration Programmes on Kharif Oilseed viz. Sesame cultivation in 2016-17 in the above mentioned area.

Existing practice before adopting CFLD recommendation: Farmers like Sri Biswas generally use Sesame varieties like B -67 (Tilottama) and they do not use any micro-nutrients and herbicides. They only use chemical fertilizers @ 80 – 00 – 00 or 80 – 20 – 00 (N – P – K respectively Kg. / ha).

Details of inputs and technology provided:

- (A) Seeds of Improved Variety SWB-32-10-1 (Sabitri)
- (B) Herbicides: - Pendimethalin as pre-emergence
- (C) Foliar spray of Micro-Nutrients (Zinc)

Details of application of technology with photograph:

- (A) Seeds of Improved Variety SWB-32-10-1 (Sabitri) @ 6 kg. / ha
- (B) Method of seed sowing: - Broadcasting
- (C) Application of herbicides Pendimethalin @ 3 lit. / ha at 1 – 3 DAS.
- (D) Foliar Spray of Micro-Nutrients: - Zn EDTA @ 1 gm. / lit. of water at 25 and 45 DAS.

Cluster FLD on Kharif Sesame in 2016-17 organized by the Rathindra KVK, Birbhum at the Vegetative Growth Stage



Results: Local check, Demo with B:C Ratio

Local Check			Demonstration			
Variety	Yield (q / ha)	B:C Ratio	Variety	Yield (q / ha)	B: C Ratio	Change in Yield (%)
B – 67 (Tilottama)	7.95	2.75	SWB-32-10-1 (Sabitri)	11.8	3.83	48.4 (+)

Feed Back in scientific term:

The demonstrated variety SWB-32-10-1 (Sabitri) is shorter in duration by 10 days on an average than the existing variety i.e. B- 67 (Tilottama) and the average height of the demonstrated variety is also shorter by 10 -15 cms than the Tilottama variety. The number of siliqua per plant is 41 on an average in the demonstrated variety whereas in the case of the existing variety it is only 29 in numbers on an average. The white colour of the seeds of the demonstrated SWB-32-10-1 (Sabitri) is very much attractive. So, farmers like Sri Ashutosh Biswas has decided to continue the cultivation of the variety SWB-32-10-1 (Sabitri) in the coming years.

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

The Rathindra KVK has adopted the following innovative methodologies or innovative technologies of Transfer of Technology –

A.The Rathindra KVK acting as a Technology Demonstration Centre - This can overcome the problems, faced by developing countries, especially the LDCs, of demonstrating technology utilization potential and promoting overall technology awareness. Science and technology exhibitions, both stationary and mobile, and school and mass media programmes are being undertaken this KVK and these exhibitions (especially through organizing programmes on Cluster Front Line Demonstrations on Rabi Pulses and Oilseeds, International Year of Soil, Soil Health Card preparation, Pre-Rabi Kisan Sammelan, Jai Kisan Jai Vigyan Diwas, Awareness Camps in Rural Schools, celebration of Technology Week etc.) are necessary if the cultural aspects of technology transfer and development are to be addressed.

B. The Rathindra KVK's Role in Information development - The role of information in technology transfer and development is crucial, and therefore capacities are needed to ensure access to the information required for adequate technological capability. There is much information in the public domain that is useful for technology transfer and development. However, the information needed should go beyond simple inventories of costs and environmental parameters, and should include specific technical data that will facilitate technology selection, development and use. Keeping these factors in mind, the Rathindra KVK is developing Technological Modules in

the forms of Extension Literatures like Booklets, Leaflets, Folders, Brochures, CDs, DVDs etc. using the information generated from its past research and extension activities as well as information generated from both the ICAR and SAU or CU Systems to meeting the information gaps prevalent among the practicing farmers, farm women, rural youths and extension functionaries of the district of Birbhum. This KVK also focuses on (a) information assessment and screening, (b) maximal use of electronic systems and (c) the development of relevant databases in Agriculture and related sectors.

C. The Rathindra KVK's Role in Technology partnerships and networking - Technology partnerships between the Rathindra KVK and reputed Governmental Organizations (GOs) and Non-Governmental Organizations (NGOs) have been very effective in technology development and transfer and market development, provided they are two-way relationships involving a long-term commitment with the objective of sharing knowledge, enhancing technological capabilities, fostering innovation and strengthening competitiveness. Interaction and mutual dependency, as well as risk and cost sharing among partners, are important. The Rathindra KVK and its associated Networks consist of a group of institutions or associations with the aims of enhancing the capacity to conduct research and improving training and education through interaction. The Rathindra KVK thus forms a network to improve access to new ideas, methods, and information sharing and materials exchange. Both technology partnerships and networking require a certain level of technical competence among partners. There are many such partnerships and networks among this KVK, reputed GOs and reputed NGOs and these activities are growing. This recent initiative shows that these partnerships and networks can foster technological upgrading and improvement and quicker and more efficient Extension activities at a much lower cost to each of the partners thus creating a Win-Win situation for all the partners.

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
01.	Milch Cows / Dairy Farming	Decoction of <i>Vasak</i> leaves are given to animal suffering from cough and cold.	Treatment of cough and cold of animals.
02.	Milch Cows / Dairy Farming	Farmers treat fever of animals by providing adequate quantity of Fig leaves thrice a day in the first stage and then rubbing the fig leaves in the tongue of the animals.	Treating animals suffering from fever.
03.	Milch Cows / Dairy Farming	Paste of raw turmeric and molasses are given to animals 2-3 times a day.	Indigenous treatment of animals suffering from fever.
04.	Milch Cows / Dairy Farming	Animals are given bamboo leaves in adequate quantities twice a day.	Treating diarrhoea with bamboo leaves.
05.	Milch Cows / Dairy Farming	Animals are fed with a unripe or half-ripe Bel with kitchen wastes twice a day. Sometimes unripe Bel is burnt and then it is given to animals to check diarrhea.	Treating diarrhea with Bel (<i>Aegle marmelos</i>)
06.	Milch Cows / Dairy Farming	Farmers practice feeding of animals with rice husk along with banana thrice a day to control diarrhoea. It is followed for 2-3 days.	Feeding of rice husk with banana against diarrhoea.
07.	Milch Cows / Dairy Farming	Animals are fed with whey (a by-product obtained during the production process of <i>Chhana</i>)	Feeding of whey to control diarrhoea.
08.	Milch Cows /	Animals are fed with tamarind leaves and	Feeding of tamarind leaves and mustard seeds

	Dairy Farming	Sarsoon or Mustard (<i>Brassica sp.</i>) seeds with some water consecutive three days in the morning in empty stomach to control bleeding dysentery.	to control bleeding dysentery.
09.	Milch Cows / Dairy Farming	Neem leaves are boiled in the water. After cooling, the green water is used to wash the infected hooves.	Treating Foot and Mouth Disease (FMD) with Neem leaves.
10.	Milch Cows / Dairy Farming	Raw turmeric pastes mixed with molasses are fed to animals twice a day.	Treating animals with Turmeric against Bloat.
11.	Parboiling of paddy	Villagers consume Rice parboiled with improvised traditional processor called "Dhenki".	These types of Rice are rich in Vit. B ₁₂ which prevents Night Blindness among villagers.
12.	Processing of Pulses (Dal)	Villagers process Pulses (Dal) with improvised traditional crusher called "Janta".	This type of processing of pulses helps to split the cotyledons without affecting the seed coats which remain with pulse seeds and these type of Pulse seeds intact with seed coats act as laxative and prevent constipation.

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

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 liaising 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.
18.	Mridhha Parikshak (Digital Mini-Lab Solar Powered)	1 no.
Total		33 nos.

3.11.b. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	81	81	36	Soil samples were analyzed for routine analysis for conducting FLD/OFT programmes.
Water Samples	50	50	19	Water samples were analyzed for pH only for FLD programmes
Total	131	131	55	

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

Type of activities	No. of activities	Number of participants	Related crop/livestock technology
Technical Sessions	25	205	1. Soil Health Card – Its Utility 2. Improved Technologies for Preparation of Organic Inputs 3. Improved Technological Package of Practices for Cultivation of High Valued Vegetables 4. Kisan Credit Cards 5. Technologies for Biological Pest Control 6. Improved Technological Package of Practices for Cultivation of Different Fruit Crops 7. Improved Technologies for Management of Fish Diseases 8. Food and Nutritional Security for Farming Community

			<p>9. Improved Technologies for Managerial Practices of Rearing of Black Bengal Goats</p> <p>10. Different Technical Aspects of Crop Insurance</p> <p>11. Water Quality Management Technologies for Broiler Farming</p> <p>12. Balanced Diet, Different Deficiency Diseases and Its Management</p> <p>13. Different Technical Aspects of Pradhan Mantri Fasal Bima Yojana</p> <p>14. Different Technical Aspects of Breeding Policy of Govt. of West Bengal and Its Implementation</p> <p>15. Improved Technologies for Management of Pest and Diseases in Boro Paddy</p> <p>16. Improved Technologies for Flower Cultivation in Summer Season</p> <p>17. Appropriate Disease Management in Summer Oilseed Cultivation</p> <p>18. Improved Technologies for Organic Livestock Farming</p> <p>19. Concept, Formation and Functioning of Farmer Producer Organizations (FPOs)</p> <p>20. Improved Technological Package of Practices for Summer Pulse</p> <p>21. Rural Livelihood Security through Back Yard Livestock Farming</p> <p>22. Improved Technologies for Culture of <i>Pabda</i></p> <p>23. Post Harvest Technologies for Fruits and Vegetables</p> <p>24. Appropriate Disease Management Technologies in Summer Pulse</p> <p>25. Improved Technological Package of Practices for Cultivation of Different Medicinal Plants in Homestead Situation</p>
Publication of Extension Literatures	06	200	<p>1. Cultivation Package of Practices of Lentil</p> <p>2. Seed Treatment of Various Crops</p> <p>3. GIFT Tilapia rearing</p> <p>4. Vaccination and Treatment of Animals</p> <p>5. Processing of Fruits and Vegetables</p> <p>6. Registration of Farmers' Names in KVK Portal</p>
Video Show	04	200	<p>1. User Friendly Technology for Vermi-Compost Preparation</p> <p>2. Improved Technological Package of Practices for Fodder Cultivation</p> <p>3. Improved Technologies for Breeding and Culture of <i>Clarias sp.</i> (Magur) of Fish</p> <p>4. Improved Technologies of Sheep Farming for Increased Income</p>
Agricultural Fair	01	200	<p>1. Stall of the Rathindra KVK showcasing the cutting edge Technologies of the ICAR through A. displaying Seeds and Planting Materials; B. displaying Improved Agricultural and Farm Implements and C. free distribution of Extension Literatures.</p>
Distribution of Organic Inputs	01	168	<p>1. Free Distribution of Azolla @ 200 grams totaling distribution of 33.6 kilograms.</p> <p>2. Distribution of Planting Materials of Medicinal Plant <i>Ekangi</i> @ 200 grams per participants totaling 33.6 kilograms.</p>
Method Demonstration	01	168	<p>1. Preparation and maintenance of Medicinal Plants Garden in Back Yard and Homestead Farming Situations.</p>

3.14. RAWE programme - is KVK involved?

In the RAWE Programme of the B. Sc. (Ag.) Honours Course of Palli-Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, the Rathindra KVK is involved for giving the students an exposure on the concept, activities and effects of the Krishi igyan Kendras as a Centre of extension activities research.

No of student/ARS trained	No of days stayed
46	03

3.15. List of VIP visitors (MP/MLA/DM/VC/Zila Sabhadipati/Other Head of Organization/Foreigners)

Date	Name of the person	Purpose of visit
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05.08.2016.	Mr. Yugin Huang, Mr. Jinging Cao, Mr. Yanxiang Xu, Mr. Faxing Yang and Mr. Liuhai Ma, Faculty of East China University of Science and Technology, Shanghai, China.	To know about the nitty-gritty of the modus operandi of the Rathindra KVK as well as the uniqueness of the concept of the Krishi Vigyan Kendras as a whole.
08.08.2016.	Prof. Chirantan Chattopadhyay, Vice-Chancellor, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal, India.	To know about the procedures of research, demonstration and extension of agricultural and related field technologies adopted by 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

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	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 –

Cultivation	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.
Replacement of Deshi Poultry Breed by Rhode Island Red Breed (RIR)	309 farmers Trained as well as getting involved in the FLD Programmes of the Rathindra KVK on various aspects of replacement of local Deshi Poultry Breed by introduction of High Yielding Poultry Breed viz. Rhode Island Red (RIR) adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 512 numbers of farmers of whom 302 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 109 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 23 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 78 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 entrepreneurship 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 200 randomly selected men and women ex-trainees of the Rathindra KVK about their perception of change over a period of time in 01.04.2015 – 31.12.2016. 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. Last 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 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 (197 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 Durgapur, Dhyanasara, Chota Shimulia, Kankutia, Senkapur, Deuli, Kartickdanga, Srichandrapur and Bishnubati villages adopted by the Rathindra KVK over the last decade and this exercise was conducted in the Year 2016.

Impact of the activities of the Rathindra KVK as assessed by the 197 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 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	<p>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.</p> <p>Marking the plot before transplantation to ensure proper rows and spacing, and weeding are necessitating development of appropriate implements.</p> <p>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 171ocusin and there should not be standing water in the field during transplantation.</p> <p>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.</p> <p>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, 171ocusing and marking with marker should be completed a day before the transplantation.</p>

Technology Details	<ul style="list-style-type: none"> • 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	<p>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.</p>

4.5 Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	
Name & complete address of the entrepreneur	Mr. Tapan Kumar Ghosh; Village: Bishnubati, CD Block: Bolpur-Sriniketan, P. O. – Sattore, Pin. – 731236, Police Station: Sattore, District: Birbhum
Intervention of KVK with quantitative data support:	<p>A. Sri Ghosh was selected for the On Farm Trial Programme on comparative analysis of the performances of the different types of rural poultry breeds under Back Yard Farming situation in the financial year 2014-15 and 2015-16.</p> <p>B. Before inducting Sri Ghosh in the On Farm trial programme, Sri Ghosh was given intensive skill development training programmes on scientific poultry farming and management practices and low cost feed formulation of poultry from Rathindra KVK, Visva-Bharati, West Bengal.</p> <p>C. He also attended a lot of various awareness programmes and exposure visits to public as well as private sector poultry farms for gaining first hand experiences</p> <p>D. Rathindra KVK distributed 20 numbers of Vanaraja, 20 numbers of Rhode Island Red and 20 numbers of Indigenous (Deshi) chicken to Sri Tapan Ghosh after twenty one days of brooding programme</p>

	E. De-worming and vaccination of birds were done by Mr. Tapan Kumar Ghosh as per the standard protocol with technological backstopping by the scientist of the Rathindra KVK.
Time line of the entrepreneurship development	<p>A. Bodyweight of the Vanaraja poultry at 52 weeks of age for male was about 3.7 Kg while for female it was about 2.5 Kg and in case of Rhode Island Red the bodyweight of male was about 2.95 Kg and 2.3 Kg for female</p> <p>B. Vanaraja produces 103-110 eggs and Rhode Island Red produces 150-160 eggs per year and age of first egg laying of these two breeds is almost similar i.e. 175 - 180 days.</p> <p>C. By the time, Sri Tapan Kumar Ghosh started to brood fertile eggs of both Vanaraja and Rhode Island Red by using his local hen.</p>
Technical Components of the Enterprise	<p>A. Backyard poultry farming with rural improved breed</p> <p>B. Breed upgradation by crossing these two breeds viz. Vanaraja and Rhode Island Red with local birds.</p> <p>C. Hatching eggs of both Vanaraja and Rhode Island Red by using local hen.</p> <p>D. Supply chicks and fertile eggs of improved rural poultry breed</p>
Status of entrepreneur before and after the enterprise	Sri Tapan Kumar Ghosh has got a net profit of Rs. 63265.53 (Rupees sixty three thousand two hundred sixty five and Paise fifty three) by selling ready bird, table egg and newly hatched chicks from each unit and first batch.
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Mr. Tapan Kumar Ghosh, an unemployed rural youth, paved the way for other unemployed youths as well as farmers and farm women to take up poultry rearing of improved breeds like Vanaraja and Rhode Island Red as a viable rural entrepreneurship to generate low input and high output venture for sustainable livelihood development which can be achieved within a very short period of time
Horizontal spread of enterprise	150 numbers of practicing farm women from disadvantageous Scheduled Tribe (ST) community from nearby 10 villages are now started backyard poultry farming with rural improved poultry breed.

4.6 Any other initiative taken by the KVK

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 sources 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 benefited by viewing Method Demonstration on various new Technologies.
Bidhan Chandra Krishi Viswavidyalaya, West Bengal	<p>This linkage is mainly on the following aspects:-</p> <ul style="list-style-type: none"> - 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. <p>All the linkage activities profoundly help the Rathindra KVK clientele in updating their knowledge, skill and attitude.</p>
IARI, Regional Station, Samastipur, Bihar	<p>The linkage is mainly based on Collaborative Demonstration Programme on 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 and 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.</p> <p>- Provide Weather related for Crop based Action Plan Development.</p>
Protection of Plant Varieties and Farmers' Rights Authority, Ministry of Agriculture, Department of Agriculture and Co- operation, Govt. of	This Linkage is basically for organizing Training Programme on “Creation of Awareness among the Farmers and Other Stakeholders about the Provisions of PPV & FR Act – 2001” to make the stakeholders aware about the Provisions of the PPV & FR Act – 2001 and for encouraging the farmers to register their traditional, extinct crop varieties with the Authority.

India, New Delhi	
IIT, Kharagpur, West Bengal	This Linkage mainly focuses on bringing and testing cutting edge Hi-Tech Technologies and for organizing Collaborative Training Programme on Green House Technologies and Micro-Irrigation System based Precision Farming.
CIFRI, Barackpur, 24 Parganas (North), West Bengal	<ul style="list-style-type: none"> 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).
ICAR-NDRI, ERS, Kalyani, West Bengal	This Linkage is basically for organizing the Collaborative Animal Health Camps, Cattle Infertility Treatment Camps, Hybrid Napier Distribution Camps and for organizing Front Line Demonstrations on improved varieties of Fodder Crops like Berseem, Oat etc.
Line Departments like Agriculture, Horticulture and Food Processing Industries, Animal Resource Development, Fisheries etc. Of the Govt. Of West Bengal, Birbhum, West bengal	This linkage is basically on Technological back-stopping.
National Research Centre on Weed Control, Jabbalpur, Madhya Pradesh	The linkage is now focusing 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, Birbhum, West Bengal	The linkage is now focusing 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	<p>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.</p> <p>Besides above mentioned Linkages, NABARD, Birbhum sponsored the Technology Week – 2015, organized by the Rathindra KVK in its Campus from 23.02.2015 to 27.02.2015 for exposing the Practicing Farmers, Farm Women, Rural Youths and Extension Functionaries on cutting edge Agricultural and related field technologies. The NABARD is now sponsoring Skill Development Trainings in the Farm Sectors in the Financial Year of 2015 – 2016.</p>

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	<ul style="list-style-type: none"> This linkage is basically giving Residential Training to selected Rural Youths on "Friends of Coconut Trees (FOCT)" and popularizing Innovative Machine for rising up in the Coconut Trees. The second of this Type Training has been organized in collaboration with nRathindra KVK at the Rathindra KVK this Year. 20 unemployed Rural Youths were trainees in the Six Days Residential Training Programme on "Friends of Coconut Trees (FOCT)" 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 21.08.2014 to 26.08.2014 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 and it has also started the Tata Rallis Agri Input Training Scheme (TRAITS) in 2015 – 16 in collaboration with the RATHindra KVK for giving long duration skill, consultancy, marketing and entrepreneurship development Training for unemployed Rural Youths who are given opportunity to be absorbed in the Tata Rallis Company after successful completion of the Training.
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 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.

Bengal	
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.
IMSE, 195 Jodhpur Park, Kolkata - 700008	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.
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 benefitted 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 benefitted 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 benefitted 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 benefitted 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 Rathindra KVK and exchange ideas and experiences with farmers of the District of Birbhum and Scientists of the Rathindra KVK.
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5.2. List of special programmes undertaken during 2016-17 by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NABARD/NHM/NFDB/Other Agencies (information of previous years should not be provided)

a) Programmes for infrastructure development

Programmes for Installation of Micro-Irrigation System in the Instructional Horticultural Farm-cum-Progeny Orchard of the Rathindra KVK

Name of the Programme/Scheme	Purpose of Programme	Date/ Month of Initiation	Funding Agency	Amount (Rs.)
Installation of the Micro-Irrigation System in the Instructional Horticultural Farm-cum-Progeny Orchard of the Rathindra KVK	To demonstrate the efficiency of Micro-Irrigation System in Orchards among the visiting practicing farmers, farm women, rural youths, grass-root level extension functionaries for popularizing the sustainable and economic development of Agriculture and related Sectors in a water scare District like Birbhum District	25.10. 2016.	ATMA, Birbhum	11,00,000.00
Total				11,00,000.00

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

Name of the Programme/Scheme	Purpose of Programme	Date/ Month of Initiation	Funding Agency	Amount (Rs.)
Front Line Demonstration on Improved Fodder Crop Sorghum Var. MP Chari	To popularize fodder cultivation for improving animal health	June, 2016	IGFRI, Jhansi	Fodder Seeds were given free of cost by the Funding Agency.

Cluster Front Line Demonstrations (Cluster FLDs) on Kharif Pulses (Crop: Black Gram)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Pulse Production	July, 2016	ICAR	Rs. 1,50,000.00
Cluster Front Line Demonstrations (Cluster FLDs) on Kharif Oilseeds (Crop: Sesamum)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Oilseeds Production	July, 2016	ICAR	Rs. 60,000.00
One Day Farmers' Fair and Agricultural Exhibition in relation to Pradhan Mantri Fasal Beema Yojana	To expose the Practicing Farmers, Farm Women and Rural Youths to the cutting edge Agricultural and related Sectors Technology for modernization of agriculture and related sectors and enhancement of productivity for more income generation from a limited resource base on a sustainable basis and to sensitize the above mentioned clientele on the concept, functioning, use and relevance of Crop Insurance and related procedures	07.06.2016	ICAR	Rs. 80,000.00
Farmers-Scientists Interaction on Improved Package of Practices of Different Kharif Crops	To give the practicing farmers and farm women information, knowledge and audio-visual exposures on Improved Package of Practices of different Kharif Crops	17.06.2016	ATMA, Birbhum	Rs. 20,000.00
Training Programme on Nutritional Gardening	To give Technical expertise and skill to the Trainees on Nutritional Gardening	05.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Care and Management of Pregnant and Lactating Mothers	To give Technical expertise and skill to the Trainees on Care and Management of Pregnant and Lactating Mothers	15.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Care and Management of Children below 5 Years	To give Technical expertise and skill to the Trainees on Care and Management of Children below 5 Years	18.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.

Training Programme on Composite Fish Culture	To give Technical expertise and skill to the Trainees on Different Aspects of Composite Fish Culture	07.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Women Empowerment and Nutritional Security through Sustainable Agriculture – Emphasis on Organic Pest Management	To give information to the Trainees on Women Empowerment and Nutritional Security through Sustainable Agriculture – Emphasis on Organic Pest Management	16.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Composite Fish Culture	To give Technical expertise and skill to the Trainees on Composite Fish Culture	17.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Fish Feed Preparation and Its Application in Ponds	To give Technical expertise and skill to the Trainees on Fish Feed Preparation and Its Application in Ponds	18.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Fishery in Integrated Watershed Management Programme	To give Technical expertise and skill to the Trainees on Fishery in Integrated Watershed Management Programme	23.08.2016	PIA-IWMP-I, Barua Gopalpur Watershed, DDA (Soil and Water Management), Dept. of Agriculture, Govt. of W. B. Suri, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Carp Seed rearing and Nursery Pond Management	To give Technical expertise and skill to the Trainees on Different Aspects of Carp Seed rearing and Nursery Pond Management	26.08.2016. to 30.08.2016.	National Fisheries Development Board (NFDB), Huderabad	Rs. 41,000.00
Training Programme on Improved Package of Practices of Beet, Carrot, French Bean, Capsicum, Broccoli	To give Technical expertise and skill to the Trainees on Different Aspects of Improved Package of Practices of Beet, Carrot, French Bean, Capsicum, Broccoli	06.08.2016. to 07.08.2016.	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Women Empowerment and Nutritional Security through Sustainable Agriculture in Plant Protection Issues	To give information on Women Empowerment and Nutritional Security through Sustainable Agriculture in Plant Protection Issues	06.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Crop Insurance	To disseminate the information on the Crop Insurance	15.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Improved Technology of Poultry rearing	To give Technical expertise and skill to the Trainees on the Improved Technology of Poultry rearing	05.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.

Training Programme on Use of Kisan Credit Card (KCC) and other Institutional Credit Supply Mechanism for Agriculture and Allied Sectors	To disseminate the information on the Use of Kisan Credit Card (KCC) and other Institutional Credit Supply Mechanism for Agriculture and Allied Sectors	16.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Improved Goatery Management with Special Reference to Black Bengal Goat rearing	To give Technical expertise and skill to the Trainees on Different Aspects of Improved Goatery Management with Special Reference to Black Bengal Goat rearing	17.08.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Establishment of Back Yard Nutrition Garden	To give Technical expertise and skill to the Trainees on the Establishment of Back Yard Nutrition Garden	15.09.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Cultivation of High Value Vegetables	To give Technical information, knowledge and skills to the Trainees on the Cultivation of High Value Vegetables	16.09.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Improved Livestock Management Practices	To give Technical information, knowledge and skills to the Trainees on Improved Livestock Management Practices	16.09.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Preparation of Scientific Fish Feed (Granular / Pellet) and Its Method of Application in Ponds	To give Technical expertise and skill to the Trainees on Different Aspects of the Preparation of Scientific Fish Feed (Granular / Pellet) and Its Method of Application in Ponds	06.09.2016 to 10.09.2016	National Fisheries Development Board (NFDB), Hyderabad	Rs. 41,000.00
Training Programme on Human resource Development for Composite Fish Culture and related Issues	To provide support to the Human resource Development for Composite Fish Culture and related Issues	15.09.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Training Programme on Improved Pulse Production for Nutritional Security	To encourage the Farmers to adopt Improved Pulse Production for Nutritional Security	17.09.2016	Lok Kalyan Parishad, Birbhum	The total cost of the Programme was borne by the funding agency.
Cluster Front Line Demonstrations (Cluster FLDs) on Rabi Pulses (Crops: Field Pea, Chick Pea and Lentil	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Pulse Production	October, 2016	ICAR	Rs. 6,00,000.00

Cluster Front Line Demonstrations (Cluster FLDs) on Rabi Oilseeds (Crops: Rapeseed and Linseed)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Oilseeds Production	October, 2016	ICAR	Rs. 2,40,000.00
Pre-Rabi Kisan Sammelan - 2016	To expose the Practicing Farmers, Farm Women and Rural Youths to the cutting edge Agricultural and related Sectors Technology for modernization of agriculture and related sectors and enhancement of productivity for more income generation from a limited resource base on a sustainable basis	09.12.206.	ICAR	Rs. 80,000.00
Skill Development Training Programme on “Hatchery Production Worker”	To develop human resources among the practicing farmers, farm women and rural youths through Skill and Entrepreneurship development Training Programmes on Various Aspects of Fish Hatchery	16.02.2017 to 10.03.2017.	ICAR	Rs. 1,81,600.00
Skill Development Training Programme on “Animal Health Worker”	To develop human resources among the practicing farmers, farm women and rural youths through Skill and Entrepreneurship development Training Programmes on Various Aspects of Animal Health Management	09.02.2017 to 05.03.2017.	ICAR	Rs. 1,81,600.00
Dairy-cum-Krishi Mela	To provide exposure to the practicing farmers, farm women and rural youths to cutting edge technologies and products related agriculture, dairy and allied sectors	28.01.2017.	ICAR-NDRI	All the cost of the Programme was borne by the sponsoring Agency

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Name of demo Unit	Year of estt.	Area (Sq. mt)	Details of production			Amount (Rs.)		Remarks
				Variety/breed	Produce	Qty.	Cost of inputs	Gross income	
1.									
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	
Lentil	18.11.2016.	30.01.2017.	0.05	WBL – 77	TL Seeds	0.75	4,500.00	-	Kept in Go-Down
Mustard	09.11.2016.	03.02.2017	0.01	Pusa Mahek	TL Seeds	0.40	2,000.00	-	Kept in Go-Down
Mustard	10.11.2016	08.02.2017	0.02	B -9	TL Seeds	0.05			
Sesame	03.03.2017.	-.	0.13	Sabitri	TL Seeds				
Linseed	10.11.2016	13.02.2017	0.17	Deepika	TL Seeds	1.00	3,600.00	-	Kept in Go-Down
Wheat	29.12.2016.	02.04.2017.	0.06	HD – 2824, HD - 2967	TL Seeds	4.00	12,500.00	-	Kept in Go-Down
Elephant Foot Yam	15.05.2016	17.11.2016	0.05	Gajendra (Kavoor)	Seed Tubers	1.00	4,500.00	6000.00	Used in FLD Programme
Ground Nut	06.03.2017	-	0.067	TAG - 24	TL Seeds	-	-	-	-
Green Gram	07.03.2017.	-	0.13	Samrat	TL Seeds	-	-	-	-

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.	Bio Fertilisers (Vermin-Compost)	219.00	438.00	-	Provided to 69 numbers of Farmers
2.	Bio Agents [Earth Worm (<i>Eisenia foetidae</i>)]	1200	120.00	-	Provided to 12 numbers of Farmers
3.	<i>Azolla</i>	280.00	280.00	-	Provide to 98 numbers of Farmers

6.4 Performance of instructional farm (livestock and fisheries production)

Sl. No.	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	Poultry	Rhode Island Red (RIR)	Advanced Grower	40 nos.	1,600.00	3,600.00	Net Profit – Rs. 2,000.00 (Sold to Palli siksha Bhavana, Visva-Bharati)
2.	Fishes	Indian Major Carps (IMC) and Exotic Carps	Table Fishes	3.0	7,000.00	22,876.00	Net Profit – Rs. 15,876.00
3.	Fish	Catla (<i>Catla catla</i>) Mrighel	Spawns	4,00,000	1,200.00	-	Provided to 10 numbers of farmers

		(<i>Cirrhinus mrigala</i>)		1,00,000			
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6.5 Utilization of hostel facilities

Accommodation available (No. of beds)

Accommodation available (No. of beds) 27

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April, 2016	-	-	N. A.
May, 2016	-	-	N. A.
June, 2016	-	-	N. A.
July, 2016	24 + 16 + 10	504 (21) + 480 (30) + 190 (10)	N.A.
August, 2016	-	-	N. A.
September, 2016	27	675 (25)	N.A.
October, 2016	27	135 (05)	N.A.
November, 2016	-	-	N.A.
December, 2016	20	420 (21)	N.A.
January, 2017	-	-	N.A.
February, 2017	24 + 27	96 (04) + 405 (15)	N.A.
March, 2017	01	01(01)	N. A.
Total :	176	2906 (132)	N. A.

(For whole of the year)

6.6 Utilization of staff quarters

Whether staff quarters has been completed:

No. of staff quarters:

Date of completion:

Occupancy details:

Months	Q I	Q II	Q III	Q IV	Q V	Q VI

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 -
	Kharif	Rabi	Kharif	Rabi	

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

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

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2012
	Kharif	Rabi	Kharif	Rabi	
TOTAL					

7.5 Utilization of KVK funds during the year 2016-17 (Not audited)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	136.00	136.00	114.00
2	Traveling allowances	01.50	01.50	01.08
3	HRD	00.50	00.50	00.04
4	Contingencies			
A	Stationery, Telephone, Postage and Other Office Charges	06.50	06.50	06.50
B	POL, repair of Vehicle, Tractors and Equipments	03.00	03.00	03.00
C	Training of Farmer			
D	Training Material			
E	Training of Extension Functionaries			
F	Training of Rural Youths			
G	Front Line Demonstration	02.00	02.00	01.94
H	On Farm Testing	01.00	01.00	00.40
I	Soil and Water Testing Lab.	00.50	00.50	00.12
J	Maintainance of Building	03.00	03.00	00.99
5.	Tribal Sub Plan	04.00	04.00	03.17
TOTAL (A)		158.00	158.00	131.34
B. Non-Recurring Contingencies				
1	Works	-	-	-
2	Vehicle	-	-	-
3	Equipment and Furniture	-	-	-
4	Soil and Water Testing Lab Equipment	-	-	-
5	Library	-	-	-
TOTAL (B)		-	-	-
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		158.00	158.00	131.34

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year (Kind + cash)
2014-15	2.3339138	00.65421	00.65505	2.3330738
2015-16	2.3330738	1.58382	1.29424	2.6226538
2016-17	2.6226538	1.06356	0.71355	2.9976638

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.

(i) 01 and (ii) 01.

7.7 Details of marketing channels created for the SHGs

The products of these SHGs are being displayed for sale in the Mobile Vans of SAFAL Bangla, an initiative of Govt. of West Bengal.

7.8. Special programme on Food and Nutrition :

The Rathindra KVK has organized three Four Days Duration residential Training Programme on “Women Empowerment through Nutritional and Food Security” from 05.08.2016 to 08.08.2016; from 15.08.2016 to 18.08.2016 and 15.09.2016 to 18.09.2016 in collaboration with Lok Kalyan Parishad, Birbhum involving 79 numbers of Farm Women from different far flung CD Blocks of Birbhum District to build their capacities for managing the nutritional and food aspects in their lives.

7.9. Joint activity carried out with line departments and ATMA

Name of Activity	Number of Activity	Season	With Line Department	With ATMA	Both
Exposure Visit of the members of the FIAC, Rampurhat – II CD Block, Birbhum to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Birbhum	-
Exposure Visit of the members of the FIAC, Dubrajpur CD Block, Birbhum to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Birbhum	-
Exposure Visit of the members of the FIAC, Hirapur CD Block, Burdwan to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Burdwan	-
Exposure Visit of the members of the FIAC, Murarai - I CD Block, Birbhum to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Birbhum	-
Exposure Visit of the members of the FIAC, Murarai - II CD Block, Birbhum to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Birbhum	-

Exposure Visit of the members of the FIAC, Suri - I CD Block, Birbhum to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Birbhum	-
Exposure Visit of the members of the FIAC, Md. Bazar CD Block, Birbhum to the Rathindra KVK, Birbhum	01	Pre-Kharif Season	-	ATMA, Birbhum	-
Exposure Visit of the members of the FIAC, Salanpur CD Block, Burdwan to the Rathindra KVK, Birbhum	01	Kharif Season	-	ATMA, Burdwan	-
Training Programme on Poultry and Duckery Management	01	Kharif Season	-	ATMA, Birbhum	-
Training Programme on Goatery Management	01	Kharif Season	-	ATMA, Birbhum	-
Farmers-Scientists Interaction on Improved Package of Practices of Different Kharif Crops	01	Kharif Season	-	ATMA, Birbhum	-
Training Programme on Fishery in Integrated Watershed Management Programme	01	Kharif Season	PIA-IWMP-I, Barua Gopalpur Watershed, DDA (Soil and Water Management), Dept. of Agriculture, Govt. of W. B., Suri, Birbhum	-	-
Exposure Visit of the members of the FIAC, Ausgram – I CD Block, Burdwan to the Rathindra KVK, Birbhum	01	Kharif Season	-	ATMA, Burdwan	-
Exposure Visit of the members of the FIAC, Jamuria CD Block, Burdwan to the Rathindra KVK, Birbhum	01	Kharif Season	-	ATMA, Burdwan	-
Exposure Visit of the members of the FIAC, Bhagwanpur - I CD Block, Purba Medinipur to the Rathindra KVK, Birbhum	01	Kharif Season	-	ATMA, Purba Medinipur	-
Exposure Visit of the members of the FIAC, Kandi CD Block, Murshidabad to the Rathindra KVK, Birbhum	01	Kharif Season	-	ATMA, Murshidabad	-
Exposure Visit of the members of the FIAC, Maheshtala CD Block, 24 Parganas (South) to the Rathindra KVK, Birbhum	01	Kharif Season	-	ATMA, 24 Parganas (South)	-

8. Initiative taken towards organic farming by the KVK (area brought under organic farming, crops cultivated through organic means and other relevant information)

The Rathindra KVK has organized Five (05) numbers of Knowledge and skill development training programmes titled, “Multiplication of *Azolla*”, “Preparation and Use of Vermin-Compost”, “Preparation of Different Organic Pesticides for Use in Kitchen Garden”, “Preparation and Use of Botanical Pesticides in Homestead Kitchen Gardens” and “Identification of different Bio-Pesticides and Seed borne Diseases and their Treatments” involving a Total of 140 (One Hundred Forty) numbers of practicing farmers and farm women for capacity building of the above mentioned Trainees in Organic Farming.

Besides the Training Activities, in its Instructional Farms, the Rathindra KVK has produced 219 kilograms of Vermin-Compost worth Rs. 2190.00 which has been provide to 69 numbers of practicing farmers and farm women; 1200 numbers of

[Earth Worms (*Eisenia foetidae*)] worth Rs. 600.00 which has been provided to 12 numbers of farmers and 219 kilograms of Azolla worth Rs. 14,500.00 which has been provided to 98 numbers of practicing farmers and farm women free of cost for encouraging them to venture into Organic Farming.

9. Other information

9.1. Prevalent diseases in Livestock/Crops/Fishery

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

9.2. 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	

9.3. 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

9.4.a SMS PORTAL

Date of start of functioning of SMS portal

No. of messages	No. of calls	No. of farmers covered	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other
31	36,731	36,731	12	21	09	03	05	-

9.4.b Information in uploading KVK Portal by KVKs during 2016-17

Sl. No.	Name of item / events /	Uploading status	No. uploaded	Remarks, if any

	<i>component</i>	<i>(Yes/No)</i>		
1	KVK Profile			
2	Employee details	Yes		
3	Post	Yes		
4	Finance	Yes		2016-17 (July)
5	Soil Health Card	Yes	666 Numbers of Samples	
6	Appliance	Yes	13 numbers	
7	Crops	Yes		Paddy, Kharif, 2015
8	Resources			
9	Fish	Yes		2016
10	Past events	Yes		
11	Future/ upcoming events	Yes		
12	Facilities available at KVKs	Yes	05	
13	Package and practices			
14	Crop	Yes	08	
15	Livestock	Yes	04	
16	Fishery	Yes	02	
17	Horticulture	Yes	03	
18	CFLD on Pulses			
19	2016-17			
20	2015-16			
21	CFLD Oilseeds			
22	2016-17			
23	2015-16			

9.5 Observation of Swacha Bharat Programme

Date of Observation	Activities undertaken
16.10.2016.	All the staff of the Rathindra KVK has taken a whole hearted effort to clean the Office Building Complex of the KVK through cleaning the dusts, cob webs, weeding out the weeds etc. through manual work.
17.10.2016.	All the staff of the Rathindra KVK has tried their level best to clean the garbage, dust and debris accumulated on the Roof of the Administrative Building through the manual work.
18.10.2016.	All the staff of the Rathindra KVK has tried their level best to clean the garbage, dust and debris accumulated in and around the Trainees' Hostel of the Rathindra KVK through the manual work.
19.10.2016.	The Instructional Farm of the Rathindra KVK like Orchard, Crop Cafeteria, Nursery etc. and Demonstration Units like the Fish Breeding Unit, the Poultry and Duckery Units etc. were thoroughly cleaned, the weeds were manually up-rooted and the farm wastages and the crop residues were used as input in the Vermi-Composting Unit of the Rathindra KVK. In this Operational procedure, the Threshing Floor of the Instructional Farm and the Medicinal Plants Garden of the Rathindra KVK was thoroughly cleaned and the Farm debris was utilized as input material for the Vermi-Composting Unit of the Rathindra KVK.
20.10.2016.	All the staffs of the Rathindra KVK has taken initiatives to clean the remaining debris, garbage and dusts inside, outside and roof of the Administrative Building of the Rathindra Krishi Vigyan Kendra.

21.10.2016.	All the staff of the Rathindra KVK has taken a whole hearted effort to clean the Office Building Complex of the KVK through cleaning the dusts, cob webs, weeding out the weeds etc. through manual work.
22.10.2016.	All the staff of the Rathindra KVK has taken a whole hearted effort to clean the outside the Office Building Complex of the KVK including the main Gate. The main path and adjoining areas through cleaning the dusts, cob webs, weeding out the weeds etc. through manual work.
23.10.2016.	All the staff of the Rathindra KVK has taken a whole hearted effort to clean the outside the Office Building Complex of the KVK including the ornamental Hedges and Garden and adjoining areas through cleaning the dusts, cob webs, weeding out the weeds etc. through manual work.
24.10.2016.	Rathindra KVK has organized a Mobile Publicity Programme regarding the “SWACHHTA PAKHWARA” through utilizing the Office Jeep of the Rathindra KVK. The Jeep went to various Villages of the District of Birbhum, i.e. the mandate District of the Rathindra KVK and spreaded the message about the need and importance of the cleanliness in the day to day life as well as in all the Agricultural and related activities. This programme of the Rathindra KVK invoked a great response among the Villagers in all the places where this Mobile Jeep went. One of the villages was Dhanyasara, P. O. – Panchshoya, Police Station – Bolpur, Community Development (CD) Block–Bolpur-Sriniketan, Dist. – Birbhum. At this village, the villagers along with school going students were seen attentively listening to the Campaign being launched by the Scientists of the Rathindra KVK.
25.10.2016.	The Rathindra KVK has organized an Awareness Camp for Primary level school students, where 71 (Seventy one) students from Assadullahpur Primary School and Dhanyasara Primary School were present at the Village - Assadullahpur, P. O. – Sattore, Police Station – Bolpur, Community Development (CD) Block – Bolpur-Sriniketan, Dist. – Birbhum. In this Awareness Camp, the students were highlighted on the general importance of the cleanliness in the day to day life as well as the importance of the call of the Father of the Nation, Mahatma Gandhi as well as the point of view expressed by the present Union Government headed by the Honorable Prime Minister, Sri Narendra Bhai Modi were discussed in details with special emphasis on nurturing the habit of cleanliness from very beginning of a life at a tender age by the scientists of the Rathindra KVK. The conceptual discussion was followed by a lively question-answer session which was succeeded by a series of concrete actions such as cleaning of the Primary School Building and its Campus, weeding out the weeds grown in and around these campuses were spontaneously taken up by the participant students present in the Awareness Camp.
26.10.2016.	Rathindra KVK has organized a Mobile Publicity Programme regarding the “SWACHHTA PAKHWARA” through utilizing the Office Jeep of the Rathindra KVK. The Jeep went to various Villages of the District of Birbhum, i.e. the mandate District of the Rathindra KVK and spreaded the message about the need and importance of the cleanliness in the day to day life as well as in all the Agricultural and related activities. This programme of the Rathindra KVK invoked a great response among the Villagers in all the places where this Mobile Jeep went. One of the villages was Durgapur, P. O. – Panchshoya, Police Station – Bolpur, Community Development (CD) Block–Bolpur-Sriniketan, Dist. – Birbhum. At this village, the villagers along with school going students were seen attentively listening to the Campaign being launched by the Scientists of the Rathindra KVK.
27.10.2016.	The Rathindra KVK has organized an Awareness Camp for Junior High level school students, where 69 (Sixty nine) numbers of boys and girls students from Durgapur Junior High School were present at the Durgapur Junior High School, Village - Durgapur, P. O. – Panchshoya, Police Station – Bolpur, Community Development (CD) Block – Bolpur-Sriniketan, Dist. – Birbhum. In this Awareness Camp, the students were highlighted on the

	general importance of the cleanliness in the day to day life as well as the importance of the call of the Father of the Nation, Mahatma Gandhi as well as the point of view expressed by the present Union Government headed by the Honorable Prime Minister, Sri Narendra Bhai Modi were discussed in details with special emphasis on nurturing the habit of cleanliness from very beginning of a life at a tender age by the scientists of the Rathindra KVK. The conceptual discussion was followed by a lively question-answer session which was succeeded by a series of concrete actions such as cleaning of the Primary School Building and its Campus, weeding out the weeds grown in and around these campuses were spontaneously taken up by the participant students present in the Awareness Camp.
28.10.2016.	The Instructional Farm of the Rathindra KVK like Orchard, Crop Cafeteria, Nursery etc. and Demonstration Units like the Fish Breeding Unit, the Poultry and Duckery Units etc. were thoroughly cleaned, the weeds were manually up-rooted and the farm wastages and the crop residues were used as input in the Vermi-Composting Unit of the Rathindra KVK. In this Operational procedure, the Threshing Floor of the Instructional Farm and the Medicinal Plants Garden of the Rathindra KVK was thoroughly cleaned and the Farm debris was utilized as input material for the Vermi-Composting Unit of the Rathindra KVK. The Threshing Floors of the Instructional Farms of the Rathindra KVK was thoroughly cleaned on this occasion.
29.10.2016.	All the Staffs of the Rathindra KVK has organized a thorough cleaning operation through manual weeding out of weeds, cleaning of debris with the help of brooms, destruction of weeds, placing the garbage in the specific garbage cans etc. in the areas adjacent with the Administrative Office Building of the Rathindra KVK as well as the Trainees Hostel of the Rathindra KVK.
30.10.2016.	All the Staff of the Rathindra KVK organized a Walk inside the Sriniketan Campus of Visva-Bharati to make the people aware about the importance of “SWACHHTA PAKHWARA”.
31.10.2016.	All the Staff of the Rathindra KVK took a pledge on cleanliness to make the KVK premises and outside of the KVK premises neat and clean with their all efforts.

9.6 Observation of National Science day

Date of Observation	Activities undertaken
28.02.2017.	National Science Day is celebrated with great enthusiasm on 28 February to commemorate the discovery of Raman Effect on the same day in 1928 by Indian physicist and Nobel Laureate Sir Chandrasekhara Venkata Raman in Rathindra KVK, Birbhum. On this day Prof. sathak Chowdhury, Principal, Palli-Siksha Bhavana and In-charge, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum addressed the gathering consisting of 39 rural youths on the importance of inculcating scientific spirit and logic in every day life. Dr. Jayanta Chattopadhyaya, Vice-Principal, Palli-Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum emphasized on the continued and enhanced use of science and technology in agriculture and related sector. Smt. Ruma Addy, Programme Co-ordinator (Officiating) urged the participant rural youths to spread the message of science and technology to the farthest corners of rural areas so that the darkness of ignorance, superstition and illiteracy could be overcome with. The programme was ended with a Short Film Show on life and work of Dr. C. V. Raman, the great Indian scientist per excellence, with whom this day is associated with.,

9. 7. Programme with Seema Suraksha Bal (BSF) Not Applicable

Title of Programme	Date	No. of participants
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9.8 Agriculture Knowledge in rural school:

Name and address of school	Date of visit to school	Areas covered	Teaching aids used
Bahiri Brajasundari HighSchool Vill. – Bahiri, P. O. – Panchshoya, Pin. – 731240, Dist. - Birbhum, West Bengal.	08.09.2016.	Role of Agriculture and allied sectors in everyday lives; Elementary knowledge about Agriculture and Allied Sectors.	Laptop Computer, LCD Projector, Black Board, Chalk, Specimens
Loudaha Primary School, Vill. – Loudaha, P. O. – Singhee, Pin. – 731240, Dist. - Birbhum, West Bengal.	20.11.2016.	Elementary knowledge about Agriculture and Allied Sectors; Role of Agriculture and allied sectors in everyday lives; Elementary Knowledge of Agriculture and Allied Sectors	Laptop Computer, LCD Projector, Black Board, Chalk, Specimens
Bejra Primary School, Vill. – Bejra, P. O. – Singhee, Pin. – 731240, Dist. – Birbhum, West Bengal.	19.03.2017.	Elementary Knowledge about Importance of Medicinal Plants	Laptop Computer, LCD Projector, Black Board, Chalk, Specimens

9.9. Details of Kharif and Rabi Sammelan (Information should be provided in two separate tables – one for Kharif and another for Rabi Sammelan)

Name of the state	Name of district/KVK	Date on which conducted	Number of participants		Name of public representative	Details of Technology Demonstrated and other programmes organized
			Farmers	Others		
West Bengal	Birbhum / Rathindra KVK	09.12.2016	181	32	Sri Bikas Roy Choudhury, Sabhadhipati, Birbhum Zillah Parishad	The Practicing Farmers, Farm Women and Rural Youths were exposed to the cutting edge Agricultural and related Sectors Technology for modernization of agriculture and related sectors and enhancement of productivity for more income generation from a limited resource base on a sustainable basis especially on following Topics:- 1. More efficient use of irrigation water; 2. More efficient use of Fertilizers; 3. More emphasis on use of Bio-Fertilizers; 4. More use of Bio-Pesticides; 5. Organic Production Practices; 6. Crop diversification through cultivation of Pulse, oilseed, low volume high value vegetables; 7. More emphasis on rearing of Black Bengal goat and Garole Sheep; 8. Revival of production of Small Fishes like Punti, Mouralla, Dwarkey etc. Besides, these technologies, the participant farmers, farm women and rural youths were made aware of

Pradhan Mantri Fasa Bema Yojana (PMFBY), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Pradhan Mantri Koushal Yojana (PMKY) etc.

9.10. Details of Pradhan Mantri Fasal Bima Yojana programme organized

Name of the state	Name of district/KVK	Date on which conducted	Number of participants		Name of public representative	Details of awareness created and other programmes organized
			Farmers	Others		
West Bengal	Birbhum / Rathindra KVK	01.04.2016.	110	17	Sri Bikas Roy Choudhury, Sabhadhipati, Birbhum Zillah Parishad	As part of the event, creating awareness on different agricultural schemes of Govt. of India including benefits of soil health cards, production of organic inputs, water use efficiency were organized. Besides, distribution of literatures on the relevant issues, farmer-scientist interaction and distribution of soil health cards were also done.
West Bengal	Birbhum / Rathindra KVK	07.06.2016.	171	22	Sri Bikas Roy Choudhury, Sabhadhipati, Birbhum Zillah Parishad	As part of the event, creating awareness on different agricultural schemes including benefits of soil health cards, production of organic inputs, water use efficiency besides conducting live demonstrations on application of various improved technologies and best practices were arranged. Besides, distribution of literatures on the relevant issues, farmer-scientist interaction and distribution of soil health cards were done.

9.11. Contingent crop planning

Name of the state	Name of district/KVK	Thematic area	Number of programmes organized	Number of Farmers contacted	A brief about contingent plan executed by the KVK
West Bengal	Birbhum / Rathindra KVK	Contingent Crop Planning, Animal rearing practices, Crop Insurance, Disater Management Procedures	08	171	<p>1. Knowledge Development Training Programme on “Comparatie Study of Paddy Yield under SRI in Summer”.</p> <p>2. Knowledge and Skill Development Training Programme on “Identification and Control of Diseases in Poultry and their Prpphyllactic Measures with Special Reference to Bird Flu”.</p> <p>3. Skill Development Training Programme on “Paddy Cultivation with Zero Tillage Machine”.</p> <p>4. Skill Development Training Programme on “Cultivation of Black Gram and Sesame as Diersified</p>

					<p>Crop in Rainy Season”</p> <p>5. Knowledge Development Training Programme on “Crop Insurance”.</p> <p>6. Skill Development Training Programme on “Low cost Concentrate Preparation for Goats”</p> <p>7. Skill Development Training Programme on “Conservation of Seeds of Kharif Black Gram”</p> <p>8. Knowledge Development Training Programme on “Disaster Management with Special Reference to Agriculture and related Sectors”</p>
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9.12. Report on Citizens’ Client Charter (attending the requests seeking guidance on agricultural technology and technology products)

Sl. No.	Services/ Transaction	Process	Service Standard	No. of such services attended by KVKs and ATICs during the year	No. of such services pending with KVK/ATIC beyond 30 days
1.	Guidance on Agricultural technology and technology products	Personal contact by the Service Sectors with the responsible person of KVK/ATIC	Within 30 Days from the Day of Request	426	Nil

9.13. Community Radio Station Not Applicable

Date of establishment:

Amount of fund received year wise :

Source of fund:

Achievements:

Sr. no	Community Radio Stations (CRS)	No of programmes in the year	Total broadcast hrs in a month	Please specify details of the broadcasts

Sr. no	Community Radio Stations (CRS)	No of programmes in the year	Total broadcast hrs in a month	Please specify details of the broadcasts
A.	<p>Agricultural broadcasts</p> <ul style="list-style-type: none"> • Talks/interviews/discussions with experts, PG students/ and farmers on Agricultural technologies • Agro-climatic conditions, weather and marketing advisory • Phone-in programme of interface with experts • Phone-in programme with interface of progressive/innovative farmers • Success stories of progressive farmers • Success stories in FLD/OFT/ Trainings /Extension activities • Women in agriculture programme • Discussions on current issues in agriculture and allied sectors. • KVK happenings • Agricultural University professors. • Any other(please specify) 			
B.	<p>Community development broadcasts</p> <p>Please specify the programmes like rural development, educational, health, environment, public service broadcasts, sports etc.</p>			

9.14 No. of Progressive/Innovative/Lead farmer identified (category wise)

No. of Progressive Farmers identified: 19

No. of Innovative Farmers identified: 18

No. of Lead Farmers identified: 12

9.15 HRD programmes organized by the KVK

Training programme/ Seminar/ Symposia/ Workshop etc attended	Duration	Name of the participants	Designation	Organizer of the training Programme
Workshop-cum-Farmers-Scientists Interaction on Improved Cultivation Practices for Pulse Crops on 20.11.2016 organized by the	01 Day	Prof. Kajal Sengupta	Dean, Faculty of Agriculture, Bidhan Chandra Krishi	Palli-Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum

Rathindra KVK			Viswavidyalaya	
Workshop on Importance of Soil Sample Collection, Analysis and Interpretation on 05.12.2016 organized by the Rathindra KVK	01 Day	Prof. Ashish Chatterjee	Head, Dept.of Soil Science, Palli-Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum	Palli-Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum

9.16. Revenue generation:

Sl. No.	Name of Head	Income(Rs.)	Sponsoring agency
1.	Revolving Fund (Sale of Paddy Seeds, Wheat Seeds, Mustard Seeds, Live Earth-Worms, Vermin-Compost, Sale of Mosambi Fruits, ripened Mango Fruits, Capsicum Seedlings, Broccoli Seedlings, Elephant Foot Yam Seeds produced at the Instructional Farm)	83,480.00	ICAR, New Delhi
2.	Institutional Charges	15,000.00	NFDB, Hyderabad
3.	Revolving Fund (Sale of Fish produced at the Instructional Pond)	22,876.00	ICAR, New Delhi
4.	Trainees' Hostel Rent	52,400.00	ICAR, New Delhi
5.	Seminar Hall Rent	8,500.00	ICAR, New Delhi
Total		1,82,256.00	

9.17. Resource Generation:

SL. No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created
01.	Capacity Building Training Programme in Fishery Sector	To develop human resources among the practicing farmers, farm women and rural youths through Skill and Knowledge development Training Programmes on Various Aspects of Fishery	NFDB, Hyderabad, Telengana	00.82	-
02.	Farmers – Scientists Interaction	To provide a platform where scientific information and knowledge can flow freely between farmers and scientists.	ATMA, Birbhum	00.20	-
03.	Farmers' Fair on Pradhan Mantri Fasal Beema Yojana	To generate awareness among farming community on the concept, importance, use and functioning of Pradhan Mantri Fasal Beema Yojana and related Farmers' welfare Schemes launched by the Govt. of India as well as providing them an exposure to various cutting edge technologies and products for use in Agriculture and related Sectors	ICAR, New Delhi	01.85497	Various Exhibit Materials and Extension Literatures
04.	Skill Development Training Programme	To develop human resources among the practicing farmers, farm	ICAR, New Delhi	01.81600	Various Scientific and

	on “Hatchery Production Worker”	women and rural youths through Skill and Entrepreneurship development Training Programmes on Various Aspects of Fish Hatchery			Laboratory Equipments needed for Fish Hatchery
05.	Skill Development Training Programme on “Animal Health Worker”	To develop human resources among the practicing farmers, farm women and rural youths through Skill and Entrepreneurship development Training Programmes on Various Aspects of Animal Health Management	ICAR, New Delhi	01.81600	Various Scientific and Laboratory Equipments needed for Fish Hatchery
06.	Cluster Front Line Demonstrations (Cluster FLDs) on Kharif Pulses (Crop: Black Gram)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Kharif Pulse Production	ICAR, New Delhi	01.50	-
07.	Cluster Front Line Demonstrations (Cluster FLDs) on Kharif Oilseed (Crop: Sesamum)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Kharif Oilseeds Production	ICAR, New Delhi	00.60	-
08.	Cluster Front Line Demonstrations (Cluster FLDs) on Rabi Pulses (Crops: Field Pea, Chick Pea, Lentil and Green Gram)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Pulse Production	ICAR, New Delhi	04.50	-
09.	Cluster Front Line Demonstrations (Cluster FLDs) on Rabi Oilseeds (Crops: Mustard, Sesamum and Linseed)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Oilseeds Production	ICAR, New Delhi	01.80	-
10.	Cluster Front Line Demonstrations (Cluster FLDs) on Summer Pulse (Crop: Green Gram)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Summer Pulse Production	ICAR, New Delhi	01.50	-
11.	Pre-Rabi Kisan Sammelen - 2016	To expose the Practicing Farmers, Farm Women and Rural Youths to the cutting edge Agricultural and related Sectors Technology for modernization of agriculture and related sectors and enhancement of productivity for more income generation from a limited resource base on a sustainable basis	ICAR, New Delhi	00.80	Various Exhibit Materials and Extension Literatures
12.	Distribution of Free Soil Health Cards	To encourage the Practicing Farmers for analyzing their Soils for better Soil Health and Nutrient Management	ICAR	00.80	Soil Testing Mini-Lab Mridhaparikshak Solar Operated
13.	Total			16.50697	

9. 18. Performance of Automatic Weather Station in KVK
Not Applicable

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

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	
Dhanyasara Adivasi Para	Bolpur-Sriniketan	577	521	1098	245	219	464	42.26
Kankutia	Bolpur-Sriniketan	810	772	1582	291	264	555	35.08
Halsidanga	Bolpur-Sriniketan	821	801	1622	219	203	422	26.02
Ballabhpur	Bolpur-Sriniketan	885	862	1747	380	373	753	43.10
Mahuli	Bolpur-Sriniketan	209	204	413	107	99	206	49.88
Bishnubati	Bolpur-Sriniketan	303	297	600	149	134	283	47.17
Asadullapur	Bolpur-Sriniketan	236	214	450	235	214	449	99.78
Durgapur	Bolpur-Sriniketan	345	304	649	196	171	367	56.55
Bautizole	Bolpur-Sriniketan	295	275	570	156	124	280	49.12

Physical achievements under TSP during 2016-17

Programmes	Physical achievements 2016-17
Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)	Sprayer:- 20 pieces Milk Can:- 30pieces Cemented Bin for <i>Azolla</i> culture:- 40
On-farm trials (Number)	04
Frontline demonstrations (Number)	151
Farmers training (in lakh)	328
Extension personnel training (in lakh)	-
Participants in extension activities (in lakh)	1203
Seed production (in tonnes)	1.00 Quintol
Planting material production (in lakh)	500 in numbers
Livestock strains and fingerlings production (in lakh)	-
Soil, water, plant, manures samples testing (in lakh)	-
Provision of mobile agro – advisory to farmers (in lakh)	-
Others (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)	Planting Material Distribution:- 50 Seed Distribution:- 101 Vaccination Camp for Animals:- 02 Swachha Bharat Abhiyaan:- 05

Fund received under TSP in 2016-17: Rs. 4.00 lakhs

11. PROGRESS REPORT OF NICRA KVK (Technology Demonstration component) 2016-17 (Applicable for KVKs identified under NICRA) Not Applicable

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 / benefitted	Remarks

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

12. Information on NFDB Funded Capacity building programme during 2016-17

Sl. No.	Name of capacity building training programme	Duration (days)	Date of programme	Fund (Rs.) sanctioned by NFDB, Hyderabad	No. of Farmers trained	Remarks, if any
1	Carp Seed Rearing and Nursery Pond Management	05	26.08.2016 to 30.08.2016	Rs. 41,000.00	20	In this Training Programme, 20 (Twenty) numbers of practicing farmers and rural youths of Birbhum District have participated, among whom 07 (Seven) have been from Scheduled Caste (SC) community, 01 (One) from Scheduled Tribe (ST) community and 12 (Twelve) from other castes.
2	Preparation of Scientific Fish Feed (Granular / Pellet) and Its Method of Application in Ponds	05	06.09.2016 to 10.09.2016	Rs. 41,000.00	20	In this Training Programme, 20 (Twenty) numbers of practicing farmers and rural youths of Birbhum District have participated, among whom 02 (Two) have been from Scheduled Caste (SC) community and 18 (Eighteen) from other castes.
Total		10		Rs. 82,000.00	40	

13. National Initiative on Fodder Technology Demonstration (NIFTD)

(Applicable for KVKs identified under NIFTD)

Not Applicable.

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

14. Awards/Recognition received by the KVK

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

Awards received by Farmers from the KVK district

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
01.	HINDUSTAN INSECTICIDE LIMITED (HIL) FARMER OF THE AWARD	Sri Partha Mal	2016-17	Hindustan Insecticide Limited	-	To encourage progressive Rural Youths like Sri Mal for his Social commitment and Organic production practices
02.	HINDUSTAN INSECTICIDE LIMITED (HIL) FARMER OF THE AWARD	Sri Biswajit Hembram	2016-17	Hindustan Insecticide Limited	-	To encourage progressive Rural Youths like Sri Hembram for his pioneering efforts in breed up-gradation of Poultry birds in Rural Back Yasrd Farming System
03.	HINDUSTAN INSECTICIDE LIMITED (HIL) FARMER OF THE AWARD	Sri Mahadev Sarkar	2016-17	Hindustan Insecticide Limited	-	To encourage progressive Practcing Farmer like Sri Sarkar for his unique effort in popularizing the cultivation of high value low volume exotic vegetables like Broccoli, Capsicum etc.
04.	HINDUSTAN INSECTICIDE LIMITED (HIL) FARMER OF THE AWARD	Smt. Sukhodi Mardi	2016-17	Hindustan Insecticide Limited	-	To encourage progressive Rural Youths like Smt. Mardi for her untiring efforts in adopting, promoting and disseminating modern farming practices among the Tribal community farm women as well as her efforts for formation of Groups for preparing and selling household

15. Any significant achievement of the KVK with facts and figures as well as quality photograph

Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension) was awarded “**Best Paper Award**” for the presented Paper, titled “*Front Line Demonstration on Lentil using Improved Varieties WBL - 58 and WBL – 77 for Increasing Productivity under lateritic Soil of Birbhum, West Bengal*”, authored by Subrata Mandal, Prabuddha Ray, Sourav Mondal and D. C. Manna among the top research papers submitted from all-over India by Bihar Agricultural University, Sabour, Bhagalpur, Bihar – 813210, India at the *National Conference on Bringing Self-Sufficiency in Pulses for Eastern India*, organized by the Bihar Agricultural University, Sabour, Bhagalpur, Bihar – 813210, India in collaboration with the Indian Society of Pulses Research and Development (ISPRD), Indian Council of Agricultural Research (ICAR) – Indian Institute of Pulses Research (IIPR), Kanpur, Uttar Pradesh – 208024, India held at the Bihar Agricultural University Campus, Sabour, Bhagalpur, Bihar from 5th. August to 6th. August, 2016.



Dr. Prabuddha Ray is being awarded the “Best Paper” Award by the Honourable Vice-Chancellor of Bihar Agricultural University Dr. A. K. Singh in presence of Dr. R. R. Hanchinal, Chairperson, PPV&FR Authority, New Delhi and Other Dignitaries

16. List of 5000 farmers with mobile number and Aadhar card number (only soft copy to be enclosed)

Soft Copy is enclosed.

17. Number of commodity based organizations/ farmers' cooperative society formed during last one year

(Details of the group/society may be indicated)

One (01)

Daronda Kabiguru Organization

Address: - Village + P. O.:- Daronda, Via: - Sriniketan, Police Station:- Illumbazar, Dist.:- Birbhum, Pin. - 731236.

Registration No.:- S/2L/No.-62094 of 2016-17

Date of Registration: - 05.12.2016.

Profile: - Daronda Kabiguru Organization has been established in the year of 2016-17 involving 60 numbers of practicing farmers and farm women. Among these farmers, 25 male farmers and 15 farm women are from Scheduled Tribe community. Another 06 numbers of male farmers and 05 numbers of farm women are from Scheduled Caste community. This Organization is mainly focusing on production of organic vegetables (both common vegetables as well as high value vegetables like Broccoli, Capsicum, Brusell's Sprout, Pak Choi etc.), organic fishes (Indian Major Carps and Exotic Carps), Vermin-Compost, *Azolla*, processed food items like Pickles, Jam, Jelly, Squash, Chips, Papad, Spices, "Bori" etc.

Besides the above mentioned activities, this Organization is putting great emphasis on spreading the light of education through organizing free coaching camps, distribution of free study materials and learning aids etc in the local area situated in fringe of forest and inhabited by mainly Scheduled Tribe and Scheduled Caste community members.

18. Any other programme organized by KVK not covered above

A. Minikit Demonstration of Improved Wheat Varieties through Outreach Programme of ICAR-IARI, Pusa, Samastipur, Bihar in 2016-17

Sl. No.	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers	Remarks
			Proposed	Actual		
1.	Varietal replacement	Improved variety HD 2824, HI 1563, HD 2733, HD 3118 (from IARI)	02	02	1 1	Harvesting and threshing is going on

B. Minikit Demonstration of Improved Green Fodder Varieties through Outreach Programme of ICAR-NDRI, ERS, Kalyani, West Bengal in 2016-17

Crop	Thematic Area	Name of the varieties	No. of	Area	Yield (q/ha)	% increase
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			farmers	(ha)	Demo	Check	in yield
Green Fodder, Sorghum , Pre kharif 2016	Varietal replacement	MP Chari	20	1.11	634.3	398.7 (Goma)	59
		MFSH-4	22	0.2	745.3	Do	87
		Jumbo gold	22	0.2	688.8	Do	73
Green Fodder, Maize Kharif, 2016	Varietal replacement	African Tall	22	0.71	415.2	298.4 (Local Improved)	39
Green Fodder, Rice bean Kharif, 2016	New introduction	Bidhan-2	5	0.5	347.5	--	-
Green Fodder, Oat Rabi, 2016-17	New Introduction	Kent	14	1.28	308.8	73.7 (Local grass in grazing land)	318.9
Green fodder, Hybrid Napier, Post Kharif, 2016-17	Varietal replacement	Co-4	20	0.40	1020.2	706.6 (Local Improved)	44.4

C. The Rathindra KVK has organized a One Day Dairy-cum-Krishi Mela at the Village:- Ghoshaldanga, Dist.:- Birbhum on 28.01.2017 in collaboration with ICAR-NDRI, ERS, Kalyani. At this Mela various Stalls were put up for exhibiting modern products, technologies and practices regarding agriculture, dairy, fishery and allied sectors by different developmental organizations like KVK, Dept. of Animal Resource Development, West Bengal University of Animal and Fishery Sciences, ICAR-NDRI, ICAR-IVRI, ICAR-NIRJAFT, different Self Help Groups from Anandadhara [groups constituted under Mahila Kisan Sashaktikaran Pariyojona (MKSP)], reputed Non-Governmental Voluntary Organizations like Loka Kalyan Parishad, Birbhum; Kabiguru Prakalpa, Birbhum etc.

In this Mela, 115 numbers of participant practicing farmers, farm women and rural youths attended various programmes of which 47 numbers were from disadvantageous Scheduled Caste community, 24 were from disadvantageous Scheduled Tribe community and rest 44 persons were from other communities. Animal Exhibition of various animals of economic importance like Heifer, Goat, Duck, Hen and Cock were organized and the best animals were judged by the experts and given prizes. A Vegetable and crop show was also organized on this occasion. In this Mela, Farmers – Scientists Interface and a Quiz Contest on various aspects of Animal especially dairy animals rearing were organized and the participant farmers were very much delighted after participating in these types of scientific platform.

Annexure – I

Details of Training Programmes

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total
DISCIPLINE – AGRONOMY													
4.05.2016	PF	Crop diversification by cultivating medicinal plants Ekangi in Kharif Season.	01	OFF	24	00	24	02	00	02	00	00	00
06.05.2016	PF & PFW	Comparative study of Paddy field under SRI in Summer.	01	OFF	11	05	16	00	00	00	11	05	16
21.05.2016	PF	Ekangi Cultivation in Mono-Cropped upland situation.	01	OFF	09	00	09	03	00	03	00	00	00
27-28.5.2016 & 30-31.05.2016	PF & PFW	Collection & preparation of Soil Sample for Testing and Interpretation.	04	OFF	46	04	50	00	00	00	02	00	02
01.06.2016	PF	Paddy Cultivation using zero tillage machine	01	ON	10	00	10	00	00	00	00	00	00
14.07.2016	EF	Cultivation of black gram & sesame & diversified crop in rainy	01	ON	20	01	21	02	00	02	00	00	00

		season.											
16.07.2016	PF	Land preparation, <i>Rhizobium</i> inoculation on Black Gram in kharif season.	01	OFF	30	00	30	00	00	00	16	00	16
21.07.2016	PF	Phosphate management & micronutrient application in Black Gram in kharif season.	01	OFF	30	00	30	00	00	00	30	00	30
23.07.2016	PF	Land preparation & swing of sesame in kharif season.	01	OFF	23	00	23	08	00	08	01	00	01
26.07.2016	PF	Fertilizer mgmt. & micronutrient application in sesame in kharif season.	01	OFF	29	00	29	07	00	07	00	00	00
04.08.2016	PF & PFW	Integrated Management of <i>Parthenium</i>	01	ON	32	09	41	08	04	12	14	01	15
05.08.2016	EF	Cultivation of pulse & oil seed for crop diversification in Kharif Season.	01	OFF	00	09	09	00	02	02	00	00	00
11.08.2016	RY	Pulse cultivation towards sustain ability.	01	ON	47	11	58	06	01	07	04	01	05
15.08.2016	PFW	Crop of pulse for on sustainable Soil health Mgmt.	01	ON	00	28	28	00	03	03	00	02	02
20.08.2016	PF	Sowing of black gram	01	OFF	45	00	45	05	00	05	02	00	02
20.09.2016 to 03.09.2016 & 05.09.2016 to 06.09.2016	PF & PFW	Paddy seed production phase-I	04	ON	29	02	31	01	01	02	10	00	10

08.09.2016 to 10.09.2016 & 13.09.2016	PF & PFW	Multiplication of Azolla.	04	ON	29	02	31	01	01	02	10	00	10
14.09.2016 to 10.09.2016 & 19.09.2016	PF & PFW	Preparation & use of Vermi compost	04	ON	30	02	32	01	01	02	10	00	10
17.09.2016	PF & PFW	Improved pulse production for nutrition security.	01	ON	02	21	23	01	08	09	00	00	00
18.10.2016	RY	Land utilizations through cultivation & oilseed replace paddy in Kharif season.	01	ON	16	13	29	03	02	05	00	01	01
24.10.2016	PF & PFW	Improved pulse cultivation for nutritional security	01	ON	04	14	18	02	07	09	00	00	00
27.10.2016	PF	Harvesting & threshing of Kharif Black Gram	01	OFF	15	00	15	06	00	06	00	00	00
10.11.2016	PF & PFW	Improved technology in Rabi pulse cultivation	01	OFF	28	07	35	01	00	01	03	00	03
12.11.2016.	PF & PFW	Improved technology in rabi oilseed cultivation	01	OFF	09	01	10	01	00	01	04	00	04
01.12.2016 to 21.12.2016	RY	Soil Testing	21	ON	20	00	20	02	00	02	03	00	03
06.12.2016	PF	Land preparation & sowing of pulse.	01	ON	35	00	35	00	00	00	00	00	00
07.12.2016	PF & PFW	Land preparation & sowing of Rabi oilseed.	01	ON	24	01	25	00	00	00	00	00	00
21.12.2016	PF & PFW	Land preparation & sowing of improved wheat varieties.	01	ON	05	02	07	00	01	01	00	00	00

11.02.2017	PF	Intercultural Operation in Rabi Pulses Cultivation.	01	OFF	34	00	34	07	00	07	00	00	00
17.02.2017	PF	Improved Variety & Fertilizer Management in Summer Sesame.	01	OFF	41	00	41	11	00	11	02	00	02
23.02.2017	PF	Harvesting Threshing & Strolling of Lentil, Chick Pea and Field Pea	01	OFF	17	00	17	00	00	00	00	00	00
14.03.2017	PF	Summer Pulses Oilseeds Cultivation	01	OFF	26	00	26	09	00	09	00	00	00
16.03.2017	PF & PFW	Sowing & Fertilizer Management of Blackgram and Greengram Cultivation.	01	OFF	14	05	19	04	02	06	00	00	00
20.03.2017	PF & PFW	Seed Production Technology of Blackgram and Greengram Phase-I	01	ON	31	10	41	04	00	04	11	08	19
21.03.2017	PF & PF	Seed Production Technology of Blackgram and Greengram Phase-II	01	ON	27	10	37	09	00	09	06	08	14
Total					792	157	949	104	33	137	139	26	165

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total

DISCIPLINE – HORTICULTURE

17.05.2016 to 21.05.2016	PF	Tuber crop Management & lay-out & Planting	04	ON	24	00	24	05	00	05	01	00	01
23.05.2016 to 27.05.2016	PF	Management of high yielding varieties of Elephant Foot Yam	04	ON	20	00	20	06	00	06	01	00	01
28.05.2016	PF	Crop Diversification of Horticulture Crops	01	OFF	33	00	33	19	00	19	00	00	00
30.05.2016	PF & PFW	Crop Diversification of Horticulture Crops	01	OFF	39	06	45	28	05	33	04	01	05
02.06.2016	PF & PFW	Crop Diversification of Horticulture Crops	01	OFF	46	04	50	09	00	09	01	00	01
03.06.2016	PF	Crop Diversification of Horticulture Crops	01	OFF	25	00	25	25	00	25	00	00	00
11.07.2016 to 31.07.2016	RY	Nursery Management	21	ON	24	00	24	09	00	09	09	00	09
06.08.2016 to 07.08.2016	PFW	Improved Package of Practices of Beet, Carrot, French Bean, Capsicum, Broccoli	02	ON	00	25	25	00	08	08	00	02	02
10.08.2016 to 13.08.2016	PF	Establishment of Homestead Orchard including Management of Orchard	04	ON	29	00	29	10	00	10	12	00	12
16.08.2016 to 19.08.2016	PF	Establishment of Progeny Orchard including Plant Propagation & Management of Fruit Crops	04	ON	22	00	22	14	00	14	03	00	03
22.08.2016 to 25.08.2016	PF	Establishment of commercial orchard in Up- land situation as one of the components of Dry land	04	ON	17	00	17	03	00	03	09	00	09

		Horticulture including Mgt. of Orchards											
27.08.2016 to 31.08.2016	PF	Improved Cultural Practices Capsicum, Broccoli, Ornamental Cabbage, Lettuce etc.	04	ON	22	00	22	15	00	15	03	00	03
31.08.2016	PF	Improved Production Technology of Barmasia Drum Sticks	01	OFF	29	21	50	05	01	06	00	00	00
06.09.2016	PFW	Cultivation of High Valued Vegetables	01	OFF	33	00	33	12	00	12	00	00	00
16.09.2016	PFW	Cultivation of High Valued Vegetables	01	ON	00	25	25	00	10	10	00	00	00
19.09.2016	PF & PFW	Winter Vegetable Cultivation	01	ON	17	01	18	05	00	05	00	00	00
23.09.2016	PF & PFW	Winter Vegetables Cultivation	01	OFF	14	02	16	00	00	00	14	02	16
01.10.2016, 03.10.2016 to 04.10.2016 & 06.10.2016	PF & PFW	Cultivation of Broccoli and Capsicum	04	ON	23	02	25	08	02	10	03	00	03
25.10.2016	PF & PFW	High Value vegetable Cultivation	01	ON	04	14	18	02	07	09	00	00	00
Total					421	100	521	175	33	208	60	5	65

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total

DISCIPLINE – PLANT PROTECTION

14.07.2016 to 16.07.2016	PF	Different Composite of IPM	03	OFF	50	00	50	12	00	12	20	00	20
21.07.2016 to 23.07.2016	PF	Integrated Pest, Disease & Weed Management in Kharif Paddy Phase-I	03	OFF	50	00	50	16	00	16	28	00	28
16.08.2016	PFW	Women empowerment & Nutritional security through sustainable Agriculture -- emphasis on Organic Pest Management	01	ON	00	28	28	00	04	04	00	02	02
06.08.2016	PFW	Women empowerment & Nutritional security through sustainable Agriculture -- emphasis on Plant protection Issues	01	ON	00	26	26	00	09	09	00	02	02
08.08.2016 to 10.08.2016	PF & PFW	Integrated Pest Disease & Weed Management on Kharif Paddy (Phase-II)	03	ON	02	29	31	01	02	03	00	25	25
05.09.2016 to 07.09.016	PF	Pest & disease management in early Rabi vegetables	03	OFF	50	00	50	10	00	10	03	00	03
22.09.2016 to 24.09.2016	PF	Pest & disease management on Rabi seasonal Oilseed & Pulse	03	OFF	50	00	50	12	00	12	00	00	00
27.10.2016	PF & PFW	Preparation & Use of Botanical pesticides in Homestead kitchen Garden	01	ON	03	13	16	00	03	03	00	00	00
08.12.2016 to 10.12.2016	PF	Identification of different bio-pesticides & seed borne diseases &	03	ON	30	00	30	08	00	08	12	00	12

		their treatments											
09.02.2017 to 23.02.2017	RY	Mushroom Cultivation	15	ON	23	11	34	07	03	10	01	01	02
Total					258	107	365	66	21	87	64	30	94

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total

DISCIPLINE – FISHERY

16.05.2016 to 17.05.2016	PF	Preparation of N. pond & Cultivation of fish fry & fingerlings	02	ON	36	00	36	06	00	06	11	00	11
14.06.2016 to 28.06.2016	PF	Composite Fish Cultivation	04	ON	32	00	32	05	00	05	11	00	11
01.07.2016 to 30.07.2016	RY	Carp breeding & Hatchery Management	30	ON	16	00	16	05	00	05	01	00	01
07.08.2016	PFW	Composite Fish Cultivation	01	ON	00	26	26	00	09	09	0	02	02
17.08.2016	PFW	Composite Fish Cultivation	01	ON	00	27	27	00	04	04	00	02	02
18.08.2016	PFW	Fish Feed Preparation & application in Ponds	01	ON	00	26	26	00	04	04	00	02	02
23.08.2016	PF & PFW	Fishery in Integrated Watershed Management Programme	01	ON	33	02	35	08	01	09	00	00	00

26.08.2016 to 30.08.2016	PF & PFW	Carp Seed Rearing & N. Pond Management	05	ON	20	00	20	07	00	07	01	00	01
06.09.2016 to 10.09.2016	PF & PFW	Preparation of Scientific fish feed Granular/ pellet & its methods in application in pond	05	ON	20	00	20	02	00	02	00	00	00
15.09.2016	PF & PFW	Human resources development for composite Fish Cultivation & related issues	01	ON	02	24	26	01	08	09	00	00	00
27.09.2016	PF	Improved disease Management practice in fresh water Aquaculture	03	ON	31	00	31	02	00	02	00	00	00
25.10.2016	PF & PFW	Composite Fish Cultivation	01	ON	03	15	18	00	03	03	00	00	00
16.01.2017 to 17.01.2017 and 19.01.2017 to 20.01.2017	PF & PFW	Integrated Fish Farming	04	ON	19	01	20	04	00	04	07	01	08
Total					212	121	333	40	29	69	31	7	38

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total

DISCIPLINE – ANIMAL SCIENCE

19.05.2106 to 20.05.2016	PF	Identification & Control of disease in poultry and prophylactic measures with special reference to Bird Flue	02	ON	30	00	30	03	00	03	18	00	18
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16.06.2016 to 20	PFW	Low cost feed Preparation for poultry	04	ON	00	30	30	00	12	12	00	16	16
21.07.2016 to 23.07.2016 & 25.07.2016	PF	Establish & maintains & management of small scale Dairy Unit	04	ON	28	00	28	00	00	00	01	00	01
22.07.2016	PF & PFW	Poultry & Ducker & its management (With ATMA)	01	OFF	04	26	30	02	14	16	00	00	00
29.07.2016	PF & PFW	Goatery Management (With ATMA)	01	OFF	04	26	30	02	14	16	00	00	00
05.08.2016	PFW	Improved Technology of Poultry Rearing	01	ON	00	26	26	00	10	10	00	02	02
11.08.2016	PF & PFW	Quail Farming	01	ON	26	04	30	06	00	06	15	04	19
12.08.2016 to 13.08.2016	PF & PFW	Backyard Poultry Farming Improvement with utilization of natural resources	02	ON	26	04	30	06	00	06	15	04	19
17.08.2016	PFW	Improved goatery management with special reference Black Bengal Goat rearing	01	ON	00	27	27	00	04	04	00	02	02
22.08.2016	PF & PFW	Improved Khaki Campbell Duck rearing practices	01	ON	22	10	32	05	00	05	00	00	00
06.09.2016 to 05.10.2016	RY	Capacity Building up of RY as Para-Vets	30	ON	19	08	27	05	01	06	01	03	04
16.09.2016	PF & PFW	Improved livestock Management Practices	01	ON	02	23	25	01	08	09	00	00	00

29.09.2016	PF & PFW	Breed Up gradation of Cattle	01	ON	12	18	30	0	00	00	12	18	30
26.10.2016 to 27.10.2016	PFW	Low cost Concept Preparation for Goats	02	ON	00	15	15	00	00	00	00	15	15
29.12.2016 to 30.12.2016	PF & PFW	Scientific piggery Management with special reference to Gungroo Pig	02	ON	07	22	29	00	00	00	07	22	29
10.12.2016 to 13.12.2016	PF & PFW	Duck farming with special reference to khaki Campbell	04	OFF	40	10	50	31	05	36	04	01	05
12.01.2017 to 13.01.2017	PFW	Identification and Control of Diseases in Dairy Animals with their Prophylactic Measures.	02	ON	00	38	38	00	36	36	00	00	00
16.01.2017 to 17.01.2017	PF & PFW	Improved Sheep rearing Practices.	02	ON	29	01	30	08	01	09	13	00	13
09.02.2017 to 05.03.2017	RY	Animal Health Worker (ASCI) (NSDC)	25	ON	17	01	18	04	00	04	08	00	08
03.02.2017 to 05.02.2017	PF & PFW	Reduction of Treatment Cost by ITK	03	ON	29	01	30	08	00	08	12	00	12
Total					295	290	585	81	105	186	106	87	193

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total
DISCIPLINE – HOME SCIENCE													
16.06.2016 to 21.06.2016	PFW	Income generation through Batik Work	05	ON	00	22	22	00	05	05	00	11	11

04.07.2016 to 18.07.2016	RY	Jute Craft	10	ON	00	19	19	00	07	07	00	05	05
22.07.2016	PFW	Nutrition Garden	01	OFF	00	50	50	00	28	28	00	04	04
04.08.2016 to 12.08.2016	PFW	Preparation of Decorative Bags Using Synthetic Chords	07	ON	00	18	18	00	07	07	00	03	03
05.08.2016	PFW	Nutritional Gardening	01	ON	00	26	26	00	09	09	00	02	02
15.08.2016	PFW	Care & Management of Pregnant & Lactating Mother	01	ON	00	28	28	00	04	04	00	02	02
18.08.2016	PFW	Care & Management of Children below 5years	01	ON	00	25	25	00	03	03	00	02	02
10.09.2016	PFW	Care & Management of Pregnant & Lactating Mothers	01	OFF	00	51	51	00	44	44	00	00	00
15.09.2016	PFW	Establishment of back yard Nutrition Garden	01	ON	00	26	26	00	09	09	00	00	00
26.09.2016	PFW	Care & Nutritional Management of Pre-School Children	01	OFF	00	64	64	00	59	59	00	00	00
27.10.2016	PF & PFW	Nutritional Care of Vulnerable Group with Special emphasis on incorporating millet in regular diet	01	ON	03	14	17	00	03	03	00	00	00
15,16,17,19, 20.12.2016	PFW	Technique of Tie & dye	05	ON	00	25	25	00	06	06	00	03	03
27.03.2017	PF & PFW	Techniques of Food Processing.	01	ON	17	08	25	06	06	12	01	01	02

Total													
	20	376	396	6	190	196	1	33	34				

Date	Clientele	Title of the Training Programme	Duration in days	Venue (Off/On Campus)	Number of participants			Number of SC/ST					
								SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total
DISCIPLINE – AGRICULTURAL EXTENSION													
02.06.2016 to 04.06.2016	PF & PFW	Concept, formation & Functioning of joint liability group.	03	ON	38	03	41	09	00	09	04	00	04
01.08.2016 to .2.08.2016	PF & PFW	Formation of Farmers producer organization	02	ON	03	39	42	02	21	23	01	07	08
11.08.2016 & 13.08.2016	PF & PFW	Mechanism and use of Kisan Credit Card.	03	OFF	03	57	60	01	40	41	01	01	02
15.08.2016	PFW	Crop Insurance	01	ON	00	28	28	00	04	04	00	02	02
16.08.2016	PFW	Use of Kisan Credit Card (KCC) & Other institutional credit supply mechanism for Agriculture & allied Sectors	01	ON	00	28	28	00	04	04	00	02	02
01.09.2016 to 02.09.2016	PF & PFW	Formation of Farmers Club	02	OFF	03	50	53	03	28	31	00	01	01

03.09.2016 to 05.09.2016	PF & PFW	Protection of Plant Varieties & Farmers' Rights Act (PPV & FRA)	02	OFF	07	44	51	03	20	23	00	01	01
06.09.2016- 29.09.2016 to 30.09.2016	PF & PFW	Formation of SHG	03	OFF	03	57	60	03	20	23	00	08	08
01.10.2016, 03.10.2016 & 04.10.2016.	PF & PFW	Disaster management with special report to Agriculture and related Sectors	03	ON	05	38	43	02	13	15	00	04	04
06.10.2016	PF & PFW	Cultivation practices, Credit supply Mechanism, Crop insurance facility and marketing channels for Drumsticks	01	ON	12	14	26	00	00	00	12	14	26
10.11.2016	PF	Supply of rural Credit for marketing of produce	01	ON	14	00	14	00	00	00	00	00	00
11.11.2016	PF	Concept, mechanism and use Pradhan Mantri Fasal Beema Yojana (PMFBY)	01	ON	35	00	35	00	06	06	00	00	00
20.11.2016	PF & PFW	Socio- economic & bio-physical aspects & potentials of pulse production in Birbhum District	01	ON	69	11	80	12	04	16	07	03	10
22.11.2016	PF & PFW	Concept, formation & Functioning of FPO	01	OFF	16	34	50	01	04	05	00	00	00
15.12.2016	PF & PFW	Liking of PMFBY with Kisan Credit Card (KCC)	01	OFF	04	38	42	00	32	32	00	00	00

16.12.2016	PF & PFW	Formation of FPO utilizing the potential of existing SHGS	01	OFF	02	36	38	00	33	33	2500	00	00
19.01.2017 to 20.01.2017	PF & PFW	Concept, Use and Sustaining Mechanization of Pradhan Mantri Fasal Bima Joyana	02	ON	06	49	55	03	13	16	00	28	28
09.02.2017	PF & PFW	Linking up of Kishan Creadit Card (KCC)with Pradhan Mantri Fasla Bima Yojana	01	OFF	43	04	47	22	00	22	00	00	00
Total			30		263	530	793	61	242	303	25	71	96
Grand Total of All the Disciplines			379		2261	1681	3942	533	653	1186	426	259	685