PROFORMA FOR ANNUAL REPORT2017-18 (April 2017to March 2018)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone Number		E-Mail
Rathindra Krishi Vigyan Kendra PalliSiksha Bhavana (Institute of Agriculture),Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal, India.	**Office**	**FAX**	**rathindrakvk@gmail.com** **rathindrakvk@rediffmail.com**
	03463-264771	03463-264771	

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

Address	Telephone Number		E-Mail
	Office	**FAX**	
Visva-Bharati, Santiniketan, P. O. – Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal, India.	03463 - 262-751 to 262-756 (6 lines)	03463-262-672	**Vice-Chancellor:vice-chancellor@visva-bharati.ac.in** **Registrar:registrar@visva-bharati.ac.in** **Principal, PalliSiksha Bhavana (Institute of Agriculture): acpsb02@yahoo.co.in**

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

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

1.4. Year of sanction of KVK:1994

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	Programme Coordinator (Officiating) and 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	Senior Assistant	-	PB-2, Rs. 9300-34800/- + GP- Rs.4200/-	-	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 NaranTudu	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	120993	In running condition
Motor Bike (Hero Splendor Pro)	2016	59,223.00	3815	In running condition
Scooter (Hero Edge LX)	2016	60,323.00	1524	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 Mridhaparikshak Solar Operated	2015-16	70,000.00	Working condition	ICAR
Soil Testing Mini-Lab Mridhaparikshak Solar Operated	2016-17	86,000.00	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 mili grams – 300.00 grams)	2016-17	13,400.00	Working condition	ICAR
b. Farm machinery				
Tractor Model Mahindra B 275 – DI	1998-99	2,99,496.00	Working condition	ICAR

Power Tiller Model Kamco KMB 200	2001-02	99,672.00	Working condition	ICAR
Rotavator Model 5/540 R	2012-13	59,000.00	Working condition	ICAR
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. A-V 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 2KVA	2003-04	4,000.00	Working condition	ICAR
Generator	2008-09	49,500.00	Working condition	ICAR
Finger Print based Attendance Register Eurovigil I	2015-16	20,600.00	Working condition	ICAR

Deter 200				
Printer HP L3 1020 Plus	2015-16	8,200.00	Working condition	ICAR
Canon Photo Copier Image RUNNER 2004 N	2016-17	80,273.00	Working condition	ICAR
Desktop Computer Intel Core I 5 Processor with UPS 600 VA	2017-18	47,700.00	Working condition	ICAR
Laptop HP Intel Core I 3 Processor	2017-18	48,900.00	Working condition	ICAR
HP Colour Desk Jet Printer 5821	2017-18		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
ConoWeeder	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.	26.02.2018.	24	1. For increased coverage of the practicing farmers, farm women, rural youths under Digital Extension Services, the Govt. of India proposed to include the details of 10 farmers from every village of the District. This is a Flagship Programme. It should be given due importance by the KVK. 2. Regular up-gradation of KVK portal is important. The RKVK web site should be more informative. 3. Swachh Bharat Campaign under Swachh Bharat Mission should be undertaken regularly. At the KVK level, modules on “Awareness Generation” on various topics like importance of safe	SAC Meeting was conducted on 26.02.2018. Work recommended is in progress in the financial year of 2018-19.	Not Applicable

			drinking water, use of farm garbage as medium for Vermi-Compost etc. may be made integral part of the Training Programmes. 4. Perennial Fodder Crop Museum should be established in the KVK Instructional Farm with proper Hoardings depicting Time of Sowing, Seed Rate, Yield, Use etc. 5. Management of natural resources, resource conservation, mulching, rain water harvesting, cropping sequence etc. should be taken in to account. 6. Statistical analysis of the economics of Integrated Farming System (IFS) is necessary. 7. More importance should be given on the cropping sequence such as Paddy – Pulse – Fodder etc. 8. Success story and documentation of KVK work is necessary. 9. Proper Impact analysis using methods of Statistical Analysis of Economics should be given priority. Even in the publications and documentations, Impact Analysis should be noted.		

N. B.: - Please *see Annexure – I containing a copy of SAC proceedings along with list of participants*

2.a. District level data on agriculture, livestock and farming situation (2017-18)

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)

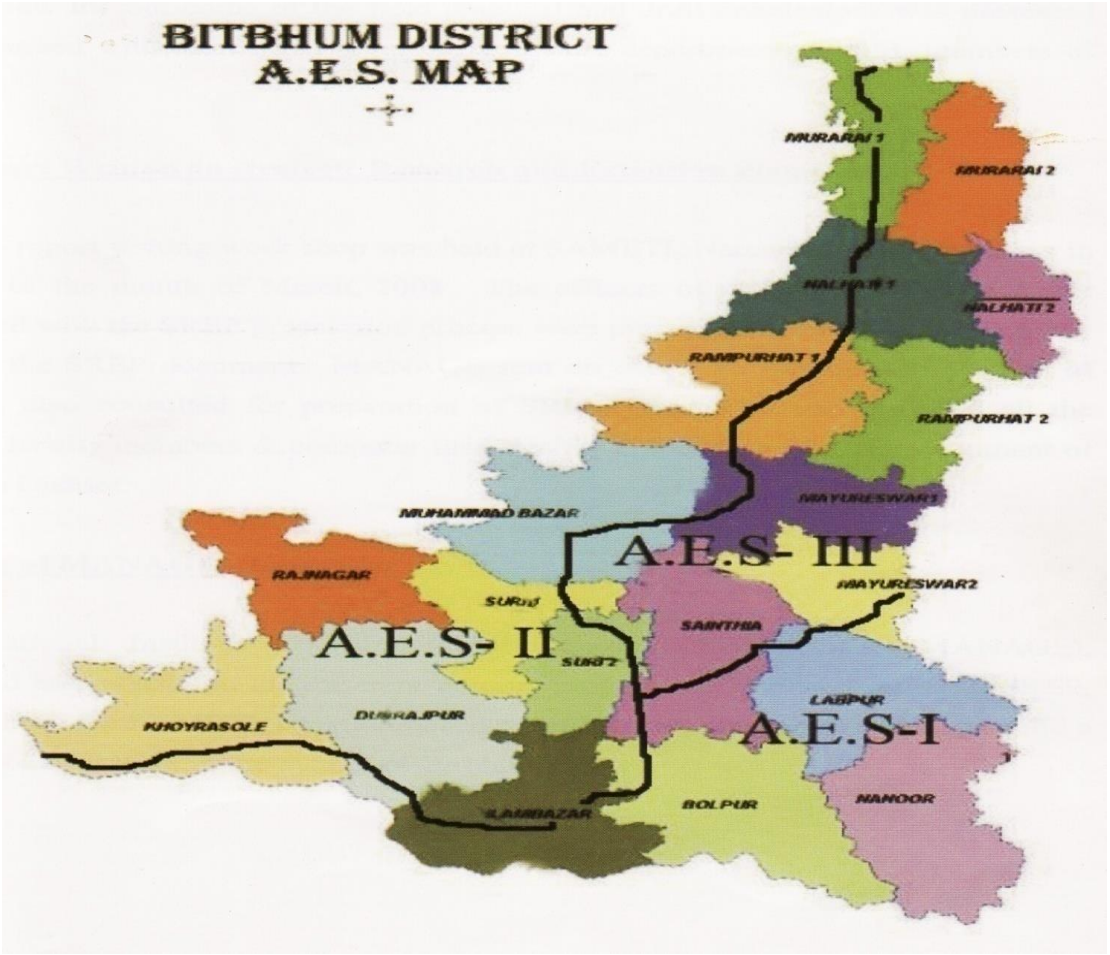
Eastern plateau (Chotanagpur) And Eastern Ghats, Hot Sub-humid Eco-Region (12.3)

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 available in this AES.	50 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. 60 percent of the total Goat population of the District of Birbhum and 40 percent of the Poultry Population of the District of Birbhum are available in this AES.	30 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. Only 25 percent of the total Goat population of the District of Birbhum and 30 percent of the Poultry Population of the District of Birbhum are available in this AES.
Major Crops:			
Paddy -	Pre-Kharif, Kharif and Boro Paddy	Pre-Kharif, Kharif and Boro Paddy	Pre-Kharif, Kharif and Boro Paddy

Oil Seeds –	Mustard, Groundnut and Sesame	Mustard and Groundnut and Sesame in limited areas.	Mustard, Groundnut and Sesame
Pulses –	Black and Green Gram, Lentil, Bengal Gram, Kulthi	Khesari, Black and Green Gram, Lentil, Bengal Gram, Kulthi	Black Gram 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); BaghaEntal (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); RetiRfi (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

Coverage , Productivity and Production of
Major Crops of Birbhum
80

		2011-12			2012-13			2013-14			2014-15			2015-16		
Name of Crop	Normal Target (Ha)	Coverage(Ha)	Yield (Kg/Ha)	Production (MT)	Coverage (Ha)	Yield (Kg/Ha)	Production (MT)	Coverage (Ha)	Yield (Kg/Ha)	Production (MT)	Coverage (Ha)	Yield (Kg/Ha)	Production (MT)	Coverage (Ha)	Yield (Kg/Ha)	Production (MT)
Aman Paddy	305000	302132	4310.6	1302382.3	282951	4369.73	1236419.5	271412	4253.28	1154391	294874	4150.3	1223801	295115	4790.2	1413660
Aus Paddy	5200	3767	3803	14325.901	3500	3592	12572	3540	3666.66	12980	3497	3775.2	13201.7	3305	3735.83	12346.92
Boro Paddy	68650	61224	4750	290814	53473	4867	260253.09	79310	5139.00	407574	67451	5210.8	351474	65120	5139	334651.7
Rabi Maize	390	119	930	110.67	61	945	57.645	9	940	8.46	85	905	76.925	250	975.15	243.7875
Summer Maize	950	75	1600	120	31	1626	50.406	114	1623	185.022	120	1580	189.6	450	1755	789.75
Kharif Maize	450	356	1050	373.8	375	1140	427.5	400	1205.00	482	427	1235	527.345	450	1340	603
R-S Ground Nut	100	73	1038	75.774	47	1035	48.645	46	1037	47.702	190	1050	199.5	254	975.75	247.8405
Mustard	42800	31840	1096	34896.64	32100	1103	35406.3	31690	1141	36158.3	32115	1165	37414	33325	1150	38323.75
Linseed	1490	821	588.5	483.1585	666	592	394.272	582	600	349.2	412	615.25	253.483	393	605.35	237.9026
Sunflower	430	44	950	41.8	75	545	40.875	56	586	32.816	71	595.25	42.2628	60	875	52.5
Sesamum	7150	5120	962	4925.44	5350	952	5093.2	4382	933	4088.41	4670	945.15	4413.85	5025	957.25	4810.181
Arhar	600	576	617	355.392	534	620	331.08	516	622	320.952	388	635	246.38	388	647.25	251.133
Lentil	10000	6570	618	4060.26	10026	623.3	6249.2058	10908	830	9053.64	10530	825	8687.25	13170	785	10338.45
Khesari	4185	1834	617	1131.578	1831	625	1144.375	1815	638	1157.97	1675	645.25	1080.79	2265	635.45	1439.294
Gram	19900	10750	948	10191	13415	973	13052.795	11206	967	10836.2	10145	978	9921.81	12240	985	12056.4
Pea	855	471	625.7	294.7047	538	635	341.63	513	651	333.963	520	660.15	343.278	550	662.18	364.199
S/Moong	1800	1036	605	626.78	1918	598.3	1147.5394	1947	540	1051.38	1455	575.25	836.989	1970	915	1802.55
S/Kalai	950	375	785	294.375	450	805	362.25	520	865	449.8	660	885.15	584.199	625	955.1	596.9375
Bhadoi Kalai	1500	1240	408	505.92	1321	502	663.142	1052	622	654.344	1085	640	694.4	1125	665	748.125
Kulthi & otherPulse	180	179	403	72.137	138	406.6	56.1108	94	420	39.48	99	475	47.025	100	485	48.5
Potato	23300	17930	27304	4895535.5	19120	28432	543619.84	18795	23314.4	438194	19300	25251	487339	19485	27695	539637.1
Wheat	47100	30440	2929	89158.76	30810	2986	91998.66	28720	3044	87423.7	33000	3075	101475	39155	2950.2	115515.1
S/Cane	1850	1759	77373	136099.11	1722	77233	132995.23	1520	77817	118282	1269	76685	97313.5	1250	77612	97015

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

Major fruits and vegetables						
Crops	**2004 -2005**		**2006 - 2007**		**2012 - 2013**	
	Area (ha)	**Productivity (q/ha)**	**Area (ha)**	**Productivity (q/ha)**	**Area (ha)**	**Productivity (q/ha)**
Tomato	1680.00	55.00	1860.00	140.80		
Tomato (Winter)					900.00	164.45
Tomato (Spring)					1050.00	163.81
Cabbage	2370.00	86.00	2550.00	363.60		
Cabbage (Winter)					1200.00	267.00
Cauliflower	2130.00	52.00	2170.00	157.50		
Cauliflower (Winter)					1300.00	184.23
Cauliflower (Spring)					900.00	183.89
Peas					800.00	41.00
Brinjal	6410.00	87.00	6850.00	120.40		
Brinjal (Rainy)					2400.00	116.67
Brinjal (Winter)					5300.00	215.00
Brinjal (Summer)					2600.00	112.39
Cucurbits	8340.00	121.00	8280.00	144.20		
Cucurbits (Rainy)					300.00	100.00
Cucurbits (Winter)					900.00	177.78
Cucurbits (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: 40^0 C

Winter Temperature: Min: 10^0 C

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

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

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

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

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

Annual: 1572.9 Normal RF (mm)

Normal Onset of Monsoon: 1st. week of June

Normal Cessation of Monsoon: 4th. week of September

Maximum and Minimum Temperature by Month in the District of Birbhum

Centre : Suri(Degree Celsius)										
Month	Year									
	2008		2009		2010		2011		2012	
	Maxi	Mini	Maxi	Mini	Maxi	Mini	Maxi	Mini	Maxi	Mini
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	31	7	29	10	29	7	29	6	28	7
February	32	7	35	11	33	11	35	11	35	8
March	39	16	37	14	42	17	40	12	40	13
April	42	19	43	19	46	20	39	19	41	19
May	42	21	42	20	39	21	38	20	45	22
June	38	23	42	22	43	22	39	24	46	24
July	35	24	37	25	37	25	36	23	38	24
August	35	24	37	24	36	24	37	24	35	24
September	35	24	36	24	35	23	36	23	..	..
October	34	19	34	16	35	18	34	16	35	16
November	32	13	34	11	34	14	32	14	32	11
December	31	11	29	8	29	8	30	7	30	7

[Source: - Bureau of Applied Economics and Statistics (BAES), 2011-12, Govt. of West Bengal]

Mean Maximum and Mean Minimum Temperature by Month in the District of Birbhum

Centre : Suri(Degree Celsius)										
Month	Year									
	2008		2009		2010		2011		2012	
	Mean Maxi	Mean Mini	Mean Maxi	Mean Mini	Mean Maxi	Mean Mini	Mean Maxi	Mean Mini	Mean Maxi	Mean Mini
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	25	12	27	13	24	9	24	10	24	12
February	27	13	30	14	29	14	29	14	29	14
March	34	20	34	19	36	20	34	20	34	19
April	37	23	39	24	40	25	35	22	37	23
May	37	25	36	25	35	25	35	24	39	26
June	33	26	38	27	36	26	35	26	39	27
July	33	26	33	26	33	26	34	26	33	26
August	33	26	33	26	33	26	32	26	33	26
September	33	25	33	25	33	25	32	25	..	..
October	32	22	32	21	32	23	33	23	32	21
November	30	17	29	17	31	19	30	17	28	16
December	26	14	27	12	26	12	26	12	25	12

[Source: - Bureau of Applied Economics and Statistics (BAES), 2011-12, Govt. of West Bengal]

Weather Data of Birbhum District

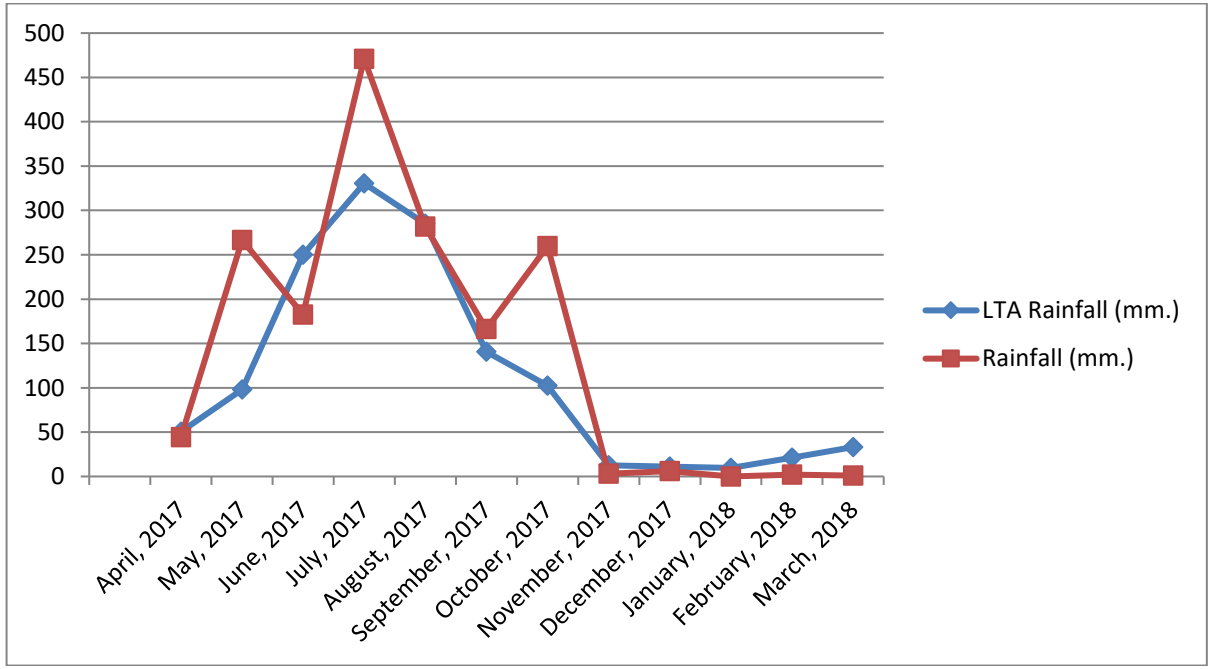
Month	Rainfall (mm.)	LTA Rainfall (mm.)	Temp. (^{0} C) Maximum	LTA Max.Temp.(^{0} C)	Temp. (^{0} C) Minimum	LTA Min. Temp.(^{0} C)	Relative Humidity (%)		LTA Avg. Relative Humidity (%)
							At 8.30 AM	At 5.30 PM	
April, 2017	44.40	50.52	35.75	37.07	24.31	23.71	70.21	52.26	61.05
May, 2017	266.70	98.09	36.14	36.71	24.67	25.03	74.64	72.38	73.07
June, 2017	182.50	250.09	35.69	34.61	26.24	25.71	78.23	75.00	80.06
July, 2017	471.00	330.47	33.43	32.73	26.81	25.88	88.16	86.86	84.59

August, 2017	281.70	285.13	33.69	32.08	26.40	25.77	83.16	82.12	87.11
September, 2017	166.40	140.80	33.20	32.18	26.63	25.25	80.88	79.25	85.04
October, 2017	259.80	102.29	30.86	31.41	24.05	22.44	88.22	84.22	76.46
November, 2017	03.20	12.71	27.60	29.17	16.15	17.34	76.00	73.90	72.19
December, 2017	06.20	11.02	25.75	26.07	13.05	12.61	81.19	73.54	71.50
January, 2018	00.00	9.61	24.66	25.15	08.21	11.86	85.42	61.32	73.56
February, 2018	02.20	21.25	30.58	28.18	14.65	14.48	70.07	53.64	62.35
March, 2018	00.90	32.96	35.36	33.76	19.52	19.59	66.84	44.77	56.38

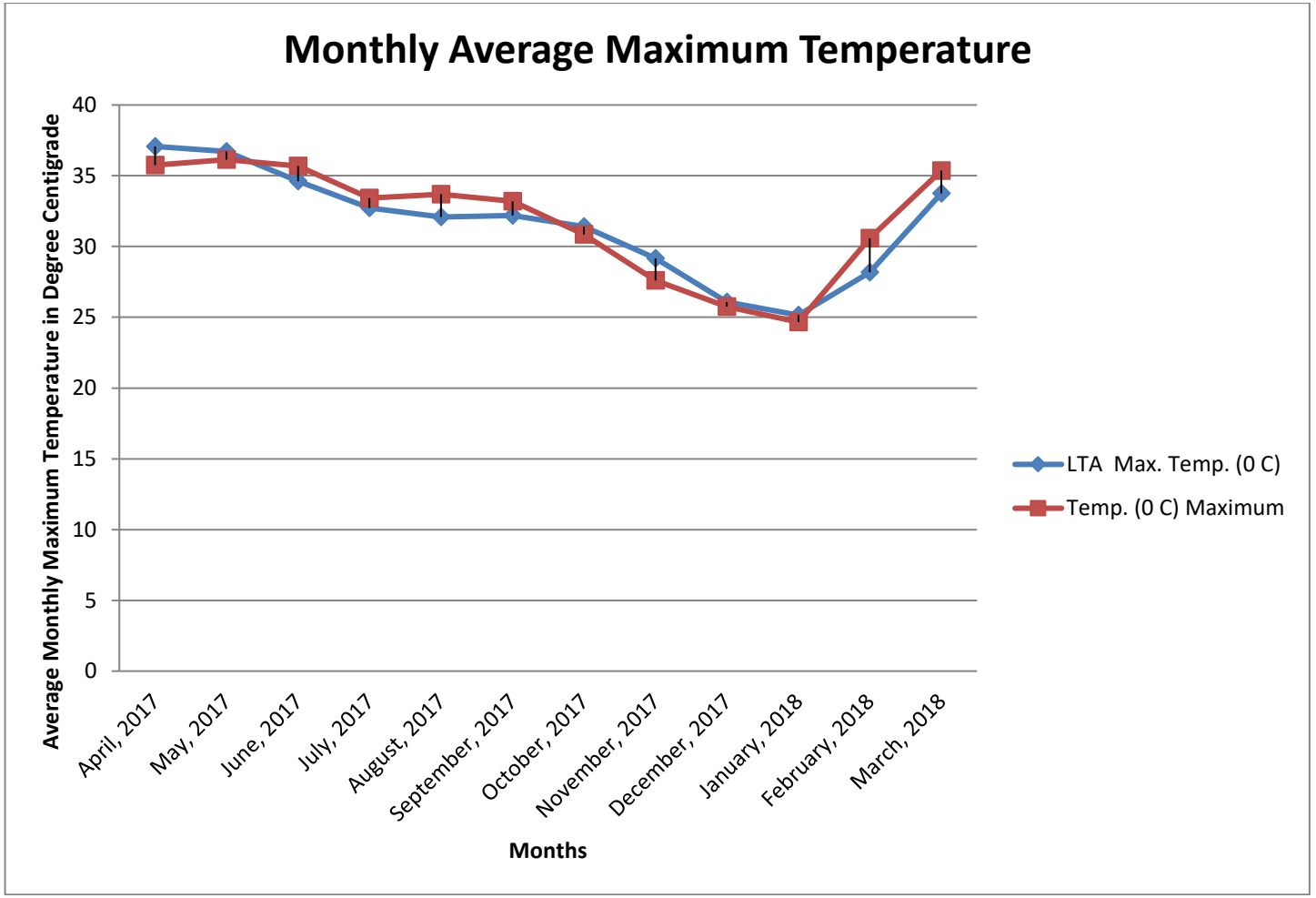
LTA = Long Term Average of 26 Years (From 1989-90 to 2016-17)

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

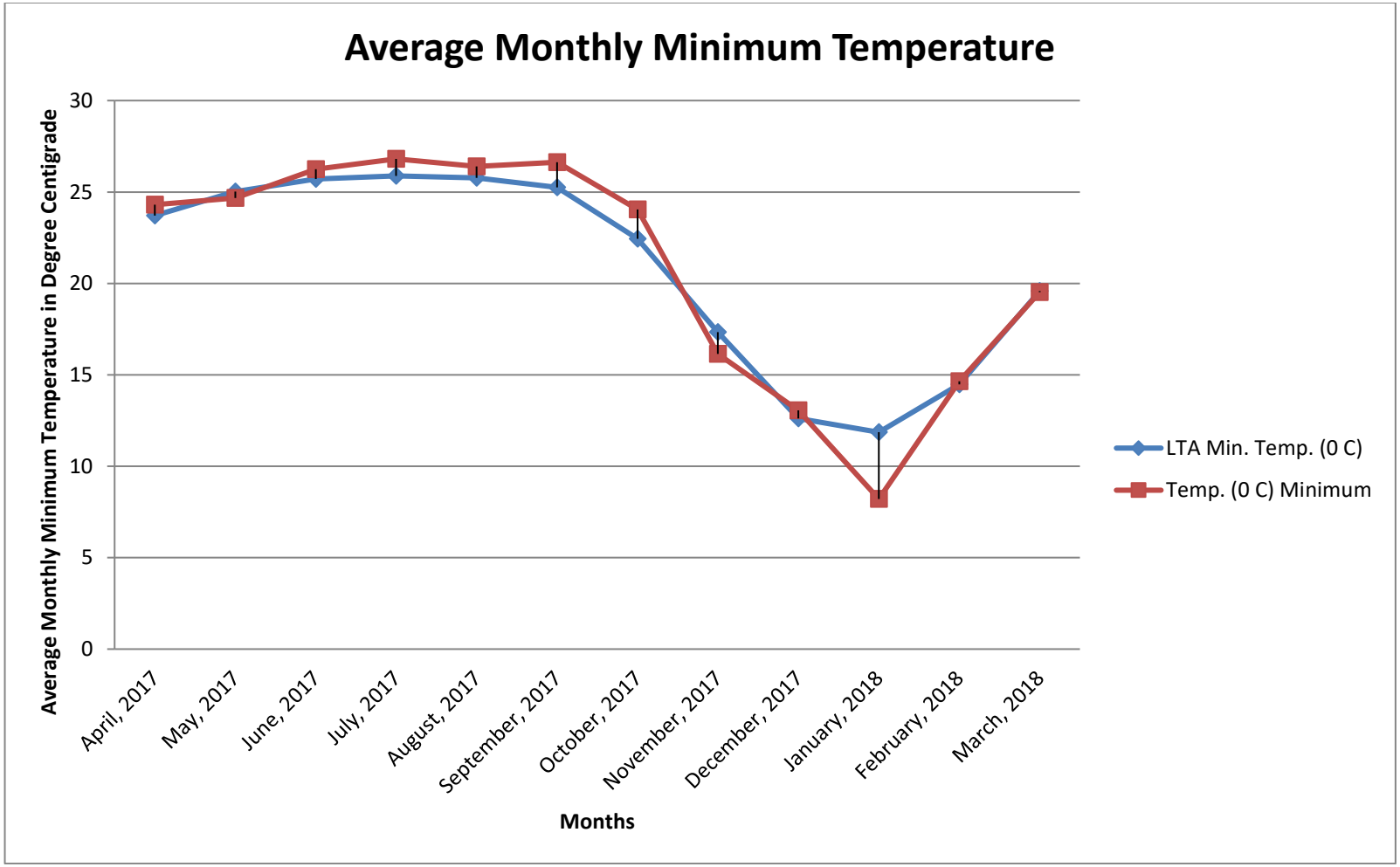
Monthly Rainfall (mm.) of Birbhum District in April, 2017 to March, 2018 vis-à-vis Long Term Average Monthly Rainfall (mm.) of Birbhum District



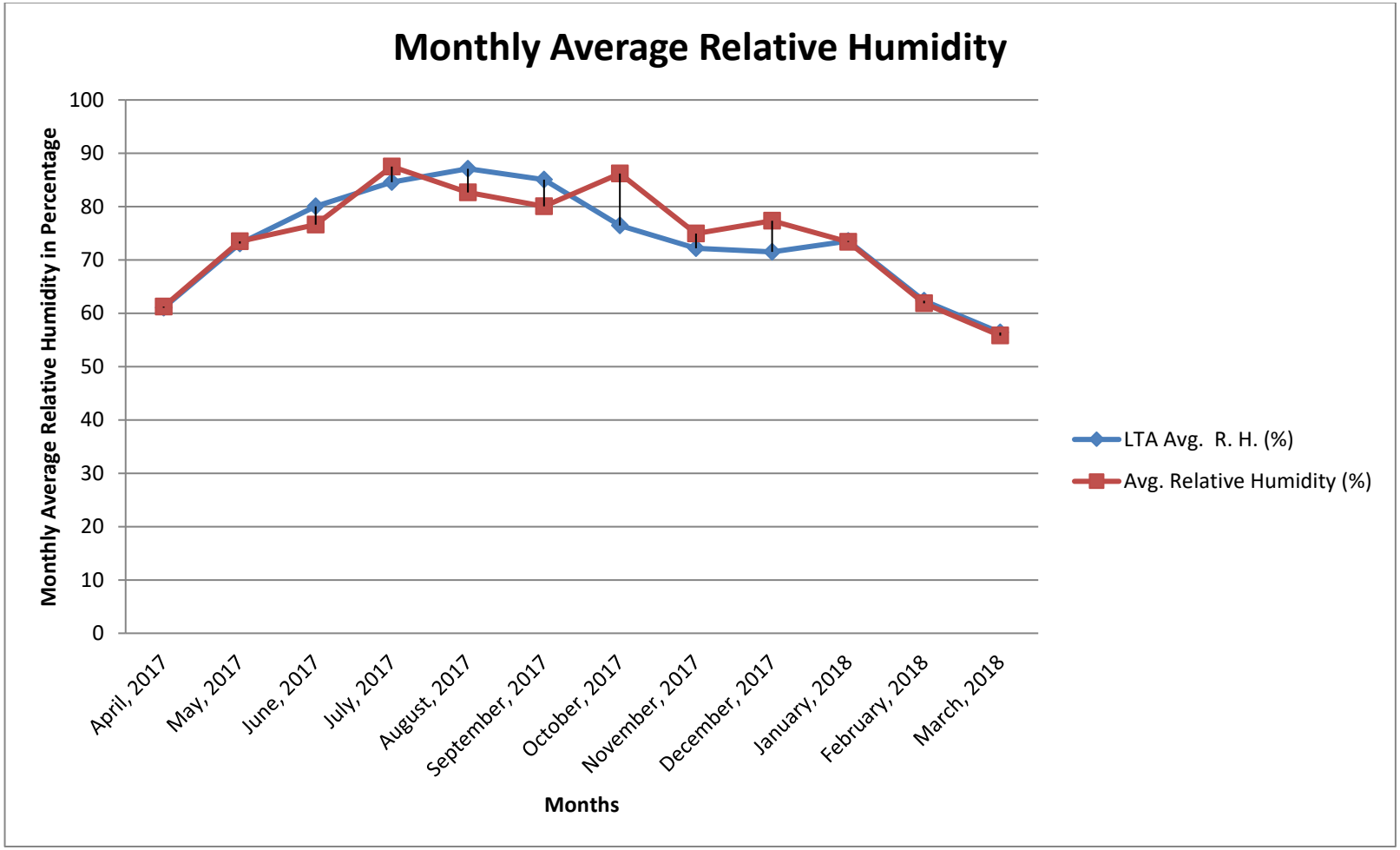
Monthly Average Maximum Temperature (^{0} Centigrade) of Birbhum District in April, 2017 to March, 2018 vis-à-vis Long Term Average Monthly Maximum Temperature (^{0} Centigrade) of Birbhum District



Monthly Average Minimum Temperature (^{0} Centigrade) of Birbhum District in April, 2017 to March, 2018 vis-à-vis Long Term Average Monthly Minimum Temperature (^{0} Centigrade) of Birbhum District



Monthly Average Relative Humidity (%) of Birbhum District in April, 2017 to March, 2018 vis-à-vis Long Term Average Monthly Relative Humidity (%) of Birbhum District



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

Details of Live-Stock and Poultry in the District of Birbhum

(Number)

Category		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 and Goat) and Egg (Hen and Duck) in Birbhum District

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

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

Production Details of Fishery Sector in Birbhum District

 # Impounded Fresh Water Area (Including Beel and Bour) in Birbhum District in 2015-16: - 21,733.00 ha.

Source: - Handbook of Fisheries Statistics, 2015-16, September – 2016, Department of Fisheries, Directorate of Fisheries, Government of West Bengal, Meen Bhawan 31, GN Block, Sector —V Salt Lake City, Kolkata—700 091.

 # Total Impounded Water Area (By Satellite Imagery Analysis) in Birbhum District in 2014-15: -

i. No. of Water Area: - 91272

ii. Total Water Area (In ha.): - 22822

Sources: - Hand Book on GIS Based Mapping of Smaller Water Bodies and creation of Fisheries Database in West Bengal, under the Dept. of Fisheries, Govt. of W.B., 2015.

Fish Seed Production Details in Birbhum District: -

Sl. No.	Year	Production (Unit in Million Numbers)
01.	2011-12	135
02.	2012-13	125
03.	2013-14	125

04.	2014-15	127
05.	2015-16	139

Source: - Handbook of Fisheries Statistics, 2015-16, September – 2016, Department of Fisheries, Directorate of Fisheries, Government of West Bengal, Meen Bhawan 31, GN Block, Sector —V Salt Lake City, Kolkata—700 091.

Fish Production Details in Birbhum District: -

Sl. No.	Year	Fish Production (Unit in Ton)	Prawn Production (Unit in Ton)	Total Production (Unit in Ton)
01.	2011-12	63353	00	63353
02.	2012-13	65913	12	65925
03.	2013-14	70329	16	70345
04.	2014-15	69748	16	69764
05.	2015-16	71840	15	71855

Source: - Handbook of Fisheries Statistics, 2015-16, September – 2016, Department of Fisheries, Directorate of Fisheries, Government of West Bengal, Meen Bhawan 31, GN Block, Sector —V Salt Lake City, Kolkata—700 091.

2.b. Details of operational area / villages (2017-18)

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.	Illumbazar	Illumbazar	Daranda	Rice, Wheat, Mustard, Potato, Red Gram, Black Gram etc.; Vegetable like Brinjal, Chilli, Tomato, Elephant Foot Yam, Cucurbits;Fruit plants like Mango, Guava, Papaya, Coconut, Banana etc. and Dairy, Goatery, Poultry, Duckery, Fishery,Batique work, Decorative Candle, Post Harvest Technology of fruits and vegetables, Health and Nutrition of Rural Women and Children; Crop Insurance, Group Formation, Market Led Extension, Marketing Mechanisms of Farm produces.	***Bio physical:*** **Low productivity of all major crops** • Poor and Marginal soil • Low yielding seeds and plants • Limited water resource for irrigation • Imbalanced use of manures and fertilizer • Inappropriate agronomic practices • Inappropriate horticultural practices • Indiscriminate use of chemical pesticide **Poor productivity of livestock** • Inadequate, descriptive and prolific breed • Poor health and management practices • Low quality feed **Poor fish productivity:** • Poor pond management • Poor quality fingerlings **Low income generation of rural women** • Lack of skill on income generating rural crafts	• 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 Producers' Groups • Formation of Farmers Club • Organization of Exposure visits of Practicing Farmers, Farm Women and Rural Youths • Improved Extension Activities like Kissan Mobile Message Services • Improvement of livestock productivity • Enhancement of fish productivity • Improvement of women led vocation • Women and child care • Market led Extension
2.	Sattore	Bolpur - Sriniketan	Bishnubati			
3.	Sattore	Bolpur - Sriniketan	Asadullapur			
4.	Illumbazar	Immumbazar	Amkhoi			
5.	Shian - Muluk	Bolpur - Sriniketan	Dhanyasara			
6.	Shian - Muluk	Bolpur - Sriniketan	Durgapur			
7.	Bahiri-Panchshoya	Bolpur - Sriniketan	Chota-Shimulia			
8.	Albandha	Bolpur - Sriniketan	Domdoma			

9.	Albandha	Bolpur - Sriniketan	Debanandapur		• Lack of skill on fruits and vegetable preservation • Lack of skill on establishment of backyard nutrition garden **Poor health conditionof women and child** • Lack of nutritious food resources • Lack of skill on establishment of backyard nutrition garden ***Socio Economic:*** • Lack of knowledge about soil testing based fertilizer 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 • Lack of Insurance facilities for Crops • Lack of Market Information of the produced products • Lack of Backward and Forward Linkages for the farmers and farm women • Lack of well established producers' Groups.	

2. c. Details of village adoption programme:

Name of the villages adopted by PC and SMS (2017-18) for its development and action plan

Name of village	Block	Action taken for development
Kapastikuri (Smt. R Addy)	Bolpur-Sriniketan	**A. Skill development TrainingProgrammes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **B. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening and Self Help Group formation. **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. **D. Front Line Demonstrations (FLDs)** on Area Specific Mineral Mixture Supplement for Lactating Deshi Cow **E. Awareness Generation** of rural women on Health and Hygiene Issues. **F. On Farm Testing (OFT)** on Assessment of Various Component Combinations of Fish Feed **G. Front Line Demonstrations (FLDs)** on (i) Introduction of *Bhetki* as a Component if Composite Fish Culture.
Domdoma (Dr. S. Mandal)	Bolpur-Sriniketan	**A. Skill development Training Programmes** on Horticultural Crop diversification. **B. Skill development Training Programme** on Culture and Use of *Dhaincha* and *Azolla.* **C. Skill development Training Programme** on Nursery Pond Preparation, Composite Fish Culture, Fish Feed Management and Fish Disease

		Management. **D. Skill development TrainingProgrammes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **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. **G. Front Line Demonstrations (FLDs)** on (i) Mustard Var. PusaBahar and PusaMahek and (ii) Wheat Var. HD – 2824. **H. Cluster Front Line Demonstrations (Cluster FLDs) on Mustard Var. PusaMahek.** **I. On Farm Testing (OFT)** on Assessment of Balanced N-P-K Management for Incresing Yield of Yellow Sarson **J. Awareness Generation** of rural women on Health and Hygiene Issues. **K. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**
Debanandapur (Sri S. Mondal)	Bolpur-Sriniketan	**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 *Barmasia* Drum Sticks, Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc. **B. Skill development Training Programmes** on Collection of Soil Sample for Soil Testing, Sowing and Phosphate Management in *Dhaincha*, Rice Seed Production Technology in Kharif Season and Cultivation of Rabi Crops with Especial Emphasis on Weed Management. **C. Skill development Training Programme** on Nursery Pond Preparation and Composite Fish Culture. **D. Skill development TrainingProgrammes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **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. **G. Front Line Demonstrations (FLDs)** on (i) Dhaincha; (ii) Mustard Var. PusaBahar and PusaMahek; (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 (F_1 Hybrid **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 **I. Awareness Generation** of rural women on Health and Hygiene Issues. **J. Vaccination Camp** for Cattles and Birds. **K. Animal Infertility Treatment Camp.** **L. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**
Daranda (Dr. K. Mitra)	Bolpur-Sriniketan	**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 *Barmasia* Drum Sticks, Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc.

		B. Skill development Training Programmes on Collection of Soil Sample for Soil Testing, Sowing and Phosphate Management in *Dhaincha* and Rice Seed Production Technology in Kharif Season. **C. Skill development Training Programme** on Nursery Pond Preparation, Composite Fish Culture, Portable Carp Hatchery, Fish Feed Management and Fish Disease Management. **D. Skill development TrainingProgrammes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **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. **G. Front Line Demonstrations (FLDs)** on (i) Introduction of *Bhetki* as a component of Composite Fish Culture; (ii) Area Specific Mineral Mixture Supplementation for DeshiMilch Cows; (iii) *Dhaincha*; (iv) Mustard Var. PusaBahar and PusaMahek; (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 (F_1 Hybrid). **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). **I. Awareness Generation** of rural women on Health and Hygiene Issues. **J. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**
Bishnubati (Dr. P. Ray)	Bolpur-Sriniketan	**A. Skill development Training Programmes** on Horticultural Crop diversification and Improved Production Practices of Low Volume High Value Crops like Capsicum, Broccoli etc. **B. Skill development Training Programmes** on Sowing and Phosphate Management in *Dhaincha* and Cultivation of Rabi Crops with special Emphasis on Weed Management. **C. Skill development Training Programme** on Nursery Pond Preparation, Composite Fish Culture, Portable Carp Hatchery, Fish Feed Management and Fish Disease Management. **D. Skill development TrainingProgrammes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **F. Formation of Two (02) Women led Self Help Groups (SHGs).** **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. **H. Front Line Demonstrations (FLDs)** on (i) Introduction of *Bhetki* as a Component of Composite Fish Culture; (ii) Area Specific Mineral Mixture Supplementation for DeshiMilch 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 (F_1 Hybrid); (vi) Fodder Oat Var. Kent and (vii) Fodder Rice Bean Var. Bidhan – 2.

		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 Increasetheir 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 Supplementation for Goats. **J. Awareness Generation** of rural women on Health and Hygiene Issues. **K. Vaccination Camp** for Cattles and Birds. **L. Animal Health Camp.** **M. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**
Amkhoi (Dr. M. Khan)	Bolpur-Sriniketan	**A. Skill development Training Programme** on Nursery Pond Preparation, Composite Fish Culture, Portable Carp Hatchery, Fish Feed Management and Fish Disease Management. **B. Skill development TrainingProgrammes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **C. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **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. **E. Front Line Demonstrations (FLDs)** on (i) Mustard Var. PusaBahar and PusaMahek; (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) . **F. Cluster Front Line Demonstrations (Cluster FLDs) on Sesame Var. Sabitri.** **G. Awareness Generation** of rural women on Health and Hygiene Issues. **H. Vaccination Camp** for Cattles and Birds. **I. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**

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.	Women empowerment through Rural Crafts and Nutritional Management of Rural Women and Children
6.	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 the year 2017-18

OFT						FLD					
No. of technologies: 10						No. of technologies: 25					
Number of OFTs		Number of farmers				Number of FLDs		Number of farmers			
Target	Achievement	Target	Achievement			Target	Achievement	Target	Achievement		
			SC/ ST	Others	Total				SC/ ST	Others	Total
10	10	127	101	40	141	1110	1720	1110	994	726	1720

Training						Extension activities					
Number of Courses		Number of Participants				Number of activities		Number of participants			
Target	Achievement	Target	Achievement			Target	Achievement	Target	Achievement		
			SC/ ST	Others	Total				SC/ ST	Others	Total
96	131	3112	1649	2405	4054	485	528	21751	29637	30528	60165

Seed production (q)		Planting material (in Numbers)	
Target	Achievement	Target	Achievement
A. Paddy: - 30.00 B. Sesame: - 00.20 C. Ground Nut: - 01.00 D. Green Gram: - 00.50 **Grand Toal: - 31.70**	A. Paddy Var. Gotra Bidhan – 3: - 22.00; B. Paddy Var. Rani Dhan: - 32.00; C. Ekangi Sp. *K. galangal*: - 02.00; D. Sesame Var. Sabitri: - 00.40; E. Ground Nut Var. TAG – 24: - 03.60; F. Green Gram Var. Samrat: - 01.00; G. Elephant Foot Yam Var. Gajendra (Kavoor): - 02.00. **Grand Total: - 63.00**	A. Vegetables – 10000	A. Brinjal Var. Blue Master (UT): - 2000 B.Cabbage Var. Shonar– 8989: - 2000 C.Broccoli Var. Green Magic: - 3000 D. Capsicum Var. Mahabharat: - 3000 E. Chilli Var. Suryamukhi: - 3000 F.Tomato Var. PS – 31: - 3000 G.Papaya Var. Pusa Dwarf: - 500 H. Drum Sticks Var. PKM –1: - 100

			Grand Total of All Vegetables: - 16600

Livestock strains and fish fingerlings produced (in lakh)*		**Soil, water, plant, manures samples tested (in Numbers)**	
Target	**Achievement**	**Target**	**Achievement**
A. Ducks Breed Khaki Campbell (Advanced Grower) – 50 Nos. B. Japanese Quail Sp. *Coturnix coturnix Japonica – 175 Nos.* *C.* Indian Major Carps and Exotic Carps (Table Fishes): - 2.00 q. D. Small Fishes: - 00.50 q E. Spawns of Indian Major Carps and Exotic Carps – 10 Lakhs	A. Ducks Breed Khaki Campbell (Advanced Grower) – 60 Nos. B. Japanese Quail Sp. *Coturnix coturnix Japonica – 180 Nos.* *C.* Indian Major Carps and Exotic Carps (Table Fishes): - 2.25 q. D. Small Fishes: - 00.68 q E. Spawns of Indian Major Carps and Exotic Carps – 12 Lakhs	1. Soil Testing – 200 2. Water Testing - 50	1. Soil Testing – 219 2. Water Testing – 83

*** Give no. only in case of fish fingerlings**

Publication by KVKs		
Item	**Number**	**No. circulated**
Research paper	**08**	
Seminar/conference/ symposia papers	**08**	
Books	**02**	
Bulletins	**-**	
News letter	**-**	
Popular Articles	**-**	
Book Chapter	**09**	
Extension Pamphlets/ literature	**06**	**4000**
Technical reports	**78**	
Electronic Publication (CD/DVD etc)	**02**	

TOTAL	**113**	**4000**

1 Achievements on technologies assessed and refined

OFT-1

1.	Title of On farm Trial	Assessment of different micronutrients on productivity of Sesame in post rainy season
2.	Problem diagnosed	Low crop productivity due to low flower set and low pod filling of sesame in post rainy season
3.	Details of technologies selected for assessment	**Farmers' Practice :**NPK @ 30-15-15 kg/ha
		Technology Option -I: General recommendation (50-25-25 kg/ha) of NPK and spray of Zn , B and Mo
		Technology Option -II: Soil Testing based NPK and Spraying of Zn, B and Mo
		Technology Option - III: Soil Testing based NPK and soil application of Zn, B and Mo
4.	Source of Technology	M. Sc. and Ph. D. thesis of Soil Science and Agronomy Departments, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati during the period of the years of 2010-2016.
5.	Production system and thematic area	Rice-fallow, sesame-fallow; Nutrient Management
6.	Performance of the Technology with performance indicators	Performance of the Technology with Soil Testing based NPK and Spraying of Zn, B and Mo was found statistically superior
7.	Final recommendation for micro level situation	Soil Test Based NPK application (Basal and topdressing) and Spraying of Micronutrient Zn, B and Mo as per requirement may be recommended for Sesame cultivation in post rainy season for lower flower drop, better pod filling and yield.
8.	Constraints identified and feedback for research	Collection of soil sample sometimes found difficult for heavy rain before the sowing time Use of other micronutrients may be tested in post rainy and also in summer season
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 also incurred all the labour cost for cultivation

Thematic area: Nutrient Management (Post Rainy, 2017)

Problem definition: Low crop productivity due to low flower set and low pod filling of sesame in post rainy season

Technology assessed: Assessment of different micronutrients on productivity of Sesame in post rainy season

Table 1 : Effect of different micronutrients on yield components, yield and economics of Sesame cultivation, var. Savitri in post rainy season

Technology option	No. of trials	Yield Component				Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
		No. of Branches per Plant	No. of capsules per plant	No. of Seeds per capsules	Test Weight (1000 Seed weight in gm)					
Farmers' Practice : NPK @ 30-15-15 kg/ha	5	3.36	77.98	29.58	2.88	8.06	13000	37076	24076	2.85
Technology Option-I: General recommendation (50-25-25 kg/ha) of NPK and spray of Zn , B and Mo		4.24	82.26	38.12	2.98	9.00	13900	41400	27500	2.97
Technology Option -II: Soil Testing based NPK and Spraying of Zn, B and Mo		6.02	93.42	42.62	3.40	10.94	14000	50324	36324	3.59
Technology Option - III: Soil Testing based NPK and soil application of Zn, B and Mo		5.22	85.68	40.44	3.28	9.54	14200	43884	29684	3.09
SEM+		0.108	0.641	0.352	0.011	0.124				
CD(P=0.05)		0.312	1.975	1.086	0.034	0.383				

Soil Analysis Report before sowing for NPK and micronutrient application

	N	P	K	Zn	B	Mo
Trial 1	171.1 Low	27.35 Low	328.2 High	0.92 High	42.3 High	0.42 Low
Trial 2	194.9 Low	26.20 Low	327.6 High	1.02 High	29.1 High	0.31 Low
Trial 3	252.1 Low	22.03 Low	252.1 Medium	0.18 Low	15.0 Low	0.07 Low
Trial 4	220.5	24.06	240.5	0.15	12	0.08

	Low	Low	Medium	Low	Low	Low
Trial 5	232.8 Low	25.55 Low	250.8 Medium	0.17 Low	14 Low	0.06 Low

Result:

The result of the trial (Table-1) indicated that Technology Option –II i.e. Soil Testing based NPK and Spraying of Zn, B and Mo as per requirement produced significantly higher no. of branches per plant (6.02), no. of capsules per plant (93.42), no.of seeds per capsules (42.62), test weight (3.40 g) and BC ratio (3.59) than those of Technology Option-III, Technology Option-I and farmers practice. This may be due to more absorption of micronutrients by plants in time due to spraying at 25 and 45 DAS. Cost of required micronutrient is lower in spraying than soil application. Due to soil testing all the nutrients and micronutrients were applied precisely and in balanced manner in Technology Option-II. Therefore, it may be concluded that Soil Test Based NPK application (Basal and topdressing) and Spraying of Micronutrient Zn, B and Mo as per requirement may be recommended for Sesame cultivation in post rainy season for lower flower drop, better pod filling and yield.

OFT-2

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, PalliSiksha 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 feedback for research	Application of these low dose high efficiency herbicide was found difficult 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, 2017)

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 2: 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	19.1	137.4	22.1	-	55.10	63540	71630	8090	1.13
Technology Opt -I: Pyrazosulfuron-ethyl @2 5 g a.i /ha as pre emergence (1-3 DAT)		28.2	144.6	22.5	16.9	58.75	58590	76375	17785	1.30
Technology Option -II:Metsulfuron-methyl +chlorimuron- ethyl @ 4 g a.i /ha at 7-12 DAT		30.4	149.7	22.6	9.8	60.35	58620	78455	19835	1.34
Technology Option-III: Pretilachlor @ 1.0 lit a.i /ha as pre emergence (1-3 DAT)		23.2	138.2	22.4	21.9	56.10	57550	72930	15380	1.27
Sem+		0.87	1.63	NS	-	0.65				
CD(P=0.05)		2.69	5.05	-	-	2.01				

Results:

An OFT in rainy season, 2017 was conducted to assess better weed management practices in kharif paddy (Var. MTU 7029) in adopted villages. The result of the trial 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 (30.4), grains/panicle (149.7), Test Weight (22.6) and higher yield (60.35 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 (1.34) than other technology opotions and farmers practice (1.13).

OFT-3

1.	Title of On farm Trial	Evaluation of efficacy of non antibiotic growth promoter in broiler poultry
2.	Problem diagnosed	Potential of antibiotic resistant strains of bacteria of bacteria and transference of antibiotic resistance genes from animal to human.
3.	Details of technologies selected for assessment	**Control:** Farmer's practice **Technology Option – I:** Lactobacillus + Saccharomyces (500gm / ton of feed) **Technology Option – II:** Xylanase + Phytase + Amylase + Protease enzyme (250 gm/ton of feed)
4.	Source of Technology	Deptt. of Animal Nutrition, WBUAFS
5.	Production system and thematic area	Deep litter system and Broiler management
6.	Performance of the Technology with performance indicators	Performance of the technology of non antibiotic growth promoter in broiler poultry was found significant
7.	Final recommendation for micro level situation	Technology option I i.e. probiotics may be used with feed in broiler poultry for better result
8.	Constraints identified and feedback for research	All the non antibiotic growth promoters are not easily available in the local market Biochemical and hematological observations may be recorded when probiotic will be used with feed for broiler farming
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring and data collection with KVK scientists. Farmers incurred all the cost of feed and

		other infrastructure

Thematic area: Broiler management (Pre kharif season, 2016-17)
Problem definition: Emergenceof antibiotic resistant strains of bacteria and transfer of antibiotic resistance genes from animal to human
Technology assessed: Evaluation of efficacy of non antibiotic growth promoter in broiler poultry.

Table 3: Performance of different non antibiotic growth promoter

Technology Option	No. of trials	Body Weight gain		FCR		Mortality		Cost of farming(Rs/unit) i.e. 2400 nos.	Gross return (Rs/unit) i.e. 2400 nos	Net Return (Rs/unit) i.e. 2400 nos	B/C Ratio
		21st day	42nd day	21st day	42nd day	21st day	42nd day				
Control Farmer's practice	7	715.03±26.67	2241.11±45.79	1.43±0.042	1.72±0.049	17.23±2.48	25.61±3.42	3,20,320	3,86,400	66079	1.20
I .Probiotic		765.45±29.45	2301.54±37.43	1.32±0.031	1.61±0.037	11.11±2.68	17.78±2.98	3,09,283	4,01925	92641	1.30
II. Multiple Enzyme		734.12±23.31	2256.41±39.38	1.39±0.035	1.66±0.039	15.81±3.12	21.24±2.83	314407	3,90,825	76417	1.24
III.Probiotic+Multiple enzyme		748.44±30.12	2275.73±32.47	1.35±0.033	1.64±0.042	10.02±2.85	14.92±2.94	3,16,222	3,98,555	82333	1.26

The data from this table indicated that Technology option I i.e. probiotic produced better B/C ratio than other technology options and farmer's practice.

OFT-4

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	**Control:** Farmers' Practice **Technology Option – I:**Didecyl dimethyl ammonium chloride (1 ml. / 20 litres of water) **Technology Option – II:** Chlorine dioxide (1 ml/litre of water) **Technology Option – III:** Iodine (1 ml/ 10 litres of water)
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	Performance of the technology of water sanitizer in broiler chicken was found significant
7.	Final recommendation for micro level situation	Technology option II i.e. Chlorine di oxide may be used for better performance in broiler chicken in the district
8.	Constraints identified and feedback for research	Farmers are reluctant to use acidifier Biochemical and hematological observations may be recorded when probiotic will be used with feed for broiler farming
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring and data collection with KVK scientists. Farmers incurred all the cost of feed and other infrastructure

Thematic area: Broiler management (Pre kharif season, 2016-17)
Problem definition: Poor drinking water quality of commercial broiler farm negatively affects the performance
Technology assessed: Assessment of the effect of different water sanitizer on the performance of Broiler chicken under small scale farming system

Table-4. Effect of different water sanitizer in the performance of broiler chicken

Technology Option	No. of trials	Body Weight gain 42^{nd} day	FCR 42^{nd} day	Mortality 42^{nd} day	Cost of farming(Rs/unit) i.e. 2400 nos.	Gross return (Rs/unit) i.e. 2400 nos	Net Return (Rs/unit) i.e. 2400 nos	B/C Ratio

Control Farmer's practice	7	2241.08±44.32	1.69±0.041	35.38±4.15	3,12,252.76	3,79,863.06	67,610.3	1.21
I.Didecyl dimethyl ammonium chloride		2285.18±42.56	1.63±0.037	19.67±3.87	3,14,355.34	3,96219.05	81863.66	1.26
II. Chlorine di oxide		2335.18±37.89	1.59±0.035	15.89±3.49	3,15,140.96	4,09,267.12	94126.16	1.30
III.Iodine		2278.73 ±39.37	1.65±0.043	20.45±3.16	3,16,259.9	3,96,201.15	79941.25	1.25

The data from this table indicated that Technology option II i.e. Chlorine di oxide produced better B/C ratio than other technology options and farmer's practice.

OFT-5

1.	Title of On farm Trial	Evaluation of influence of different sources of minerals 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	Control: Farmers' Practice Technology Option-1: Organic form of Micro Nutrient (As per NRC, USA, 1995) Technology Option-II: Inorganic Form of Micro-Nutrient (As per NRC, USA, 1995) Technology Option-III: Nanoform of Micro-Nutrient (As per NRC, USA, 1995)
4.	Source of Technology	Nutrient Requirements of small ruminants, NRC, USA, 2007.
5.	Production system and thematic area	Semi IntensiveSystem; Nutrition Management
6.	Performance of the Technology with performance indicators	Performance of the technology of different sources of mineral nutrition on Black Bengal Goat was found significant
7.	Final recommendation for micro level situation	Nano form of micro nutrient may be used for better performance of Black Bengal Goat

8.	Constraints identified and feedback for research	Lack of supply of nano form of micro nutrients Biochemical, hematological and immunity status should be observed
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring and data collection with KVK scientists. Farmers incurred all the cost of feed and other infrastructure

Thematic area: Goaterymanagement(Pre kharif season, 2017-18)
Problem definition: No existing practice of supplementation of mineral at farmers door step
Technology assessed: Comparative evaluation of different sources of mineral and study the effect on production and disease resistance

Table-5. Effect of different water sanitizer in the performance of broiler chicken

Technology Option	No. of trials	Birth Weight	Litter size	Gestation length	Cost of farming(Rs/unit) (8 nos. Of does/unit)	Gross return (Rs/unit) (8 nos. Of does/unit)	Net Return (Rs/unit)	B/C Ratio
Control Farmer's practice	12	Male kid-1.14±0.02 Female kid-0.92±0.02	1.18±0.11	152.28±1.63	15,956/	27,200/	11,244/	1.70
I.Nano form of micronutrient		Male kid-1.31±0.03 Female kid-1.18±0.02	1.74±0.18	145.80±1.41	16076/	34,800/	18,724/	2.16
II. Organic form of micronutrient		Male kid-1.23±0.03 Female kid-1.12±0.02	1.49±0.13	147.40±1.52	16054/	33,200/	17146/	2.06
III.Inorganic form of micronutrient		Male kid-1.20±0.02 Female kid-1.06±0.01	1.26±0.16	148.00±1.25	16045/	29,400/	13.355/	1.83

The data from this table indicated that Technology option I i.e Nano form of micro nutrient produced better B/C ratio than other technology options and farmer's practice.

OFT-6

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 (2o nos) + *Azolla* + Pulses (Redgram-Blackgram)
		II. composite fish culture (IMC) + Duck farming (20 nos) + *Azolla* + 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	The programme is going on
7.	Final recommendation for micro level situation	
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

Thematic area: Integrated Farming System (Rainy, 2017)

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 6: 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	The programme is going on.				

I. composite fish culture (IMC) + Duck farming (2o nos) + *Azolla* + Pulses (Redgram- Blackgram)		
II. composite fish culture (IMC) + Duck farming (20 nos) + *Azolla* + Vegetables (ladys' finger-capsicum)		

- 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 utilsed land with pulse
- Opt-2: 1 unit= 0.19 ha pond + 20 nos. OfDucks + 0.13 ha 42ocusing land by vegetables

OFT – 7

1.	Title of On farm Trial	Assessment of specific medicines for the control of ulcerative disease in fish
2.	Problem diagnosed	Rapid spread of ulcerative disease due to absence of right selection of medicine for the disease
3.	Details of technologies selected for assessment/refinement	**Farmers' Practice:** Irregular application of lime and not in required dose **Technology Option I: Lime (@10 kg / 0.13 ha) + Terramycin (@ 5 – 7 gm. / 100 kg. of Fish Feed)** **Technology Option II:Lime(@10 kg / 0.13 ha) + $KMnO_4$ (@ 200 gm. / 0.13 ha)** **Technology Option III: Lime (@10 kg / 0.13 ha) + $CuSO_4$ (@ 1:2000 ppm)** **Fish Feed:- Rice Bran + Mustard Oil Cake (1:1)**
4.	Source of Technology	*A Hatchery Manual for the Common Chinese and Indian Major Carps* , V. G. Jhingran and R. S. V. Pullin, Asian Development Bank and International Centre for Living Aquatic Resources Management, 191p.
5.	Production system and thematic area	Extensive system; Disease management
6.	Performance of the Technology with performance indicators	The programme is going on
7.	Final recommendation for micro level situation	
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

Thematic area: Fish Disease Management (2017)

Problem definition: Rapid spread of ulcerative disease due to absence of right selection of medicine for the disease

Technology to be assessed: Assessment of specific medicines for the control of ulcerative disease in fish

Table 7: Effect of different medicines on ulcerative diseases and fish yield

Technology option		No. of trials	Survival rate (%) of fish after 30 days of treatment	Growth of fish after 3 months of the treatment (Kg / ha)	Fish Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs /unit)	BC Ratio
Farmers' Practice: Irregular application of lime and not in required dose		5	The programme is going on						
Technology Option I: Lime (@10 kg / 0.13 ha) + Terramycin (@ 5 – 7 gm. / 100 kg. of Fish Feed)									
Technology Option II:Lime(@10 kg / 0.13 ha) + $KMnO_4$ (@ 200 gm. / 0.13 ha)									
Technology Option III: Lime (@10 kg / 0.13 ha) + $CuSO_4$ (@ 1:2000 ppm)									
Sem+									
CD(P=0.05)									

Fish Feed:- Rice Bran + Mustard Oil Cake (1:1)

OFT-8

1.	Title of On farm Trial	Assessment of Shelf-Life of Vegetables stored in a modified Earthen Pot Cool Chamber
2.	Problem diagnosed	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.
3.	Details of technologies selected for assessment/refinement	**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
4.	Source of Technology	Indian Journal of Traditional Knowledge, Vol. 10 (2), April 2011, pp. 375 – 379, Council of Scientific and Industrial Research (CSIR)
5.	Production System Thematic Area	Vegetables - Vegetables - Vegetables Storage of Vegetables
6.	Performance of the Technology with performance indicators	The programme has just been started.
7.	Final recommendation for micro level situation	
8.	Constraints identified feedback for research	
9.	Process of farmers participation and their reaction	

Thematic area: Storage of Vegetables(summer Season, 2017-18)

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

Technology option	No. of trials	Tomato			Brinjal			Spinach		
		Date 1 i.e 3rd day	**Date 2 i.e 5th day**	**Date 3 i.e 7th day**	**Date1 i.e. 3rd day**	**Date 2 i.e. 5th day**	**Date 3 i.e. 7th day**	**3rd day i.e. 3rd day**	**6th day i.e. 5th day**	**9th day i.e. 7th day**
Farmers' Practice – Vegetables Stored in room temperature	10	The programme is going on								
Technology Option – I: Vegetables Stored in Bamboo Baskets with Wet Gunny Bags										
Technology Option – II: Vegetables Stored in Modified Earthen Pot Cool Chambers										
Sem±										
CD(P=0.05)										

OFT – 9

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	Farmer's practice: No weeding

	assessment/refinement	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, PalliSiksha 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	The programme is going on
7.	Final recommendation for micro level situation	
8.	Constraints identified feedback for research	
9.	Process of farmers participation and their reaction	

Thematic area: Weed Management (Summer Season, 2017-18)

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 9: 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	The programme is going on									
I. Pendimethalin @ 0.75 lit a.i./ha as pre emergence (0-3 DAS)											
II. Quizalofop- P-ethyl @ 50 ml a.i./ha as early post emergence (15-20 DAS)											
III. Fenoxaprop-P-ethyl @ 60 ml a.i./ ha as early post emergence (15-20 DAS)											
Sem±											
CD(P=0.05)											

OFT-10

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	**Control:** Farmers' Practice **Technology Option – I:**Didecyl dimethyl ammonium chloride (1 ml. / 20 litres of water) **Technology Option – II:** Chlorine dioxide (1 ml/litre of water)

		Technology Option – III: Iodine (1 ml/ 10 litres of water)
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	Performance of the technology of water sanitizer in broiler chicken was found significant
7.	Final recommendation for micro level situation	Technology option II i.e. Chlorine di oxide may be used for better performance in broiler chicken in the district
8.	Constraints identified and feedback for research	Farmers are reluctant to use acidifier Biochemical and hematological observations may be recorded when probiotic will be used with feed for broiler farming
9.	Process of farmers participation and their reaction	Farmers actively participated in the day to day monitoring and data collection with KVK scientists. Farmers incurred all the cost of feed and other infrastructure

Thematic area: Broiler management (Pre kharif season, 2017-18)
Problem definition: Poor drinking water quality of commercial broiler farm negatively affects the performance
Technology assessed: Assessment of the effect of different water sanitizer on the performance of Broiler chicken under small scale farming system

Table-10. Effect of different water sanitizer in the performance of broiler chicken

Technology Option	No. of trials	Body Weight gain 42^{nd} day	FCR 42^{nd} day	Mortality 42^{nd} day	Cost of farming(Rs/unit) i.e. 2400 nos.	Gross return (Rs/unit) i.e. 2400 nos	Net Return (Rs/unit) i.e. 2400 nos	B/C Ratio
Control Farmer's practice	7	2198.04±42.11	1.71±0.043	37.59±4.37	3,37,371.2	3,95,640.06	58268.86	1.17
I.Didecyl dimethyl ammonium chloride		2291.22±41.48	1.62±0.035	20.27±3.75	3,34,207.42	4,25,026.32	90818.9	1.27

II. Chlorine di oxide		2331.23±38.97	1.60±0.033	17.75±3.54	3,35,429.12	4,34,311.92	98882.8	1.29
III.Iodine		2285.65 ±39.08	1.66±0.047	21.42±3.21	3,39,807.8	4,23,364.8	83557	1.24

The data from this table indicated that Technology option II i.e. Chlorine di oxide produced better B/C ratio than other technology options and farmer's practice.

OFT- 11

1.	Title of On farm Trial	Evaluation of efficacy of non antibiotic growth promoter in broiler poultry
2.	Problem diagnosed	Potential of antibiotic resistant strains of bacteria of bacteria and transference of antibiotic resistance genes from animal to human.
3.	Details of technologies selected for assessment	**Control:** Farmer's practice **Technology Option – I:** Lactobacillus + Saccharomyces (500gm / ton of feed) **Technology Option – II:** Xylanase + Phytase + Amylase + Protease enzyme (250 gm/ton of feed)
4.	Source of Technology	Deptt. of Animal Nutrition, WBUAFS
5.	Production system and thematic area	Deep litter system and Broiler management
6.	Performance of the Technology with performance indicators	The programme during 2017-18 is going on
7.	Final recommendation for micro level situation	
8.	Constraints identified and feedback for research	

9.	Process of farmers participation and their reaction	

Thematic area: Broiler management (2017-18)
Problem definition: Emergenceof antibiotic resistant strains of bacteria and transfer of antibiotic resistance genes from animal to human
Technology assessed: Evaluation of efficacy of non antibiotic growth promoter in broiler poultry.

Table 11: Performance of different non antibiotic growth promoter

Technology Option	No. of trials	Body Weight gain		FCR		Mortality		Cost of farming(Rs/unit) i.e. 2400 nos.	Gross return (Rs/unit) i.e. 2400 nos	Net Return (Rs/unit) i.e. 2400 nos	B/C Ratio
		21st day	42nd day	21st day	42nd day	21st day	42nd day				
Control Farmer's practice	7	The programme is going on									
I .Probiotic											
II. Multiple Enzyme											
III.Probiotic+Multiple enzyme											

OFT-12

1.	Title of On farm Trial	Evaluation of performance of strategic feed supplementation to crossbreed milch cattle
2.	Problem diagnosed	Poor feeding practices and the low availability of quality feeds in unorganized

		dairy farming by small and marginal farmer.
3.	Details of technologies selected for assessment	**Control:** Farmer's Practice **Technology Option - I:** Farmer's Practice + Protein Supplement (MOC 500gm/cow/day) **Technology Option - II:** Farmer's Practice + Homemade feed Supplement (1.5 Kg /cow/day)
4.	Source of Technology	*Effect of protein supplementation on milk production and metabolism of dairy cows grazing tropical grass,* M. A. Danes, Chagas, L. J., Pedroso, A. M. and Santos, F. A. (2013). *Effect of protein supplementation on milk production and metabolism of dairy cows grazing tropical grass,J. Dairy. Sci*., 96(1): 407-419.
5.	Production system and thematic area	Nutrition management and Semi intensive system
6.	Performance of the Technology with performance indicators	The programme is going on
7.	Final recommendation for micro level situation	
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

Thematic area: Nutrition management (2017-18)
Problem definition: Poor feeding practices and the low availability of quality feeds in unorganized dairy farming by small and marginal farmer.
Technology to be assessed: Evaluation of performance of strategic feed supplementation to crossbreed milch cattle

Table 12: Effect of different feed supplementation in performance of cross breed milch cattle

Technology Option	No. of trials	Milk yield	Lactation length	Fat %	Cost of farming(Rs/unit) i.e. 2400 nos.	Gross return (Rs/unit) i.e. 2400 nos	Net Return (Rs/unit) i.e. 2400 nos	B/C Ratio

Control: Farmer's Practice	7	The programme is going on
Technology Option - I: Farmer's Practice + Protein Supplement (MOC 500gm/cow/day)		
Technology Option - II: Farmer's Practice + Homemade feed Supplement (1.5 Kg /cow/day)		

OFT - 13

Title	Evaluation of efficacy of different Training Methods for Skill Development Trainings
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.
Hypothesis	The Experiential training Method may be the most appropriate Training Method for Skill Development Training because it provides a kind of experience which may easily lead participation to reflection, draw conclusion and identify application points.
Thematic Area	Training Methods
Objective	To assess the extent of change and development of skill of Trainees going through different Training Methods in Skill Development Training Programmes organized by the Rathindra KVK.
Present Situation	Generally the Lecture Method for Skill Development Training is being employed where a "Lecture" consisting of oral presentation of the subject 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.
Training System	Mainly Theoretical
Prevalent Practice	Generally the Lecture Method for Skill Development Training is being employed.
Time	2017 – 2018
Training Methods to be used	**Lecture Methods, Group Discussion, Case Study, Field Visits, Demonstration and Experiential Learning.**

Details of Technology Assessment	**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**
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.
Numbers of Replications	10 (Ten)
No. of Trainees per Method	10 (Ten)
Programme is going on.	

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: 13Evaluation 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 700 Point Scale	Rank
Prevalent Practice: : Lecture Methods	10	5.81	4.42	3.32	31.00	28.00	21.00	22.00	237.50	V
Technology Option – I: Group Discussion	10	6.42	5.62	4.72	42.00	41.00	29.00	27.00	306.60	IV
Technology Option – II: Case Study	10	4.01	4.02	3.11	41.00	21.00	12.00	41.00	226.40	VI
Technology Option – III: Field Visits	10	4.31	7.01	7.10	71.00	45.00	57.00	61.00	418.20	III
Technology Option – IV: Demonstration	10	8.19	8.70	8.79	81.00	71.00	72.00	64.00	544.80	II
Technology Option – V: Experiential Learning	10	9.13	9.90	9.11	94.00	92.00	91.00	81.00	639.40	I

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

3.2 Achievements of Frontline Demonstrations

A.Details of FLDs conducted during the year Cereals

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration			Remarks
				Proposed	Actual	SC/ST	Others	Total	
1.	Wheat (Rabi-2017-18)	Varietal replacement	Improved variety PBW 343, HD 2733, HD 2967, HD 2985, HD 3118, HD 3171	5	8.85	36	33	69	Among the 8.85 ha, 3.85 ha was demonstrated in collaboration with IARI, Pusa, Samastipur. Crop now in grain formation stage

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P_2O_5	K_2O					
1. Wheat	Rabi, 2017-18	Irrigated medium land	Sandy loam	M	L	M	Short duration paddy	26th Nov.-15th Dec.,2017	20 th - 30th March, 2018	8.6	7

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
All the oilseeds crops were taken under CFLD programme and details are given in the CFLD portion of the Annual Report.															
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
All the pulse crops were taken under CFLD programme and details are given in the CFLD portion of the Annual Report.															
	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. Azolla kharif, 2017	Soil Health Management	Green Manuring in rainy season paddy var. MTU-7029	24	6.0	62.4 (Paddy yield)	51.9 (Paddy yield)	20.2	No. of panicles/ m^2	382	363	59450	87360	27910	1.50	60932	72660	11728	1.19
								No. of grains/ panicle	165	143								
								No. of grains/ panicle	144	137								
2. Ekangi	Crop diversification	Planting Materials and Method of Cultivation	15	0.26	135.00	New Introduction	-	Yield	135.00 q / ha	-	1,65,000	10,80,000	9,15,000	6.55	-	-	-	-
3. Wheat	Varietal replacement	Acid tolerant variety PBW-343		5.0	39.4	30.9 (Sonalika)	27.5	Tillers/hill	12.5	7.9	23111	55160	32049	2.39	21880	43260	21380	1.97
								Grains/ear	54.2	42.4								
4. Drumstick Kharif, 2017	Varietal replacement	PKM-1	141		Crop is now in growing stage.													
5. Elephant Foot Yam Kharif, 2017	Crop Diversification	Bidhan Kusum	22	0.14	692.4	195.5 (Local)	254	Corm Size (cm)	29.4	10.8	5,27,000	13,84,800	8,57,800	2.63	2,30,000	3,91,000	1,61,000	1.7

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
Green Fodder, Sorghum, Pre kharif 2017	Varietal replacement	Sudan Chari	38	1.06	782.83	398.3 (Goma)	96.54	CP%	9.15	6.70	18250	46998	28748	2.57	15975	23922	7947	1.49
Green Fodder, Maize Kharif, 2017	Varietal replacement	African Tall	5	0.4	367.62	(298.4) Local improved	23.19	CP%	8.78	8.05	15538	22057	6519	1.41	14950	17904	2954	1.19
Green Fodder, Rice bean Kharif, 2017	New introduction	Bidhan-2	10	0.16	346.4	-	-	CP%	27.4	-	20510	55600	34890	2.71	0.16	346.4	-	-
Green Fodder, Cowpea, Kharif, 2017	New Introduction	BundelLobia-2	1	0.08	325	-	-	CP%	15.77		43200	69350	26150	1.60	-	-	-	-
Green Fodder, Oat, Rabi, 2017-18	Varietal replacement	Kent	15	1.1	313.3	72.8 (Local grasses in grazing land)		CP(%)	9.12	2.56	12375	23497	11122	1.89	-	-	-	

Livestock

Category	Thematic Area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cow (2017-18)	Feed Management	Supplementation of Area Specific Mineral Mixture to cross bred Cow	10	10 (2 cows per unit)	A. Milk Yield(Kg/wk/cow) 55.23±1.36 B.Fat 4.37±0.03	Milk Yield(Kg/wk/cow) 50.05±1.22 B.Fat 4.05±0.03	A.10.34 B.7.32	A. SNF-8.65±0.04 B.Lactose-4.492±0.01	A. SNF-8.52±0.04 B.Lactose-4.458±0.01	28,440	66576	38335	2.34	27080	60060	32980	1.82
Goat (2017-18)	Feed management	Low cost concentrate supplementation for flushing of does at third parity	10	10 (2 goats per unit)	Programme is going on.												
Duck (2017-18)	Breed replacement	White pekin	30 (total duckling 355)	30	Programme is going on												

Total			50	50													

* Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)/ha				*Economics of check (Rs.)/ha			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Composite fish culture (2017-18)	Feed management	Use of dry yeast and cobalt chloride in fish feed	10	10	Programme is in progress												
Others (pl.specify) Introduction of Bhetki in composite fish culture	Crop diversification	Cultivation of Bhetki with composite fish culture	9	9	Yield: Bhetki: 338 kg./ha + IMC &exotic carp: 1875 kg/ha	IMC &exotic carp: 2250 kg/ha	-	Av. Weight: Bhetki: 1.8 kg	Av. Weight of IMC: 1.3 kg	126100	356250	230150	2.82	115500	225000	109500	1.94
		Total	19	19													

Women empowerment

Category	Name of technology	No. of demonstrations	Observations	Remarks
Farm Women	Group Formation for Accumulating Social Capital and Increasing	03 [60 numbers of members of 3 Self Help Groups (20	Average Monthly Income of Rs. 1520.00 per Member has been achieved after formation of the Group and	Average Monthly Income is Rs. 716.00 per Person

	Family Incomes (Formation and functioning of Self Help Groups)	members from each group)]	functioning of the Group for consecutive Three (03) 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.	not belonging to any Group. Average Monthly Income per Person has increased up to 112.29 per cent over a period of 03 (Three) Years after initial formation of a Self Help Group.
Other women	Back Yard Nutrition Gardening	30	The Programme is going on.	

Farm implements and machinery

Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days / ha)		Cost reduction (Rs./ha or Rs./Unit)	
					Demonstration	Check		Demonstration	Check	Demonstration	Check
Drum Seeder	Kharif Paddy Var. IET 4786 and MTU 7029	Direct Seeding of Rice in Lines	9	6.0		New Introduction	New Introduction	58	New Introduction	11,600.00	New Introduction
Disc Harrow	Potato	Pulverized Land Preparation	19	10.22		New Introduction	New Introduction	45	New Introduction	9000.00	New Introduction

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**
**** BCR= GROSS RETURN/GROSS COST**

Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
Cereals				Demo	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Bajra										

Maize										
Paddy										
Sorghum										
Wheat										
Others (pl.specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower										
Groundnut										
Soybean										
Others (pl.specify)										
Total										
Pulses										
Greengram										
Blackgram										
Bengalgram										
Redgram										
Others (pl.specify)										
Total										
Vegetable crops										
Bottle gourd										
Capsicum										
Cucumber										
Tomato										
Brinjal										
Okra										
Onion										
Potato										

Field bean										
Others (pl.specify)										
Total										
Commercial crops										
Cotton										
Coconut										
Others (pl.specify)										
Total										
Fodder crops										
Napier (Fodder)										
Maize (Fodder)										
Sorghum (Fodder)										
Others (pl.specify)										
Total										

Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Feed Back
1	*Azolla*	After multiplication of *Azolla*and incorporation in Paddy field before transplanting, application of Nitrogenous fertilizers wasreduced 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	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	The *Baramasia* Drumstick Var. – PKM -1 is in satisfactory growing stage.
4	Wheat	The Wheat Variety PBW - 343 with an average yield of 39.4 q / ha may be cultivated instead of Sonalika. The percentage yield of the Var. PBW – 343 increased over 27.5 percent over the local check Sonalika.The seed rate should be less in PBW 343 as its growth habit is more spreading.
5	Use of Disc Harrow in pulverized land preparation of Potato	It is essential and cost effective as it reduces the labour requirement. The Cost reduction by using Disc Harrow is Rs. 9,000.00 per hectare.
6	Fodder Sorghum	Very luxuriant green fodder was produced with an increased Yield of 96.54 per cent over the local Check Goma, with CP Percentage of 9.15 over 6.70 of the local check and with an increased B:C Ratio of 2.57 over the local Chech B:C Ratio of 1.38.
7	Fodder Maize	Very luxuriant green fodder was produced with an increased Yield of 23.19 per cent over the local Check Local Improved, with CP Percentage of 8.78 over 8.05 of the local check and with an increased B:C Ratio of 1.41 over the local Chech B:C Ratio of 1.19.
8	Fodder Rice Bean	Rice Bean Var. Bidhan – 2 is a very luxuriant green fodder was produced with a CP Percentage of 27.4.
9	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 10.34 percentage point over the local check and Fat Percentage is increased by 7.32 percentage point over the local check and with a B:C ratio of 2.34 in case of Demonstration over the local check B:C ratio of 1.82.
10	Low cost concentration supplementation for flushing of does	The Programme is going on satisfactorily.
11	Cultivation of Bhetki with composite fish culture	Introduction of Bhetki cultivation as a component of Composite Fish culture with IMC and Exotic Carps was remunerative with Bhetki yield of 338 kg. / ha. Along with IMC and Exotic Carps Yield of 1875 kg. / ha and it gives an increased B: C Ratio of 2.82 in comparison to Check (Composite Fish Culture with only IMC and Exotic Carps) of 1.94.
12	Group formation for accumulating Social Capital and increasing Family Incomes	Average Monthly Income of Rs. 1520.00 per Member has been achieved after formation of the Group and functioning of the Group for consecutive Three (03) 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 is Rs. 716.00 per Person not belonging to any Group. Average Monthly Income per Person has increased up to 108.00 per cent over a period of 03 (Three) Years after initial formation of a Self Help Group.
13	Backyard Nutrition Gardening	The Programme is going on satisfactorily.
14	Introduction of Ducks Breed White Pekin	The Programme is going on satisfactorily.
15	Fodder Oat	Very luxuriant green fodder was produced with an increased Yield of 313.3 q. / ha, with

		CP Percentage of 9.20 over 2.56 of the local check i.e. grazing land grass with an increased B:C Ratio of 1.89.
16	Fodder Cow Pea	Cow Pea Var. Bundel Lobia – 2 is a very luxuriant green leguminous fodder was produced with a CP Percentage of 15.77 with B : C Ratio 1.60.
17	Use of Dry Yeast and Cobalt Chloride in Fish Feed	The programme is going on satisfactorily.
18	Varietal Replacement of Elephant Foot Yam with Var. Bidhan Kusum	The Elephant Foot Yam was cultivated in up-land mono cropped area in rainfed condition as crop diversification satisfactorily with an average yield of 692.4 q. / ha with 254.00 per cent increase in yield over local check along with B : C Ratio of 2.63 over 1.7 in Local Check.
19.	Crop Diversification through introduction of Ekangi (a Medicinal Plant)	Ekangi (*K. galanga*) was introduced in mono cropped up and medium land situation replacing Kharif Paddy as crop diversification gave an increased yield of 135 q. / ha which fetched a higher B : C ratio of 6.55.

N. B. – Techinal Feedback of CFLD is given in the relevant Portion of the Annual Report.

Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	05.04.2017	01	40	i.Area Specific Mineral Mixture Supplementation for Deshi Milch Cows
		12.04.2017	01	28	ii. Green Fodder Cultivation for better Animal Feed Management
		15.05.2017	01	22	iii. Cultivation of Elephant Foot Yam as diversifies Crop
		27.05.2017	01	76	iv. Cultivation of All the Year Fruting Drumsticks (Var. PKM – 1)
		29.05.2017	01	65	v. Cultivation of All the Year Fruting Drumsticks (Var. PKM – 1)
		11.06.2017	01	52	vi. Cultivation of Ekangi (a Medicinal Plant) as diversified Crop
		16.07.2017	01	50	vii. Multiplication of *Azolla* as Green Manure Crop
		29.07.2016	01	59	viii. Green Fodder like Rice Bean (Var. Bidhan – 2) and Sorghum (Var. MP Chari)
		12.08.2017	01	52	ix. Introduction of Bhetki as a Component of Composite Fish Culture
		31.08.2017	01	40	x. Weed Management in *Ekangi*
		01.09.2017	01	45	xi. Direct seeding of Rice with Drum Seeder
		14.09.2017	01	20	xii. Top dressing of Elephant Foot Yam
		16.09.2017.	01	60	xiii. Formation of Self Help Groups for

					Social Capital Mobilization
		19.09.2017	01	35	xiv. Application and incorporation of *Azolla* in Paddy Field
		18.10.2017	01	20	xv. Supplementation of Low Cost Concentrates to Does at 3rd. Parity
		28.10.2017	01	30	xvi. Breed replacement of Deshi Ducks with Breed White Pekin
		13.11.2017	01	21	xvii. Feeding of Lactating Deshi Cow with Area Specific Mineral Mixture
		15.11.2017	01	30	xviii. Cultivation of Oat Fodder for better Feed Management of Animals
		28.11.2017	01	70	xix. Cutivation Practices of Wheat with Improved Varieties
		29.11.2017	01	30	xx. Use of Disc Harrow for pulverization of Potao fields
		10.12.2017	01	30	xxi. Use of Dry Yeast and Cobalt Chloride in Fish Feed
		25.01.2018	01	30	xxii. Harvesting of Ekangi (a Medicinal Plant)
		20.02.2018	01	40	xxiii. Establishment of Back Yard Nutrition Garden for proper Nutrition of Farm Families
		16.03.2018	01	35	xxiv. Feed Management and vaccination of Ducks Breed White Pekin
			(Total No. – 24)	**(Total No. – 980)**	
2.	Farmers Training	27.04.2017	01	42	i. Formation of Fish Production Group for Composite Fish Cultuture with Bhetki
		15.05.2017 to 16.05.2017 and 18.05.2017 to 19.05.2017	01	31	ii. Lay out and planting of Elephant Foot Yam
		20.05.2017 to 22.05.2017 and 23.05.2017	01	30	iii. Cultivation of Baromasia Drumsticks Var. PKM – 1
		22.05.2017 to 25.05.2017	01	27	iv. Specific Agro-Technologies for cultivation of Ekangi
		19.06.2017 to 20.06.2017	01	17	v. Kharif Paddy Cultivation using Drum Seeder
		07.08.2017 to	01	50	vi. Nutrition Gardeing

		08.08.2017 and 10.08.2017 to 11.08.2017			
		10.08.2017	01	16	vii. Use of *Azolla* as alternative Organic Manure
		07.09.2017 to 10.09.2017	01	30	viii. Use and multiplication of *Azolla*
		08.09.2017	01	10	ix. Low Cost concentrate preparation in Goatery Management
		17.11.2017	01	15	x. Improved Agro-Technologies in Wheat Cultivation
		27.11.2017 to 28.11.2017	01	50	xi. Duck farming
		15.12.2017	01	16	xii. Ideal Agronomic Practices for quality Fodder Cultivation
			(Total No. – 12)	**(Total No. – 334)**	
3.	Media coverage	04.04.2017	01	Not assessed	i.Recorded Television Programme on Composite Fish Culture with Bhetki
		29.04.2017	01	Not assessed	ii. Live Radio Phone-In Programme on Cultivation of Green Fodder Crops
		20.06.2017	01	Not assessed	iii. Live Radio Phone-In Programme on Pond Preparation for Composite Fish Culture with Bhetki
		22.06.2017	01	Not assessed	iv. Recorded Television Programme on Scientific Dairy Farming and Fodder Cultivation for Doordarshan
		23.11.2017	01	Not assessed	V. Recorded Television Programme on Potentiality of Wheat Cultivation in Birbhum District for 24 Ghanta Channel
			(Total No. – 05)	**Not assessed**	
4.	Training for extension functionaries	-	-	-	-
Grand Total			**41**		

Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif2017 and Rabi 2017-18: Kharif Pulse, 2017

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	Kharif Black gram	Kali-50	5.1	112	166	890	Crop: - Kharif Black Gram Var. PU-31 + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrientspray Boron-20 @ 2g/lt water in 25 and 45 DAS	129	30	13.25	8.90	10.62	466	332	62

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:- Kharif Black Gram Var. PU-31 + Herbicides	15070	28050	12980	1.86	16005	58410	42405	3.64

	pendimethalin as pre emergence @ 3lt/ha+Micronutrient spray Boron-20 @ 2g/lt water in 25 and 45 DAS								

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)
4.	Black Gram Var. PU-31	31860	200	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

D. 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:- Kharif Black Gram Var. PU-31 + Herbicides pendimethalin as pre emergence @ 3lt/ha+Micronutrient spray Boron-20 @ 2g/lt water in 25 and 45 DAS	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.	Availability of seeds should be ensured in time. Appropriate good quality *Rhizobium* 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. Availability of Dal mill to the farmers end will be most encouraging enterprise.

E. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Duration	Shorter	New variety: 72 days Local check: 95 days	108% 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. 29425/ha than local check which is very much encouraging for blackgram cultivation in monocropped upland and medium land in kharif season instead of rice.
No. of branches/ plant	Highly branched	New technology: 15 Local check: 7	
No. of pods /plant	Higher	New technology: 38 Local check: 18	

F. Extension activities under FLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1	Training on Pulse production technologies in kharif season	30/5/2017, RKVK	13
2	Training on Crop diversification through pulse cultivation in kharif season	22/6/2017, RKVK	23
3	Training on Improved methods of pulse and oilseeds cultivation in kharif season for crop diversification	13/7/2017, RKVK	25
4	Field day on Improved method of blackgram cultivation in kharif season	27/7/2017, Bolpur	35
5	Improved variety and fertilizer management of blackgram in post kharif season	8/8/2017, KVK	17
6	Field day on sowing blackgram variety PU-31 in kharif seasn	19/8/2017, Debanandapur	30
7	Field day on fertilizer management in blackgram	15/9/2017, Labpur	22
8	Field day on performance of kharif blackgram as crop diversification	12/10/2017, Rampurhat	22

8. Farmers' training photographs

Rathindra KVK Scientists at the On-Campus Training Programme on the Cluster FLD Programme on Kharif Pulses

Photographs of Seed Distribution


CLUSTER FR
DEMONSTRATIONS OF
LSES
2017-18
RATHINDRA KRISHI VIG
NDRA
PALLI SIKSHA BHAVANA, VI
SRINIKETAN, P. O. – SRI
DIST. – BIRBHUM, WE
CROP:-


CLUSTER FRONTLINE
DEMONSTRATIONS OF Kharif PULSES
2017-18
RATHINDRA KRISHI VIGYAN KENDR
PALLI SIKSHA BHAVANA, VISVA-BHARATI
SRINIKETAN, P. O. – SRINIKETAN,
DIST. – BIRBHUM, WEST BENGAL - 731236
CROP:- BlackGram
VAR.:- PU-31

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


CLUSTER FRONTLINE DEMONSTRATION
OF KHARIF PULSES 2017-18
CROP:- BLACK GRAM, VAR.:- PU-31
Supported By:- RATHINDRA KRISHI VIGYAN KENDRA
V.S.B. VISVA BHARATI, SRINIKETAN, BIRBHUM
Implemented By:- ASANSOL BURDWAN SEVA KENDRA

11. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
	i) Critical input	Will be submitted later in details		
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day)			
	iv)Publication of literature			
	Total			

12. List of Farmer under FLD (Crop wise)

a) Crop1- Black Gram

Name of farmer	Father's name	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes /No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Demo. Yield (q/ha)			Yield of local check q/ha	% increase
						Latitude	Longitude						H	L	A		
										Var. PU-31 + Herbicides + Micronutrient spray	PU-31	30 kg/ha	13.25	8.90	10.62	5.1	108
Sushanta Das	Lt Biswanath Das	Supur	Bolpur Sriniketan	9635616331		23.597641	87.6755267	Yes									
Santosh Das	Lt Sadananda Das	Ramchandrapur	Bolpur Sriniketan	9635331913		23.6203771	87.671214	Yes									
Nimai Bagdi	Lt Gobinda Bagdi	Ramchandrapur	Bolpur Sriniketan	9932976244		23.6207489	87.671224	Yes									
Amar Sarkar	Lt Motilal Sarkar	Ramchandrapur	Bolpur Sriniketan	9002126433		23.6317726	87.6875429	Yes									
Madhusudan Poddar	Lt Ananta Poddar	Ramchandrapur	Bolpur Sriniketan	9091237303		23.6275621	87.6870267	Yes									
Gopal Bagdi	Lt Gobinda Bagdi	Ramchandrapur	Bolpur Sriniketan	8001886983		23.6299047	87.6869267	Yes									

Jagabandhu Ghosh	Lt Muktipada Ghosh	Ramchandrapur	Bolpur Sriniketan	8158022887		23.627749	87.67121	Yes									
Som Maddi	Lt Shuno Mardi	Ramchandrapur	Bolpur Sriniketan	8609943080		23.6207489	87.67114	Yes									
Narayan Barman	Anil Barman	Chandanpur	Bolpur Sriniketan	8436757901		23.59776	87.6755	Yes									
Sukumar Ghosh	Purnachandra Ghosh	Chandanpur	Bolpur Sriniketan	9002564131		23.59308	87.71125	Yes									
Panchanan Meta	Kalipada Mete	Chandanpur	Bolpur Sriniketan	8536900640		23.627586	87.65611	Yes									
Shyam Barman	Sristhi Barman	Chandanpur	Bolpur Sriniketan	8167046735		23.6207489	87.6712124	Yes									
Prangopal Thakur	Gokulananda Thakur	Chandanpur	Bolpur Sriniketan	9126885141		23.6641867	87.6924717	Yes									
Narayan Mondal	Ashutosh Mondal	Chandanpur	Bolpur Sriniketan	8972664944		23.6275858	87.6561092	Yes									
Narayan Barman	Bhakti Barman	Chandanpur	Bolpur Sriniketan	9635390865		23.627586	87.65611	Yes									
Bishnupada Mondal	Ashutosh Mondal	Chandanpur	Bolpur Sriniketan	7407782885		23.6426738	87.6459348	Yes									
Kashinath Ghosh	Narayan Chandra Ghosh	Chandanpur	Bolpur Sriniketan	8016963884		23.6270588	87.67161	Yes									
Dipak Mondal	Ashutosh Mondal	Chandanpur	Bolpur Sriniketan	9800376554		23.6207489	87.671212	Yes									
Uttam Pal	Lt Laxmikanta Pal	Debanandapur	Bolpur Sriniketan	8327372365				No									
Niradbaran Debanshi	Lt Kamalaksha Debanshi	Debanandapur	Bolpur Sriniketan	9679896570				No									
Chhattu Ghosh	Sanat Kumar	Debanandapur	Bolpur Sriniketan	9775729496				No									

	Ghosh																
Mahadeb Das	Ajit Das	Ratanpur	Bolpur Sriniketan	8926562455				Yes									
Basukinath Laha	Sanjiban Laha	Damdama	Bolpur Sriniketan	9851543033				Yes									
Ananda Das	Sarat Das	Ratanpur	Bolpur Sriniketan					No									
Nabani Das	Haradhan Das	Ratanpur	Bolpur Sriniketan					No									
Adyanath Ghosh	Gobinda chandra Ghosh	Debanandapur	Bolpur Sriniketan	9647309443				No									
Tuhin Subhra Dey	Nikhil Kumar Dey	Debanandapur	Bolpur Sriniketan	9735174764				No									
Sujit Pal	Sunil Pal	Debanandapur	Bolpur Sriniketan	8926912589				No									
Swadhin Hansda	Shiblal Hansda	Jethiya Schoolpara	Md.Bazer	7407739090		24.27313	87.13256										
Promod Singh	Banabihari Singh	Jethiya Namopara	Md.Bazer	8170053622		24.89213	87.78352	Yes									
Sukal Soren	Hopna Soren	Chakraipur	Md.Bazer	7584949349		24.01234	87.24564	Yes									
Budi Hemram	Kisun Hemram	Jethiya Namopara	Md.Bazer	8436139128		24.33262	87.48636	Yes									
Maisu Tudu	Madaram Tudu	Buritala	Md.Bazer	7797624874		24.91231	87.42313										
Barish Hansda	Babulal Hansda	Jethiya Suryapara	Md.Bazer	9800606408		24.02231	87.13536	Yes									
Hapna Mardi	Bhareh Mardi	Chakraipur	Md.Bazer	7318685633		24.05235	87.58456	No									
Anshila Tudu	Kalu Tudu	Deyanganj	Md.Bazer	7676784541		24.05326	87.47653	No									

		Tetulbandh															
Basanti Hemram	Pachu Hemram	Deyanganj Tetulbandh	Md.Bazer	7431831284		24.06256	87.65023	No									
Churamani Murmu	Bejal Murmu	Deyanganj Tetulbandh	Md.Bazer	7478926767		24.05326	87.25585	No									
Jiban Mardi	Lt-Baburam Mardi	Salbadra,Karbatala	Rampurhat	8642082493		24.13802	87.62653	No									
Kalin Soren	Lt- Jagan Soren	Salbadra,Karbatala	Rampurhat	909101933809		24.32079	87.62912	No									
Bartany Besra	Lt-Isswani Besra	Salbadra,Karbatala	Rampurhat	7557898645		24.13823	87.64663	No									
Jahanara Bibi	Ajit Miya	Shukna	Md.Bazer					No									
Dukho haran Orang	Shashadhar Orang	Shukna	Md.Bazer					No									
Kandna Orang	Ashwini Orang	Shukna	Md.Bazer					No									
Patun Bibi	Nejamuddin Miya	Shukna	Md.Bazer					No									
Rasidan Bibi	Lalmahamad Miya	Shukna	Md.Bazer					No									
Jelema Bibi	Kurban Miya	Shukna	Md.Bazer					No									
Hasina Bibi	Rejaul Miya	Shukna	Md.Bazer					No									
Jehara Bibi	Kamsuddin Miya	Shukna	Md.Bazer					No									
Ajema Bibi	Kased Miya	Shukna	Md.Bazer					No									

Saleha Bibi	Ismail Miya	Shukna	Md.Bazer					No									
Sona Moni Soren	Chunga	Shukna	Md.Bazer					No									
Dhani Marandi	Sukal Marandi	Shukna	Md.Bazer					No									
Sandhya Orang	Sunil Orang	Shukna	Md.Bazer					No									
Lakshi Hansda	Jiten Hansda	Shukna	Md.Bazer					No									
Putul Orang	Shyama Orang	Shukna	Md.Bazer					No									
Paribala Orang	Nandalal Orang	Shukna	Md.Bazer					No									
Najira Bibi	Najir Miya	Shukna	Md.Bazer					No									
Isma Bibi	Manruddin Miya	Shukna	Md.Bazer					No									
Fejirana Bibi	Ansarul Miya	Shukna	Md.Bazer					No									
Guljan Bibi	Safik Miya	Shukna	Md.Bazer					No									
Panmoni Murmu	Khario Murmu	Shukna	Md.Bazer					No									
Temina Bibi	Mujahit Miya	Shukna	Md.Bazer					No									
Fuljan Bibi	Selim Miya	Shukna	Md.Bazer					No									
Rina Khatun	Neimuddin Miya	Shukna	Md.Bazer					No									
Serifan Bibi	Tutu Miya	Shukna	Md.Bazer					No									
Nisatuna Bibi	Baharuddin Miya	Shukna	Md.Bazer					No									
Kalamoni Murmu	China Murmu	Shukna	Md.Bazer					No									
Rani Tudu	Budhar Tudu	Shukna	Md.Bazer					No									

Khani Hemram	Jakar Hemram	Shukna	Md.Bazer					No									
Dharam moni Soren	Gurdhu Soren	Shukna	Md.Bazer					No									
Pani Soren	Hopna Soren	Shukna	Md.Bazer					No									
Parulanija Bibi	Intaj Miya	Shukna	Md.Bazer					No									
Motijan Bibi	Abas Miya	Shukna	Md.Bazer					No									
Nurbanu Bibi	Jebir Miya	Shukna	Md.Bazer					No									
Jahanur Bibi	Dilsad Miya	Shukna	Md.Bazer					No									
Jemala Bibi	Miaraj Ansari	Shukna	Md.Bazer					No									
Sahanaj Bibi	Lalababu Miya	Shukna	Md.Bazer					No									
Menoka Orang	Dharma Orang	Shukna	Md.Bazer					No									
Behula Orang	Manmat Orang	Shukna	Md.Bazer					No									
Tapan Mal	Simai Mal	Putka	Khoyrasole	7407922909		23.870539	87.263533	No									
Mihir Mal	Lt-Lambu Mal	Putka	Khoyrasole	9735129559		23.871092	87.263533	No									
Dukho Haran Mal	Gandal Mal	Putka	Khoyrasole	9083751727		23.871861	87.565896	No									
Swapan Mal	Nimai Mal	Putka	Khoyrasole	7872995227		23.872562	87.264674	No									
Bhudhar Mal	Lt Rasamoy Mal	Putka	Khoyrasole	9933437750		23.871861	87.232156	No									
Salauor Khan	Golam Khan	Putka	Khoyrasole	7407826303		23.875642	87.562134	No									
Bijoy Singha	Garibandar Singh	Shibpur	Khoyrasole	7602096531				No									

Biswanath Mondal	Nabani Mondal	Shibpur	Khoyrasole	7602099377				No										
Manil Mondal	Lt Gopal Mondal	Shibpur	Khoyrasole	8967067207				No										
Narayan Mondal	Lt Bholanath Mondal	Shibpur	Khoyrasole	8170013149				No										
Spostadhar Bagdi	Lt Habal Bagdi	Patadanga	Rajnagar					No										
Lalchand Ghosh	Kamal Ghosh	Patadanga	Rajnagar	9564519384				No										
Rakshakar Mondal	Sambhu Mondal	Patadanga	Rajnagar	8342045876				No										
Amrita Aknure	Maniram Ankure	Patadanga	Rajnagar	8972837509				No										
Sk. Asraf	Sk .Haidar	Kusnasol	Rajnagar	8016722831				No										
Sk. Sabadali	Sk. Rabiul	Kusnasol	Rajnagar					No										
Nityanarayan Mukherjeee	Lt Ramshankar Mukherjee	Patadanga	Rajnagar	8641050325				No										
Keshab Mali	Gokulchandra Mali	Laujore	Rajnagar	9547715179				No										
Gadadhar Das	Motar Das	Laujore		9775855467				No										
Ratan Mondal	Sunil Mondal	Takipur	Rajnagar					No										
Ranjit Das	Lt Shaktipada Das	Malkora	Rajnagar	9126447358				No										
Uttam Mali	Lt Bharat Mali	Laujore	Rajnagar					No										
Tarashankar Mondal	Lt Ajit Kumar Mondal	Laujore	Rajnagar	9735678778				No										

Modan Mohan Karmakar	Lt Dijwapada Karmakar	Kairadihi	Rajnagar	8926219827				No										
Utpal Dey	Lt Dhajadhari Dey	Patadanga	Rajnagar	9596186273				No										
Data Karna Mondal	Santosh Mondal	Patadanga	Rajnagar					No										
Nepal Mondal	Lt Budhan Chandra Mondal	Patadanga	Rajnagar	9002678376				No										
Abani pada Mondal	Lt Umapada Mondal	Sajina	Rajnagar	8926767235				No										
Lakshi kanta Dey	Lt Dhajadhari Dey	Patadanga	Rajnagar	8927156102				No										
Prodip Roy	Lt Sahahram Roy	Madhaipur	Rajnagar	9734343139				No										
Data Karna Mondal	Santosh Mondal	Patadanga	Rajnagar					No										
Shyamal Kundu	Narayan Mondal	Patadanga	Rajnagar					No										
Pintu Konra	Gurupada Konra	Patadanga	Rajnagar					No										
Uttam Mondal	Bairas Mondal	Patadanga	Rajnagar					No										
Sajen Roy	Sakkhi Gopal Roy	Bandhi	Rajnagar					No										
Asish Kahar	Sasharam Kahar	Patadanga	Rajnagar	9734276453				No										
Joydeb Mali	Shyam Sundar Mali	Laujore	Rajnagar	9734241152				No										

Ganesh Bhandari	Lt Mohadeb Bhandari	Patadanga	Rajnagar	9647525720				No										
Anjan Bhandari	Sitaram Bhandari	Patadanga	Rajnagar	9647249753				No										
Pathik Roy	Ananada Roy	Bandi	Rajnagar	8926674229				No										
Asish Roy	Murali Dhar Roy	Bandi	Rajnagar	8670973024				No										
Muruli Rot	Panchanan Roy	Bandi	Rajnagar	8670973024				No										
Dinu Kahar	Gajanan Kahar	Bandi	Rajnagar					No										
Kiriti Bhushan Mondal	Mohadeb Mondal	Abudanga	Rajnagar	9609680283				No										
Mohedb Dome	Shakti Dome	Bandi	Rajnagar					No										
Nityagopal Mal	Mangal Mal	Bandi	Rajnagar			23.8972	87.321021	No										
Babujan Murmu	Som Murmu	Shankarpurdihi	Rajnagar			23.8976	87.3158	No										
Swapan Ghosh	Anil Ghosh	Kastogoriya	Rajnagar					No										
Sanat Ankure	Mohadeb Ankure	Bandi	Rajnagar					No										

Kharif Oilseeds, 2017

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology	Number of farmers	Area in ha	Yield obtained (q/ha)	Yield gap minimized (%)
				District	State	Potential					

		name		yield (D)	yield (S)	yield (P)	demonstrated			Max.	Min.	Av.	D	S	P
1	Kharif Sesame	Tilottoma	7.80	153	135	420	Var. SWB- 32-10-1 + Herbicides, Micronutrient spray	131	40	11.3	8.00	10.25	160	181	71

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	Var. SWB- 32-10-1 + Herbicides, Micronutrient spray	13250	35880	22630	2.71	14000	47150	33150	3.37

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	Sesame Var. SWB- 32-10-1	41000	145	46.00	Rest is kept for extracting oil and sowing seeds in the next season	-	Payment of labour bill, Fertilizer and pesticide cost and family need	16

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	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	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers,	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	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.

			time than new variety Savitri.	irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.		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. But a good demand of the crop in the market is found.	

E. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
i) Duration	Satisfactory	Technology: 85 days Local Check: 95 days	31.4 % 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. 10520/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: 39 Local Check: 27	
iii) Colour of the seed	Attractive	Technology: White Local Check: Brown	

F. Extension activities under FLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1	Training Programme on oilseed cultivation in kharif	30.5.17 at RKVK	13
2	Training on sowing & fertilizer management in kharif season	22.6.17 at RKVK	23
3	Training on crop diversification through kharif oilseeds sesame	13.7.17 at RKVK	25
4	Training on cropping systems with kharif oilseeds sesame	18.7.2017 at RKVK	30
5	Training on production technologies of kharif sesame	27.7.17 at ADA office Bolpur	35
6	Training on improved variety and fertilizer management in kharif sesame	4.8.17 at RKVK	24
7	Field day at flowering and fruiting of sesame	15.9.17 at Lavpur	22
8	Live Phone-In Programme on Cultivation of kharif oilseeds with special reference to Sesame through All India Radio, Santiniketan Station	01.08.2017	-
9	Television talk show on Cultivation of kharif oilseeds with special reference to Sesame through DD Santiniketan and DD Kolkata	9.8.17	-

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

9. Farmers' training photographs

(a) Seed distribution.


GYAN KENDRA
VISVA-BHARATI
RINIKETAN,
ENGAL - 731236


NTLINE
GYAN KENDRA
VA-BHARATI
KETAN,
AL - 731236

(b) Vegetative Growth Stage of Sesame

10. Photographs of Flowering stage and technology demonstrated.

Photograph of Harvesting.

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

11. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
	i) Critical input	Budget utilization statement will be given later		
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day)			
	iv)Publication of literature			
	Total			

12. List of Farmer under FLD (Crop wise)

b) Crop1

Name of farmer	Father's name	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/ No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Demo. Yield (q/ha)			Yield of local check q/ha	% increase
						Latitude	Longitude						H	L	A		
											Sabitri	6 kg /ha	11.3	8.0	10.25	7.80	31.4
Surojit Mandal	Ajit Mandal	Rajatpur	Bolpur, Sriniketa	8946021553				Yes									

			n														
Bikash Chandra Ghosh	Tarapada Ghosh	Rajatpur	Bolpur, Sriniketan	7063179066				Yes									
Mahadev Ghosh	Tarapada Ghosh	Rajatpur	Bolpur, Sriniketan	9593955197				Yes									
Archana Ghosh	Samir Ghosh	Rajatpur	Bolpur, Sriniketan	8436270018				Yes									
Mritanjoy Pande	Billamangal Pande	Rajatpur	Bolpur, Sriniketan	9002146925				Yes									
Lakhan Mandal	Mihir Mandal	Abhirampur	Bolpur, Sriniketan	8001822883				Yes									
Jiban Kumar Samanta	Dulal Chandra Samanta	Abhirampur	Bolpur, Sriniketan	7384427791				Yes									
Koushik Mandal	Mohan Mandal	Abhirampur	Bolpur, Sriniketan	8016746783				Yes									
Goura Chand Mandal	Kalipada Mandal	Abhirampur	Bolpur, Sriniketan	9732918475				Yes									
Udoy Ghosh	Ratan Ghosh	Abhirampur	Bolpur, Sriniketan	8670076681				Yes									
Baburam Hemram	Matal Hemram	Kheledanga	Bolpur, Sriniketan	9733283023				Yes									
Mohadev Tudu	Chhutor Tudu	Kheledanga	Bolpur, Sriniketan	9851830366				Yes									
Tuhin Subhra Dey	Nikhil Kumar Dey	Debanandapur	Bolpur, Sriniketan	9735174764				Yes									
Indrajit Debanshi	Kashinath Bebanshi	Debanandapur	Bolpur, Sriniketan	9635603440				Yes									
Ashutosh	Sridam	Debana	Bolpur,	980005				Yes									

Ghosh	Ghosh	ndapur	Sriniketa n	6258														
Sanowar Sekh	Lt Fann char	Kholilp ur	Nolhatti-II	993333 3354				Yes										
Monirul Islam	Nur Islam	Kholilp ur	Nolhatti-II	773576 6135				Yes										
Abdus Sadek	Lt Majid Mandal	Nowpa ra	Nolhatti-II	909192 5834				Yes										
Hamidul Islam	Md.Sadeque Ali	Nowpa ra	Nolhatti-II	980058 3214				Yes										
Muni Tudu	Kalo Marddi	Faridpu r	Bolpur, Sriniketa n					Yes										
Malati Hansada	Khanda Tudu	Faridpu r	Bolpur, Sriniketa n					Yes										
Lakshmi Murmu	Ram Hansda	Faridpu r	Bolpur, Sriniketa n					Yes										
Moni Tudu	Som Hembram	Faridpu r	Bolpur, Sriniketa n					Yes										
Chaitali Tudu	Badan Marddi	Faridpu r	Bolpur, Sriniketa n					Yes										
Lalita Tudu	Jagan Tudu	Faridpu r	Bolpur, Sriniketa n	960964 6189				Yes										
Pan moni Kisku	Badai Tudu	Faridpu r	Bolpur, Sriniketa n					Yes										
Manggoli Tudu	Kumaresh Soren	Faridpu r	Bolpur, Sriniketa n					Yes										
Churki Tudu	Thanu Tudu	Faridpu r	Bolpur, Sriniketa n					Yes										
Didi Moni Tudu	Gupin Hembram	Faridpu r	Bolpur, Sriniketa n					Yes										
Manggoli Tudu	Mohan Tudu	Faridpu r	Bolpur, Sriniketa					Yes										

			n														
Sarala Tudu	Raha Kisku	Faridpur	Bolpur, Sriniketan					Yes									
Lakshi Marddi	Gobind Kisku	Faridpur	Bolpur, Sriniketan					Yes									
Fulmoni Marddi	Mangal Marddi	Faridpur	Bolpur, Sriniketan					Yes									
Sukurmoni Murmu	Ragai Tudu	Faridpur	Bolpur, Sriniketan					Yes									
Kalidasi Murmu	Churko Kisku	Faridpur	Bolpur, Sriniketan					Yes									
Balika Murmu	Shibu Hansda	Faridpur	Bolpur, Sriniketan					Yes									
Churki Hembram	Babulal Hembram	Faridpur	Bolpur, Sriniketan					Yes									
Makhan Tudu	Shibu Murmu	Faridpur	Bolpur, Sriniketan					Yes									
Budin Murmu	Lakhan Murmu	Faridpur	Bolpur, Sriniketan					Yes									
Rakhi Bagdi Barman	Prosanta Bagdi	Dewli	Bolpur, Sriniketan					Yes									
Minoti Barman	Dilip Barman	Dewli	Bolpur, Sriniketan					Yes									
Karabi Bagdi Barman	Bahadur Barman	Dewli	Bolpur, Sriniketan					Yes									
Mallika Basuri	Banshi Mandal	Senokapur	Bolpur, Sriniketan					Yes									
Som Soren	Sanu Soren	Ballovp	Bolpur,					Yes									

		ur	Sriniketan														
Nilmoni Tudu	Thena Murmu	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Lakshi Murmu	Budin Hembram	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Sahanara Bibi	Sk Alam	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Manada Marddi	Khanda Tudu	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Chandi Hembram	Nitai Soren	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Rasmoni Kisku	Jitha Hansda	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Rabina Bibi	Sk Serajul	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Arefa Bibi	Md.Ali	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Paku Murmu	Chhato Murmu	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Mina Bibi	Sk Rahaman	Hatpukurdanga	Bolpur, Sriniketan					Yes									
Tapas Biswas	Lt- Umesh Biswas	Srichandrapur	Illambazar					Yes									
Swapan Biswas	Lt- Umapada Biswas	Srichandrapur	Illambazar					Yes									
Joyanta Bhattarya	Lt- Sadananda Bhattarya	Ballovpur	Bolpur, Sriniketan					Yes									
Ajit Soren	Lt Gopal Soren	Tarasole	Rajnagar	7432892046		23.97046	87.301485	No									

Nepal Marandi	Lt Kanu Marandi	Tarasole	Rajnagar	7432892046		23.964754	87.418573	No									
Lakhiram Hemram	Nantu Hemram	Barakonda	Rajnagar	9647534527		23.932733	87.369907	No									
Ukil Paoriya	Ranglal Paoriya	Makalt ali	Rajnagar	7381975052		23.35619	83.447094	No									
Ishwar Hansda	Paydan Hansda	Nijhuri	Rajnagar	8768186833		24.53	89.48	No									
Imel Hemram	Shibu Hemram	Kabjabuni	Rajnagar	8640010278				No									
Baburji Soren	Lt Kanta Soren	Jualbhanga	Rampurhat			24.3218	87.62835	No									
Kolin Soren	Lt Jagannath Soren	Jualbhanga	Rampurhat	8918747354		24.3207	87.62802	No									
Rajkumar Soren	Kolin Soren	Jualbhanga	Rampurhat	8016111387		24.13199	87.62746	No									
Jiban Mardi	Baburam Hembrm	Salbadra Karbatala	Rampurhat	8642082493		24.13764	87.62362	No									
Sunil Mardi	Lt Chanda Besra	Salbadra Karbatala	Rampurhat	8642082493		24.13769	87.62273	No									
Sunil Mardi	Baburam Mardi	Salbadra Karbatala	Rampurhat			24.13754	87.6233	No									
Sukul Baksi	Ganesh Baksi	Sagardihi	Md.Bazer	8348092660		24.06802	87.59772	No									
Churamoni Tudu	Bejel Murmu	Hirmadanga	Md.Bazer	7478926767		24.05157	87.60248	No									
Basanti Hembram	Panchu Hembram	Dewalganj Tetulbandh	Md.Bazer	7431831284		24.06125	87.58626	No									
Maynamoti Soren	Mangal Soren	Dewalganj Tetulbandh	Md.Bazer	8250380334		24.06255	87.58647	No									
Anshila Tudu	Kalo Tudu	Dewalganj	Md.Bazer	7076784541		24.0598	87.47812	No									

		Tetulbandh															
Sanatan Mudi	Nitai Mudi	Dewalganj Tetulbandh	Md.Bazer	8918721541		24.06253	87.59287	No									
Raju Mudi	Lt Dhiren Mudi	Dewalganj Tetulbandh	Md.Bazer	9647661715		24.06253	87.59272	No									
Jamuna Mudi	Hari Mudi	Dewalganj Tetulbandh	Md.Bazer	8768369834		24.06121	87.58624	No									
Purnima Marandi	Lt Thakur Marandi	Dewalganj Tetulbandh	Md.Bazer	7318816744		24.04894	87.59883	No									
Sanatan Murmu	Lt Nabani Murmu	Khairidanga	Labpur	8436345026				No									
Sk Kalamuddin	Lt Sk Mahiuddin	Khairidanga	Labpur	9732152130				No									
Hasnahara Bibi	Sk Hossain Mahammad	Kusumgaria	Labpur	8436740439				No									
Jaydeb Biswas	Lt Mahanta Biswas	Kalinagar	Labpur	9735386258				No									
Roshnehara Begam	Lt Sk Dil Mahammad	Sekhampur	Labpur	9735582275				No									
Manjushiree Ghosh	Lt Amulyaratan Ghosh	Nabagram	Labpur	9732391436				No									
Nidra Mukherjee	Mihir Ghoshal	Sasthinagar	Labpur	9732373233				No									
Anima Mondal	Lt Sasthicharan Mondal	Bikrampur	Labpur	9832826626				No									
Manju Das	Jaydeb Das	Daspara	Labpur	7797606839				No									
Santoshi Das	Ranjit Das	Daspara	Labpur	8371951742				No									
Parbati Das	Manoranjan Das	Daspara	Labpur	7872378898				No									

Mangali Das	Sahadeb Das	Daspara	Labpur	8436398452				No										
Baidyanath Murmu	Lt Nabani Murmu	Khairidanga	Labpur	8436345026				No										
Prodip Roy	Shokaram Roy	Madhaipur	Rajnagar			23.5404	87.25052	No										
Sk Arof Ali		Sajina	Rajnagar					No										
Sk Sabad Ali		Sajina	Rajnagar					No										
Kesab Mali	Gokul Mali	Loujore	Rajnagar	9547715179				No										
Godadhar Das	Motar Das	Loujore	Rajnagar	9775855476				No										
Ashis Roy	Muraridhar Roy	Bandi	Rajnagar	8145150337				No										
Pathik Roy	Ananada Roy	Bandi	Rajnagar					No										
Bikash Roy	Sitaram Roy	Bandi	Rajnagar					No										
Chandmoni Soren	Matala Soren	Khairidanga	Labpur					No										
Dharam Mardi	Lt Ram sing Mardi	Khairidanga	Labpur					No										
Lakhiram Hansda	Lt Madhu Hansda	Khairidanga	Labpur					No										
Lakhiram Hemram	Lt Sukul Hemram	Bheramari	Labpur					No										
Gumro Hemram	Lt Shibu Hemram	Bheramari	Labpur					No										
Abdul Khayer	Lt Sk Samsul	Chouhatta	Labpur					No										
Jabeda Bibi	Sk Aktar	Chouhatta	Labpur					No										
Sk Kalamluddin	Lt Sk Mohid	Chouhatta	Labpur					No										
Babe Mate	Bihari Mate	Sekampur	Labpur					No										
Malati Biswas	Krishnapada Biswas	Kaloni	Labpur					No										
Sipra Mondal	Lt Bipad taran Mondal	Bikrampur	Labpur					No										

Joyanti Bgadi	Lt Nitai Bagdi	Bikram pur	Labpur					No									
Pari Mandal	Lt Shantiram Mondal	Bikram pur	Labpur					No									
Aradhana Bgadi	Lt Mandhab Bahdi	Bikram pur	Labpur					No									
Sila Mondal	Gurupada Mondal	Bikram pur	Labpur					No									
Krishna Mate	Lakhan Mate	Sekam pur	Labpur					No									
Rnjana Mate	Prasanta Mate	Sekam pur	Labpur					No									
Protima Mate	Baban Mate	Sekam pur	Labpur					No									
Manju Das	Joyedev Das	Daspar a	Labpur					No									
Anima Das	Ranjit Das	Daspar a	Labpur					No									
Soma Das	Ratan Das	Daspar a	Labpur					No									
Chumki Das	Kanai Das	Daspar a	Labpur					No									
Purnima Das	Balai Das	Daspar a	Labpur					No									
Shanti Das	Sukumar Das	Daspar a	Labpur					No									
Narayan Mondal	Lt Bholanath Mondal	Shibpur	Khoyraso le	8170013149				No									
Madan Mondal	Lt Bhaktipada Mondal	Shibpur	Khoyraso le	9734126141				No									
Gouttam Mondal	Lt Bhaktipada Mondal	Shibpur	Khoyraso le	9933563 5584				No									
Sadhwin Ghosh	Sunil Ghosh	Bamuni bohal	Khoyraso le	7586999174				No									
Popon Gope	Baidyanath Gope	Shibpur	Khoyraso le	9547683648				No									
Nasima Bibi	Geni Molla	Khanni	Khoyraso le	8159979017				No									

Santosh Mondal	Lt Sudhir Mondal	Shibpur	Khoyrasole	8972157307				No										
Kajal Mal	Mohadev Mal	Putka	Khoyrasole	7872653101				No										

Rabi Pulse, 2017-18

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	Chick Pea	Mahamaya-1	8.35	132	238	1165	Var. JAKI-9218 + Micronutrient spray boron 20 @ 2 gm/lt at 25 and 45 DAS	115	20	15.50	11.90	14.25	446	247	51
2	Lentil	Asha	7.50	80	180	850	Improved variety HUL-57 + Herbicide Whip Super (Fenoxaprop-P-ethyl) as early post emergence @ 0.5 lt /ha + Micronutrient spray Boron-20 @ 2 g/lt water in 25 and 45 DAS and need based	116	20	14.90	10.15	13.05	693	308	65

							fungicide spray Carbendazim+ Mancozeb 2 g/lt of water for control of wilt								
3	Field Pea	Local	4.20	30	657	1180	Improved variety Rachna + Micronutrient spray Boron-20 @ 2 g/lt water in 25 and 45 DAS	52	10	15.00	9.50	12.25	2683	122	68
4	Crop: - Summer-2017-18, Greengram	Panna	Crop is now in Seedling stage				Ist set: Only improved variety HUM-16 2nd set: Improved variety HUM-16+ Herbicide Pendimethalin as pre emergence @ 3 lt /ha 3rdset : Improved variety HUM-16 + Micronutrient Boron-20 @ 2	87	10	Crop is now in growing stage					

				g/lt water in 25 and 45 DAS 4th set : Improved variety HUM-16 + Herbicide + Micronutrient									
Total						**60**							

B. Economic parameters

Sl. No.	Variety demonstrated & Technology demonstrated	Farmers' Existing plot				Demonstration plot				Farmers' feedback
		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	Var. JAKI-9218 + Micronutrient spray	16758	41750	24992	2.49	17800	71250	53450	4.00	Additional net return is Rs. 28,458/ha
2	Var.HUL-57 + Herbicides, Micronutrient spray	16848	45000	28152	2.67	18810	78300	59490	4.16	Additional net return is Rs. 31,338/ha
3	Var. Rachna + Micronutrient spray	12100	18900	6800	1.56	13915	55125	41210	3.96	Almost new introduction to most of the farmers. Additional net return is Rs. 34,410/ha
4	Var. HUM-16 + 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.	Chick Pea Var. JAKI-9218	28500	148	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
2.	Lentil Var. HUL-57	26100	115	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
3.	Field Pea Var. RACHNA	12250	189	45.00	Rest is kept for Dal processing and sowing	-	Payment for Labour bill, payment for irrigation, fertilizer	12

					seeds in the next season.		and pesticide expenditures.	
4.	Green Gram Var. HUM-16	Crop is now in growing stage						

D. Pulse Farmer's 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: - Chick Pea Var. JAKI-9218 + 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	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of	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

				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.		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.	seeds should be ensured in time. Appropriate good quality *Rhizobium* 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.
2.	Crop: - Lentil Var.HUL-57 + 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	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	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 *Rhizobium* culture should be ensured for supply among the farmers. Low cost quality herbicides and micro-nutrients should be

				the beneficiaries when the programme support would be withdrawn.		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.	encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.
3.	Crop: - Field Pea Var. Rachna + 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	Availability of seeds should be ensured in time. Appropriate good quality *Rhizobium* 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.

						inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	
C	Crop: - Green Gram Var. HUM-16 + Herbicides, Micronutrient spray	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: Chick pea, Var. JAKI-9218			
1. No. of branches/ plant	Highly branched	New technology: 18 Local check: 7	70.6 % 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.
2. No. of pods /plant	Higher	New technology: 41 Local check: 20	
Crop: Lentil, Var. HUL-57			
1.No. of branches/ plant	Highly branched	New technology: 12 Local check: 7	74 % 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
2. No. of pods /plant	Higher	New technology: 35 Local check: 15	
Crop: Field pea, var. Rachna			

1.No. of branches/ plant	Highly branched	New technology: 22 Local check: 7	191 % 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
2. No. of pods /plant	Higher	New technology: 33 Local check: 16	
Crop: Green gram, Var. HUM-16	Crop is now in growing stage		

F) Extension activities under FLD conducted till dates:

1.	Broadcasting Live Phone In programme in crop diversification through cultivation of Summer Pulse	4.02.2017 AIR, FM Santiniketan	Not assessed
2.	Broadcasting Cultivation Practices & benefits of Chick Pea cultivation at ETV.	23.02.2017 AIR, FM Santiniketan	Not assessed
3.	Broadcasting Cultivation Practices & Benefits of Lentil cultivation at ETV.	23.02.2017 AIR, FM Santiniketan	Not assessed
4.	Broadcasting Seed treatment &Rhizobium inoculation of Summer Green Gram	25.02.2017 AIR, FM Santiniketan	Not assessed
5.	Training Programme of Pulses Production Technologies in Kharif Season	30.05.2017 Rathindra KVK	13
6.	Training Programme of Crop diversification through Pulse Cultivation in Kharif Season	22.06.2017 Rathindra KVK	23
7.	Training Programme of Improved Methods of Pulse Cultivation in Kharif Season for Crop diversification.	13.07.2017 Rathindra KVK	25
8.	Training Programme of Improved Methods of Pulse Black Gram Cultivation in Kharif Season for Crop diversification.	27.07.2017 A.D. A office, Bolpur Block. Birbhum	35

9.	Training Programme of Improved Variety and Fertilizer Management of Black Gram in Pre-Kharif crop diversification.	08.08.2017 Rathindra KVK	17
10.	Training Programme of Improved Pulse Production Technology in Kharif season with special crop to Black Gram crop diversification.	19.08.2017 Debanandapur. Birbhum	30
11.	Training Programme of Crop diversification through Black Gram for Kharif Season	15.09.2017 A.D. A office, Labpur Block. Birbhum	22
12.	Training Programme of Pulse based cropping System crop diversification of Black Gram.	12.10.2017 Kusumba, Rampurhat Block-I. Birbhum	22
13.	Training Programme of Improved Technology of Pulse in Rabi season crop to crop diversification.	27.11.2017 Rathindra KVK	26
14.	Training Programme of Sowing and Fertilizer Management of Green Gram for Summer Season.	16.03.2017 Village: - Illambazer. Birbhum	19
15.	Live Phone in AIR Pulse cultivation in Summer Season.	20.02.2018 AIR, FM Santiniketan	Not assessed
16.	Recording AIR Performance of Lathyrus and Lentil in Rice Follow situation.	27.02.2018 AIR, FM Santiniketan	Not assessed
17.	Recording DD Santiniketan performance of importance variety of Pulses in Rice follow situation.	27.02.2018 DD, Santiniketan	Not assessed
18.	Recording AIR, Chick Pea cultivation using improved varieties.	13.03.2018 AIR, FM Santiniketan	Not assessed
19.	Recording DD Santiniketan improved of field visit using Chick Pea cultivation.	13.03.2018 DD, Santiniketan	Not assessed
20.	Training Programme of Seed Production Technologies of Black Gram and Green Gram on Crop Diversification for Summer Season.	23.03.2018 to 27.03.018 Rathindra KVK	42

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

Rathindra KVK

Scientists at the On-Campus Training Programme on the Cluster FLD Programme on Rabi Pulse organized for Practicing Farmers

Photographs of Seed Distribution


CLUSTER FRONTLINE
DEMONSTRATIONS OF RABI PULSES
CROP:- CHICK PEA
JAKI 9218

Rathindra KVK Staff & Technology Agent at the Field of Cluster FLDLentil at the Vegetative Stage

Rathindra KVK Scientist at the Field of Cluster FLDChick Pea at the Vegetative Stage Principal Scientist (ICAR-ATARI) At the Field of Cluster FLD Chick Pea Plot

Rathindra KVK Staff at the Field of Cluster FLD Lentil Plot at the Flowering Stage

Rathindra KVK Technology Agent collecting Data at Fruiting Stage and harvesting stage of Field Pea

Collecting data at the growing stage of Green Gram


Cluster FLD, 2017-18
On Pulse
Crop: Green gram,
Var: HUM-16
Bathundra KVK, PSB, Sriniketan, Birbhum

H. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Rabi- Summer 2017-18, Pulse (Chick Pea, Lentil, Field Pea, greengram)	i) Critical input	The statement will be submitted later after payment of all pending bills		
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv)Publication of literature etc.			
Total				

I. List of Farmer under FLD (Crop wise)

Crop 1:- Chick Pea

Name of farmer	Father'sname	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes /No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Area sown (ha.)				Yield of local check q/ha	% increase
						Latitude	Longitude							H	L	A		
											JAKI-9218	60 Kg /ha		15.50	11.90	14.25	8.35	70.6 %
Probir Ghosh	Lt Haraprasad Ghosh	Damdama	Bolpur, Sriniketan	9800999132									0.33	4.8				
Proshanta Ghosh	Lt Durjadhan Ghosh	Damdama	Bolpur, Sriniketan										0.26	3.75				
Nitya Ghosh	Lt Dhanapati Ghosh	Damdama	Bolpur, Sriniketan										0.26	3.8				
Amit Mal	Lt Renupada Mal	Damdama	Bolpur, Sriniketan										0.13	1.9				
Binoy Ghosh	Keshab Chandra Ghosh	Damdama	Bolpur, Sriniketan	9800555919									0.26	3.85				
Bhabani Ghosh	Magaram Ghosh	Damdama	Bolpur, Sriniketan	9474409731									0.33	4.75				
Balai Mal	Jagannath Mal	Damdama	Bolpur, Sriniketan										0.33	4.77				
Ajoy Mal	Shibdas Mal	Damdama	Bolpur, Sriniketan	7470252909									0.33	4.82				
Kalipada Mal	Dhanapati Mal	Damdama	Bolpur, Sriniketan										0.13	1.95				

Dipak Mal	Purnachandra Mal	Damdama	Bolpur, Sriniketan	9635621860									0.13	1.85		
Swapan Mal	Lt Shukhamoy Mal	Damdama	Bolpur, Sriniketan	8001281005									0.13	1.88		
Utasab Ghosh	Pronab Ghosh	Damdama	Bolpur, Sriniketan	9800999132									0.26	3.72		
Nabakumar Mal	Lt Lakhikanta Mal	Damdama	Bolpur, Sriniketan	9563657275									0.26	3.74		
Bidyut Ghosh	Lt Madan Mohan Ghosh	Damdama	Bolpur, Sriniketan	8926842541									0.09	1.3		
Barid Ghosh	Lt Madan Mohan Ghosh	Damdama	Bolpur, Sriniketan	8926842541									0.13	1.85		
Nikhil Mal	Lt Renupada Mal	Damdama	Bolpur, Sriniketan	9635539016									0.26	3.83		
Magaram Laha	Lt Ganapati Laha	Damdama	Bolpur, Sriniketan	9800999127									0.33	4.77		
Arun Mal	Lt Sisir Mal	Damdama	Bolpur, Sriniketan	9153654535									0.26	3.8		
Bhim Kisku	Lt Madhab Kisku	Damdama	Bolpur, Sriniketan	9563087545									0.13	1.86		
Snahashish Ghosh	Lt Radhapada Ghosh	Damdama	Bolpur, Sriniketan	9434633018									0.13	1.79		
Niamai Majumdar	Shasikanta Majumdar	Albandha	Bolpur, Sriniketan	8348007989									0.09	1.28		
Sahdeb Ghosh	Lt Sudhir Ghosh	Albandha	Bolpur, Sriniketan	9851506113									0.09	1.31		
Tapan Mondal	Haladhar Mondal	Albandha	Bolpur, Sriniketan	8759094109									0.33	4.88		

Anima Mondal	Chittaranjan Mondal	Albandha	Bolpur, Sriniketan										0.26	3.9		
Shashanka Ghosh	Sridam Ghosh	Albandha	Bolpur, Sriniketan										0.13	1.81		
Balaram Majumdar	Shasikanta Majumdar	Albandha	Bolpur, Sriniketan	9647963116									0.13	1.78		
Jagannath Ghosh	Lt Biswanath Ghosh	Debanandapur	Bolpur, Sriniketan	9002287176									0.4	5.85		
Nirod Debangshi	Lt Kamalakkha Debangshi	Debanandapur	Bolpur, Sriniketan	9679896570									0.4	5.78		
Bhutnath Ghosh	Lt Atul Chandra Ghsoh	Debanandapur	Bolpur, Sriniketan	9232168945									0.09	1.32		
Mohadeb Pal	Lt Lakhikanta Pal	Debanandapur	Bolpur, Sriniketan	8327372365									0.13	2.1		
Uttam Kr Pandit	Lt Dijwapada Pandit	Kamalakantapur	Bolpur, Sriniketan	9800182053									0.13	2.12		
Rudranath Ghosh	Lt Basudeb Ghosh	Kamalakantapur	Bolpur, Sriniketan	8016785765									0.13	2.05		
Somnath Kar	Sushil Kar	Kamalakantapur	Bolpur, Sriniketan	8159982230									0.13	1.95		
Naresh Konra	Shanti Konra	Khejurdanga	Bolpur, Sriniketan										0.13	1.84		
Asish Konra	Lt Rammohan Konra	Khejurdanga	Bolpur, Sriniketan	9731714575									0.13	2		
Hemanta Konra	Dilip Konra	Khejurdanga	Bolpur, Sriniketan	8371072831									0.13	1.9		
Proshanta Konra	Binoy Konra	Khejurdanga	Bolpur, Sriniket	9647502470									0.13	1.95		

			an													
Narayan Konra	Lt Radhanath Konra	Khejurdanga	Bolpur, Sriniketan	8670026918									0.13	2.1		
Nishapati Konra	Balok Konra	Khejurdanga	Bolpur, Sriniketan										0.13	2.05		
Sasti Konra	Basudeb Konra	Khejurdanga	Bolpur, Sriniketan	7797278159									0.13	1.93		
Joydeb Konra	Lt Sannyasi Konra	Kamalakantapur	Bolpur, Sriniketan	7407437200									0.13	1.98		
Partha Konra	Gopinath Konra	Kamalakantapur	Bolpur, Sriniketan	9083419156									0.13	2.05		
Ganesh Konra	Gopal Konra	Kamalakantapur	Bolpur, Sriniketan	9775996387									0.13	1.94		
Pathik Konra	Dulal Konra	Kamalakantapur	Bolpur, Sriniketan	9063228363									0.13	1.88		
Koushik Konra	Haradhan Konra	Kamalakantapur	Bolpur, Sriniketan	9564562012									0.13	2.1		
Haradhan Konra	Bholanath Konra	Kamalakantapur	Bolpur, Sriniketan										0.13	2.15		
Bholanath Konra	Shivu Konra	Kamalakantapur	Bolpur, Sriniketan										0.13	1.9		
Sujit Saha	Lalit Mohan Saha	Kamalakantapur	Bolpur, Sriniketan	9832270404									0.13	1.9		
Rajkumar Ghosh	Baidyanath Ghosh	Kamalakantapur	Bolpur, Sriniketan	9749905859									0.13	1.95		
Pabitra Kr Pandit	Lt Tarapada Pandit	Kamalakantapur	Bolpur, Sriniketan	8101516478									0.13	2		
Prashanta Pandit	Lt Tarapada Pandit	Kamalakantapur	Bolpur, Sriniket										0.13	1.95		

			an													
Jagannath Hazra		Kamalakantapur	Bolpur, Sriniketan										0.13	2.05		
Anjali Mondal	Kritibas Mondal	Kamalakantapur	Bolpur, Sriniketan										0.13	1.85		
Srikanta Pandit	Pankhe Hazra	Kamalakantapur	Bolpur, Sriniketan										0.13	2.1		
Khetranath Ghosh	Basudeb Ghosh	Kamalakantapur	Bolpur, Sriniketan										0.13	1.99		
Bholanath Das	Nudhir Das	Paruldanga	Bolpur, Sriniketan	9635617026		23.697128	87.69542						0.13	1.95		
Mantu Dasbairagya	Guna Dasbairagya	Paruldanga	Bolpur, Sriniketan	9734224841		23.697281	87.69534						0.13	2.12		
Manik Lohar	Durgapada Lohar	Paruldanga	Bolpur, Sriniketan	8345964365		23.697281	87.69534						0.13	1.55		
Harichara n Lohar	Nabin Lohar	Paruldanga	Bolpur, Sriniketan	8972704676		23.697285	87.69531						0.13	1.6		
Ranjit Roy	Chandichar an Roy	Paruldanga	Bolpur, Sriniketan	9474010526		23.697253	87.69164						0.13	1.58		
Tapas Koyar	Jagannath Koyar	Paruldanga	Bolpur, Sriniketan	9474612443		23.697212	87.69215						0.13	1.61		
Sujit Roy	Bangshidha r Roy	Paruldanga	Bolpur, Sriniketan	9635116685		23.697233	87.69894						0.13	1.53		
Sukul Murmu	Mangal Murmu	Paruldanga	Bolpur, Sriniketan	7001073013		23.697658	87.69725						0.13	1.5		
Lakhiram Pauriya	Sukol Pauriya	Paruldanga	Bolpur, Sriniketan	9434945872		23.697632	87.69258						0.13	1.48		
Damodar Roy	Dulal chandra	Paruldanga	Bolpur, Sriniket	9475172005		23.697257	87.69598						0.13	1.62		

	Roy		an													
Rabi Lohar	Haladhar Lohar	Paruldanga	Bolpur, Sriniketan	7031414218		23.697254	87.69254						0.13	1.49		
Pareshnath Roy	Shibshankar Roy	Paruldanga	Bolpur, Sriniketan	9474978468		23.699364	87.69531						0.13	1.52		
Shambhu Murmu	Lakshman Murmu	Paruldanga	Bolpur, Sriniketan	8016435465		23.697281	87.69534						0.13	1.57		
Shibshankar Konra	Surendranath Koyar	Paruldanga	Bolpur, Sriniketan	9474409947		23.694547	87.69252						0.13	1.57		
Ranjit Mondal	Shyamapada Mondal	Paruldanga	Bolpur, Sriniketan	9474627294		23.697525	87.69551						0.13	1.61		
Mihir Roy	Kailashpati Roy	Paruldanga	Bolpur, Sriniketan	9232710252		23.697261	87.69531						0.13	1.6		
Madhusudan Roy	Narayan chandra Roy	Paruldanga	Bolpur, Sriniketan	9474022738		23.697281	87.69534						0.13	1.63		
Bipadtaran Das	Gopal Das	Paruldanga	Bolpur, Sriniketan	8972534345		23.697233	87.69535						0.13	1.58		
Partha Lohar	Baskar Lohar	Paruldanga	Bolpur, Sriniketan	8906866570		23.697283	87.69511						0.13	1.55		
Subodh Lohar	Durjadhan Lohar	Paruldanga	Bolpur, Sriniketan	8597426537		23.697281	87.69534						0.13	1.68		
Abdul Majid	Ishahoque	Kankutia	Bolpur, Sriniketan	8900397673									0.26	4.1		
Abdul Rahim	Ishahoque	Kankutia	Bolpur, Sriniketan	9476353855									0.13	2.12		
Monirul Hoque	Karim	Kankutia	Bolpur, Sriniketan	9474962171									0.26	4.05		
Amanulla Bar	Durgacharan Bar	Kartickdanga	Bolpur, Sriniket	9734232237									0.26	4.11		

			an													
Sukharanajan Mondal	Lt Jogesh Mondal	Kankutiya	Bolpur, Sriniketan	7407983170								0.33	5.07			
Binoy Ghosh	Badal Ghosh	Kankutiya	Bolpur, Sriniketan	9232232237								0.13	2.07			
Abdul Ajij	Sk Isha Hoque	Kankutiya	Bolpur, Sriniketan	8900397673								0.13	2.09			
Rasbihari Pal	Satis Pal	Deuli	Bolpur, Sriniketan									0.26	4.14			
Palash Chakrabarty	Swapan Chakrabarty	Deuli	Bolpur, Sriniketan	9584098339								0.33	5.02			
Subhadip Pandit	Gopinath Pandit	Kamalakantapur	Bolpur, Sriniketan	9163896436								0.4	5.6			
Madhab Konra	Lt Debasish Konra	Kamalakantapur	Bolpur, Sriniketan	8468027934								0.09	1.27			
Senapati Konra	Balak Konra	Kamalakantapur	Bolpur, Sriniketan									0.13	1.84			
Madhab Konra	Sattyapada Konra	Kamalakantapur	Bolpur, Sriniketan	8768027934								0.13	1.87			
Rabindranath Konra	Lalu Konra	Kamalakantapur	Bolpur, Sriniketan									0.26	3.5			
Minati Konra	Probhakar Konra	Kamalakantapur	Bolpur, Sriniketan									0.26	3.65			
Kabita Konra	Nitai Konra	Kamalakantapur	Bolpur, Sriniketan									0.13	1.82			
Lakshmiram Konra	Jagendranath Konra	Kamalakantapur	Bolpur, Sriniketan									0.09	1.27			
Sunil Konra	Mohadeb Konra	Kamalakantapur	Bolpur, Sriniket									0.13	1.84			

			an													
Suman Konra	Ramapada Konra	Kamalakantapur	Bolpur, Sriniketan										0.26	3.6		
Asish Das	Lt Majhi Das	Lokepur	Khoyrasole	8670519159		23.51883	87.16463						0.33	4.34		
Binoy Dhibar	Lt Dulal Dhibar	Lokepur	Khoyrasole	7432069475		23.51875	87.16443						0.33	4.6		
Pagal Dhibar	Lt Dulal Dhibar	Lokepur	Khoyrasole	8337878274		23.51874	87.16443						0.33	4.32		
Purna Dhibar	Dipu Dhibar	Lokepur	Khoyrasole	9564448624		23.51881	87.16242						0.33	4.66		
Ajit Dhibar	Lt Mohdeb Dhibar	Lokepur	Khoyrasole	8001526311		23.51871	87.16424						0.26	3.5		
Fanibhushan Mate		Senkapur	Bolpur, Sriniketan	8926536411									0.13	1.84		
Sonatan Mate		Senkapur	Bolpur, Sriniketan	8926536411									0.13	1.86		
Madhai Mate		Senkapur	Bolpur, Sriniketan	8926536411									0.13	1.84		
Bijoy Barman	Habal Barman	Deuli	Bolpur, Sriniketan	9800462364									0.13	1.84		
Duryadhan Barmaan	Lt Subal Barman	Deuli	Bolpur, Sriniketan	9635190194									0.13	1.86		
Nakul Barman	Lt Krishnagopal Barman	Deuli	Bolpur, Sriniketan	8016006399									0.13	1.82		
Laxminarayan Barman	Lt Krishnagopal Barman	Deuli	Bolpur, Sriniketan	9800462364									0.13	1.79		
Dhanakrishna Barman	Lt Krishnagopal Barman	Deuli	Bolpur, Sriniketan	9635729524									0.13	1.8		
Kartick Barman	Lt Krishnagopal Barman	Deuli	Bolpur, Sriniketan	9800462364									0.13	1.8		

Lakshminarayan Sen		Senkapur	Bolpur, Sriniketan	9933937720									0.13	1.88		
Anath Mate	Sarunarayan Mate	Senkapur	Bolpur, Sriniketan	9614888 34									0.13	1.81		
Dalim Barman	Lt Krishnagopal Barman	Deuli	Bolpur, Sriniketan	8926536411									0.13	1.86		
Tajkira Begam	Sk Rejak	Kendradangal	Bolpur, Sriniketan	8926536411									0.13	1.39		
Beli Bibi Begam		Kendradangal	Bolpur, Sriniketan	8926536411									0.13	1.32		
Sonali Hansda	Mangla Soren	Binuriya	Bolpur, Sriniketan										0.13	1.45		
Habib Mollick		Kendradangal	Bolpur, Sriniketan										0.13	1.58		

Crop 2: Lentil

Name of farmer	Father'sname	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)	Soil testing done (Yes	Recommendations based on soil	Brief technology intervention	Variety	Seed quantity	Area sown (ha.)		Yield of local	% increase

						Latitude	Longitude	/No)	test value			used		H	L	A	check q/ha	
											HUL-57	30 Kg /ha		14.90	10.15	13.05	7.50	74%
Abdul Smad	Ahaed Hossion	Gheropara	Bolpur, Sriniketan	9732253 34		23.619718	87.698345						0.26	3.31				
Rehana Bibi (Molla)	Sk Rousana	Gheropara	Bolpur, Sriniketan	9564615897		23.609692	87.698443						0.26	3.53				
Moullo Anarul Molla	Molla Ahamed	Gheropara	Bolpur, Sriniketan	7679080961		23.616601	87.695332						0.26	3.46				
Mir Rahamat Ali	Mir Soukat	Nurpur	Bolpur, Sriniketan	8670000188		23.628297	87.695324						0.26	2.61				
Rousanara Bibi	Kaji Abdul	Nurpur	Bolpur, Sriniketan	8145178482		23.618275	87.695809						0.26	2.83				
Mir Soukat Ali	Mir Ali Hossion	Nurpur	Bolpur, Sriniketan	7797285015		23.625945	87.694586						0.26	2.58				
Mir Barkat Ali	Mir Sarkat Ali	Nurpur	Bolpur, Sriniketan	8536885703		23.615487	87.694567						0.26	2.65				
Nur Mahamad Molla	Bajlur Molla	Nurpur	Bolpur, Sriniketan	8642956016		23.615679	87.691235						0.26	2.61				
Abdul Hakim	Abdul Rejajak	Nurpur	Bolpur, Sriniketan	9126886161		23.615435	87.691483						0.26	2.67				
Shibu Hemram	Musui Hemram	Nurpur	Bolpur, Sriniketan	9475303943		23.613246	87.694521						0.26	2.57				
Amir Hossion	Molla Bojlur Rahaman	Nurpur	Bolpur, Sriniketan	8436230337		23.618566	87.692235						0.26	2.66				

Riyajuddin Molla	Molla Bojlur Rahaman	Nurpur	Bolpur, Sriniketan	9563101610		23.613326	87.694125						0.13	1.35		
Molla Bojlur Rahaman	Molla Billal Hossion	Nurpur	Bolpur, Sriniketan	8617374350		23.615363	87.692359						0.13	1.28		
Doyamoy Dome	Lt Bimal Dome	Kamalpur	Khoyrasole	8145532117		23.515071	87.171571						0.13	1.21		
Radhashyam Dome	Lt Bimal Dome	Kamalpur	Khoyrasole	8670152949		23.510591	87.171601						0.13	1.35		
Shantiram Mondal	Bamapada Mondal	Shibpur	Khoyrasole	7602673024		23.516381	87.158991						0.13	1.37		
Madan Mohan Mondal	Lt Bhaktipada Mondal	Purbo Shibpur	Khoyrasole	7585878903		23.516311	87.158971						0.13	1.27		
Paban Kumar Gope	Baidyanath Gope	Purbo Shibpur	Khoyrasole	9547683648		23.516271	87.156782						0.26	2.49		
Ganesh Badyakar	Lt Sripati Badyakar	Kamalpur	Khoyrasole	8016373003		23.512789	87.156248						0.26	2.54		
Kartik Badyakar	Lt Sripati Badyakar	Kamalpur	Khoyrasole	7312651269		23.510157	87.175468						0.26	2.64		
Somnath Badyakar	Lt Sripati Badyakar	Kamalpur	Khoyrasole	7797534635		23.510441	87.171331						0.26	2.66		
Narayan Mondal	Lt Bholanath Mondal	Shibpur	Khoyrasole	8170013149		23.516291	87.152649						0.26	2.71		
Netai Mondal	Lt Mitan Mondal	Shibpur	Khoyrasole	7718202343		23.512467	87.157854						0.26	2.7		
Debabrata Singha	Basanta Kumar Singha	Shibpur	Khoyrasole	9547723218		23.516361	87.156235						0.26	2.68		
Asish Das	Lt Majhi Das	Lokepur	Khoyrasole	8670519159		23.514678	87.167859						0.26	2.65		
Binoy Dhibar	Lt Dulal Dhibar	Lokepur	Khoyrasole	7432069475		23.518425	87.164568						0.26	2.58		
Mohadeb Pal	Lt Lakkhikanta Pal	Debanandapur	Bolpur, Sriniketan	8327572365									0.26	3.85		
Jagannath Ghosh	Lt Biswanath Ghosh	Debanandapur	Bolpur, Sriniketan	9002287176									0.26	3.88		

Gouttam Pal	Lt Lakkhikanta Pal	Debanandapur	Bolpur, Sriniketan	9547311881									0.26	3.77		
Nirad Baran Debangshi	Lt Kamalakantapur	Debanandapur	Bolpur, Sriniketan	9679896570									0.26	3.83		
Somesh Pal	Ishpada Pal	Debanandapur	Bolpur, Sriniketan	9641857798									0.13	1.95		
Bhutnath Ghosh	Lt Atul Ghosh	Debanandapur	Bolpur, Sriniketan	9232168945									0.26	3.74		
Subadh Pal	Lt Bhudhar Chandra Pal	Debanandapur	Bolpur, Sriniketan	9932313954									0.26	3.68		
Sudeb Mondal	Lt Narugopal Mondal	Debanandapur	Bolpur, Sriniketan	9933615462									0.13	1.88		
Babulal Ghosh	Lt Sudhir Ghosh	Debanandapur	Bolpur, Sriniketan	9775764691									0.26	3.72		
Khudiram Debangshi	Lt Srinibash Debangshi	Debanandapur	Bolpur, Sriniketan	9002688159									0.13	1.91		
Anil Pal	Lt Budhar chandra Pal	Debanandapur	Bolpur, Sriniketan	8343834008									0.13	1.91		
Gobinda chandra Ghosh	Lt Bidur chandra Ghosh	Debanandapur	Bolpur, Sriniketan	9647509443									0.13	1.9		
Lalan Ghosh	Ganesh Chandra Ghosh	Debanandapur	Bolpur, Sriniketan	9474832961									0.13	1.98		
Santosh Ghosh	Lt Sridam Chandra Ghosh	Debanandapur	Bolpur, Sriniketan	8670003237									0.33	4.88		
Ashok Pal	Lt Khetranath Pal	Debanandapur	Bolpur, Sriniketan	9547312220									0.26	3.75		
Kalipada Ghosh	Lt Anil Chandra	Debanandapur	Bolpur, Sriniket	8900665459									0.13	1.87		

	Ghosh		an														
Sunil Pal	Lt Bhudhar Chandra Pal	Debanandapur	Bolpur, Sriniketan	8642039490									0.13	1.89			
Ashutosh Ghosh	Lt Sridam Chandra Ghosh	Debanandapur	Bolpur, Sriniketan	9800056258									0.26	3.76			
Samiran Pal	Tarapada Pal	Debanandapur	Bolpur, Sriniketan	9002287135									0.13	1.92			
Madhab Pal	Purnachandra Pal	Debanandapur	Bolpur, Sriniketan	9635966906									0.33	4.9			
Ajit Hemram	Lt Bhure Hemram	Domdama	Bolpur, Sriniketan										0.13	1.75			
Lada Hemram	Lt Chunu Hemram	Domdama	Bolpur, Sriniketan										0.13	1.8			
Lakhiram Mardi	Pandu Mardi	Domdama	Bolpur, Sriniketan										0.33	4.91			
Bhim Hansda	Renga Hansda	Domdama	Bolpur, Sriniketan	9563087545									0.26	3.8			
Utpal Murmu	Chanda Murmu	Domdama	Bolpur, Sriniketan										0.13	1.73			
Matal Murmu	Lt Kinu Murmu	Domdama	Bolpur, Sriniketan										0.26	3.82			
Pandu Mardi	Lt Lakkhiram Mardi	Domdama	Bolpur, Sriniketan										0.13	1.81			
Jhampu Kisku	Bhim Kisku	Domdama	Bolpur, Sriniketan										0.13	1.92			
Jiban Murmu	Ganesh Murmu	Domdama	Bolpur, Sriniketan										0.13	1.87			
Mandal Kisku	Lt Daman Kisku	Domdama	Bolpur, Sriniket										0.13	1.82			

			an														
Partha Mondal	Manik Mondal	Gopdighi	Labpur	9749836849									0.13	1.94			
Rabindranath Pal	Janajan Pal	Gopdighi	Labpur	8371948673									0.13	1.91			
Arun Das	Sukumar Das	Gopdighi	Labpur	9002326622									0.13	1.89			
Sk Sattar	Sk Mahabub Ali	Gopdighi	Labpur	9593514377									0.13	1.94			
Utpal Ghosh	Ashok Ghosh	Gopdighi	Labpur	8372912799									0.13	1.93			
Hasina Bibi	Sk Kanik	Dhandanga	Labpur										0.13	1.88			
Rokimuddin Mollick	Jalli Mollick	Dhandanga	Labpur										0.13	1.92			
Nurshobha Bibi	Koran Mollick	Dhandanga	Labpur										0.13	1.94			
Kajliul Hoque	Jalli Mollick	Dhandanga	Labpur	8670145236									0.13	1.94			
Sk Musthabin	Sk Saikot	Dhandanga	Labpur	9775372090									0.13	1.96			
Malati Biswas	Krishnapada Biswas	Kalinagar	Labpur	9002176948									0.13	1.91			
Hasnahara Bibi	Md. Hasan	Kalinagar	Labpur	9564881028									0.13	1.9			
Sattar Sk	Sk Murab Ali	Gajipara	Labpur	9593514377									0.13	1.95			
Partha Mondal	Manik Mondal	Gopdighi	Labpur	9749836849									0.13	1.88			
Utpal Ghosh	Ashok Ghosh	Gopdighi	Labpur	8372912799									0.13	1.92			
Pronab Kumar Mondal	Krishna Mondal	Gopdighi	Labpur	7797787138									0.13	1.89			
Rabindranath Pal	Janardan Pal	Gopdighi	Labpur	8371948673									0.13	1.94			
Abdul Badrijaml	Sk Abdul Maman	Gajipara	Labpur	8967125454									0.13	1.88			

Sk																	
Anish Sk	Mahamad Mannayar Mirdha	Gajipara	Labpur	9732073659									0.13	1.93			
Godadhar Mondal	Ganapati Mondal	Gopdighi	Labpur	9647972869									0.13	1.91			
Khakon Pal	Sisir Pal	Benapara	Labpur	9932808488									0.13	1.97			
Sk Nazrul	Sk Muktar	Gajipara	Labpur	7797032080									0.13	1.89			
Sk Mursalim	Sk Muktar	Gajipara	Labpur	9564816413									0.13	1.94			
Arun Kumar Das	Sukumar Das	Gopdighi	Labpur	9002326622									0.13	1.94			
Nilima Kabiraj	Tribhanga Murari Ghosh	Gopdighi	Labpur										0.13	1.96			
Kartik Mondal	Nemar Mondal	Gopdighi	Labpur										0.13	1.87			
Anima Mondal	Prosanta Mondal	Gopdighi	Labpur										0.13	1.89			
Ranjit Mondal	Bankim Mondal	Gopdighi	Labpur										0.26	3.9			
Anima Das	Budhan Das	Gopdighi	Labpur	7872416778									0.13	1.84			
Bhabani Mate	Swadhin Mate	Gopdighi	Labpur	7717307859									0.13	1.94			
Protima Bagdi	Kartik Bagdi	Batika	Illambazar										0.13	1.71			
Jhaku Bagdi	Bapi Bagdi	Batika	Illambazar										0.13	1.67			
Purnima Bagdi	Ranjit Bagdi	Batika	Illambazar										0.13	1.69			
Kalyaniya Bagdi	Nadiananda Bagdi	Batika	Illambazar										0.13	1.68			
Sabita Bagdi	Rabiram Bagdi	Batika	Illambazar										0.13	1.71			
Tumpa Bagdi	Sukhlal Bagdi	Batika	Illambazar										0.13	1.73			
Tunu	Nilkumar	Batika	Illamba	787268									0.13	1.65			

Bagdi	Bagdi		zar	9409												
Padma Bagdi	Chandan Bagdi	Batika	Illamba zar										0.13	1.65		
Rita Bagdi	Baga Bagdi	Batika	Illamba zar										0.13	1.68		
Mamata Bagdi	Barun Bagdi	Batika	Illamba zar										0.13	1.7		
Tulsi Dome	Probhat Dome	Batika	Illamba zar										0.16	2.1		
Anima Dome	Bikash Dome	Batika	Illamba zar	9800826241									0.13	1.72		
Renuka Dome	Prosad Dome	Batika	Illamba zar										0.13	1.73		
Radharani Bagdi	Proshanta Bagdi	Batika	Illamba zar										0.13	1.67		
Bulu Bagdi	Haladhar Bagdi	Batika	Illamba zar										0.13	1.68		
Rupa Bagdi	Jaladhar Bagdi	Batika	Illamba zar										0.13	1.68		
Sanaka Bagdi	Arun Bagdi	Batika	Illamba zar										0.13	1.7		
Moni Bagdi	Nirmal Bagdi	Batika	Illamba zar										0.13	1.59		
Gita Bagdi	Dino Bagdi	Batika	Illamba zar										0.13	1.66		
Fulu Bagdi	Bimal Bagdi	Batika	Illamba zar										0.13	1.71		
Radharani Bagdi	Siju Bagdi	Batika	Illamba zar	9749410347									0.13	1.68		
Sumitra Bagdi	Purnachandra Bagdi	Batika	Illamba zar										0.13	1.65		
Uttra Bagdi	Sanatan Bagdi	Batika	Illamba zar										0.13	1.67		
Niyati Bagdi	Ahare Bagdi	Batika	Illamba zar										0.13	1.7		
Aparna Bagdi	Joydeb Bagdi	Batika	Illamba zar										0.13	1.21		
Jhuma Bagdi	Khudiram Bagdi	Batika	Illamba zar										0.26	3.52		
Chinta Bagdi	Jaharlal Bagdi	Batika	Illamba zar										0.13	1.67		

Latika Bagdi	Shyamal Bagdi	Batika	Illambazar										0.13	1.7		
Protima Bagdi	Ananda Bagdi	Batika	Illambazar										0.13	1.71		
Alpana Bagdi	Sukumar Bagdi	Batika	Illambazar										0.13	1.72		

Crop 3: Field Pea

Name of farmer	Father'sname	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes /No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Area sown (ha.)				Yield of local check q/ha	% increase
						Latitude	Longitude							H	L	A		
											Rachna	60 Kg /ha		15.00	9.05	12.25	4.20	191 %
Chhabirani Tudu	Anil Mardi	Faripur	Sriniketan , Bolpur	8926536411									0.13	1.92				
Mohini Tudu	Mangla Murmu	Faripur	Sriniketan , Bolpur	8926536411									0.26	3.92				
Rashi Kisku	Sadayan Mardi	Faripur	Sriniketan , Bolpur	9609646189									0.4	5.95				
Makhan Tudu	Shibu Murmu	Faripur	Sriniketan , Bolpur	9609646189									0.13	1.89				

Hiramoni Tudu	Sanat Murmu	Faripur	Sriniketan , Bolpur	9609646189									0.13	1.95		
Moni Hansda	Mahon Tudu	Faripur	Sriniketan , Bolpur	9609646189									0.33	4.88		
Buri Tudu	Badal Soren	Faripur	Sriniketan , Bolpur	8926536411									0.13	1.87		
Kambo Kisku	Lakhiram Murmu	Faripur	Sriniketan , Bolpur	9609646189									0.13	1.92		
Budin Tudu	Jagai Soren	Faripur	Sriniketan , Bolpur	9609646189									0.13	1.93		
Lakshmi Murmu	Ram Murmu	Faripur	Sriniketan , Bolpur	8597054298									0.13	1.95		
Chaitali Tudu	Badan Mardi	Faripur	Sriniketan , Bolpur	9609646189									0.13	1.9		
Sukhi Murmu	Sukal Murmu	Faripur	Sriniketan , Bolpur	9609646189									0.33	4.91		
Lakshmi Mardi	Gobinda Murmu	Faripur	Sriniketan , Bolpur	9609646189									0.33	4.9		
Uttam Chakrabarty		Dewali	Sriniketan , Bolpur	8926536411									0.13	1.95		
Dhanakrishna Barman		Dewali	Sriniketan , Bolpur	8926536411									0.13	1.87		
Lakshmi Narayan Sen		Senkapur	Sriniketan , Bolpur	8926536411									0.13	1.9		
Sk Aktar	Sk Banik	Dhanadanga	Labpur	9775910290									0.26	3.88		
Hakima Bibi	Sk Samsudraha	Dhanadanga	Labpur	9647740590									0.13	1.25		
Sk	Sk Hanif	Dhanadanga	Labpur	788723									0.33	4.72		

Furhadi				2728												
Sk Furhas	Sk Hanif	Dhanadanga	Labpur	8436398452									0.26	2.47		
Nur Shobha Bibi	Koran Mollick	Dhanadanga	Labpur	8436319800									0.13	1.4		
Rakimuddin Mollick	Jalli Mollick	Dhanadanga	Labpur	7872385895									0.13	1.26		
Samser Mollick	Jalli Mollick	Dhanadanga	Labpur	7797694278									0.13	1.29		
Sk Alinwaz	Sk Ramjan	Dhanadanga	Labpur	8640981983									0.13	1.3		
Kajlul Hoque Mollick	Jalli Mollick	Dhanadanga	Labpur	8670145236									0.13	1.25		
Sk Mustabim	Sk Tairikar	Dhanadanga	Labpur	9775372090									0.4	3.8		
Sk Mohirul Hoque	Sk Jajirs	Dhanadanga	Labpur	9735693660									0.13	1.22		
Sk Abdul Jani	Sk Iliyash	Dhanadanga	Labpur	9564441644									0.13	1.24		
Sk Safikul	Sk Anish	Dhanadanga	Labpur	7031115147									0.13	1.42		
Sk Rahaman	Abutaher	Dhanadanga	Labpur	9734760847									0.33	3.12		
Janiba Bibi	Sk Sarkat	Dhanadanga	Labpur	9775966681									0.33	3.09		
Ajad Sk	Sk Sarkat	Dhanadanga	Labpur	9775966681									0.13	1.23		
Sk Nousad	Sk Kudus	Dhanadanga	Labpur	9800081469									0.13	1.24		
Amirul Islam Mollick	Abdul Jabbar	Dhanadanga	Labpur	8116818485									0.13	1.17		
Sk Alim	Sk Mustambi	Dhanadanga	Labpur	7076100188									0.13	1.21		
Munsur Mollick	Majur Ali	Dhanadanga	Labpur	983273999									0.13	1.2		
Sk	Sk Badiyo	Dhanadanga	Labpur	977537									0.26	2.38		

Mustabim	Samani			2090												
Sk Manirul Hoque	Sk Nur Islam	Dhanadanga	Labpur	9735693660									0.13	1.45		
Sk Abdul Jani	Ibrahim	Dhanadanga	Labpur	9564441644									0.13	1.25		
Sk Rahaman	Abutaher	Dhanadanga	Labpur	9734760847									0.4	4.7		
Ajad Sk	Sk Ismail	Dhanadanga	Labpur	9775966681									0.13	1.16		
Sukal Murmu	Mangal Murmu	Keodaha	Sriniketan , Bolpur	8172064993									0.33	4.23		
Baidynath Mardi	Tumui Mardi	Keodaha	Sriniketan , Bolpur	8371024595									0.13	1.66		
Chand Murmu	Lt Lakkhiram Mardi	Keodaha	Sriniketan , Bolpur	7679456066									0.26	3.2		
Srikrishna Murmu	Chundu Murmu	Keodaha	Sriniketan , Bolpur										0.13	1.56		
Lakhu Murmu	Sukal Murmu	Keodaha	Sriniketan , Bolpur	7478706232									0.09	1.6		
Som Hemram	Sukal Hembram	Keodaha	Sriniketan , Bolpur										0.13	1.61		
Badi Mardi	Babai Mardi	Keodaha	Sriniketan , Bolpur										0.13	1.67		
Som Kisku	Lakshman Kisku	Keodaha	Sriniketan , Bolpur	7384388625									0.4	4.9		
Som Mardi	Bishu Mardi	Keodaha	Sriniketan , Bolpur										0.13	1.67		
Lebu Murmu	Som Murmu	Keodaha	Sriniketan , Bolpur	7098308530									0.28	3.43		
Som Murmu	Mahon Murmu	Keodaha	Sriniketan ,	8972022822									0.13	1.66		

			Bolpur													

Rabi Oilseeds,2017-18

B. 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	Mustard	B-9	10.05	136	72	595	Var. NC-1 + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	62	10	13.05	10.50	11.75	129	244	29
2	Linseed	Local Improved	4.25	180	75	775	Var. Sekhar + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	113	40	10.50	4.75	8.12	215	516	50
3	Sesame	Tilottoma	Crop is now in seedling stage				Var. Savitri + Herbicides, Micronutrient spray	180	40	Crop is now in seedling stage					
							Total	**355**	**90**						

E. Economic parameters

Sl. No.	Variety demonstrated & Technology	Farmer's Existing plot				Demonstration plot				Farmers, feedback
		Gross	Gross return	Net Return	B:C	Gross Cost	Gross return	Net Return	B:C	

	demonstrated	Cost (Rs/ha)	(Rs/ha)	(Rs/ha)	Ratio	(Rs/ha)	(Rs/ha)	(Rs/ha)	Ratio	
1	NC-1 (Improved variety) + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	19983	50250	30267	2.50	20982	58750	37768	2.80	Additional net return Rs. 7501/ ha The new variety can assure yield even under rice fallow situation. It has good oil content. Farmers like yellow sarsoon more than mustard
2	Sekhar (Improved variety) + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	14665	29750	15085	2.02	15851	56840	40989	3.59	Additional net return Rs. 25904/ha. New variety with appropriate management in linseed is more profitable than mustard in particularly their late sown condition

F. 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	Mustard Var. NC-1	11750	125	50.00	Rest is kept for extracting oil and sowing seeds in the next season.	-	Payment of labour bill, Fertilizer and pesticide cost	18
2	Linseed var. Sekhar	32480	150	70.00	Rest is kept for extracting oil and sowing seeds in the next season.	-	Payment of labour bill, Fertilizer and pesticide cost	14

G. Oilseed Farmer's 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.	Var. NC-1 + 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	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of	Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Low cost quality herbicides and micro-nutrients should be

				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.		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 tc.	encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

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**

2.	Var. Sekhar + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer the new improved variety of Linseed i.e. Deepika / Sekhar; as the existing variety of Local Improved gives a very poor yield.	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 etc. The demand in local market of the crop is not satisfactory.	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.

E) Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Crop: Mustard, Var. NC-1			
1.Plant height (cm):	Height is less	New technology: 70 Local check:88	16.9 % 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. 7501/ha than local check which is very much encouraging for mustard cultivation even in rice fallow situation
2.No. of branches/ plant:	Highly branched	New technology: 5 Local check: 4	
3.No. of pods /plant: 20-25	Higher	New technology: 25 Local check: 21	
Crop: Linseed, Var. Sekhar			
1. Plant height (cm):	Height is more	New technology:30 Local:24	91 % 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. 25904/ha than local check which is very much encouraging for linseed cultivation even under rice fallow situation
2.No. of branches/ plant:	Highly branched	New technology:13 Local check: 6	
3.No. of pods /plant: 14-20	Higher	New technology: 29 Local check: 15	

1.	Training Programme of Oilseed production Technologies in Kharif Season	30.05.2017 Rathindra KVK	13
2.	Training Programme of Crop diversification through Oilseed cultivation in Kharif season	22.06.2017 Rathindra KVK	23

3.	Training Programme of Improved Methods of Oilseeds Cultivation in Kharif Season for crop diversification.	13.07.2017 Rathindra KVK	25
4.	Training Programme of Improved Methods of Oilseeds Cultivation in Kharif Season for crop diversification.	27.07.2017 A.D. A office, Bolpur Block. Birbhum	35
5.	Cultivation Practices & Budget of Linseed cultivation at ETV.	23.02.2017 AIR, FM Santiniketan	Not assessed
6.	Broadcasting Live Phone In programme in crop diversification through cultivation of kharif sesame	1.8.2017 AIR, FM Santiniketan	Not assessed
7.	Telecasting recording programme on cultivation of kharif oilseeds with special reference to sesame	9.8.2017 DD, Santiniketan	Not Assessed
8.	Training Programme of Sowing and Fertilizer Management Production Technology in Kharif Sesame with Improved variety Savitri crop diversification.	4.08.2017 Daranda.Birbhum	24
9.	Training Programme of Crop diversification through Oilseed cultivation in Kharif season	15.09.2017 A.D.A office, Labpur Block. Birbhum	22
10.	Training Programme of Crop Sowing Line and Sowing methods Oilseed of Rapeseed Mustard Cultivation.	14.10.2017 Rampurhat Block-I, Birbhum	27
11.	Training Programme of Enhancing Production Oilseed of Mustard & Linseed in Rabi Season and crop diversification.	28.11.2017 Rathindra KVK	12
12.	Training Programme of Sowing & Herbicide application of Summer Sesame.	03.03.2018 Rathindra KVK	15
13.	Training Programme of Improved package of practices for Production Technology Summer Sesame.	06.03.2018 Faridpur, with A.D. A Bolpur Block. Birbhum	36

G) Extension activities under FLD conducted till dates:

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

Rathindra KVK Scientists at the On-Campus Training Programme on the Cluster FLD Programme on Rabi Oilseeds

Photographs of Seed DistributionMustard & Linseed


CLUSTER FRONTLINE
OILSEED
17-18
KRISHI VIGYAN KENDRA
MUSTARD
NC1

Rathindra KVK Staff at the Field of Cluster FLD Linseed at the Vegetative Stage

Rathindra KVK Scientist collecting Data at the Flowering Stage of Linseed

Rathindra KVK Technology Agent collecting Data at the Fruiting Stage of Linseed


Cluster F.L.D. 2017-18
On Oilseeds
Crop:- Linseed

Rathindra KVK Technology Agent collecting Data at the Flowering Stage of Mustard

Rathindra KVK Technology Agent collecting Data at the Fruiting Stage of Mustard

Rathindra KVK Staff at the Field of Cluster FLD Sesame at the seedling Stage


Cluster FLD, 2017-18
On Oilseed
Crop: Sesame
Var: Savitri
Rabindra KVK, PSB, Sriniketan, Birbhum

H) Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Rabi summer 2017-18, Oilseed (Rapeseed, Mustard, Linseed)	i) Critical input	The statement will be provided after payment of all pending bills		
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv)Publication of literature etc.			
Total				

I). List of Farmer under FLD (Crop wise)

c) Crop1:- Mustard

Name of farmer	Father's name	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Area sown (ha.)	Demo Yield (q/ha)			Yield of local check q/ha	% increase
						Latitude	Longitude							H	L	A		
											NC-1	6 Kg/ha		13.05	10.50	11.75	10.05	16.9%
Godai Ghosh	Ratan Ghosh	Rajatpur	Bolpur,Srinikетan,	8670076681		23°37'35.7''	87°41'44.8''						0.33			3.2		
Uday Ghosh	Ratan Ghosh	Rajatpur	Bolpur,Srinikетan,	8670076681		23°37'37.11''	87°41'48.21''						0.26			2.75		
Krtick Ghosh	Lt Muktipada Ghosh	Rajatpur	Bolpur,Srinikетan,	8116108128		23°37'36.8''	87°41'47.4''						0.13			1.3		
Rabi Soren	Shibu Soren	Rajatpur	Bolpur,Srinikетan,	8145596731		23°37'37.5''	87°41'46.8''						0.13			3.1		
Binad Tudu	Mongla Tudu	Rajatpur	Bolpur,Srinikетan,	8670076681		23°37'36.21''	87°41'47.17''						0.26			2.71		
Gopal Chandra Mondal	Profulla Mondal	Rajatpur	Bolpur,Srinikетan,	9933737552		23°37'38.7''	87°41'48.3''						0.33			3.1		
Profulla Mondal	Shasti Charan Mondal	Rajatpur	Bolpur,Srinikетan,	9732289865		23°37'36.11''	87°41'43.7''						0.13			2.65		
Basudeb Mate	Helaram Mate	Rajatpur	Bolpur,Srinikетan,	9647864728		23°37'37.7''	87°41'44.8''						0.13			1.4		

Jhatak Mate	Kanai Mate	Rajatpur	Bolpur ,Srinik etan,	9126261659		23°37'37.7''	87°41'46.8''						0.26	1.2		
Ajit Mondal	Baneswar Mondal	Rajatpur	Bolpur ,Srinik etan,	8946021553		23°37'37.7''	87°41'48.8''						0.13	2.75		
Mohadeb Ghosh	Lt Tarapada Ghosh	Rajatpur	Bolpur ,Srinik etan,	8436163271		23°37'39.7''	87°41'47.7''						0.33	1.3		
Gouranga Ghosh	Mohadeb Ghosh	Rajatpur	Bolpur ,Srinik etan,	9593955197		23°37'38.5''	87°41'45.7''						0.13	3.1		
Kashinath Ghosh	Lt Samir Ghosh	Rajatpur	Bolpur ,Srinik etan,	8436270018		23°37'37.7''	87°41'48.8''						0.13	2.71		
Ranjit Das	Lt Nandadulal Das	Rajatpur	Bolpur ,Srinik etan,	9126244564		23°37'37.7''	87°41'48.8''						0.13	2.65		
Anupam Ghosh	Mohadeb Ghosh	Rajatpur	Bolpur ,Srinik etan,	8436163271		23°37'37.10''	87°41'46.9''						0.26	1.4		
Sukumar Mal	Lt Shasti Charan Mondal	Rajatpur	Bolpur ,Srinik etan,	7872108883		23°37'37.7''	87°41'47.11''						0.13	1.4		
Bikash Das	Ranjit Das	Rajatpur	Bolpur ,Srinik etan,	9126244564		23°37'35.7''	87°41'44.8''						0.13	1.4		
Khakon Das	Lt Kangal Das	Rajatpur	Bolpur ,Srinik etan,	8617582428		23°37'37.11''	87°41'48.21''						0.13	3.1		
Nimai Das	Khakon Das	Rajatpur	Bolpur ,Srinik etan,	9563369020		23°37'36.8''	87°41'47.4''						0.13	3.1		
Lakhan Das	Khakon Das	Rajatpur	Bolpur ,Srinik etan,	7540050014		23°37'37.5''	87°41'46.8''						0.13	3.2		
Akash	Kashin	Rajatpur	Bolpur	81588404		23°37'36.2	87°41'47.17						0.33	3.47		

Chandra Das	ath Das		,Srinik etan,	87		1''	''									
Tusharkanti Ghosh	Swaja n Ghosh	Rajatpur	Bolpur ,Srinik etan,	91264300 27		23°37'38.7' '	87°41'48.3''						0.13	1.4		
Raju Hazra	Jagai Hazra	Rajatpur	Bolpur ,Srinik etan,	97325237 09		23°37'36.1 1''	87°41'43.7''						0.26	2.5		
Tusharkanti Ghosh	Swaja n Ghosh	Rajatpur	Bolpur ,Srinik etan,	91264300 27		23°37'37.7' '	87°41'48.8''						0.13	1.5		
Khakon Pande	Billa Monga l Pande	Rajatpur	Bolpur ,Srinik etan,	90021469 25		23°37'37.7' '	87°41'48.8''						0.13	1.2		
Rabi Pande	Billa Monga l Pande	Rajatpur	Bolpur ,Srinik etan,	96473296 61		23°37'37.1 0''	87°41'46.9''						0.13	1.37		
Bijoy Das	Khoka Das	Rajatpur	Bolpur ,Srinik etan,	75480500 14		23°37'37.7' '	87°41'47.11 ''						0.13	1.6		
Surojit Mondal	Ajit Monda l	Rajatpur	Bolpur ,Srinik etan,	89460215 53		23°37'35.7' '	87°41'44.8''						0.13	1.6		
Manatosh Mondal	Ajit Monda l	Rajatpur	Bolpur ,Srinik etan,	89448621 33		23°37'37.1 1''	87°41'48.21 ''						0.13	1.4		
Kandan Hansda	Lt Lakha n Hansd a	Rajatpur	Bolpur ,Srinik etan,	85977050 94		23°37'36.8' '	87°41'47.4''						0.13	1.2		
Siddhinath Hansda	Lt Kadu m Hansd a	Mahuli	Bolpu r,Srini ketan,	85977050 94									0.13	1.35		
Das Mardi	Chaita nno Mardi	Mahuli	Bolpur ,Srinik etan,	96097098 31									0.13	1.37		

Lakshmi Mardi	Das Mardi	Mahuli	Bolpur ,Srinik etan,	9609709831									0.13	1.37		
Thakur Mardi	Sukui Mardi	Mahuli	Bolpur ,Srinik etan,	8537982894									0.13	1.4		
Rabilal Hansda	Lt Kesto Hansda	Mahuli	Bolpur ,Srinik etan,	9547091697									0.13	1.5		
Ganesh Mardi	Som Mardi	Mahuli	Bolpur ,Srinik etan,	7478871936									0.13	1.2		
Jiban Ghosh	Lt Purnac handra Ghosh	Rajatpur	Bolpur ,Srinik etan,	8348558249		23°37'37.7''	87°41'48.8''						0.13	1.6		
Nabakumar Ghos	Lt Purnac handra Ghosh	Rajatpur	Bolpur ,Srinik etan,	8436015767		23°37'37.7''	87°41'48.8''						0.13	1.35		
Chhato Mardi	Lt Ram Mardi	Mahuli	Bolpur ,Srinik etan,	8348524459									0.13	1.3		
Ram Mardi	Chhato Mardi	Mahuli	Bolpur ,Srinik etan,	8348524459									0.12	1.26		
Kader Sk	Asgar Sk	Gitgram	Bolpur ,Srinik etan,	9126633855									0.13	1.35		
Lakshmiram Hembram	Rabi Hembram	Mahuli	Bolpur ,Srinik etan,	9609790831									0.13	1.4		
Jiban Samanta	Lt Dulal Chandra Samanta	Abhirampur	Bolpur ,Srinik etan,	7384427791									0.13	1.2		
Shyamabati Samanta	Biku Chandra	Abhirampur	Bolpur ,Srinik etan,	7384427791									0.13	1.5		

	Samanta															
Lakshman Mondal	Mihir Chanda Mondal	Abhirampur	Bolpur,Srinikетan,	9564862368									0.13	1.3		
Sukumar Mate	Habal Mate	Rajatpur	Bolpur,Srinikетan,	8670076681		23°37'37.7''	87°41'48.8''						0.13	1.37		
Bikash Ghosh	Lt Tarapada Ghosh	Rajatpur	Bolpur,Srinikетan,	7063179066		23°37'37.7''	87°41'48.8''						0.12	1.41		
Somnath Mate	Madhu Mate	Rajatpur	Bolpur,Srinikетan,	9775368682		23°37'37.10''	87°41'46.9''						0.136	1.3		
Charan Majhi	Thakur Majhi	Rajatpur	Bolpur,Srinikетan,	9609490831		23°37'37.7''	87°41'47.11''						0.12	1.3		
Basu Ghosh	Tarapada Ghosh	Rajatpur	Bolpur,Srinikетan,	7384427791		23°37'35.7''	87°41'44.8''						0.13	1.36		
Ram Hembram	Lt Som Hembram	Ramnagar	Illambazar	7063366774									0.13	1.65		
Jiten Mal	Nirmal Mal	Ramnagar	Illambazar										0.13	1.68		
Mukul Mal	Budinath Mal	Ramnagar	Illambazar	9563989512									0.13	1.72		
Naton Mal	Gopal Mal	Ramnagar	Illambazar										0.13	1.69		
Manaoranjan Bhattarcharya	Chittaranajan Bhattacharya	Ramnagar	Illambazar	7076296733									0.13	1.65		
Dilip Mal	Rakhahari Mal	Ramnagar	Illambazar	8972849518									0.26	3.25		
Satyanarayan	Lt Amar	Ramnagar	Illambazar										0.26	3.18		

Bhattacharya	Bhattacharya															
Naresh Mal	Shibu Mal	Ramnagar	Illambazar	9563989512									0.134	1.74		
Farida Bibi	Sk Parimal	Ramnagar	Illambazar										0.13	1.61		
Hansda Bibi	Sk Toyeb	Ramnagar	Illambazar										0.12	1.47		
Parul Nisha Bibi	Intaj Miya	Shukna	Md.Bazer	7872084085									0.26	2.73		
Sakilababu Bibi	Akarim Miya	Shukna	Md.Bazer	9475171802									0.26	3.18		

d) Crop2:- Linseed

Name of farmer	Father'sname	Village	Block	Mobile No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Area sown (ha.)	Demo Yield (q/ha)			Yield of local check q/ha	% increase
						Latitude	Longitude				Sekhar	22.5 Kg/ha		H	L	A	4.25	91%
														10.50	4.75	8.12		
Utsab Ghosh	Pronab Ghosh	Damdam	Bolpur, Sriniketan,	9800999132									0.13	1.31				

Nabakumar Ghosh	Lakhikanta Ghosh	Damdam	Bolpur, Srinikетan,										0.33	3.02		
Bidyut Ghosh	Madan Mohan Ghosh	Damdam	Bolpur, Srinikетan,	9126062800									0.26	2.45		
Barid Baran Ghosh	Madan Mohan Ghosh	Damdam	Bolpur, Srinikетan,	9126062800									0.33	3.05		
Nikhil Mal	Renupada Mal	Damdam	Bolpur, Srinikетan,										0.26	2.45		
Sagar Moy Laha	Sanapati Laha	Damdam	Bolpur, Srinikетan,	9800999127									0.26	2.52		
Arun Mal	Sisir Mal	Damdam	Bolpur, Srinikетan,										0.33	2.99		
Srehashish Ghosh	Radhapada Ghosh	Damdam	Bolpur, Srinikетan,	9434633018									0.56	5.45		
Balarama Majumdar	Shashikanta Majumdar	Damdam	Bolpur, Srinikетan,	8348007989									0.33	3.15		
Naba Kumar Mal	Lakhikanta Mal	Damdam	Bolpur, Srinikетan,										0.33	3.12		
Godai Ghosh	Ratan Ghosh	Rajatpur	Bolpur, Srinikетan,	8670076681									0.33	2.75		
Uday Ghosh	Ratan Ghosh	Rajatpur	Bolpur, Srinikетan,	8670076681									0.26	2.15		
Krtick Ghosh	Lt Muktipada Ghosh	Rajatpur	Bolpur, Srinikетan,	8116108128									0.33	2.72		
Rabi Soren	Shibu Soren	Rajatpur	Bolpur, Srinikетan,	8145596731									0.26	2.22		
Binad Tudu	Mongla Tudu	Rajatpur	Bolpur, Srinikетan,	8670076681									0.26	2.18		

Gopal Chandra Mondal	Profulla Mondal	Rajatpur	Bolpur, Srinikетan,	9933737552									0.33	3.7		
Profulla Mondal	Shasti Charan Mondal	Rajatpur	Bolpur, Srinikетan,	9732289865									0.26	2.21		
Basudeb Mate	Helaram Mate	Rajatpur	Bolpur, Srinikетan,	9647864728									0.33	2.68		
Jhatak Mate	Kanai Mate	Rajatpur	Bolpur, Srinikетan,	9126261659									0.33	2.71		
Ajit Mondal	Baneswar Mondal	Rajatpur	Bolpur, Srinikетan,	8946021553									0.33	2.73		
Mohadeb Ghosh	Lt Tarapada Ghosh	Rajatpur	Bolpur, Srinikетan,	8436163271									0.33	2.85		
Gouranga Ghosh	Mohadeb Ghosh	Rajatpur	Bolpur, Srinikетan,	9593955197									0.33	2.82		
Ranjit Das	LtNandadu lal Das	Rajatpur	Bolpur, Srinikетan,	9126244564									0.33	2.88		
Khakon Das	Lt Kangal Das	Rajatpur	Bolpur, Srinikетan,	8617582428									0.33	2.81		
Nimai Das	Khakon Das	Rajatpur	Bolpur, Srinikетan,	9563369020									0.33	2.98		
Sukumar Mal	Lt Shasti Charan Mondal	Rajatpur	Bolpur, Srinikетan,	7872108883									0.33	2.69		
Khakon Pande	Billa Mongal Pande	Rajatpur	Bolpur, Srinikетan,	9002146925									0.33	3.15		
Rabi Pande	Billa Mongal Pande	Rajatpur	Bolpur, Srinikетan,	9647329661									0.33	3.02		
Bapan Mondal	Ajit Mondal	Rajatpur	Bolpur, Srinikетan,	8946021553									0.33	2.1		

Langal Das	Lt Khakon Das	Rajatpur	Bolpur, Srinike tan,	7548050014									0.26	2.3		
Bablu Hembram	Lt Babulal Hembram	Kadamhir	Md.Ba zar	8016681042									0.33	2.12		
Abdul Majid	Lt Isahoque	Kankutiy a	Bolpur, Srinike tan,	8900397673									0.26	4.2		
Lakhinaray an Sen	Aakupada Sen	Senkapur	Bolpur, Srinike tan,	9933937720									0.33	2.2		
Rasbihari Pal	Lt Jatin Pal	Deoli	Bolpur, Srinike tan,	8642816888									0.33	2.3		
Sanat Kumar Ghosh	Lt bShaktipad a Ghosh	Deoli	Bolpur, Srinike tan,	8001683002									0.56	2.1		
Leul Mate	Ranjit Mate	Senkapur	Bolpur, Srinike tan,										0.33	2.8		
Kartick Garain	Durgapada Garain	Kamalaka ntapur	Bolpur, Srinike tan,	9800164934									0.36	2.3		
Debi Garain	Sistidhar Garain	Kamalaka ntapur	Bolpur, Srinike tan,	8972170054									0.33	2.12		
Papiya Garain	Lt Ganga Garain	Kamalaka ntapur	Bolpur, Srinike tan,	9609641687									0.33	4.2		
Malati Biswas	Krishnapa da Biswas	Kalinagar Kaloni	Labpur	9002176948									0.33	2.2		
Hasnahara Bibi	Md.Hassio n	Kusumga ria	Labpur	9564881028									0.56	2.66		
Sadhu Sk	Sk Bodi Jamal		Labpur	8145481750									0.33	2.1		
Anish Mridha	Ahamad Manna Mridha	Gajipara	Labpur	9593951437 8									0.33	2.8		
Sk Sattar	Sk Murad Ali	Chouhatt a,Gajipar a	Labpur	9593951437 8									0.33	2.2		
Premanand	Lt	Sundipur	Labpur	9635966942									0.33	2.1		

a Mondal	Radhashyam Mondal															
Kenaram Bhandary	Nimai Bhandary	Kholakuri	Dubrajpur	8768540056									0.26	2.4		
Tapas Bagdi	Lt Mangal Bagdi	Kholakuri	Dubrajpur	7586991154									0.56	2.3		
Chandan Mondal	Sushil Mondal	Kholakuri	Dubrajpur	8927937390									0.33	2.2		
Asim Bagdi	Satyaban Bagdi	Punglapur	Dubrajpur	9564057213									0.33	2.3		
Dilip Saha	Dhiren Saha	Punglapur	Dubrajpur	8145405251									0.33	2.1		
Binoy Saha	Fatick Saha	Punglapur	Dubrajpur	8972094259									0.33	2.8		
Sadananda Saha	Fatick Saha	Punglapur	Dubrajpur	8145612252									0.33	2.2		
Jagannath Bagdi	Shakti Bagdi	Punglapur	Dubrajpur										0.33	2.1		
Sishir Mondal	Nimai Mondal	Baidyanathpur	Dubrajpur										0.33	2.3		
Sanat Bagdi	Shankar Bagdi	Protappur	Dubrajpur										0.33	2.12		
Swapan Das	Dhananjoy Das	Katapalan	Dubrajpur	7872536854									0.33	2.25		
Jadab Roy	Bhaktipada Roy	Katapalan	Dubrajpur	9732205412									0.33	2.7		
Binoy Bagdi	Joyaram Bagdi	Katapalan	Dubrajpur	9734328265									0.33	2.1		
Sridam Bagdi	Sahadeb Bagdi	Katapalan	Dubrajpur										0.33	2.3		
Nepal Ghosh	Anath Ghosh	Katapalan	Dubrajpur	758599975									0.33	2.12		
Sanatan Ghosh	Gambhiram Ghosh	Katapalan	Dubrajpur	9679879718									0.33	4.2		
Lkkhi Korah	Dhanu Murmu	Alupahari	Md.Bazar										0.33	2.7		
Arshu Marandi	Ganesh Murmu	Beldanga	Md.Bazar	9933616873									0.13	1.07		
Som Marandi	Gopal Marandi	Beldanga, Chuamal	Md.Bazar	7584857337									0.56	4.6		
Debnath Soren	Sakal Soren	Beldanga, Chuamal	Md.Bazar										0.26	2		

Khuriya Murmu	Bhuku Murmu	Sukna	Md.Bazar									0.56	4.68		
Dulouro Soren	Babulal Soren	Choukisal	Md.Bazar									0.33	2.8		
Basai Hembram	Kalu Hembram	Joypur	Md.Bazar									0.26	2.1		
Shuk bali Besra	Lakkhiram Besra	Alupahari	Md.Bazar									0.33	2.3		
Damu Soren	Gadaram Soren	Beldanga, Chuamal	Md.Bazar									0.26	2.12		
Josef Murmu	Som Murmu	Beldanga, Chuamal	Md.Bazar									0.56	4.2		
Gosai Konra	Ukil Konra	Alupahari	Md.Bazar	8145607657								0.33	2.7		
Rajib Konra	Gosai Konra	Alupahari	Md.Bazar	9734089525								0.33	2.68		
Kajali Konra	Rajib Konra	Alupahari	Md.Bazar									0.56	4.4		
Narayan Hansda	Chandu Hansda	Choukisal	Md.Bazar	7384537212								0.33	2.4		
Sripati Hemram	Jiten Hemram	Muralpur	Md.Bazar	7407091378								0.26	2.1		
Lakhiram Besra	Ram Besra	Alupahari	Md.Bazar									0.56	5.23		
Ram Marandi	Bholanath Marandi	Choukisal	Md.Bazar									0.56	4.8		
Nirmal Murmu	Rameswar Murmu	Muralpur	Md.Bazar									0.33	2.8		
Dactar Hemram	Naren Hemram	Muralpur	Md.Bazar									0.56	4.3		
Subhash Murmu	Amin Murmu	Muralpur	Md.Bazar									0.33	2.41		
Sumitra Hemram	Khakon Hembram	Kadamhir	Md.Bazar									0.56	4.55		
Maku Soren	Gupil Soren	Kadamhir	Md.Bazar									0.56	4.52		
Kalidasi Murmu	Som Murmu	Kadamhir	Md.Bazar									0.26	2.15		
Misuti Soren	Bijoy Soren	Kadamhir	Md.Bazar									0.33	2.2		
Kalamoni Hemram	Budi Hemram	Kadamhir	Md.Bazar									0.33	2.3		

Panmoni Hansda	Panggi Hansda	Kadamhir	Md.Bazar										0.33	2.6		
Saraswati Baski	Lal Baski	Kadamhir	Md.Bazar										0.56	4.7		
Buri Murmu	Chandraoy Murmu	Kadamhir	Md.Bazar										0.26	2.12		
Rabi Marandi	Shibu Marandi	Kadamhir	Md.Bazar										0.33	2.7		
Kalomuni Murmu	Lakshman Murmu	Kadamhir	Md.Bazar										0.56	4.3		
Remati Marandi	Sitaram Marandi	Kadamhir	Md.Bazar										0.33	2.3		
Sonamoni Hemram	Jiten Hemram	Kadamhir	Md.Bazar										0.33	2.75		
Ramoni Hemram	Jalpa Hemram	Kadamhir	Md.Bazar										0.56	4.6		
Sanadi Hemram	Gopal Hemram	Kadamhir	Md.Bazar										0.33	2.8		
Basanti Murmu	Lt Sushil Murmu	Kadamhir	Md.Bazar										0.56	4.5		
Minati ,Murmu	Mistri Murmu	Kadamhir	Md.Bazar										0.33	2.65		
Radhuni Marandi	Ajit Marandi	Kadamhir	Md.Bazar										0.33	2.15		
Mamali Marandi	Pargana Marandi	Kadamhir	Md.Bazar										0.56	4.57		
Badali Soren	Ruplal Soren	Kadamhir	Md.Bazar										0.33	2.7		
Saraswati Soren	Lt Boyla Soren	Kadamhir	Md.Bazar										0.33	2.8		
Sukul Murmu	Mangal Murmu	Keundaha	Bolpur, Srinikетan,	8172064993									0.33	3.46		
Mangla Baski	Badala Baski	Keundaha	Bolpur, Srinikетan,	9564749942									0.28	2.95		
Sukal Marari	Lt Lakkhiram Marari	Keundaha	Bolpur, Srinikетan,	7797787476									0.28	2.93		
Sanjit Garain		Khanyerpara	Ahamadpur,Sainthia	8001414470									0.33	3.5		

Baidyanath Marari	Tumus Marari	Keundaha	Ahamadpur,Sainthia	9564749942									0.33	3.32		
Lakshi Hansda	Jiten Hansda	Shukna	Md.Bazar	8945021034									0.33	3.47		
Sonamoni Soren	Chunto Soren	Shukna	Md.Bazar	8372826253									0.33	3.15		
Parul Nisha Bibi	Intaj Miya	Shukna	Md.Bazar	7872084085									0.33	1.59		
Rebiya Bibi	Siraj Miya	Shukna	Md.Bazar	9800494259									0.56	5.4		
Skelababu Bibi	Akrim Miya	Shukna	Md.Bazar	9475171802									0.33	2.8		
Sahar Babu Bibi	Inman Miya	Shukna	Md.Bazar	8016985394									0.26	3		
Jamila Bibi	Siraj Miya	Shukna	Md.Bazar	9775794115									0.33	2.82		

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

A) Farmers and farm women (on campus)

Thematic Area	No. of Courses	No. of Participants									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	03	19	16	35	29	03	32	00	14	14	48	33	81
Cropping Systems													
Crop Diversification	04	61	01	62	17	04	21	05	00	05	83	05	88
Integrated Farming													
Water management													
Seed production	02	40	11	51	08	00	08	05	00	05	53	11	64
Nursery management													
Integrated Crop Management	02	24	03	27	05	00	05	00	02	02	29	05	34
Fodder production	01	08	08	16	00	00	00	00	00	00	08	08	16
Production of organic inputs	04	63	05	68	33	07	40	03	00	03	99	12	111
Others, (cultivation of crops)	06	83	11	94	30	02	32	33	05	38	146	18	164
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any (Cultivation of Vegetable)	02	24	06	30	03	10	13	01	20	21	28	36	64
Training and Pruning													
b) Fruits													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													

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
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
e) Tuber crops													
Production and Management technology	01	01	00	01	00	00	00	00	30	30	01	30	31
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management	02	28	05	33	01	03	04	11	02	13	40	10	50
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
IV. Livestock Production and Management													
Dairy Management	05	85	04	89	13	00	13	04	00	04	102	04	106
Poultry Management	02	09	05	14	08	22	30	01	03	04	18	30	48
Piggery Management													
Rabbit Management	01	00	05	05	00	12	12	00	13	13	00	30	30
Disease Management	03	00	07	07	00	52	52	16	15	31	16	74	90
Feed management	02	25	11	36	02	00	02	05	02	07	32	13	45
Production of quality animal products													
Others, if any Goat farming	02	08	13	21	06	00	06	07	06	13	21	19	40
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening													
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs	01	10	00	10	06	00	06	00	00	00	16	00	16
Storage loss minimization techniques													

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
Enterprise development													
Value addition	02	13	18	31	05	16	21	00	00	00	18	34	52
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts	02	00	11	11	00	22	22	00	07	07	00	40	40
Capacity building													
Women and child care													
Others, if any													
VI.Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	05	71	03	74	31	00	31	22	09	31	124	12	136
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides	02	21	00	21	12	00	12	20	10	30	53	10	63
Others, if any													
VIII. Fisheries													
Integrated fish farming	03	28	23	51	16	06	22	12	01	13	56	30	86
Carp breeding and hatchery management													
Carp fry and fingerling rearing	01	16	00	16	03	00	03	00	00	00	19	00	19
Composite fish culture & fish disease	01	12	00	12	08	00	08	03	00	03	23	00	23
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													

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
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	01	16	00	16	00	00	00	00	00	00	16	00	16
Group dynamics	01	06	06	12	01	03	04	01	13	14	08	22	30
Formation and Management of SHGs													
Mobilization of social capital	02	06	01	07	05	02	07	08	34	42	19	37	56
Entrepreneurial development of farmers/youths	01	13	00	13	05	01	06	03	00	03	21	01	22
WTO and IPR issues	01	14	03	17	01	00	01	00	00	00	15	03	18
Others, if any (Crop Insurance and Agricultural Credits)	05	37	27	64	10	24	34	06	43	49	53	94	147
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems	01	11	01	12	03	03	06	00	02	02	14	06	20
XII. Others (Pl. Specify)													
TOTAL	**71**	**752**	**204**	**956**	**261**	**192**	**453**	**166**	**231**	**397**	**1179**	**627**	**1806**

B) Rural Youth (on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Mushroom Production													
Bee-keeping													
Integrated farming	01	11	12	23	03	01	04	01	02	03	15	15	30
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													

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
Dairying													
Sheep and goat rearing													
Quail farming	01	08	02	10	06	00	06	00	04	04	14	06	20
Piggery	01	00	00	00	00	00	00	15	15	30	15	15	30
Rabbit farming													
Poultry production													
Ornamental fisheries													
Enterprise development	01	06	00	06	06	00	06	05	00	05	17	00	17
Para vets													
Para extension workers	01	07	00	07	05	00	05	04	04	08	16	04	20
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													
TOTAL	**05**	**32**	**14**	**46**	**20**	**01**	**21**	**25**	**25**	**50**	**77**	**40**	**117**

C) Extension Personnel (on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	03	81	03	84	08	01	09	02	03	05	91	07	98
Value addition													
Integrated Pest Management	14	488	00	488	23	00	23	00	00	00	511	00	511
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers	02	67	00	67	04	00	04	00	00	00	71	00	71

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
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals	02	68	00	68	04	00	04	00	00	00	72	00	72
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	02	64	00	64	04	00	04	00	00	00	68	00	68
Gender mainstreaming through SHGs													
TOTAL	**23**	**768**	**03**	**771**	**43**	**01**	**44**	**02**	**03**	**05**	**813**	**07**	**820**

D) Farmers and farm women (off campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
I. Crop Production													
Weed Management													
Resource Conservation Technologies	01	13	10	23	09	17	26	00	01	01	22	28	50
Cropping Systems	01	21	00	21	01	00	01	00	00	00	22	00	22
Crop Diversification	02	49	00	49	04	00	04	04	00	04	57	00	57
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management													
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)	01	24	00	24	03	00	03	00	00	00	27	00	27
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													

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
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops	01	06	00	06	10	00	10	20	00	20	36	00	36
Nutrient Use Efficiency													
Soil and Water Testing	01	32	00	32	15	00	15	03	00	03	50	00	50
Others, if any													
IV. Livestock Production and Management													
Dairy Management													
Poultry Management	03	29	28	57	16	19	35	07	03	10	52	50	102
Piggery Management	02	00	00	00	00	00	00	40	60	100	40	60	100
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products													
Others, if any Goat farming	01	00	20	20	00	29	29	00	01	01	00	50	50
V. Home Science/Women empowerment													

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
Household food security by kitchen gardening and nutrition gardening	01	00	16	16	00	32	32	00	02	02	00	50	50
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques	01	00	00	00	00	00	00	00	10	10	00	10	10
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care	01	00	09	09	00	25	25	00	16	16	00	50	50
Others, if any													
VI.Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	02	76	00	76	49	00	49	25	00	25	150	00	150
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any (Safe Use of Pesticides)	01	16	04	20	11	04	15	00	00	00	27	08	35
VIII. Fisheries													
Integrated fish farming	01	09	00	09	19	02	21	05	05	10	33	07	40
Carp breeding and hatchery management													
Carp fry and fingerling rearing	01	02	01	03	01	26	27	00	01	01	03	28	31
Composite fish culture & fish disease	04	14	16	30	46	78	124	00	00	00	60	94	154
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													

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
Fish processing and value addition													
Others, if any (Recent Techniques in Fish Production)	01	19	09	28	14	02	16	00	03	03	33	14	47
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any (Crop Insurance and Agricultural Credit)	03	47	38	85	26	45	71	00	03	03	73	86	159
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	**29**	**357**	**151**	**508**	**224**	**279**	**503**	**104**	**105**	**209**	**685**	**535**	**1220**

E)RURAL YOUTH (Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Mushroom Production													
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													

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
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
TOTAL													

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													

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
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													
TOTAL													

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	04	32	26	58	38	20	58	00	15	15	70	61	131
Cropping Systems	01	21	00	21	01	00	01	00	00	00	22	00	22
Crop Diversification	06	110	01	111	21	04	25	09	00	09	140	05	145
Integrated Farming													
Water management													
Seed production	02	40	11	51	08	00	08	05	00	05	53	11	64
Nursery management													
Integrated Crop Management	02	24	03	27	05	00	05	00	02	02	29	05	34
Fodder production	01	08	08	16	00	00	00	00	00	00	08	08	16
Production of organic inputs	04	63	05	68	33	07	40	03	00	03	99	12	111
Others, (cultivation of crops)	07	107	11	118	33	02	35	33	05	38	173	18	191
TOTAL	**27**	**405**	**65**	**470**	**139**	**33**	**172**	**50**	**22**	**72**	**594**	**120**	**714**
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising													
Exotic vegetables like Broccoli													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													

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 (Cultivation of Vegetable)	02	24	06	30	03	10	13	01	20	21	28	36	64
TOTAL	**02**	**24**	**06**	**30**	**03**	**10**	**13**	**01**	**20**	**21**	**28**	**36**	**64**
b) Fruits													
Training and Pruning													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
TOTAL													
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
TOTAL													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
e) Tuber crops													
Production and Management technology	01	01	00	01	00	00	00	00	30	30	01	30	31
Processing and value addition													
Others, if any													
TOTAL	**01**	**01**	**00**	**01**	**00**	**00**	**00**	**00**	**30**	**30**	**01**	**30**	**31**
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
TOTAL													
III. Soil Health and Fertility Management													
Soil fertility management	02	28	05	33	01	03	04	11	02	13	40	10	50
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops	01	06	00	06	10	00	10	20	00	20	36	00	36

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Nutrient Use Efficiency													
Soil and Water Testing	01	32	00	32	15	00	15	03	00	03	50	00	50
Others, if any													
TOTAL	**04**	**66**	**05**	**71**	**26**	**03**	**29**	**34**	**02**	**36**	**126**	**10**	**136**
IV. Livestock Production and Management													
Dairy Management	05	85	04	89	13	00	13	04	00	04	102	04	106
Poultry Management	05	38	33	71	24	41	65	08	06	14	70	80	150
Piggery Management	02	00	00	00	00	00	00	40	60	100	40	60	100
Rabbit Management	01	00	05	05	00	12	12	00	13	13	00	30	30
Disease Management	03	00	07	07	00	52	52	16	15	31	16	74	90
Feed management	02	25	11	36	02	00	02	05	02	07	32	13	45
Production of quality animal products													
Others, if any (Goat farming)	03	08	33	41	06	29	35	07	07	14	21	69	90
TOTAL	**21**	**156**	**93**	**249**	**45**	**134**	**179**	**80**	**103**	**183**	**281**	**330**	**611**
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	01	00	16	16	00	32	32	00	02	02	00	50	50
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs	01	10	00	10	06	00	06	00	00	00	16	00	16
Storage loss minimization techniques													
Enterprise development													
Value addition	02	13	18	31	05	16	21	00	00	00	18	34	52
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts	02	00	11	11	00	22	22	00	07	07	00	40	40
Capacity building													
Women and child care	01	00	09	09	00	25	25	00	16	16	00	50	50
Others, if any													
TOTAL	**07**	**23**	**54**	**77**	**11**	**95**	**106**	**00**	**25**	**25**	**34**	**174**	**208**
VI.Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
TOTAL													
VII. Plant Protection													
Integrated Pest Management	07	147	03	150	80	00	80	47	09	56	274	12	286
Integrated Disease Management													
Bio-control of pests and diseases													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Production of bio control agents and bio pesticides	02	21	00	21	12	00	12	20	10	30	53	10	63
Others, if any (Safe Use of Pesticides)	01	16	04	20	11	04	15	00	00	00	27	08	35
TOTAL	**10**	**184**	**07**	**191**	**103**	**04**	**107**	**67**	**19**	**86**	**354**	**30**	**384**
VIII. Fisheries													
Integrated fish farming	04	37	23	60	35	08	43	17	06	23	89	37	126
Carp breeding and hatchery management													
Carp fry and fingerling rearing	02	18	01	19	04	26	30	00	01	01	22	28	50
Composite fish culture & fish disease	05	26	16	42	54	78	132	03	00	03	83	94	177
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 (Recent Techniques in Fish Production)	01	19	09	28	14	02	16	00	03	03	33	14	47
TOTAL	**12**	**100**	**49**	**149**	**107**	**114**	**221**	**20**	**10**	**30**	**227**	**173**	**400**
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													
TOTAL													
X. Capacity Building and Group Dynamics													
Leadership development	01	16	00	16	00	00	00	00	00	00	16	00	16
Group dynamics	01	06	06	12	01	03	04	01	13	14	08	22	30
Formation and Management of SHGs													
Mobilization of social capital	02	06	01	07	05	02	07	08	34	42	19	37	56
Entrepreneurial development of farmers/youths	01	13	00	13	05	01	06	03	00	03	21	01	22
WTO and IPR issues	01	14	03	17	01	00	01	00	00	00	15	03	18
Others, if any (Crop Insurance and Agricultural Credit)	08	84	65	149	36	69	105	06	46	52	126	180	306
TOTAL	**14**	**139**	**75**	**214**	**48**	**75**	**123**	**18**	**93**	**11**	**205**	**243**	**448**

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
										1			
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems	01	11	01	12	03	03	06	00	02	02	14	06	20
TOTAL	**01**	**11**	**01**	**12**	**03**	**03**	**06**	**00**	**02**	**02**	**14**	**06**	**20**
XII. Others (Pl. Specify)													
TOTAL													

ii. RURAL YOUTH (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Mushroom Production													
Bee-keeping													
Integrated farming	01	11	12	23	03	01	04	01	02	03	15	15	30
Seed production													
Production of organic inputs													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming	01	08	02	10	06	00	06	00	04	04	14	06	20
Piggery	01	00	00	00	00	00	00	15	15	30	15	15	30
Rabbit farming													
Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers	01	07	00	07	05	00	05	04	04	08	16	04	20
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													

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
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Enterprise development	01	06	00	06	06	00	06	05	00	05	17	00	17
Others if any (ICT application in agriculture)													
TOTAL	**05**	**32**	**14**	**46**	**20**	**01**	**21**	**25**	**25**	**50**	**77**	**40**	**117**

iii. Extension Personnel (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	03	81	03	84	08	01	09	02	03	05	91	07	98
Integrated Pest Management	14	488	00	488	23	00	23	00	00	00	511	00	511
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	02	67	00	67	04	00	04	00	00	00	71	00	71
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals	02	68	00	68	04	00	04	00	00	00	72	00	72
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	02	64	00	64	04	00	04	00	00	00	68	00	68
Gender mainstreaming through SHGs													
Crop intensification													
Others if any													
TOTAL	**23**	**768**	**03**	**771**	**43**	**01**	**44**	**02**	**03**	**05**	**813**	**07**	**820**

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

Please see Annexure – II

Discipline	**Clientele**	**Title of the training programme**	**Duration in days**	**Venue (Off / On Campus)**	**Number of participants**			**Number of SC/ST**		
					Male	**Female**	**Total**	**Male**	**Female**	**Total**

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**			**Number of persons employed else where**
				Male	**Female**	**Total**	**Type of units**	**Number of units**	**Number of persons employed**	
Oilseed and Pulse	Crop Diversification	Orientation of Activities of KVK in Crop Diversification and Farming System	01	15	15	30	Farm producing Pulse and Oilseeds	05	05	10
Mobile Soil Testing	Soil Health Management	Soil Testing and Soil Health Card Preparation	21	17	00	17	Mobile Soil Testing	07	07	03
Quail Farm	Poultry Management	Quail Farming	07	14	06	20	Quail Farm	06	06	01
Piggery	Piggery Management	Pig Farming	30	15	15	30	Piggery	08	08	02
Para Extension Worker	Extension Service Provider	Agriculture Extension Service Provider	23	16	04	20	Para Extension Worker	14	14	02
Total			**82**	**77**	**40**	**117**		**40**	**40**	**18**

*training title should specify the major technology /skill transferred**I) Sponsored Training Programmes**

Sl. No.	Title	Thematic Area	Month	Duration (on days)	Client	No. of Courses	No. of Participants									Sponsoring Agency
							Male			Female			Total			
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total
1	Plan Protection- a general idea	IPM	December	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
2	Nutrient Management	INM	December	1	EF	1	35	2	0	0	0	0	35	2	0	37	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
3	Integrated pest management- method of application & advantage	IPM	December	1	EF	1	29	2	0	0	0	0	29	2	0	31	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
4	Visit to KVK Instructional Farm to observe farm activities		December	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
5	Soil testing based fertilizer management	INM	December	1	EF	1	35	2	0	0	0	0	35	2	0	37	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad,**

																	Telengana
6	Seed treatment	IPM	December	1	EF	1	29	2	0	0	0	0	29	2	0	31	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
7	Use of Organic Fertilisers and medicines in nursery culture and composite fish culture	Composite Fish Culture	January	1	EF	1	29	2	0	0	0	0	29	2	0	31	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
8	Package and practices of potato cultivation	Integrated Crop Management	January	1	EF	1	36	2	0	0	0	0	36	2	0	38	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
9	Insecticide act, rules, quarantine law	IPM	January	1	EF	1	38	2	0	0	0	0	38	2	0	40	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
10	Weed and Herbicide	IWM	January	1	EF	1	37	2	0	0	0	0	37	2	0	39	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
11	Method of preparation of balance fish feed and the require rate of application in ponds.	Fish Feed Management	January	1	EF	1	29	2	0	0	0	0	29	2	0	31	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad,**

																	Telengana
12	Integrated pest management of Potato	IPM	January	1	EF	1	36	2	0	0	0	0	36	2	0	38	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
13	Evolution of Pesticide.	IPM	January	1	EF	1	38	2	0	0	0	0	38	2	0	40	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
14	Practical: Field Visit of Agriculture Farm to identify different pest and disease problems	IPM	January	1	EF	1	37	2	0	0	0	0	37	2	0	39	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
15	Visit to agricultural and rural technology fair (MaghMela) at Visva-Bharati	Organization of Farmers' Fair	February	1	EF	1	35	2	0	0	0	0	35	2	0	37	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
16	Insect behaviour and quiz exam.	IPM	February	1	EF	1	38	2	0	0	0	0	38	2	0	40	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
17	Medicines used in curing fish disease	Fish Disease Management	February	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and**

																	Farmers' welfare, Govt. of India, Hyderabad, Telengana
18	Weed management in rice and other kharif crops.	IWM	February	1	EF	1	37	2	0	0	0	0	37	2	0	39	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
19	Field visit and demonstration of different research plot in Horticultural Farm	Vegetable Production	February	1	EF	1	38	2	0	0	0	0	38	2	0	40	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
20	Use of organic inputs in sustainable agriculture.	IPM	February	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
21	Classification and different category of plant disease.	IDM	February	1	EF	1	37	2	0	0	0	0	37	2	0	39	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
22	Fertiliser control and essential commodity act	INM	March	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**

23	Identification of plant diseases of graninaceous crop like rice, wheat,, sugarcane, and maize etc. and their management.	Integrated Crop Management	March	1	EF	1	33	2	0	0	0	0	33	2	0	35	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
24	Diseases of spices and condiments and their management	IDM	March	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
25	Improve Agronomic practices for cultivation of summer oilseed crop.	Crop Diversification	March	1	EF	1	33	2	0	0	0	0	33	2	0	35	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
26	Fertilizer control and essential commodity act	INM	March	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
27	Practical class: pest and disease management of mango orchard	IPM	March	1	EF	1	33	2	0	0	0	0	33	2	0	35	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
28	Chemical used to control toxicity and algal bloom in village ponds	Fish Pond Management	March	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**

29	Improve Agronomic practices for cultivation of summer Pulse crop.	Crop Diversification	March	1	EF	1	33	2	0	0	0	0	33	2	0	35	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
30	Practical class: Rice pest and disease identification and management.	IPM	March	1	EF	1	34	2	0	0	0	0	34	2	0	36	**MANAGE, Ministry of Agriculture and Farmers' welfare, Govt. of India, Hyderabad, Telengana**
Total				**30**		**30**	**1031**	**60**	**00**	**00**	**00**	**00**	**1031**	**60**	**00**	**1091**	

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

Nature of Extension Activity	No. of activities	Farmers				Extension Officials			Total		
		M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
Field Day	27	637	380	1017	52	96	48	144	733	428	1165
KisanMela	02	359	353	712	58	30	04	34	389	357	746
KisanGhosthi											
Exhibition											
Film Show	03	201	54	255	51	05	02	07	206	56	262
Method Demonstrations											
Farmers Seminar	01	50	05	55	42	05	02	07	55	07	62
Workshop											
Group meetings											
Lectures delivered as resource persons											
Advisory Services through Kisan Mobile SMS Services	204	42198	11723	53921	40	48	24	72	42246	11747	53993
Scientific visit to farmers field	137	375	110	485	50	107	49	156	482	159	641
Farmers visit to KVK	124	259	159	418	31	106	48	154	365	207	572
Diagnostic visits											
Exposure visits	13	520	211	731	40	20	06	26	540	217	757
Ex-trainees Sammelan											
Soil health Camp											
Animal Health Camp	10	239	198	437	54	40	20	60	279	218	497
Agri mobile clinic											
Soil test campaigns											
Farm Science Club Conveners meet											
Self Help Group Conveners meetings											
MahilaMandals Conveners meetings											
Celebration of important days (specify) (Soil Health Day)	01	70	34	104	51	04	02	06	74	36	110

Sankalp Se Siddhi	01	541	120	661	56	34	06	40	575	126	701
Swatchta Hi Sewa											
MahilaKisan Divas	01	00	51	51	61	04	02	06	04	53	57
Any Other (Specify) Awareness Camp	04	2111	09	220	51	05	02	07	216	11	227
Any Other (Specify) Web Casting of Honourable Prime Minister's Inaugural Speech of Biennial National Conference of KVKs - 2018	01	294	77	371	60	06	02	08	300	79	379
Total	**528**	**45954**	**13484**	**49438**	**49.26**	**510**	**217**	**727**	**46464**	**13701**	**60165**

B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	07
Radio talks	19
TV talks	13
Popular articles	-
Extension Literature	06
Other, if any	-

3.5 a. Production and supply of Technological products

Village seed

Crop	Variety	Quantity of seed (q)	Value (Rs)	No. of farmers involved in village seed production	Number of farmers to whom seed provided
Paddy	MTU-7029, IR – 36, IET – 4786, GB – 1, MTU - 1010	240.00	7,02,000.00	62	Yet to be sold
Black Gram	WBU – 109, PU - 31	318.60	17,52,300.00	157	710
Sesame	Sabitri	410.00	18,86,000.00	186	920
Green Gram	Samrat, Panna	266.00	15,96,000.00	132	631
Total		**1234.60**	**59,36,300.00**	**537**	**2261**

KVK farm

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom seed provided
Ground Nut	TAG - 24	03.60	Rs. 36,000.00	Distributed among 18 numbers of Farmers
Green Gram	SAMRAT	01.00	Rs. 15,000.00	28 Kilo Grams were utilized in OFT of RKVK and rest kept in Go-Down.

Elephant Foot Yam	Gajendra (Kavoor)	02.00	Rs. 12,000.00	Distributed among 20 numbers of FLD Partner Farmers.
Paddy	Rani Dhan	32.00	Rs. 96,000.00	Kept in Go-Down
Paddy	Gotra Bidhan - 3	22.00	Rs. 66,000.00	7.35 Quintals are already sold and sale is going on.
Ekangi	*K. galanga*	02.00	Rs. 22,000.00	Kept in KVK Go-Down.
Green Gram	Samrat	-	-	Crop is in growing stage.
Grand Total		**62.6**	**2,47,000.00**	

Production of planting materials by the KVKs

Crop	Variety	No. of planting materials	Value (Rs)	Number of farmers to whom planting material provided
Vegetable seedlings				
Cauliflower				
Cabbage	Shonar - 8989	2000 in numbers	4,000.00	40
Tomato	PS - 31	3000 in numbers	6,000.00	70
Brinjal	Blue Master (UT)	2000 in numbers	4,000.00	40
Chilli	Suryamukhi	3000 in numbers	6,000.00	50
Onion				
Others (Broccoli)	Green Magic	3000 in numbers	12,000.00	60
Others (Capsicum)	Mahabharat	3000 in numbers	12,000.00	70
Fruits				
Mango				
Guava				
Lime				
Papaya	Pusa Dwarf	500 in numbers	7,500.00	40
Banana				
Others (Drumsticks)	PKM –1	100 in numbers	2,000.00	10
Ornamental plants				
Medicinal and Aromatic				
Plantation				
Spices				
Turmeric				
Tuber				
Elephant yams				
Fodder crop saplings				
Forest Species				
Others, pl.specify				
Total		**16,600 in numbers**	**53,500.00**	**380**

Production of Bio-Products

Name of product	Quantity Kg.	Value (Rs.)	No. of Farmers benefitted
Bio-fertilizers***(Azolla)***	417.0	20,850.00	360.0 kgs. were utilized in FLD Programmes and 56.0 kgs. of *Azolla* was utilized in the OFT Programmes undertaken by Rathindra KVK.
Bio-pesticide			
Bio-fungicide			
Bio-agents (Earth-Worm) (*Eisenia foetidae*)	4,700 in nos.	2,350.00	Earth-worms were supplied to 45 numbers of the farmers free of cost for encouragement in

			future use.
Others, please specify.**(Vermin-Compost*)***	862.0	8620.00	161.0 kgs. of Vermi-Compost were sold and remaining the Vermi-compost was used in KVK Flower and Vegetable garden.
Total		**31,820.00**	

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Small ruminants				
Sheep				
Goat				
Other, please specify				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail	Japanese Quail	180	9,000.00	15
Turkey				
Emu				
Ducks	Khaki Campbell	60	9,000.00	10
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp				
Exotic carp				
Mixed carp				
Fish fingerlings				
Spawn	Indian Major Carps and Exotic Carps	12,00,000	14,400.00	10
Others (Pl. specify)				
Grand Total		12,000,240	32,400.00	35

3.5. b. Seed Hub Programme-*"Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India"* – **Not Applicable**

i) Name of Seed Hub Centre:

Name of Nodal Officer :	
Address :	
e-mail :	

Phone No. : Mobile :	

ii) Quality Seed Production Reports

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed (F/S, C/S)
Kharif 2017						
Rabi 2017-18						
Summer/Spring 2018						

iii) Financial Progress

Fund received (2016-17 and 2017-18)	Expenditure (Rs. in lakhs)		Unspent balance (Rs. in lakhs)	Remarks
	Infrastructure	Revolving fund		
2016-17				
2017-18				

iv) Infrastructure Development

Item	Progress
Seed processing unit	
Seed storage structure	

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

Item	Title	Authors' Names	Number	Circulation
Research paper	**1.** "Performances of Green Gram and Black Gram under FLD Programmes in lateritic Soil of West Bengal, India", *Agricultural Extension Journal (Online ISSN No. 2521-0408), Vol. 1, Issue 3*, 2017, pp. 81 – 87.	Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure	**08 (Eight)**	-
	2. "Guiding Role to be played by the Indian Agricultural Extension Agencies to Bridge the Gaps in Fertilizer Application in India", *International Journal of Bioresource Science (Print ISSN No. 2347-9655 and Online ISSN No. 2454-9541), Vol. 4, No. 1*, June, 2017, pp. 13 – 16.	Prabuddha Ray		-

	3."Front line demonstration on lentil using improved varieties for increasing productivity under lateritic soil of West Bengal", *Legume Research (Print ISSN No. 0250-5371 and Online ISSN No. 0976-0571)*, Accepted for publication.	Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure		
	4. "Pharmocokinetics of Amoxicillin in Broiler Chicken following a Single Oral Administration", Indian Journal of Animal Health (Print ISSN No. 0019-5057), Vol. 56, No. 2, 2017, pp. 219 – 224.	M. Khan and T. K. Mandal		
	5. "Effect of Amoxicillin on Haemato-biochemical Parameters in Poultry", International Journal of Livestock Research (Online ISSN No. 2277-1964), Accepted for publication.	M. Khan, V. K. Sarkar and T. K. Mandal		
	6. "Chemical Weed Management in Kharif Black Gram under Lateritic Soil of West Bengal, India", Ecology, Environment and Conservation (Print ISSN No. 0971-765X), Vol. 23, No. 2, pp. 1032 – 1036.	K. C. Teja, B. Duary, Subrata Mandal, Subhaprada Das, R. B. Mallick and M. Sudhir Kumar		
	7. "Effect of Insecticide Application on Leaf Folder (*CnephalocrocismedinalisGuenee*) Incidence associated with Summer Paddy in Lateritic Soil", European Journal of Bio-Medical and Pharmaceutical Sciences (Online ISSN No. 2349-8870), Vol. 4, Issue 9, pp. 524 – 526.	Sourav Mondal and Subrata Mandal		
	8. "Effect of Nutrient Sources particularly for Phosphorus in Growth and Productivity of Summer Black Gram under Lateritic Soil", Journal of Krishi Vigyan, Accepted for Publication	Subrata Mandal and Sourav Mondal		
Seminar/ conference / symposia papers	**1.**"Standardizing the Methodologies for Environmental Impact Assessment: the Increased Need in Globalized Economies", *Abstracts of papers, Theme:- 4 (Management of major and secondary nutrients for sustainable soil health and crop production, Symposium – XI (Oral Presentation) of the National Seminar on "Nutrients and pollutants in soil-plant-animal-human Continuum for sustaining soil, food and nutritional security – way forward",* organized by Bidhan Chandra Krishi Viswavidyalaya (BCKV) in collaboration with National Academy of Agricultural Sciences (NAAS), held at Lake Hall, BCKV, Kalyani, Abstracts of papers, Theme:- 4 (Management of major and secondary nutrients for sustainable soil health and crop production, Symposium – XI (Oral Presentation), on June 9th. – 10th., 2017, pp. 29.	Dr.Prabuddha Ray and Prof. Sarthak Chowdhury,	**08 (Eight)**	-
	2. "Effect of Raw Azolla feeding as Feed Supplement of Rhode Island Red Chicken under Back Yard System of rearing in Birbhum District", Scientific Compendium and Souvenir of 125th. Anniversary of Bengal Veterinary College, Belgachia, Kolkata, organized by the West Bengal University of Animal and Fishery Science, Belgachia, Kolkata on January 3rd., 2018, Page No. – 76.	Madhuchhanda Khan, Krishna Mitra and Ruma Addy		
	3."Effect of Different Herbicides in Weed Management in Summer Black Gram under Lateritic Soil of West Bengal", Book of Abstracts, National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha held on January 5th. to 7th., 2017, Paper Code No. TARD – 28, Page No. 50.	Subrata Mandal, Sourav Mondal, Prabuddha Ray and Ruma Addy		
	4. "Evaluation of Performance of Modified Earthen Pot Cool Chamber in Shelf Life of Vegetables in Lateritic Belt of West Bengal", Book of Abstracts, National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha held on January 5th. to 7th., 2017, Paper Code No. PHMI - 12, Page No. 125.	Ruma Addy, Subrata Mandal, Prabuddha Ray and Sourav Mondal		
	5. "Potentiality of Integration of Different Components under Fish based	Krishna Mitra,		

	Farming System for increasing Farmers' Income", Book of Abstracts, National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha held on January 5th. to 7th., 2017, Paper Code No. AQ – 14, Page No. 149.	Madshuchhanda Khan, Subrata Mandal and Ruma Addy		
	6. "Situation of Farm Machineries in Birbhum District, West Bengal – Gaps To Be Filled-Up",Book of Abstracts of One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization", organized by the Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, West Bengal, on January 29th., 2018, pp. 20.	Prabuddha Ray, Subrata Mandal, Sourav Mondal, Palash Ankure and Ganesh Das		
	7. "Performance of Drum Seeder in Front Line Demonstration Programmes in Reducing Cost of Kharif Paddy Cultivation", Book of Abstracts of One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization", organized by the Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, West Bengal, on January 29th., 2018, pp. 38.	Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure		
	8."Growth, Production and Reproductive Performance of Japanese Quails (*Coturnix coturnix Japonica*) reared in Deep Litter System", Book of Abstracts of One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization", organized by the Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, West Bengal, on January 29th., 2018, pp. 43.	Madhuchhanda Khan, Krishna Mitra, Prabuddha Ray and Ruma Addy		
Books	**1.**"A Guide Book for Training the Rural Youths", ISBN No. 978-93-85503-81-8, New Delhi Publishers, New Delhi.	Sarthak Chowdhury and Prabuddha Ray	**02 (Two)**	-
	2. "Krishi Samprasaran Parisheba Pradan – Eakti Sahayak Pustak" (Providing Agriculture Extension Service – A Guide Book), Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum - 731236, West Bengal	Dr. Prabuddha Ray		
Bulletins	-	-	-	-
News letter	-	-	-	-
Popular Articles	-	-	-	-
Book Chapter	**1.** "Extension Framework for Facilitating an Increase in Area, Production and Productivity of Lentil in Birbhum District, West Bengal", *Development and Empowerment – Challenges and Prospects [ISBN No. 978-93-86453-03-7],* edited byAnik Institute of Management, Science and Technology, New Delhi Publishers, New Delhi, 2017, pp. 59 – 74.	Prabuddha Ray and Sarthak Chowdhury	**09 (Nine)**	-
	2. "Crop Diversification through Cultivation of Broccoli: A Successful Intervention by the Rathindra KVK, Birbhum for Nutritional and Economic Security of the Farmers", *Growth and Diversification in India's Emerging Economy [ISBN No. 978-93-86453-06-8],* edited by Pranab Kumar Chattopadhyay and Daya Shankar Kushwaha, New Delhi Publishers, New Delhi, 2017, pp. 115 – 122.	Prabuddha Ray and Dulal Chandra Manna		
	3. "Elephant Foot Yam Cultivation made Profitable", *Symbiosis of Success Pathways to Prosperity [ISBN No. 978-81-7164-175-8],* edited by A. K. Singh, M. J. Chandre Gowda, Sreenath Dixit, Randhir Singh, D. V. Srinivas Reddy and B. T. Rayudu, Division of Agricultural Extension, Indian Council of Agricultural Research, New Delhi, 2017, pp. 51 – 52.	Dulal Chandra Manna and Prabuddha Ray		
	4. "Importance of Drumstick (*Moringa olifera L.*) as a Wonder Tree with differential Medicinal Uses", Plants, the Natural Wonder: Challenges and Avenues [ISBN No. 978-93-85775-06-2], edited by Sunita Bandopadhya, Dipak Kumar Hens and ParthaSarathi Dey, Damodar Group, Burdwan, 2017, pp. 60 – 66.	Sudipa Nag and Subrata Mandal		
	5."Importance of Roof-Top Kitchen Garden for Supply of Fresh	Subrata Mandal and		

	Vegetables, Nutrition, Environment and Entertainment of Urban People – A Review", Food Security and Urbanization Equilibrium: A Sustainable Man System Approach [ISBN No. 978-93-81245-88-0], edited by Dr. Mohuya Sen, Ashadeep, Kolkata, 2017, pp. 226 – 236.	Sudipa Nag		
	6."Introduction of Giant Prawn (*Macrobrachiumrosenbergii*) as A New Component of Composite Fish Culture in Birbhum District, West Bengal: A Successful Intervention by the Rathindra KVK, Birbhum", Issues in Sustainable Development in India [ISBN No. 978-93-86453-44-0], edited by Pranab Kumar Chattopadhyay and Daya Shankar Kushwaha, New Delhi Publishers, New Delhi, 2018, pp. 37 – 46.	Prabuddha Ray, Sarthak Chowdhury and Krishna Mitra		
	7."Situation of Farm Machineries in Birbhum District, West Bengal- Gaps to be Filled Up", "Advance Technologies in Agriculture for Doubling Farmers' Income", edited byDr. P. Kandasamy and Dr. Kishore Chandra Swine, New Delhi Publishers, New Delhi (Accepted for Publication).	Prabuddha Ray, Subrata Mandal, Sourav Mondal, Palash Ankure and Ganesh Das		
	8. "Drum Seeder Performance in Front Line Demonstration Programmes", "Advance Technologies in Agriculture for Doubling Farmers' Income", edited byDr. P. Kandasamy and Dr. Kishore Chandra Swine, New Delhi Publishers, New Delhi (Accepted for Publication).	Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure		
	9. "Growth, Production and Reproductive Performance of Japanese Quails (*Coturnix coturnix japonica*) reared in Deep Litter System", "Advance Technologies in Agriculture for Doubling Farmers' Income", edited byDr. P. Kandasamy and Dr. Kishore Chandra Swine, New Delhi Publishers, New Delhi (Accepted for Publication).	Madhuchhanda Khan, Krishna Mitra, Prabuddha Ray and Ruma Addy		
Extension Pamphlets/ literature	1. Improved Cultivation Practices of Pulses: More Profit and Conservation of Soil Health (*UnnatPrathay Dal Chash: AdhikLabhAbongMatirSasthya Raksha*) 2. Technology for Improving Productivity of Acid Soils (*AmlaMatirUtpadanshilataBaranorPrajukti*) 3. Phospho-compost for Conservation of Soil Health: A Phosphorus rich Organic Fertilizer (*MatirSwasthyarakshayPhospo-compost:Eaikti Phosphorus SamriddhaJaiba*) 4. Improved Agro-Technologies for Linseed Cultivation (TishiChasherUnnataProjukti)	**Dr. Subrata Mandal**	**06 (Six)**	**4000 (Four thousand)**
	1. Seed treatment (BijShodhon)	**Sri Sourav Mondal**		
	1. Pradhan Mantri FasalBimaYojona	**Dr. Prabuddha Ray**		
Technical reports	1. Annual Progress Report (April, 2016 – March, 2017) of Rathindra KVK 2. Report on TSP organized by RKVK 3. Report on RFD, CCC and Skill Training (12 Reports for 12 Months) 4. Report on the Activities under Swachha Bharat Mission (12 Reports for 12 Months) 4. Monthly Reports of RKVK (12 Reports for 12 Months) 5. Report to PMO on Activities of RKVK (12 Reports for 12 Months) 6. Progress Report on CFLD on Oilseed of Rabi and Summer Season	**Rathindra KVK**	**78 (Seventy Eight)**	Among all the concerned.

	7. Yield Report on Rabi and Summer Pulse 8. Brief Report on Activities of RKVK 9. Report on Achievement of RKVK in First Quarter of 2017-18 10. Quarterly Progress Report for Soil Sample Testing and Soil Health Cards Issued 11. Report on Activities under Pradhan MamtriFasalBimaYojona (PMFBY) 12. CFLD on Rabi and Summer Oilseed 13. Report on New India Manthan Sankalp Se Siddhi 14. Report on ASCI Skill Training 15. Report on Strategic Plan on Doubling Farmers' Income 16. Report on Swacchata Hi Seva 17. Report on Information and Knowledge Management in KVK System 18. Report on MahilaKisan Divas 19. Report on Information on Outcome Review of KVK Scheme 20. Yield Report on CFLD Kharif Pulse 21. Report on Information about FPO 22. Report on World Soil Day Programme 23. Information on CFLD on Pulse and Oilseed 24. Action Taken Report for Seed Hubs and CFLD Pulse 25. Report on Expenditure Incurred on SWACCHTA Activities 26. Yield Report on CFLD Kharif and Rabi Pulse 27. Action Taken Report on Installation of Permanent Hoarding on Soil Health Programme 28. Progress Report on Rabi Pulse 29. Details of CFLD Pulse and Oilseed 30. Action Report on Instllation of Permanent Hoarding on Soil Health Card at the Rathindra KVK, Birbhum, West Bevngal 31. Information of Farmers for Digital Ag. Extension Services for the Birbhum District, West Bengal prepared by the Rathindra KVK, Birbhum, West Bengal 32. Progress Report of CFLD Oilseeds along with Expenditure 33. Information on Fund for Infrastructure in KVKs from Sources other than ICAR			

	34. Report on the Web Casting of the Inaugural Programme of the Biennial Conference of the Krishi Vigyan Kendras of India by the Honourable Prime Minister of India Sri Narendra Modi Ji at the ICAR-IARI, New Delhi on 17.03.2018.			
Electronic Publication (CD/DVD etc)	**1.** Activities of Sri Tapan Kumar Ghosh – A Successful Rural Back Yard Poultry Farmer attached with Rathindra KVK **2.**Programme on "New India Manthan Sankalp Se Siddhi for Doubling Farmers' Income"	**Rathindra KVK**	**02 (Two)**	-
TOTAL			**95 (Ninety Five)**	

(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.	Zonal Workshop of Krishi Vigyan Kendras of Bihar, West Bengal, Jharkhand and Andaman and Nicobar Islands	Zonal Workshop of Krishi Vigyan Kendras of Bihar, West Bengal, Jharkhand and Andaman and Nicobar Islands	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	14.04.2017 to 16.04.2017 (03 Days)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097 and ICAR-Central Island Agricultural Research Institute (CIARI), Garacharama, Port Blair, Andaman and Nicobar Islands – 744101.
02.	Review and Planning Meeting-cum-Workshop of IFAD-ICARDA Regional Project in South Asia	Review and Planning Meeting-cum-Workshop of IFAD-ICARDA Regional Project in South Asia	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	07.06.2017 to 09.06.2017 (03 Days)	IFAD, ICARDA and Nepal Agricultural Research Council at Kathmandu, Nepal.
03.	ICAR Sponsored CAFT Training on Use of ICT in Agricultural Education for Accelerated Learning	CAFT Training on Use of ICT in Agricultural Education for Accelerated Learning	Sri Sourav Mondal, Subject Matter Specialist (Plant Protection)	04.07.2017 to 24.07.2017 (21 Days)	Department of Extension Education, Bihar Agricultural College, Bihar Agricultural University (BAU), Sabour, Bhagalpur, Bihar – 813210, India.
04.	National Seminar on "Nutrients and pollutants in soil-plant-animal-human Continuum for sustaining soil, food and nutritional security – way forward"	National Seminar on "Nutrients and pollutants in soil-plant-animal-human Continuum for sustaining soil, food and nutritional security – way forward"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	09.06.2017 to 10.06.2017 (02 Days)	Bidhan Chandra Krishi Viswavidyalaya (BCKV), Mohanpur, Nadia and National Academy of Agricultural Sciences (NAAS), New Delhi held at Lake Hall, BCKV, Kalyani, Nadia, West Bengal.
05.	Short Course Training on "Conservation of Indigenous Breeds of Small Ruminants in their respective Tracts"	Short Course Training on "Conservation of Indigenous Breeds of Small Ruminants in their respective Tracts"	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	18.07.2017 to 27.07.2017 (10 Days)	ICAR and West Bengal University of Animal and Fishery Sciences at West Bengal University of Animal and Fishery Sciences, Belgachia, Kolkata.
06.	Write Shop on "Agriculture Skill Council of India (ASCI) Certified Courses on Animal Husbandry"	Write Shop on "Agriculture Skill Council of India (ASCI) Certified Courses on Animal Husbandry"	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal	19.09.2017 to 22.09.2017 (04 Days)	Welthungerlife, Germany; Krishi Gramin Vikash Kendra (KGVK), Ranchi and Lok Shiksha Parishadat KGVK Campus, Ranchi

			Science)		
07.	15 Days Rigorous Training on both Theoretical and Practical Aspects of "Seed Technology" as the Module – II of the Certified Farm Adviser (CFA) Course on Specialization "Seed Technology"	15 Days Rigorous Training on both Theoretical and Practical Aspects of "Seed Technology" as the Module – II of the Certified Farm Adviser (CFA) Course on Specialization "Seed Technology"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	23.10.2017 to 06.11.2017 (15 Days)	National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad – 500030, Telengana, India at the IndianCouncil of Agricultural Research (ICAR) – Indian Institute of Seed Science (IISS), Kushmaur, Mau – 275103, Uttar Pradesh, India.
08.	National Symposium on Role of Veterinarian in improving Food Safety through "One World One Health and One Medicine" Approach in India	National Symposium on Role of Veterinarian in improving Food Safety through "One World One Health and One Medicine" Approach in India	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	03.01.2018 (01 Day)	West Bengal University of Animal and Fishery Science, 68 K. B. sarani, Belgachia, Kolkata – 700037.
09.	Agriculture Skill Council of India (ASCI) Training of Trainers (ToT) on "Job Role – Agriculture Extension Service Provider"	Agriculture Skill Council of India (ASCI) Training of Trainers (ToT) on "Job Role – Agriculture Extension Service Provider"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	04.01.2018 to 06.01.2018 (03 Days)	Indira Gandhi Krishi Viswavidyalaya, Raipur, Chhattisgarh and ICAR – Agricultural Technology Application Research Institute (ATARI), Jabalpur, Madhya Pradesh at Directorate of Extension Services, Indira Gandhi Krishi Viswavidyalaya, Raipur, Chhattisgarh, India.
10.	National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha.	National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha.	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	05.01.2018 to 07.01.2018 (03 Days)	Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha
11.	National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar,	National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar,	Sri Sourav Mondal, Subject Matter Specialist (Plant Protection)	05.01.2018to 07.01.2018 (03 Days)	Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha

	Odisha.	Odisha.			
12.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Smt. Ruma Addy, Programme Coordinator (Officiating)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
13.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
14.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
15.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Sri Sourav Mondal, Subject Matter Specialist (Plant Protection)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
16.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
17.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
18.	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	Sri Palash Ankure, Programme Assistant (Farm Manager)	29.01.2018 (01 Day)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
19.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Agronomy	Dr. Subrata Mandal, Subject Matter Specialist (Agronomy)	30.01.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
20.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Plant Protection	Sri Sourav Mondal, Subject Matter Specialist (Plant Protection)	01.02.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097

21.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Horticulture	Sri Palash Ankure, Programme Assistant (Farm Manager)	01.02.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
22.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Fishery Science	Dr. Krishna Mitra, Subject Matter Specialist (Fishery)	03.02.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
23.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Animal Science	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	03.02.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
24.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Home Science	Smt. Ruma Addy, Programme Coordinator (Officiating) and Subject Matter Specialist (Home Science)	06.02.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
25.	Refresher Course for KVK Personnel	Refresher Course for KVK Personnel on Agricultural Extension	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	06.02.2018 (01 Day)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
26.	2-Day Workshop on Collaborative Programme like DAESI	Collaborative Programme like DAESI	Sri Sourav Mondal, Subject Matter Specialist (Plant Protection)	19.02.2018 to 20.02.2018. (02 Days)	State Agricultural Management and Extension Training Institute & Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur, Kolkata - 700103
27.	National Seminar on Mixed Farming -A Traditional Practice to Enhance the Income of Farmers Giving Emphasis More in Livestock Keeping	National Seminar On Mixed Farming -A Traditional Practice to Enhance The Income of Farmers Giving Emphasis More in Livestock Keeping	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	24.03.2018 to 25.03.2018. (03 Days)	Department of Animal Science, Palli Shiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal and the Society of Bio-Resource, Environment and Agricultural Research (SBEAR), Santiniketan, Birbhum, West Bengal.
28.	Farmer-Scientist Meet with 7days'Workshop On: Livestock Management and Organic Farming	Farmer-Scientist Meet with 7days'Workshop On: Livestock Management and Organic Farming	Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science)	24.03.2018 to 30.03.2018. (07 Days)	Department of Animal Science, Palli Shiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal and the Society of Bio-Resource, Environment and Agricultural Research (SBEAR), Santiniketan, Birbhum, West Bengal.
29.	National Seminar on "Agri-chemicals for a benign environment" and the 5th. Annual Convention of the	National Seminar on "Agri-chemicals for a benign environment"	Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)	29.03.2018. (01 Day)	Society of Fertilizers and Environment in collaboration with Bidhan Chandra Krishi Viswavidyalaya at the Farmers' Academy and Convention Centre (FACC) (Lake Hall), Bidhan Chandra

	Society of Fertilizers and Environment				Krishi Viswavidyalaya, Kalyani.

3.7. Success stories/Case studies, if any (two or three pages write-up on 1-2best case(s) with suitable action photographs)

A. Sri Tapan Kumar Ghosh – a Successful Innovative Farmer involved in innovating Low Cost Resource Conservation Technologies

Name of farmer - Sri Tapan Kumar Ghosh

Address - Village – Bishnubati, C. D. Block – Bolpur - Sriniketan, P. O. – Sattore, P. S. – Sattore, Dist. – Birbhum, Pin. – 731236, West Bengal

Contact details (Phone, mobile, email Id) – Mobile Phone No. - 9614057093

Landholding (in ha.) –1.33

Name and description of the farm / enterprise –
I. Problem / Challenge addressed: -
(A) Agro-Ecological Farming Situation – The native District of the Innovator, Sri Tapan Kumar Ghosh is Birbhum District is in the red lateritic zone of the State of West Bengal with erratic and deficient rain-fall especially in the Rabi Season and having a soil structure with less water holding capacity.
(B) Problem to be solved – Low Water Use Efficiency of Boro Paddy subsequently gives rise to increased irrigation cost and depletion of ground water resource for the cultivation of Paddy (especially in Rabi Season) and decreases the net return.

II. Description of Innovative Practice / Technology: -
(A) Back Ground of Innovation: - SRI is an acronym for System of Rice Intensification. This improved method of rice cultivation was developed in 1983 in Madagaskar and has now spread to many parts of the world. SRI is not a new variety or a hybrid. It is only a method of cultivation. SRI is showing promising results in all rice varieties – local or improved.

Marking the plot before transplantation to ensure proper rows and spacing, and weeding are necessitating development of appropriate implements. Transplanting at wider spacing (10 x 10 inches or 25 cms. x 25 cms.) 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 prepared and there should not be standing water in the field during transplantation.

In SRI method, seedlings are widely spaced (10 inches x 10 inches or 25 cms x 25cms) and only one seedling is transplanted per hill (3-4 seedlings per hill in conventional system). SRI method can accommodate only 16 hills /sq. meters as against 33-40 hills/ square meter in conventional method. Uniform spacing is also required for easy weeding by implements. To maintain uniform spacing, different methods can be employed.

Small pegs can be tied to a rope at 25 cm or 10 inch distance and by using this rope; row after row transplantation can be done. Different types of “Markers” are being developed for this purpose. These markers need to be run over the prepared field lengthwise and width wise. Transplanting at the marked intersection gives the required 25 cms x 25 cms spacing. Some of the newly developed markers draw 8 rows and columns simultaneously. These markers need to be pulled at an even pace for proper marking. To have the lines straight, it is advisable to tie a rope and pull the marker alongside the rope. For smooth transplantation, field operations like bunding, levelling and marking with marker should be completed a day before the transplantation.

(B)Need for SRI Marker: – It is an absolute necessity of marking the exact points in the Paddy plot at where the transplantation of seedlings would have to be performed to ensure proper rows and spacing, and weeding for SRI Techniques of Paddy Cultivation

(C) Guiding Principles of Innovative Portable SRI Marker (4 Rows): -

- ❖ Needs to have **built-in adjustability to change the distance** between the rows
- ❖ Needs to have an arrangement for direct sowing of seeds
- ❖ Needs to have an **arrangement to mark both the pathways simultaneously**
- ❖ Needs to be designed **with a facility to add weight**
- ❖ **Needs to be amenable to working in the fields where green manure is applied.**

(D)Technology Details: -

- Adjustable Plant Spacing of Paddy Seedlings (25 cm X 25 cm and 30 cm X 30 cm) can be marked using the Innovative Portable SRI Marker.
- In case of 25 cm X 25 cm Plant Spacing – 4 rows of Paddy Seedlings can be marked.
- In case 30 cm X 30 cm Plant Spacing – 3 rows of Paddy Seedlings can be marked.
- This Innovative SRI Marker is light weight, made of locally available GI pipes and iron rods.
- The Innovative SRI Marker (4 Rows) is easily dismountable 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).

(E)Cost of Innovative SRI Marker: – It is very low cost, locally made implement and costs nearly Rs. 2,400.00 (Rupees Two Thousands Four Hundreds) only.

Economic impact - 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.

Economics / Profitability of Innovative Practice/ Technology (Costs and Return) (per intervention or area or household): -

Transplanting Using SRI Marker	Traditional Transplanting
➢ Man Days Required – **18 / ha**	➢ Man Days Required – **40 / ha**
➢ **Requirement of Paddy Seeds –1 kg**	➢ **Requirement of Paddy Seeds –7.5 kg**
➢ **Cost of Transplanting / ha (Labour + Seeds) – Rs. 2,730.00**	➢ **Cost of Transplanting / ha (Labour + Seeds) – Rs. 6,300.00**

From the above Table, it is to be noted that the Cost of transplanting of Paddy Seedlings for 1 ha area using this implement is Rs. 2,730.00 (cost of Labour and Seeds); while the cost of transplanting of Paddy Seedlings for 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, B: C Ratio is 1.5625. This Innovative Portable SRI Marker is highly economic and viable in the field level functioning.

Social impact –This approach of SRI has been successful in bringing the positive changes in various parameters like economic, environmental etc. in the lives of small farmers like Sri Tapan Kumar Ghosh member of a rural community.SRI as a new paradigm in Paddy farming System is focused on the sustainability of the self-reliant local communities, conservation of natural and biodiversity, production of healthy food produced using a low amount of input and empowerment of rural communities. Tremendous reduction in cost of production is one of most important axis of this System.The experience of Sri Ghosh proves that rice production does not have to depend on input subsidies.The result was so encouraging; the SRI plants were grown well compared to non SRI as well as produced a good yield. Sri Ghosh found that weeding every 10 days for four times helps the plants grown well and look healthy. Sri Tapan Kumar Ghosh clearly mentioned that SRI has made him to bemore innovative, having more choices regarding farming decisions, now he produces his own bio-fertilizers like Farm Yard Manure (FYM), Vermin-Compost, Cow Dung Manure etc. and own seeds, has now increased linkages to market own product which in the Indian context thus far has been very limiting; he is now involved in short supply chainand not dependent on government subsidies.

Environmental impact - Through the SRI Method, Sri Tapan Kumar Ghosh is giving irrigation for SRI Paddy plots - 16 nos. each on average of 5 cm i.e. total 800 mm; whereas in the traditional Paddy cultivation method Sri Ghosh generally gives irrigation 12 nos. each on average of 10 cm i.e. 1200 mm and for seedbed of traditional plots - 6 nos. irrigation each on average 10 cm i.e. 600 mm, i.e. total 1800 mm. Thus a huge quantity of ground water to the tune of 1000 mm. will be saved through the adoption of SRI Method of Boro Paddy cultivation. Thus this Innovative Low Cost Farm Machinery also helps to preserve environment and can act as an Innovative Conservation Technology.

Horizontal / Vertical spread –(A) Sri Tapan Kumar Ghosh already made available the 4 Row SRI Marker to 50 numbers of farmers of own village free of cost for demonstration purposes and it has proved to be the key factor for converting 98.84 Acres of traditional Paddy Fields to SRI Paddy field in adjoining farm fields of his village.

(B) Farmers of the neighbouring Mala Village are cultivating Paddy through SRI Method inspired by the Innovative SRI Marker of Sri Tapan Kumar Ghosh and making use of the basic principle of SRI Marking system for seedling transplantation in 65.90 Acres of land.

(C) National Rural Livelihood Mission (NRLM) named “Anandadhara” of Govt. of West Bengal has approached Sri Tapan Kumar Ghosh for fabrication and supply of 100 numbers of the Innovative 4 Row SRI Marker.

Sri Tapan Ghosh assembling the Innovative Portable SRI Marker

Fellow Farmer of Sri Tapan Kumar Ghosh, Sri Monotosh Ghosh is operating the Innovative Portable SRI Marker

Close View of the Innovated Portable SRI Marker

Cross marking in single operation with the innovative Portable SRI Marker

Transplanting after marking with Innovative Portable SRI Marker

B. A Group of Farmers – enhancing Farm Income by manifold through cultivation of Ekangi - a Medicinal Plant while Searching for Crop Diversification

Name of the Farmers: Bipadtaran Ghosh, Subodh Ghosh, Subhash Ghosh, Jogen Ghosh, Kartik Ghosh and others.

Village: Kartikdanga, P.O.- Raipur, Dist. – Birbhum, Pin. – 731204, West Bengal, India.

Contact Details: Mobile Phone No.- 8900484426

Land holding (ha): 6.7 ha.

Name and description of the farmers / enterprise: It is also known as aromatic ginger, kencur etc. cultivation of Ekangi (*Kaempferia galanga L.*), a medicinal plant was imitated by the Rathindra KVK (RKVK) in the Kartikdanga village in kharif season, in mono cropped paddy area as crop diversification programme. Ekangi has several medicinal properties. Its rhizome powder is used as appetite enhancer, stomach-ache. The rhizome extract is largely used as liminant for rheumatism, repellent of mosquito and nematode against *Melidogyne* in wheat.

Intervention of RKVK in package of practice: RKVK prepared a package of practice suitable for this locality by cultivating Ekangi is small plots in RKVK medicinal plant garden.

- Totally rainfed
- Time of planting – May-June with nor-wester
- Seed rate: 7.5 q/ha (Rhizome of 4 cm length of 2 buds)
- Land Preparation: Only 2 cross ploughing with levelling.
- Choice of land: Medium to upland with proper drainage facility in mono cropped area.
- Planting: Spacing 25 cm X 25 cm, depth: 4 cm.
- Seed treatment: Dipped in solution of *Trichoderma viridi* (4 gm/kg seeds).
- Manures & fertiliser: Well rotten FYM 10 ton/ha as basal.
- Top dressing at one month after planting: Urea 75 kg/ha, SSP- 600 kg/ha. MOP- 100 kg/ha.
- Top dressing after three months of planting: Urea – 75 kg/ha.
- Intercultural operation: Weeding at 2nd and 4th week, then straw mulching.
- Herbicide use: Spraying of Glyphosate @ 5 ml/lt of water at 15 days after planting.
- Harvest: 6-8 months after planting.
- Yield: 300-350 q/ha.

Economic Impact

Before cultivation of Ekangi they cultural paddy variety MTU-7029 and earned net return of Rs. 22,500.00 per ha in their rainfed mono cropped area with B:C ratio of 1.82.

After crop diversification with Ekangi cultivation initiated by RKVK the economics of cultivation is as follows:

2016-17					
Av. Yield	**Av. Price**	**Gross Cost (Rs. /ha)**	**Gross return (Rs. /ha)**	**Net Return (Rs. /ha)**	**B:C ratio**
112 quintal / ha	Rs. 800 / quintal	14,8,500.00	89,600.00	7,47,500.00	6.03

2017-18					
Av. Yield	**Av. Price**	**Gross Cost (Rs. /ha)**	**Gross return (Rs. /ha)**	**Net Return (Rs. /ha)**	**B:C ratio**
130 quintal / ha	Rs. 800 / quintal	1,65,000.00	10,40,000.00	8,75,000.00	6.3

The product is being dsold to big businessmen of Murshidabad. The Businessmen come with truck to their village for purchasing the product.

Social Impact – As the farm income is getting increased by manifold, the group cohesiveness is being solidified. Other farmer outside the Group is being more and more attracted to cultivate the Ekangi crop.

Environmental impact – Totally rainfed, so there is no loss of water. Total rain water is used for production. Crops cover the fields within 3 Months, so no Soil erosion is occurred due to heavy rain or heavy wind. Evaporation is lowered down from the area, so Soil Water table is maintained properly.
It is a herbal or medicinal crop. The products from it is always herbal or without Chemical. Use of the products from it helps to reduce the chemical load to human body as well as nature.

Horizonal Spread

Vertically yield has been increased to 16 % for 2016-17 to 2017-18. In the year 2015-16, three farmers of Kartikdanga started ekangi cultivation with the help of RKVK in 0.26 ha area. It increased in 4 ha area with 15 farmers in that village in the year 201-17 and further it was cultivated in 6.7 ha land in that village with 25 farmers. Beside that it is now spreaded to others 7 villages in another 30 farmers of surrounding 3 other blocks of the district.

Ekangi *(Kaempferia galanga*) Cultivation as crop diversification for doubling farmers income- an initiative taken by RKVK, Birbhum, W.B- a Success

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, Sankalp Se Siddhi – New India Manthan – for taking Pledge to double the farmers' Income, Mahila Kishan Diva 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 rearch 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. a. 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.	Dairy	Use of paste of 50 gms. of Ginger + 25 gms. of Garlic and 50 gms. of Ghee is administered orally to the Cattle.	For treatment of cold (Please see Photograph – A)
02.	Dairy	Feeding of 250 gms. of Mustard Oil to Dairy Cattle.	To prevent cold and for easy removal of placenta. (Please see Photograph – B)
03.	Poultry	Use of Betel Leaves paste @ 6 leaves / 100 numbers of Birds mixing with drinking water of the Birds	For treatment of Gout (Please see Photograph – C)
04.	Broiler	Use of Garlic Paste Spray or feeding with Water @ 300 gms. of Garlic Paste extraxt / 4 lits. of Water in the Broiler Farm	For treatment of cold (Please see Photograph – D)

Photograph – A

Photograph –B

Photograph - C

Photograph - D

b. Give details of organic farming practiced by the farmer

Sl. No.	Crop / Enterprise	Area (ha)/ No. covered	Production	No. of farmers involved	Market available (Y/N)
01.	Vegetable Cultivation without Chemicals initiated by Sri Partha Mal; Address: - Village + P. O.:- Daranda, Police Station – Illumbazar, C. D. Block; Illumbazar, Dist. – Birbhum, Pin. – 731236, West Bengal, India. Mobile Phone Nos. – 08926536411, 09474613193. E-Mail Ids:- popfarm20@gmail.com	1.62	Production of organic vegetables viz. Brinjal, Chilli, Tomato, Capsicum, Cherry Tomato was started in March, 2015 in a land area of 1.62 ha.. Now in addition to the above mentioned vegetables, Capsicum, Broccoli, Red Cabbage etc. are being produced without application of chemical inputs with active technological support from the Rathindra KVK.	120	Y

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

<u>Need Assessment of Rathindra KVK Clientele</u>

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

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

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

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

3.11. a. Details of equipment available inSoiland 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.	MridhhaParikshak (Digital Mini-Lab Solar Powered)	2 nos.
Total		**34 nos.**

3.11.b. Details of samples analyzed so far :

Number of soil samples analyzed	No. of Farmers	No. of Villages	Amount realized (in Rs.)

Through mini soil testing kit/labs	Through soil testing laboratory	Total			
149	70	219	219	53	Soil samples were analyzed for routine analysis for conducting FLD/OFT programmes. 217 numbers of Universal Soil Health Cards were prepared and distributed among the farmers free of cost.

3.11.c. Details on World Soil Day

Sl. No.	Activity	No. of Participants	No. of VIPs	Name (s) of VIP(s)	Number of Soil Health Cards distributed	No. of farmers benefitted
01.	1. Key Note Lecture by the eminent Soil Scientist and Former Pro-Vice Chancellor, Bidhan Chandra Krishi Viswavidyalaya, Prof. Biswapati Mandal on "Soil Health Management". 2. Detailed discussion on methods for Soil Health Management with Farmers. 3. Detailed Presentations on the adverse effects of Soil Health deterioration. 4. Theoretical Classes on Soil Sample collection and Analysis 5. Universal Soil Health Cards were distributed among 104 numbers of farmers.	137	03	1. Prof.Biswapati Mandal, Former Pro-Vice Chancellor, Bidhan Chandra Krishi Viswavidyalaya 2. Prof. Amit Kumar Hazra, Registrar (Acting), Visva-Bharati 3. Prof. Asish Kumar Chatterjee,Principal, PalliSiksha Bhavana, Visva-Bharati, Sriniketan, Birbhum – 731236, West Bengal.	104	104

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

3.14. RAWE/ FETprogramme - is KVK involved?(Y/N)Y

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 Vigyan Kendra as a Centre of research and extension activities.

No. of student trained	No. of days stayed
52	As the students either stays in Visva-Bharati Hostel or are Day-Scholars, so no students stay in the Trainees' Hostel of the Rathindra KVK.

ARS trainees trained	No. of days stayed
-	-

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

Date	Name of the person	Purpose of visit
28.04.2017.	Dr. Kuhu Chatterjee, Regional Manager, South Asia, Australian Centre for International Agricultural Research (ACIAR), New Delhi	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.
08.06.2017.	Dr. S. K. Sharma, Chairman, ICAR-MRT and Former Vice Chancellor of Himachal Pradesh Agriculture University, Palampur, Himachal Pradesh	To know about the procedures of research, demonstration and extension of agricultural and related field technologies adopted by the Rathindra KVK
26.02.2018.	Prof. Sabujkoli Sen, Vice-Chancellor (Officiating), Visva-Bharati, Santiniketan, Birbhum, West Bengal	To preside over the XXIInd. Scientific Advisory Committee (SAC) Meeting of the Rathindra KVK, Birbhum

4. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
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 Cultivation	185 farmers Trained in the Rathindra KVK as well as 110 of them were involved in the FLD Programmes of Rathindra KVK on various aspects of improved method of Elephant's Foot Yam Cultivation adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 118 numbers of farmers of whom 31 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 39 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 24 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and 20 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK. **It was necessary to mention here that 4 numbers of farmers of the neighbouring Dumka District of the Jharkhand State also adopted the above mention Technology through the horizontal spread of the Technology.**
Low Cost Fish Feed Preparation	25 farmers Trained as well as getting involved in the FLD Programmes of the Rathindra KVK on various aspects of low cost fish feed preparation adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 12 numbers of farmers of whom 03 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 04 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 02 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 03 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
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 entrepreneurships for Rural Youths so that, collectively the Rathindra KVK can achieve the KVK mandate and the goals of social, economic and institutional development. The Process of impact assessment examined the factors of efficiency, effectiveness and consistency of the interventions.

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 **40,880**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 01.04.2016– 31.03.2017. 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 2017.

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	Post Harvest Processing of Pulse Crop and Value Addition
Details of Innovator	The innovative 'Bari' making dice (with 80 apertures per Dice) was developed by **Smt. Hira Rani Paul,** wife of Sri Bistupada Paul, aged at about 38 years, resident of Village- Mirzapur, P.O.- Raipur, Dist. - Birbhum **(Mobile No.: 9647705081)** with active technological back stopping and technical supervision from Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum, 731236. Her dice has proved a remarkable low cost machine for processing and value addition of the harvested Pulses and has helped her in increasing her income to a considerable extend.
Background of Innovation	Sri Bistupada Paul, wife of Smt. Hira Rani Paul is a daily labour working in Agricultural plots. Due to some illness he was umnable to earn livelihood for his family. To sustain the family, Smt. Hira Rani Paul was forced to find an alternative way of earning to maintain her family. She got the idea of Bori making from pulse and developed a dice, made of tin sheet with 80 apertures of same size. Pulse was easily available from her cultivable plot. For this earlier she got the pulse for Bori making, ready at hand. She grinds the pulse in to a unifrom thick paste which is to be used for Bori making. The dice developed by her proved very successful as she could prepare 80 Bori of uniform size within a few seconds.
Technology Details	To make Bori of different sizes there are plates of different pore sizes used in the dice. • Materials of preparing Dice: Locally available galvanized Tin Sheet • Cost of making each Dice: Rs. 600.00 • Size of the dice: 12 inches X 12 inches. • Pore size: Variable from (2 mm in diameter to 1 cm in diameter). • Number of pores: 80 to 100 per Dice. • Maintenance cost : NIL • Cost of preparation of 1 Kg pulse Bori: Only price of the pulse.
Practical utility of innovation	The innovative Bori making dice is a very low cost structure developed easily from local materials such as galvanised tin sheet costing about Rs. 600.00. This dice have proved useful for preparing large scale products within a short span of time (half an hour for making 1 Kg pulse Bori). Traditiopnally preparation of 1 Kg pulse Bori manually takes 2 to 3 hours, but this dice has proved useful to preparelarge scale product in a very short span of time. Presently she sells her product @ Rs. 15 per 100 gram Bori. She could easily raise the prise of her product by value addition with spices, poppy seed powder, rice powder etc. which increased the taste and flavour of the product. Therefore this innovation has proved economically profitable and viable for large scale production of the product such as pulse Bori.

Smt. Hira Rani Paul preparing Paste of grinded Puse for preparation of "Bori"

Smt. Hira Rani Paul pouring the prepared Paste of grinded Puse into the Innovative Bari Making Dice for preparation of "Bori"

Smt. Hira Rani Paul pressing the Dice for making "Bori"

Smt. Hira Rani Paul pressing the Dice for making "Bori" and sun drying the products

4.5. Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	**Dairy of Sri Bidhan Sinha**
Name & complete address of the entrepreneur	Village: - Mirzapur, P. O. – Raipur, Pin. – 731204, Dist. – Birbhum, West Bengal. Mobile Phone No. – 9734134282
Role of KVK with quantitative data support:	Crossbreeding and Breed up-gradation through Artificial Insemination (A. I.). is the most suitable and economical technique for generating higher genetic and production potential. Crossbreeding in indigenous low producing cattle with superior germplasm influences the genetic potential of the crossbred so born. The age at puberty have been attended at 2 to 2.5 years of age. All the female calves fed properly from the beginning of the birth so that they attain desired body weight and maturity at an early age. The traditional feeding practice is modified by providing mineral mixture, concentrate and green forages and formulation of low cost feed. After parturition animals usually always come to heat up to 2- 2 1/2 months. Sri Sinha tried hard so that no heat might be missed and insemination is being given by trained person and timely to achieve optimum pregnancy result. Post insemination confirmation of pregnancy at 60 days. Sri Bidhan Chandra Sinha got educated and trained in modern profitable animal husbandry practices, especially feeding, management and care of growing calves and heifers by Rathindra Krishi Vigyan Kendra. Poor quality of germplasm, poor nutrition and management and to some extent lack of proper animal husbandry practices and traditional misconception play an important role in less reproductive efficiency of cattle in rural area. Generally the traditional dairy farmers are not much aware about the time when their animal should reach puberty and the young growing animals don't get proper attention and are raised on dry fodder and grazing. Thus the age at puberty is attended as late as 4, 5 or 6 years. In this way livestock owner misses at least one crop or two-calf crop in their lifetime. Keeping this scenario in mind, the Technological Back-stopping from the Rathindra Krishi Vigyan Kendra regarding the adoption of A. I., formulation of low cost feed, supplementation with mineral mixture and cultivation of fodder crops helped Sri Sinha a lot to make profit from his small scale dairy Unit. The Rathindra Krishi Vigyan Kendra has provided Sri Bidhan Chandra Sinha detailed Knowledge and Skill Development Training on • Artificial Insemination (A. I.) in cattle • Conscientious heat detection • Detection of oestrous by fern pattern of cervical mucous • Proper timing of insemination • Low cost feed formulation • Feeding, management and care of growing calves and heifers

<table>
<tr><td></td><td>

- Cultivation and feeding of green fodder

Feeding of area specific mineral mixture.
</td></tr>
<tr><td>Timeline of the entrepreneurship development</td><td>Before the Rathindra KVK Intervention, Sri Bidhan Chandra Sinha worked as a Manager at a Guest House at Bolpur Town in Birbhum District in the year 1999 and he earned a meagre Monthly Income of Rs. 4,500.00 (Rupees Four Thousands Five Hundreds) only.

He has also a very small scale Dairy Unit then and the Unit was mainly based on 8 Numbers of Local Deshi Cows which give him an Average Milk Production of 1 – 2 litres / Cow / day. Sri Sinha's Traditional Dairy Farming was based on Feeds like Mustard Cake, Boken Rice, Hay and Straws without any presence of Green Fodder, Mineral Mixture, Concentrate Feeds in the diets of the Cows. He earned a Net Income of Rs. 4,600.00 (Rupees Four Thousands Six Hundreds) only per Year from his Traditional Dairy Unit with a B: C Ratio of 1.27.

The Present Situation: - A. Agricultural Activities: - Cultivation of Paddy, Potato, Cabbage, Cauliflower and Fodder Crops like Maize, Cowpea and Sorghum.

B.Non-Agricultural Activities: - Commercial Dairy Farming with 25 Cows (15 Cross Breeds and 10 Up-graded Deshi Cows) and 20 Calves and Fishery in the Pond situated within the Campus of the Dairy.</td></tr>
<tr><td>Technical Components of the Enterprise</td><td>

- Artificial Insemination (A. I.) in cattle
- Conscientious heat detection
- Detection of oestrous by fern pattern of cervical mucous
- Proper timing of insemination
- Low cost feed formulation
- Feeding, management and care of growing calves and heifers
- Cultivation and feeding of green fodder

Feeding of area specific mineral mixture.

1.Crossbreeding and Breed up-gradation through A. I. is the most suitable and economical technique for generating higher genetic and production potential. Crossbreeding in indigenous low producing cattle with superior germplasm influences the genetic potential of the crossbred so born giving an Average Milk Yield of 8 Litres / Cross bred Cow / Day.

2. The age at puberty have been attended at 2 to 2.5 years of age. All the female calves fed properly from the beginning of the birth so that they attain desired body weight and maturity at an early age.

3. The traditional feeding practice is modified by providing mineral mixture, concentrate and green forages and formulation of low cost feed. After parturition animals usually always come to heat up to 2- 2 1/2 months.
</td></tr>
<tr><td>Status of entrepreneur before and after the enterprise</td><td>

Parameters	Before	After
Yield of Product	1 – 2 lits. / Cow / Day	8 lits. / Cross Bred Cow / Day 6 lits. / Up-graded Cow / Day
Fixed Cost	Rs. 5,000.00 / Year	Rs. 5,20,000.00 / Year
Recurring Cost	Rs. 12,000.00 / Year	Rs. 8,10,800.00 / Year
Gross Income	Rs. 21,600.00 / Year	Rs. 18,19,200.00 / Year
Net Profit	Rs. 4,600.00 / Year	Rs. 4,88,400.00 / Year
B:C Ratio	1.27	1.37
Marketing	Door to door sale	Door to door sale

</td></tr>
<tr><td>Present working condition of enterprise in terms of</td><td>Raw Material Availability: - Raw materials are purchased from outside sources as well Green Fodders are produced in the adjacent farm land of the dairy.</td></tr>
</table>

raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	**Labour Availability:** - Family Labour is used and also local Labours are available and used. **Consumer Preference: -** Farm milk is preferred by the consumers who are loyal customers to Sri Sinha. **Marketing the product: -** Mainly door to door sale method is used and sold to both domestic houses and small businesses like tea stall, sweet shops etc.
Horizontal spread of enterprise	01 (One) Person in the Locality adopted the Technology and related Activities.

4.6. Any other initiative taken by the KVK

a) Minikit Demonstration of different varieties of Wheat under Outreach Programme, ICAR-IARI, Pusa, Samastipur, Bihar

Crop	Thematic area	Name of the varieties	No.of farmers	Area	Yield(q/ha)		% increase in yield
					Demo	Check	
Wheat Rabi, 2017-18	Varietal replacement	HD 2733	19	3.85 ha	37.3	30.9 (Sonalika)	21
		HD 2967			39.0		26
		HD 2985			35.1		12
		HD 3118			36.4		18
		HD3171			34.9		11

b) Sponsored Demonstration programme on pulses and oilseeds of ATMA, Birbhum, West Bengal

Crop	Thematic area	Name of the varieties	No.of farmers	Area	Yield(q/ha)		% increase in yield
					Demo	Check	
Blackgram Kharif, 2017	Crop Diversification	PU-31	63	5 ha	10.50	5.1 (Kali-50)	105
Greengram Summer, 2017-18	Crop Diversification	HUM-16	82	10 ha	Crop now in flowering stage		
Ground Nut, Summer, 2017-18	Crop Diversification	TAG-24	18	3 ha	Crop now in flowering stage		

c) Demonstration of Green Fodder under outreach programme, ICAR-NDRI, ERS, Kalyani,Nadia, West Bengal

Crop	Thematic area	Name of the varieties	No.of farmers	Area	Yield(q/ha)		% increase in yield
					Demo	Check	
Sorghum , Pre kharif 2017	Varietal replacement	Sudan Chari	38	1.06	782.83	398.3 (Goma)	96.54
Maize Kharif, 2017	Varietal replacement	African Tall	5	0.4	367.62	(298.4) Local improved	23.19
Rice bean Kharif, 2017	New introduction	Bidhan-2	10	0.16	346.4	-	-
Cowpea, Kharif, 2017	New Introduction	Bundel Lobia- 2	1	0.08	325	-	-
Oat, Rabi, 2017-18	Varietal replacement	Kent	15	1.1	313.3	-	New introduction

5. 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.
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 sources 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, Mohanpur, Nadia, West Bengal	This linkage is mainly on the following aspects:- - Conducting regular basis Human Resource Development Training Programme in different discipline. - Facilitate for Annual Action Plan Development. - Facilitate On Farm Testing Modules. - Provide different location specific germ-plasm.
West Bengal University of Animal and Fishery Sciences, Belgachia, Kolkata, West Bengal	This linkage is mainly on the following aspects:- - Conducting regular basis Human Resource Development Training Programme in different discipline. - Facilitate for Annual Action Plan Development. - Facilitate On Farm Testing Modules. - Provide different location specific mineral mixture, vaccines, medicines, seeds of Improved Varieties of Green Fodder Crops.
ICAR-Indian Agricultural Research Institute (IARI), Regional Station, Samastipur, Bihar	The linkage is mainly based on Collaborative Demonstration Programmeon newer Wheat and Paddy varieties. As a result of this linkage, the farmers of Birbhum District are being exposed to newer varieties of Wheat and scented as well as non-scented Paddy varieties. Some varieties have shown very good potential for future introduction in the District. - Provide Weather related Information for Crop based Action Plan Development.
ICAR-National Dairy Research Institute (NDRI), Eastern Regional Station (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.
ICAR-Indian Grassland and Fodder research Institute (IGFRI), Jhansi, Uttar Pradesh	This Linkage is basically for organizing the Front Line Demonstration (FLD) Programmes on various Improved Varieties of Green Fodder.
Agriculture Skill Council of India (ASCI), National Skill Development Corporation (NSDC), Ministry of Skill Development and Entrepreneurship, Govt. of India, New Delhi	This linkage is for Training of Trainers, formulation of Training Courses, assessment and providing Skill Training Certificates to the Trainees of ASCI Skill Training Courses like Hatchery Production Worker, Animal Health Worker, Agriculture Extension Service Provider etc.
National Fisheries Development Board (NFDB), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telengana	This linkage is for providing Human Resource Development Training to KVK Scientists as well as for organizing Long Duration Skill and Entrepreneurship Development Training Programmes to fish farmers and interested Rural Youths on different aspects of Fish Production and for hand-holding the Fish Growers for different Governmental Schemes in Fishery Sector.
National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telengana	This linkage is for providing Human Resource Development Training to KVK Scientists as well as for organizing Diploma in Agricultural Extension Services for Input Dealers (DAESI), a Long Duration Skill and Entrepreneurship Development Training Programmes for the Agricultural Input Dealers for developing them as grass-root level Extension Functionaries.
Line Departments like Agriculture, Horticulture and Food Processing Industries,	This linkage is basically on Technological back-stopping of the Extension and developmental

Animal Resource Development, Fisheries etc. of the Govt. of West Bengal, Birbhum, West Bengal	activities of various developmental departments of the Govt. of West Bengal.
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".
Agricultural Technology Management Agency (ATMA), Birbum, Suri, 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.
Agricultural Technology Management Agency (ATMA), Various Districts of West Bengal	The linkage is now focusing on organizing Exposure Visits of the members of the various Block Farm Information and Advisory Centre (FIAC) Teams at the Rathindra KVK for a firsthand experience on cutting edge technologies and products related to agriculture and related sectors as well as for undergoing relevant knowledge and skill development training programmes at the Rathindra KVK, Birbhum.
National Bank for Agriculture and Rural Development (NABARD), Birbhum, Suri, Birbhum, West Bengal	The linkage mainly focuses on formation of Farmers Club, organizing Training for vulnerable areas, Organizing Technology Weeks etc. Some Farmers' Clubs are doing excellent work and they are benefitted from this Linkage. Besides above mentioned Linkages, NABARD, Birbhum sponsored the Technology Week – 2015 and Technology Week - 2016, organized by the Rathindra KVK in its Campus. The NABARD has also sponsored Skill Development Trainings in the Farm Sectors in the Financial Year of 2015 – 2016.
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.
Lok Kalyan Parishad, Bolpur, Birbhum	This linkage gives importance as well as focuses on Training and Demonstration for stakeholders for far flung areas of Birbhum District where Institutional Linkages with villagers of those areas are very weak.
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 Institutional Linkages 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 whereInstitutional Linkages with villagers of those areas are very weak.
Asansol Burdwan Seva Kendra, Burdwan, West Bengal	This linkage gives importance as well as focuses on joint Training and Demonstration for stakeholders for various non-adopted villages of Birbhum District as well as far flung areas of Birbhum District, especially areas where Institutional Linkages with villagers of those areas are very weak.
Manab Jamin, Birbhum, West Bengal.	This linkage gives importance as well as focuses on joint Training and Demonstration for stakeholders for various non-adopted villages of Birbhum District.
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.
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.

5.2. List of special programmes undertaken during 2017-18by 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

Name of the Programme/Scheme	Purpose of Programme	Date/ Month of Initiation	Funding Agency	Amount (Rs.)
Diploma in Agricultural Extension Services for Input Dealers	To provide requisite information, knowledge, skill and related behavioral of the registered Input Dealers of Birbhum District for working as efficient supporting linkage of formal extension services provided by the Public and Private Sector agencies	07.12.2017.	National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad - 500030, Telengana, India through State AgriculturalManagement and Extension Training Institute (SAMETI), Ramakrishna Mission Ashram, Narendrapur, Kolkata.	8,00,000.00
Total				**8,00,000.00**

(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. S Chari	**To popularize fodder cultivation for improving animal health**	**21.04.2017**	**ICAR-NDRI, ERS, Kalyani**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Vaccination Camp	**To provide treatment and vaccination and mineral mixture distribution**	**23.06.2017**	**Dept. of Animal Resource Development, Govt. of West Bengal**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Training Programme on Improved Method of Black Gram and Sesame Cultivation in Kharif Season	**To popularize the cultivation of Kharif Pulses and Oilseeds replacing Kharif Paddy**	**27.07.2017.**	**ATMA, Bolpur, Birbhum**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Front Line Demonstration on Crop Diversification through Cultivation of Kharif Pulse	**To popularize the cultivation of Kharif Pulses replacing Kharif Paddy**	**August, 2017**	**ATMA, Birbhum**	**50,000.00**
Vaccination Camp	**To provide treatment and vaccination and mineral mixture distribution**	**17.08.2017**	**Dept. of Animal Resource Development, Govt. of West Bengal**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Training Programme on Improved Practices of RIR Farming	**To popularize the farming of Improved Rural Poultry Breed viz. RIR under Back Yard Farming System**	**18.08.2017.**	**ATMA, Bolpur, Birbhum**	**The total cost of the Programme was borne by the Sponsoring Agency.**

Vaccination Camp	**To provide treatment and vaccination and mineral mixture distribution**	**09.09.2017**	**Dept. of Animal Resource Development, Govt. of West Bengal**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Training Programme on Improved Method of Black Gram and Sesame Cultivation in Kharif Season	**To popularize the cultivation of Kharif Pulses and Oilseeds replacing Kharif Paddy**	**15.09.2017.**	**ATMA, Bolpur, Birbhum**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Animal Health Camp	**To provide treatment and vaccination, fodder seed distribution and mineral mixture distribution**	**22.09.2017**	**ICAR-NDRI, ERS, Kalyani**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Animal Health Camp	**To provide treatment and vaccination, fodder seed distribution and mineral mixture distribution**	**23.09.2017**	**ICAR-NDRI, ERS, Kalyani**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Training Programme on Improved Practices of RIR Farming	**To popularize the farming of Improved Rural Poultry Breed viz. RIR under Back Yard Farming System**	**13.10.2017.**	**ATMA, Bolpur, Birbhum**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Animal Health Camp	**To provide treatment and vaccination, fodder seed distribution and mineral mixture distribution**	**16.10.2017**	**ICAR-NDRI, ERS, Kalyani**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Farmers-Scientists Interaction on Increasing Farmers' Income through Crop Diversification	**Rabi Season**	**Rabi, 2017-18**	**ATMA, Birbhum**	**20,000.00**
Front Line Demonstration on Improved Fodder Crop Oat Var. Kent and Berseem Var. JB - 1	**To popularize fodder cultivation for improving animal health**	**December, 2017**	**ICAR-NDRI, ERS, Kalyani**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Front Line Demonstration on Crop Diversification through Cultivation of Summer Pulses and Oilseeds	**Summer Season**	**Summer, 2017-18**	**ATMA, Birbhum**	**1,60,000.00**
Agriculture Skill Council of India (ASCI) organized and National Skill Development Corporation (NSDC) affiliated Skill Development Training on the Job Role "Agriculture Extension Service Provider"	**To impart skill to the unemployed Rural Youths to become efficient Para Extension Worker through undergoing Long Duration Skill Training on the Job Role "Agriculture Extension Service Provider"**	**09.03.2018 to 31.03.2018**	**Rashtriya Krishi Vikash Yojona (RKVY), Ministry of Agriculture and Farmers' Welfare, Govt. of India**	**1,65,200.00**

Exposure Visit of the members of the FIAC, ATMA, Bishnupur - II CD Block, 24 Parganas (South) to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**15.02.2018.**	**ATMA, 24 Parganas (South)**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Exposure Visit of the members of the FIAC, ATMA, Raghunathgunj - I CD Block, Murshidabad to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**27.02.2018.**	**ATMA, Murshidabad**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Exposure Visit of the members of the FIAC, ATMA, Raninagar - II CD Block, Murshidabad to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**03.03.2018 to 06.03.2018.**	**ATMA, Murshidabad**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Exposure Visit of the members of the FIAC, ATMA, Kalna - I CD Block, Murshidabad to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**10.03.2018.**	**ATMA, Purba Bardhaman**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Exposure Visit of the members of the FIAC, ATMA, Kulpi CD Block, 24 Parganas (South) to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**11.03.2018.**	**ATMA, 24 Parganas (South)**	**The total cost of the Programme was borne by the Sponsoring Agency.**
Exposure Visit of the members of the FIAC, ATMA, Murshidabad-Jiagunj CD Block, Murshidabad to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**19.03.2018.**	**ATMA, Murshidabad**	**The total cost of the Programme was borne by the Sponsoring Agency.**

Exposure Visit of the members of the FIAC, ATMA, Rampurhat - II CD Block, Birbhum to the Rathindra KVK, Birbhum	**To provide the visiting Farmers first hand experience on cutting edge technologies in agriculture and related sectors through undergoing Training and visiting the facilities at the Rathindra KVK, Birbhum**	**27.03.2018.**	**ATMA, Birbhum**	**The total 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) Not Applicable

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	
Ground Nut	06.03.2017.	07.06.2017.	0.67	TAG - 24	TL Seeds	03.60	Rs. 18,000.00	Rs. 36,000.00	Distributed among 18 numbers of Farmers
Green Gram	07.03.2017.	09.06.2017.	0.13	SAMRAT	TL Seeds	01.00	Rs. 8,500.00	Rs. 15,000.00	28 Kilo Grams were utilized in OFT of RKVK and rest kept in Go-Down.
Elephant Foot Yam	17.05.2017.	20.11.2017.	0.10	Gajendra (Kavoor)	Quality Corms	02.00	Rs. 5,000.00	Rs. 12,000.00	Distributed among 20 numbers of FLD Partner Farmers.
Paddy	15.07.2017.	17.12.2017.	0.93	Rani Dhan	TL Seeds	32.00	Rs. 70,000.00	Rs. 96,000.00	Kept in Go-Down
Paddy	25.07.2017.	25.11.2017	0.67	Gotra Bidhan - 3	TL Seeds	22.00	Rs. 40,000.00	Rs. 66,000.00	7.35 Quintals are already sold and sale is going on.
Ekangi	10.06.2017.	15.03.2018.	0.13	*K. galanga*	TL Seeds	02.00	Rs. 4,000.00	Rs. 22,000.00	Kept in KVK Go-Down.
Green Gram	09.03.2018.	-	0.10	Samrat	-	-	-	-	Crop is in growing stage.

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

Sl. No.	Name of the Product	Qty. (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	

1.	*Azolla*	417.0	4,170.00	20,850.00	360.0 kgs. were utilized in FLD Programmes and 56.0 kgs. of *Azolla* was utilized in the OFT Programmes undertaken by Rathindra KVK.
2.	Vermi-Compost	862.0	1,500.00	8620.00	161.0 kgs. of Vermi-Compost were sold and remaining the Vermi-compost was used in KVK Flower and Vegetable garden.
3.	Earth-worm	4,700 in nos.	500.00	2,350.00	Earth-worms were supplied to 45 numbers of the farmers free of cost for encouragement in future use.

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.	Ducks	Khaki Campbell	Advanced Grower	60 nos.	1,400.00	9,000.00	Net Profit – Rs. 7,600.00
2.	Japanese Quail	*Coturnix coturnix japonica*		180 nos.	2,500.00	9,000.00	Net Profit – Rs. 6,500.00
3.	Fishes	Indian Major Carps and Exotic Carps	Table Fishes	02.25 q	7,500.00	30,000.00	Net Profit – Rs. 22,500.00
		Small Fishes		00.68 q			

6.5. Utilization of hostel facilities

Accommodation available (No. of beds): - 27

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April, 2017	-	-	**N. A.**
May, 2017	01	01 (01)	**N. A.**
June, 2017	50	50 (02)	**N. A.**
July, 2017	-	-	**N.A.**
August, 2017	44	44 (02)	**N. A.**
September, 2017	-	-	**N.A.**
October, 2017	01	01 (01)	**N.A.**
November, 2017	17	187 (11)	**N.A.**
December, 2017	17	170 (10)	**N.A.**
January, 2018	20 + 30	140 (07) + 510 (17)	**N. A.**
February, 2018	106	106 (07)	**N. A.**
March, 2018	25 + 17 + 02 + 25 + 20	75 (03) + 51 (03) + 06 (03) + 50 (02) + 460 (23)	**N. A.**
Total :	**375**	**1851 (92)**	

(For whole of the year)

6.6. Utilization of staff quarters

Whether staff quarters has been completed: No
No. of staffquarters: Not Applicable
Date of completion: Not Applicable
Occupancy details: Not Applicable

Months	Q I	QII	Q III	QIV	Q V	QVI

7. FINANCIAL PERFORMANCE

7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Visva-Bharati University A/c. Krishi Vigyan Kendra	**State Bank of India**	**Santiniketan, P. O. – Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal.**	**10598447180**

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

Item	Released by ICAR		Expenditure		Unspent balance as on1st. April, 2018
	Kharif	Rabi	Kharif	Rabi	
Sesame, Mustard, Linseed	2.00	2.72	1.74793	2.69070	00.28137

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st. April, 2018
	Kharif	Rabi	Kharif	Rabi	
Black Gram, Chick Pea, Lentil, Field Pea	2.25	00.70	1.98538	00.90501	00.05961

7.4. Utilization of KVK funds during the year 2017-18(Not audited)

Sl. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	115.00	115.00	114.536
2	**Traveling allowances**	01.12	01.12	01.112
3	**HRD**	00.20	00.20	00.185
4	**Contingencies**			
A	**Stationery, Telephone, Postage and Other Office Charges**	04.48	04.48	04.475

B	**POL, Repair of Vehicle, Tractor and Equipment**			
C	**Training of Farmer**	03.12	03.12	03.117
D	**Training Material**			
E	**Training of Extension Functionaries**			
F	**Training of Rural Youth**			
G	**Front Line Demonstration**	01.81	01.81	01.788
H	**On Farm Testing**	01.67	01.67	01.67
I	**Soil and Water Testing Laboratory**	-	-	-
J	**Swatchta Expenditure**	-	-	-
TOTAL (A)		127.40	127.40	126.865
B. Non-Recurring Contingencies				
1	**Works**	-	-	-
2	**Vehicle**	-	-	-
3	**Equipments, Furniture and Furnishing**	02.50	02.50	02.44
4				
TOTAL (B)		02.50	02.50	02.44
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**129.90**	**129.90**	**129.305**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year (Kind + cash)
2015-16	2.3330738	1.58382	1.29424	2.6226538
2016-17	2.6226538	1.06356	0.71855	2.9676638
2017-18	2.9676638	2.19133	1.93960	3.2193938

7.6. (i)Number of SHGs formed by KVKs - 01

(ii) Association of KVKs with SHGs formed by other organizations indicating the area of SHG activities – 03 Numbers of SHGs involved in (a) Seed Production of Paddy, Pulses; (b) Post-Harvest Processing and Value Addition of Fruits, Vegetables and Pulses and (c) Rural Crafts based on Kantha Stitch, Batique Works and Jute Crafts.

(iii) Details of marketing channels created for the SHGs – Rathindra KVK is acting as Linkage between the members of SHGs and "SUFAL BANGLA", an initiative by the Dept. of Agricultural Marketing for marketing the products of SHGs through Mobile Vans and Stationery Showrooms and from this Year the Rathindra KVK is an active partner of the RKVY Project on "Up-gradation of Market-Linkage Network for Promotion of Bengal Aromatic Rice", being executed by the Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya, P. O. – Krishi Viswavidyalaya, Dist. - Nadia, Pin. – 741252, West Bengal, India for promoting the production and marketing of the traditional aromatic Paddy Variety of Birbhum District viz. Radhunipagol by the members of the SHGs.

7.7. 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, ATMA, Mograhat - II CD Block, 24 Parganas (South) to the Rathindra	**01**	**Pre-Kharif Season**	**-**	**ATMA, 24 Parganas (South)**	**-**

KVK, Birbhum					
Exposure Visit of the members of the FIAC, ATMA, Bharatpur - II CD Block, Murshidabad to the Rathindra KVK, Birbhum	**01**	**Kharif Season**	**-**	**ATMA, Murshidabad**	**-**
Exposure Visit of the members of the FIAC,ATMA, Nanoor CD Block, Birbhum to the Rathindra KVK, Birbhum	**01**	**Pre-Kharif Season**	**-**	**ATMA, Birbhum**	**-**
Front Line Demonstration on Crop Diversification through Cultivation of Kharif Pulse	**01**	**Kharif Season**	**-**	**ATMA, Birbhum**	**-**
Exposure Visit of the members of the FIAC, ATMA, Bharatpur - I CD Block, Murshidabad to the Rathindra KVK, Birbhum	**01**	**Kharif Season**	**-**	**ATMA, Murshidabad**	**-**
Exposure Visit of the members of the FIAC, ATMA, Itahar CD Block, Uttar Dinajpur to the Rathindra KVK, Birbhum	**01**	**Kharif Season**	**-**	**ATMA, Uttar Dinajpur**	**-**
Exposure Visit of the members of the FIAC, ATMA, Beharampore 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)	-
Farmers-Scientists Interaction on Increasing Farmers' Income through Crop Diversification	**01**	**Rabi Season**	**-**	ATMA, Birbhum	-
Front Line Demonstration on Crop Diversification through Cultivation of Summer Pulses and Oilseeds	**01**	**Summer Season**	**-**	**ATMA, Birbhum**	**-**
Exposure Visit of the members of the FIAC, ATMA, Bishnupur - II CD Block, 24 Parganas (South) to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, 24 Parganas (South)**	**-**
Exposure Visit of the members of the FIAC, ATMA, Raghunathgunj - I CD Block, Murshidabad to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, Murshidabad**	**-**
Exposure Visit of the members of the FIAC, ATMA, Raninagar - II CD Block, Murshidabad to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, Murshidabad**	**-**
Exposure Visit of the members of the FIAC, ATMA, Kalna - I CD Block, Murshidabad to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, Purba Bardhaman**	**-**
Exposure Visit of the members of the FIAC, ATMA, Kulpi CD Block, Paschim Bardhaman to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, Paschim Bardhaman**	**-**
Exposure Visit of the members of the FIAC, ATMA, Murshidabad-Jiagunj CD Block, Murshidabad to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, Murshidabad**	**-**
Exposure Visit of the members of the FIAC, ATMA, Rampurhat - II CD Block, Birbhum to the Rathindra KVK, Birbhum	**01**	**Summer Season**	**-**	**ATMA, Birbhum**	**-**

8. Other information

8.1. Prevalent diseases in Crops – Not Applicable

Name of the disease	Crop	Date of outbreak	Area affected (in ha)	% Commodity loss	Preventive measures taken for area (in ha)

8.2. Prevalent diseases in Livestock/Fishery – Not Applicable

Name of the disease	Species affected	Date of outbreak	Number of death/ Morbidity rate (%)	Number of animals vaccinated	Preventive measures taken in pond (in ha)

9.1. Nehru YuvaKendra(NYK) Training – Not Applicable

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

9.2. 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

9.3. *mKisan*Portal (National Farmers' Portal/ SMSPortal)

Type of message	No. of messages	No. of farmers covered
Crop	24	12311
Livestock	36	16920
Fishery	12	3570
Weather	36	4628
Marketing	48	5920
Awareness	36	6960
Training information	12	3612
Other	-	-
Total	**204**	**53921**

9.4. *KVK* Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	**2,000**
2.	No. of farmers registered in the portal	**-**
3.	Mobile Apps developed by KVK	**-**
4.	Name of the App	**-**
5.	Language of the App	**-**
6.	Meant for crop/ livestock/ fishery/ others	**-**
7.	No. of times downloaded	**-**

9.5. a. Observation of Swacha Bharat Programme

Date of Observation	Activities undertaken
16.10.2017.	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.
17.10.2017.	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.
18.10.2017.	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.
19.10.2017.	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.
20.10.2017.	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.
21.10.2017.	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.
22.10.2017.	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.
23.10.2017.	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.
24.10.2017.	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 Domdoma, P. O. – Albandha, 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.

25.10.2017.	The Rathindra KVK has organized an Awareness Camp for Primary level school students, where 72 (Seventy Two) 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.
26.10.2017.	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.
27.10.2017.	The Rathindra KVK has organized an Awareness Camp for farmers of the Village - Bishnubati, P. O. – Sattore, Police Station – Panrui, Community Development (CD) Block – Bolpur-Sriniketan, Dist. – Birbhum. In this Awareness Camp, the practicing farmers, farm women 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 village 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.
28.10.2017.	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.
29.10.2017.	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.

30.10.2017.	All the Staff of the Rathindra KVK organized a Walk inside the Sriniketan Campus of Visva-Bharati to make the people aware abot the importance of "*SWACHHTA PAKHWARA"*.
31.10.2017.	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.

b. Details of Swachhta activities with expenditure

Activities	Number	Expenditure (in Rs.)
1. Digitization of office records/ e-office	02	5,000.00
2. Basic maintenance	02	
3. Sanitation and SBM	24	
4. Cleaning and beautification of surrounding areas	24	
5. Vermicomposting/ Composting of biodegradable waste management & other activities on generate of wealth for waste	24	
6. Used water for agriculture/ horticulture application	-	
7. Swachhta Awareness at local level	-	
8. Swachhta Workshops	-	
9. Swachhta Pledge	-	
10. Display and Banner	02	
11. Foster healthy competition	-	
12. Involvement of print and	-	
	-	
13. electronic media	-	
14. Involving the farmers, farm women and village youth in the adopted villages (no of adopted village)	24	
15. No of Staff members involved in the activities	16	
16. No of VIP/VVIPs involved in the activities	-	
16. Any other specific activity (in details)	-	
Total	**118**	**5,000.00**

9.6. Observation of National Science day

Date of Observation	Activities undertaken

9.7. Programme with SeemaSurakshaBal (BSF)
Not Applicable

Title of Programme	Date	No. of participants

9.8. Agriculture Knowledge in rural school:

Name and address of school	Date of visit to school	Areas covered	Teaching aids used

Give good quality 1-2 photograph(s)

9.9. Details of '*Sankalp Se Siddhi'* Programme

Date of programme	No. of Union Ministers attended the programme	No. of Hon'ble MPs (Loksabha/ Rajyasabha) participated	No. of State Govt. Ministers	Participants (No.)							Coverage by Door Darshan (Yes/No)	Coverage by other channels (Number)
				MLAs Attended the programme	Chairman ZilaPanchayat	Distt. Collector/ DM	Bank Officials	Farmers	Govt. Officials, PRI members etc.	Total		
30.08.2017.	-	-	-	01 (Former M.L.A)	-	-	02	661	32	693	Yes	01

9.10. Details of Swachhta Hi Sewaprogramme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)

9.11. Details of MahilaKisan Divas programme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
01.	1. One-day programme on "MahilaKisan Divas" was organised on 15.10.2017 at Rathindra KVK Campus, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum-731236, West Bengal. 2. Fifty One numbers of farm women participated in the whole day programme. Principal, Palli Siksha Bhavana, Visva-Bharati graced the occasion as chairperson. 3. In this programme four farm women were felicitated in agriculture and allied field.	10	51	01	Prof.Sarthak Chowdhury, Principal, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum – 731236

	4. In the Technical session, discussion on Women empowerment in Animal Science and Nutritional Security. 5. After a day long discussion farm women returned their home with satisfaction. The programme was ended with vote of thanks.				

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

Sl. No.	Name of the Farmer	Address of the Farmer with contract No.	Innovation / Leading in Enterprise
1	Sri Srikanta Pandit	Vill. - Kamalakanpur; P.O.- Khanjanpur; Pin. – 731236, Dist. - Birbhum Mob- 9647886328	Leading in CFLD on Chick Pea cultivation in his locality in Rice - Fallow situation.
2	Sri Gadai Ghosh	Vill. – Rajatpur; P.O. - Rajatpur; Pin. – 731204, Dist. - Birbhum Mob- 8670076681	Leading in CFLD on Mustard cultivation in his village and surrounding village.
3	Sri Uday Ghosh	Vill. – Rajatpur; P.O. - Rajatpur; Pin. - 731204, Dist. - Birbhum Mob- 8670076681	Leading in CFLD implementation on new variety of Wheat in large area.
4	Sri Partha Mal	Vill. – Daranda; P.O. – Dwaronda; Pin. - 731236, Dist. - Birbhum Mob- 8926536411	Leading in Vermi-compost production sale and use in production of organic vegetables.
5	Sri Bipadtaran Ghosh	Vill. – Kartikdanga; P.O. – Raipur; Pin. - 731204, Dist. - Birbhum Mob- 8900484426	Leading in cultivation of large Ekangi (Medicinal Plant) as crop diversification and making market channel to sale it.
6	Smt. Malati Biswas	Vill. – Kalinagar Colony; P.O. – Chowhatta, Pin. – 731201, Dist. - Birbhum Mob- 9002176948	Leading to popularise Linseed cultivation in her area.
7	Smt. Lalita Tudu	Vill. – Faridpur; P.O. – Bilatisultanpur; Pin. - 731236, Dist. - Birbhum Mob- 9609646189	Leading in CFLD programme in Sesame as crop diversification in her locality.
8	Sri Lakshi Narayan Sen	Vill. – Senkapur; P.O. – Raipur; Pin. - 731204, Dist. - Birbhum Mob- 9933937720	Leading in CFLD programme on Field Pea in Rice - Fallow situation in his area.
9	Smt. Lakshmi Mardi	Vill. – Faridpur; P.O. – Bilatisultanpur; Pin. - 731236, Dist. - Birbhum Mob- 8942902797	Leading in CFLD on Summer Green Gram instead of Boro Rice in her area.
10	Sri Subhasish Ghosh	Vill. – Digha; P.O. – Digha; Pin. – 731236, Dist. - Birbhum Mob- 8640866516	Leading in using Drum Seeder for Paddy cultivation to promote conservation agriculture in his locality.
11	Sri Nisith Ghosh	Vill. – Damdama; P.O. – Laudaha; Pin. - 731204, Dist. - Birbhum Mob- 9800604849	Leading to implement CFLD on Black Gram and Sesame in Kharif season as crop diversification in his locality.
12	Sri KhudiramDebangshi	Vill. – Debanandapur; P.O. – Laudaha; Pin. - 731204 Mob- 9002688159	Leading in Lentil cultivation in Rice - Fallow under CFLD programme in his village and surrounding villages.
13	Sri Debashish Mandal	Vill. – Surul; P.O. – Sriniketan; Pin. - 731236, Dist. - Birbhum Mob- 7001358872	Leading in Dairy Farm
14	Sri Bidhan Sinha	Village: - Mirzapur, P. O. – Raipur, Pin. – 731204, Dist. – Birbhum, West Bengal. Mob- 9734134282	Innovative Dairy Farmer
15	Smt. Prava Biswas	Vill. – Melegar; P.O. – Illumbazar; Pin. – 731214, Dist. – Birbhum Mob- 8016284129	Progressive Rural Back Yard Poultry Farmer.

16	Smt. Sukodi Mardi	Vill. – Adibasi Para, Bishnubati, P. O. – Sattore; Pin. – 731236, Dist. – Birbhum Mob. 9647677362	Leading in Self Help Group formation, Handi Crafts and Rural Crafts production
17	Sri Tapan Ghosh	Village: Bishnubati, CD Block: Bolpur-Sriniketan, P. O. – Sattore, Pin. – 731236, Police Station: Sattore, District: Birbhum Mob: 9614057093	Innovative Farmer of SRI Marker and Rural Back Yard Poultry based on Improved Rural Breeds and Breed Up-gradation
18	Sri Mahadev Sarkar	Vill. – Choto Shimulia, P. O. – Panchshoya, Dist. – Birbhum Mob. - 8670077649	Leading in cultivation of High Value Low Volume Vegetables like Capsicaum, Broccoli, French Beans, Chinese Cabbage etc.
19	Sri Arabinda Pal	Vill. – Sundipur, P. O. – Bishnukhanda, Pin. – 731236, Dist. – Birbhum Mob: 7001024884	Innovative Farmer of Fish based Integrated Farming System (IFS)
20	Sri TuhinSubhra Dey	Vill. – Domdoma, P. O. – Albandha, Pin. – 731204, Dist. – Birbhum Mob: 9735174764	Innovative Farmer of Fish based Integrated Farming System (IFS)
21	Sri Abu Taher	Vill. – Mala, P. O. –Bergram, Dist. – Birbhum Mob. 7872454731	Innovative Farmer of Fish based Integrated Farming System (IFS)
22	Sr Arbinda Chakraborty	Vill. – Hatikra; P.O. – Panrui, Dist. – Birbhum Mob. - 9732332656	Innovative Farmer of modern Fish Hatchery.
23	Sri Sunil Das	Vill. – Srichandrapur; P.O.- Sattore; Pin. – 731236, Dist. – Birbhum Mob. - 9679885667	Innovative farmer of Glass Jar Hatchery, cultivation of Amur Common Carp
24	Sri Bapi Dhara	Vill. – Srichandrapur; P.O. – Sattore; Pin. – 731236, Dist. – Birbhum Mob. - 9851470447	Progressive farmer of culture of Amur, Jayanti Rohu, Monosex Tilapia
25	Sri Buddhadeb Ghosh	Vill. – Amgoria; P.O. – Bishnukhanda, Dist. – Birbhuum Mob. 9475097332	Progressive fish fingerling producer.
26	Sri Santosh Ghosh	Vill. – Amgoria; P.O. – Bishnukhanda, Dist. – Birbhum Mob. - 7076593717	Progressive fish fingerling producer.

9.13.HRD programmesattended by KVK person

Training Programme/ Seminar/ Symposia/ Workshop etc attended	Duration	Name of the participants	Designation	Organizer of the training Programme
Zonal Workshop of Krishi Vigyan Kendras of Bihar, West Bengal, Jharkhand and Andaman and Nicobar Islands	14.04.2017 to 16.04.2017 (03 Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097 and ICAR-Central Island Agricultural Research Institute (CIARI), Garacharama, Port Blair, Andaman and Nicobar Islands – 744101.
Review and Planning Meeting-cum-Workshop of IFAD-ICARDA Regional Project in South Asia	07.06.2017 to 09.06.2017 (03 Days)	Dr. Subrata Mandal	Subject Matter Specialist (Agronomy)	IFAD, ICARDA and Nepal Agricultural Research Council at Kathmandu,

				Nepal.
ICAR Sponsored CAFT Training on Use of ICT in Agricultural Education for Accelerated Learning	04.07.2017 to 24.07.2017 (21 Days)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protection)	Department of Extension Education, Bihar Agricultural College, Bihar Agricultural University (BAU), Sabour, Bhagalpur, Bihar – 813210, India.
National Seminar on "Nutrients and pollutants in soil-plant-animal-human Continuum for sustaining soil, food and nutritional security – way forward"	09.06.2017 to 10.06.2017 (02 Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	Bidhan Chandra Krishi Viswavidyalaya (BCKV), Mohanpur, Nadia and National Academy of Agricultural Sciences (NAAS), New Delhi held at Lake Hall, BCKV, Kalyani, Nadia, West Bengal.
Short Course Training on "Conservation of Indigenous Breeds of Small Ruminants in their respective Tracts"	18.07.2017 to 27.07.2017 (10 Days)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	ICAR and West Bengal University of Animal and Fishery Sciences at West Bengal University of Animal and Fishery Sciences, Belgachia, Kolkata.
Write Shop on "Agriculture Skill Council of India (ASCI) Certified Courses on Animal Husbandry"	19.09.2017 to 22.09.2017 (04 Days)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	Welthungerlife, Germany; Krishi Gramin Vikash Kendra (KGVK), Ranchi and Lok Shiksha Parishadat KGVK Campus, Ranchi
15 Days Rigorous Training on both Theoretical and Practical Aspects of "Seed Technology" as the Module – II of the Certified Farm Adviser (CFA) Course on Specialization "Seed Technology"	23.10.2017 to 06.11.2017 (15 Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad – 500030, Telengana, India at the IndianCouncil of Agricultural Research (ICAR) – Indian Institute of Seed Science (IISS), Kushmaur, Mau – 275103, Uttar Pradesh, India.
National Symposium on Role of Veterinarian in improving Food Safety through "One World One Health and One Medicine" Approach in India	03.01.2018 (01 Day)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	West Bengal University of Animal and Fishery Science, 68 K. B. sarani, Belgachia, Kolkata – 700037.
Agriculture Skill Council of India (ASCI) Training of Trainers (ToT) on "Job Role – Agriculture Extension Service Provider"	04.01.2018 to 06.01.2018 (03 Days)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	Indira Gandhi Krishi Viswavidyalaya, Raipur, Chhattisgarh and ICAR – Agricultural Technology Application Research Institute (ATARI), Jabalpur, Madhya Pradesh at Directorate of Extension Services, Indira Gandhi Krishi Viswavidyalaya, Raipur, Chhattisgarh, India.
National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development	05.01.2018 to 07.01.2018(03 Days)	Dr. Subrata Mandal	Subject Matter Specialist (Agronomy)	Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar,

Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha.				Odisha
National Conference on Improving Income of Farmers through Agriculture and Aquaculture through Development Interventions, organized by the Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha at ICAR-CIFA, Bhubaneswar, Odisha.	05.01.2018to 07.01.2018 (03 Days)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protection)	Society of Krishi Vigyan, Association of Aquaculturists and ICAR-CIFA, Bhubaneswar, Odisha
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Smt. Ruma Addy	Programme Coordinator (Officiating)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Dr. Krishna Mitra	Subject Matter Specialist (Fishery)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Dr. Subrata Mandal	Subject Matter Specialist (Agronomy)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protection)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization"	29.01.2018 (01 Day)	Sri Palash Ankure	Programme Assistant (Farm Manager)	Department of Agricultural Engineering, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal
Refresher Course for KVK Personnel	30.01.2018 (01 Day)	Dr. Subrata Mandal	Subject Matter Specialist (Agronomy)	ICAR-Agricultural Technology Application Research Institute

				(ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
Refresher Course for KVK Personnel	01.02.2018 (01 Day)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protection)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
Refresher Course for KVK Personnel	01.02.2018 (01 Day)	Sri Palash Ankure	Programme Assistant (Farm Manager)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
Refresher Course for KVK Personnel	03.02.2018 (01 Day)	Dr. Krishna Mitra	Subject Matter Specialist (Fishery)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
Refresher Course for KVK Personnel	03.02.2018 (01 Day)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
Refresher Course for KVK Personnel	06.02.2018 (01 Day)	Smt. Ruma Addy	Programme Coordinator (Officiating) and Subject Matter Specialist (Home Science)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
Refresher Course for KVK Personnel	06.02.2018 (01 Day)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector – III, Salt Lake City, Kolkata –700097
2-Day Workshop on Collaborative Programme like DAESI	19.02.2018 to 20.02.2018. (02 Days)	Sri Sourav Mondal	Subject Matter Specialist (Plant Protection)	State Agricultural Management and Extension Training Institute & Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur, Kolkata - 700103
National Seminar on Mixed Farming -A Traditional Practice to enhance the Income of Farmers giving Emphasis More in Livestock keeping	24.03.2018 to 25.03.2018. (03 Days)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	Department of Animal Science, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal and the Society of Bio-

				Resource, Environment and Agricultural Research (SBEAR), Santiniketan, Birbhum, West Bengal.
Farmer-Scientist Meet with 7days'Workshop On: Livestock Management and Organic Farming	24.03.2018 to 30.03.2018. (07 Days)	Dr. Madhuchhanda Khan	Subject Matter Specialist (Animal Science)	Department of Animal Science, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal and the Society of Bio-Resource, Environment and Agricultural Research (SBEAR), Santiniketan, Birbhum, West Bengal.
National Seminar on "Agri-chemicals for a benign environment" and the 5th. Annual Convention of the Society of Fertilizers and Environment	29.03.2018. (01 Day)	Dr. Prabuddha Ray	Subject Matter Specialist (Agricultural Extension)	Society of Fertilizers and Environment in collaboration with Bidhan Chandra Krishi Viswavidyalaya at the Farmers' Academy and Convention Centre (FACC) (Lake Hall), Bidhan Chandra Krishi Viswavidyalaya, Kalyani.

9.14. Revenue generation

Sl. No.	Name of Head	Income(Rs.)	Sponsoring agency
1.	Revolving Fund (From sale of Farm Produce like Seeds, Planting Materials, Fruits from Demonstration Farm for Seed Production and Demonstration Progeny Orchads of the Rathindra KVK)	1,73,903.00	Own arrangement – KVK Demonstration Farms, Orchads, Poultry, Pond etc.
2.	Revolving Fund [From sale Ducks Breed Khaki Campbell (Advanced Growers), Poultry Breed Rhode Island Red (Chicks) etc. of the Demonstration Poultry of the Rathindra KVK)	15,230.00	
3.	Revolving Fund (From sale of Fish from the Instructional Pond of the Rathindra KVK)	30,000.00	
4.	Trainees' Hostel Rent	63,900.00	
5.	Seminar Hall Rent	19,000.00	
6.	**Total**	**3,03,033.00**	

9.15. Resource Generation:

SL. No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created
01.	Diploma in Agricultural Extension Service for Input Dealers	To develop human resources among the Input Dealers through Skill, Knowledge and Entrepreneurship development Training Programmes on Various Aspects of Agricultural Extension Services	MANAGE, Hyderabad, Telengana	04.00	-

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.	FLD Programme in Summer Oilseeds under ATMA	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Summer Oilseeds Production	ATMA, Birbhum	01.60	-
04.	Skill Development Training Programme on "Agriculture Extension Service Provider"	To develop human resources among the practicing farmers, farm women and rural youths through Skill and Entrepreneurship development Training Programmes on Various Aspects of providing Agriculture Extension Service	ICAR, New Delhi	01.65200	Various Exhibit Materials, Information Storage Mediums like Pen Drives, CDs, DVDs and Extension Literatures
05.	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	01.506	-
06.	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	01.657	-
07.	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	-	-
08.	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	02.72	-
10.	Cluster Front Line Demonstrations (Cluster FLDs) on Rabi Pulse (Crop: Green Gram)	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Summer Pulse Production	ICAR, New Delhi	00.70	-
11.	Sankalp Se Siddhi – New India Manthan	To take the plege of making the farmers' income double by the year 2022 A. D. through exposing 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.	**Total**			**14.835**	

Sl.No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created

9.16. 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

9.17. 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

10. Report on Cereal Systems Initiative for South Asia (CSISA) – Not Applicable

a) Year:
b) Introduction / General Information:

	Title	Objective	Treatment details	Date of sowing	Replication	Result with photographs
Experiment 1						
Experiment 2						
Experiment 3						
…						
..						
Others (If any)						

11. Details of TSP

Not Applicable

a. Achievements of physical output under TSP during 2017-18

Programmes	Physical achievements
Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)	
On-farm trials (Number)	
Frontline demonstrations (Number)	
Farmers training (in lakh)	
Extension personnel training (in lakh)	
Participants in extension activities (in lakh)	
Seed production (in tonnes)	
Planting material production (in lakh)	
Livestock strains and fingerlings production (in lakh)	
Soil, water, plant, manures samples testing (in lakh)	
Provision of mobile agro – advisory to farmers (in lakh)	
No. of otherprogrammes (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)	

b. Fund received under TSP in 2017-18 (Rs. In lakh):

c. Achievements of physical outcomeunder TSP during 2017-18

Sl. No.	Description	Unit	Achievements
1	Change in family income	%	
2	Change in family consumption level	%	
3	Change in availability of agricultural implements/ tools etc.	No. per household	

d. Location and Beneficiary Details during 2017-18

District	*Sub-district*	*No. of Village covered*	*Name of village(s) covered*	*ST population benefitted (No.)*		
				M	F	T

12.Progress report of NICRA KVK (Technology Demonstration component) during the period (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

13. Awards/Recognition received by the KVK

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

Award received by Farmers from the KVK district

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
01.	Innovative Farmer Award	Sri Tapan Kumar Ghosh	2017-18	ICAR – Eastern regional Research Complex, Patna	-	To encourage the farmer in spreading the Package of Practices of Back Yard Rural Poultry based on Improved Poultry Breeds
02.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Sri Sujit Ghosh	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Practices of Pulse and Oilseed Cultivation through organization of Cluster Front Line Demonstration Programmesas a part of Crop diversification efforts
03.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Sri Bidhan Sinha	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Management Practices of commercial Dairy Unit
04.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Sri Buddhadev Ghosh	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Practices for Composite Fish Culture based on Indian Major Carps (IMC) and Low Cost Fish Feed preparation
05.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Sri Abhijit Mal	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Practices for Mushroom Production
06.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Sri Partha Mal	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Practices for Vermin-Compost Production
07.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Sri Mahadev Sarkar	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Practices for High Value Low Volume Vegetable viz. Broccoli, Capsicum etc. Production
08.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Smt. Sukhadi Mardi	2017-18	Visva-Bharati University	-	To encourage the farming community for Self Help Group formation and Women Empowerment through Handi Crafts and Rural Crafts Production
09.	Certificate of Excellence Award at the Halakarshana Utsav - 2017	Smt. Prabha Biswas	2017-18	Visva-Bharati University	-	To encourage the farmer in spreading the Package of Practices for establishment of Rural Back Yard Poultry based on Fish Fingerling Production

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

A. Shri Tapan Kumar Ghosh (On the Left Side of Shri Radha Mohan Singh Ji) was being conferred the Innovative Farmer Award for his Pioneering Role in Back Yard Poultry Farming with Rural Improved Poultry Breed and with a focus on Breed Up-gradation by the Honorable Minister of Agriculture and Farmers' Welfare, Shri Radha Mohan Singh Ji on 22.02.2018 at the ICAR Eastern Regional Research Complex, Patna, Bihar.

Name of the Farmer: Mr. Tapan Kumar Ghosh

Address: Village: Bishnubati, CD Block: Bolpur-Sriniketan, P. O. – Sattore, Pin. – 731236, Police Station: Sattore, District: Birbhum

Enterprise taken up with Brief Note: Backyard poultry farming is one of the most important viable enterprise of dry semi-arid zone of West Bengal. However, the traditional way of backyard poultry keeping system is less remunerative as a consequence of scarcity of superior germplasm. Though, rural backyard poultry segment contributes nearly 30 per cent of the national egg production, still it is a neglected one. The meat of backyard scavenging chickens is highly accepted in the markets and more remunerative than commercial broiler meat because of its taste, lower fat content and texture.

Keeping these real level situations in mind, the Rathindra Krishi Vigyan Kendra has intervened through conducting an On Farm Trial Programme on Comparative Performance analysis of the Breeds viz. Vanaraja, Rhode Island Red and Indigenous (Deshi) Chicken in dry land farming situation of Birbhum District of West Bengal. At first, in the financial years of 2014-15 and 2015-16, the Rathindra Krishi Vigyan Kendra selected fourteen partner farmers from different villages of Birbhum district for the On Farm trial Programmes.

One of the selected partner farmers, Sri Tapan Ghosh, who was continuing the Back Yard Poultry Farming in a traditional way, but earning a Net Profit Margin almost each and every year, was keenly observed by the Rathindra KVK focussing on the potential of increasing the profit gained by the above mentioned unemployed partner farmer, i.e. Sri Tapan Kumar Ghosh. 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. 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. 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. 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 organized and performed in the Instructional Poultry Farm of the KVK. He started his backyard poultry unit at his own land and constructed a non-conventional low-cost poultry house made of locally available materials, such as bamboo and wood as night shelter and to protect the birds from predators. Birds were let loose as free range scavenging for utilizing the feed base, i.e., fallen grain, insect, earthworm, kitchen waste, green grass etc. with supplementary feeding of concentrate mixture prepared by the locally available feed resources. Almost one fourth of the amount of concentrate mixture was replaced by *Azolla* (*Azollapinnata*) and vegetables like *Kalmi*(*Ipomoea aquatica*) and Spinach (*Spinacia oleracea*) etc. 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.

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. 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. Mortality upto 52 weeks of age for Vanaraja and Rhode Island Red is also negligible. By the time, Sri Tapan Kumar Ghosh started to brood fertile eggs of both Vanaraja and Rhode Island Red by using his local Hen.

Vanaraja and Rhode Island Red bird fetches a market price of Rs.180.00 – Rs. 200.00 / kg. which is similar with local poultry price in market. The price of newly hatched chick is around Rs. 20.00 to Rs. 22.00 per chick and table purpose egg fetches a price of Rs. 6.00 to Rs. 7.00 per egg. Besides, Sri Ghosh diversified his Back Yard Poultry Farming into a breed up-gradation sector also by crossing these two breeds viz. Vanaraja and Rhode Island Red with local birds.

Performance

Profit and Loss: 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 each batch.

Remarks: 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.

Economics of the Enterprise:

Table – 1
Economic benefit of Mr. Tapan Kumar Ghosh fromBack yard Farming System

(In Rs.)

Particulars	Vanaraja (20 birds each unit)	Rhode Island Red (20 birds each unit)	Deshi (20 birds each unit)

A. Non-recurring expenditure			
a) Land	Existing	Existing	Existing
b) Poultry shed made of locally available	1500.00	1500.00	1500.00
c) Equipment	Not required	Not required	Not required
B) Recurring Expenditure			
a. i) Cost of feed(Low cost feed made by locally available ingredients)@Rs. 16/Kg	5229.60	5136.40	2718.00
ii) Cost of feed for new flock raised from parent stock(Six cock and sixty hen)	5425.00	5425.00	
b. i)Cost of medicine and vaccine(Rs. 6.51/bird)	110.67	110.67	110.67
ii) Cost of medicine and vaccine for new flock raised from parent stock(Six cock and sixty hen)@ Rs. 3.31/bird	109.23	109.23	
c) Miscellaneous expenditure	150.00	150.00	100.00
Total cost(A+B)	12524.50	12431.30	4428.67
	=29384.47		
Income			
A.			
a) Income from sale of table eggs @Rs. 6/egg and 65 eggs per indigenous bird @ Rs. 6/egg and 103 eggs per Vanaraja bird Rs. 6/egg and 157 eggs per Rhode Island Red bird	3600.00	7362.00	3500.00
b) Income from sale of cock	6660.00	4640.00	2720.00
c) Income from sale of spent hen(@Rs. 160/Kg)	3200.00	2944.00	1584.00
d) Income from sale of newly hatched chicks @Rs.20/Chick	3200.00	3200.00	
B. Income from new flock raised from parent stock(six cock and sixty hen)			
a)Sale of cock	1920.00	1320.00	
b) Sale of table egg	18,540.00	28,260.00	
Total Income(A+B)	37120.00	47726.00	7804.00
	=92650.00		
Net Income	63265.53		
B/C Ratio	2.15		

N. B. - This economic benefit is calculated for initial 1.5 year of farming in backyard.

15. Number of commodity based organizations/ farmers' cooperative society/ FPO formed/ associated with during last one year (Details of the group/society may be indicated): - Two (02) Nos.

Sl. No.	Name of the organization / Society	Trust Deed No.& date	Date of Trust Registration Address	Proposed Activity	Commodity Identified	No. of Members	Financial position (Rupees in lakh)	Success indicator
01.	**BharkataAdivashiChashiBhai Lahanati Producer Company Limited**	**U01100WB2018PTC225331; Dated – 23.03.2018**	Date – 23.03.2018 Address – 15, Jethia, Bhanrkata, Dist. – Birbhum, Pin. – 731216, West Bengal	Production of Certified Seeds	Paddy, Mustard	500	The Company was established on 23.03.2018. Till date no Audit Report has been prepared.	-
02.	**MashraAdibashi Farmers Producer Company Limited**	**U36999WB2018PTC224177; Dated – 05.01.2018**	Date – 05.01.2018 Address – Village –	Production of Certified Seeds	Paddy, Lentil	500	The Company was established on 23.03.2018.	-

			Nirisha, P. O. – Kastogara, Police Station – Rampurhat, Dist. – Birbhum, Pin. – 731216, West Bengal				Till date no Audit Report has been prepared.	

16. Integrated Farming System (IFS)

Details of KVK Demo. Unit - Not Applicable

Sl. No.	Module details (Component-wise)	Area under IFS (ha)	Production (Commodity-wise)	Cost of production in Rs. (Component-wise)	Value realized in Rs. (Commodity-wise)	No. of farmer adopted practicing IFS	% Change in adoption during the year

17. Technologies for Doubling Farmers' Income

Sl. No.	**Name of the Technology**	**Brief Details of Technology (3 - 5 bullet points)**	**Net Return to the farmer (Rs.) per ha per year due to the technology**	**No. of farmers adopted the technology in the district**	**One high resolution 'Photo' in 'jpg' format for each technology**
1	Cultivation of Kharif Oilseed Crop Sesame, Var. - SWB-32-10-1 (Sabitri)	**Variety: -** Seeds of Improved Variety SWB-32-10-1 (Sabitri) @ 6 kg. / ha **Herbicide application: -** Application of herbicides Pendimethalin @ 3 lit. / ha at 1 – 3 DAS. **Sulpher application** **Micro-Nutrient Spray:-**Foliar Spray of Micro-Nutrients: - Zn EDTA @ 1 gm. / lit. of water at 25 and 45 DAS.	Rs. 33,265.00 / ha. / Annum	216	**Please see Photograph - A**
2.	Crop Diversification through Cultivation of High Value Low Volume Vegetable viz. Broccoli	**Spacing:** 2.0 feet x 2.0 feet **Time of Planting -** August – October **Seed Treatment –** Treated with 2 - 2.5 gm Thiram / litre of water. **Application of Manure per hectare –** Compost- 20-25 ton; 160 (100 + 60) kg Urea; 550 kg SSP; 170 kg MoP **Application of Micro-nutrients -** 1 - 1.5 kg Molybdenum and 20 kg. Sodium borate per hectare before planting	Rs. 1,52,500.00 / ha. / Annum	**107**	**Please see the Photograph - B**
3.	Jute based Rural Handicrafts	**Improved Techniques: -** Decorative Use of Jute for producing Pen Stand, Decorative Horses,	Rs. 72,000.00 / Annum	**29**	**Please see Photograph**

		Statues of Lord Buddha, Flower Vases, many other customized products as per the needs and creative demands of the customers **Materials: -** Jute, Gums, Hard Boards, Coloured Beads, Coloured Jutes etc. **Designs: -** As per the requisite product **Plan of Works: -** At first design drawing is done, then a Mould is made with Paper based on that drawing, then Jute or Jute Threads are attached on the Paper mould with adhesive and finally it is decorated with Coloured jutes and or Coloured Beads.			**- C**
4	Modern Kantha Stitch Works	**Improved Techniques: -** Traditionally "Kantha Stitch" Design was used on wrappers but now its shape, size are modified with Coloured Threads so that it can be used on dress designing and accessories like Side Bags, Bags, Sharee, Shirts, Pujabees, Blouse Piece, Top, Kurti etc. giving it a further value addition. **Materials: -** Cloth, Thread, Tracing Paper, Carbon Paper, Different Sized Frames, Different Sized Needles etc. **Designs: -** As per the requisite product and Consumer's preference. **Plan of Works: -** At first the design is drawn on a Plain Paper, then the impression of the Design is put on the Clothe with the help of Tracing Paper or Carbon Paper and then according to the design, the "Kantha Stitch" Work is carried out on the Clothe by different coloured Threads.	Rs. 96,000.00 / Annum	**1000**	**Please see the Photograph - D**
5.	Introduction of Giant Prawn (*Macrobrachiumrosenbergii)* as A New Component of Composite Fish Culture	**Pond Preparation: -** Bottom pond muck is to be removed and liming @ 10 – 15 kg. / 0.13 ha. Manuring is to be done with Cowdung @ 2 – 3 Quintals / 0.13 ha. SSP is to be given @ 10 kg. / 0.13 ha. **Water Quality Management: -**pH. is to be maintained within a range of 7.5 to 8.0 through liming. **Fish Feed Management: -** Rice Bran, Groundnut Oil Cake, Fish Meal and Dry Yeast Powder in the ratio of 50: 30:10:10 respectively @ 3 – 5 per cent of Total Body Weight of the stocked Fish and Prawn. **Aeration Technique: -** Through using 0.5 HP – 1.0 HP Pump daily @ 2 hours / day. **Fish Health Management: -** Use of Pottasium Per Manganate ($KMnO_4$) @ 150 grams / 0.13 ha / month and Aquahealth @ 100 ml. / 0.13 ha. / 3 Months Interval.	Rs. 3,40,000.00 / ha. / Annum	**35**	**Please see the Photograph - E**
6.	Proper blending of	**Crossbreeding and Breed up-gradation**	Rs.	**25**	**Please see**

	Technologies and Products for Scientific Dairy farming	**through Artificial Insemination (A. I.)** in cattleis the most suitable and economical technique for generating higher genetic and production potential. **Conscientious heat detection,** detection of oestrous by fern pattern of cervical mucus and proper timing of insemination is ensured. **Crossbreeding in indigenous low producing cattle with superior germplasm** influences the genetic potential of the crossbred so born. The age at puberty have been attended at 2 to 2.5 years of age. **All the female calves have to be fed properly** from the beginning of the birth so that they attain desired body weight and maturity at an early age. **Cultivation of green fodder and feeding the Cattles with area specific mineral mixture are ensured.** **The traditional feeding practice is to be modified** by providing mineral mixture, concentrate and green forages and formulation of low cost feed. **After parturition animals usually always come to heat up to 2- 2 1/2 months.** **Proper vaccination and medical check up** schedules and medicine regimes are to be followed.	4,88,400.00 / A Dairy Unit consisting of 25cows (15 crossbreed and 10 upgraded deshi Cows) + 20 Calves / Annum		**the Photograph - F**
7.	Production enhancement through improved back yard farming utilizing Improved Poultry Breeds viz. Vanaraja and Rhode Island Red (RIR)	**Backyard poultry farming with rural improved breeds.** **Breed up gradation**by crossing these two breeds viz. Vanaraja and Rhode Island Red with local birds. **Hatching of eggs of both Vanaraja and Rhode Island Red by using local hen.** **Supply chicks and fertile eggs** of improved rural poultry breed. **Construction of a low-cost poultry house** made of locally available materials, such as bamboo and wood as night shelter and to protect the birds from predators. **Birds are to be let loose as free-range scavenging for utilizing the feed base**, i.e., fallen grain, insect, earthworm, kitchen waste, green grass etc. with supplementary feeding of concentrate mixture prepared by the locally available feed resources. **Almost one fourth of the amount of concentrate mixture may be replaced by**	Rs. 63,265.50 / Batch / Unit of 20 Numbers of Deshi Birds + 20 Numbers of Rhode Island Red Birds + 20 Numbers of Vanaraja Birds / Annum	**65**	**Please see the Photograph - G**

		***Azolla*(*Azollapinnata*) and vegetables like *Kalmi*(*Ipomoea aquatica*) and Spinach (*Spinacia oleracea*) etc.** as per suggestion of the Scientists. **De-worming and vaccination** of birds are to be done as per the standard protocol with technological backstopping by the Scientists. On the advice of the Animal Science Scientists administration of the F_1 LaSota and R_2B Vaccines against Ranikhet Disease and IBDV Intermediate Strain Vaccine against Gumboro disease are to be done.			
8.	Low Cost Commercial Vermin-Composting Unit	**Earth-Worms (*Eisenia foetidae*)** are being used. **Low cost pits** built-up with mainly bare bricks covered Polythene Sheets are to be used. **Organic farm and domestic wastes** along with cow dung are to be used as compost culture media. **Regular optimum watering of compost media** is to be ensured. **Sieving and packaging of usable Vermin-Compost** are done as and when necessary.	Rs. 85,714.00 / Annum	**51**	**Please see the Photograph - H**

Photograph – A
Cluster FLD on Kharif Sesame in 2016-17 in the Field of Sri Ashutosh Biswas, Village: - Srichandrapur, District – Birbhum organized by the Rathindra KVK, Birbhum at the Vegetative Growth Stage

Photograph - B

Sri Nilu Das of Village: - BaroShimulia, Dist. - Birbhum in his Field of Broccoli

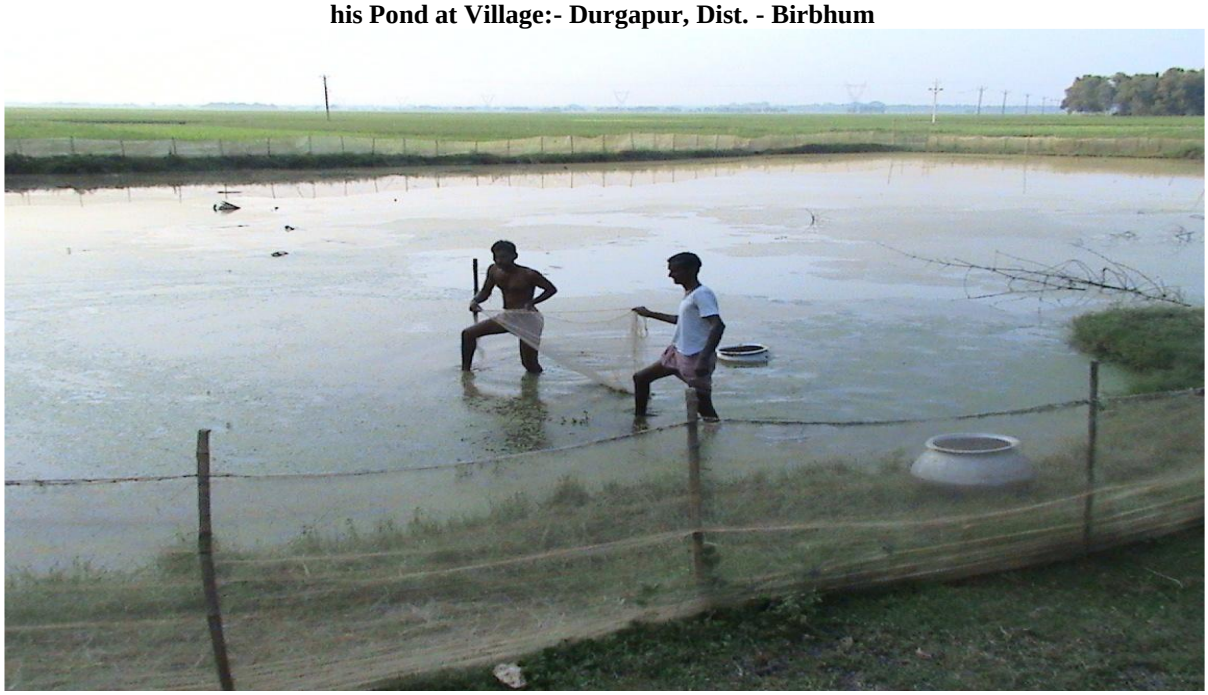
Photograph – C

<u>Various Jute based Handicraft Products prepared by the Trainees of Rathindra KVK</u>

Photograph - D

Kantha Stitched Sharee produced by the members of the SHG named "Shilpashree" of Village: - Kankutia, Dist. - Birbhum

Photograph – E
Sri DilipDolui (Left) harvesting his produce of Giant Prawn along with Carps in a Composite Fish Culture System from his Pond at Village:- Durgapur, Dist. - Birbhum



Photograph - F
Sri Bidhan Chandra Sinha along with his Cross Bred and Up-graded Milch Cows at His Dairy Unit at Village – Mirzapur, Dist. - Birbhum

Photograph – G

Sri Tapan Kumar Ghosh with Poultry Birds at his Back Yard Poultry Farm at Village – Bishnubati, Dist. - Birbhum

Photograph – H

Sri Partha Mal watering the Vermin-Compost Materials in his Low Cost Commercial Vermin-Composting Unit at Village: - Daronda, Dist. - Birbhum

18. Report on Digital Farming Initiatives in Agriculture/ Digital Ag. Extension Service

Phase	Database prepared/ covered for		KVK level Committee		Various activity conducted for farmers
	Total no. of villages	Total no. of farmers	Date of formation	Name of members	
I (up-to 15.03.2018)	20	200	28.02.2018	Smt. Ruma Addy, Programme Coordinator (Officiating), All the Subject Matter Specialist and Programme assistant (Computer Programmer), Rathindra KVK	Providing of relevant informant and advisories through the Mobile SMS Services to the registered farmers accordingly.
II (up-to 24.04.218)	100	1000			
III (Up-to-date till 22.05.2018.	149	4650			
Total	269	5854			

19. Any other programme organized by KVK, not covered above

Sl. No.	Name of the programme	Date of the programme	Venue	Purpose	No. of participants

***

Annexure – I

Recommendations of the XXII$^{nd.}$ Scientific Advisory Committee (SAC) Meeting of the Rathindra KVK held on 26.02.2018 at the Rathindra KVK Seminar Hall, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal

XXII$^{nd.}$ Scientific Advisory Committee (SAC) Meeting of the Rathindra Krishi Vigyan Kendra, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati was held on the 26$^{th.}$February 2018 at the Seminar Hall of the Rathindra KVK (RKVK) at 3.00 PM.In the Inaugural Session of the meeting, Prof. Ashis Kumar Chatterjee, Principal, PalliSiksha Bhavana (PSB) and In-Charge, Rathindra KVK, Visva-Bharati welcomed the members present in the meeting.

Prof. Ashis Kumar Chatterjee then appealed to the members for the confirmation of the proceedings of the previous SAC meeting held on 30.01.2017 and the Principal highlighted the actions taken on the recommendations of the previous SAC Meeting. Members of the House confirmed the proceedings of the previous Meeting and appreciated the actions taken on the recommendations.

Then with the consent of the House, Prof. Chatterjee requested to proceed to present the Progress Report of the Rathindra KVK for the period of 1$^{st.}$ April, 2017 to 31$^{st.}$ January, 2018. On the onset the beginning of the presentation of the Progress Report of the Rathindra KVK, the House commended the efforts of Sri Tapan Kumar Ghosh who was awarded by the Honourable Cabinet Minister of the Ministry of Agriculture and Farmers' Welfare, Govt. of India, Sri Radha Mohan Singh Ji, on 22.02.2018 at the Foundation Day celebration of the ICAR – Eastern Regional Research Complex, Patna, Bihar for his pioneering work on Rural Back Yard Poultry farming based on Improved Poultry Breeds and breed up-gradation efforts.

The Progress Report of the Rathindra KVK for the above-mentioned time frame was presented by Dr. Subrata Mandal, Subject Matter Specialist (Agronomy), Rathindra KVKthrough presentation of Power Point Slides. All the activities of different discipline were presented in detail and scientifically. After the completion of presentation, Prof. Sabujkali Sen, Vice-Chancellor, Visva-Bharati, Dr. Avijit Halder, Principal Scientist, ICAR-ATARI and all other honourable members congratulated RKVK and expressed their good wishes for the success of RKVK in different activities in period. Dr. A. Halder, Principal Scientist, ICAR- ATARI, Kolkata informed the house that KVK activities in the farmers' field, particularly in CFLD Programme, fodder cultivation by the farmers', developing IFS model where satisfactory and encouraging after his visit in the farmers' field.

At this juncture, Prof. Sabujkali Sen, Vice-Chancellor (Officiating), Visva-Bharati requested to the farmer representatives to share their views regarding the work done at the villages by the Rathindra KVK.

Sri Partha Mal a young and poor farmer of Village – Daronda, C. D. Block – Illumbazar, Dist. - Birbhum said that he has started Vermi-Compost production after attending training and technical guidance from Rathindra KVK. Now he is earning Rs. 20,000.00 per month. He also said that he got training and encouragement from RKVK 5 years back. Now he is self-sufficient. All the members of the house congratulated him and RKVK for this successful entrepreneurship development.

Sri Daibaki Nandan Das, Assistant Register Accounts, Visva-Bharati proposed to purchase Vermi-compost required for different gardens of Visva-Bharati from Sri Partha Mal.

Another farmerSri. BidhanSinha,a dairy farmer of Village – Mirzapur, C. D. Block – Bolpur-Sriniketan, Dist. – Birbhum was of the view that he got suggestions and treatment guidance from the Animal Scientist of the Rathindra KVK. At present he has three aspects of income i.e. from dairy, fishery and agriculture produces.He has total of 68 cows out of which 18 cows are producing milk about 120 litres of produce per day.

Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science), Rathindra KVK gave her opinion that Mr. Bidhan Sinha gets all types of help from the Rathindra KVK according to his needs. Even he produces his own fodder for which he gets seeds supply from RKVK.

Prof. Sabujkali Sen, Vice-Chancellor (Officiating), Visva-Bharatialso praised Sri Sinha for his commendable efforts in maintaining a good Dairy Farm and she also told the House that the Dairy Farm of Sri Sinha were exhibited before various Inspection Teams visiting Visva-Bharati.

Dr. Avijit Halder, Principal Scientist, ICAR-ATTARI, Kolkata said that there are 3 major aspects of activities such as training, On Farm Trial (OFT) and Front Line Demonstration (FLD) in the KVK mandates and for each component a scientific impact study or analysis is very much essential before coming to any conclusion of the result, even B/C ratio and statistical analysis is essential for any result. Even for Cluster Front Line Demonstration (CFLD) on Pulses and Oilseeds, the main results should be to highlight through the impact analysis.

Sri Tapan Ghosh, a farmer of the Village – Bishnubati, C. D. Block – Bolpur-Sriniketan, Dist. - Birbhum gave his opinion that he gets training and guidance in different aspects from the RKVK whenever he requires.

After discussion of the Progress Report, the Annual Action Plan of the Rathindra KVK for2018-19 was presented by Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension), Rathindra KVK very minutely and elaborately.

Dr. A. Halder, Principal Scientist, ICAR-ATARI, Kolkatasaid about the OFT regarding Soil NutrientManagement through Micro-Nutrient Application that there is no use of Micro-Nutrient by the farmers then two different methods of Micro-Nutrient Application, one through Foliar Application and another through Soil Application (kept as Two Different Technology Options) may become a burden to the OFT partner farmers.

Dr. S. Mandal, Subject Matter Specialist (Agronomy), Rathindra KVKexplained that the Micro-Nutrient spray is done according to the requirement after Soil Testing.Soil application of the Micro-Nutrient is done according to the need of the Soil also after soil sample analysis though the efficacy of the two methods of applications.

Prof. A. K. Chatterjee, Principal, PalliSiksha Bhavana and In-Charge, Rathindra KVK, Visva-Bharati was of the opinion that the micronutrient should be applied after soil testing and according to need of the specific crops.

Regarding the proposed OFT on Plant Protection on Summer Green Gram, Dr. A. Halder, Principal Scientist, ICAR-ATARI, Kolkata was of the opinion thatas the design of the OFT suggests that the Farmers' Practice is that not to apply any pesticides against Thrips. This may be only because of the fact that theThrips is not a major problem faced by farmers of the District, so they do not bother to control them through use of chemical pesticides.

Sri Sourav Mondal, SMS (Plant Protection) said that the thrips is now becoming a problem in summer pulse.

Dr. S. Mandal, Subject Matter Specialist (Agronomy), Rathindra KVK gave his opinion that the yield of Summer Green Gram is low due to the attack of the Thrips.He also mentioned that the thrips problem in summer green gram was also discussed thoroughly in the orientation workshop at Kolkata conducted by ICAR-ATARI. Therefore, OFT on control of thrips in green gram was asked from all the KVKs where occurrence of thrips is found.

Dr. Avijit Halder, Principal Scientist, ICAR-ATARI said that it may be done after correction of some minor changes in the treatment options.

Regarding the OFT on Animal Science, Dr. A.Halder, Principal Scientist, ICAR-ATARI, Kolkata preferred the Back-Yard Poultry rather than taking Broiler Farming as the area of work.

Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science), Rathindra KVK opined that the knowledge of water sanitizer is very poor among the farmers engaged in broiler farming which causes mortality to a large extent. She was of the opinion that this can be kept as a Trial to disseminate the knowledge of use of particular and location specific water sanitizerwith cost effectiveness needed for Broiler farming in this district.

Dr. AvijitHalder, Principal Scientist, ICAR-ATARI, Kolkatagave his consent regarding the Trial on the above-mentioned topic of Animal Science.

Smt. Ruma Addy, Programme Coordinator (Officiating), Rathindra KVK informed the house that appointment to the posts of the Programme Coordinator and the Senior Assistant is direly needed as the Kendra is facing problem due to these two vacant posts.

Prof. Ashis Kumar Chatterjee, Principal, PalliSiksha Bhavana (Institute of Agriculture) and In-Charge, Rathindra KVK then requested for other miscellaneous queries from the House.

Prof. Arun Barik, Head, Dept. of Agronomy, PalliSiksha Bhavana, Visva-Bharati informed the House that the PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati is running the ICARDA Project and in that project also it has been noted that the farmers are very much in need of good seed.

Dr. A. Halder, Principal Scientist, ICAR-ATARI, Kolkata informed the House that for this, development of 'Seed Hub' is essential.

Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension)informed the House that fund is urgently required for repair work of the KVK buildings which are in dire need for repair works.

Dr. Avijit Halder, Principal Scientist, ICAR-ATARI, Kolkata informed that the ICAR can sanction fund only after communication of proper estimate prepared by the CPWDfrom the Rathindra KVK to ICAR-ATARI, Kolkata.

Smt. Ruma Addy, Programme Coordinator (Officiating), Rathindra KVK informed Dr. A. Halder that budget estimatefor such work was sent on 2010-2011 to the ICAR Kolkata Zonal Office.

Getting this information, Dr. A. Halder, Principal Scientist, ICAR-ATARI, Kolkata gave the opinion that the budget estimate may again be submitted to the ICAR-ATARI, KolkataOffice.

Dr. A. Halder, Principal Scientist, ICAR-ATARI, Kolkata then suggested the following points:

1. Forincreased coverage of the practicing farmers, farm women, rural youths under Digital Extension Services, the Govt. of India proposed to include the details of 10 farmers from every village of the District. This is a Flagship Programme. It should be given due importance by the KVK.
2. Regular up-gradation of KVK portal is important. The RKVK web site should be more informative.
3. Swachh Bharat Campaign under Swachh Bharat Mission should be undertaken regularly. At the KVK level, modules on "Awareness Generation" on various topics like importance of safe drinking water, use of farm garbage as medium for Vermi-Compost etc. may be made integral part of the Training Programmes.
4. Perennial Fodder Crop Museum should be established in the KVK Instructional Farm with proper Hoardings depicting Time of Sowing, Seed Rate, Yield, Use etc.
5. Management of natural resources, resource conservation, mulching, rain water harvesting, cropping sequence etc. should be taken in to account.
6. Statistical analysis of the economics of integrated farming system (IFS) is necessary.
7. More importance should be given on the cropping sequence such as Paddy – Pulse – Fodder etc.
8. Success story and documentation of KVK work is necessary.
9. Proper Impact analysis using methods of Statistical Analysis of Economics should be given priority. Even in the publications and documentations, Impact Analysis should be noted.

Prof. A. K. Chatterjee, Principal, PalliSiksha Bhavana and In-Charge, RKVK thanked everyone for attending the SAC meeting and for making it a successful event.

The meeting ended with a vote of thanks from Smt. R. Addy, Programme Coordinator (Officiating), Rathindra KVK, Visva-Bharati, Birbhum.

Members present in the XXII[nd.] Meeting of the Scientific Advisory Committee (SAC),Rathindra KVK on26.02.2018

Sl. No.	Name	Designation and Affiliated Organization
1	Prof. SabujKoli Sen	Vice-Chancellor (Officiating), Visva-Bharati, Santiniketan, Birbhum
2	Prof. Ashis Kr. Chatterjee	Principal, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum
3	Dr. AvijitHaldar	Principal Scientist, ICAR-ATARI, Kolkata
4	Prof. Sankar Majumdar	Principal, PalliSamgathanVibhaga, Visva-Bharati, Sriniketan, Birbhum
5	Dr. Anupam Rakhit	Asst. Director, Dept. of Animal Resource Development (ARD) Department, Govt. of West Bengal, Suri, Birbhum
6	Sri Soumendra Nath Das	Deputy Director of Agriculture, (WBP) Birbhum and P. D. ATMA, Dept. of Agriculture, Govt. of West Bengal, Suri, Birbhum
7	Prof. Santanu Roy	Head and Professor of the Dept. of Zoology, Siksha Bhavana (Institute of Science),Visva-Bharati, Santiniketan, Birbhum
8	Dr. S. Chakrabarty	Head and Associate Prof. of the Dept. of Horticulture, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum
9	Dr. J.K. Chatterjee	Vice-Principal, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum
10	Prof. Samit Roy	Finance officer, Visva-Bharati, Santiniketan, Birbhum
11	Sri Daibakinandan Das	Asst. Registrar (Accounts), Visva-Bharati, Santiniketan, Birbhum
12	Dr. A.K. Barik	Head and Prof. of Dept. of Agronomy, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum
13	Dr. PrashantaMeshram	Jt. Registrar (Account), Visva-Bharati, Santiniketan, Birbhum
14	Sri H. B. Saho	Internal Audit Officer, Visva-Bharati, Santiniketan, Birbhum
15	Sri D. N. Thakur	Manger, Lead Bank, United Bank of India, Suri, Birbhum
16	Prof. S. K. Pyne	Head and Prof. of Dept. of Animals Science, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum
17	Sri Sumarta Ghosh	DDM, NABARD, Suri. Birbhum
18	Mrs. Ruma Addy	Programme Coordinator (Officiating), Rathindra KVK, PalliSiksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum
19	Sri Partha Mal	Farmer, Village – Daranda, Block – Illumbazar, Dist. - Birbhum
20	Sri Bidhan Sinha	Farmer, Village – Mirzapur, Block – Bolpur-Sriniketan, Dist. - Birbhum
21	Smt. Sukhodi Mardi	Farm Woman, Village – Adibasipara, Assadullahapur, Block – Bolpur-Sriniketan, Dist. - Birbhum
22	Sri Tapan Kr. Ghosh	Farmer, Village – Bishnubati, Block – Bolpur-Sriniketan, Dist. - Birbhum
23	Sri Manatosh Ghosh	Farmer, Village – Bishnubati, Block – Bolpur-Sriniketan, Dist. - Birbhum
24	Sri Abdul Majid	Farmer, Village – Kankutia, Block – Bolpur-Sriniketan, Dist. - Birbhum

Annexure – II
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													
17.04.2017.	PF & PFW	Modern Agriculture Practices with Limited Water Supply	01	ON	27	02	29	17	01	18	00	00	00
08.05.2017.	PF & PFW	Preparation of Vermi-Compost for Organic Farming	01	ON	25	06	31	15	05	20	00	00	00
22.05.2017 to 25.05.2017	PF & PFW	Specific Agro-Technologies for Cultivation of *Ekangi* in Rain-fed Mono-cropped Situation	04	ON	22	05	27	05	04	09	00	00	00
30.05.2017	PF	Pulse and Oilseed Technologies in Kharif Season	01	ON	13	00	13	01	00	01	00	00	00
19.06.2017 to 20.06.2017	PF	Kharif Paddy Cultivation using Drum Seeder	02	ON	17	00	17	10	00	10	00	00	00
22.06.2017.	PF	Crop Diversification through Pulse and Oilseed Cultivation in Kharif Season	01	ON	23	00	23	01	00	01	00	00	00
13.07.2017.	PF	Improved Method of Pulse and Oilseed Cultivation in Kharif Season	01	ON	25	00	25	10	00	10	05	00	05
18.07.2017.	RY	Orientation of Activities of KVK in Crop Diversification and Farming Systems	01	ON	15	15	30	03	01	04	01	02	03

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													
27.07.2017.	PF	Improved Methods of Black Gram and Sesame Cultivation in Kharif Season	01	OFF	35	00	35	04	00	04	00	00	00
27.07.2017.	EF	Crop Diversification through Cultivation of Black Gram and Sesame in Rainy Season	01	ON	18	07	25	04	01	05	02	03	05
01.08.2017 to 03.08.2017.	PF	Collection and Preparation of Soil Sample for Testing and Interpretation	03	OFF	50	00	50	15	00	15	03	00	03
04.08.2017.	PF & PFW	Sowing and Fertilizer Management in Kharif Season with Improved Variety	01	ON	26	07	33	01	02	03	10	02	12
05.08.2017.	PF & PFW	Improved Agro-Technologies in SRI Method	01	OFF	22	28	50	09	17	26	00	01	01
07.08.2017.	PF & PFW	Use of Marker and ConoWeeder in Increasing Productivity under SRI	01	ON	04	31	35	02	02	04	00	14	14
08.08.2017.	PF & PFW	Improved Variety and Fertilizer Management of Black Gram	01	ON	14	03	17	00	01	01	01	00	01
10.08.2017.	PF & PFW	Use of *Azolla*as Alternative Organic Manure	01	ON	10	06	16	03	02	05	00	00	00

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													
19.08.2017.	PF & PFW	Improved Pulse Production Technology in Kharif Season with Especial Reference to Black Gram	01	ON	24	06	30	07	00	07	02	04	06
24.08.2017.	PF	Use of Micro-Nutrients in Kharif Rice	01	OFF	36	00	36	10	00	10	20	00	20
04.09.2017 to 06.09.2017.	PF	Rice Seed Production Technology in Kharif Season	03	ON	30	00	30	08	00	08	02	00	02
07.09.2017 to 10.09.2017.	PF	Use and Multiplication of *Azolla*	02	ON	30	00	30	06	00	06	02	00	02
15.09.2017.	PF	Crop Diversification in Kharif Season	01	OFF	22	00	22	00	00	00	04	00	04
21.09.2017 to 24.09.2017.	PF	Preparation and Use of Vermi-Compost	04	ON	34	00	34	09	00	09	01	00	01
12.10.2017.	PF	Pulse based Cropping System	01	OFF	22	00	22	01	00	01	00	00	00
14.10.2017.	PF	Sowing Time and Sowing Method of Rapeseed and Mustard	01	OFF	27	00	27	03	00	03	00	00	00
17.11.2017.	PF	Improved Agro-Technology in Wheat Cultivation	01	ON	15	00	15	03	00	03	00	00	00
20. 11.2017 to 10.12.2017.	RY	Soil Testing and Soil Health Card Preparation	21	ON	17	00	17	06	00	06	05	00	05

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													
27.11.2017.	PF	Improved Technique of Pulse Cultivation in Rabi Season	01	ON	26	00	26	01	00	01	17	00	17
28.11.2017.	PF	Enhancing Production of Mustard and Linseed in Rabi Season	01	ON	17	00	17	05	00	05	02	00	02
15.12.2017.	PF & PFW	Ideal Agronomic Practices required for Quality Fodder Cultivation	01	ON	08	08	16	00	00	00	00	00	00
21.12.2017.	EF	Integrated Nutrient Management of Soil	01	ON	37	00	37	02	00	02	00	00	00
21.12.2017.	EF	Soil Testing based Fertilizer Management	01	ON	37	00	37	02	00	02	00	00	00
16.01.2018.	EF	Package and Practices of Potato Cultivation	01	ON	38	00	38	02	00	02	00	00	00
30.01.2018.	EF	Weed and Herbicides	01	ON	38	00	38	02	00	02	00	00	00
20.02.2018.	EF	Use of Organic Inputs in Sustainable Agriculture	01	ON	36	00	36	02	00	02	00	00	00
03.03.2018.	PF & PFW	Sowing and Herbicide Application in Summer Sesame	01	ON	09	06	15	03	01	04	00	02	02
06.03.2018.	PF	Improved Package of Practices in Summer Sesame	01	ON	36	00	36	09	00	09	11	00	11

Date	**Clientele**	**Title of the**	**Duration**	**Venue**	**Number of**	**Number of SC/ST**

		Training Programme	in days	(Off/On Campus)	participants			SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total
DISCIPLINE – AGRONOMY													
10.03.2018.	PF & PFW	Improved Agro-Technology for Summer Pulse Cultivation	01	ON	28	12	40	05	02	07	01	01	02
16.03.2018.	PF	Sowing and Fertilizer Management in Summer Green Gram	01	ON	19	00	19	01	00	01	00	00	00
20.03.2018.	EF	Improved Agronomic Practices for Cultivation of Summer Oilseeds and Pulse Crops	01	ON	35	00	35	02	00	02	00	00	00
23.03.2018 to 24.03.2018 and 26.03.2018 to 27.03.2018.	PF & PFW	Seed Production Technologies of Black Gram and Green Gram	04	ON	23	11	34	00	00	00	03	00	03
Total			**75**		**990**	**153**	**1143**	**189**	**39**	**228**	**92**	**29**	**121**

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													
28.04.2017 to 29.04.2017.	PF& PFW	Improved Package and Practices of Pre-Kharif Seasonal Vegetables	02	ON	10	24	34	01	03	04	00	15	15
15.05.2017 to 16.05.2017 and 18.05.2017 to 19.05.2017.	PF & PFW	FLD Training on Layout and planting of Elephant Foot Yam including Management of Crop Field	04	ON	01	30	31	00	00	00	00	30	30
20.05.2017 and 22.05.2017 and 23.05.2017..	PF & PFW	FLD Training on Cultivation of Baromasia Drumstick Var. PKM – 1	03	ON	18	12	30	02	07	09	01	05	06
Total			**09**		**29**	**66**	**95**	**03**	**10**	**13**	**01**	**50**	**51**

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													
20.04.2017.	PF & PFW	IPM of Boro Paddy	01	OFF	100	00	100	39	00	39	05	00	05
18.05.2017.	PF & PFW	IPM and Safe Use of Pesticides	01	OFF	27	08	35	11	04	15	00	00	00
01.06.2017.	PF	IPM on Different Crops	01	ON	25	00	25	06	00	06	00	00	00
08.06.2017 to 10.06.2017.	PF & PFW	Integrated Pest, Disease and Weed Management in Kharif Paddy (Phase – I)	03	ON	24	09	33	09	00	09	06	09	15
15.06.2017 to 17.06.2017.	PF & PFW	Different Components of IPM	03	ON	23	10	33	08	00	08	04	10	14
19.06.2017 to 23.06.2017.	PF	IPM, IDM and IWM	05	ON	23	00	23	00	00	00	00	00	00
20.06.2017 to 21.06.2017.	PF & PFW	Indigenous Formulation of Different Organic Pesticides	02	ON	23	10	33	04	00	04	08	10	18
12.10.2017 to 14.10.2017.	PF	IPM on Solanaceous Crops	03	ON	30	00	30	08	00	08	12	00	12
01.12.2017, 04.12.2017 and 05.12.2017.	PF	IPM on Wheat, Sugarcane and High Value Vegetables like Broccoli, Capsicum etc.	03	OFF	50	00	50	10	00	10	20	00	20

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													
10.12.2017 to 12.12.2017.	PF	Identification of Different Bio-Pesticides and Seed borne Diseases and their Treatments	03	ON	30	00	30	08	00	08	12	00	12
14.12.2017.	EF	General Idea of IPM and Its Different Components	01	ON	36	00	36	02	00	02	00	00	00
28.12.2017.	EF	IPM – Advantages and different Components	01	ON	31	00	31	00	00	00	00	00	00
28.12.2017.	EF	Seed Treatment	01	ON	31	00	31	00	00	00	00	00	00
16.01.2018.	EF	IPM of Potato	01	ON	38	00	38	02	00	02	00	00	00
23.01.2018.	EF	Insecticide Act, Rules, Quarantine Law	01	ON	37	00	37	01	00	01	00	00	00
23.01.2018.	EF	Evolution of Pesticides	01	ON	38	00	38	01	00	01	00	00	00
30.01.2018.	EF	Agricultural Farm Visit to identify different Pests and Disease Problems	01	ON	38	00	38	02	00	02	00	00	00
13.02.2018.	EF	Insect Behaviour	01	ON	40	00	40	02	00	02	00	00	00
27.02.2018.	EF	Weed Management in Rice and Other Kharif Crops	01	ON	39	00	39	02	00	02	00	00	00

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
27.02.2018.	EF	Classification and Different Categories of Plant Diseases	01	ON	39	00	39	02	00	02	00	00	00
03.03.2018.	PF & PFW	Pest Management in Summer Pulse	01	ON	22	03	25	00	00	00	00	00	00
06.03.2018.	EF	Pest and Disease Management of Mango Orchard	01	ON	35	00	35	02	00	02	00	00	00
27.03.2018.	EF	Rice Pest and Disease Identification and Management	01	ON	36	00	36	02	00	02	00	00	00
Total			**38**		**815**	**40**	**855**	**121**	**04**	**125**	**67**	**29**	**96**

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													
24.04.2017 to 25.04.2017.	PF	Scientific Method of Pond Preparation for Fingerling raising	02	ON	19	00	19	03	00	03	00	00	00
27.04.2017.	PF & PFW	Formation of Fish Production Group for Composite Fish Culture	01	OFF	21	21	42	21	21	42	00	00	00
15.05.2017 to 19.05.2017.	PF & PFW	Culture and Management of IMC and Exotic Carps	04	OFF	16	24	40	16	21	37	00	00	00
26.05.2017.	PF & PFW	Recent Technologies in Improving Fish Production	01	ON	33	14	47	14	02	16	00	03	03
12.06.2017 to 13.06.2017.	PF	Carp Hatchery Management and Production of Carp Spawns	02	ON	39	00	39	04	00	04	00	00	00
15.06.2017.	PF & PFW	Composite Fish Farming	01	OFF	02	38	40	01	35	36	00	00	00
16.06.2017.	PF & PFW	Fingerling raising and Composite Fish Culture	01	OFF	03	28	31	01	26	27	00	01	01
28.07.2017.	PF & PFW	Preparation of Stocking Pond for Fish Culture	01	OFF	21	11	32	08	01	09	00	00	00
26.10.2017 to 29.10.2017.	PF	Integrated Fish Farming	04	ON	30	00	30	08	00	08	12	00	12
14.11.2017.	PF & PFW	Integrated Farming System based on Fishery	01	ON	16	04	20	05	03	08	00	01	01

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													
21.12.2017.	PF & PFW	Integration of Duck with Composite Fish Culture	01	OFF	33	07	40	19	02	21	05	05	10
12.01.2018 to 13.01.2018.	PF	Prevention and Control Method of Various Fish Disease	02	ON	23	00	23	08	00	08	03	00	03
09.01.2018.	EF	Use of Organic Fertilizers and Medicine in Nursery Pond and Composite Fish Culture	01	ON	32	00	32	02	00	02	00	00	00
09.01.2018.	EF	Method of Preparation of Balanced Fish Feed and required Rate of Application in Pond	01	ON	32	00	32	02	00	02	00	00	00
20.02.2018.	EF	Medicines used in curing Fish Diseases	01	ON	36	00	36	02	00	02	00	00	00
13.03.2018.	EF	Chemicals Used to control Toxicity and Algal boom in Village Ponds	01	ON	36	00	36	02	00	02	00	00	00
27.03.2018.	PF & PFW	Fishery based Integrated Farming System	01	ON	10	26	36	03	03	06	00	00	00
Total			**26**		**402**	**173**	**575**	**119**	**114**	**233**	**20**	**10**	**30**

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													
28.04.2017 to 29.04.2017.	PFW	Identification and Prevention of Poultry Disease with Especial reference to Bird Flue	02	ON	00	35	35	00	32	32	00	01	01
15.05.2017 to 16.05.2017.	PF & PFW	Reduction of Treatment Cost by ITK	02	ON	16	14	30	00	00	00	16	14	30
30.05.2018.	PF	Improved Animal Husbandry Practices	01	ON	16	00	16	01	00	01	00	00	00
20.06.2017.	PF	Improved Dairy Farming Practices	01	ON	23	00	23	00	00	00	00	00	00
22.06.2017 to 24.06.2017 and 27.06.2017.	PF & PFW	Low Cost Feed Preparation for Poultry	04	ON	24	06	30	02	00	02	05	02	07
10.07.2017 to 11.07.2017.	PF & PFW	Back Yard Poultry Farming with Utilization of Natural Resources	02	ON	11	21	32	06	17	23	01	03	04
14.07.2017.	PF	Improved Dairy Management Practices	01	ON	26	00	26	11	00	11	04	00	04
15.08.2017, 17.08.2017, 19.08.2017 and 21.08.2017.	PF & PFW	Establishment, Maintenance and Management of Small Scale Dairy Unit	04	ON	29	01	30	00	00	00	00	00	00
18.08.2017.	PF	Improved Rearing Practices of RIR Poultry	01	OFF	26	00	26	01	00	01	07	00	07
08.09.2017.	PF	Low Cost Concentrate Preparation for Goatery Feed Management	01	ON	10	00	10	03	00	03	04	00	04

Date	Clientele	Title of the	Duration	Venue	Number of	Number of SC/ST

		Training Programme	in days	(Off/On Campus)	participants			SC			ST		
					Male	Female	Total	Male	Female	Total	Male	Female	Total
DISCIPLINE – ANIMAL SCIENCE													
11.09.2017 to 17.09.2017.	PF & PFW	Dairy Management	07	ON	08	03	11	01	00	01	00	00	00
13.10.2017.	PF	Improved Practices of RIR Farming	01	OFF	26	00	26	15	00	15	00	00	00
16.10.2017 to 17.10.2017.	PFW	Identification and Control of Disease in Dairy Animals with Prophylactic Measures	02	ON	00	25	25	00	20	20	00	00	00
18.11.2017.	PFW	Rabbit Farming	01	ON	00	30	30	00	12	12	00	13	13
24.11.2017 to 25.11.2017.	PFW	Goat Farming	02	OFF	00	50	50	00	29	29	00	01	01
27.11.2017 to 28.11.2017.	PFW	Duck Farming	02	OFF	00	50	50	00	19	19	00	03	03
14.12.2017 to 17.12.2017.	PF & PFW	Quality Fodder Cultivation and Animal Nutrition and Health Management	03	ON	08	07	15	00	00	00	00	00	00
01.01.2018 to 12.01.2018.	RY	Quail Farming	07	ON	14	06	20	06	00	06	00	04	04
15.01.2018 to Contd.	RY	Pig Farming	30	ON	15	15	30	00	00	00	15	15	30
27.01.2018.	PF & PFW	Integrated Farming System	01	ON	14	06	20	03	03	06	00	02	02
10.02.2018 to 11.02.2018.	PF & PFW	Pig Farming	02	OFF	20	30	50	00	00	00	20	30	50
27.02.2018 to 28.02.2018	PF & PFW	Improved Animal Husbandry Practices	02	ON	07	09	16	02	05	07	00	00	00

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													
09.03.2018 to 10.03.2018.	PF & PFW	Sheep Farming	02	ON	11	19	30	03	00	03	03	06	09
Total			**81**		**304**	**327**	**631**	**54**	**137**	**191**	**75**	**94**	**169**

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													
07.08.2017 to 08.08.2017 and 10.08.2017 to 11.08.2017.	PFW	Nutrition Garden	04	OFF	00	50	50	00	32	32	00	02	02
17.08.2017 to 18.08.2017.	PFW	Care and Management of Lactating Mothers	02	OFF	00	50	50	00	25	25	00	16	16
04.09.2017 to 05.09.2017 and 07.09.2017 to 09.09.2017.	PFW	Value Addition and Preservation	05	ON	00	25	25	00	13	13	00	00	00
09.11.2017 to 11.11.2017, 13.11.2017, 14.11.2017 and 16.11.2017 to 17.11.2017.	PFW	Batique Work	07	ON	00	20	20	00	09	09	00	02	02
12.02.2018 to 13.02.2018; 16.02.2018 to 18.02.2018 and 20.02.2018.	PFW	Preparation of Agar Batti	07	ON	00	20	20	00	13	13	00	05	05
11.03.2018.	PF & PFW	Post-Harvest Technology for processing of Fruits and Vegetables	01	ON	18	09	27	05	03	08	00	00	00
19.03.2018.	PF & PFW	Formation and Activities of Self Help Groups (SHGs)	01	ON	16	00	16	06	00	06	00	00	00

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													
24.03.2018 to 25.03.2018.	PFW	Mud Cool Pot Chamber	02	OFF	00	10	10	00	00	00	00	10	10
Total			**29**		**34**	**184**	**218**	**11**	**95**	**106**	**00**	**35**	**35**

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													
20.04.2017 to 22.04.2017.	PF & PFW	Concept, Formation and Functioning of Joint Liability Group (JLG)	03	ON	08	22	30	01	03	04	01	13	14
01.05.2017 to 02.05.2017.	PF & PFW	Formation of Farmers' Producers' Organizations (FPOs)	02	ON	02	27	29	01	02	03	01	26	27
26.05.2017 and 30.05.2017.	PFW	Crop Insurance	02	ON	00	34	34	00	13	13	00	17	17
02.06.2017.	PF	Pradhan Mantri FasalBimaYojona	01	ON	15	00	15	00	00	00	00	00	00
07.06.2017 to 08.06.2017 and 15.06.2017.	PF & PFW	Mobilization of Social Capital for Disaster Management with Special Reference to Agriculture and related Sectors	03	ON	17	08	25	04	00	04	07	08	15
22.06.2017.	PF	SWOT Analysis for Leadership Development in Agriculture and related Sectors for some Selected Villages	01	ON	16	00	16	00	00	00	00	00	00
23.06.2017 to 24.06.2017 and 29.06.2017.	PF & PFW	Mechanism and Use of Kisan Credit Card (KCC)	03	ON	05	52	57	00	11	11	02	26	28
11.07.2017.	PF	PMFBY – Concept, Functioning and Use	01	ON	25	00	25	10	00	10	04	00	04
31.07.2017.	PF	PMFBY – Concept, Utility, Mechanism and Structure	01	OFF	48	00	48	18	00	18	00	00	00

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													
03.08.2017 to 05.08.2017.	PF & PFW	Concept, Functioning and Use of PMFBY	03	OFF	05	53	58	02	25	27	00	03	03
10.08.2017 to 12.08.2017.	PF & PFW	Concept, Function and Use of PMFBY and its Linkage with Kisan Credit Card (KCC)	03	OFF	20	33	53	06	20	26	00	00	00
07.12.2017.	EF	Orientation about Rathindra KVK and DAESI Programme	01	ON	35	00	35	02	00	02	00	00	00
14.12.2017.	EF	Visit to KVK Instructional Farm to observe Farm Activities	01	ON	36	00	36	02	00	02	00	00	00
16.12.2017.	PF & PFW	Credit and Market Support for Quality Fodder Crops	01	ON	08	08	16	00	00	00	00	00	00
05.03.2018.	PF & PFW	Protection of Plant Varieties and Farmers' Rights Act (PPV & FRA) - 2001	01	ON	15	03	18	01	00	01	00	00	00
06.03.2018 to 07.03.2018.	PF & PFW	Development of Farmers' Clubs as Business Facilitators	02	ON	21	01	22	05	01	06	03	00	03
09.03.2018 to 31.03.2018.	RY	Agriculture Extension Service Provider	23	ON	16	04	20	05	00	05	04	04	08
Total			**52**		**292**	**245**	**537**	**57**	**75**	**132**	**22**	**97**	**119**

Grand Total of All the Disciplines	**310**		**2866**	**1188**	**4054**	**554**	**474**	**1028**	**277**	**344**	**621**