

ANNUAL REPORT 2016-17
(April 2016 to March 2017)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Uttar Dinajpur Krishi Vigyan Kendra P.O. - Chopra, Dist.-Uttar Dinajpur, West Bengal, Pin-733216	07584077210	-	udpkvk@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Uttar Banga Krishi Viswavidyalaya Pundibari, Cooch Behar, Pin- 736165	03582- 270986	-	deeubkv@gmail.com

1.3. Name of the Senior Scientist and Head (Actg.) with phone & mobile No.

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Dhananjoy Mandal	03526 – 257395	09475164047	dhananjoy17@rediffmail.com

1.4. Year of sanction of KVK:

Reference of Sanction Order) F.No.6-3/2000-AE-I dated 28th Feb, 2005

Date of Establishment- 28th Feb, 2005

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	Senior Scientist and Head	Vacant	Sr. Scientist and Head	-				
2	Subject Matter Specialist (Plant Protection)	Dr. Dhananjoy Mandal	Sr. Scientist and Head (Actg.) and Subject Matter Specialist (Plant Protection)	Plant Protection	15600-39100+5400 (29110)	05.07.05	Temporary	Other
3	Subject Matter Specialist	Mr. Debdas Sekhar	Subject Matter Specialist	Fishery Science	15600-39100+5400 (29110)	27.06.05	-do-	Other
4	Subject Matter Specialist	Dr.(Mrs.).Anjali Sharma	Subject Matter Specialist	Home Science	15600-39100+5400 (28080)	05.01.06	-do-	Other
5	Subject Matter Specialist	Dr. Moutusi dey	Subject Matter Specialist	Horticulture	15600-39100+5400 (22280)	16.07.14	-do-	Other
6	Subject Matter Specialist	Vacant	Subject Matter Specialist	Agronomy	15600-39100+5400	-	-do-	-
7	Subject Matter Specialist	Vacant	Subject Matter specialist	Animal Science	15600-39100+5400	-	-do-	-
8	Programme Assistant	Vacant	Programme Assistant (Lab. Technicians)	-	9300-34800 + 4200	-	-do-	-
9	Computer Programmer	Mr. Sudipta Debnath	Programme Assistant (Computer)	Computer	9300-34800 + 4200 (18190)	16.06.06	-do-	Other
10	Farm Manager	Dr. Soumen Mahapatra	Farm Manager	Seed Science	9300-34800 + 4200 (17460)	02.07.07	-do-	Other
11	Accountant / Superintendent	Mr. Ayanul Haque	Assistant (Accounts and Admn.)	Commerce	9300-34800 + 4200 (13910)	29.12.16	-do-	OBC - 1
12	Stenographer	Mr. Palash Das	Stenographer grade-III	Commerce	5200-20200 + 2400 (13360)	29.06.06	-do-	Other
13.	Driver	Mr. Himanish Sarkar	Driver	-	5200-20200 + 2000 (11090)	18.06.07	-do-	Other
14.	Driver	Vacant	Driver	-	5200-20200 + 2000	-	-do-	Other
15.	Supporting staff	Mr. Kanak Ch. Mondal	Skilled Support staff	Arts	5200-20200 + 1800 (7430)	03.11.15	-do-	SC
16.	Supporting staff	Mr. Kalyan Tarafdar	Skilled Support staff	Arts	5200-20200 + 1800 (7430)	03.11.15	-do-	SC

1.6. Total land with KVK (in ha)

:

S. No.	Item	Area (ha)
1	Under Buildings	0.1208
2.	Under Demonstration Units	0.0160
3.	Under Crops	5.8632
4.	Orchard/Agro-forestry	1.0000
5.	Others	2.6100
6.	Pond	0.3900
	TOTAL	10.00

1.7. Infrastructure Development:
A) Buildings and others

Sl. No.	Name of building	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (sq.m)	Under use or not*	Source of funding
1.	Administrative Building	-	-	-	-	✓	500	Under use	ICAR
2.	Farmers Hostel	-	-	-	-	✓	305	Under use	ICAR
3.	Staff Quarters (6)	-	-	-	✓	-	400	Not in use	ICAR
4.	Piggery unit	-	-	-	-	-	-	-	-
5	Fencing	-	-	-	-	✓	-	In use	ICAR (0.25%) & UBUP, Govt. of W.B.(0.75%)
6	Rain Water harvesting structure	-	-	-	-	✓	-	In use	ICAR
7	Threshing floor	-	-	-	-	✓	120	In use	ICAR
8	Farm godown	-	-	-	-	✓	54	In use	ICAR
9.	Dairy unit	-	-	-	-	-	-	-	-
10.	Poultry unit	-	-	-	-	✓		In use	ICAR & RKVY
11.	Goatary unit	-	-	-	-	✓		In use	RKVY
12.	Mushroom Lab	-	-	-	-	✓		In use	NAIP-III
13.	Mushroom production unit	-	-	-		-			
14.	Shade house	-	-	-	-	✓		In use	RKVY
15.	Soil test Lab	-	-	-	-	✓		In use	RSVY
16	Others, Please Specify								
a.	Plant Health Clinic	-	-	-	-	✓		In use	ICAR
b.	Training hall	-	-	-	-	✓		In use 2 nos.	ICAR, RKVY
c.	Training Hut	-	-	-	-	✓		In use	RKVY
d.	Implement shade	-	-	-	-	✓		In use	RKVY

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Tractor	2004-05	4,99,696.00	1056.9 hr	Needs major repairing
Jeep	2005-06	4,99,493.00	210430 km	Needs replacement

C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
A. Farm machinery				
Power Sprayer	2008-09	8,178.00	Working condition	ICAR
Generator	2008-09	65,000.00	Working condition	ICAR, RKVY
Cultivator	2009-10	15,000.00	Working condition	ICAR
Disc harrow	2009-10	34,000.00	Working condition	ICAR
Power chain saw	2009-10	40,000.00	Working condition	RKVY
Weighing machine	2009-10	32,000.00	Working condition	ICAR
Multiple crop thresher	2010-11	85,000.00	Working condition	RKVY
Zero till cum Multiple seed drill	2010-11	68,000.00	Working condition	RKVY, NAIP
Bed planter	2011-12	45,000.00	Working condition	RWC
Power Tiller	2011-12	85,000.00	Working condition	RWC
Aerator	2012-13	36000.00	Working condition	RKVY
B. AV Aids				
Computer and Accessories	2005 – 06	63,346.00	Working condition	ICAR
Computer and Accessories	2015-16	32,000.00	Working condition	ICAR
Laptop	2016-17	35889.00	Working condition	ICAR
Camera	2005 – 06	26,990.00	Working condition	ICAR
Camera	2010-11	25,000.00	Working condition	RKVY
Camera	2011-12	30,000.00	Working condition	RKVY
Camera	2012-13	20,000.00	Working condition	RKVY
Camera	2016-17	12226.00	Working condition	ICAR
Over Head Projector	2005 – 06	14,040.00	Working condition	ICAR
LCD Projector	2006-07	84,990.00	Working condition	ICAR
LCD Projector	2012-13	36,000.00	Working condition	RKVY
LCD Projector	2012-13	36,000.00	Working condition	RKVY
LCD Projector	2012-13	36,000.00	Working condition	RKVY
Interective system	2012-13	80,000.00	Working condition	RKVY
Motorized screen	2012-13	54,000.00	Working condition	RKVY
Motorized screen	2012-13	54,000.00	Working condition	RKVY
Photocopier Machine	2006-07	74,360.00	Not Working	ICAR
Fax Machine	2006-07	6,900.00	Working condition	ICAR
Laptop	2010-11	45,555.00	Working condition	RSVY
Laptop	2012-13	45,000.00	Working condition	RKVY
Laptop	2012-13	45,000.00	Working condition	RKVY
Laptop	2012-13	20,000.00	Working condition	RKVY
Laptop	2013-14	20,000.00	Working condition	RKVY
Spectra Photometer	2015-16	115000.00	Working condition	ICAR
Flame Photometer	2015-16	51800.00	Working condition	ICAR
Digital pH meter	2015-16	12400.00	Working condition	ICAR
Mushroom Drayer	2015-16	56000.00	Working condition	ICAR
Mrida Parikshak	2015-16	125000.00	Working condition	ICAR
Refractro meter (3 nos.)	2015-16	6900.00	Working condition	ICAR
Weight Balance	2015-16	79500.00	Working condition	ICAR
Automatic Nitrogen Analyzer	2015-16	405761.00	Working condition	ICAR

D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
Seed Grader	2015-16	405000.00	Working condition	ICAR
Power Reaper	2015-16	120750.00	Working condition	ICAR
Thrasher cum weanor	2015-16	100000.00	Working condition	ICAR

1.8. Details 12th SAC meeting conducted in the year

Sl. No	Date	Number of Participants	Salient Recommendations	Action taken
1.	14.12.2016	16	<ol style="list-style-type: none"> 1. Initiation of Blackgram at summer season. 2. Making data on how many newly farmers have connected with KVK with numbers comparing to previous year. 3. Farmers' representative of SAC members should be changed after every three years. 4. No of soil testing samples should be increased to a good numbers per year 5. New mobile numbers of farmers should be incorporated in KVK portal 6. Total number of trainee farmers should be more than 2200 per year 7. Emphasis should given on to grow more entrepreneurship of vermicompost, mushroom cultivation and weaning food preparation for malnourished children. 	<ul style="list-style-type: none"> • Initiation has been taken for Blackgram cultivation during summer season in Instructional farm and farmers' field. • Maintaining the register for newly contacted farmers'. Till now 278 nos. newly contacted farmers has been enlisted in KVK after SAC. • The policy has been taken for forth coming SAC and already two nos farmers and farm women selected for the purposes. • Vested additional duty to farm manager to increase the soil testing samples as no SMS (Soil Science) available in the KVK. Already 126 nos. samples tested in three months. • As per recommendation new farmers list has been added in KVK portal and increasing day by day. • More than 2200 farmers training has been completed in 2016-17. • This year 33 (individual 24) numbers of entrepreneurship developed including 09 SHGs for different aspects.

13th SAC meeting proceedings:

The 13th SAC meetings of Uttar Dinajpur KVK was held on December 14, 2016 at Office premises of the KVK.

Proceedings of 13th SAC Meeting :

On December 14, 2016 the meeting of 12th Scientific Advisory Committee (SAC) of Uttar Dinajpur Krishi Vigyan Kendra was held at the seminar Hall of Uttar Dinajpur KVK. The meeting was chaired by Hon'ble Vice Chancellor, Dr. Chirantan Chattopadhyay, Uttar Banga Krishi Viswavidyalaya. The presence of Prof. Himadri Bhattacharya, Director of Extension Education (Actg.), Uttar Banga Krishi Viswavidyalaya, Dr. Kalyan Sundar Das, Principal scientist, ICAR-ATARI,

Zone-II, Mr. Sunil Chandra Sarkar, GM, DIC, Uttar Dinajpur district, Mr. B. Basak, DFO (N), Raiganj, Uttar Dinajpur, Mr. Gunadhar Pal, DFO (Training), Raiganj, Uttar Dinajpur, and all KVK personnel made the meeting enlightened. .

Dr. Moutusi Dey, SMS (Horticulture), Dr. Anjali Sharma, SMS (Home Science) acted as reporters in the present meeting. The list of participants and details of proceedings are given below:

The meeting was started with welcome address of Dr. Dhananjay Mandal, Senior Scientist and Head, Uttar Dinajpur KVK. Then Dr. Mandal proposed the name of Dr. Chirantan Chhottopadhyay, Hon'ble Vice Chancellor as President of 13th SAC Meeting and Mr. Debdas Sekhar, SMS (Horticulture) agreed with the proposal. At first the previous year's recommendations and action taken report was presented by the Senior Scientist and head (Actg.). He also presented the Progress Report, Action plan for the year of 2016-17 and 2015-16 respectively of Uttar Dinajpur Krishi Vigyan Kendra.

8. Dr. Kalyan Sekhar Das pointed out that recommendation of previous SAC and Action taken should be presented in a tabular form with success stories and photographs of benefited farmers.
9. Dr. Kalyan Sekhar Das opined that farmers' representative of SAC should be changed after every three year.
10. Regarding Farmers portal, Dr. Das advised that the undelivered numbers of the farmers list should be deleted and in that place new contact numbers should be incorporated.
11. Dr. Das reiterated that total no of trainee should exceed 2200 per year.
12. Hon'ble Vice Chancellor pointed out that KVK should take steps to breakup farmers' dealer's unholy tie-up as they misguide the farmers.
13. Hon'ble Vice Chancellor opined that KVK should convince farmers that they should come to KVK first then dealer for suggestion of required pesticide and plant diseases problem.
14. Hon'ble Vice Chancellor opined that KVK should step forward to village school students to let them know how soil testing is carried out. With the help of NABARD's financial assistant, KVK can make arrangement to buy soil testing kit, instrument for school students. In this way students will also learn the knowledge of soil testing and as well as it will make a arrangement to do more soil testing sample which is the targets of KVK.
15. Hon'ble Vice Chancellor reiterated that no of soil testing should increase to a good number per year.
16. Dr. K.S. Das, Principal Scientist, ICAR-ATARI encouraged KVK to send its problems to ICAR-ATARI so that they can look after the matter.
17. Hon'ble Vice Chancellor told that SMS (Home Science) can play a pivotal role to grow more entrepreneurship of Vermi-compost, Mushroom cultivation and Weaning food for malnourished children.
18. Hon'ble Vice Chancellor encouraged KVK to send Weaning Food report to the University so that they can take necessary steps for its Registration process.
19. He also opined that KVK should go for patenting the weaning food developed by the KVK by changing some of the composition and flavour of the product.
20. Hon'ble Vice Chancellor gave his suggestion to initiate Blackgram at Summer season.
21. He told to make previous year, current year FLD comparison report and make a success story on IPM FLD where Sticky/Adhesive technology had been used.

22. Hon'ble Vice Chancellor opined to make a report on how many newly farmers have connected with KVK with numbers comparing to previous year.
23. Different KVK achievements like fodder seed production with buy back policy information under taken by Uttar Dinajpur Krishi Vigyan Kendra should be informed to ICAR-ATARI.
24. Mr. Sunil Chandra Sarkar, GM, DIC, Uttar Dinajpur sought KVK's help in their ongoing PMSKY project at Chopra Block.
25. Mr. Sunil Chandra Sarkar, asked whether KVK will share technology source of FLD undertaken by Uttar Dinajpur Krishi Vigyan Kendra with Line Department or not?
26. He opined to make an effort to Technology information interchanged among KVK and Line Department for the farming community of the district.
27. Mr. Gunadhar Pal, DFO (Training), Raiganj asked how KVK can help for better innovative technology to cultivate Tulaipanji throughout Uttar Dinajpur district.
28. Hon'ble Vice Chancellor told to send different reports at proper time.
29. Vice Chancellor suggested to increase NABARD grant to execute different activities under the jurisdiction of Uttar Dinajpur Krishi Vigyan Kendra.
30. He reiterated KVK to increase Innovative ideas for the farming community of the district.
31. He suggested to increase documentation of publication.

At the end Mr. Debdas Shekhar, SMS (Fishery Sc.) gave vote of thanks to all participants present in the meeting.

With the kind permission of the chair, the 13th SAC meeting of Uttar Dinajpur KVK was brought to an end with great hope and future prosperity.

List of members present in 13th SAC meeting

Sl. No.	Name	Designation
1.	Dr. Chrintan Chattopadhyay	Hon'ble Vice Chancellor
2.	Prof. Himadri Bhattacharaya	Director of Extension Education
3.	Dr. K. S. Das	Principal Scientist, ICAR- ATARI
4.	Mr. Sunil Chandra Sarkar	GM, DIC, Raiganj, Uttar Dinajpur
5.	Mr. Gunadhar Pal	DFO, Raiganj, Uttar Dinajpur
6.	S. R. Sanyal	Assistant D. A (SM), Islampur, Uttar Dinajpur
7.	Mr. B. Basak	DFO, Raiganj
8.	Dr. Dhananjoy Mandal	Senior Scientist and Head, Uttar Dinajpur Krishi Vigyan Kendra
9.	Shyam Chandra Lala	Farmers' representative
10.	Mrs. Unnati Biswas	Women Farmers' representative
11.	Mr. Niren Singha	Farmers' representative
12.	Mrs. Sumita Tudu	Women Representative

2. a) District level data on agriculture, livestock and farming situation (2016-17)

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

Sl. No.	Farming system/enterprise		
	Pre-kharif	Kharif	Rabi/ winter
A. IRRIGATED CONDITION			
<i>(a) Upland & medium land situation</i>			
1.	Jute / Mesta/Maize	Rice	Wheat / mustard
2.	Ridgegourd / cucumber / Okra / Brinjal / Pumpkin	Rice	Potato / Mustard
3.	Okra / Pointed gourd	Rice	Brinjal / Chilli / Tomato / Cabbage / Cauliflower
4.	Greengram	Pointed gourd / Brinjal	Cabbage /Cauliflower /Tomato
5.	Pointed gourd	Pointed gourd	Radish / Tomato (Late)
6.	Sesame / Maize	Rice	Brinjal /Cabbage / Cucumber
7.	Chilli / Maize	Rice	Potato
<i>(b) Low land situation</i>			
1.	Maize	Rice	Fallow
2.	Jute	Rice	Fallow
3.	Maize	Rice	Potato
B. RAINFED CONDITION			
<i>(a) Upland situation</i>			
1.	Jute	Rice	Fallow
2.	Fallow	Rice	Mustard
3.	Ginger / Turmeric	Ginger / Turmeric	Fallow
<i>b. Low land situation</i>			
1.	Jute	Rice	Fallow
2.	Sesame	Rice	Fallow
3.	Maize	Fallow	Potato

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

Sl. No.	Agro-climatic Zone	Characteristics
1.	Terai zone (Islampur sub-division)	<ul style="list-style-type: none"> • Soil pH varies from 4.6 to 6.2; • Soil organic matter : 0.10 – 0.72 • Available P₂O₅ : 8 – 94 kg ha⁻¹ • Available K₂O : 30-290 kg ha⁻¹ • Phosphate fixation capacity is high; • Ca and Mg and some of the important micronutrients are deficient
2.	New and Old Alluvial zone (Raiganj sub-division)	<ul style="list-style-type: none"> • Soil pH varies from 4.6 – 6.3; • Soil organic matter : 0.18 – 0.90 • Available P₂O₅ : 4.5 – 200 kg ha⁻¹ • Available K₂O : 12 – 367 kg ha⁻¹
Source : Directorate of Agriculture, Govt. of W.B.		

Sl. No	Agro ecological situation	Characteristics
1.	Agro-ecological region (AER) -15 Western Himalayas, warm dry to moist sub-humid (inclusion of humid) eco region with brown forest and podzolic soils & GP 180-210 (+) days, and Agro ecological sub region (AESR) 15.1 (Bengal basin and North Bihar Plain, hot moist sub-humid ESR with deep loamy to clayey alluvium-derived soils , medium to high AWC and LGP 210-240 days)	<ul style="list-style-type: none"> • Soil pH varies from 4.6 to 6.2; • Soil organic matter : 0.10 – 0.72 • Available P_2O_5 : 8 – 94 kg ha⁻¹ • Available K_2O : 30-290 kg ha⁻¹ • Phosphate fixation capacity is high; • Ca and Mg and some of the important micronutrients are deficient

2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
1.	New Alluvium	<ul style="list-style-type: none"> • Soil pH varies from 4.6 to 6.2; • Soil organic matter : Low to medium • Phosphate fixation capacity is high; • Ca and Mg and some of the important micronutrients are deficient 	96,320
2.	Alluvium	<ul style="list-style-type: none"> • Soil pH around 6.3 ; • Soil organic matter : Medium 	29,076
3.	Old Alluvium	<ul style="list-style-type: none"> • Soil pH varies from 5.0 – 6.3; • Soil organic matter : Medium 	95,896

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

Sl. No	Crop	Area (ha)	Production (q)	Productivity (q/ha)
1.	Aus Paddy	3887	58360	15.00
2.	Aman Paddy	190469	4619330	24.25
3.	Boro paddy	69985	2449480	35.00
4.	Jute	28898	515540	17.84
5.	Wheat	52532	1050640	20.00
6.	Mustard	54020	526150	12.38
7.	Potato	15230	2793180	183.4
8.	Pulses (Khesari, Lentil, Gram, Blackgram, Kulthi etc.)	6458	63290	9.80
9.	Chilli	3560	21360	6.00
10.	Tomato	1924	236880	123.05
11.	Cauliflower	2588	406320	157.00
12.	Cabbage	3488	638310	183.00
13.	Brinjal	3200	169600	53.00
14.	Ginger	908	36320	40
15.	Turmeric	1546	27860	18.02
16.	Sugarcane	477	310050	650.00
17.	Mesta	870	8610	9.90
18.	Maize	7145	500150	70.00
19.	Linseed	2073	29610	14.28
20.	Sesame	1092	5460	5.00
21.	Mango	945	60240	63.75

Sl. No	Crop	Area (ha)	Production (q)	Productivity (q/ha)
22.	Jackfruit	522	34190	65.50
23.	Litchi	400	14600	36.5
24.	Sapota	8	530	66.25
25.	Guava	456	28730	63.00
26.	Citrus fruits	195	8300	42.56
27.	Banana	704	72860	103.50
28.	Papaya	350	17670	50.48
29.	Pineapple	1650	132000	80.00
30.	Cashew nut	2	270	135
31.	Coconut	195	17.472 lakh nuts	-
32.	Arecanut	345	166.46 lakh nuts	-
33.	Marigold	20	60 lakh Cut flower	-

Source: Directorate of Agriculture, Govt. of W.B.

2.5. Weather data

Month	Rainfall (mm)	Highest Rainfall (mm)	Rainy day	Temperature ° C		Relative Humidity (%)	
				Maximum	Minimum	Max	Min
April, 16	16.2	16.2	1	34.2	21.5	87.6	59.4
May, 16	207	38.4	12	37.8	26.8	87.5	65.8
June, 16	567.7	66.3	16	32.2	25.2	93.8	77.6
July, 16	474.5	52.3	22	31.4	25.8	93.1	77.4
Aug, 16	52.5	15.4	10	32.6	26.2	95.4	80.7
Sept., 16	275.1	36.8	15	31.8	25.6	96.8	73.5
Oct., 16	159.0	46.3	6	33.2	24.1	94.2	68.6
Nov., 16	0.0	-	0	32.6	19.4	93.3	54.3
Dec., 16	6.7	6.7	1	24.9	13.1	91.7	63.7
Jan., 17	1.1	1.1	1	19.4	10.8	97.5	54.8
Feb., 17	0.0	-	0	28.9	21.4	92.2	52.7
March, 17	58.4	34.6	5	35.8	22.4	92.8	65.2

Source: Directorate of Agriculture, Govt. of W.B.

2.6. Production and productivity of livestock, poultry, fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			-
Crossbred	32,627		-
Indigenous	7,50,579		-
Buffalo	35,411		-
Sheep	6,348		-
Goats	5,94,239		-
Pigs	23,778		-
Poultry			-
Hen	1,467,493		-
Desi	14,30,317		-
Improved	37,176		-
Duck	4,12,214		-
Desi	4,08,452		-
Improved	3,762		-
Turkey and others	1,378		-

Milk – 65.51 ton
Egg – 599.43 lakhs
Meat – 12960 ton
Wool – 1.103 ton

Category	Area	Production	Productivity
Fish	-	-	-
Inland	1534.47 ha	13244.62 q	8.63 q/ha

2.7 Details of operational area / villages

b. Details of Village adoption programme. Name of the villages adopted by the Senior Scientist& Head and SMS in 2016-17 for its development and action plan

Name of village	Adopted by	Block	Action taken for development
Machol & Dhatipara	Senior Scientist& Head (I/c) & SMS (Plant Protection)	Islampur & Chopra	<ul style="list-style-type: none"> • Problem Identification • Problem Prioritization • Thrust area Identified • KVK Mandate Activity (FLD, Trg.)going on • CFLD Programme, Seed Village and Seed Hub programme going on • Other programme for entrepreneurship development like
AshokPalli- Ramkrishnapur	SMS (Horticulture)	Goalpokhor –II	<ul style="list-style-type: none"> • Problem Identification • Problem Prioritization • Thrust area Identified • Farmers club formation for disseminating the technology • KVK Mandate Activity (FLD, Trg.)going on
Bilatibari	SMS (Fishery Science)	Chopra	<ul style="list-style-type: none"> • Problem Identification • Problem Prioritization • Thrust area Identified • Farmers club formation for disseminating the technology • KVK Mandate Activity (FLD, Trg.)going on
Dhuliagauch & Golanigachh	SMS (Home Science)	Chopra	<ul style="list-style-type: none"> • Problem Identification • Problem Prioritization • Thrust area Identified • Farmers club formation for disseminating the technology • KVK Mandate Activity (FLD, Trg.)going on

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

Sl. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	-	Chopra	Kumartole	Rice, jute, wheat, rapeseed, vegetables	<ul style="list-style-type: none"> • Low productivity of crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Low Productivity of available water resources • Low productivity of livestock's • Severe infestation of brinjal fruit and shoot borer • Nutritional anemia of farm women 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Introduction of eco-friendly pest management practices • Breed improvement • Introduction of integrated farming systems • Household food security

2	-	Chopra	Lakshmi dangi	Rice, jute, rapeseed, vegetables, tea, pineapple	<ul style="list-style-type: none"> • Occurrence of micronutrient deficiencies in different crops and vegetables • Low productivity of crops • Poor coverage and yield of pulses and oilseed crops. • Low Productivity of available water resources • Infestation of mealy bug in pineapple • Lack of awareness among farm women for drudgery reduction • Inadequate storage facility of perishables (Pineapple) 	<ul style="list-style-type: none"> • Introduction of suitable variety <ul style="list-style-type: none"> • Crop diversity • Proper pest management practices • Introduction of integrated farming systems • Empowerment of women <ul style="list-style-type: none"> •
3	-	Chopra	Satram gachh	Rice, wheat, rapeseed,	<ul style="list-style-type: none"> • Occurrence of micronutrient deficiencies in different crops • Low productivity of crops & livestock • Lack of awareness among farm women for drudgery reduction • Nutritional anemia of farm women 	<ul style="list-style-type: none"> • Introduction of suitable variety with proper crop management • Breed improvement & Disease management • Nutritional management • Empowerment of women • Household food security
4	-	Chopra	Sadhuram gachh	Rice, jute, rapeseed, vegetables, tea, pineapple	<ul style="list-style-type: none"> • Low productivity of crops • Low productivity of livestock • Lack of awareness among farm women for drudgery reduction • Nutritional anemia of farm women 	<ul style="list-style-type: none"> • Introduction of suitable variety • Breed improvement & Disease management • Empowerment of women • Household food security
5	-	Chopra	Suvandigachh	Rice, jute rapeseed, vegetables, tea, pineapple	<ul style="list-style-type: none"> • Poor coverage and yield of pulses and oilseed crops. • Lack of awareness among farm women for drudgery reduction • Low productivity of livestock • Improper use of natural resources • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Empowerment of women • Breed improvement & Disease management
6	-	Chopra	Daspara	Rice, jute, maize, rapeseed, vegetables, tea	<ul style="list-style-type: none"> • Occurrence of micronutrient deficiencies in different crops and vegetables • Low productivity of crops • Low Productivity of available water resources • Insect infestation and disease infection of major crops 	<ul style="list-style-type: none"> • Introduction of suitable variety • Proper insect pest management practices • Introduction of integrated farming systems

7	-	Islampur	Aliganj	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Low productivity of livestock • Insect infestation and disease infection of major crops • Severe infestation of brinjal fruit and shoot borer • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
8.	-	Islampur	Chhoto Sapnikla	Rice, potato, rapeseed, jute, vegetables	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Improper use of natural resources 	<ul style="list-style-type: none"> • Introduction of suitable variety and Sequential crop and vegetables management strategies • Crop diversity • Introduction of eco-friendly pest management practices • Empowerment of women • Adoption of Resource Conservation Technology
9.		Chopra	Bilatibari	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
10.	-	Chopra	Biswastoli	Vegetables, Wheat, rice, maize,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Insect infestation and disease infection of major crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety and Sequential crop and vegetables management strategies • Crop diversity • Introduction of eco-friendly pest management practices • Empowerment of women

11.		Hemtabad	Bishnupur	Vegetables, rice, spices rapeseed	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Insect infestation and disease infection of major crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety and Sequential crop and vegetables management strategies • Crop diversity • Introduction of eco-friendly pest management practices • Empowerment of women
12.		Hemtabad	Kasimpur	Vegetables, rice, spices rapeseed	<ul style="list-style-type: none"> • Low productivity of crops • Poor coverage and yield of pulses and oilseed crops. • Low productivity of livestock • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Breed improvement & disease management • Empowerment of women
13.		Chopra	Goalgachh	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
14.		Chopra	Golamigachh	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
		Chopra	Dhuliagauchh	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women

		Chopra	Moulanigauchh	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
15.		Karandighi	Dhatipara	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
16.		Karandighi	Machol	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
		Karandighi	Kuaitore & Altapur	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology

17.		Goalpokher- I	Ambari	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and Oilseed crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
18.		Goalpokher – II	Ramkrishnapur	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and Oilseed crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
19.		Goal pokher – II	Jhinta Tutikata	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and Oilseed crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
20.		Goal pokher – II	Udga	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and Oilseed crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology

21.		Chopra	Moulani	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
22.		Goal pokher – I	Dangipara	Vegetables, rice, maize, rapeseed,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and Oilseed crops. • Low productivity of fish and livestock • Insect infestation and disease infection of major crops • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
23.		Islampur	Kamalagao[n	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Low productivity of livestock • Insect infestation and disease infection of major crops • Severe infestation of brinjal fruit and shoot borer • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
24.		Islampur	Kirtigachh	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Low productivity of livestock • Insect infestation and disease infection of major crops • Severe infestation of brinjal fruit and shoot borer • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology

25.		Islampur	Ashram-Matikunda	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Low productivity of livestock • Insect infestation and disease infection of major crops • Severe infestation of brinjal fruit and shoot borer • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
26.		Islampur	Larukhawa	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Poor coverage and yield of pulses and oilseed crops. • Low productivity of livestock • Insect infestation and disease infection of major crops • Severe infestation of brinjal fruit and shoot borer • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Introduction of suitable variety • Crop diversity • Sequence and management strategies for crops and vegetables • Introduction of eco-friendly pest management practices • Disease management • Empowerment of women • Adoption of Resource Conservation Technology
27.		Chopra	Boxivita	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
28.		Chopra	Telivita	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
29		Chopra	Chandagachh	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women

30.		Chopra	Kebaltoli	Vegetables, rice, maize, rapeseed, flowers,	<ul style="list-style-type: none"> • Poor coverage and yield of pulses. • Insect infestation and disease infection of major crops • Low productivity and occurrence of micronutrient deficiencies in different crops and vegetables • Lack of awareness among farm women for drudgery reduction 	<ul style="list-style-type: none"> • Crop diversity • Introduction of eco-friendly pest management practices • Introduction of suitable variety and Sequential crop and vegetables • Empowerment of women
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2. d. Sansad Adarsh Gram Yojana

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

3. TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
7	7	52	81	20	31	535	912

Training				Extension activities			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
PF-94	115	1812	2998	110	260	15000	24290
RY-09	09	132	204				
EF-08	23	150	630				

Seed production (q)		Planting material (Nos.)	
Target	Achievement	Target	Achievement
122.2	137.91	60000.00	76758

3.1 Achievements on technologies assessed and refined

OFT – 1		
1)	Title of on-farm trials	Integrated disease management of seedling blight of wheat
2)	Problem diagnose	Seedling blight observed after 1 st irrigation and plant mortality observed. After 1 st irrigation yellowing colour symptoms appeared in wheat seedling and ultimately plant die due to heavy moisture in the soil.
3)	Details of technologies selected for assessment/refinement	<p>Farmers' practice : Spraying of Mencozeb 75% one time</p> <p>Improve practice-I : Minimum routine practice: Seed treatment with Carbendazim 50% @ 2 gm/ Kg seed + one spray with Tebuconazole 0.5 gm/L</p> <p>Improve practice-II : Minimum routine practice: Seed treatment with <i>Trichoderma</i> @ 4 gm/ Kg seed + one spray with Tebuconazole 0.5 gm/L</p> <p>Improve practice-III : Minimum routine practice + supervisory practice : Seed treatment with <i>Trichoderma</i> @ 4 gm/ Kg seed + Two sprays with Propiconazole 25% EC 1.0ml/L followed by Tebuconazole 0.5 gm/L at 10 days interval</p>
4)	Source of technology	Books / Journals / Review of literature / University backstopping
5)	Production system and thematic area	Rice based cropping systems ; Integrated Disease Management
6)	Performance of the Technology with performance indicators	<p>Plant mortality,</p> <p>Loss assessment</p> <p>Yield performance & Comparative economics</p>
7)	Final recommendation for micro level situation	-
8)	Constraints identified and feedback for research	-
9)	Process of farmers participation and their reaction	Farmers' are enthusiastic and eager from diagnosis of the problem to the implementation of the trial

Problem definition: Seedling blight observed after 1st irrigation and plant mortality observed. After 1st irrigation yellowing colour symptoms appeared in wheat seedling and ultimately plant die due to heavy moisture in the soil..

Technology assessed: Integrated disease management of seedling blight of wheat

Uttar Dinajpur KVK conducted an OFT during Rabi 2016-17 on the Integrated Disease Management of seedling blight of wheat because of mortality of seedling after irrigation at CRI stage. Farmers are sprayed the Mencozeb to control the disease problem but the management practice was not attainable. The results of the experiment are as follows. From the table 1 & 2 it revealed that yield performance was highest in Improve practice-III: Minimum routine practice with supervisory practice (3.42 t/ha) but lowest in farmers practice (2.62 t/ha) due to plant mortality percentage was highest in farmers practice. According to loss assessment percentage, farmers practice showed highest (32.74%) and the Improve practice-III (Minimum routine practice with supervisory practice) showed lowest (6.58%) among the different practice; whereas Improve practice-I & Improve practice-II showed the significantly same results. Though the gross cultivation and treatment cost was highest in Improve practice-III (Minimum routine practice and

Minimum routine practice with supervisory practice) than the Improve practice-I & Improve practice-II & farmers practice, but the gross return and net return were also highest in Improve practice-III. B:C ratio also highest in Improve practice-III (1.69) and lowest in farmers practice (1.39). After two years of experiment It can be concluded that Seed treatment with *Trichoderma* @ 4 gm/ Kg seed + Two sprays with Propiconazole 25% EC 1.0ml/L followed by Tebuconazole 0.5 gm/L at 10 days interval will be best option to combat the seedling blight of wheat whereas another one year trial may be conducted for final conclusion for large scale dissemination in the farmers' field in the FLD programme. Because during the experiment 6.7 mm rain fall received in a single day therefore mortality percentage of seedling and yellow coloring occurred may be changed due to rain fall after given the irrigation at Crown root initiation (CRI) stage.

Table : 1 Performance of different management practices of IDM of seedling blight of wheat

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs. In Rs./ha)
Farmers' practice : Spraying of Mencozeb 75% one time	7	2.62	10980
Improve practice-I : Minimum routine practice: Seed treatment with Carbendazim 50% @ 2 gm/ Kg seed + one spray with Tebuconazole 0.5gm/L		2.98	14380
Improve practice-II : Minimum routine practice: Seed treatment with <i>Trichoderma</i> @ 4 gm/ Kg seed + one spray with Tebuconazole 0.5g m/L		3.14	16990
Improve practice-III : Minimum routine practice + supervisory practice : Seed treatment with <i>Trichoderma</i> @ 4 gm/ Kg seed + Two sprays with Propiconazole 25% EC 1.0ml/L followed by Tebuconazole 0.5 gm/L at 10 days interval		3.42	20920

Table: 2 Yield Performance and efficacy of combined agro-chemicals on IDM of seedling blight of wheat

Treatments	Yield Performance (q/ha)	Loss Percentage	Cost of treatments (Rs.)	B:C ratio	Percentage of yellowing colour and seedling die in wheat seedling							
					Yellowing colour				Seedling die			
					1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Farmers' practice:	26.2	32.74	2990 (28,320)*	1.39	38.28	43.84	2749	19.42	15.48	25.29	20.36	13.22
Improve practice-I :	29.8	11.72	3988 (30,320)	1.47	11.28	13.11	8.54	6.82	9.88	10.54	8.22	5.36
Improve practice-II :	31.4	9.89	4076 (30,110)	1.56	9.48	10.43	7.84	6.38	8.32	9.86	7.32	5.38
Improve practice-III	34.2	6.58	4770 (30,380)	1.69	8.38	7.22	5.28	3.98	6.14	5.18	4.28	3.04

OFT – 2		
1)	Title of on-farm trials	Assessment of Integrated pest management of fruit fly in Cucurbitaceous crop (Cucumber/Gourd)
2)	Problem diagnose	Fruit fly causes serious damage in Cucurbitaceous crops for last few years and yield reduces due to pest infestation specially in Cucumber, Gourd and bitter gourd
3)	Details of technologies selected for assessment/refinement	<p>Farmers' practice: Chemical control (as per availability Pesticide) like quinalphos, imidachloprid</p> <p>Improve practice-I: Minimum routine practice 1 : Botanical insecticides such as neem oil 10000 ppm @ 3ml/L from 35 days after sowing (DAS) + Installation of Adhesive sticky trap @ 50 nos /ha at 35 DAS+ Removal of infestation fruits during harvesting.</p> <p>Improve practice-II: Minimum routine practice 2 : Botanical insecticides such as neem oil 10000 ppm @ 3ml/L from 35DAS + Installation of fruit fly trap @ 30 nos /ha at 35 DAS + Removal of infestation fruits during harvesting.</p> <p>Improve practice-III: Minimum routine practice 1 + Installation of fruit fly trap @ 20 nos /ha at 35 DAS</p>
4)	Source of technology	Books / Journals / Review of literature / University backstopping
5)	Production system and thematic area	Vegetables based cropping systems ; Integrated Pest Management
6)	Performance of the Technology with performance indicators	Pest status Loss assessment Yield performance & Comparative economics
7)	Final recommendation for micro level situation	-
8)	Constraints identified and feedback for research	-
9)	Process of farmers participation and their reaction	Farmers' are enthusiastic and eager from the trial and show their eagerness for management of fruit fly without or minimum use of chemical pesticide.

Problem definition: During the advisory and clinical service farmers' often ask regarding the problem of fruit fly which causes serious damage in Cucurbitaceous crops for last few years and yield reduces due to pest infestation especially in Cucumber, Gourd and bitter gourd

Technology assessed: Integrated pest management of fruit fly in Cucurbitaceous crops

Uttar Dinajpur KVK conducted an OFT during Rabi 2016-17 on the Integrated Pest Management of fruit of Cucumber because of damage of fruit during fruit setting and infestation. Farmers are sprayed the different chemical pesticides in their field to control the fruit fly problem in cucumber but the management practice was not attainable. The results of the experiment revealed from the table 1 & 2 that total yield was highest in Improve practice-I: Minimum routine practice (63.0 t/ha) whereas total yield was

same in Improve practice-II& III (62.8t/ha) and lowest in farmers practice (59.6 t/ha). But when the analyzed about fresh fruit that highest yield was observed Improve practice- III (56.4 t/ha) and lowest in farmers practice (38.4t/ha) in due to attack of fruit fly in the cucumber. According to loss assessment percentage, farmers practice showed highest (35.57%) and the Improve practice-III (Minimum routine practice with supervisory practice) showed lowest (10.19%) among the different practice; whereas Improve practice-I & Improve practice-II showed the significantly same results (18.10 and 15.29 respectively). Though the gross cultivation and treatment cost was highest in Improve practice-III (Minimum routine practice and Minimum routine practice with supervisory practice) than the Improve practice-I & Improve practice-II & farmers practice, but the gross return and net return were also highest in Improve practice-III. B:C ratio also highest in Improve practice-III (3.19) and lowest in farmers practice (1.82). After first years of experiment It may be pointed that Botanical insecticides as neem oil 10000 ppm @ 3ml/L from 35 days after sowing (DAS) + Installation of Adhesive sticky trap @ 50 nos /ha at + Installation of fruit fly trap @ 20 nos /ha at 35 DAS+ Removal of infestation fruits during harvesting will be best option to combat the fruit fly problem in cucumber whereas another one year trial may be conducted for final conclusion for large scale dissemination in the farmers' field in the FLD programme..

Table : 1 Performance of different management practices of IDM of seedling blight of wheat

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs. In Rs./ha)
Farmers' practice : Chemical control (as per availability Pesticide) like quinalphos, imidachloprid	7	Fresh fruits:38.4 t/ha Damage Fruits:21.2 t/ha	1,05,650
Improve practice-I : Minimum routine practice 1 : Botanical insecticides such as neem oil 10000 ppm @ 3ml/L from 35 days after sowing (DAS) + Installation of Adhesive sticky trap @ 50 nos /ha at 35 DAS+ Removal of infestation fruits during harvesting.		Fresh fruits: 51.6 t/ha Damage Fruits:11.4 t/ha	1,75,320
Improve practice-II : Minimum routine practice 2 : Botanical insecticides such as neem oil 10000 ppm @ 3ml/L from 35DAS + Installation of fruit fly trap @ 30 nos /ha at 35 DAS + Removal of infestation fruits during harvesting.		Fresh fruits: 53.2 t/ha Damage Fruits: 9.6 t/ha	1,88,380
Improve practice-III : Minimum routine practice 1 + Installation of fruit fly trap @ 20 nos /ha at 35 DAS		Fresh fruits: 56.4 t/ha Damage Fruits: 6.4 t/ha	2,02,320

Table: 2 Yield Performance and efficacy of sticky trap and fruit fly trap on IPM of fruit fly of Cucurbitaceous crops

Treatments	Yield Performance (q/ha)	Loss Percentage	Cost of treatments (Rs.)	B:C ratio	No. of Catching fruit fly in adhesive sticky trap and fruit fly trap per week											
					Adhesive Sticky trap						Fruit fly trap					
					1 st	2 nd	3 rd	4 th	5 th	6 th	1 st	2 nd	3 rd	4 th	5 th	6 th
Farmers' practice:	Fresh fruits: 384.2 q/ha Damage Fruits: 212.0 q/ha	35.57	48,560 (128,750)*	1.82												
Improve practice-I :	Fresh fruits: 516.1 q/ha Damage Fruits:114.3 q/ha	18.10	39,750 (105,480)*	2.66	16.28	14.94	11.28	10.28	11.16	7.32	-	-	-	-	-	-
Improve practice-II :	Fresh fruits: 532.0 qt/ha Damage Fruits: 96.6q/ha	15.29	48,380 (96,820)*	2.95	-	-	-	-	-	-	24.99	38.26	48.48	36.24	28.23	12.18
Improve practice-III	Fresh fruits: 564.0 q/ha Damage Fruits: 64.2 q/ha	10.19	62,370 (92,480)*	3.19	4.38	9.84	8.26	7.28	8.39	6.48	22.84	35.32	41.74	33.28	27.66	15.28

*Total Cost of Cultivation # Fresh fruit sell average @ Rs. 5000/t and Damage fruit Sell average @ Rs. 2000/t

OFT -3		
1)	Title of on-farm trial	Assessment of nutritional supplement to enhance the production of oyster mushroom.
2)	Problem diagnose	Average yield obtained by farmers is low compared as to potential yield as cited in literature and obtained by commercial growers.
3)	Details of technologies selected for assessment/refinement	<p>Farmers practice:No use any supplements</p> <p>Technology option 1: Spray of 1% urea solution in two days interval after mycelium growth before onset of initial pins and just after 1st harvest</p> <p>Technology option2 :Spray of 1% Glucon D solution in two days interval after mycelium growth before onset of initial pins and just after 1st harvest</p>
4)	Source of technology	Books / Journals / Review of literature / University backstopping
5)	Production system and thematic area	Oyster mushroom units and production enhancement
6)	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> Performance indicator: Net production per cylinder, Difference in onset of pinning, Before and after feed back
7)	Final recommendation for micro level situation	On- going
8)	Constraints identified and feedback for research	More awareness and demonstrations are needed.
9)	Process of farmers participation and their reaction	Active farm family participation from diagnosis of the problem to the implementation of the trial

B. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

5. CROP PRODUCTION

Problem definition: Lack of awareness leads to low production.

Technology assessed or refined (as the case may be): Assessment of nutritional supplement to enhance the production of oyster mushroom.

Oyster mushroom cultivation fits very well in Uttar Dinajpur district of West Bengal and especially Chopra and Islampur blocks of the district because these blocks are just 50-60 km away from Siliguri which is major outlet for mushroom markets of Sikkim, Nepal, Bhutan and Assam. Kvk Uttar Dinajpur since 2012 working on popularization of mushroom cultivation among farmers and farm women and especially among tea garden labourer women for their household nutritional security and for income generation. Working with these sections it observed that farmers are getting low yield than expected and to combat this problem an on-farm trial on assessment of nutritional supplement to enhance production of oyster mushroom is planned and conducted in 16 different units commercial as well as household mushroom units. As per treatments 8 units are supplied with urea for spraying on mushroom units just after first harvest in the interval of two days and 8 units are supplied with glucon D powder and instructed accordingly. Trial is conducted for the period of two months. Results are given below:

Table:1 Effect of low cost supplements on growth and pinning initiation of oyster mushroom.

Technology Option	No. of trials	Parameters	
		Difference in onset of pinning	Net yield per unit
No use any supplements(Farmers Practice)	8	After 9-11 days	1.45 kg
Technology option 1: Spray of 1% urea solution in two days interval after mycelium growth before onset of initial pins and just after 1 st harvest		After 7-9 days	1.90kg
Technology option 2: Spray of 1% Glucon D solution in two days interval after mycelium growth before onset of initial pins and just after 1 st harvest		After 6-8 days	2.05kg

Technology option 2 performed better than control and Technology option 1. It was observed that gap in pinning is much lesser as compared to farmer's practice in both the cases. After spray of glucon D might have supplied ready feed to grown mycelium which has shorten the span of onset of pins on mushroom units. Increase in yield was also observed with both the treatments although better results were seen with technology option 2.

OFT -4		
1)	Title of on-farm trial	Assessment of improved parboiling technology for quality enhancement of rice grain to increase consumer acceptability of scented and non scented rice varieties of Uttar Dinajpur district.
2)	Problem diagnose	Quality of parboiled rice grains is not up to the mark of consumer preference
3)	Details of technologies selected for assessment/refinement	Farmers practice: Soaking rough rice overnight or longer followed by steaming at 100 ⁰ c , cooled and sundried Technology option 1: Use of pan with perforated base to steam the paddy and use of Short Soaking Tempering method(SST) (presoak for 4hrs at 90 ⁰ c, steamed and dried) Technology option 2 : Use of wooden sticks be covered with a jute sack as a platform on which paddy will be steaming and use of Short Soaking Tempering method(SST)
4)	Source of technology	Farmer feedback/books/review of literature
5)	Production system and thematic area	Farm family/ Drudgery reduction/quality enhancement
6)	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> Performance indicator : Time and energy saving, Quality analysis of rice samples, Before and after feedback
7)	Final recommendation for micro level situation	On going
8)	Constraints identified and feedback for research	More awareness and demonstration trainings are needed to get wider impact of the programme
9)	Process of farmers participation and their reaction	Active farm family participation from diagnosis of the problem to the implementation of the trial

1) Thematic area: Processing and Value Addition

Problem definition: Quality of parboiled rice grains is not up to the mark of consumer preference.

Technology assessed or refined (as the case may be): Improved parboiling technology for quality enhancement of rice grain.

Parboiling is one of the post harvest operations of the rice crop. Apart from the nutritional importance of parboiled rice there are plenty of advantages and effects which make parboiling attractive. Those advantages are for instance the increased head rice yield during milling of parboiled rice, the reduced stickiness of the cooked rice and then improved cooking behavior of the parboiled rice. There are presently a lot of traditional and industrial methods where the basic steps like soaking, thermal treatment (steaming or cooking) and drying often only differ by the application of different techniques and process parameters. Paddy parboiling is tedious, time consuming and drudgerous activity but Women have to perform these drudgery prone tasks, as they find no other alternatives. To reduce the drudgery of farm women, short soaking tempering (SST) method was tried at farm level under OFT programme conducted by Uttar Dinajpur Krishi Vigyan Kendra, Chopra for two consequent years 2011-12 and 2012-13. In the present OFT same short soaking tempering (SST) method is used with some intermediate technologies to enhance the qualities of parboiled rice.viz (1) the use of a pan with a perforated base to steam the paddy and (2) the use of wooden sticks which were covered with a jute sack on which the paddy was then placed for parboiling. Though Technology option 1 had given better results than other options. Rice samples were tested for their characteristics and nutritive values from ICAR-National Rice Research Institute, Cuttack, Odisha and results are given below.

Table 1. Effect of different parboiling methods on cooked rice characteristics of scented rice *Tulaipanji*.

Parboiling methods	Rice grain characteristics*									
	Moisture %	Gel Consistency (mm)	Kernel Length (mm)	Kernel breadth (mm)	L/B ratio	Alkali Spreading Value	Water uptake ratio (ml/100gm)	Volume Expansion Ratio	Kernel Length After Cooking (mm)	Elongation Ratio
Traditional method	14.0	36.0	5.52	1.80	3.05	4	105	4.01	9.80	1.71
Technology option 1. Use of pan with perforated base	13.7	36.5	5.59	1.81	3.08	4	95	4.03	9.99	1.79
Technology option 2. Use of wooden sticks be covered with a jute sack	13.9	35.2	5.50	1.83	3.10	4	95	3.95	10.2	1.76

*Samples were tested at ICAR-NRRI, Cuttack, Odisha.

Table 2. Nutritive Value of assessed samples of *Tulaipanji* rice with different parboiling techniques.

Parboiling methods	Nutritive value*		
	Amylase Content %	Protein (%)	Carbohydrate (%)
Traditional method	19.94	7.34	77.30
Technology option 1. Use of pan with perforated base	18.81	7.52	78.96
Technology option 2. Use of wooden sticks be covered with a jute sack	18.75	7.50	77.32

*Samples were tested at ICAR-NRRI, Cuttack, Odisha.

OFT-5		
1.	Title of On farm Trial	Assessment of different management practices of weed control in pineapple
2.	Problem diagnosed	Vigorous weed growth, inadequate labour availability and huge expenditure due to manual weeding
3.	Details of technologies selected for assessment/refinement	Farmers practice: Spraying of glyphosate (5 ml/l)(1 time/year) with 4 times hand weeding Weed management 1: Use of plastic mulch Weed management 2: Spraying of diuron (6.25 g/l) 2 times/year
4.	Source of Technology	Books, Journals, Dept. of Horticulture, Govt. of West Bengal
5.	Production system and thematic area	Pineapple based cropping system, integrated weed management
6.	Performance of the Technology with performance indicators	Duration of weed germination, yield performance, B:C ratio, residual effects of chemicals in fruits
7.	Final recommendation for micro level situation	-
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Farmers are enthusiastic and eager from diagnosis of the problem to the implementation of the trial

B. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

Problem definition: Weed is the main hindrance of pineapple cultivation. Farmers mainly go for hand weeding. For this, maximum expenditure is done in weed management. Besides this, efficient labour for hand weeding don't available during the weed growth stage. Due to these two way problem, farmers get less profit. As a result, the area under pineapple in Uttar Dinajpur is decreasing day by day.

Technology assessed: Assessment of different management practices of weed control in pineapple.

Uttar Dinajpur KVK has conducted on Farm Trial to assess the different management techniques of weed control in pineapple. Though the experiment is going on, the final result cant be displayed. But some results are depicted below:

Table : 1 Performance of different management practices in weed management of pineapple.

Technology Option	No.of trials	Yield (t/ha)	Net Returns (Rs. In lakh./ha)
Farmers practice: Spraying of glyphosate (5 ml/l)(1 time/year) with 4 times hand weeding	7	On-going (fruiting stage)	
Weed management 1: Use of plastic mulch			
Weed management 2: Spraying of diuron (6.25 g/l) 2 times/year			

Table 2: Population of weeds, germination time and plant growth of different weed management practices

Technology Option	Germination time (Days)	Weed population per meter	Plant height of pineapple after 1 year	No of leaf per plant (1 year old)
Farmers' practice	3 to 5 days	67	68 cm	67
Improved practice 1:	2 to 7 days	07	78 cm	78
Improved practice 2:	75 to 120 days	12	72 cm	75

OFT-6		
1.	Title of On farm Trial	Assessment of the turmeric processing techniques for better quality
2.	Problem diagnosed	Lack of knowledge of suitable curing techniques of turmeric for better color of turmeric powder upto the mark as per consumer choice.
3.	Details of technologies selected for assessment/refinement	Farmers Technique: Use raw cowdung during the boiling of turmeric @ 1.5 kg/ 10 kg rhizome Improved practice 1: Use green tamarind during the boiling of turmeric @ 2.5 kg/ 10 kg rhizome Improved Practice 2: Use sodium bi carbonate during the boiling of turmeric @ 50 g/ 10 kg rhizome
4.	Source of Technology	Books, Journals, ITK practice
5.	Production system and thematic area	Vegetable based, processing and value addition
6.	Performance of the Technology with performance indicators	Colour, pungency, curcumin content and microbial load of turmeric powder
7.	Final recommendation for micro level situation	-
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Farmers and mainly farm women are enthusiastic and eager from diagnosis of the problem to the implementation of the trial

B. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL**8. Processing technology of Spices**

Problem definition: Goalpokher – I and II blocks of Uttar Dinajpur district produces huge amount of raw turmeric. Some farmers process them into turmeric powder to sale in market and their own purposes. In this process management system they found it that color of turmeric powder is not upto the mark and they are not getting marketing attention as they should get it. So, this OFT has been included to improve turmeric powder color.

Technology Assessed: Uttar Dinajpur Krishi Vigyan Kendra conducted on farm trial for color and quality of turmeric powder for cooking purposes as farmers' sometimes opined that the color of turmeric powder is not coming up to the mark as per consumer choice. Therefore sale problem had been arisen some times in the market. Assessment of the turmeric processing techniques for better quality. The Uttar Dinajpur KVK took up on farm trial on the assessment of different processing techniques of turmeric for better quality. The results are depicted below:

Table 1 : Performance of different processing techniques of turmeric

<i>Technology Option</i>	<i>No. of trials</i>	<i>Curcumin (%)</i>	<i>Microbial load</i>
Farmers Technique:	<i>7</i>	52.83	<i>Nil</i>
Improved practice 1		37.28	
Improved Practice 2		54.03	

The analysis data are given in the following table:

<i>Sample ID</i>	<i>Sample Weight (in gm)</i>	<i>Retention time</i>	<i>Sample pick area (A1)</i>	<i>Standard peak area mean (A2)</i>	<i>Standard mass in gm in final dilution (m2)</i>	<i>Sample mass in gm in final dilution (m1)</i>	<i>Purity percent (P)</i>
<i>Cowdung</i>	<i>0.0010</i>	<i>0.680</i>	<i>4060</i>	<i>6916</i>	<i>0.0000100</i>	<i>0.0000100</i>	<i>90.0</i>
<i>Tamarind</i>	<i>0.0010</i>	<i>0.677</i>	<i>2865</i>				
<i>Sodium bi-carbonate</i>	<i>0.0010</i>	<i>0.680</i>	<i>4152</i>				

The molecular assay were done through Gas Chromatography with Mass Spectroscopy of Varian 3800GC and Saturn 2000 series MS. The column used in this test was Factor Four 8CB. The assay reveals following molecules present in the sample:

Cow Dung			Green tamarind			NaHCO₃		
Name of the molecule	Base Peak	Molecular Weight	Name of the molecule	Base Peak	Molecular Weight	Name of the molecule	Base Peak	Molecular Weight
Pregn.5.en20.one.3.16.17.21. tetrakis (trimethylsilyl) oxy	73.0	762	Acetic Acid	43.0	718	Acetic Acid	43.0	718
Iron	592.0	762	Pregn.5.en20.one.3.16.17.21. tetrakis (trimethylsilyl) oxy	73.0	762	5-Germaspiro[4.4]nonal. 3.6.8. tetraene	41.0	674
Acetic Acid	43	718	5-Germaspiro[4.4]nonal. 3.6.8. tetraene	41.0	674	4.4 Isopropylidene(2.[2.6 dibromophenoxy] ethanol	45.0	628

5-Germaspiro[4.4]nonal. 3.6.8. tetraene	41.0	674	Pyrroline	57.0	729	2.2.Bis [4-{4.(6. Dichloro. 1.3.5. triazine.2-yl)oxy} phenyl]1.1.1.3.3.3.hexafluoro	124.0	630
Zirconium.dichloro. [dimethylbis(2.methyl-4. phenylindenyl)]	628	626	Methanesulfonic acid	79.0	218	Pregn.5.en20.one.3.16.17.21. tetrakis (trimethylsilyl) oxy	73.0	762
Pyrroline	57.0	729	s-Triazaborane	80.0	81	Molybdenum	57.0	662
Molybdenum	57.0	662	Piperidine	82.0	347	3.10. Dioxatricyclo.10 [4.3.1. 0 (2.4)] dec.7.ene	82.0	138
3.10. Dioxatricyclo.10 [4.3.1. 0 (2.4)] dec.7.ene	82.0	138	Theieno {2.3.d} pyrimidine - 6. carboxylicacid	84.0	353	2.4. Dodecadienal{E.E}	81.0	180
4.25.secoobsurinervan.4. one.o.acetyl.15.16. dimethoxy	78.0	484				Piperidine	82.0	127
Piperidine	82.0	347						

- The quality parameters were tested in Quality Control Lab, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar

Results: The present study indicated that curcumin percentage is observed higher in case of Improved practice 2 (Sodium bi-carbonate) than the farmers practice (cowdung) and Improved Practice 1 (green tamarind). Farmer's practice performed better than the improved practice 1. In no cases, microbial growth is detected.

OFT-7		
1.	Title of On farm Trial	Assessment of boron application to enhance the productivity of chilli
2.	Problem diagnosed	Lack of knowledge of proper scheduling of Boron application
3.	Details of technologies selected for assessment/refinement	<p>Farmers Technique: Spray Boron (20%) @ 1.5 ml/l when flower and fruit drop occur heavily</p> <p>Improved practice 1: Spray 1st Boron (20%) @1.5 ml in 35 DAP , after that 3 Boron spray at 15 days interval</p> <p>Improved Practice 2: Soil application of Boron @15kg/ha during field preparation, two spraying of Boron (20%) @1.5 ml/l before flowering and after one month.</p> <p>Improved Practice 3: Soil application of Boron @15kg/ha during field preparation, three spraying of Boron (20%) @1.5 ml/l before flowering and after one month and two month.</p>
4.	Source of Technology	Books, Journals
5.	Production system and thematic area	Vegetable based and management of micronutrient
6.	Performance of the Technology with performance indicators	Production per plant, flower dropping per plant, fruit set per plant
7.	Final recommendation for micro level situation	-
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Farmers are enthusiastic and eager from diagnosis of the problem to the implementation of the trial

C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

8. Micronutrient management

Problem definition: Flower and fruit dropping is a major problem in chilli in this area. So, farmers get less yield and less profit too.

Technology Assessed: Assessment of proper scheduling of boron application to prevent flower and fruit drop to enhance the productivity of chilli. The Uttar Dinajpur KVK took up on farm trial on the assessment of boron application to enhance the productivity of chilli.

Table 1: Performance of different type of boron application

Technology option	No. of trials	Yield (t/ha) (upto March, 2017), **crops are in the field	Increase in yield (%)	Net return (Rs. in lakh/ha)
Farmers Technique: Spray Boron (20%) @ 1.5 ml/l when flower and fruit drop occur heavily	7	10.58		Crops are in the field
Improved practice 1: Spray 1 st Boron (20%) @1.5 ml in 35 DAP , after that 3 Boron spray at 15 days interval		11.11	5	
Improved Practice 2: Soil application of Boron @15kg/ha during field preparation, two spraying of Boron (20%) @1.5 ml/l before flowering and after one month.		11.42	8	
Improved Practice 3: Soil application of Boron @15kg/ha during field preparation, three spraying of Boron (20%) @1.5 ml/l before flowering and after one month and two month.		11.63	10	
**crops are in the field ** 4 times harvesting complete , another three times harvesting will be done				

3.2 Achievements of Frontline Demonstrations

Details of FLDs implemented during 2016-17

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
				Proposed	Actual	SC/ST	Others	Total	
1.	Paddy	Integrated Disease Management	Use of bio-pesticide & Bio-fertilizer for disease management of rice. (Trichoderma viridee, azotobector, PSB, Azospirillum)	5	5	20	20	40	-
2.	Paddy	Varietal Replacement	Varietal replacement of short duration of rice (from var. IET 4094 to var. Sahabhazi and var. MTU - 1010)	10	30	70	50	120	-
3	Paddy	Varietal Replacement	Varietal replacement of long duration of rice (From var. 7029 to var. Pratikshya and var. Swarna Sub – 1)	-	40	96	0	96	
4	Paddy	Resource Conservation	Zero tillage cultivation of Rice	-	10	40	20	60	
5	Lime	Orchard management	Establishment of permanent lime orchard	0.4	0.9	4	3	7	
6	Guava	Orchard management	Establishment of permanent Guava orchard	0.7	1	4	4	8	
7	Summer squash	Exotic vegetable	Introduction of summer squash	0.5	0.7	18	7	25	
8	Broccoli	Exotic vegetable	Introduction of Broccoli	0.5	0.7	26	4	30	
9	Mustard	Integrated pest Management	Varietal replacement of Mustard with special reference to IPM	10	10	48	0	48	
10	Brinjal	Integrated pest Management	IPM of Brinjal fruit shoot borer	5	5	18	24	42	
11	Garden Pee	Varietal Replacement	Varietal Replacement of Garden Pee	0.2	0.2	8	3	11	

12	Strawberry	Exotic fruit	Introduction of Strawberry	0.03	0.03	3	1	4	
13	Brinjal	Integrated pest Management	IPM of Brinjal fruit shoot borer	0.8	0.8	10	0	10	
14	Greengram	Crop production	Improve cultivation of greengram	10	10	30	0	30	
15	Winter & summer vegetables	Integrated pest Management	IMP on fruit fly	1	1	17	0	17	

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 ₂ O ₅	K ₂ O					
Paddy (Varietal replacement)	Kharif, 2016	Rainfed	Sandy-loam	Medium	Low	Medium	Wheat	Transplanting : 1 st fortnight of July, 2016	1 st fortnight of Nov., 2016	931.1	53
Paddy (Varietal replacement)	Kharif, 2016	Rainfed	Sandy-loam	Medium	Low	Medium	Wheat	Transplanting : 1 st fortnight of July, 2016	1 st fortnight of Nov., 2016	931.1	53
Paddy (IDM)	Kharif, 2016	Rainfed	Sandy-loam	Medium	Low	Medium	Wheat	Transplanting : 1 st fortnight of July, 2016	1 st fortnight of Nov., 2016	931.1	53
Paddy (Zero Tillage)	Kharif, 2016	Rainfed	Sandy-loam	Medium	Low	Medium	Wheat	Transplanting : 1 st fortnight of July, 2016	1 st fortnight of Nov., 2016	931.1	53
Lime	Round the year	Irrigated	Sandy-loam	Medium	Low	Medium	Rice	July to August	-	1032.11	60
Guava	Round the year	Irrigated	Sandy-loam	Medium	Low	Medium	Rice	July to August	-	1032.11	60
Broccoli	Rabi, 2016-17	irrigated	Sandy-loam	Medium	Low	Medium	Rapeseed	1 st wk of Dec., 2016	3 rd Week of Feb, 2017	7.8	2
Brinjal (IPM)	Rabi, 2016-17	Irrigated	Sandy-loam	Medium	Low	Medium	Vegetables	Transplanting : 2 nd fortnight of July, 2016)	2 nd fortnight of February, 2017	938.9	55
Mustard	Rabi, 2016-17	Irrigated	Sandy-loam	Medium	Low	Medium	Paddy	Sowing : 2 nd fortnight of Nov., 2016)	2 nd fortnight of February, 2017	7.82	2
Garden Pea	Rabi, 2016-17	irrigated	Sandy-loam	Medium	Low	Medium	Rapeseed	1 st wk of Dec., 2016	3 rd Week of March, 2017	66.2	7
Strawberry	Rabi, 2016-17	Irrigated	Sandy loam	Medium	Low	Medium	Early rice	1 st week of October, 2016	4 th week of March, 2017	66.2	7

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 ₂ O ₅	K ₂ O					
Summer squash	Rabi, 2016-17	Irrigated	Sandy loam	Medium	Low	Medium	Early rice	1 st week of Dec, 2016	1 st Week of March, 2017	66.2	7
Greengram	Summer, 17	Irrigated	Sandy loam	Medium	Low	Medium	Early rice	1 st Week of March, 2017	-	58.4	5
Winter & Summer vegetables (IPM)	Rabi & Summer, 2016-17	Irrigated	Sandy loam	Medium	Low	Medium	Early rice	3 rd Week of February & 2 nd Week of March, 2017	-	66.2	7
Brinjal (IPM)	Summer, 17	Irrigated	Sandy-loam	Medium	Low	Medium	Vegetables	1 st Week of March, 2017	-	58.4	5

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

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Mustard	Integrated Crop Management	Varietal Replacement with IPM	48	10	12.9	9.9	30.30	20580	51600	31020	2.51	19470	39600	20130	2.03
Total			48	10											

* 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

Pluses:

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		%	*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
Greengram	INM	Varietal replacement and INM	30	10	Crop in the field										
Total			30	10											

Other crops:

Crop	Thematic area	Name of the technology demon – started	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Rice	Varietal Replacement	Variety Sahabhagi	120	30	47.3	36.8	28.53	#	##	34420	63855	29435	1.86	33210	49680	16470	1.50
					# Demo : a) No. of panicle bearing tillers/ m^2 : 212 b) No. of spikelets / panicle :124 c) Test wt. : 23.4							##Check : a) No. of panicle bearing tillers/ m^2 : 193 b) No. of spikelets/ panicle : 59.2 c) Test wt. : 21.4					
		Variety (MTU 1010)			45.6	36.4	23.91	#	##	34470	61560	27090	1.79	33210	49680	16470	1.50
					# Demo : a) No. of panicle bearing tillers/ m^2 : 208 b) No. of spikelets / panicle :120 c) Test wt. : 22.8							##Check : a) No. of panicle bearing tillers/ m^2 : 193 b) No. of spikelets/ panicle : 59.2 c) Test wt. : 21.4					
		Variety (Pratiksha)	96	40	51.8	40.6	27.59	^	^^	37320	69930	32610	1.87	34425	54810	20385	1.59
					^ Demo : a) No. of panicle bearing tillers/ m^2 : 279 b) No. of spikelets / panicle :138 c) Test wt. : 22.9							^^ Check : a) No. of panicle bearing tillers/ m^2 : 207 b) No. of spikelets/ panicle : 90.2 c) Test wt. : 22.2					

Crop	Thematic area	Name of the technology demon – started	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
		Swarna Sub – 1			49.9	40.6	22.91	*	**	37320	67365	30045	1.81	34425	54810	20385	1.59
					* Demo : a) No. of panicle bearing tillers/ m^2 : 274 b) No. of spikelets / panicle :136 c) Test wt. : 22.4							** Check : a) No. of panicle bearing tillers/ m^2 : 207 b) No. of spikelets/ panicle : 90.2 c) Test wt. : 22.2					
Paddy	Resource conservation	Zero Tillage Rice Cultivation	60	10	50.4	40.6	24.14	&	&&	33220	68040	34820	2.05	34425	54810	20385	1.59
					& Demo : a) No. of panicle bearing tillers/ m^2 : 276 b) No. of spikelets / panicle :135 c) Test wt. : 22.9							&& Check : a) No. of panicle bearing tillers/ m^2 : 207 b) No. of spikelets/ panicle : 90.2 c) Test wt. : 22.2					
Paddy	Integrated Disease Management1	Use of bio-pesticide (Trichoderma Pseudomonou) for Integrated disease management of rice	40	5.0	48.2	40.6	18.72	*	**	35970	65070	29100	1.81	34425	54810	20385	1.59
					* Demo a) Disease Intensity (%) : 5.8 Disease Severity (%) : 0.36							** Check b) Disease Intensity (%) : 21.2 Disease Severity (%) : 0.78					

Crop	Thematic area	Name of the technology demon – started	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Brinjal	Integrated pest Management	Management of BSFB through Pheromone trap & Neem oil	42	5.0	425.4	370.8	14.72 (based on total yield) 40.86 (Based on fresh yield)	*	**	110580 (38320*) * - Cost for pest management	211558	100978	1.91	120690 (62570*) * - Cost for pest management	168766	48076	1.40
					* Demo Fresh yield - 386.8 q ha ⁻¹ Infested yield -38.6 q ha ⁻¹ Total yield -425.4 q ha ⁻¹ a) Infested percentage- 9.07						** Check Fresh yield- 274.6 q ha ⁻¹ Infested yield -96.2 q ha ⁻¹ Total yield -370.8 q ha ⁻¹ b) Infested percentage- 25.94						
Mustard	Integrated pest Management	Integrated Pest Management of Mustard Aphid through insect sticky/adhesive trap	48	10.0	12.9	9.9	30.30	*	**	19580	58050	38470	2.96	18690	44550	25860	2.38
Broccoli	Exotic vegetable	Crop-diversity	30	0.75	230	335	(-) 31.34 %	Curd wt. at harvest = 615g	Curd wt. at harvest = 880g	110270	265300	155030	2.40	95600	163450	67850	1,70

Crop	Thematic area	Name of the technology demon – started	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Dem o	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Summer squash	Non-conventional vegetable	Crop diversity	25	0.7	295					1,78,750	4,42,500	263750	2.48	-	-	-	-
							➤ Demo parameter- No. Of plant/ ha-14,700, no. of fruit/ plant- 3-4, fruit weight- 750 g, , yield/plant- 2 kg, avg. Sale price - Rs. 15.00/ kg										
Strawberry	Exotic fruit	Crop diversity	4	0.03	42.83					3,61,730	11,77,825	816095	3.26				
							❖ Demo parameter- Average weight of fruit- 20 g; avg. No. of fruit / plant-40-45; fruit weight per picking- 2.1 q, fruits are harvested at 3 days interval; no. of plants/ ha- 20000; avg. sale price- Rs. 300/kg										
Garden Pea	Production and management technology and varietal replacement	Crop Management	11	0.2	54.3	41.7	30.22 %			47225	162900	115675	3.45	41250	104250	63000	2.53
Winter and summer vegetable	IPM	IPM of fruit fly through fruit fly traps and sticky traps of vegetables (Bitter gourd)	17	1.0	Fresh fruit 28.6 damaged fruits 4.3 total fruits 32.9	Fresh fruit 22.8 damaged fruits 7.9 total fruits 30.6	25.44 based on fresh fruits 7.52 based on total fruits	* average fruits fly catch/ trap/ week 22.42		Crop is not finally harvested. Therefore economic calculation yet to come in effect.							

Crop	Thematic area	Name of the technology demon – started	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)				
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Brinjal	Integrated Pest Management (TSP Project)	Management of BSFB through Pheromone trap & Neem oil	10	0.8	Crop is in vegetative stage													
Lime	Orchard management	Establishment of permanent lime orchard	7	0.9	This is a permanent fruit crop. The plants are only eight months old. These all are in growing stage. Fruiting has not started.													
Guava	Orchard management	Establishment of permanent guava orchard	8	1.0	This is a permanent fruit crop. The plants are only eight months old. These all are in growing stage.													
Greengram (Moong bean)	Crop production	Improved cultivation of greengram	30	10	Crop in the field													

Fisheries and Animal Husbandry

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters Fish Yield (q/ha)		% change in major parameter	Other parameter Harvested size (g)		*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
Fish	Fish culture	Composite fish culture	9	9	14.2	9.9	43.4	Catla 700g Rohu 475g Mrigal 300g	Catla 400g Rohu 275g Mrigal 250g	79150.00	127800.00	48650.00	1.61	68800.00	89100.00	20300.00	1.29
IFS	Integrated fish farming	Integrated fish-cum-duck-cum-vegetable cultivation system	10	10	13.4	9.5	41.1	Catla 550g Rohu 400g Mrigal 325g	Catla 350g Rohu 250g Mrigal 200g	71200.00	120600.00	49400.00	1.69	67300.00	85500.00	18200.00	1.27
Animal (goat)	Production of quality animal (General TSP)	Introduction of pure Black Bengal goat for breed up-gradation	10	10	15.8	13.5	17.03	Final result awaited									
Poultry Bird	Poultry Management and breed upgradation (TSP Project)	Introduction of IRI cock to increase production of egg and meat	10 (40 nos birds/farmers)	10	-	-	-	Final result awaited									

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters Fish Yield (q/ha)		% change in major parameter	Other parameter Harvested size (g)		*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
Piggery	Piggery Management and breed up-gradation (TSP Project)	Introduction of LWY and Ghungroo for breed up-gradation and increase of meat production	6 (2 nos. pigger y/farmer)	6	-	-	-	Final result awaited									

* 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 enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit(for 4 batches 100 kg of mushrooms)				*Economics of check (Rs.) or Rs./unit			
				Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Others	Oyster mushroom cultivation for nutritional security and entrepreneurial activity	10	10	Additional Availability of mushroom./day /Family 150 gm	Mushrooms are not the part of diet due to non availability	-	Oyster mushroom cultivation as entrepreneurial activity*	-	15680	28920	13240	1.84	-	-	-	-

Oyster mushroom cultivation as entrepreneurial activity(small scale) taken up by majority of the respondents including 5 Nos. individual enterprenurer and 4 Nos. SHGs & FCs

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit(for 4 batches 100 kg of mushrooms)				*Economics of check (Rs.) or Rs./unit			
				Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Others	Oyster mushroom cultivation for nutritional security and entrepreneurial activity (TSP Project)	10	10	Additional Availability of mushroom./day /Family 120 gm	Mushrooms are not the part of diet due to non availability	-	Oyster mushroom cultivation as entrepreneurial activity*	-	9470	13820	4350	1.45	-	-	-	-
Oyster mushroom cultivation as entrepreneurial activity(small scale) taken up by majority of the respondents including 5 Nos. individual enterprenurer and 4 Nos. SHGs & FCs																
	Vermi-compost Production for entrepreneurship development	5 SHG	5	Average Production per SHG 10 q per month	-	-	-	-	36000	120000/year	84000	3.33	-	-	-	-
	Vermi-compost Production for entrepreneurship development (TSP Project)	8 SHG	8	Average Production per SHG 6 q per month	-	-	-	-	24000	72000	48000	3.00	-	-	-	-
	Nutritional kitchen garden for household nutritional security	5	5	Additional availability of vegetables/day/family 475 gm	Additional availability of vegetables /day/family 260 gm	-	-	-	-	-	-	-	-	-	-	-

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit(for 4 batches 100 kg of mushrooms)				*Economics of check (Rs.) or Rs./unit			
				Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
	Backyard Azolla production for cattle feed	20 SHGs	20	The milk production has been increased by 12-16 % when the cows are fed with Azolla continuously for three months. Data collection and records keeping is going on.			Economic benefit on feed cost									
	Backyard Azolla production for cattle feed (TSP Project)	20 SHGs	20	The milk production has been increased by 6-8 % when the cows are fed with Azolla continuously for three months. Data collection and records keeping is going on.			Economic benefit on feed cost									

* 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

Comparative benefits of Azolla cultivation (Calculation for a month)							
Crossbred Cow feed without azolla				Crossbred Cow feed with azolla			
Item	Quantity	Rate	Total(Rs.)	Item	Quantity	Rate	Total(Rs.)
Bhuttha dana (Coarse grounded Maize)	10 Kg	15/kg	150	Bhuttha dana (Coarse grounded Maize)	6 Kg	15/kg	90
Aakari (Wheat/rice bran)	16Kg	30/kg	480	Aakari (Wheat/rice bran)	8 Kg	30/kg	240
Khol (Mustard cake)	10 kg	25/kg	250	Khol (Mustard cake)	5Kg	25/kg	125
Dry Straw	480ati	Rs. 160.00 per 100 ati	250 (mini price is considered as it is available at home only)	Dry Straw	480 ati	Rs. 140.00 per 100 ati	250 (mini price is considered as it is available at home only)
Green grass	3kg	-	-	Green grass	3kg	-	-
Salt	3Kg	Rs.6	18	Salt	3Kg	Rs.6	18
				Azolla	20kg	Rs. 15/kg if purchase	300
Total Cost			1148	Total cost			1023

Women empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Farm Women	Vermicomposting as entrepreneurial activity	07	Group activeness* Monthly production Monetary gain	1.5qt./month Rs 1000- 1200/month/SHG	-
	Group activeness is improved due to their engagement in some productive work, got economically benefitted and source of inspiration to many others(data calculated on subjective scales)				
Pregnant women					
Adolescent Girl					
Other women					
Children	Low cost nutritional weaning foods to combat malnutrition	20	1.Weight gain	11.82 Kg	8.94 Kg
Neonatal					
Infants					

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)		Cost reduction (Rs./ha or Rs./Unit ect.)	
					Demons Ration	Check		Demons ration	Check	Demons ration	Check
Tubular maize sheller	Maize	Use of hand maize sheller	200	30	38 kg / hr / person	14 kg / hr / person	65%	Time : 152.48 hr. Man unit : 18.16	Time : 472.56 hr. Man unit : 60.24	Labour cost : 4086 Cost of sheller : Rs. 150/Piece Total cost : Rs.4236/- Cost per qt. : Rs.42.36/-	Labour cost : 13554 Cost of sheller : nil Total cost : Rs.13554/- Cost per qt. : Rs.135.54/-
Mini parboiling unit	Paddy	CRRl parboiling unit	4	4	Fuel costs Rs. 54 per qt.	Fuel costs Rs. 78 per qt.	30.71% fuel save & 48.69 cost saving	Time : 7.00 hr. Man unit : 1.00	Time : 23.00 hr. Man unit:2.00	Total Cost per qt. : Rs.190/-	Total Cost per qt. : Rs.370/-

* 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)			
				Demo	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Cereals										
Bajra										
Maize										
Paddy										
Sorghum										
Wheat										
Others (pl.specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower										
Groundnut										
Soybean										
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)										
Broccoli	Green Star	30 nos	0.75 ha	230 q	335 q	(-) 31.34%	110270	265300	155030	2.40
Summer Squash/ Zucchini	Green Magic	25 nos	0.7 ha	295 q			1,78,750	4,42,500	263750	2.48
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

S. No	Crop	Feed Back
1	Mustard	Heavy soil moisture for prolonged period makes it difficult for the farmers to sow <i>Rabi</i> crops like wheat, rapeseed etc. in proper time. So, emphasis to be given to screen the late sown crop cultivars as well as to popularize Zero tillage cultivation.
2	pulse, oilseeds & vegetables	Correction of soil acidity is needed for growing pulse, oilseeds & vegetables crops
3	pulse, oilseeds & vegetables	Quality seeds of recommended varieties of different crops are not readily available in the local market. Measures to be taken for seed multiplication of the recommended varieties to make the same easily available to the farmers.
4	IPM	Bio-pesticides, traps, lures and new generation pesticides are now available in the local market. Farmers are now use the IPM technology
5	pulse, oilseeds & vegetables	Due to soil acidity several micronutrients are deficient in the soil causing severe loss in yield of crops. Extension Functionaries of the Govt. Departments and other organizations should be updated about the fact and they should recommend the application of micronutrients either in the soil or as foliar spray in different crops to mitigate the problem.
6	Malnourished children	Keeping in mind the nutritional management of farm families, low cost nutritional weaning food was given in FLD and well accepted by farm women to combat malnutrition among children and now provided to red children of whole district through DRDA.
7	Livestock	Backyard Azolla cultivation for cattle feed has got overwhelmed response from farm women. Near about 780 SHG members who are cultivating azolla in their backyards.
8	Farm women Health	To create general awareness on health and nutrition different iron acquired food supplements were tested against nutritional anemia and stress was given on locally available ingredients like Maize, Buck wheat, Moringa leaves and 49iggery which were well accepted by farm women.
9.	Mushroom	Oyster mushroom cultivation was popularized by KVK under FLD programme for nutritional security as well as entrepreneurial activity. It has got an over whelming response from SHGs, FCs and even individual entrepreneur.
10.	Non conventional vegetables	Farmers are now interested in non-conventional crop cultivation like Strawberry, Broccoli, zucchini
11.	Plantation crops	Rural youths are interested in planting material production of fruit plants and plantation crops

Extension and Training activities under FLD

SL.No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	20.05.16, 30.5.16, 13.06.16, 20.06.16, 20.09.16, 28.9.16, 18.10.16, 20.10.16, 30.10.16, 8.11.16, 09.11.16, 30.11.16, 01.12.16, 20.12.16, 23.12.16, 09.01.17, 16.01.17, 17.01.16, 07.12.16, 15.12.16, 23.12.16, 13.02.17, 14.02.17, 27.02.17, 17.02.17, 10.03.17, 16.03.17	27	1085	
2.	Farmers Training	4-5/4/16, 24.4.16, 2-3/5/16, 9-10/5/16, 30-31/5/16, 23-24/5/16, 1-2/6/16, 16.6.16, 7-9/6/16, 14-16/6/16, 18-20/7/16, 20-22/7/16, 12-14/7/16, 9-11/8/16, 3.8.16, 4-5/8/16, 8-9/8/16, 17-18/8/16, 8-11/8/16, 17-19/8/16, 8.9.16, 15.9.16, 14.9.16, 7-8/9/16, 22-23/9/16, 21-23/9/16, 14-16/9/16, 21-24/10/16, 24-26/10/16, 3-4/11/16, 15-17/11/16, 29/12/16, 28/12/16, 8/12/16, 15-16/12/16, 5/1/17, 5/1/17, 16-18/2/17, 13-15/2/17, 15-17/2/17, 14-16/3/17	41	1145	
3.	Media coverage	25/05/16, 02/06/16, 04/06/16, 06/6/16, 15/06/16, 16/06/16, 18/06/16, 20/06/16, 23/06/16, 12/07/16, 24/07/16, 26/07/16, 04/08/16, 15/08/16, 05/12/16, 01/03/17, 10/01/17, 19/01/17, 20/01/17, 24/01/17, 21/02/17, 22/02/17, 23/02/16, 24/02/17	18		
4.	Training for extension functionaries	09-13/5/16 & 23-27/5/16, 17-18/5/16, 22-24/6/16, 10-12/8/16, 17/8/16, 19-21/9/16, 26-28/9/16, 8-9/9/16, 21-23/9/16, 1-2/9/16, 28-29/9/16, 30/11/16-02/12/16, 19-21/12/16, 9-11/1/17, 5-17/1/17, 18/1/17, 9-11/1/17, 27-28/1/17 23-24/2/17, 9-10/3/17,	21	630	

3.2.1 Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif 2016 and Rabi 2016-17:**3.2.1. 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.	Blackgram (Kharif Pulse 2016)	Local	7.4	60	180	560	WBU – 109 (sulata), PU-31 & WBU-108 (Sarada), Varietal replacement and INM	84	30	10.6	9.2	9.9	(+) 23.75	(+) 7.61	76.15

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
2.	Mustard (Rabi Oil Seed 2016)	B-9	9.9	248	130	810	NC-1 (Jhumka) Varietal Replacement and Integrated Nutrient Management	196	60	13.9	11.6	12.8	122.66	112.5	71.1
3.	Linseed (Rabi Oil Seed 2016)	Local	6.6	30+	70+	540	Sekhar Integrated Nutrient Management*	97	20	8.6	7.7	8.2	123.2	131.7	53.66

3.2.1 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.	WBU – 109 (sulata), PU-31 & WBU-108 (Sarada), Varietal replacement and INM	25370	55500	30130	2.18	27280	74250	46970	2.72
2.	Mustard NC-1 (Jhumka) Varietal Replacement and Integrated Nutrient Management	19470	39600	20130	2.03	20210	51200	30990	2.53
3.	Linseed Sekhar Integrated Nutrient Management	11230	23100	11870	2.06	12870	28700	15830	2.23

3.2.1. B . 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.	WBU – 109 (sulata), PU-31 & WBU-108 (Sarada), Varietal replacement and INM	29700	316	75.00	1260	1870	Household consumption, education purpose, medical purpose etc.	24.3 nos.
2.	NC-1 (Jhumka) Varietal Replacement and Integrated Nutrient Management	76800	380	40	985	Till now 580 kg but again seed may be distributed during time of sowing	Household purpose	19.20
3.	Linseed Sekhar Integrated Nutrient Management	16400	130	35	425	Till now 110 kg but again seed may be distributed during time of sowing	Household purpose, medical, education etc.	9.24

3.2.1. C. 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.	WBU – 109 (sulata), PU-31 & WBU-108 (Sarada), Varietal replacement and INM Varietal replacement and INM	As Blackgram is traditionally grown in the district, the crop is readily suitable in the farming system	Farmers' are well acquainted with Blackgram cultivation. Improved variety and Technology of cultivation is readily preferred by the farmers	Very good	No	Yes	This year farmers preferred the WBU – 109 and PU- 31. They are ready to cultivate these two varieties.
2.	NC-1 (Jhumka) Varietal Replacement and Integrated Nutrient Management	Yes	Farmers' of Karandighi and Islampur block preferred the variety with technology very well due to timely sowing but in Chopra block acceptance was moderate.	Farmers' are comfortable with duly available of quality seed in time.	No Negative effective	Yes	Improved variety having compatible yield potential with NC-1 may be introduced

3.	Linseed Sekhar Integrated Nutrient Management	Yes For Rice – Fallow system and rice- linseed-jute cropping system	Situation with poor irrigation facility farmers preferred the crop using the residual moisture after rice	Farmers' are comfortable with duly available of quality seed in time and less management practices	No Negative effect	Yes	Improved variety with higher yield potential can ensure higher productivity and income
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3.2.1.D. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Blackgram			
Crop canopy	Medium	Very good	WBU -109 (Sulata) and PU – 31 these varieties crop canopy are medium where as WBU – 108 crop canopy is more
No of pod formation	High	Very good	In all the varieties showed huge no of pods in a single plant.
Grain size	High and bold	Very good	Grain size bolder that local variety
No of nodules	Medium to high	Very good	-

3.2.1.E. Extension activities under CFLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
Blackgram			
1.	Training	03/8/2016 , Off Campus, Machol, Karandighi	46
		18/8/2016 On Campus KVK Office	23
		8/9/2016 On Campus, KVK Office	14
		14/9/2016, Off Campus, Machol and Bottle bari, Karandighi	66
		15/9/2016 Baharail and Ranhtta	31

		Total 5 nos	180
2.	Field Visit	14/9/2016 Machol, Bottlebari, Karandighi	55
		15/9/2016 Baharail, Hemtabad	26
		03/10/2016 Gowalgachh, Chopra	22
		Total 3 nos	103
3.	Field Day	8-11/2016 at Baharail and Ranhatta, Hemtabad	50
		9/11/2016 at Machol and Bottlebari, Karandighi	70
		10/11/2016 at Goalgachh, Chopra	40
		Total 3 nos.	160
Grand Total			443

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
Mustard			
1.	Training	8.11.2016, On Campus: Improved cultivation of Oil seed crops (Mustard)	30
		9.11.2016, Machol, Improved cultivation of Oil Seed crops (Mustard)	50
		15.11.2016, Moulanigachh, Improved package and practices of Mustard	37
		17.11.2016, Dhatipara, Improved package and practice of Mustard with special reference to varietal replacement	37
		29.12.2016, On campus, IPM of Mustard through sticky trap	30
		05.01.2017, Machol & Dhatipara, IPM of Mustard and Integrated Nutrient Management of Mustard	76
		Total: 6 nos.	260
2.	Field Days	14.02.2017, Machol,	50
		15.02.2017, Dhatipara	38
		23.02.2017, Moulanigachh	25

		Total : 3 nos.	113
3.	Field Visit	09.11.2016, Machol, Dhatipara, Kuitore, Bihinagar, Altapur	322
		15.11.2016, Moulanigachh, Goalgachh, Dhuliagachh	
		10.12.2016, Machol, Dhatipara, Kuitore, Bihinagar, Altapur	
		14.12.2016, Moulanigachh, Goalgachh, Dhuliagachh	
		05.01.2017, Machol, Dhatipara, Kuitore, Bihinagar, Altapur	
		07.01.2017, Moulanigachh, Goalgachh, Dhuliagachh	
		14.02.2017, Machol, Kuitore, Bihinagar, Altapur	
		15.02.2017, Dhatipra	
		23.02.2017, Moulanigachh, Dhuliagachh, Goalgachh	
		Total: 9 nos.	322
		Grand Total	695

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
Linseed			
1.	Training	8.11.2016, On Campus: Improved cultivation of Oil seed crops (Linseed)	30
		9.11.2016, Machol, Improved cultivation of Oil Seed crops (Linseed)	50
		15.11.2016, Moulanigachh, Improved package and practices of Linseed	37
		16.11.2016, Goalgachh, Improved practices of Linseed cultivation	40
		17.11.2016, Dhatipara, Improved package and practice of Linseed with special reference to varietal replacement	37
		29.12.2016, On campus, IPM & INM of Linseed	30
		05.01.2017, Machol & Dhatipara, IPM of Linseed and Integrated Nutrient Management of Linseed	76
		Total: 7 nos.	300
2.	Field Days	26.02.2017, Dhatipara	47
		26.02.2017, Machol	53
		10.03.2017, Goalgachh	25

		Total: 3 nos.	125
3.	Field Visit	09.11.2016, Machol, Dhatipara, Kuitore, Bihinagar, Altapur	298
		15.11.2016, Moulanigachh, Goalgachh, Dhuliagachh	
		10.12.2016, Machol, Dhatipara, Kuitore, Bihinagar, Altapur	
		14.12.2016, Moulanigachh, Goalgachh, Dhuliagachh	
		05.01.2017, Machol, Dhatipara, Kuitore, Bihinagar, Altapur	
		07.01.2017, Moulanigachh, Goalgachh, Dhuliagachh	
		14.02.2017, Machol, Kuitore, Bihinagar, Altapur	
		15.02.2017, Dhatipra, Karandighi	
		23.02.2017, Moulanigachh, Dhuliagachh, Goalgachh	
		Total	298
		Grand Total	715

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

Blackgram:





Mustard :





Linseed:



3.2.1.G. Farmers' training photographs

Blackgram:**Mustard:**

Linseed:



3.2.1.H. Quality Photographs of field visits/field days and technology demonstrated.

Blackgram:



Mustard:

Linseed:

3.2.1. J. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Black gram	i) Critical input	202500.00	202500.00	00.00
	ii) TA/DA/POL etc. for monitoring	22500.00	22500.00	00.00
	iii) Extension Activities (Field day)			
	iv)Publication of literature (One)			
	Total	225000.00	225000.00	00.00
Mustard	i) Critical input	162000.00	160510.00	1490.00
	ii) TA/DA/POL etc. for monitoring	18000.00	18000.00	00.00
	iii) Extension Activities (Field day)			
	iv)Publication of literature (One)			
	Total	180000.00	178510.00	1490.00
Linseed	i) Critical input	54000.00	53800.00	200.00
	ii) TA/DA/POL etc. for monitoring	6000.00	6000.00	00.00
	iii) Extension Activities (Field day)			
	iv)Publication of literature (One)			
		60000.00	59800.00	200.00
	Grand Total	465000.00	463310.00	1690.00

3.2.1.K. List of Farmer under FLD (Crop wise):

a) Crop 1 (Blackgram):

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
Christopher Kispolta	Dhuliagachh	Chopra	9635138869	26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU – 109	4.2	11.4	9.1	10.25	7.4	38.51
Placidious Kerketta	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU – 109	7	10.6	9.4	10	7.4	35.14
Sholy Minz	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU – 109	7	10.6	9.6	10.1	7.4	36.49
Uttam Toppo	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU – 109	7	10.8	9.4	10.1	7.4	36.49
Karlus Khalko	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU – 109	5.6	10.4	9.2	9.8	7.4	32.43
Lorence Kujur	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU – 109	4.2	10.4	9.4	9.9	7.4	33.78
Ajay Kispotta	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	5.6	10.9	9.2	10.05	7.4	35.81

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
				N											
Monual Kujur	Dhuliagachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	1.4	10.5	9	9.75	7.4	31.76
Dashrath Ekka	Dhuliagachh	Chopra	9679377419	26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	4.2	10.4	9	9.7	7.4	31.08
Mangal Hembram	Mollanigachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	4.2	10.6	8.9	9.75	7.4	31.76
Iswar Chandra Singha	Sitalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	2.8	10.6	9.2	9.9	7.4	33.78
Sanjeeb Paul	Sitalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	2.8	10.3	9.4	9.85	7.4	33.11
Matang Paul	Sitalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	4.2	10.6	9.6	10.1	7.4	36.49
Bijoy Singha	Sitalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	1.4	10.4	9.6	10	7.4	35.14
Manoj Singha	Sitalgachh	Chopra	9735093865	26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	1.4	10.6	9.2	9.9	7.4	33.78
Amar Ch. Singha	Sitalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	No		INM & Varital replacement	WBU - 108	4.2	10.4	9.2	9.8	7.4	32.43
Kalu Mohammad	Ranhtta	Hemtabad	9564523047	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	7	10.4	9.4	9.9	7.4	33.78
Azijur Rahaman	Ranhtta	Hemtabad	9733968938	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	4.2	10.4	9.4	9.9	7.4	33.78

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
				N											
Abdul Kalam	Ranhtta	Hemtabad	9733968938	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	7	10.6	9.6	10.1	7.4	36.49
Md. Taslim	Ranhtta	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	7	10.4	9.6	10	7.4	35.14
Raju Chowdhury	Ranhtta	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	5.6	10.5	9.4	9.95	7.4	34.46
Aminul Hoque	Ranhtta	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	5.6	10.6	9.2	9.9	7.4	33.78
Chinmay Deb Sharma	Ranhtta	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	5.6	10.4	9.4	9.9	7.4	33.78
Asgar Ali	Ranhtta	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	PU-31	7	10.3	9.4	9.85	7.4	33.11
Nittananda Saha	Baharil	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	9.8	10.4	9	9.7	7.4	31.08
Abijit Saha	Baharil	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	8.4	10.4	9.4	9.9	7.4	33.78
Abdul Malek	Baharil	Hemtabad	9733295054	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	9.8	10.4	9.6	10	7.4	35.14
Shibu Ghosh	Baharil	Hemtabad	9733041468	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	8.4	10.6	9.6	10.1	7.4	36.49
Bhabesh Barman	Baharil	Hemtabad	8391989341	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	5.6	10.4	9.6	10	7.4	35.14

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
				N											
Althaf Hussain	Baharil	Hemtabad		26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	7	10.4	9	9.7	7.4	31.08
Shibu Roy	Baharil	Hemtabad	9734127899	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	8.4	10.3	9.2	9.75	7.4	31.76
Mostafa Ali	Baharil	Hemtabad	9932609342	26 23' 10.48" N	88 20' 36.10" E	No		INM & Varital replacement	WBU - 108	8.4	10.6	9.4	10	7.4	35.14
Shyam Ch. Lala	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	8.4	11.4	9.8	10.6	7.4	43.24
Muddin Singh	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	7	10.3	9.6	9.95	7.4	34.46
Rana Singh	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	8.4	10.4	9.6	10	7.4	35.14
Tajamul Haque	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	7	10.4	9.9	10.15	7.4	37.16
Naren Singha	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	8.4	10.6	9.2	9.9	7.4	33.78
Pachkatu Singh	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	7	10.4	9.2	9.8	7.4	32.43
Zakir Hussain	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	4.2	10.6	9	9.8	7.4	32.43
Sambhu Singh	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	4.2	11.4	9.2	10.3	7.4	39.19
Mustafa	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	2.8	10.4	8.9	9.65	7.4	30.41
Baiya Alam	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	4.2	10.6	8.9	9.75	7.4	31.76

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
Md Bishu	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	4.2	10.4	9.2	9.8	7.4	32.43
Md. Sheb Ali	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	2.8	10.3	9.2	9.75	7.4	31.76
Abu Ata	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	7	10.4	9.4	9.9	7.4	33.78
Ahasuvan	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	5.6	10.6	9.6	10.1	7.4	36.49
Aaizuddin	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	5.6	10.4	9.2	9.8	7.4	32.43
Fakiruddin	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	7	10.6	9.2	9.9	7.4	33.78
Mangal Soren	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	PU-31	5.6	10.7	9.4	10.05	7.4	35.81
Bachan Kr. Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	5.6	10.4	9.4	9.9	7.4	33.78
Lalu Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	5.6	10.4	9.2	9.8	7.4	32.43
Bachan Sing	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.5	9.4	9.95	7.4	34.46
Muntaz Alam	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	11.4	9.1	10.25	7.4	38.51
Nirodh Ch. Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	7	10.5	9.2	9.85	7.4	33.11
Manzur	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	5.6	10.3	9.2	9.75	7.4	31.76
Khursed Alam	Machol	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.6	9.4	10	7.4	35.14
Ava Saha	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	1.4	10.4	9.2	9.8	7.4	32.43

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
Samad Alam	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	1.4	10.6	9.2	9.9	7.4	33.78
Mohan Orown	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.4	9.4	9.9	7.4	33.78
Hasen Alam	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.4	9	9.7	7.4	31.08
Anadul Haque	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	1.4	10.5	8.9	9.7	7.4	31.08
Nazir Alam	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.8	9	9.9	7.4	33.78
Mithun Md.	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	1.4	10.6	9.2	9.9	7.4	33.78
Ayaram Alam	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.4	8.9	9.65	7.4	30.41
Chanh Singha	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.6	9.4	10	7.4	35.14
Jayanti Singha	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.4	9.1	9.75	7.4	31.76
Nawsad Alam	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.8	9.2	10	7.4	35.14
Zabbar Ali	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	2.8	10.5	9	9.75	7.4	31.76
Laskar Ali	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	5.6	10.6	8.9	9.75	7.4	31.76
Tazamul Haque	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.8	9.2	10	7.4	35.14
Md. Bafik	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	7	10.6	9.2	9.9	7.4	33.78
Muzamel Haque	Bottlebari	Karandighi		25 46' 38.51" N	87 59' 00.62" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.5	9.4	9.95	7.4	34.46

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
Shahnawaj Alam	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.6	9	9.8	7.4	32.43
Sultan Ahamed	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU-108	5.6	10.6	9.2	9.9	7.4	33.78
Tojibul Rahaman	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU-108	7	11.2	8.6	9.9	7.4	33.78
Md. Nabar	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.4	9.2	9.8	7.4	32.43
Jalaluddin	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.6	9.2	9.9	7.4	33.78
Md.Arif	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU-108	4.2	10.9	9.1	10	7.4	35.14
Rahimuddin	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	4.2	10.6	9.2	9.9	7.4	33.78
Khairul Haque	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	4.2	10.8	8.9	9.85	7.4	33.11
Sharim Akter	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	4.2	10.8	9.2	10	7.4	35.14
Ajibul	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	7	10.8	9.2	10	7.4	35.14
Chaman Ali	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	2.8	10.6	8.8	9.7	7.4	31.08

Name of farmer	Village	Block	Mobile No.	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendation 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		
Akbar	Gowalgachh	Chopra		26 22' 37.29" N	88 18' 42.41" E	Yes	20:50:30	INM & Varital replacement	WBU - 109	2.8	10.7	8.9	9.8	7.4	32.43

b) Crop2 (Mustard):

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation (Yes/No.)	Recommendation based on Soil test Value	Brief Technology intervention	Variety	Seed quantity used	Demo Yield			Yield of local check	% of increase
						Latitude	Longitude						H	L	A		
1	Mamlat Rahaman	Jullur Rahaman	Rasak howa	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Varietal Replacement (B9 to NC-1), IWM (Pendimithalin spray within two days of sowing) and INM (three times 20% Boron spray at 25, 45 and 60 DAS). Fertilizers recommendations as per soil test value	NC -1	2.25	13.8	11.8	12.8	9.9	29.3
2	Altab Houssain	Abdul Majid	Rasak howa	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	14.1	11.9	13	9.9	31.3
3	Mahimuddin	Rahimuddin	Rasak howa	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	14.1	11.8	12.95	9.9	30.8

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
4	Azhar Ali	S. K. Tanu	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	11 .7	12. 9	9.9	30.3
5	Baharuddin	Ramsaduddin	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	14.2	11 .9	13. 05	9.9	31.8
6	Abu Sama	Talaram Sana	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	12 .2	13	9.9	31.3
7	SukudiAli	Akbar Hussain	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.8	12 .1	12. 95	9.9	30.8
8	Sapan Kumar Singha	Ranilal Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	12 .3	13. 05	9.9	31.8
9	Amar Chandra Singha	Suren Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	12 .4	13. 1	9.9	32.3
10	Surenn Singha	Dhukia Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	11 .8	12. 95	9.9	30.8
11	Bastam Singha	Asaram Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	14.1	11 .7	12. 9	9.9	30.3
12	Binay Singha	Bastaram Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.2	11 .9	13. 05	9.9	31.8
13	Mutib Singha	Bastaram Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.8	11 .6	12. 7	9.9	28.3
14	Mahanta Mohan Singha	Suren Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	11 .5	12. 65	9.9	27.8
15	Silobati Singha	Dhuram Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:45	Do	NC -1	3	14.1	12 .3	13. 2	9.9	33.3
16	Jagat Mohan Sinjgha	Suren Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:45	Do	NC -1	2.25	14.2	12 .1	13. 15	9.9	32.8
17	Tarun Singha	Mudiram Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:45	Do	NC -1	2.25	13.8	12 .3	13. 05	9.9	31.8
18	Mudiram Singha	Guli Singha	Rasak	Karandi		25 46'	87 59'	Yes	60:30:45	Do	NC -1	1.5	13.8	11	12.	9.9	29.3

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
			howa	ghi		38.51" N	00.22" E							.8	8		
19	Jaleswar Debnath	Amar Chandra Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:45	Do	NC -1	2.25	13.8	12	12.9	9.9	30.3
20	Bupul Debnath	Sanjoy Debnath	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:45	Do	NC -1	3	13.8	12.3	13.05	9.9	31.8
21	Hemanta Singha	Suren Singha	Rasak howa	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:45	Do	NC -1	1.5	14.1	12.7	13.4	9.9	35.4
22	Rastan Hansda	Jangiram Hansda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	14.1	10.8	12.45	9.9	25.8
23	Katbu Mardi	Chkoto Mardi	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.2	10.6	12.4	9.9	25.3
24	Sajhiram	Gulu Murmu	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	13.8	10.7	12.25	9.9	23.7
25	Sagaram	Ramka Hasda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	14.2	10.9	12.55	9.9	26.8
26	Raju Mardi	Budrai Mardi	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	10.8	12.3	9.9	24.2
27	Dilip Mardi	Jangiram Hansda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	13.8	10.6	12.2	9.9	23.2
28	Santosh Mardi	Pancham Mardi	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	13.8	10.5	12.15	9.9	22.7
29	Parat Mardi	Ramka Hansda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	13.8	10.7	12.25	9.9	23.7
30	Parimal Hansda	Bajal Hansda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	14.1	10.4	12.25	9.9	23.7
31	Buch Mardi	Budhray Mardi	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.1	10.5	12.3	9.9	24.2
32	Ramel Tudu	Dhupai Tudu	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.2	10.6	12.4	9.9	25.3

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
						N	E										
33	Gopinath Hansda	Chunku Hansda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	13.8	10.7	12.25	9.9	23.7
34	Tapan Hansda	Shibu Hansda	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	10.8	12.3	9.9	24.2
35	Rasko Hansda	Mangal Mardi	Molani	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	14.1	10.7	12.4	9.9	25.3
36	Mahibul Rahaman	Khelal Rahaman	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.2	11.6	12.9	9.9	30.3
37	Md. Amir	Faijul Rahaman	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	11.5	12.65	9.9	27.8
38	Shamin Akhter	Islam Ali	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	13.8	10.8	12.3	9.9	24.2
39	Md. Ansur	Jamirul	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	10.6	12.2	9.9	23.2
40	Nesim Khan	Kafiluddin	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	13.8	10.7	12.25	9.9	23.7
41	Md. Safikul	Habibul Rahaman	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	14.1	10.9	12.5	9.9	26.3
42	Md. Polan	Faijul Rahaman	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	14.1	10.8	12.45	9.9	25.8
43	Md. Rahimuddin	Ajimuddin	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	14.2	10.6	12.4	9.9	25.3
44	Md. Reham Reza	Usup Ali	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	13.4	10.5	11.95	9.9	20.7
45	Afzal Houssain	Hafij Ali	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	10.7	12.25	9.9	23.7
46	Khole Mia	Ajjil Rahaman	Narayanpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.1	10.4	12.25	9.9	23.7

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
47	Matibul	Ramu Mohammad	Naray anpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	10 .5	12. 15	9.9	22.7
48	Hasibul	Samsul	Naray anpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	3	13.8	10 .6	12. 2	9.9	23.2
49	Muktar	Habibul	Naray anpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.1	10 .7	12. 4	9.9	25.3
50	Akter	Merajul Rahaman	Naray anpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	1.5	14.2	10 .8	12. 5	9.9	26.3
51	Sumsuddin	Bachhan	Naray anpur	Chopra		26 23' 36.1" N	88 11' 15.60" E	No	60:30:30	Do	NC -1	2.25	13.8	10 .7	12. 25	9.9	23.7
52	Saidur	Asgar Ali	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.6	12 .1	12. 85	9.9	29.8
53	Allimuddin	Saidur	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	12 .3	13. 2	9.9	33.3
54	Rakib Ali	Saidur	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	11 .8	12. 8	9.9	29.3
55	Tajamul	Saidur	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	12	12. 9	9.9	30.3
56	Koyesh	Bhadu	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.8	12 .3	13. 05	9.9	31.8
57	Bhuben Das	Dadua Das	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	12 .7	13. 4	9.9	35.4
58	Shyam Chandara Lala	Kamal Chandra Lala	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	14.1	11 .9	13	9.9	31.3
59	Rafujuddin	Kafikuddin	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.2	11 .6	12. 9	9.9	30.3
60	Abdul Suvan	Kalimuddin	Mach ol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.4	11 .9	12. 65	9.9	27.8
61	Md. Saheb	Subhana	Mach	Karandi		25 46'	87 59'	Yes	60:30:40	Do	NC -1	1.5	13.8	12	13	9.9	31.3

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
			ol	ghi		38.51" N	00.22" E							.2			
62	Rubeda bibi	Halim	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	12.7	13.4	9.9	35.4
63	Md. Taimur	Subhana	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	11.7	12.75	9.9	28.8
64	Maimur Haque	Subhana	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	11.9	12.85	9.9	29.8
65	Bikash Kumar Saha	Sankar Saha	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	14.1	12.2	13.15	9.9	32.8
66	Baran Chandra Ghosh	Dulal Ghosh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.2	12.1	13.15	9.9	32.8
67	Dulal Chandra Ghosh	Badal Ghosh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	12.3	13.05	9.9	31.8
68	Utir Ali	Kabi Sekh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.6	12.4	13	9.9	31.3
69	Bhim Jali	Rahim Ali	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.4	11.8	12.6	9.9	27.3
70	Md. Kayeshuddin	Tajumuddin	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	11.7	12.75	9.9	28.8
71	Md. Samed Ali	Rahaman Ali	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	14.1	11.9	13	9.9	31.3
72	Abdul Kalim	Subhash Alam	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	11.6	12.7	9.9	28.3
73	Habibul Rahaman	Subhash Alam	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	11.5	12.65	9.9	27.8
74	Sirajul Haque	Bish Sekh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	12.3	13.2	9.9	33.3
75	Muktara Khatun	Bish Sekh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	14.2	12.1	13.15	9.9	32.8

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
						N	E										
76	Subhash Das	Sashimohan Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	13.8	12.7	13.25	9.9	33.8
77	Ramda Das	Juta Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.6	11.7	12.65	9.9	27.8
78	Azahar Alam	Sk Tasiruddin	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	11.9	13	9.9	31.3
79	Jaggu Das	Dhiren Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.8	12.2	13	9.9	31.3
80	'Basanti Singha	Agaram Singha	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	5.25	13.8	12.1	12.95	9.9	30.8
81	Ava Saha	Godu Saha	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	1.5	13.8	12.3	13.05	9.9	31.8
82	Nitai singha	Rameshlal Singha	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	12.4	13.25	9.9	33.8
83	Pradip Roy	Rameshlal Singha	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	14.1	11.8	12.95	9.9	30.8
84	Anand Singha	Gagen Singha	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.2	11.7	12.95	9.9	30.8
85	Subhra Lala	Shyam Chandra Lala	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	3	13.4	11.9	12.65	9.9	27.8
86	Bimal Das	Kabilal Das	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:30:40	Do	NC -1	2.25	14.1	11.6	12.85	9.9	29.8
87	Kamrul Islam	Khomijuddin	Chandagachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	1.5	14.2	10.8	12.5	9.9	26.3
88	Oliur Rahaman	Bisu Mohammad	Chandagachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	2.25	13.8	10.6	12.2	9.9	23.2
89	Halimuddin	Dilabar Houssain	Chandagachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	1.5	13.6	10.7	12.15	9.9	22.7

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
			h			N	E										
90	Hamidur Rahaman	Kosirudddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	2.25	13.4	10.9	12.15	9.9	22.7
91	Jahangir Alam	Khajimuddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	13.8	10.8	12.3	9.9	24.2
92	Ratiful Rahaman	Tamijuddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	1.5	14.1	10.6	12.35	9.9	24.7
93	Matibul Alam	Tainul Haque	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	13.8	10.5	12.15	9.9	22.7
94	Kainul	Hafiuddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	1.5	13.8	10.7	12.25	9.9	23.7
95	Hanifuddin	Pelku Mohammad	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	14.1	10.4	12.25	9.9	23.7
96	Mujjafar	Lal Mohammad	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	14.2	10.5	12.35	9.9	24.7
97	Badirul	Lal Mohammad	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	2.25	13.8	10.6	12.2	9.9	23.2
98	Halimuddin	Dilabar Houssain	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	13.6	10.7	12.15	9.9	22.7
99	Afjaluddin	Mainuddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	1.5	14.1	10.8	12.45	9.9	25.8
100	Amijuddin	Safiluddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	13.8	10.7	12.25	9.9	23.7
101	Rahaman	Mainuddin	Chandagach h	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	3	13.8	12.3	13.05	9.9	31.8
102	Badiruddin	Lal Mohammad	Chand	Chopra		26 23'	88 11'	NO	60:30:30	Do	NC -1	5.25	13.8	12	12.	9.9	30.8

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
			agachh			36.1" N	15.60" E							.1	95		
103	Maichel Kispotta	Lakho Kispotta	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	1.5	14.1	12.3	13.2	9.9	33.3
104	James Kerketta	Jabvel Kerkatta	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	2.25	14.1	11.8	12.95	9.9	30.8
105	Karlous Kalko	Domna Kalko	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	3	13.6	12	12.8	9.9	29.3
106	Paulos Khalko	Domna Kalko	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	2.25	13.4	12.7	13.05	9.9	31.8
107	Uttam Toppo	Alok Tenda	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	3	13.8	11.7	12.75	9.9	28.8
108	Nirmal Toppo	Alok Tenda	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	2.25	14.1	11.9	13	9.9	31.3
109	Subodh Toppo	Alok Tenda	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	1.5	13.8	12.2	13	9.9	31.3
110	Suchal Munda	Arjun Munda	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	2.25	13.8	12.1	12.95	9.9	30.8
111	Ajay kispota	Pitrus Kispota	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	1.5	14.1	12.3	13.2	9.9	33.3
112	Prakash Kispotta	Stephen Kispota	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	2.25	14.2	12.4	13.3	9.9	34.3
113	Sukra Oraon	Rajen Oraon	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	3	13.8	11.8	12.8	9.9	29.3
114	Abxeices Toppo	Thomas Toppo	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	1.5	13.6	11.7	12.65	9.9	27.8
115	Laxman Tirki	Hakim Terkey	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	1.5	14.1	11.9	13	9.9	31.3
116	Sebasto Khelko	Domna Khalko	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC-1	1.5	13.8	11.6	12.7	9.9	28.3

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
						N	E										
117	Kamil Kispotta	Sibhu Kispota	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	2.25	13.8	11.5	12.65	9.9	27.8
118	Placidious Kerketta	Babu Ram Kerkata	Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	2.25	13.8	12.3	13.05	9.9	31.8
119	Bullen Lalsingh		Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	NO	60:30:30	Do	NC -1	0.75	14.1	12.1	13.1	9.9	32.3
120	Mammat Kujor		Molanigachh	Chopra		26 23' 36.1" N	88 11' 15.60" E	Yes	60:40:40	Do	NC -1	1.5	14.1	12.7	13.4	9.9	35.4
121	Abdul Matin		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	0.75	14.2	11.7	12.95	9.9	30.8
122	Ajibul		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.4	11.9	12.65	9.9	27.8
123	Amishuddin		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	12.2	13.15	9.9	32.8
124	Nasiruddin		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	14.2	12.1	13.15	9.9	32.8
125	Nasim Khan		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	12.3	13.05	9.9	31.8
126	Dipak Singh		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.6	12.4	13	9.9	31.3
127	Sukhalal Singha		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.4	11.8	12.6	9.9	27.3
128	Modin Singha		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	11.7	12.75	9.9	28.8
129	Prannath Singha		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	11.9	13	9.9	31.3
130	Saifuddin Singha		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.6	11.6	12.6	9.9	27.3

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
131	Abdul Subhan		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.4	11.5	12.45	9.9	25.8
132	Rubedi Bibi		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	12.3	13.05	9.9	31.8
133	Saheb Ali		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	14.1	11.8	12.95	9.9	30.8
134	Pastara bili		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	12	12.9	9.9	30.3
135	Aisha Bibi		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	12.3	13.05	9.9	31.8
136	Islam		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	12.7	13.4	9.9	35.4
137	Bakkar		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.2	11.9	13.05	9.9	31.8
138	Bishu		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	11.8	12.8	9.9	29.3
139	Bharat lal Singha		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.6	11.7	12.65	9.9	27.8
140	Pradip Siingha		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	14.1	11.9	13	9.9	31.3
141	Pulak Singha		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	11.6	12.7	9.9	28.3
142	Sanjit Singha		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	11.5	12.65	9.9	27.8
143	Abdul Rahim		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	12.3	13.05	9.9	31.8
144	Matul Sekh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	12.1	13.1	9.9	32.3
145	Islam Ali		Machol	Karandi		25 46'	87 59'	Yes	60:40:40	Do	NC -1	1.5	14.1	12	13.	9.9	33.3

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			ol	ghi		38.51" N	00.22" E							.3	2		
146	Abu Ali		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.6	11.8	12.7	9.9	28.3
147	Jata Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.4	12	12.7	9.9	28.3
148	Phonesh Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	12.7	13.25	9.9	33.8
149	Dulal Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	11.7	12.9	9.9	30.3
150	Naresh Barman		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	11.9	12.85	9.9	29.8
151	Shyam Chandra Lala		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	12.2	13	9.9	31.3
152	Tapan Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	12.1	13.1	9.9	32.3
153	Atul Chandra Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3.75	14.2	12.3	13.25	9.9	33.8
154	Bharat Chandra Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	12.4	13.1	9.9	32.3
155	Purna Chandra Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.6	11.8	12.7	9.9	28.3
156	Mangal Prasad Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	11.7	12.9	9.9	30.3
157	Kashi Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	11.9	12.85	9.9	29.8
158	Tilu Singh		Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	11.6	12.7	9.9	28.3

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						N	E										
159	Jiten Singh		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	11.5	12.65	9.9	27.8
160	Faijul Rahaman		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	12.3	13.2	9.9	33.3
161	Tabijul Haque		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	12.1	13.1	9.9	32.3
162	Kasiruddin		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.2	12.7	13.45	9.9	35.9
163	Suleman		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.4	11.7	12.55	9.9	26.8
164	Islamuddin		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	11.9	13	9.9	31.3
165	Kabil Uddin		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.2	12.2	13.2	9.9	33.3
166	Nazrul Islam		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	12.1	12.95	9.9	30.8
167	Farman Ali		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	12.3	13.2	9.9	33.3
168	Habijul		Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	12.4	13.25	9.9	33.8
169	Saugur Ali	Kalimuddin	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	11.8	12.95	9.9	30.8
170	Hajibul Rahaman	Kalimuddin	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	14.2	11.7	12.95	9.9	30.8
171	Zamir	Samir Alam	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	11.9	12.85	9.9	29.8
172	Saidul	Faijuddin	Machol	Karandighi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	11.5	12.65	9.9	27.8

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173	Maslim Houssain	HakimHas mi	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	12 .3	13. 05	9.9	31.8
174	Rajen Singha	Suraj Mohan Singh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	12 .1	12. 95	9.9	30.8
175	Mudin Singha	Surja Mohan Singh	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	12 .7	13. 4	9.9	35.4
176	Jharalal Das	Baharam Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	14.1	11 .7	12. 9	9.9	30.3
177	Biswanath Das	Jadulal Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.2	11 .9	13. 05	9.9	31.8
178	Mujibar Rahaman	Sattar Ali	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	12 .2	13	9.9	31.3
179	Avha saha	Baidyanath Saha	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	13.8	12 .1	12. 95	9.9	30.8
180	Lahari Das	Dhudu Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	12 .3	13. 2	9.9	33.3
181	Sampta Das	Anantalal Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.2	12 .4	13. 3	9.9	34.3
182	Bhuren Das	Chandu Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	11 .8	12. 8	9.9	29.3
183	Bacchan Das	Lalu Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	10 .8	12. 3	9.9	24.2
184	Dhubakaran Das	Mohan Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	10 .6	12. 2	9.9	23.2
185	Jiten Das	Bhudukara n Das	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	10 .7	12. 25	9.9	23.7
186	Najir Hussain	Anesh Ali	Machol	Karandi		25 46'	87 59'	Yes	60:40:40	Do	NC -1	2.25	13.8	10	12.	9.9	24.7

Sl. No	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)		Soil Testing Recommendation	Recommendation based on Soil test	Brief Technology intervention	Variety	Seed quantity	Demo Yield			Yield of local	% of increase
			ol	ghi		38.51" N	00.22" E							.9	35		
187	Jiarul Haque	Najir Houssain	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	1.5	13.8	10.8	12.3	9.9	24.2
188	Ananda mahato	Sahen Mahato	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3.75	13.8	10.6	12.2	9.9	23.2
189	Khironde singh	Samaylal Singha	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	13.8	10.5	12.15	9.9	22.7
190	Srinkanta saha	Bharendranath Saha	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	10.7	12.4	9.9	25.3
191	Samaylal Singh	Jamaidar Singha	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	10.4	12.25	9.9	23.7
192	Md. Fijuddin	Bhatdhara	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.2	10.5	12.35	9.9	24.7
193	Md. Latib	Siyajuddin	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	4.5	13.8	10.6	12.2	9.9	23.2
194	Suchitra Mishra	Mehendra Mishra	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	10.7	12.4	9.9	25.3
195	Rafik Alam	Anis Alam	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	3	14.1	10.8	12.45	9.9	25.8
196	Suman Hembram	Rajen Hembram	Machol	Karandi ghi		25 46' 38.51" N	87 59' 00.22" E	Yes	60:40:40	Do	NC -1	2.25	14.1	10.7	12.4	9.9	25.3

a) Crop2 (Linseed):

Sl No.	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)	Soil Testing Recommendation (Yes/No.)	Recommendation based on Soil test Value	Brief Technology intervention	Variety	Seed quantity used	Demo Yield			Yield of local cheque	% of increase
						Latitude and longitude						H	L	A		

SI No.	Name of farmer	Fathers' Name	Village	Block	Mob ile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommen dation	Brief Technology Varietal Replacemen t (Local to Sekhar and Nila), IWM (Pendimitha line spray within two days of sowing) and INM (three times 20% Boron spray at 25, 45 and 60 DAS). Fertilizers recommend ations as per soil test value	Vari ety	Seed quan	Demo Yield			Yield of local	% of incre
1	Yunus Ali	Faka Mohammad	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20		Sekh ar	4	8.8	7.3	8.05	6.6	21.97
2	Siraj Alam	Hafijuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	2	8.3	7.6	7.95	6.6	20.45
3	Dahud Ali	Tamijuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	8.6	7.5	8.05	6.6	21.97
4	Muzzafar	Lal Mohammad	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	9.2	7.4	8.3	6.6	25.76
5	Tajjisuddin	Safiuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	8.8	7.3	8.05	6.6	21.97
6	Sallauddin	Din Ali	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	2	8.6	7.5	8.05	6.6	21.97
7	Rahaman Ali	Mainuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	8.7	7.6	8.15	6.6	23.48
8	Basiruddin	Sirajul	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	2	8.5	7.8	8.15	6.6	23.48

SI No.	Name of farmer	Fathers' Name	Village	Block	Mob ile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommen dation	Brief Technology	Vari ety	Seed quan	Demo Yield			Yield of local	% of incre
	Rahaman Ali	Mainuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	2	8.4	7.7	8.05	6.6	21.97
9	Saddam	Himat Ali	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	8.2	7.8	8	6.6	21.21
10	Rahaman Ali	Hafijuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	8.8	7.9	8.35	6.6	26.52
11	Mohammad Sujaffar	Giusuddin	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	8	7.5	7.75	6.6	17.42
12	Afjal Hussain	Khous Mohammad	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	12	7.9	7.6	7.75	6.6	17.42
13	Sajimuddin	Dinkar	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	9.3	7.7	8.5	6.6	28.79
14	Anawar Alam	Tin Mohammad	Chanda gachh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	20:50:20	Do	Sekh ar	4	9.2	7.5	8.35	6.6	26.52
15	Sankalal Singh	Patru Singha	Manida nga	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	4	9	7.6	8.3	6.6	25.76
16	Tankalal Singha	Patru Singha	Manida nga	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	4	9.3	7.8	8.55	6.6	29.55
17	Sapan Singha	Rabilal Singha	Nayatoli	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	2	8.6	7.7	8.15	6.6	23.48
18	Amar Ch. Singha	Suren Singha	Dhati Para	Rasakh owa		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	4	8.7	7.8	8.25	6.6	25.00
19	Suren Singha	Dhukhiram Singha	Dhati Para	Rasakh owa		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	4	8.5	7.9	8.2	6.6	24.24
20	Silobati Singha	Dolu Singha	Dhati Para	Rasakh owa		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	4	8.4	7.5	7.95	6.6	20.45
21	Kabilal Singha	Samual Singha	Dhati Para	Rasakh owa		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	2	8.2	7.8	8	6.6	21.21
22																

SI No.	Name of farmer	Fathers' Name	Village	Block	Mob ile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommen dation	Brief Technology	Vari ety	Seed quan	Demo Yield			Yield of local	% of incre
	Naren Singha	Asaram Singha	Manida nga	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E						8. 8	7. 7	8. 25		
23																
24	Basta, Singha	Suren Singha	Manida nga	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	4	8	7. 8	7. 9	6.6	19.70
25	Mahanta Mohan Singha	Unis Hoque	Dhati Para	Rasakh owa		25 46' 38.51" N 87 59' 00.62" E	No	20:50:20	Do	Nila	2	7. 9	7. 9	7. 9	6.6	19.70
26	Taiful Haque		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	20:50:20	Do	Sekh ar	4	9. 3	7. 5	8. 4	6.6	27.27
27	Nujrul		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	9. 2	7. 6	8. 4	6.6	27.27
28	Hafijul	Kadiv Sk	Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	8. 4	7. 7	8. 05	6.6	21.97
29	Jamir		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	12	8. 2	7. 5	7. 85	6.6	18.94
30	Kosiruddin		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	8. 8	7. 6	8. 2	6.6	24.24
31	Solaman		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	8	7. 8	7. 9	6.6	19.70
32	Faijul Rahaman		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	7. 9	7. 7	7. 8	6.6	18.18
33	Azizul Rahaman		Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	12	9. 3	7. 8	8. 55	6.6	29.55
34	Farman Ali	Mainul Hoque	Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	9. 2	7. 9	8. 55	6.6	29.55
35	Sahad Alam	Hakumuddin	Kamlag achh	Sujali, Islamp ur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	9	7. 5	8. 25	6.6	25.00

SI No.	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommendation	Brief Technology	Variety	Seed quan	Demo Yield			Yield of local	% of incre
	Dhan Ali		Kamlag achh	Sujali, Islampur		26 14' 33.77" N 88 11' 15.60" E						9.3	7.6	8.45		
36																
37	Habibul	Pahulan	Kamlag achh	Sujali, Islampur		26 14' 33.77" N 88 11' 15.60" E	No	25:50:30	Do	Sekh ar	4	8.6	7.8	8.2	6.6	24.24
38	Samarash Das	Ashok Das	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	8.7	7.7	8.2	6.6	24.24
39	Nasim Khan	Salim Khan	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	2	8.8	7.8	8.3	6.6	25.76
40	Mahibul Hasan	Tomijuddin Alam	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8	7.9	7.95	6.6	20.45
41	Md. An	Fogir Alam	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	7.9	7.5	7.7	6.6	16.67
42	Md. Gafirul	Basir Alam	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	9.3	7.6	8.45	6.6	28.03
43	Shamim Akther	Rahimuddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	2	9.2	7.7	8.45	6.6	28.03
44	Md. Rahimuddin	Nasiruddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	9	7.5	8.25	6.6	25.00
45	Amir	Lafajuddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	2	9.3	7.6	8.45	6.6	28.03
46	Md. Reham	Haidar Ali	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	2	8.6	7.8	8.2	6.6	24.24
47	Afjaluddin	Kamrul Haque	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	8.7	7.7	8.2	6.6	24.24
48	Pollallo	Khalilur Rahaman	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	8.5	7.8	8.15	6.6	23.48
49	Forid	Matibul Rahaman	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	8.4	7.9	8.15	6.6	23.48

SI No.	Name of farmer	Fathers' Name	Village	Block	Mob ile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommen dation	Brief Technology	Vari ety	Seed quan	Demo Yield			Yield of local	% of incre
	Irfan	Jabbar Ali	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E						8. 2	7. 5	7. 85		
50							Yes	25:50:30	Do	Sekh ar	2				6.6	18.94
51	Solaman	Mosiruddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	4	8. 8	7. 8	8. 3	6.6	25.76
52	Zakiar	Kosiruddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	Yes	25:50:30	Do	Sekh ar	2	8	7. 7	85	6.6	18.94
53	Merag	Hasan Ali	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	2	7. 9	7. 8	85	6.6	18.94
54	Jaynal	Abdul Rahaman	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	9. 3	7. 9	8. 6	6.6	30.30
55	Sarafoth	Nurul Haque	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	9. 2	7. 5	8. 35	6.6	26.52
56	Zabbar	Najiruddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8. 4	7. 6	8	6.6	21.21
57	Najir Alam	Koisar Alam	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	12	8. 4	7. 7	8. 05	6.6	21.97
58	Kaysor	Saklen	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8. 2	7. 5	7. 85	6.6	18.94
59	Alam	Kolimuddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8. 8	7. 6	8. 2	6.6	24.24
60	Huhas	Majrul Haque	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8	7. 8	7. 9	6.6	19.70
61	Hadakh	Majrul Haque	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	7. 9	7. 7	7. 8	6.6	18.18
62	Jallad	Lt Chaitu Mohammad	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	9. 3	7. 8	8. 55	6.6	29.55
63	Md. Rahim	Soleman	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	2	9. 2	7. 8	8. 5	6.6	28.79

SI No.	Name of farmer	Fathers' Name	Village	Block	Mob ile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommen dation	Brief Technology	Vari ety	Seed quan	Demo Yield			Yield of local	% of incre
	Ijar	Muktar	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E						9	7.	8.		
64			Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	9	7.	8.	6.6	26.52
65	Sakir	Chaman Ali	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	2	9.	7.	8.	6.6	29.55
66	Jahangir	Dhanbar	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	2	8.	7.	8.	6.6	25.00
67	Sahanabaj	Abdul Matin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8.	7.	8.	6.6	22.73
68	Munsuar	Bisu Mohammad	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:50:30	Do	Sekh ar	4	8.	7.	8.	6.6	21.97
69	Saidur	Estab Ali	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8.	7.	8.	6.6	21.97
70	Alimuddin	Saidur	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	12	8.	7.	7.	6.6	18.94
71	Rakib Ali	Saidur	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8.	7.	8.	6.6	24.24
72	Tajamul	Saidur	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8	7.	7.	6.6	19.70
73	Koyash	Bhadu	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	7.	7.	7.	6.6	18.18
74	Phooltara	Anowar	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	9.	7.	8.	6.6	29.55
75	Godhan Ali	Abdul Khaled	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	9.	7.	8.	6.6	29.55
76	Asik Saha	Nirod Ch Saha	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	2	8.	7.	7.	6.6	20.45
77	Tarak Nath Singha	Nirod Ch Saha	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8.	7.	7.	6.6	19.70

SI No.	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommendation	Brief Technology	Variety	Seed quan	Demo Yield			Yield of local	% of incre
	Shyam Ch. Lala	Kamal Ch Lala										8.8	7.8	8.3		
78			Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	2	8.8	7.8	8.3	6.6	25.76
79	Sudam Rabi Das	Bhuben Rabi Das	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	2	8	7.7	7.85	6.6	18.94
80	Azahar Ali	Kyosh Ali	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	7.9	7.8	7.85	6.6	18.94
81	Dhanai Murmu	Mahesh Murmu	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	9.3	7.9	8.6	6.6	30.30
82	Khitish Singha	Jagadish Singha	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	9.2	7.5	8.35	6.6	26.52
83	Yunus Ali	Eamsul Haque	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	12	9	7.6	8.3	6.6	25.76
84	Majibar Rahaman	Ajimuddin	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	9.3	7.7	8.5	6.6	28.79
85	Astab Ali	Rakib Ali	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8.6	7.5	8.05	6.6	21.97
86	Majohar Shak	Alteb houssain	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8.7	7.8	8.25	6.6	25.00
87	Ava Saha	Godu Saha	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8.8	7.9	8.35	6.6	26.52
88	Phoolbati	Ajjul Rahaman	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	4	8	7.5	7.75	6.6	17.42
89	Janki Saha	Rahgen Das	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:50:30	Do	Nila	2	7.9	7.6	7.75	6.6	17.42
90	Thakur	Gandu Das	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:55:35	Do	Nila	4	8	7.8	7.9	6.6	19.70
91	Subas Das	Sashi Mohan Das	Machol	Karandi ghi		25 46' 38.51" N 87 59' 00.62" E	No	25:55:35	Do	Nila	2	7.9	7.7	7.8	6.6	18.18
92	Mahibul Haque	Kuran Mohammad	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:55:35	Do	Nila	2	9.3	7.8	8.55	6.6	29.55

SI No.	Name of farmer	Fathers' Name	Village	Block	Mobile	GPS Coordinates (DDMMSS format)	Soil Testing Recommen	Recommendation	Brief Technology	Variety	Seed quan	Demo Yield			Yield of local	% of incre
												9.	7.	8.		
93	Md. Nasibuddin	Kuran Mohammad	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:55:35	Do	Nila	4	9.2	7.9	8.55	6.6	29.55
94	Abdul Matin	Mohammad Mohamuddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:55:35	Do	Nila	4	9	7.5	8.25	6.6	25.00
95	Matibul Rahaman	Lt Tharu Mohammad	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:55:35	Do	Nila	4	9.3	7.7	8.5	6.6	28.79
96	Faizul	Samsul Haque	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:55:35	Do	Nila	12	8.6	7.5	8.05	6.6	21.97
97	Abdul Matin	Mohomoddin	Goalgac hh	Chopra		26 22' 37.29" N 88 18' 42.41" E	No	25:55:35	Do	Nila	12	8.7	7.8	8.25	6.6	25.00

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 (RCT)	2	33	0	33	27	0	27	0	0	0	60	0	60
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management	9	94	0	94	20	0	20	56	40	96	170	40	210
Fodder production													
Production of organic inputs													
Others if any,													
PPV&FRA	1	30	3	33	41	10	51	16	19	35	87	32	119
Horticulture													
a) Vegetable Crops													

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
Integrated nutrient management													
Water management													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising	1	0	0	0	0	0	0	16	6	22	16	6	22
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any													
Cultivation of Vegetable	2	11	2	13	18	17	35	9	1	10	38	20	58
Training and Pruning													
Exotic vegetable cultivation													
b) Fruits													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits	1	5	0	5	6	2	8	2	0	2	13	2	15
Micro irrigation systems of orchards													
Plant propagation techniques	2	8	7	15	15	0	15	0	0	0	23	7	30
Others, if any													
Recent agro-techniques for the progressive farmers	1	15	1	16	21	0	21	2	3	5	38	4	42
Better space management													
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													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology	1	10	0	0	10	0	10	0	0	0	20	0	20
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													
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	2	0	0	0	0	0	0	7	33	40	7	33	40
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet	2	1	7	8	3	14	17	6	17	23	10	38	48
Minimization of nutrient loss in processing	1	7	1	8	1	10	11	1	1	2	9	12	21
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development (Mushroom Prod.)	3	0	11	11	0	5	5	17	24	41	17	40	57
Value addition (fruit)	1	0	3	3	0	11	11	0	1	1	0	15	15
Income generation activities for empowerment of Farm Women													
Location specific drudgery reduction technologies	1	0	1	1	2	22	24	0	0	0	2	23	25
Rural Crafts (Jute craft)	1	0	6	6	0	8	8	0	0	0	0	14	14
Capacity building													

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
Women and child care (Weaning food)	2	0	0	0	0	0	0	3	37	40	3	37	40
Others, if any													
Plant Protection													
Integrated Pest Management	7	108	5	113	41	16	57	47	1	48	196	22	218
Integrated Disease Management	4	24	3	27	4	2	6	44	8	52	72	13	85
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any													
Compatibility of Pesticide	1	0	0	0	0	0	0	15	7	22	15	7	22
Fisheries													
Integrated fish farming	5	14	0	14	30	0	30	51	12	63	95	12	107
Carp breeding and hatchery management	1	14	0	14	11	0	11	0	0	0	25	0	25
Carp fry and fingerling rearing													
Composite fish culture & fish disease	2	24	1	25	0	0	0	16	0	16	40	1	41
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Diversified Aquaculture & Practices	1	9	0	9	11	0	11	0	0	0	20	0	20
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													
Pond preparation and water quality management	1	2	0	2	6	0	6	2	0	2	10	0	10
Air breathing fish culture	1	11	2	13	5	5	10	1	1	2	17	8	25
Monosex culture of Tilapia													
Capture fisheries	1	21	6	27	23	16	39	0	0	0	44	22	66
Culture practices of Maurala													

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 disease management	1	7	0	7	10	0	10	0	0	0	17	0	17
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production	3	0	0	0	3	3	6	23	42	63	26	45	71
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													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	61	448	59	497	308	141	449	334	253	585	1090	453	1543

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	1	1	3	4	1	2	3	3	13	16	5	18	23
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs													
Planting material production	1	7	1	8	10	0	10	2	0	2	19	1	20
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops	1	4	0	4	11	0	11	0	0	0	15	0	15
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	1	5	0	5	6	2	8	2	0	2	13	2	15
Training and pruning of orchards													
Value addition	1	0	12	12	0	11	11	0	0	0	23	23	46
Income generation activity	1	0	0	0	0	18	18	0	0	0	18	18	36
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Enterprise development													
Para vets													
Para extension workers													
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													
Others, if any													
Integrated fish farming	1	8	0	8	9	0	9	1	0	1	18	0	18
Induced Breeding and Fry production	1	9	0	9	11	0	11	0	0	0	20	0	20
Organic vegetable cultivation	1	11	0	11	0	0	0	0	0	0	11	0	11
TOTAL	9	45	16	61	48	33	81	8	13	21	142	62	163

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													
Value addition													
Integrated Pest Management	1	3	0	3	10	0	10	1	0	1	13	1	14
Resource Conservation Technologies (RCT)	2	2	7	9	2	6	8	43	6	49	47	19	66
Diversified cropping system	1	15	0	15	0	0	0	0	0	0	15	0	15
Income generation through Spices cultivation	1	2	20	22	2	5	7	0	1	1	4	26	30
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Farming community linkages with Financial Institute	1	22	8	30	8	3	11	1	2	3	31	13	44

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
Group Dynamics and farmers organization/SHG members	1	1	0	1	4	21	25	0	4	4	5	25	30
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care	1	2	10	12	0	3	3	0	0	0	2	13	15
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs	2	2	8	10	3	12	15	2	25	27	7	45	52
Crop intensification													
Others, if any													
Air breathing fish culture	1	10	0	10	19	0	19	0	0	0	29	0	29
Composite fish culture	1	12	0	12	15	0	15	2	0	2	29	0	29
Training cum exposure visit of ATMA	1	22	0	22	10	0	10	0	0	0	32	0	32
Recent advances of Agriculture	1	14	0	14	11	5	16	0	0	0	25	5	30
Cultivation of vegetables	1	5	6	11	8	1	9	0	0	0	13	7	20
Recent developments in horticulture	1	11	3	14	10	0	10	1	2	3	22	5	27
Training of master trainer	1	9	2	11	4	2	6	7	1	8	20	5	25
TOTAL	17	132	64	196	106	58	164	57	41	98	294	164	458

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													

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
Resource Conservation Technologies (RCT)	1	24	0	24	19	0	19	3	0	3	46	0	46
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management	2	53	0	53	32	7	39	5	0	5	90	7	97
Fodder production													
Production of organic inputs													
Others, if any													
cultivation of crops	5	53	0	53	58	0	58	36	14	50	147	14	161
Gramin Mousam Seba	1	12	0	12	1	0	1	16	27	43	29	27	56
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development	1	12	4	16	15	3	18	10	4	14	37	11	48
Yield increment													
Production of low volume and high value crops	2	22	4	26	15	2	17	5	0	5	42	6	48
Off-season vegetables													
Nursery raising													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any													
Training and Pruning													
Exotic vegetable cultivation	1	2	1	3	13	9	22	0	0	0	15	10	25
Resource conservation technology	2	0	0	0	0	0	0	25	10	35	25	10	35
Integrated Pest Management	1	25	0	25	0	0	0	0	0	0	25	0	25

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
Cultivation of vegetables	4	20	5	25	0	3	3	29	30	59	49	38	87
b) Fruits													
Layout and Management of Orchards	1	6	0	6	2	0	2	2	0	2	10	0	10
Cultivation of Fruit	4	21	2	23	13	10	23	16	12	28	50	24	74
Management of young plants/orchards	2	0	0	0	0	0	0	24	8	32	24	8	32
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													
Cultivation of flower													
d) Plantation crops													
Production and Management technology	1	0	25	25	0	0	0	0	0	0	0	25	25
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	1	0	0	0	2	23	25	0	0	0	2	23	25
Processing and value addition	2	7	3	10	17	14	31	11	10	21	35	27	62
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													

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 and management technology													
Post harvest technology and value addition													
Others, if any													
Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	4	4	0	20	20	0	24	24
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	2	0	0	0	0	0	0	2	38	40	2	38	40
Storage loss minimization techniques													
Enterprise development (Mushroom)	1	2	4	6	1	18	19	3	8	11	6	30	36
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies	1	2	4	6	4	1	5	1	17	18	7	22	29
Rural Crafts	1	0	3	3	0	15	15	0	1	1	0	19	19
Capacity building													
Women and child care	3	0	1	1	2	4	6	23	51	74	25	56	81
Others, if any													
Backyard Azolla cultivation	2	0	0	0	0	0	0	13	27	28	13	27	40
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	3	10	0	10	40	7	47	21	2	23	71	9	80

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
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any													
Seed Treatment	2	44	0	44	6	0	6	23	12	35	73	12	85
Handling & care of pesticide	1	0	0	0	0	0	0	33	7	40	33	7	40
VIII. Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease	1	6	0	6	12	0	12	7	0	7	25	0	25
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													
Pond preparation and water quality management	1	0	0	0	20	0	20	0	0	0	20	0	20
Air breathing fish culture	1	6	0	6	14	0	14	0	0	0	20	0	20
Monosex culture of Tilapia	1	0	0	0	0	0	0	17	3	20	17	3	20
Judicious & Sustainable capture of riverine fish													
Culture practices of Maurala													
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													
Group dynamics	2	0	0	0	0	0	0	29	11	40	29	11	40
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	54	327	56	383	286	120	406	354	312	654	967	488	1455

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													

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
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
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													

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
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	1	5	7	12	3	2	5	1	1	2	9	10	19
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization	3	0	15	15	10	60	70	2	22	24	12	97	109
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care	1	4	6	10	0	18	18	0	1	1	4	25	29
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													

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
Crop intensification													
Different processing of storage technique of turmeric	1	1	8	9	1	5	6	0	0	0	2	13	15
TOTAL	6	10	36	46	14	85	99	3	24	27	27	145	172

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	3	57	0	57	46	0	46	3	0	3	106	0	106
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management	11	147	0	147	52	7	59	61	40	101	260	47	307
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)													
PPV&FRA	1	30	3	33	41	10	51	16	19	35	87	32	119
cultivation of crops	5	53	0	53	58	0	58	36	14	50	147	14	161
Gramin Mousam Seba	1	12	0	12	1	0	1	16	27	43	29	27	56
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management													
Enterprise development													
Skill development	1	12	4	16	15	3	18	10	4	14	37	11	48
Yield increment													

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 low volume and high value crops	2	22	4	26	15	2	17	5	0	5	42	6	48
Off-season vegetables													
Nursery raising	1	0	0	0	0	0	0	16	6	22	16	6	22
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any													
Cultivation of Vegetable	6	31	7	38	18	20	38	38	31	69	87	58	145
Plant propagation techniques													
Training and Pruning													
Exotic vegetable cultivation	1	2	1	3	13	9	22	0	0	0	15	10	25
Resource conservation technology	2	0	0	0	0	0	0	25	10	35	25	10	35
Integrated Pest Management	1	25	0	25	0	0	0	0	0	0	25	0	25
b) Fruits													
Layout and Management of Orchards	1	6	0	6	2	0	2	2	0	2	10	0	10
Cultivation of Fruit	4	21	2	23	13	10	23	16	12	28	50	24	74
Management of young plants/orchards	2	0	0	0	0	0	0	24	8	32	24	8	32
Rejuvenation of old orchards													
Export potential fruits	1	5	0	5	6	2	8	2	0	2	13	2	15
Micro irrigation systems of orchards													
Plant propagation techniques	2	8	7	15	15	0	15	0	0	0	23	7	30
Others, if any(INM)													
Better space management													
Recent agro-techniques for the progressive farmers	1	15	1	16	21	0	21	2	3	5	38	4	42
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
Cultivation of flowers													
d) Plantation crops													
Production and Management technology	1	0	25	25	0	0	0	0	0	0	0	25	25
Processing and value addition													

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													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology	2	10	0	0	12	23	35	0	0	0	22	23	45
Processing and value addition	2	7	3	10	17	14	31	11	10	21	35	27	62
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
IV. Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products													
Others, if any Goat farming													
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	3	0	0	0	0	4	4	7	53	60	7	57	64
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet	2	1	7	8	3	14	17	6	17	23	10	38	48
Minimization of nutrient loss in processing	1	7	1	8	1	10	11	1	1	2	9	12	21
Gender mainstreaming through SHGs	2	0	0	0	0	0	0	2	38	40	2	38	40
Storage loss minimization techniques													
Enterprise development (Mushroom production)	4	2	15	17	1	23	24	20	32	52	23	70	93
Value addition (Fruit)	1	0	3	3	0	11	11	0	1	1	0	15	15
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies	2	2	5	7	6	23	29	1	17	18	9	45	54
Rural Crafts	2	0	9	9	0	23	23	0	1	1	0	33	33
Capacity building													
Women and child care	5	0	1	1	2	4	6	26	88	114	28	93	121
Others, if any													
Backyard Azolla cultivation	2	0	0	0	0	0	0	13	27	28	13	27	40
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	10	118	5	123	81	23	104	68	3	71	267	31	298
Integrated Disease Management	4	24	3	27	4	2	6	44	8	52	72	13	85
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
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
Compatibility of Pesticide	1	0	0	0	0	0	0	15	7	22	15	7	22
Seed Treatment	2	44	0	44	6	0	6	23	12	35	73	12	85
Handling & care of pesticide	1	0	0	0	0	0	0	33	7	40	33	7	40
VIII. Fisheries													
Integrated fish farming	5	14	0	14	30	0	30	51	12	63	95	12	107
Carp breeding and hatchery management	1	14	0	14	11	0	11	0	0	0	25	0	25
Carp fry and fingerling rearing													
Composite fish culture & fish disease	3	30	1	31	12	0	12	23	0	23	65	1	66
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Diversified Aquaculture & Practices	1	9	0	9	11	0	11	0	0	0	20	0	20
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													
Pond preparation and water quality management	2	2	0	2	26	0	26	2	0	2	30	0	30
Air breathing fish culture	2	17	2	19	19	5	24	1	1	2	37	8	45
Monosex culture of Tilapia	1	0	0	0	0	0	0	17	3	20	17	3	20
Judicious & Sustainable capture of riverine fish													
Culture practices of Maurala													
Capture fisheries	1	21	6	27	23	16	39	0	0	0	44	22	66
Fish disease management	1	7	0	7	10	0	10	0	0	0	17	0	17
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production	3	0	0	0	3	3	6	23	42	63	26	45	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
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	2	0	0	0	0	0	0	29	11	40	29	11	40
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	115	775	115	880	594	261	855	688	565	1239	2057	941	2998

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	1	1	3	4	1	2	3	3	13	16	5	18	23
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production	1	7	1	8	10	0	10	2	0	2	19	1	20

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops	1	4	0	4	11	0	11	0	0	0	15	0	15
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	1	5	0	5	6	2	8	2	0	2	13	2	15
Training and pruning of orchards													
Value addition	1	0	12	12	0	11	11	0	0	0	23	23	23
Income generation activity	1	0	0	0	0	18	18	0	0	0	18	18	18
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													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Integrated fish farming	1	8	0	8	9	0	9	1	0	1	18	0	18
Induced Breeding and Fry production	1	9	0	9	11	0	11	0	0	0	20	0	20
Organic vegetable cultivation	1	11	0	11	0	0	0	0	0	0	11	0	11
TOTAL	9	45	16	61	48	33	81	8	13	21	142	62	204

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													
Integrated Pest Management	2	8	7	15	13	2	15	2	1	3	22	11	33
Integrated Nutrient management													
Resource Conservation Technologies (RCT)	2	2	7	9	2	6	8	43	6	49	47	19	66
Diversified cropping system	1	15	0	15	0	0	0	0	0	0	15	0	15
Income generation through Spices cultivation	1	2	20	22	2	5	7	0	1	1	4	26	30
Rejuvenation of old orchards													
Value addition													

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
Protected cultivation technology													
Formation and Management of SHGs													
Farming community linkages with Financial Institute	1	22	8	30	8	3	11	1	2	3	31	13	44
Group Dynamics and farmers organization	4	1	15	16	14	81	95	2	26	28	17	122	139
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care	2	6	16	22	0	21	21	0	1	1	6	38	44
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs	2	2	8	10	3	12	15	2	25	27	7	45	52
Crop intensification													
Air breathing fish culture	1	10	0	10	19	0	19	0	0	0	29	0	29
Composite fish culture	1	12	0	12	15	0	15	2	0	2	29	0	29
Training cum exposure visit of ATMA	1	22	0	22	10	0	10	0	0	0	32	0	32

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
Recent advances of Agriculture	1	14	0	14	11	5	16	0	0	0	25	5	30
Cultivation of vegetables	1	5	6	11	8	1	9	0	0	0	13	7	20
Recent developments in horticulture	1	11	3	14	10	0	10	1	2	3	22	5	27
Training of master trainer	1	9	2	11	4	2	6	7	1	8	20	5	25
Different processing of storage technique of turmeric	1	1	8	9	1	5	6	0	0	0	2	13	15
TOTAL	23	142	100	242	120	143	263	60	65	125	321	309	630
GRAND TOTAL	147	962	231	1183	762	437	1199	756	643	1385	2520	1312	3832

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

Discipline	Client ele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Femal e	Total
Horticulture	PF	Improved cultivation technique of Turmeric & Ginger	2	ON	20	0	20	10	0	10
	PF	Management Practice s of Coconut and Areca nut	2	OFF	0	25	25	0	0	0
	PF	Improved cultivation technology of Brinjal and chilli	2	OFF	20	5	25	0	0	0
	PF	Propagation techniques of Guava & Lime	1	ON	8	7	15	0	0	0
	PF	Orchard Management	2	OFF	12	4	16	12	4	16
	PF	Orchard Management	2	OFF	12	4	16	12	4	16
	PF	Better space management for higher profitability in horticultural crops	2	OFF	10	4	14	10	4	14
	PF	Planting material production by air layering (hands on)	1	ON	15	0	15	15	0	15
	PF	Nursery management of vegetable crops	2	ON	16	6	22	16	6	22
	PF	Recent agro techniques for the progressive farmers	1	ON	38	4	42	23	3	26

Discipline	Client ele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Femal e	Total
	PF	Layout and management of Guava & Lime Orchard	2	OFF	10	0	10	4	0	4
	PF	Scientific cultivation technique of capsicum & strawberry	2	OFF	22	5	27	9	2	11
	PF	Better space management higher profitability in horticultural crops	2	OFF	15	6	21	15	6	21
	PF	Winter vegetable cultivation	2	ON	28	5	33	17	3	20
	PF	Winter vegetable cultivation	2	OFF	4	18	22	4	18	22
	PF	Cultivation of non-conventional Vegetable	2	OFF	20	1	21	11	0	11
	PF	Improved cultivation Technique of Papaya & Ber	2	OFF	9	7	16	9	5	14
	PF	Income generation of SHG members through Spices cultivation	2	OFF	2	23	25	2	23	25
	PF	Alternative income generation through fruit cultivation	2	OFF	10	5	15	4	5	9
	PF	Scientific cultivation technique of non-conventional winter vegetables	2	OFF	15	10	25	13	9	22
	PF	Improved cultivation technique of Sim and Cucumber	2	ON	10	15	25	10	15	25
	PF	Pest & disease management of chilli	2	OFF	25	0	25	0	0	0
	PF	Importance, processing & value addition of different spices	2	OFF	24	17	41	17	14	31
	PF	Management of winter vegetables	1	OFF	37	11	48	25	7	32
	PF	Cultivation practices of export quality Pineapple	4	ON	13	2	15	8	2	10
	PF	Improved cultivation technique of Guava	3	OFF	16	12	28	16	12	28
	PF	Importance, processing & value addition of different spices	2	OFF	11	10	21	11	10	21
	PF	Package & practices of winter vegetable cultivation	3	OFF	14	6	20	14	6	20
	PF	Establishment of management of nutritional kitchen garden	3	ON	0	20	20	0	20	20
	PF	Package & practice of winter vegetable cultivation	3	OFF	11	9	20	11	9	20
	PF	Group dynamics amongst SHGs & farmers club members	3	OFF	10	10	20	10	10	20
	PF	Awareness training on gender mainstreaming	3	OFF	0	20	20	0	20	20
	PF	Scientific cultivation technique of Pineapple	2	OFF	15	0	15	0	0	0
Plant Protection	PF	Integrated Disease Management of Jute	2	ON	25	0	25	10	0	10
	PF	Improve package and Practice of Greengram	2	ON	25	0	25	4	0	4
	PF	Improve package and Practice of Sesame	2	ON	33	0	33	15	0	15
	PF	Integrated Pest Management of Rice	2	ON	32	1	33	32	1	33
	PF	Techniques of Seed Treatment of different crop in special ref to IPM	4	OFF	73	12	85	29	12	41
	PF	Integrated Pest Management of Rice	3	OFF	28	7	35	26	7	33
	PF	Zero tillage cultivation with IPM	3	OFF	46	0	46	22	0	22

Discipline	Client ele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Femal e	Total
	PF	Handling & care of pesticide	2	OFF	33	7	40	33	7	40
	PF	IPM of Brinjal fruit & shoot Borer	3	ON	25	0	25	3	0	3
	PF	Integrated Weed and Nutrient Management	3	ON	17	8	25	17	8	25
	PF	Cultivation of Blackgram	1	OFF	46	0	46	22	0	22
	PF	Improve package & Practice of Blackgram	1	ON	13	1	14	4	1	5
	PF	Compatibility of Pesticide	2	ON	15	7	22	15	7	22
	PF	IPM of Brinjal fruit & shoot Borer	1	OFF	24	0	24	16	0	16
	PF	Use of Boron & IPM of Balckgram	1	OFF	59	7	66	28	7	35
	PF	IPM & INM of Black gram	1	OFF	31	0	31	9	0	9
	PF	IPM of Nutritional Kitchen garden	4	ON	6	21	27	4	16	20
	PF	Integrated pest management of different crops	3	ON	33	0	33	3	0	3
	PF	Integrated diseases management of Potato	3	ON	15	5	20	6	2	8
	PF	IPM of Mustard	1	OFF	19	2	21	19	2	21
	PF	Crop Management of Mustard	1	ON	25	21	46	8	14	22
	PF	IPM of Mustard	1	OFF	24	26	50	20	25	45
	PF	Mustard Training of IPM & INM	1	OFF	31	19	50	26	18	44
	PF	Integrated Nutrient management of Linseed	1	OFF	36	0	36	22	0	22
	PF	Training on weather forecasting of sustainable agriculture	1	OFF	29	27	56	17	27	44
	PF	Improve package & practice of oil seed	1	ON	12	8	20	12	8	20
	PF	Integrated pest Management of summer vegetables	3	ON	20	0	20	8	0	8
	PF	Package & practice of Green gram	1	ON	21	12	33	15	12	27
	PF	PPV & FRA Training	1	ON	87	32	119	57	29	86
	PF	Techniques of IPM on winter veg., pulses & Oil seed	3	ON	16	4	20	16	4	20
	PF	Techniques of IPM on winter veg., pulses & Oil seed	3	ON	16	4	20	16	4	20
	PF	Package & practice of pulse production	3	OFF	14	6	20	14	6	20
		Package & practice of pulse production	3	OFF	12	8	20	12	8	20
Home Science	PF	Designing and Development of nutrient rich diet	1	ON	6	17	23	6	17	23
	PF	Household food security by kitchen Garden	1	OFF	0	24	24	0	24	24
	PF	Practices for reducing nutrient losses during processing of fruit & vegetable	1	ON	9	12	21	2	11	13
	PF	Awareness training on nutritional anemia	1	OFF	7	17	24	7	16	23
	PF	Follow up training on Jute craft	3	ON	0	14	14	0	8	8
	PF	Preparation of low cost weaning foods	3	OFF	6	17	23	6	17	23

Discipline	Client ele	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
	PF	Improved package of practices for Oyster mushroom cultivation	3	ON	0	17	17	0	6	6
	PF	Follow up training on Jute craft	2	OFF	0	19	19	0	16	16
	PF	Improved Agriculture implements with special reference to Paddy thresher	1	ON	2	23	25	2	22	24
	PF	Value added product from Pineapple and Guava	3	ON	0	15	15	0	12	12
	PF	Improved Agriculture implements with special reference to Paddy thresher	2	OFF	7	22	29	5	18	23
	PF	Vermi-compost production technology	3	ON	20	11	31	20	11	31
	PF	Designing & planning of nutritional diet	2	ON	4	21	25	3	14	17
	PF	Low cost weaning food for malnourished children	2	OFF	12	22	34	12	22	34
	PF	Package of practices of vermin-compost production	3	ON	5	15	20	5	15	20
	PF	Planning & Management of Nutrition kitchen garden	2	ON	4	9	13	4	9	13
	PF	Awareness training on gender mainstreaming among farm women	3	OFF	2	18	20	2	18	20
	PF	Technique of mushroom cultivation	3	ON	5	15	20	5	15	20
	PF	Technique of mushroom cultivation	3	ON	12	8	20	12	8	20
	PF	Package of practice of vermin-compost production	3	ON	1	19	20	1	19	20
	PF	Technique of low cost weaning food	3	ON	1	19	20	1	19	20
	PF	Technique of low cost weaning food	3	ON	2	18	20	2	18	20
	PF	Nutritional kitchen garden	3	ON	5	15	20	5	15	20
	PF	Backyard Azolla cultivation	3	OFF	2	18	20	2	18	20
	PF	Backyard Azolla cultivation	3	OFF	11	9	20	11	9	20
Fisheries Science	PF	Preparation and water quality management of fish culture of pond	3	OFF	20	0	20	20	0	20
	PF	Preparation and water quality management of fish culture of pond	3	ON	10	0	10	8	0	8
	PF	Composite Fish culture	3	OFF	25	0	25	19	0	19
	PF	Composite fish culture	3	ON	24	1	25	0	0	0
	PF	Integrated fish-duck vegetable cultivation	3	ON	19	3	22	19	3	22
	PF	Composite fish culture	3	ON	16	0	16	16	0	16
	PF	Integrated fish-duck vegetable cultivation	3	ON	20	0	20	15	0	15
	PF	Air breathing fish culture	3	ON	17	8	25	6	6	12
	PF	Air breathing fish culture	3	OFF	20	0	20	14	0	14

Discipline	Client ele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Femal e	Total
	PF	Common fish disease and their control	3	ON	17	0	17	10	0	10
	PF	Monosex cultaure of Tilapia	3	OFF	17	3	20	17	3	20
	PF	Establishment of IFS unit	3	ON	15	5	20	15	5	20
	PF	Judicious & sustainable capture of riverian fish	3	On	44	22	66	23	16	39
	PF	Establishment of IFS unit	3	ON	16	4	20	16	4	20
	PF	Group dynamics among SHGs and farmers club members	3	OFF	19	1	20	19	1	20

H) Vocational training programmes for Rural Youth

Details of training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duratio n (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	
Vegetable										
Off season vegetable	Protected cultivation	Production technology of Off-season vegetable	5	15	0	15	Small scale	3	7	-
Fruit	Planting material production of fruit & Plants	Planting material production of fruit & Plants	5	19	1	20	Small scale	4	9	5
Value Addition	Value addition	Value added products from Jute & allied fiber craft	8	0	23	23				
IFS	Natural resource Management	Complete package of different integrated fish farming system	5	18	0	18	Medium scale	3	5	
Fish	Breeding & Carps Fry production	Induced Breeding and Fry production	7	20	0	20	Small scale	4	8	

Extension Personnel (EF)

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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
Horticulture										
10-12/8/16	EF	Recent Development s in Horticulture	3	ON	22	5	27	11	2	13
19-21/9/16	EF	Income generation through spices cultivation	3	ON	4	26	30	2	6	8
27-28/2/17	EF	Cultivation practices of summer vegetables	2	ON	13	7	20	13	7	20
09-10/3/17	EF	Different processing & storage technique of turmeric	2	ON	2	13	1	5	6	11
Plant Protection										
9-13/5/16 & 23-27/5/16	EF	Training of Master Trainer	10	ON	13	1	14	11	0	11
17-18/5/16	EF	Emerging trends & strategies in Agriculture	2	ON	41	6	47	40	6	46
5-1-17	EF	Integrated Pest Management of oil seeds crops	1	ON	9	10	19	4	3	7
9-11/1/17	EF	Diversified cropping system in Agriculture with use of water efficiently	3	ON	15	0	15	0	0	0
Home Science										
22-24/6/2016	EF	Training on low cost food supplements for children	3	ON	2	13	15	0	3	3
17/08/16	EF	Gender mainstreaming though SHGs	1	ON	6	21	27	4	13	17
5-1-17	EF	Group Dynamics among SHGs	1	ON	4	50	54	4	46	50
17-18/1-17	EF	Group Dynamics among SHGs	2	ON	1	24	25	1	23	24
30-1-17	EF	Farming community linking with Financial Institution	1	ON	31	13	44	9	5	14
23-24/2/17	EF	Group Dynamics among SHGs	2	ON	5	25	30	4	25	29
Fisheries Science										
01-02/9/16	EF	Air breathing Fish Culture	2	ON	29	0	29	19	0	19
28-29/9/16	EF	Composite fish culture	2	ON	29	0	29	17	0	17
19-21/12/16	EF	Training on recent advances of agriculture for ATMA	3	ON	19	11	30	11	5	16

09-11/01//17	EF	Training cum exposure visit of ATMA from Chopra Block	3	ON	32	0	32	10	0	10
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I) Sponsored Training Programmes

Sl. No	Title	Thematic area	Month	Duration (days)	Client PF/RV /EF	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1.	Training on Master Trainer	IPM	May, 2016	10	EF	1	9	4	7	2	2	1	11	6	8	25	NABARD
2.	Training of small Tea growers	IPM	June, 2016	5	P/F	1	10	8	4	0	0	0	10	8	4	22	NABARD
3.	Skill development training on mushroom cultivation for SHG members	Enterprise development through Mushroom cultivation	June, 2016	3	P/F	1	2	1	3	4	18	8	6	19	11	36	CADC
4.	Diversified aqua culture practices	Diversified aqua culture	June, 2016	5	PF	1	9	11	0	0	0	0	9	11	0	20	NABARD
5.	Awareness programme on group dynamics for SHG leader	Group dynamics	Sep, 2016	2	EF	1	0	6	1	10	11	2	10	17	3	30	ADA, Karandighi
6.	Breeding & hatchery management of IMC	Breeding & hatchery management	Sep 2016	5	PF	1	14	11	0	0	0	0	14	11	0	25	NFDB
7.	Raising of quality seedlings & nursery management	Planting material production	Dec, 2016	5	RV	1	5	6	2	0	2	0	5	8	2	15	SAMETI, Narendrapur

Sl. No	Title	Thematic area	Month	Duration (days)	Client PF/RV /EF	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
8.	Organic vegetable cultivation	Organic vegetable cultivation	Feb, 2017	3	RY	1	11	0	0	0	0	0	11	0	0	11	ATMA, Kishanganj
9.	Integrated Fish farming	Integrated Fish Farming	Feb. 2017	5	P/F	1	9	15	1	0	0	0	9	15	1	25	NFDB
10.	Income generation through Spices cultivation	Spices cultivation	Sep. 2016	3	EF	1	2	2	0	20	5	1	22	7	1	30	CADC, Chakulia
11.	RCT through horticultural crops	Crop intensification	Sep. 2016	3	EF	1	1	2	3	7	6	0	8	8	3	19	CADC, Chakulia
12.	Resource Conservation technology	RCT	Mar 17	3	PF	1	11	9	0	0	0	0	11	9	0	20	ADA, Goalpokhar-2
13.	Water conservation and soil health	Soil health management	Marc-17	3	PF	1	22	18	0	0	0	0	22	18	0	40	ADA, Goalpokhar-2
14.	Improve cultivation of Maize	Crop cultivation	Mar-17	3	PF	1	40	0	0	0	0	0	40	0	0	40	ADA, Goalpokhar-I
15.	IPM of maize & sesame	IPM	Mar-17	3	PF	1	16	12	12	0	0	0	16	12	12	40	ADA, Goalpokhar-2
16.	IPM of summer vegetable	IPM	Mar-17	3	PF	1	30	7	3	0	0	0	0	30	7	40	ADA, Goalpokhar-I

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

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		M	F	Total	M	F	Total	M	F	Total
Field Day	27	632	453	1085	40	3	43	672	456	1128
Kisan Mela	7	4642	3760	8402	19	8	27	4661	3768	8429
Kisan Ghosthi	0	0	0	0	0	0	0	0	0	0
Exhibition	1	69	44	113	4	0	4	73	44	117
Film Show	18	264	86	350	4	1	5	268	87	355
Method Demonstrations	7	124	101	225	6	3	9	130	104	234
Farmers Seminar	1	28	24	52	1	0	1	29	24	53
Workshop	0	0	0	0	0	0	0	0	0	0
Group meetings	0	0	0	0	0	0	0	0	0	0
Lectures delivered as resource persons	11	288	97	385	35	8	43	323	105	428
Advisory Services	0	0	0	0	0	0	0	0	0	0
Scientific visit to farmers field	35	1037	526	1563	9	6	15	1046	532	1578
Farmers visit to KVK	1442	998	444	1442	0	0	0	998	444	1442
Diagnostic visits	6	32	8	40	4	0	4	36	8	44
Exposure visits	32	797	393	1190	38	2	40	835	395	1230
SHG formation	10	0	135	135	0	0	0	0	135	135
Farm advisory service	31	549	112	661	14	3	17	563	115	678
Ex-trainees Sammelan	1	5	38	43	1	1	2	6	39	45
Soil health Camp	11	492	65	557	9	6	15	501	71	572
Animal Health Camp	0	0	0	0	0	0	0	0	0	0
Agri mobile clinic/Clinic Day	6	157	33	190	8	1	9	165	34	199
Soil test campaigns	11	209	20	229	9	1	10	218	21	239
Farm Science Club Conveners meet	1	200	22	222	0	0	0	200	22	222
Contingent Planning (draught situation)	0	359	32	391	8	0	8	367	32	399
Self Help Group Conveners meetings	4	8	122	130	0	0	0	8	122	130
Mahila Mandals Conveners meetings	0	0	0	0	0	0	0	0	0	0
Celebration of important days (specify)	0	0	0	0	0	0	0	0	0	0
World Environment Day	1	36	7	43	0	0	0	36	7	43
World Population Day	1	332	151	483	0	0	0	332	151	483
International Soil Day	1	141	113	254	12	3	15	153	116	269
International Nutritional Week	1	42	88	130	0	0	0	42	88	130
Womens Day	1	0	143	143	0	0	0	0	143	143
Kisan Day	2	76	82	158	0	0	0	76	82	158
Swachha Bharat Avian	11	138	116	254	0	0	0	138	116	254
Aranya Saptaho	0	0	0	0	0	0	0	0	0	0
Fish Farmers Day & World Fisheries Day	1	68	7	75	0	0	0	68	7	75
Adivasi Diwas	1	48	19	67	0	0	0	48	19	67
International Womens day	1	1	17	18	0	0	0	1	17	18
Awareness' Camp	5	151	67	218	0	0	0	151	67	218
Pradhan Mantri Fasal Bima Yojana	1	177	65	242	12	2	14	189	67	256
Republic Day	1	46	7	53	0	0	0	46	7	53
Vigilance Awareness week	4	47	59	106	0	0	0	47	59	106
World soil day	1	323	159	482	0	0	0	323	159	482
Jai Kisan Jai Vigyan	1	38	60	98	0	0	0	38	60	98
Awareness' Camp	5	151	67	218	0	0	0	151	67	218
Technology Week	1	2134	1428	3562	0	0	0	2134	1428	3562
Total	1702	14839	9170	24009	233	48	281	15072	9218	24290

D. Other Extension activities

Nature of Extension Activity	No. of activities
News Paper coverage	34
Radio talks	6
TV talks	8
Popular articles	5
Extension Literature	14
Other, if any	
TV show (during training and extension activities)	39 nos. Participants: 1020
TV coverage	4

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

Crop	variety	Quantity of seed (q)	Value (Rs)	Provided to number of farmers
Mustard	NC – 1	0.80	12000.00	45 nos.
Linseed	Neela	0.60	6000.00	20 nos.
Maize	J1006	90	540000	2250 (distributed by Dept. of ARD, Gov. of W.B.)
Total		91.4	558000.00	

KVK farm

Crop	variety	Quantity of seed (q)	Value (Rs)	Provided to number of farmers
A. Production in the Instructional Farm as Cereals ,Pulse ,Oil seed				
Paddy	MTU-1010, Parijat, Sahabaghi, MTU – 1001, Pratiksha, IET- 4094, Sukh Samrat, Swarna Sub-1, Rajaswari, Ardhajal, RAU – 724	96.8	387200.00	176 and remaining farmers yet to distribute during Kharif, 2017
Wheat	HD2888, Hp1940, WR544	1.30	5200. 00	80
Buck Wheat	Local	0.25	1250.00	42
Pulses				
Black Gram	Sulata	2.4	36000.00	Yet to be distributed
Black gram	PU 13	2.8	42000.00	Yet to be distributed
Green gram	Sonali	0.3	4500. 00	20
Green gram	SML668	6.37	92550. 00	157
Lentil	Moitree	0.75	11250. 00	44
Bengal Gram.	Anuradha	0.18	1800. 00	5
Garden Pea	Sweet Pearl	0.08	1200.00	5
Oilseed				
Mustard	NC1 (C)	8.00	120000. 00	Yet to be distributed
Linseed	Sekhar	3.0	30000.00	Yet to be distributed
Sesame	Tillotoma	3.60	54000. 00	205
Dhancha	Local	0.54	5400	40
Weaning Food				
Sistu Ahar		3.3	26400	150
	Sub Total (A):	129.67	529450	924 till March 31, 2017
Production in the Instructional Farm as fruits and vegetables				

Lime	Kagzi	1500 nos.	1500.00	37
Guava fruit	Allahabad Safed, Baruipur Local, Red flesh, Harijha	3.4	1125.00	41
Broccoli	Sayali	0.20	200.00	30
Summer Squash	Yellow Zucchini	0.40	240.00	15
Strawberry	Sweet Charly	0.04	1600.00	24
	Sub Total (B):	1500 nos & 4.04 q	4665	147
Grand Total (A + B):		133.71 and 1500 nos.	534115	1070 till March 31, 2017

Production of planting materials by the KVKs

Crop	Variety	Quantity of seed (q) & No. of planting materials (nos.)	Value (Rs)	Number of farmers provided
Vegetable seedlings				
Tomato	Pusa Ruby	15420		305
Brinjal	Bansloi Local & Shalimakra(High yielding variety)	11230		50
Broccoli	Green star	12320		74
Capsicum	California wonder	1220		63
Cherry tomato	Sun Cherry red	3770		35
Fruits		0		0
Mango		0		0
Guava	L -49, Allahabad Safeda, Bauripur local, Khanga, Lal, Kafri, Bhagalpur	1520(293*)	11720.00	56
Lime	Kagzi, Pati, Elichi	1270(324*)	12720.00	75
Papaya	Red Lady	370		14
Others		0		0
Ornamental plants	Marigold, Crisanthimum, Kochia, Flocks, Dhalia, Flower poppy	15090		175
Medicinal and Aromatic		0		0
Plantation		0		0
Arecanut	Mohitnagar	3420		20
Spices		0		
Turmeric	Suranjana	1.8 q		8
Tuber		0		
Elephant Foot Yam	Kavour	2.4 q		8
Fodder crop saplings	Hybride Napier	9540		52
Forest Species	Neem	1588		
Others, pl.specify		0		
Total		76758 nos. & 4.2 q		1225

Production of Bio-Products

Name of product	Quantity	Value (Rs.)	No. of Farmers
	Kg		
Bio Fertilizers : PSB, Azitobector	424	42400	
Bio-pesticide			
Bio-fungicide : Tricoderma Viridi	246	24600	
Bio Agents			

Name of product	Quantity	Value (Rs.)	No. of Farmers
	Kg		
Others (Mushroom spawn)	540 packet		
Rhizobium Culture	66	11760	
Total	736kg & 540 packet	78760	

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Goat)	Black Bengal	22 (10 nos. distributed)	70000	14 nos. in stock
Poultry	Khaki Campbel	13 nos. khaki campbel 260 nos. eggs	1800	13 nos. khaki campbel in stock
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp	Catla, Rohu, Mrigal	20500 nos. (10-15 cm)	26675	22
Exotic carp				
Others (Pl. specify)				
Grand Total		22 nos. black Bengal goat, 13 nos. khaki campbel 260 nos eggs and 20500 nos fish fingerlings	98475	

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

Item	Title	Authors name	Number	Circulation
Research paper				
Seminar/conference/ symposia papers	1. Pulse based low cost food supplement for mal nourished children	Dr. Anjali Sharma and Dr. Bikash Roy		Extended summery
	2. Environment friendly fish amino acid based organic manure to enhance the productivity of homested garden	Dr. Anjali Sharma and Dr. Dhananjoy Mandal and Dr. F.H. Rahaman		Abstract
	3. Evaluation of different planting techniques of rice under changing climate scenario	Dr. Surujit Kundu, Dr. Dhananjoy Mandal, Mr. R. Yonzone & Mr. B. Das		
Booklets	1. Phasaler Smpuritoa Pratikar Byabostha 2. Beguner Phal Phuto Kara Pokar Pratikar Byabostha 3. Beguner Bhibhinna Poka O tar	1. Dr. Dhananjoy Mandal 2. Dr. Dhananjoy Mandal 3. Dr. Dhananjoy	08	

Item	Title	Authors name	Number	Circulation
	Daman	Mandal		
	4. Beguner Phal Photo kara Pokar Patikare Pheromone Phander Byabohar	4. Dr. Dhananjoy Mandal		
	5. Mati Parikhar Gurutta O Tar Padhyuti	5. Dr. Dhananjoy Mandal & Dr. Surjit Kundu		
	6. Kechu Sar Tairi O Tar Krishite Byabohar	6. Dr. Anjali Sharma		
	7. Mushroom Chas : Gramin Mahilader Swarnirbhorthar Ek Natun Disha	7. Dr. Anjali Sharma		
	8. Unnata Prathai (Swachha Polithine Achhadone) Boro Dhaner Beejtola	8. Dr. Dhananjoy Mandal, Dr. Surujit Kundu, Dr. Bikash Roy, Dr. Prabir Mukhopadhyay		
Bulletins				
News letter				
Popular Articles			05	
Book Chapter				
Extension Pamphlets/ literature/Leaflets	1. Brocoli chas 2. Narikel ghacher paricharya 3. Anaras Chas 4. Kala Chas 5. Mati Parikhar Guruta O Tar Padhuti 6. Matir Susasthe Matir Jibanur Bhumika 7. Bhaighanik padhyatite kalo kolaier chas O rog-pokar sampurita pratikar bhabasthya 8. Bhaighanik padhyatite kalo kolaier chas O rog-pokar sampurita pratikar bhabasthya 9. Beguner doge O phal phuto kora pokar akraman theke bancher upai 10. Azolla: Ekti utkrishta griyapalita pasu khadya 11. Susanghata Mach-Hans-Sabjichas 12. Atur Pukure Dimponer Chash	1. Dr Moutusi Dey 2. Dr Moutusi Dey 3. Dr Moutusi Dey 4. Dr Moutusi Dey 5. Dr. Dhananjoy Mandal & Dr. Surujit Kundu 6. Dr. Dhananjoy Mandal & Dr. Surujit Kundu 7. Dr. Dhananjoy Mandal 8. Dr. Dhananjoy Mandal 9. Dr. Dhananjoy Mandal 10. Dr. Anjali Sharma 11. Mr. Debdas Sekhar 12. Mr. Debdas Sekhar	12	
Technical reports				
Electronic Publication (CD/DVD etc)				
TOTAL			13	

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

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

S. No.	Name of programme	Name of course	Name of KVK personnel and designation	Date and Duration	Organized by
1.	State Level Workshop	State Level Workshop	Dr. Bikash Roy, Senior Scientist and Head	April 28-30, 2016	ICAR-ATARI, Zone – II, Saltlake, Kolkata
2.	Workshop on “Women empowerment and poverty reduction through effective use of secure right to land-experiences “ held at UBKV sponsored by Landesa on 5th June 2016.	Women empowerment and poverty reduction through effective use of secure right to land-experiences	Dr. Anjali Sharma, SMS, Home Science	05.06.2016	Held at UBKV sponsored by Landesa
3.	NFDB meeting at ATARY, Kolkata on 8 th June, 2016.		Mr. Debdas Sekhar, SMS, Fishery Science	8 th June, 2016. 1 day	ICAR, ATARY, Kolkata
4.	Meeting of CFLD	Meeting of CFLD	Dr. Bikash Roy, Senior Scientist and Head	July 18-19, 2016	ICAR-ATARI, Kolkata
5.	National Conference on “Bringing self sufficiency in Pulses for Eastern India	Attended National Conference on “Bringing self sufficiency in Pulses for Eastern India	Dr. Anjali Sharma, SMS, Home Science	5 th – 6 th August 2016	ICAR- ATARI, BAU, Sabour, Bhagalpur
6.	Preparation of training module for skill development on agricultural rechnology	Preparation of training module for skill development on agricultural rechnology	Mr. Debdas Sekhar, SMS (Fishery Science)	November 8-11, 2016	SAMETI, Narendrapur, Ramakrishna Mission
7.	Review Workshop of Cluster Frontline Demonstration	Review Workshop of Cluster Frontline Demonstration	Dr. Dhananjoy Mandal, Senior Scientist and Head	December 20, 2016	ICAR-ATARI, Zone – II, Kolkata
8.	Orentation programme on Submission of Din Dayal Updhyay Krishi Protsahan Puruskar	Orentation programme on Submission of Din Dayal Updhyay Krishi Protsahan Puruskar	Dr. Dhananjoy Mandal, Senior Scientist and Head	December 26, 2016	ICAR-ATARI, Zone – II, Kolkata
9.	Review workshop of NABARD in different aspects of agriculture	Review workshop of NABARD in different aspects of agriculture	Dr. Soumen Mahapatra, Farm Manager	January 11, 2017	NABARD, Kolkata

S. No.	Name of programme	Name of course	Name of KVK personnel and designation	Date and Duration	Organized by
10.	Attending Sensitization Workshop for SMS (Fishery & Animal Sc.) at	Sensitization Workshop	Mr. Debdas Sekhar, SMS, Fishery Science “	16-17 th March 2017	ATARI, Kolkata,
11.	All staff of Uttar Dinajpur KVK, Chopra attending HRD Programme & Review Workshop	HRD Programme & Review Workshop	Dr.Dhananjay Mandal, (Incharge& Head) SMS, PI. Protection, Mr. Debdas Sekhar, SMS, Fishery Science, Dr. Moutusi Dey, SMS, Horticulture, Dr. Anjali Sharma, SMS, Home Science, Dr. Soumen Mahapatra, Farm manager, Suprta Debnath,	21 st -22 nd March 2017	Uttar Banga Krishi Viswavidyalaya, Pundabari

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

1. Herbal Gulal/Eco Holi colours preparation as an entrepreneurial activity by SHGs of Chopra block of Uttar Dinajpur district

Environmental safety is core concern of the world now. Our environment is degraded day by day mostly because of lack of awareness regarding its protection and safety. Uttar Dinajpur KVK has showed its interest in environmental safety and made farming community aware about the hazards of chemicals in our life.

Herbal Gulal preparation is also a step towards our health and environmental safety. In the month of January, February 2017 we have conducted four awareness camps for school children of different blocks of Uttar Dinajpur and in the same camps KVK has initiated a step on eco-Holi colours and its importance and made them aware of biodegradable products and safe chemicals. As the festival of colours Holi was coming so we had made them aware and requested them to use eco-holi colours and explained them the process of making Herbal Gulal at their home. Many of them were quite interested and very happy with this step. Few teachers who reside in urban localities has also showed their interest in purchasing the colours if available. Thereafter, KVK has imparted training to 3 Nos. SHGs viz., Mahaprabhu SHG, Dolua and Paglilgachh, Swarnayanti Mahila dal (2 Nos.), Sonapur to start Gulal preparation as entrepreneurial activity. After taking training SHGs has immediately started working on this project with technical support from KVK, Chopra. In the process of making herbal Gulals main base ingredient is arrowroot which is coloured with different natural colours extracted from Turmeric, petals of marigold flowers, beetroot, leaves of different plants and petals of different flowers etc., to get particular shade. Specific colouring material extract has to be added like for yellow colour we need turmeric extract and to get pink colour we need beetroot extract.

In the mean time SHGs have given a stall on Herbal Gulals in Technology Week and Krishi Mela 2017 organized by Uttar Dinajpur KVK at Chopra, Uttar Dinajpur. This is the main turning point for them. Delegates as well as my participants has praised their move and till the last day of the mela they have already sold their whole stock and has orders in their hands for further preparation. They were profited and got lift for further task.

Preparation of Herbal Gulal as entrepreneurial activity by SHGs is published by 4 Nos. Local papers and process documentation of Herbal Gulal preparation is done by Doordarshan, Jalpaiguri as well as private channels is News Time, Kolkata TV and CCN.

Uttar Dinajpur Krishi Vigyan Kendra acknowledge the effort of SHG members who were wholeheartedly involved in this activity and in a very short span worked hand to hand with KVK to make this endeavor a success. It is noteworthy that without any proper working place and modern equipment these women showed their presence in the society and made their own path for future business with technical support from KVK.



2. Mushroom cultivation for income generation

Hakimul Islam, mob no. 9609192916
 Village: Diwanjagee
 PO: Asaru Basti, Daspara, U/D



A young entrepreneur and source of inspiration to many others'. Hakimul Islam has established a 500 sq mtr. Mushroom cultivation farm with an average production of 320 kg per day where as average production of last year was 200 kg/day. He has started mushroom cultivation in the year 2011 and has been expanding his enterprise day by day. He has also motivated youths of near by villages and six of them have already started their own farms in their respective villages. Hakimul Islam came in contact with Uttar Dinajpur KVK and got capacity developed through rural youth training programme. Further he was sent to Ramkrishan Mission Ashram at Belur Math, Kolkata for exposure visit and training. Uttar Dinajpur KVK arranged one training programme for mushroom spawn production for him and other fellows at Uttar Banga Krishi Viswavidyalaya, CoochBehar. Resent serge in tourism development in the adjoining Himalayan and Dooars regions of the district subsequently mushrooming growth of hotels, restaurants has paved the way for consumption of their produce readily. At present Hakimul and their producer group (Pragati Mushroom Grower Association) produces on an average 500 kg fresh mushroom and market it to near by Siliguri market. Presently Hakimul has been earning a net profit of 75,000/- to 80,000/- per month and has become an idol to other youths of the locality. Now, other youths are also came to KVK for training and other technical support for self employment.

3. Success Story on oyster mushroom Cultivation

Amrish Biswas
 Mob.8942990477
 Vill: Dakhin Aliganj
 Post: Islampur
 Uttar Dinajpur



Amrish Biswas is budding entrepreneur. He had taken rural youth training on mushroom cultivation from Uttar Dinajpur Krishi Vigyan Kendra and primarily started oyster mushroom cultivation at household level with KVK inputs and technical support. Gradually he got interested in commercial cultivation of oyster mushroom and had started small scale units in the area of 200sq. mtr. KVK has helped them in setting market linkages to sell their produce. Small grower like Amrish Biswas was linked with large growers at local level for selling their produce and to earn a definite income.

Now, other two farmers had set up their own units in the same village and collectively selling their produce to the larger producers group. They are also selling their produce at local market and getting better price than retail selling. They are in close contact with KVK for different technological support and flourishing with their small scale enterprise. Now they are planning to expand their business and even eager to try new varieties of mushrooms. Presently, on an average 140-150 kg of mushroom is being produced everyday at their farm and they sale the produce @Rs. 50/- per kg with a net profit of Rs.54,000- 58,000/- per month.

Case studies

Case Study 1: Mushroom production for household nutritional security and as an employment avenue for tribal families

Mushroom picking for food with the onset of monsoon showers have been customary in many parts of the country especially amongst the tribal communities. The wild edible mushrooms collected from different places are in good demand and is an item of trade for a few in the remote areas. Hence, sound knowledge and skill developed to identify the wild edible mushrooms collected from different places are in good demand and is an item of trade for in the remote areas. Hence, sound knowledge and skill developed to identify the wild edible mushrooms can provide opportunity for consultancy services on payment basis.

Mushroom production is still in its infancy and only a small fraction of the farming community is engaged in small scale seasonal production of mushrooms. Tourism is gaining impetus in almost all the Terai regions these days which opens up to high demand for mushroom delicacies in the hotel business. Mushroom processing and value addition is another big avenue, which can be more profitable and also employment generating. Organic cultivation of some common mushrooms can be done with less effort and organic mushrooms can fetch premium price. Keeping in view, the increasing demand of fresh mushroom in the tourist spots of Dooars, Terai and Himalayan region. Uttar Dinajpur KVK initiated imparting skill development training on mushroom production to the rural youth and SHG members which in turned resulted development of 15 commercial mushroom producing entrepreneurs producing on an average 150 kg fresh mushroom per day per unit. Initially each producers used to sale their produce individually in local markets and at Siliguri. Seeing the difficulties in individual marketing, KVK intervene into the matter to establish one producers organization with the help of NABARD which is on the way to be established as a registered Producers Organization. Meanwhile KVK initiated the process of collecting fresh mushroom from each entrepreneur and supplying to the Siliguri and Nepal market collectively. Presently an average monthly income by each mushroom grower ranges between Rs. 50,000- 70,000 per month.



1. Tribal Case Study -I	
Name of the enterprise	Oyster and Milky Mushroom Cultivation
Name & complete address of the entrepreneur	Sumita Tudu, Member of Gulamigach Sidhukano SHG mob no. 9614562492 Village: Gulamigach PO: Ghorugach, Chopra, Uttar Dinajpur
Intervention of KVK with quantitative data support:	Technological backstopping and critical input
Time line of the entrepreneurship development	Sumita Tudu and her SHG members were participant of 8 days rural youth training on "Oyster mushroom production technology" from Uttar Dinajpur KVK and started a small scale unit after training. All members are very hard working and earning well from mushroom production.
Technical Components of the Enterprise	Mushroom production
Status of entrepreneur before and after the enterprise	Before the establishment of mushroom unit, Sumita was tea garden labourer and during slack period she stay at home, no source of regular income.
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Selling fresh mushroom @Rs. 80-100/kg in local haats and also selling mushrooms in near by villages. She is also creating awareness among SHGs and farmers clubs to take this avenue for income generation. She is selling about 15-20 Kg produce per day and getting net profit of Rs.4,000 to 5,000 per month.
Horizontal spread of enterprise	3 individual farmer and 2 other SHGs of nearby village also started the same venture

Case Study on low cost nutritional weaning food- 2:

Malnourishment amongst the pre-school children (0-5yrs age group) in Uttar Dinajpur district is alarming. As data reveals from District Project Office, ICDS, Uttar Dinajpur that around 10 percent children enrolled with 3737 numbers of Anganwari centres of the district are severely under weight and defined as **“Red-Children”**. The Integrated Child Development Service (ICDS) Uttar Dinajpur project through its 3737 service centre although provides different services including **“supplementary nutrition”** to the children. Keeping this alarming situation in view and considering the poor economic condition of a large section of community, Uttar Dinajpur Krishi Vigyan Kendra since its inception has taken rigorous activities for protocol development (Standardization) of various low cost nutritious weaning food utilizing locally available ingredients (Wheat, maize buckwheat, green gram, peanut, drumstick leaves etc.) through its mandated activities of On Farm Trials. After rigorous trials through several years Uttar Dinajpur Krishi Vigyan Kendra has been able to develop and standardize several formulations of low cost weaning foods. The calorie measurement and nutritive value of the feed formulations has been tested at CFTRI, Mysore. All the feed formulations passed the criteria on calorie measurement and nutritive value as per national standards.

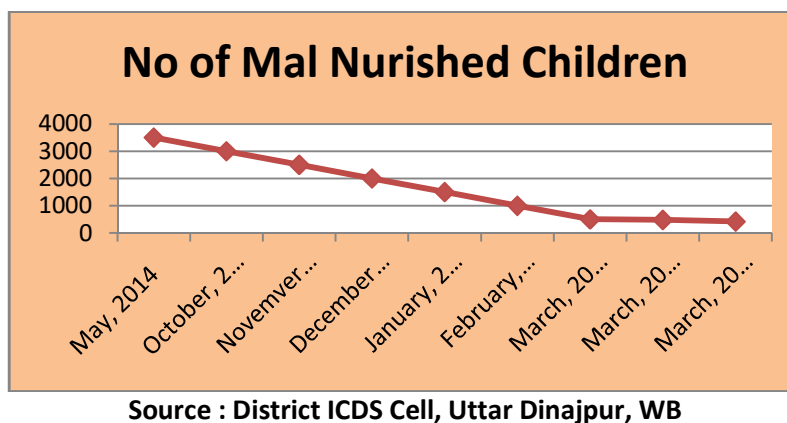
Up Scaling of Technology:

After standardization of feed formulation through On Farm Trials Uttar Dinajpur KVK started wide scale adoption of the technology through training of the SHG members and anganwari workers for capacity building and sensitization, Frontline demonstrations, case studies, awareness campaigns, field days etc. Three SHGs after getting trained from KVK, started producing low cost weaning food under direct supervision of KVK and selling it in the name of **SHISHU AAHAR** in the local Mela, rural haats, Krishi Mela, Swanirbhar Mela, Kanyashree Mela, Sabala Mela etc. As a result of which the brand name of **SHISHU AAHAR** got a wide spread popularity and preference amongst the resource poor farm families.

Wide Scale Adoption:

Revealing the results of different low cost nutritious weaning food formulations developed by KVK in child health development in different forums and meetings, the Uttar Dinajpur District Administration decided to incorporate the low cost nutritious weaning food **developed by Uttar Dinajpur Krishi Vigyan Kendra** in a project called **“PUSHTI”** – An initiative for providing additional nutritional supplements to the malnourished pre-school children through SHG networks of the district. Skill development training on preparation and quality control of low cost nutritional food was imparted to the selected SHG members by the KVK. DRDC was in need to supply 3007 packets of food supplement for the children and 2054 packets for the pregnant mothers in the district per week. DRDC negotiated the matter with 10 SHGs one each from ICDS block of the district to produce and supply required numbers of food packets to the concerned ICDS centre of the block. On the other hand DRDC remitted the fund for the cost of the food packets in the account of the concerned SHGs. The process has been established and running smoothly since October, 2014 to combat malnourishment among children and pregnant mothers. The positive impact of the food supplements provided to the malnourished children is revealed from the chart (Fig.1).

Fig 1. Monthly tracking of severely malnourished children in Uttar Dinajpur District after suppling with low cost weaning food developed by KVK



Though Pusthi project is going in whole district, but Uttar Dinajpur Krishi Vigyan Kendra selectively worked in Tribal villages for eradication of malnutrition among children under its Frontline Demonstration programme. Details are following .

Sr. No.	Name Of Village	No. of Children	Adoption rate of technology
1.	Dhuliagacch	16	65%
2.	Gulamigacch	18	58%
3.	Jhitka Tutikata	23	45%
4.	Kadamtala	14	72%
5.	Dhonogacch	21	75%



Case study of Parvati Murmu who was born on 31st July, 2012 in a tribal family, middle child among three siblings at village Dhanoygacch of Chopra block of Uttar Dinajpur district of West Bengal. Unfortunately, she was a case of malnutrition and was residing with her parents and grandparents. Her father and mother was tea garden labourer. Family was scantily able to survive on hand to mouth income.

Plate1. Parvati with her mother and young sister

Uttar Dinajpur Krishi Vigyan Kendra came into contact with Parvati Murmu while conducting an on farm trial entitled 'Assessment of nutritional weaning food on children health'. Her birth weight was 2 Kg and 150 grams which was below Indian standard birth weight. She was depicting the clear signs of protein energy malnutrition viz. oedema, depigmentation of the hair, thin sparse hair, moon face and diffuse depigmentation of skin along with below standard of reference of anthropometric measurements due to growth retardation and low body weight for height etc.) Supplementary food 1 (Wheat: Green gram: Ground nut: Jaggery 30:20:8:20) was provided to girl who was just 9.5 kg at the age of three years. Per day 200 gm weaning food was given thrice a day in milk/water according to availability. After 20 days tremendous change in Parvati's condition was revealed and she had showed 200gm increase in body weight with little healthier body. Supplementary foods which were rich in essential dietary elements i.e. carbohydrates, protein and minerals etc. contributed to child's good health and significant increase in weight. Within six months of trial Parvati has gained 2.50 kg extra weight to her earlier weight along with no signs of oedema, no sparse hairs and gradually regained good health. Now she is 12.2Kg at the age of three years and eight months and was upgraded to normal grade. Training on homemade low cost weaning food was



imparted in the village itself to Parvati's mother and other SHG members so that farm women would be able to make low cost weaning food on their own and would be able to fight malnutrition to some extent. Her mother is now at least able to manage and make weaning food at her home using locally available ingredients which cost only rupees 60.00 per kg.

Case Study 3: Organic Cultivation of BAU kul BER (*Ziziphus mauritiana*)

Sri Narayan Sarker, village Betbari, Aliganj, Islampur, Uttar Dinajpur, West Bengal an innovative farmer for horticultural (Fruits) and other crops and cultivating the BAU kul (Ber) *Ziziphus mauritiana* Round shaped for last 2 years through organic cultivation and which gave the huge productivity and profitability. Minimum infestation of pest and diseases and gave more yield.

- ✓ **Crop :** Kul/ BER Variety : BAU KUL;
- ✓ **Plant spacing :** 11 ftx11 ft;
- ✓ **No. Plants in acre :** 300 Nos
- ✓ **Pit Treatment:** *Trichoderma viride* @ 20 gm/ pit
- ✓ **Cow dung Treatment :** 3 Kg/ 300 kg cow dung
- ✓ **Planting time:** First week of April
- ✓ **Organic manure and Fertilizer:** Cow dung 40 kg /plant + Vermicompost 5 kg/ plant two times before and after rainy season
- ✓ **Foliar spray:** **KUNAPAJALA** spray at weekly interval (**KUNAPAJALA** a fermentation product of easily available Cow dung, Cow urine and ingredients as per availability like the fat, marrow, and the flesh of fish, goat, and other horned animals collected and stored in a clay pot for 20-25 days with water and mixed with extra water and spray.)
- ✓ **Irrigation:** As per requirement of the crop.
- ✓ **Pest Management:**
 1. Spray of Neem oil 10000 ppm @ 2 ml/L as per pest infestation
 2. Spray of Rishav as bio Acaricide (Miticide) when mite observed in the plants or fruits (**Content:** Oil of Wild plant seeds, Lactones, Terpenoids, Aqueous-Media and Alkaloids)

Cost of Cultivation: For 1 acre area

Sl. No	Particulars	Items	Amount (Rs.)
1	Plant Material	@ Rs.40/ pc	12000.00
2	Organic manure		48000.00
3	Foliar Material	KUNAPAJALA	15000.00
4	Bio Pesticide		2000.00
5	Labour Cost	Intercultural operation	10000.00
6		Spraying, weeding, irrigation etc	10000.00
10		Harvesting	15000.00
11	Irrigation		5000.00
12	Marketing		15000.00
13	Rent of Land		20000.00
14	Miscellaneous cost		10000.00
	Total cost of cultivation		1,62,000.00

Production : Average production 150 q / acre/ during second year and the production will be increased in subsequent year

Price : Average price round the year Rs. 3500/ q

Economics:

Total Production : 15 q/ acre and the production value @ Rs. 3500/ q
 $= 150 \times 3500.00 = \text{Rs. } 5,25,000.00$

Cost of Production : Rs. 1,62,000.00

Net Profit : Rs. (5,25,000.00 - 1,62,000.00) = Rs. 3,63,000.00/ acre/ year

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

Technology innovated/developed by the farmers

A. Low cost technology for vermin-compost bed preparation :

Materials used: Clay soil, High Density Polymer(HDP) plastic bags usually empty fertilizer bags and paddy straw.

Technology details: A vermin-compost pit of dimension of 4'x 2'x 2' was erected using clay soil. (Fig.1)The outer and inner wall of the whole pit including the pit bed was coated with clay and cow dung was dried dry for day or two to get the structure harden. The bed of the pit including the inner side walls was covered with single sheet of HDP. (Fig.2) An even layer of 4 inches paddy straw was used as a base material. Then half composted materials mixed with earth worms were spreaded for compost making in the pit. Bamboo pegs were used at four corners of the pit to keep the HDP plastic erect. in order to prevent red ants and mice attack.

Advantages:

- Low cost technology.
- Keep inner temperature low
- Keep moisture at optimum level
- Easy to maintain
- Can be easily adopted by the others

Name and address of the farmer

Sk. Sirajuddin
 Vill. Biswastolly
 P.O. Chargoria
 Chopra, Uttar Dinajpur
 Ph. No. 9933504279



Sk. Sirajuddin of village Biswastolly, P.O. Chargoria, Uttar Dinajpur is a fifty years old small farmer with a land holding of more or less one hectare out of which 50% have converted into tea garden and 50% kept for crop cultivation. He is attached with the Krishi Vigyan Kendra since last seven (07) years. He studied up to class nine. Sk. Sirajuddin participated in a training programme on organic composting at Uttar Dinajpur KVK during 2008-09 and started a Vermicompost unit in his homestead land. Subsequently he developed the low cost Vermicompost bed preparation amalgamating his experience and intuition. So far he has been able to produce 22 tones Vermicompost from 12 no of Vermicompost beds out of which he has sold 13 tones of Vermicompost in the market @ Rs. 10.00 per kg and rest 10 tones have been used in his own field including tea garden. According to

Sk. Sirajuddin, he has been able to reduce more than 80% of the consumption of chemical fertilizer in his field through Vermicompost.



Fig 1: Low cost commercial unit



Fig 2 : HDP plastic bag used to cover the floor and side wall of the pit



Fig 3 : SHG members Vermipit made up of clay and made popular in resource poor families by KVK



B. Low cost indigenous technology for Button mushroom cultivation

Materials used: Paddy straw thatched house, Poly propylene sheets and bamboo structure.

Technology details: A paddy straw thatched house of dimension of 50'x 30'x 6' was constructed on bamboo frame (Fig.1.). In the whole structure one window and door on the front side and two windows on the back side of the room. The spawn run beds of 5'x3.5' size were prepared and supported with bamboo frames. In each room there were four rows of mushroom production beds which vertically include four shelves and horizontally included 15 shelves. It costs around 35,000.00 per unit.

Advantages:

- Low cost technology.
- Keep inner temperature low
- Keep moisture at optimum level
- Easy to maintain
- Can be easily adopted by the others

Name and address of the farmer**Mohammad Ali**

Vill. Domapir

P.O. Jagdishpur

Raiganj, Uttar Dinajpur

Ph. No. 9002805026



Md. Ali of village Domapir, P.O. Jagdishpur, Raiganj, Uttar Dinajpur is a forty six years old farmer with a land holding of more or less one hectare. Main crops grown are paddy, maize and mustard along with button mushroom cultivation. Mr. Ali is studied up to class nine and in very early age he has been left his home and worked as migrated labour for near about 20 years. During this period he has worked in a quality control lab at Haryana. After observing Md. Ali's work perfection his firm send him for training of mushroom cultivation and spawn preparation at GB Pant University of Agriculture and Technology, Uttarakhand. After that for few years he worked in Haryana and lastly in the year 2006 returned to his paternal village in West Bengal. With his own wisdom and will he has started button mushroom cultivation in his village since 2009. In starting he has met with marketing problem but with time he has got solution too and now he is able to sell near about 15 qt. button mushroom within two winter months. His willpower and dedication to work is inspiration to many young entrepreneurs. He has motivated many farmers.



fig.1&2 Low Cost Thatched bamboo house for button mushroom cultivation (outside and Inside view)



Fig.3 Innovative farmer with his harvest

C. Low Cost Rat Trap :

Materials used: Bamboo and old bicycle tube

Technology details: A very low cost rat trap fabricated by Sk. Sirajuddin using locally available indigenous materials has been found very effective in controlling rat in the house as well as in the field. A small (1.5 feet) piece of hollow bamboo blocked at one end by inter-node and open at the other side. A small hole is kept just behind the blocked end of the bamboo to place bait for the rat. Another piece of bamboo less in diameter pushed inside the hollow chamber of the previous one. The bamboo inside the channel of another bamboo acts as a hammer and is very tightly tied with piece of elastic (used cycle tube). Once the rat touches the bait the tension of the hammer is released and it hits the rat vigorously against the blocked end of the hollow bamboo and kills the rat. The fabricated device is very much effective, low cost and above all eco friendly.

Advantages:

- Low cost and eco friendly technology.
- Raw material is locally available
- Easy to maintain and efficient tool
- Can be easily adopted by the others

Name and address of the farmer

Sk. Sirajuddin
Vill. Biswastolly
P.O. Chargoria
Chopra, Uttar Dinajpur
Ph. No. 9933504279



Sk. Sirajuddin of village Biswastolly, P.O. Chargoria, Uttar Dinajpur is a fifty years old small farmer with a land holding of more or less one hectare out of which 50% have converted into tea garden and 50% kept for crop cultivation. He studied up to class nine. Sk. Sirajuddin participated in various training programmes at Uttar Dinajpur KVK. During 2008-09 and started a Vermicompost unit in his homestead land. Subsequently he developed the low cost Vermicompost bed preparation amalgamating his experience and intuition and also facilitated by ICAR at 1st Farmer Innovator meet at mysore. He has also developed low cost rat trap with the help of bamboo pipes and made it popular among many farmers. One rat trap costs around rupees 80-100 per piece.



Picture of low cost Rat Trap



Field application photos



Demonstration at Agricultural field

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

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Poultry	a) Feeding boiled rice mixed with kerosene oil. b) Feeding onion. c) Feeding water with turmeric powder. d) Feeding boiled rice mixed with turmeric powder. e) Feeding leaf juice of <i>Gandha Gadai</i> plant alone or mixed with boiled rice.	Murgir jhimani (depression)
2.	Cattle	a) Rubbing of mud on foot lesions. b) To rub <i>Ghee</i> on mouth lesions. c) To apply <i>Pora</i> (burnt) Mobil on foot lesions.	Chupchupi (F.M.D.)
3.	Cattle	a) Feeding leaf juice of <i>Patharkuchi</i> plant.	Gorur Pet Phanpa (Bloat)
4.	All livestock	a) Applying Naphthalene powder on the wound.	Ghae Poka (Maggot wound)
5.	Goat	a) Feeding leaves of Jack fruit tree. b) Feeding leaves of <i>Bilati</i> plant.	Chhagoler Patla Paykhana (Diarrhoea)
6.	Cattle	a) Feeding leaves of bamboo plant.	Gorur Patla Paykhana (Diarrhoea)
7.	Cattle	a) Applying mustard oil mixed with <i>Kajal</i> .	Balader Ghar Phola (Yok Gall)
8.	Goat	a) Applying cow dung cake ash mixed with <i>Bish kanthali</i> plant juice. b) Applying coconut oil mixed with Naphthalene powder.	Chhagoler / Bachhurer Gaye Etuli (Ticks) / Ukun (Lice)
9.	Calf	a) Applying mustard oil with turmeric powder.	Bachhurer Lome Khasa (Hair fall)
10.	Cattle	a) Feeding Ajawan mixed with ginger.	Goru Jadi na Khay (Inappetance)
11.	Cattle	a) Washing the eye with the water of <i>Huko</i> .	Gorur Chokh Diye Jal Para

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

3.11. a. Details of equipment available in Soil and Water Testing Laboratory

Sl. No	Name of the Equipment	Qty.
1.	Mridaparikshak	01

3.11.b. Details of samples analyzed so far

:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil samples (pH, EC, O.C., N.P.K., S, Zn, B, Fe)	290	290	7	nil
Total				

3.12. Activities of rain water harvesting structure and micro irrigation system

No of training programme	No of demonstrations	No of plant material produced	Visit by the farmers	Visit by the officials
04	02	1640	190	18

3.13 Technology week celebration

Type of activities	No. of activities	Number of participants	Related crop/livestock technology
Seminar on thematic areas, crop seminar, awareness camp, exhibition, field visit, plant health clinic	01	3561	Mushroom cultivation, Weaning food, Hebal Gulal, IPM, IFS, Multistoried cropping, INM, Drudgery reduction, Nutritional security, orchard management, Different crops variety, New technology demonstration

3.14. RAWE programme - is KVK involved: UBKV students

No of student/ARS trained	No of days stayed
Final year 12 nos. students from Uttar Banga Krishi Viswavidyalaya, Pundibari, coochbehar	21

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

Date	Name of the person	Purpose of visit
25.04.2016	Dr. V.P.Chahal, ADG(AE), ICAR, New Delhi	Visit to KVK
12.05.2016	Mr. M.K.Dey, DDM, Uttar Dinajpur	Visit to KVK
12.05.2016	Mr. Gautam Ghosh, DDM, NABARD, Uttar Dinajpur	Visit to KVK
13.05.2016	Prof. R.C. Samui, Retired Professor, Agronomy, BCKV	Visit to KVK
17.06.20136	Dr. A.K. Singh, DDG (Agril. Extn.),ICAR, New Delhi, KAB-1, Pusa	Visit to KVK
17.06.2016	Dr. P.S. Pandey, ADG (Education & Home Science), ICAR, New Delhi	Visit to KVK
17.06.2016	Dr.R.K. Sohane, Director of Extension Education, BAU, Sabour	Visit to KVK
12.07.2016	Dr. C. Chattopadhyay, Hon'ble V.C, UBKV, Pundibari, Cooch Behar	Visit to KVK
07.09.2016	Mr. Mahipah Singh, Project Director, Tea Board, Kurseong	Visit to KVK
22.09.2016	Mr. Allison Enns, Food Security Coordinator, Mennonite Central Committee , Canada	Visit to KVK
22.09.2016	Mr. Miriam Hardel, Senior Programme Officer , Canadian Food grain Bank, Winnipeg, Canada	Visit to KVK
22.09.2016	Mr. Pabitra Paramanya, Mennonite Central Committee, India	Visit to KVK
22.09.2016	Mr. Achinta Das, , Mennonite Central Committee, India	Visit to KVK
29.09.2016	Dr. P.C. Lenka, Retired Professor of Horticulture, Orissa University,	Visit to KVK
05.12.2016	Mr. Kanaiya Lal Agarwal, MLAm Islampur	
14.12.2016	Dr. Kalyan Sundar Das, Principal Scientist, ICAR-ATARI, Kolkata	To attend SAC meeting
20.01.2017	Dr. A.K. Singh, DDG (Agril. Extn.),ICAR, New Delhi, KAB-1, Pusa	Visit to KVK

Date	Name of the person	Purpose of visit
20.01.2017	Dr. Randhir Singh, ADG,(AE), ICAR, New Delhi	Visit to KVK
21.02.2017	Sri. Kanhaiyalal Agarwala, MLA, Islampur constituency	Inauguration of Technology Week
23.02.2017	Mrs. Ayesha Rani, DM & Collector, Uttar Dinajpur district	Technology Week
	Mr. A. Bhutia, DMDC, Islampur	Visit to KVK

4.0 IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Mushroom cultivation	315	67	6940/unit	24488/unit
Herbal Gulal (Introduced in this year)	65	53	--	30000/unit
Weaning food	270	84	--	Reduced the malnourished children
Backyard Azolla cultivation	188	73	3570/unit	9840/unit
Seed treatment (Rice)	690	75	7570/ha	114230/ha
RCT (Rice)	275	58	8312/ha	14340/ha
RCT (Wheat)	510	71	16302/ha	19890/ha

4.2 Cases of large scale adoption

(Please furnish detailed information for each case)

Horizontal spread of technologies	
Technology	Horizontal spread
Mushroom cultivation	37 nos, youths cultivate mushroom and 28 SHGs cultivate the mushroom for income generation and average daily production from all the units 1500 kgs under technical help of Uttar Dinajpur Krishi Vigyan Kendra
Herbal Gulal	34 women SHG members from three different SHG produces 100 kg herbal gulal during the year. Technology was provided by Uttar Dinajpur Krishi Vigyan Kendra. The programme was broadcasted by Doordarshan Kendra Jallpaiguri and different nation news channels and also reported by different daily news paper.
Weaning food for malnourished children	3007 nos children/week and SHGs are supplying 1,56,364pkt/year of 500gm
Nutritional food for malnourished pregnant mother	2054 nos mothers/week and SHGs supplying 1,06,808 pkt/year of 500gm
Backyard Azolla Cultivation	80 working units benefitting 865 Farm families with average total production per month of 16,200kg
Resource conservation Technology (Zero Tillage cultivation in Rice and Wheat)	1628 ha cultivated under Rice and Wheat by more than 2712 nos. of farmers. Cost of cultivation saved Rs. 29,30,400/-
Integrated Pest Management	322 ha cultivated of different crops and vegetables through pheromone traps, sticky trap, fruit fly trap and neem oil and cost of cultivation saved Rs. 772800/-

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

a. Up Scaling of Low Cost Weaning food developed by Uttar Dinajpur KVK

Background:

Malnourishment amongst the pre-school children (0-5yrs age group) in Uttar Dinajpur district is alarming. As data reveals from District Project Office, ICDS, Uttar Dinajpur that around 10 percent children enrolled with 3737 numbers of Anganwari centres of the district are severely under weight and defined as **“Red-Children”**. The Integrated Child Development Service (ICDS) Uttar Dinajpur project through its 3737 service centre although provides different services including **“supplementary nutrition”** to the children, it needs further intervention for an overall development of the scenario.

Keeping this alarming situation in view and considering the poor economic condition of a large section of community, Uttar Dinajpur Krishi Vigyan Kendra since its inception has taken rigorous activities for protocol development (Standardization) of various low cost nutritious weaning food utilising locally available ingredients (Wheat, maize buckwheat, mung, peanut, drumstick leaves etc.) through its mandated activities of On Farm Trials. After rigorous trials through several years Uttar Dinajpur Krishi Vigyan Kendra has been able to develop and standardise several formulations of low cost weaning foods. The calorie measurement and nutritive value of the feed formulations has been tested at CFTRI, Mysore. All the feed formulations passed the criteria on calorie measurement and nutritive value as per national standards.

Up Scaling of Technology:

After standardization of feed formulation through On Farm Trials Uttar Dinajpur KVK started wide scale adoption of the technology through training of the SHG members and anganwari workers for capacity building and sensitization, Frontline demonstrations, case studies, awareness campaigns, field days etc. Three SHGs after getting trained from KVK, started producing low cost weaning food under direct supervision of KVK and selling it in the name of **SHISHU AAHAR** in the local Mela, rural haats, Krishi Mela, Swanirbhar Mela, Kanyashree Mela, Sabala Mela etc. As a result of which the brand name of **SHISHU AAHAR** got a wide spread popularity and preference amongst the resource poor families.

Wide Scale Adoption:

Revealing the results of different low cost nutritious weaning food formulations developed by KVK in child health development in different forums and meetings, the Uttar Dinajpur District Administration decided to incorporate the low cost nutritious weaning food **developed by Uttar Dinajpur Krishi Vigyan Kendra** in a project called **“PUSHTI”** – An initiative for providing additional nutritional supplements to the malnourished pre-school children through SHG networks of the district. It has been proposed that malnourished underweight children (**“Red-Children”**) will be provided a 500 gm packet of weaning food per week which will provide required calorie amount for their physical as well as mental growth. The district administration thinks to implement the project in a holistic approach of **“Supplying Additional Nutritional Supplement”** to the pre-school children through SHG networks so that there will be an **“improvement in child health”** as well as increase in **“Preschool Enrollment”**; on the other hand there will be an **“Employment Avenue”** for the poor SHG members for implementing the project.

Economic Configuration:

As per latest data from DPO, ICDS, the number of the target Group viz. **“severely under weight (0-5 yrs.) children”** termed as **“Red Children”** in ten (10) ICDS Blocks of the district is 3007 numbers. As assumed to provide **“Additional Nutritional Supplement”** of 500 g per child per week a total quantity of 3007 pkt.x500g i.e. 1503.5 Kg weaning food is required per week.

This comes to 6,014 Kg per month (12,028 pkts.) and 72,168 Kg per year constituting 1,44,336 packets of 500g weight per year. The district administration has fixed the cost of weaning food @ Rupees 60.00 per Kg. Thus, a total revenue of 72,168 Kg x Rs. 60.00 i.e. **Rs.43,30,080.00 (Rupees forty three lakh thirty thousand eighty only)** is being revolved through the 10 SHGs selected by district administration for preparing and supplying the weaning food supplements for malnourished children. Keeping a profit of 20 percent on the total cost of production an amount of Rs. 8,66,016.00 (Rupees eight lakhs sixty six thousand sixteen only) is being generated to the selected SHGs.

Additional Role of KVK in end term Implementation:

As requested by the District Administration, Uttar Dinajpur Krishi Vigyan Kendra will also act as a resource centre to impart hands on training to the aspiring SHG members of each ICDS Blocks in preparation of low cost weaning food and sensitizing them in keeping hygiene and quality of the weaning food as per specification.

- b. During last five years, Uttar Dinajpur KVK has conducted 114 training courses for practicing farmers covering 2570 participants, 12 vocational courses for rural youth covering 225 participants and 18 courses for extension functionaries covering 466 participants.
- c. Resource conservation technology was taken as an important activities during the year 2008-09 with an area of only 0.5 ha has reached to an extent of more than 422 ha during 2014-15.

- d. A total number of 1284 beneficiaries has been covered under frontline demonstration programme of various crops and enterprises.
- e. Tea leaf plucking blade, a drudgery reducing tool for tea leaf plucking has been modified through participatory technology development and is awaiting for patenting.
- f. Low cost weaning food for the children (6 month – 2 years) prepared from locally available ingredients has made a good impact to the farm women for their children.
- g. Vermicompost production has reached a tune of around 823 q per year through the self help groups.
- h. Introduction of non-conventional vegetables has been able to create a good impact among the farmers for higher profitability.
- i. Low cost food supplements prepared from locally available ingredients has been able to combat nutritional anemia
- j. A total quantity of 540.7 q quality seeds (certified and foundation) (including village seed programme) of cereals, pulses, oilseeds etc. and total number of 15000 planting materials produced and distributed.
- k. Formation and promotion of farmers club and self help groups in the district has gain a momentum with the formation of a Farmers Club Federation at District level
- l. Seed treatment campaign through KVK has made a very good impact and nearly 70-80% farmers are practicing both in the adoptive and non-adoptive villages

4.4 Details of innovations recorded by the KVK

Technology innovated/developed by the farmers

Innovation I: Low cost technology for vermin-compost bed preparation:

Materials used: Clay soil, High Density Polymer(HDP) plastic bags usually empty fertilizer bags and paddy straw.

Technology details: A vermin-compost pit of dimension of 4'x 2'x 2' was erected using clay soil. (Fig.1)The outer and inner wall of the whole pit including the pit bed was coated with clay and cow dung was dried dry for day or two to get the structure harden. The bed of the pit including the inner side walls was covered with single sheet of HDP. (Fig.2) An even layer of 4 inches paddy straw was used as a base material. Then half composted materials mixed with earth worms were spreaded for compost making in the pit. Bamboo pegs were used at four corners of the pit to keep the HDP plastic erect. in order to prevent red ants and mice attack.

Advantages:

- Low cost technology.
- Keep inner temperature low
- Keep moisture at optimum level
- Easy to maintain
- Can be easily adopted by the others

Name and address of the farmer

Sk. Sirajuddin
Vill. Biswastolly
P.O. Chargoria
Chopra, Uttar Dinajpur
Ph. No. 9933504279



Sk. Sirajuddin of village Biswastolly, P.O. Chargoria, Uttar Dinajpur is a fifty years old small farmer with a land holding of more or less one hectare out of which 50% have converted into tea garden and 50% kept for crop cultivation. He is attached with the Krishi Vigyan Kendra since last seven (07) years. He studied up to class nine. Sk. Sirajuddin participated in a training programme on organic composting at Uttar Dinajpur KVK during 2008-09 and started a Vermicompost unit in his homestead land. Subsequently he developed the low cost Vermicompost bed preparation amalgamating his experience and intuition. So far he has been able to produce 22 tones Vermicompost from 12 no of Vermicompost beds out of which he has sold 13 tones of Vermicompost in the market @ Rs. 10.00 per kg and rest 10 tones have been used in his own field including tea garden. According to Sk. Sirajuddin, he has been able to reduce more than 80% of the consumption of chemical fertilizer in his field through Vermicompost.



Fig 1 : Low cost commercial unit



Fig 2 : HDP plastic bag used to cover the floor and side wall of the pit



Fig 3 : SHG members Vermipit made up of clay and made popular in resource poor families by KVK



Innovation II: Low cost indigenous technology for Button mushroom cultivation

Materials used: Paddy straw thatched house, Poly propylene sheets and bamboo structure.

Technology details: A paddy straw thatched house of dimension of 50'x 30'x 6' was constructed on bamboo frame (Fig.1.). In the whole structure one window and door on the front side and two windows on the back side of the room. The spawn run beds of 5'x3.5' size were prepared and supported with bamboo frames. In

each room there were four rows of mushroom production beds which vertically include four shelves and horizontally included 15 shelves. It costs around 35,000.00 per unit.

Advantages:

- Low cost technology.
- Keep inner temperature low
- Keep moisture at optimum level
- Easy to maintain
- Can be easily adopted by the others

Name and address of the farmer

Mohammad Ali

Vill. Domapir

P.O. Jagdishpur

Raiganj, Uttar Dinajpur

Ph. No. 9002805026



Md. Ali of village Domapir, P.O. Jagdishpur, Raiganj, Uttar Dinajpur is a forty six years old farmer with a land holding of more or less one hectare. Main crops grown are paddy, maize and mustard along with button mushroom cultivation. Mr. Ali is studied up to class nine and in very early age he has been left his home and worked as migrated labour for near about 20 years. During this period he has worked in a quality control lab at Haryana. After observing Md. Ali's work perfection his firm send him for training of mushroom cultivation and spawn preparation at GB Pant University of Agriculture and Technology, Uttarakhand. After that for few years he worked in Haryana and lastly in the year 2006 returned to his paternal village in West Bengal. With his own wisdom and will he has started button mushroom cultivation in his village since 2009. In starting he has met with marketing problem but with time he has got solution too and now he is able to sell near about 15 qt. button mushroom within two winter months. His willpower and dedication to work is inspiration to many young entrepreneurs. He has motivated many farmers.



fig.1&2 Low Cost Thached bamboo house for button mushroom cultivation (outside and Inside view)

Fig.3 Innovative farmer with his harvest

Innovation III: Low Cost Rat Trap:

Materials used: Bamboo and old bicycle tube

Technology details: A very low cost rat trap fabricated by Sk. Sirajuddin using locally available indigenous materials has been found very effective in controlling rat in the house as well as in the field. A small (1.5 feet) piece of hollow bamboo blocked at one end by inter-node and open at the other side. A small hole is kept just behind the blocked end of the bamboo to place bait for the rat. Another piece of bamboo less in diameter pushed inside the hollow chamber of the previous one. The bamboo inside the channel of another bamboo acts as a hammer and is very tightly tied with piece of elastic (used cycle tube). Once the rat touches the bait the tension of the hammer is released and it hits the rat vigorously against the blocked end of the hollow bamboo and kills the rat. The fabricated device is very much effective, low cost and above all eco friendly.

Advantages:

- Low cost and eco friendly technology.
- Raw material is locally available
- Easy to maintain and efficient tool
- Can be easily adopted by the others

Name and address of the farmer

Sk. Sirajuddin
Vill. Biswastolly
P.O. Chargoria
Chopra, Uttar Dinajpur
Ph. No. 9933504279



Sk. Sirajuddin of village Biswastolly, P.O. Chargoria, Uttar Dinajpur is a fifty years old small farmer with a land holding of more or less one hectare out of which 50% have converted into tea garden and 50% kept for crop cultivation. He studied up to class nine. Sk. Sirajuddin participated in various training programmes at Uttar Dinajpur KVK. During 2008-09 and started a Vermicompost unit in his homestead land. Subsequently he developed the low cost Vermicompost bed preparation amalgamating his experience and intuition and also facilitated by ICAR at 1st Farmer Innovator meet at Mysore. He has also developed low cost rat trap with the help of bamboo pipes and made it popular among many farmers. One rat trap costs around rupees 80-100 per piece.



Picture of low cost Rat Trap



Field application photos



Demonstration at Agricultural field

Innovation IV:

Thematic area	Production and management
Name of the Innovation	Round the year bittergourd cultivation
Details of Innovator	Sri Ramprasad Sarker, village Betbari, Aliganj, Islampur, Uttar Dinajpur, West Bengal an innovative farmer for horticultural and other crops and cultivating the novel variety (Local) of bitter gourd <i>Momordica charantia</i> for round the year for last 25-30 years which gave the huge productivity and profitability. This variety faced minimum infestation of pest and diseases and gave yield round the year, whereas the other available variety gave the yield only one season in a year.
Back ground of innovation	The high market value of bitter gourd round the year, prompted the farmer to go in for bitter gourd production round the year. With his long experience in vegetable cultivation, the farmer could make it possible to calibrate the cultivation process of bitter gourd which can assure round the year production. Leaving a lean period of only two months which can be compensated with intercropping leafy vegetables.
Technology details	Planting time: First week of June to mid June Planting system: In existing of previous crop in the field (Like Summer Cauliflower, Colocasia, Aram etc) in 3-4 seeds in a place. Preparation of Bower (Mancha) : Through bamboo, rope, ware and other material at the height of 3 ft with the staking of plant to reach the bower.
Practical utility of innovation	A highly remunerative option for the vegetable growers which can ensure a net profit of Rs. 9.45 lakhs/ha.

Innovation V:

Thematic area	Production and management
Name of the Innovation	Organic Cultivation of BAU kul (BER) <i>Ziziphus mauritiana</i> intercropped with bottle gourd and cucumber
Details of Innovator	Sri Narayan Sarker, village Betbari, Aliganj, Islampur, Uttar Dinajpur, West Bengal an innovative farmer for horticultural (Fruits) and other crops and cultivating the BAU kul (Ber) <i>Ziziphus mauritiana</i> Round shaped for last 2 years through organic cultivation and which gave substantial productivity and profitability.
Back ground of innovation	With increasing cost of cultivation of field crops and staggered market price of produce prompted Mr. Sarkar to shift from field crops to orchard management with special attention to organic cultivation of bau kul intercropped with bottle gourd and cucumber which can assure better return per unit area.
Technology details	Plant spacing : 11 ftx11 ft; No. Plants in acre : 300 Nos Pit Treatment: <i>Trichoderma viride</i> @ 20 gm/ pit Cow dung Treatment : 3 Kg/ 300 kg cow dung Planting time: First week of April Organic manure and Fertilizer: Cow dung 40 kg /plant + Vermicompost 5 kg/ plant two times before and after rainy season Foliar spray: KUNAPAJALA spray at weekly interval (KUNAPAJALA a fermentation product of easily available Cow dung, Cow urine and ingredients as per availability like the fat, marrow, and the flesh of fish, goat, and other horned animals collected and stored in a clay pot for 20-25 days with water and mixed with extra water and spray.) Irrigation: As per requirement of the crop.
Practical utility of innovation	376 q ber and 215 q bottle gourd and cucumber can ensure a net profit of

4.5 Details of entrepreneurship development

1. Entrepreneurship development	
Name of the enterprise	Fresh Mushroom and dry mushroom Powder
Name & complete address of the entrepreneur	Mohit kumar Agarwal, mob no. 7098414067 Village: Sonapur Hat PO: Copra, Uttar Dinajpur
Intervention of KVK with quantitative data support:	Technological backstopping and critical input
Time line of the entrepreneurship development	Mohit Kumar Agarwal was one of the participant of 8 days rural youth training on "Oyster mushroom production technology" from Uttar Dinajpur KVK and started a small scale unit after training. As his unit was small and he use to sell his product locally and side wise side he started making mushroom powder with technical support from KVK.
Technical Components of the Enterprise	Mushroom production (Fresh mushroom and dry mushroom powder)
Status of entrepreneur before and after the enterprise	Before the establishment of mushroom unit, his income was nil,
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Selling fresh mushroom at Siliguri @Rs. 40-45/kg and also selling in local market. He is also selling mushroom powder and also creating awareness among SHGs and farmers clubs to take this avenue for income generation. He is selling about 15 Kg produce per day and getting net profit of Rs.4,000 to 5,000 per month.
Horizontal spread of enterprise	3 individual farmer and 2 other SHGs of nearby village also started the same venture

2. Entrepreneurship development	
Name of the enterprise	Strawberry cultivation and marketing
Name & complete address of the entrepreneur	Bijoy Das, Jeevan More, Islampur, Uttar Dinajpur
Intervention of KVK with quantitative data support:	Technological backstopping for cultivation, packaging and marketing
Time line of the entrepreneurship development	He first came to KVK at Technology Week-2014 and first time saw strawberry was cultivated in this climatic condition. Then he regularly came to KVK. During September, 2014, KVK organized a training programme for him and other. During October, 2015, he planted strawberry in about 4 katha land. then from February, 2015, he started harvesting the fruits and marketed to local market and nearby Siliguri market @ Rs 500/kg fruit.
Technical Components of the Enterprise	Tissue culture sapling, straw mulching
Status of entrepreneur before and after the enterprise	Cultivation of conventional vegetable crops
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Raw materials (planting materials) has been produced by the farmer himself through vegetative propagation method. Household manpower is used. Consumer preference of local market for strawberry is overwhelming and virtually made the farmer incapacitate in supplying the produce in the market. Yield- 39.3 q/ha, cost of cultivation-Rs. 3,90,000.00/ha, gross income- Rs. 15,72,000.00/ha, net profit- Rs. 11,82,000.00/ha, B:C- 4.03, sale price-Rs. 400/kg
Horizontal spread of enterprise	-

3. Entrepreneurship development	
Name of the enterprise	Vermicompost
Name & complete address of the entrepreneur	Gulesha Begum (Mamtamayee Swanirbhar Gosthi) Village-Uttar Chandagach P.O.-Chopra Uttar Dinajpur Contact no.- 09733355377
Intervention of KVK with quantitative data support:	Technological backstopping and critical input
Time line of the entrepreneurship development	Mamtamayee swanirbhar Gosthi was KVK formed SHG. Members were very active and used to come to kvk for various capacity building trainings. Mamtamayee SHG has taken 8 days rural youth training on “vermicompost production technology” from Uttar Dinajpur KVK and started a small scale unit within a month of training. All members are very hard working and earning well from compost production.
Technical Components of the Enterprise	Vermicompost and vermiworm production
Status of entrepreneur before and after the enterprise	Before the establishment of vermicompost unit, SHG income was nil,
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	SHG is selling the product in their locality @Rs. 10/kg and also using compost in their own field. SHG is also creating awareness among their fellow SHGs to take this avenue for income generation. SHG is earning net profit of Rs.1500 to 2000 per month.
Horizontal spread of enterprise	3 other SHGs of nearby village also started the same venture

4. Entrepreneurship development	
Name of the enterprise	Oyster Mushroom Cultivation
Name & complete address of the entrepreneur	Sumita Tudu, Member of Gulamigach Sidhukano SHG mob no. 9614562492 Village: Gulamigach PO: Ghorugach, Chopra, Uttar Dinajpur
Intervention of KVK with quantitative data support:	Technological backstopping and critical input
Time line of the entrepreneurship development	Sumita Tudu and her SHG members were participant of 8 days rural youth training on “Oyster mushroom production technology” from Uttar Dinajpur KVK and started a small scale unit after training. All members are very hard working and earning well from mushroom production.
Technical Components of the Enterprise	Mushroom production
Status of entrepreneur before and after the enterprise	Before the establishment of mushroom unit, Sumita was tea garden labourer and during slack period she stay at home, no source of regular income.
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Selling fresh mushroom @Rs. 80-100/kg in local haats and also selling mushrooms in near by villages. She is also creating awareness among SHGs and farmers clubs to take this avenue for income generation. She is selling about 15-20 Kg produce per day and getting net profit of Rs.4,000 to 5,000 per month.
Horizontal spread of enterprise	3 individual farmer and 2 other SHGs of nearby village also started the same venture

5. Entrepreneurship development	
Name of the enterprise	Oyster Mushroom Cultivation
Name & complete address of the entrepreneur	Hakimul Islam, mob no. 09609192916 Village: Diwanjageer PO: Asaru Basti, Daspara, Uttar Dinajpur
Intervention of KVK with quantitative data support:	Technological backstopping and critical input
Time line of the entrepreneurship development	Hakimul Islam was one of the participant of 8 days rural youth training on “Oyster mushroom production technology” from Uttar Dinajpur KVK and started a small scale unit after training. All members are very hard working and earning well from mushroom production.
Technical Components of the Enterprise	Mushroom production
Status of entrepreneur before and after the enterprise	Before the establishment of mushroom unit, his income was nil,
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Selling fresh mushroom at Siliguri @Rs. 40-45/kg and also selling in local market. He is also creating awareness among SHGs and farmers clubs to take this avenue for income generation. He is selling about 150 Kg produce per day and getting net profit of Rs.40,000 to 45,000 per month.
Horizontal spread of enterprise	4 individual farmer and 3 other SHGs of nearby village also started the same venture

4.6 Any other initiative taken by the KVK

Fodder Maize seed production programme funded by Animal Resources Development Department has been initiated in the KVK covering an area of 60 hectares and fund outlay of Rs. 10.2 lakh for cultivation purpose and production target 100 m ton will be taken back with buy back provision by the department and fund outlay 60 lac may be during the financial year 201-18.

5.0 LINKAGES

5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
NABARD	Funding for training, projects, technology week etc.
Department of Agriculture, Govt. of W.B.	Preparation of SREP and Joint implementation of programme, participation in meeting, conducting training programme and demonstration
ATMA	Preparation of SREP and Joint implementation of programme, participation in meeting, conducting training programme and demonstration
IFFCO	Collaborative demonstration, training and funding
Department of Horticulture, Govt. of W.B.	Joint implementation of programme, participation in meeting, conducting training programme and demonstration
Office of the Deputy Director, Animal Resource Development, Raiganj, Uttar Dinajpur	Joint Diagnostic Survey, joint implementation of programme, participation in meeting, conducting training programme, demonstration, and organizing village level vaccination camps, clinics.
Office of the Asst. Director of Fisheries, Raiganj, Uttar Dinajpur	Training of the fish farmers and Fisheries in Uttar Dinajpur; formation and registration of fish production groups.
Office of the Panchayat Samity, Chopra.	Training of Block Officials elected members of Panchayat Samities on Agriculture Development.
Rice Research Station, Chinsurah	Supply of seed materials and research information.
Pulses & Oil Seeds Research, Berhampore	Supply of seed materials and research information.
Chopra Gram Panchayet	Infrastructural Development

Name of organization	Nature of linkage
Office of the Block Livestock Development Officer , Chopra, Uttar Dinajpur	Trainings, health camp, vaccination camp and procurement of vaccines for livestock
District Rural Development Cell , Raiganj.	Collaborative training programme and funding
Rastriya Krishi Vikas Yoyona	Research and infrastructural development
Uttar Dinajpur Zilla Parishad	Infrastructural development
Uttar Banga Unnayan Parshad	Infrastructural development
State Bank of India	Formation of Farm Science Club
AIR, Siliguri	Broadcasting and wide scale circulation
Doordarshan, Jalpaiguri	Broadcasting KVK programme farmers-scientist interaction etc.
SAMETI, Narendrapur	Programme formulation, training etc.
CIAE, Bhopal	Fabrication of tools
CFTRI, Mysore	Assessment of nutritive value of weaning foods
CRRI, Orissa	Supply of Implements
NRCSS, Ajmer, Rajasthan	Supply of seed materials and research information.
National cooperative Union of india	Training, Seed Production
SSB, Darjeeling Range	Training, Krishi Mela
NIRJAFT	Training
PPV&FRA	Orientation programme & crop registration
CRRIJAF, Barrackpore	Supplying of jute seed
CADC, Arangghata	Supply of seed materials and research information.
RRS, Malda	Supply of seed materials and research information.
RRS (OAZ), Majhian, Patiram, Dakshin Dinajpur	Supply of seed materials and research information.
PCRA	For awareness generation programme

5.2. List of special programmes undertaken during 2016-17 by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NABARD/NHM/NFDB/Other Agencies **(information of previous years should not be provided)**

a) Programmes for infrastructure development

Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Fodder Seed production	Production of foundation/certified fodder seed with buy back provision	Nov., 2016	Dept. of ARD, Govt. of W.B.	1020000

(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.)
Pradhan Mantri Fasal Bima Yojana	Awareness Programme	April 05, 2016	Min. of Ag. & COOP	188600.00
Rabi Kisan Sammelan & World Soil Day	Information dissemination	December 05, 2016	Min. of Ag. & COOP	80000.00
Technology Week	Technology Week	February 21-23, 2017	NABARD	100000.00
PPV & FRA	Awareness Programme	March 25, 2017	PPV & FRA	80000.00
Training of farmers	Training	February 4-8, 2017	ATMA, Kisanganj,	13600.00

Training and exposure visit	Training and Exposure visit	Nov., 2016 to March, 2017	Dept. of Agriculture, Govt. of W.B., ATMA & PMKSY and CADAC Chakulia	331600.00
Training of rural youths – STRY	Training	December 20-25, 2016	SAMETI, Narendrapur	42000.00
Training and demonstration on Azolla	Large scale adoption	Round the year	NABARD	58000.00
Total				893800.00

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Name of demo Unit	Year of estt.	Area(Sq.m t)	Details of production			Amount (Rs.)		Remarks
				Variety/breed	Produce	Qty.	Cost of inputs	Gross income	
1.	Vermicompost	2008-09	100	-	Vermicompost	30.2 q	19470.00	25530.00	
2.	Integrated fish farming	2009-10	Pond-0.13 ha, duckery unit-18 m ²	Fish-IMC Duck-Khaki Campbel Goat-black bengal	Fish, egg, meat, kids	Fish -2.8 q , Goat-14 Kids Duck (Khaki Campbel) – 13 nos.	42840.00	98775.00	

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	
Greengram	31/03/2016	22.6.2016	1.2	SML -668 & Sonali	B-F, F-C,	6.67	44420	105000	
Sesame	30.3.16	28.6.2016	1.4	Tilottama	F-C,	3.60	32560	54000	
Paddy	25.6.16 – 15.07.16	03.10.16 – 28.11.16	2.34	MTU-1010, MTU-1001, Pratiksha, Swarna Sub-1, Nilanjana, IET-4094, Heera, Parijat	B-F, F-C,	96.8	212640	387200	
Dhaincha	24/05/16	12/10/16	0.1	Local	TL	0.80	4000	8000	
Wheat	8.12.2016	29.3.2017	0.2	HD-2888, HP-1940, DBW-14, WR-544	F-C	1.5	3000	5500	
Black Gram	20.8.2016	28.11.2016	0.14	WBU-109 & PU-31	B-F & F-C	5.2	25400	78000	
Rapeseed & Mustard	14.11.2016	26.2.2017	1.4	NC-1	B-F & F-C	8	50560	120000	
Lentil	16/11/2016	15.3.2017	0.1	Moitree & Asha	F-C	1.2	9840	18000	
Linseed	22.11.2016	31.3.2017	1.4	Sekhar	F-C	3.0	10320	30000	
Greengram	18.3.2017	-		Crop in the field					
Sesame	25.3.17	-		Crop in the field					

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

Name of product	Quantity	Value (Rs.)	No. of Farmers
	Kg		
Bio Fertilizers : PSB, Azitobector	424	42400	
Bio-pesticide			
Bio-fungicide : Tricoderma Viridi	246	24600	
Bio Agents			
Others (Mushroom spawn)	2665 packet		
Rhizobium Culture	66	11760	
Total	736kg & 2665 packet	78760	

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.	Fish	IMC	Table size	2.8 q	19,850.00	28,775.00	

6.5 Utilization of hostel facilities

Accommodation available (No. of beds): 24

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April, 2016	0	0	
May, 2016	41	5	
June, 2016	20	5	
July, 2016	20	5	
August, 2016	15	5	
September, 2016	42	9	
October, 2016	42	6	
November, 2016	31	3	
December, 2016	46	9	
January, 2017	58	7	
February, 2017	166	18	
March, 2017	226	29	
Total :	707	101	

6.6 Utilization of staff quarters : Nil

Whether staff quarters has been completed: No

No. of staff quarters:

Date of completion:

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
KVK main A/c	SBI	Islampur, Uttar Dinajpur	11001862927
KVK R/F A/c	SBI	Islampur, Uttar Dinajpur	30156335888
KVK Seed Hub	SBI	Islampur, Uttar Dinajpur	36617029275

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

Item	Released by ICAR		Expenditure		Unspent balance as on -
	Kharif	Rabi	Kharif	Rabi	

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

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

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

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

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

S. No.	Particulars	Sanctioned (Rs in Lakh)	Released (Rs in Lakh)	Expenditure (in Rs.)
A. Recurring Contingencies				
1	Pay & Allowances	71.86	71.86	6891197.00
2	Traveling allowances	1.5	1.5	149608.00
	HRD	0.5	0.5	49931.00
3	Contingencies	0.00	0.00	0.00
A	Stationery, Telephone, POL etc.,	4.6	4.6	460000.00
B				
C	Training	2.7	2.7	269792.00
D				
E				
F				
G	Front Line Demonstration	1.8	1.8	179620.00
H	On Farm Trial	0.90	0.90	51370.00
I	TSP	3.0	3.0	288955.00
4	Maintenance of building	6.75	6.75	675000.00
TOTAL (A)		93.61	93.61	90,15,473.00
B. Non-Recurring Contingencies				
1	Vehicle (Two wheelers)	0.00	0.00	0.00
TOTAL (B)				
C. REVOLVING FUND		0	0	0
GRAND TOTAL (A+B+C)		93.61	93.61	90,15,473.00

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year (Kind + cash)
2015-15	13.855	10.841	2.89597	21.80
2015-16	21.80	8.85	6.46	24.19
2016-17	24.19	11.99	6.98	29.2*

*Cash in hands: 24.69 and kinds/stock at Godown 3.1 lac

7.6.(i) Number of SHGs formed by KVKs (ii) association of KVKs with SHGs formed by other organizations indicating the area of SHG activities.

In the year 2016-17 eight new SHGs were formed by KVK. Uttar Dinajpur KVK is associated with 168 SHGs formed by other organizations indicating the area of SHG activities

7.7 Details of marketing channels created for the SHGs

- Initially the SHGs started producing fresh mushrooms and sell it in the local market. Later on all the SHGs were brought under single umbrella to form one Producers Organization with joint initiative of NABARD and KVK by this process total daily production of mushroom from each group is picked up and channelized to bigger market at Siliguri Nepal Bhutan Etc. resulting better price thereby ensuring more net return to the individual groups. Moreover realizing the demand of processed mushroom in the form of pickle in the north-eastern states the members of the SHGs were trained with that particular skill and the started producing mushroom pickle with their surplus produce. KVK helped them to get the produce *fssai* certification which is under process.
- Three SHGs after getting trained from KVK, started producing low cost weaning food under direct supervision of KVK and selling it in the name of **Shishu Aahar** in the local Mela, rural haats, Krishi Mela, Swanirbhar Mela, Kanyashree Mela, Sabala Mela etc. As a result of which the brand name of **Shishu Aahar** got a wide spread popularity and preference amongst the resource poor families.
- Uttar Dinajpur District Administration incorporated the low cost nutritious weaning food developed by Uttar Dinajpur Krishi Vigyan Kendra in a project called **"PUSHTI"** – An initiative for providing additional nutritional supplements to the malnourished pre-school children through SHG networks of the district. As requested by the District Administration, Uttar Dinajpur Krishi Vigyan Kendra acted as a resource centre to impart hands on training to the aspiring SHG members of each ICDS Blocks in preparation of low cost weaning food and sensitizing them in keeping hygiene and quality of the weaning food as per specification.
- In the mean time SHGs have given a stall on Herbal Gulals in Technology Week and Krishi Mela 2017 organized by Uttar Dinajpur KVK at Chopra, Uttar Dinajpur. This is the main turning point for them. Delegates as well as my participants has praised their move and till the last day of the mela they have already sold their whole stock and has orders in their hands for further preparation. They were profited and got lift for further task.

Preparation of Herbal Gulal as entrepreneurial activity by SHGs is published by 4 Nos. Local papers and process Documentation of Herbal Gulal preparation is done by Doordarshan, Jalpaiguri as well as private channels is News Time, Kolkata TV and CCN.

Uttar Dinajpur Krishi Vigyan Kendra acknowledge the effort of SHG members who were wholeheartedly involved in this activity and in a very short span worked hand to hand with KVK to make this endeavor a success. It is noteworthy that without any proper working place and modern equipment these women showed their presence in the society and made their own path for future business with technical support from KVK also linked with different stores in the Islampur market for shading of Gulal during the festival of holi. Three shops agreed to keep KVK produced herbal gulal for sell purpose in the market.

7.8. Special programme on Food and Nutrition :

- Celebration of National Nutrition Week in collaboration with ICDS office.
- One FLD on food and nutrition for household nutritional security named Low cost nutritional weaning food.
- OFT on foods and nutrition viz. Assessment of nutritional weaning foods on children health.
- 6 nos of training programmes on food and nutrition for the SHG members.
- 3 no awareness programme on food and nutrition

7.9. Joint activity carried out with line departments and ATMA

Name of activity	Number of activity	Season	With line department	With ATMA	Both
Fodder Seed Production Programme	01	Rabi : 2016-17	Dept. of ARD, Govt. W.B.		
Farmers' Scientist Interactions	01	Kharif: 2016	—	With ATMA	
Exposure Visits	15			With ATMA	
Training	15			With ATMA	
Field Days	02			With ATMA	

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

9.1. Prevalent diseases in Livestock/Crops/Fishery: Nil

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

9.2. Nehru Yuva Kendra (NYK) Training : Nil

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

9.3. PPV & FR Sensitization training Programme

Date of organizing the programme	Resource Person	No. of participants	Registration (crop wise)		Remarks
March, 25, 2017	i. Dr. Bidhan Roy, Associate professor and Head, Department of Genetics and Plant Breeding, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar ii. Dr. Dhananjoy Mandal, SMS (Plant Protection), Uttar Dinajpur KVK iii. Dr. Moutusi Dey, SMS (Horticulture), Uttar Dinajpur KVK iv. Dr. Anjali Sharma, SMS (Home Science), Uttar Dinajpur KVK v. Mr. Debdas Sekhar, SMS (Fishery Science), Uttar Dinajpur KVK vi. Dr. Soumen Maha Patra, Farm Manager, Uttar	119	Name of crop	No. of registration	Seed material received. The application should be submitted to the competent authority very shortly
			Paddy	25	
			Mustard	8	
			Greengram	2	
			Til	1	
			Desi Jute	3	
			Blackgram	4	
			Bakla	3	
			Chilli	3	
			Khasari	1	
			Sob Saagh	3	
			Lentil	2	
			Dhania	1	
			Laffa Saagh	1	
			Ridge Goard	1	
			Kahan	8	
			Data Saagh	1	
			Palak Saagh	1	
			Kumra	1	
			Seem	1	
			Dulali Saagh	1	
			Desi Pea	1	
			Babar Saagh	1	
			Desi Arhar	1	
Total			74		

9.4.a SMS PORTAL: Date of start of functioning of SMS portal								
No. of messages	No. of calls	No. of farmers covered	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other
48		1,53,500	28 (Pl. Prot., Hort. & Agronomy)	7 (Fisheries)	2	2	5	4 (Home Sc.)

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

Sr. No.	Name of item/ events/ component	Uploading status (Yes/No)	No. uploaded	Remarks, if any
1	KVK Profile			
2	Employee details	Yes		
3	Post	Yes		
4	Finance	Yes		
5	Soil Health Card	Yes		
6	Appliance	Yes		
7	Crops	Yes		
8	Resources	Yes		
9	Fish	Yes		
10	Past events	Yes		
11	Future/ upcoming events	Yes		
12	Facilities available at KVKs	Yes		
13	Package and practices			
14	Crop	Yes		
15	Livestock	Yes		
16	Fishery	Yes		
17	Horticulture	Yes		
18	CFLD on Pulses			
19	2016-17	Yes		
20	2015-16	Yes		
21	CFLD Oilseeds			
22	2016-17	Yes		
23	2015-16	Yes		

9.5 Observation of Swacha Bharat Programme

Date of Observation	Activities undertaken
19.10.16,	Awareness camp, awareness for destroying the pesticide container and plastic after use of pesticide.
19.10.16,	Cleanliness of office premises
21.10.16,	Awareness camp for Pond and drain cleaning in the village area.
28.10.16	Awareness camp for cleanliness of surrounding area of homestead
25.11.2016	Awareness camp for Sanitation of village drainage system
6.12.2016	Cleanliness of KVK instructional farm

Date of Observation	Activities undertaken
16.12.2016	Cleanless of KVK Instructional farm and office premises
29.12.2016	Awareness camp, awareness for destroying the pesticide container and plastic after use of pesticide.
16.01.2017	Awareness camp for destroying of plastic and non use of plastic bags, tharmocol, alluminium foils in daily use.
7.02.2017	Awareness camp for destroying of plastic and non use of plastic bags, tharmocol, alluminium foils in daily use.

Total 10 nos. Programmes and 470 nos participants + 29 nos. extension functionaries and KVK staff attended

9.6 Observation of National Science day

Date of Observation	Activities undertaken
28 th February 2017	Application of science in agriculture for sustainability

9. 7. Programme with Seema Suraksha Bal (BSF): Nil

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	No. of students & teacher present
Chopra Girls' High School	17.02.2017	High Tech horticulture and grafting procedure of fruit plants	Live sample and flow chart (model) and KVK demo unit	20 nos. girl students & 7 nos teacher
Sayedpur Babhantoli High School, Jhitkia	08.02.2017	Organic cultivation of vegetables and other crops	Gharowa Sabji Bagan and Live sample and flow chart (model) and KVK demo unit	20 nos. student & 2nos Assistant Teachers
Bidhannagar Santosini Vidya chakra Singh High School	07.02.2017, 09.02.2017	Course 1: Recent conservation technology of agriculture (Zero tillage SRI, Drum Seeder model) Course 2: Organic cultivation of vegetables with special reference to agriculture	SRI, Drum Seeder model Live sample and flow chart (model) and KVK demo unit	79 nos. of students & 5 nos of teachers on 07.02.2017 and 73 nos students & 6 nos teachers on 09.02.2017
Shyama Prasad Smriti Ramgank Balika Vidyalaya High School	08.02.2017	Plastic Byaboharer Khayati in agriculture and surrounding of the house	-Shed net, straw and Live sample and flow chart (model) and KVK demo unit	20 nos. girl students & 2 nos teachers
Total				212 nos of students & 22 nos teachers

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

Name of the state	Name of district/KVK	Date on which conducted	Number of participants		Name of public representative	Details of Technology Demonstrated and other programmes organized
			Farmers	Others		
West Bengal	Uttar Dinajpur	5.12.2016	465	17	Mr. Kanhaiyalal Agarwala ,MLA, Islampur, Panchayat Pradhan, Krishi Karmadhya kshya	Different promising seed of cereal, pulse and oil seeds, weaning food, vermicompost technology, exotic vegetables, IPM, INM, Resource Coservation Technology,* details report is given below.

Programme Details:

Inauguration:

The **Pre-rabi Krishi Mela and World Soil Day, 2016** was opened by honorable MLA, Sri. Kanhaiya Lal Agarwala, Islampur Constituency. Other Dignitaries present in that occasion were Sri. Subal Chandra Biswas, Block Development Officer, Chopra Block, Sri. Goutam Ghosh, DDM, NABARD, Mr. Debasish Dutta, Representation of Mr. Hamidul Rahaman, MLA, Chopra Constituency, , Md. Jakir Abedin, Sahakari Shabhapati, Chopra Panchayat Samity, Mr. Harmen Kindo, Father CARITUS (An esteemed NGO), Mr. Ranjit Singha, CDPO, Chopra Development Block and other line department officer. All the dignitaries visited exhibition stall and interact with KVK scientists regarding different proven technologies for dissemination in other areas of the district. Welcome address given by Senior Scientist and Head of the KVK. All dignitaries views their ideas regarding Soil Health and Scope of Organic Cultivation by maintaining Soil health.

Near about 260 soil samples has been collected during this year and 250 nos. soil samples has been analyzed during this year. Whereas 137 nos Soil Health cards distributed on the occasion of Pre-rabi Kisan Sammelan and World Soil Day. Rest 113 nos. soil health cards distributed earlier upto month of November, 2016.

As a part of continuous soil testing routine few farmers were presented Soil Health Card by the Hon'ble dignitaries in the Pre-rabi Krishi Meal and World Soil Day, 2016. Four nos. leaflets were published in this occasion regarding Soil Health Management that are entitled as i) "Mati Parikshar Gurutta O tar Padhyati(Imporatance of Soil Test and its procedure)" ii) "Matir Susasthye Matir Jibanur Bhumika (Role of Micro-organism regarding Soil Health Management)", iii) "Beguner Doga O Phal Phuto Kora Pokar Akramon Theke Bachar Upay (Control of Brinjal Fruit and Shoot Borer through different Management Practices)" iv) beguner Phal Phuto Kara Pokar Sampurito Pratikar Bhyabosthya (Integrated Pest Management of Brinjal Fruit and Shoot Borer) ".

After Tiffin break an Interaction Programme with farmers was organized by all the KVK Scientists. Where farmers asked recent problems that they faces in their field. Advices also given as their question asked by farmers problem. Also discussion regarding Winter crops as well as Pulse cultivation to maintain the soil health for

sustainable agriculture. Emphasis also given regarding increasing the area of Pulse and Oil seed crops and productivity too. A brief technological ideas was given to the farmers about importance of the Soil Health Day and why it is important to test their soils. At last the programme ended with vote of thanks by KVK Scientist.

FEW GLIMPSES OF PRE-RABI KRISHI MELA & WORLD SOIL DAY, 2016



Opening of Krishi Mela & World Soil Day by Hon'ble MLA



Technology demonstration by Senior Scientist and Head



Interaction with MLA about technology dissemination



Lightening lamp by Hon'ble Chief Guest



Welcome the Honorable guest by KVK scientist



Release of Leaflets regarding Soil Health



Distribution of Soil health Card by BDO, Chopra Development Block



Deliberation lecture by Chief Guest

9.10. Details of Pradhan Mantri Fasal Bima Yojana programme organized

Name of the state	Name of district/KVK	Date on which conducted	Number of participants		Name of public representative	Details of Technology Demonstrated and other programmes organized
			Farmers	Others		
West Bengal	Uttar Dinajpur	5.4.16	192	11	Public representative did attend the programme due to election code of conduct	Awareness programme

Awareness Campaign of *Pradhan Mantri Fasal Bima Yojna (PMFBY)* by Uttar Dinajpur Krishi Vigyan Kendra:

Name of the Sate	Name of the KVK	Date of organization	Name of dignitaries participated	No. of farmers and officials attended	Any other additional information
West Bengal	Uttar Dinajpur Krishi Vigyan Kendra	April 05, 2016	<ol style="list-style-type: none"> 1. Mr.Amit Sur, Manager, Axis Bank of India, Islampur, Uttar Dinajpur 2. Mr. Arindam Chowdhury, Sales Executive, Axis Bank of India, Islampur, Uttar Dinajpur 3. Smt. Sonali Dey, Assistant Director of Horticulture, Islampur Sub-Division, Islampur, Uttar Dinajpur 4. Dr. Dhananjoy Mandal, Senior Scientist and Head (Incharge) & SMS (Plant Protection), Uttar Dinajpur KVK 5. Mr. Debdas Sekhar SMS (Fishery Science), Uttar Dinajpur KVK 6. Dr. Anjali Sharma, SMS (Home Science), Uttar Dinajpur KVK 7. Dr. Moutusy Dey, SMS (Horticulture), Uttar Dinajpur KVK <ul style="list-style-type: none"> • No people representative could not attend the programme due to Assemble Election code of conduct in West Bengal, 2016 and other Bank representatives not able to attend the programme due to their own election training. 	242	In one day awareness campaign regarding Pradhan Mantri Fasal Bima Yojna (PMFBY) was organized by KVK at the KVK premises on April 05, 2016 to facilitate regarding scope of crop insurance, benefits, procedure and its modality for small and marginal farmers. Discussed regarding climate change, weather abnormality and others issues regarding the crop insurance. However, farmers were asked how to cultivate with new variety crops to meet the challenges of present adverse weather. They were informed about new variety of Oil seed, Pulses and Wheat. Ideas were incorporated to the farmers how to apply to the Bank/other insurance agencies for Fasal Bima Yojna. Farmers Club members were eagerly opined to to spread the message to their locality among the farmers as it is benefited for all farming community. PMFBJ video published by ICAR was shown to the farmers.

FEW PHOTOGRAPHS OF THE PROGRAMME



9.11. Contingent crop planning

Name of the state	Name of district/ KVK	Thematic area	Number of programmes organized	Number of Farmers contacted	A brief about contingent plan executed by the KVK
West Bengal	Uttar Dinajpur KVK	Crop planning for drought situation	03	201	Weed management of kharif crop: Introduction of Blackgram, Pigeon Pea and other pulses and leafy vegetables like as radish, spinach etc. as intermediate crop
West Bengal	Uttar Dinajpur KVK	Crop planning for flood situation	02	190	<ul style="list-style-type: none"> • Use of soil nitrogen based soil mud ball for low land situation • Where rice crop damaged due to flood condition, after drainage of water and introduction of leafy vegetables, like spinach, radish and early cole crops like cauliflower, cabbage etc.

9.12. Report on Citizens' Client Charter (attending the requests seeking guidance on agricultural technology and technology products)

Sl. No.	Services/ Transaction	Process	Service Standard	No. of such services attended by KVKs and ATICs during the year	No. of such services pending with KVK/ATIC beyond 30 days
1.	Guidance on Agricultural technology and technology products	Personal contact by the Service Sectors with the responsible person of KVK/ATIC		9911	Nil

9.13. Community Radio Station: Nil

Date of establishment:

Amount of fund received year wise :

Source of fund:

Achievements:

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

9.15 HRD programmes organized by the KVK: Nil

Training programme/ Seminar/ Symposia/ Workshop etc attended	Duration	Name of the participants	Designation	Organizer of the training Programme

9.16. Revenue generation:

SL.No.	Name of Head	Income(Rs.)	Sponsoring agency
1.	KVK Instructional farm (crops & Allied vocations)	120000.00	-
2.	Exposure visit, Training, Farmers Scientist Interection	221000.00	ATMA, Govt. of W.B & CAD C SAMETI, Narendrapur & ATMA Kishanganj
3.	Fodder Seed Production	150000.00	ARD, Govt. of W.B
4.	Consultancy	10000.00	
Total		5,01,000.00	

9.17. Resource Generation:

SL.No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created
1.	Capacity building FLD & asset creation	To empower Tribal farmers of Uttar Dinajpur district	ICAR, New Delhi (Education and Home Science Division)	12.98	Total Number of Asset created: 379 nos. (IFS model unit 2 nos, Low cost mushroom production unit =02 nos., Vermicompost production unit=05 nos., Azolla production unit=02 nos., Backyard poultry =10 nos., Backyard piggery =05 nos., Paddy thrasher =10 nos., Wheel hoe =20 nos., Tubular Maize sheller =75 nos., Naveen Sickle =100 nos., Kono Weeder= 10 nos., Knapsack Sprayer =05 nos., Light Trap =04, Improved Khurpi =100 nos., Hand Sprayer=02 nos., Seed Drill =05 nos., Pruning & budding knife =10 nos., Secketera =10 nos., Establishment of guava orchard=01 no., Establishment of Lime orchard=01 no.*
2.	Training FLD Technology Week	Transfer of technology	NABARD	5.53	1. 3 No. Vermicompost units* 2. 3 nos. Azolla pits* 3. 4 nos. Mushroom units*
3.	Awareness Programme	Awareness for Farmers' right Acts.	PPV & FRA	0.80	-
4.	Pre-Rabi Sanmelam & World Soil Day	Transfer of Technology & Observation of World Soil Day	Ministry of Agril. Coop, Govt. of India	0.80	-
5.	Training	Transfer of Technology and Capacity building	NFDB	0.98	-
6.	Training & farmers' scientist interection	Transfer of Technology and Capacity building	SAMETI, Narendrapur, ATMA Kishanganj, Dept. of Agriculture, Govt. of W.B.	0.75	-
7.	Exposure visits and Training	Transfer of Technology and Capacity building	Dept. of Agriculture, Govt. of W.B.	3.32	-
8.	CFLD – Pulse & Oil Seed	Promotion of area and Pulse, Oil Seed Production	Ministry of Agril. Coop, Govt. of India	9.45 (0.60 for technology agent)	-
9.	Fodder Seed Production	Production of Certified seed	Dept. of ARD, Govt. of W.B.	10.02	-
		Total(Rs. lakhs)		44.63	

*All asset created at village level

9.18. Performance of Automatic Weather Station in KVK : Nil

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

10. Achievement under TSP Project

Name of the village adopted under TSP	Block	Population of the village			ST Population of the village			Percentage of ST population to total population
		M	F	T	M	F	T	
Mollani	Chopra	752	628	1380	640	570	1210	87.68
Dhuliagachh	Chopra	217	157	374	194	142	336	89.84
Golamigachh	Chopra	674	643	1317	305	291	596	45.25
Jhitka Tutikata	GP - II	354	372	726	280	331	611	84.16
Machol	Karandipghi	854	761	1615	203	190	393	24.33

Physical achievements under TSP during 2016-17:

Programmes	Physical achievements 2016-17
Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)	382
On-farm trials (Number)	4
Frontline demonstrations (Number)	280
Farmers training (in lakh)	0.01239
Extension personnel training (in lakh)	0.00255
Participants in extension activities (in lakh)	0.01083
Seed production (in tonnes)	0
Planting material production (in lakh)	0.002
Livestock strains and fingerlings production (in lakh)	0
Soil, water, plant, manures samples testing (in lakh)	0.00077
Provision of mobile agro – advisory to farmers (in lakh)	0.09360
Others (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)	221

11. PROGRESS REPORT OF NICRA KVK (Technology Demonstration component) 2016-17: Nil

(Applicable for KVKs identified under NICRA)

Natural Resource Management

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

Crop Management

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

Livestock and fisheries

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

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

Sl. No.	Name of capacity building training programme	Duration (days)	Date of programme	Fund (Rs.) sanctioned by NFDB, Hyderabad	No. of Farmers trained	Remarks, if any
1	Breeding&Hatchery Management of IMC	5	19.9.16-23.9.16	49125.00	25	
2	Integrated Fish Farming	5	20.2.17-24.2.17	49125.00	25	
Total						

13. National Initiative on Fodder Technology Demonstration (NIFTD): Nil

- (Applicable for KVKs identified under NIFTD)

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

Economic of Demonstration

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

14. Awards/Recognition received by the KVK: Nil

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

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

15.a Herbal Gulal/Eco Holi colours preparation as an entrepreneurial activity by SHGs of Chopra block of Uttar Dinajpur district

Environmental safety is core concern of the world now. Our environment is degraded day by day mostly because of lack of awareness regarding its protection and safety. Uttar Dinajpur KVK has showed its interest in environmental safety and made farming community aware about the hazards of chemicals in our life.

Herbal Gulal preparation is also a step towards our health and environmental safety. In the month of January, February 2017 we have conducted four awareness camps for school children of different blocks of Uttar Dinajpur and in the same camps KVK has initiated a step on eco-Holi colours and its importance and made them aware of biodegradable products and safe chemicals. As the festival of colours Holi was coming so we had made them aware and requested them to use eco-holi colours and explained them the process of making Herbal Gulal at their home. Many of them were quite interested and very happy with this step. Few teachers who reside in urban localities has also showed their interest in purchasing the colours if available. Thereafter, KVK has imparted training to 3 Nos. SHGs viz., Mahaprabhu SHG, Dolua and Paglilgacch, Swarnayanti Mahila dal (2 Nos.), Sonapur to start Gulal preparation as entrepreneurial activity. After taking training SHGs has immediately started working on this project with technical support from KVK, Chopra. In the process of making herbal Gulals main base ingredient is arrowroot which is coloured with different natural colours extracted from Turmeric, petals of marigold flowers, beetroot, leaves of different plants and petals of different flowers etc., to get particular shade. Specific colouring material extract has to be added like for yellow colour we need turmeric extract and to get pink colour we need beetroot extract.

In the mean time SHGs have given a stall on Herbal Gulals in Technology Week and Krishi Mela 2017 organized by Uttar Dinajpur KVK at Chopra, Uttar Dinajpur. This is the main turning point for them. Delegates as well as my participants has praised their move and till the last day of the mela they have already sold their whole stock and has orders in their hands for further preparation. They were profited and got lift for further task.

Preparation of Herbal Gulal as entrepreneurial activity by SHGs is published by 4 Nos. Local papers and process documentation of Herbal Gulal preparation is done by Doordarshan, Jalpaiguri as well as private channels is News Time, Kolkata TV and CCN.

Uttar Dinajpur Krishi Vigyan Kendra acknowledge the effort of SHG members who were wholeheartedly involved in this activity and in a very short span worked hand to hand with KVK to make this endeavor a success. It is noteworthy that without any proper working place and modern equipment these women showed their presence in the society and made their own path for future business with technical support from KVK.



15.b. Mushroom cultivation for income generation

Hakimul Islam, mob no. 9609192916

Village: Diwanjagee

PO: Asaru Basti, Daspara, U/D



A young entrepreneur and source of inspiration to many others'. Hakimul Islam has established a 500 sq mtr. Mushroom cultivation farm with an average production of 320 kg per day where as average production of last year was 200 kg/day. He has started mushroom cultivation in the year 2011 and has been expanding his enterprise day by day. He has also motivated youths of near by villages and six of them have already started their own farms in their respective villages. Hakimul Islam came in contact with Uttar Dinajpur KVK and got capacity developed through rural youth training programme. Further he was sent to Ramkrishan Mission Ashram at Belur Math, Kolkata for exposure visit and training. Uttar Dinajpur KVK arranged one training programme for mushroom spawn production for him and other fellows at Uttar Banga Krishi Viswavidyalaya, CoochBehar. Resent serge in tourism development in the adjoining Himalayan and Dooars regions of the district subsequently mushrooming growth of hotels, restaurants has paved the way for consumption of their produce readily. At present Hakimul and their producer group (Pragati Mushroom Grower Association) produces on an average 500 kg fresh mushroom and market it to near by Siliguri market. Presently Hakimul has been earning a net profit of 75,000/- to 80,000/- per month and has become an idol to other youths of the locality. Now, other youths are also came to KVK for training and other technical support for self employment.

15.c Success Story on oyster mushroom Cultivation

Amrish Biswas

Mob.8942990477

Vill: Dakhin Aliganj

Post: Islampur

Uttar Dinajpur



Amrish Biswas is budding entrepreneur. He had taken rural youth training on mushroom cultivation from Uttar Dinajpur Krishi Vigyan Kendra and primarily started oyster mushroom cultivation at household level with KVK inputs and technical support. Gradually he got interested in commercial cultivation of oyster mushroom and had started small scale units in the area of 200sq. mtr. KVK has helped them in setting market linkages to sell their produce. Small grower like Amrish Biswas was linked with large growers at local level for selling their produce and to earn a definite income.


Now, other two farmers had set up their own units in the same village and collectively selling their produce to the larger producers group. They are also selling their produce at local market and getting better price than retail selling. They are in close contact with KVK for different technological support and flourishing with their small scale enterprise. Now they are planning to expand their business and even eager to try new varieties of mushrooms. Presently, on an average 140-150 kg of mushroom is being produced everyday at their farm and they sale the produce @Rs. 50/- per kg with a net profit of Rs.54,000- 58,000/- per month.

15.d. Case studies

Case Study 1: Mushroom production for household nutritional security and as an employment avenue for tribal families

Mushroom picking for food with the onset of monsoon showers have been customary in many parts of the country especially amongst the tribal communities. The wild edible mushrooms collected from different places are in good demand and is an item of trade for a few in the remote areas. Hence, sound knowledge and skill developed to identify the wild edible mushrooms collected from different places are in good demand and is an item of trade for in the remote areas. Hence, sound knowledge and skill developed to identify the wild edible mushrooms can provide opportunity for consultancy services on payment basis.

Mushroom production is still in its infancy and only a small fraction of the farming community is engaged in small scale seasonal production of mushrooms. Tourism is gaining impetus in almost all the Tarai regions these days which opens up to high demand for mushroom delicacies in the hotel business. Mushroom processing and value addition is another big avenue, which can be more profitable and also employment generating. Organic cultivation of some common mushrooms can be done with less effort and organic mushrooms can fetch premium price. Keeping in view, the increasing demand of fresh mushroom in the tourist spots of Dooars, Terai and Himalayan region. Uttar Dinajpur KVK initiated imparting skill development training on mushroom production to the rural youth and SHG members which in turned resulted development of 15 commercial mushroom producing entrepreneurs producing on an average 150 kg fresh mushroom per day per unit. Initially each producers used to sale their produce individually in local markets and at Siliguri. Seeing the difficulties in individual marketing, KVK intervene into the matter to establish one producers organization with the help of NABARD which is on the way to be established as a registered Producers Organization. Meanwhile KVK initiated the process of collecting fresh mushroom from each entrepreneur and supplying to the Siliguri and Nepal market collectively. Presently an average monthly income by each mushroom grower ranges between Rs. 50,000- 70,000 per month.

2. Tribal Case Study -I	
Name of the enterprise	Oyster and Milky Mushroom Cultivation
Name & complete address of the entrepreneur	Sumita Tudu, Member of Gulamigach Sidhukano SHG mob no. 9614562492 Village: Gulamigach PO: Ghorugach, Chopra, Uttar Dinajpur
Intervention of KVK with quantitative data support:	Technological backstopping and critical input
Time line of the entrepreneurship development	Sumita Tudu and her SHG members were participant of 8 days rural youth training on "Oyster mushroom production technology" from Uttar Dinajpur KVK and started a small scale unit after training. All members are very hard working and earning well from mushroom production.
Technical Components of the Enterprise	Mushroom production 
Status of entrepreneur before and after the enterprise	Before the establishment of mushroom unit, Sumita was tea garden labourer and during slack period she stay at home, no source of regular income.
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic	Selling fresh mushroom @Rs. 80-100/kg in local haats and also selling mushrooms in near by villages. She is also creating awareness among SHGs and farmers clubs to take this avenue for income generation. She is selling about 15-20 Kg produce per day

viability of the enterprise):	and getting net profit of Rs.4,000 to 5,000 per month.
Horizontal spread of enterprise	3 individual farmer and 2 other SHGs of nearby village also started the same venture

Case Study on low cost nutritional weaning food- 2:

Malnourishment amongst the pre-school children (0-5yrs age group) in Uttar Dinajpur district is alarming. As data reveals from District Project Office, ICDS, Uttar Dinajpur that around 10 percent children enrolled with 3737 numbers of Anganwari centres of the district are severely under weight and defined as **“Red-Children”**. The Integrated Child Development Service (ICDS) Uttar Dinajpur project through its 3737 service centre although provides different services including **“supplementary nutrition”** to the children. Keeping this alarming situation in view and considering the poor economic condition of a large section of community, Uttar Dinajpur Krishi Vigyan Kendra since its inception has taken rigorous activities for protocol development (Standardization) of various low cost nutritious weaning food utilizing locally available ingredients (Wheat, maize buckwheat, green gram, peanut, drumstick leaves etc.) through its mandated activities of On Farm Trials. After rigorous trials through several years Uttar Dinajpur Krishi Vigyan Kendra has been able to develop and standardize several formulations of low cost weaning foods. The calorie measurement and nutritive value of the feed formulations has been tested at CFTRI, Mysore. All the feed formulations passed the criteria on calorie measurement and nutritive value as per national standards.

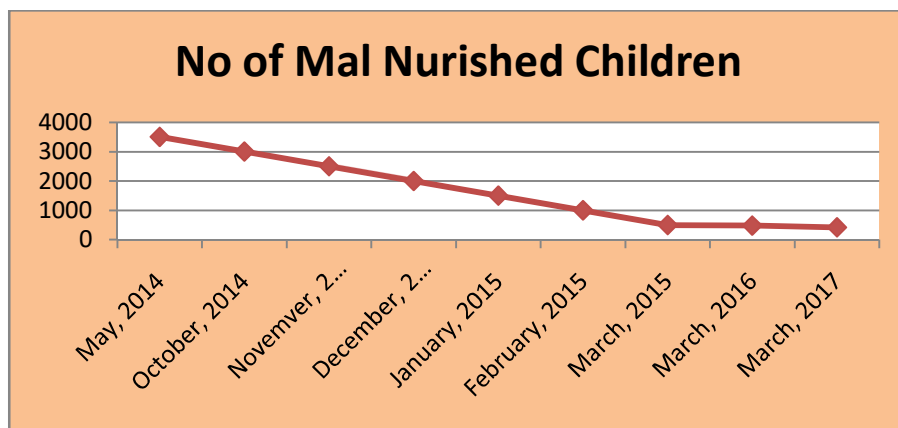
Up Scaling of Technology:

After standardization of feed formulation through On Farm Trials Uttar Dinajpur KVK started wide scale adoption of the technology through training of the SHG members and anganwari workers for capacity building and sensitization, Frontline demonstrations, case studies, awareness campaigns, field days etc. Three SHGs after getting trained from KVK, started producing low cost weaning food under direct supervision of KVK and selling it in the name of **SHISHU AAHAR** in the local Mela, rural haats, Krishi Mela, Swanirbhar Mela, Kanyashree Mela, Sabala Mela etc. As a result of which the brand name of **SHISHU AAHAR** got a wide spread popularity and preference amongst the resource poor farm families.

Wide Scale Adoption:

Revealing the results of different low cost nutritious weaning food formulations developed by KVK in child health development in different forums and meetings, the Uttar Dinajpur District Administration decided to incorporate the low cost nutritious weaning food **developed by Uttar Dinajpur Krishi Vigyan Kendra** in a project called **“PUSHTI”** – An initiative for providing additional nutritional supplements to the malnourished pre-school children through SHG networks of the district. Skill development training on preparation and quality control of low cost nutritional food was imparted to the selected SHG members by the KVK. DRDC was in need to supply 3007 packets of food supplement for the children and 2054 packets for the pregnant mothers in the district per week. DRDC negotiated the matter with 10 SHGs one each from ICDS block of the district to produce and supply required numbers of food packets to the concerned ICDS centre of the block. On the other hand DRDC remitted the fund for the cost of the food packets in the account of the concerned SHGs. The process has been established and running smoothly since October, 2014 to combat malnourishment among children and pregnant mothers. The positive impact of the food supplements provided to the malnourished children is revealed from the chart (Fig.1).

Fig 1. Monthly tracking of severely malnourished children in Uttar Dinajpur District after supplementing with low cost weaning food developed by KVK



Source : District ICDS Cell, Uttar Dinajpur, WB

Though Pusthi project is going in whole district, but Uttar Dinajpur Krishi Vigyan Kendra selectively worked in Tribal villages for eradication of malnutrition among children under its Frontline Demonstration programme. Details are following .

Sr. No.	Name Of Village	No. of Children	Adoption rate of technology
1.	Dhuliagacch	16	65%
2.	Gulamigacch	18	58%
3.	Jhitka Tutikata	23	45%
4.	Kadamtala	14	72%
5.	Dhonogacch	21	75%

Case study of Parbati Murmu who was born on 31st July, 2012 in a tribal family, middle child among three siblings at village Dhanoygacch of Chopra block of Uttar Dinajpur district of West Bengal. Unfortunately, she was a case of malnutrition and was residing with her parents and grandparents. Her father and mother was tea garden labourer. Family was scantily able to survive on hand to mouth income.

Plate1. Parbati with her mother and young sister

Uttar Dinajpur Krishi Vigyan Kendra came into contact with Parvati Murmu while conducting an on farm trial entitled 'Assessment of nutritional weaning food on children health'. Her birth weight was 2 Kg and 150 grams which was below Indian standard birth weight. She was depicting the clear signs of protein energy malnutrition viz. oedema, depigmentation of the hair, thin sparse hair, moon face and diffuse depigmentation of skin along with below standard of reference of anthropometric measurements due to growth retardation and low body weight for height etc.) Supplementary food 1 (Wheat: Green gram: Ground nut: Jaggery 30:20:8:20) was provided to girl who was just 9.5 kg at the age of three years. Per day 200 gm weaning food was given thrice a day in milk/water according to availability. After 20 days tremendous change in Parvati's condition was revealed and she had showed 200gm increase in body weight with little healthier body. Supplementary foods which were rich in essential dietary elements i.e. carbohydrates, protein and minerals etc. contributed to child's good health and significant increase in weight.



Within six months of trial Parvati has gained 2.50 kg extra weight to her earlier weight along with no signs of oedema, no sparse hairs and gradually regained good health. Now she is 12.2Kg at the age of three years and eight months and was upgraded to normal grade. Training on homemade low cost weaning food was



imparted in the village itself to Parvati's mother and other SHG members so that farm women would be able to make low cost weaning food on their own and would be able to fight malnutrition to some extent. Her mother is now at least able to manage and make weaning food at her home using locally available ingredients which cost only rupees 60.00 per kg.

Case Study 3: Organic Cultivation of BAU kul BER (*Ziziphus mauritiana*)

Sri Narayan Sarker, village Betbari, Aliganj, Islampur, Uttar Dinajpur, West Bengal an innovative farmer for horticultural (Fruits) and other crops and cultivating the BAU kul (Ber) *Ziziphus mauritiana* Round shaped for last 2 years through organic cultivation and which gave the huge productivity and profitability. Minimum infestation of pest and diseases and gave more yield.

- ✓ **Crop :** Kul/ BER Variety : BAU KUL;
- ✓ **Plant spacing :** 11 ftx11 ft;
- ✓ **No. Plants in acre :** 300 Nos
- ✓ **Pit Treatment:** *Trichoderma viride* @ 20 gm/ pit
- ✓ **Cow dung Treatment :** 3 Kg/ 300 kg cow dung
- ✓ **Planting time:** First week of April
- ✓ **Organic manure and Fertilizer:** Cow dung 40 kg /plant + Vermicompost 5 kg/ plant two times before and after rainy season
- ✓ **Foliar spray:** **KUNAPAJALA** spray at weekly interval (**KUNAPAJALA** a fermentation product of easily available Cow dung, Cow urine and ingredients as per availability like the fat, marrow, and the flesh of fish, goat, and other horned animals collected and stored in a clay pot for 20-25 days with water and mixed with extra water and spray.)
- ✓ **Irrigation:** As per requirement of the crop.
- ✓ **Pest Management:**

3. Spray of Neem oil 10000 ppm @ 2 ml/L as per pest infestation
4. Spray of Rishav as bio Acaricide (Miticide) when mite observed in the plants or fruits (**Content:** Oil of Wild plant seeds, Lactones, Terpenoids, Aqueous-Media and Alkaloids)

Cost of Cultivation: For 1 acre area

Sl. No	Particulars	Items	Amount (Rs.)
1	Plant Material	@ Rs.40/ pc	12000.00
2	Organic manure		48000.00
3	Foliar Material	KUNAPAJALA	15000.00

Sl. No	Particulars	Items	Amount (Rs.)
4	Bio Pesticide		2000.00
5	Labour Cost	Intercultural operation	10000.00
6		Spraying, weeding, irrigation etc	10000.00
10		Harvesting	15000.00
11	Irrigation		5000.00
12	Marketing		15000.00
13	Rent of Land		20000.00
14	Miscellaneous cost		10000.00
	Total cost of cultivation		1,62,000.00

Production : Average production 150 q / acre/ during second year and the production will be increased in subsequent year

Price : Average price round the year Rs. 3500/ q

Economics:

Total Production : 15 q/ acre and the production value @ Rs. 3500/ q
 $= 150 \times 3500.00 = \text{Rs. } 5,25,000.00$

Cost of Production : Rs. 1,62,000.00

Net Profit : Rs. (5,25,000.00 - 1,62,000.00) = Rs. 3,63,000.00/ acre/ year

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

17. Number of commodity based organizations/ farmers' cooperative society formed during last one year (Details of the group/society may be indicated):

Tulaipanji Producer Organization formed by NABARD, Uttar Dinajpur and Krishi Vigyan Kendra for export quality through organically production of local scented rice as Tulaipanji at Hemtabad and Raiganj block of Uttar Dinajpur district. Technically support for production has been given by Uttar Dinajpur Krishi Vigyan Kendra.

18. Any other programme organized by KVK not covered above:

Special coaching classess organized for theriotical examination as well as interview for competitative examination for Krishak Samman and Krishak Ratna award 2016-17.

- KVK farmer Sri. Nrinen Singha, Gohalogachh, Chopra, Uttar Dinajpur won Krishok Samman from Chief Minister of West Bengal selected from Uttar Dinajpur as the best farmer of the district in 2016-17 (State Level).
- Sri. Shyam Chandra Lala, Machol, Uttar Dinajpur won Krishon Ratna award at Block level best farmer since last three years in 2014-17.
- Sri. Prasanta Singha, Bilatibari, Uttar Dinajpur won Krishok Ratna award at block level (Chopra Block) for the best farmer of the block in 2016-17.