

## **ANNUAL REPORT 2018-19 (April 2018to March 2019)**

### **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	
Larkipali,Bolangir	06652250165	06652250165	<a href="mailto:kvkbolangir.ouar@gmail.com">kvkbolangir.ouar@gmail.com</a> bolangirkvk@yahoo.com

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

Address	Telephone		E mail
	Office	FAX	
OUAT,Bhubaneswar	0674-2397424	0674-2397919	ouatacademic62@gmail.com

#### **1.3. Name of Senior Scientist and Head with phone & mobile No.**

Name	Telephone / Contact		
	Residence	Mobile	Email
Ashis Kumar Das	NA	9437277301	bolangirkvk@yahoo.com

#### **1.4. Year of sanction of KVK: 2009**

1.5. Staff Position (as on 1<sup>st</sup> April, 2018)

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& Head	<b>Vacant</b>						
2	Subject Matter Specialist	Ashis Kumar Das ( & I/C PC)	Scientist( Plant Protection)	Entomology	15600+6000, 25780	26.12.2011	Temporary	Others
3	Subject Matter Specialist	Dr. Tapan Kumar Palai	Scientist (Animal Sc.)	Animal Sc.	15600+6000, 17610	17.06.2015	Temporary	Others
4	Subject Matter Specialist	Sarthak Pattanayak	SMS (Agronomy)	Agronomy	15600+5400, 15600	13.06.2018	Temporary	Others
5	Subject Matter Specialist	Rahul Dev Behera	SMS (Soil Sc.)	Soil Science	15600+5400 15600	28.11.2018	Temporary	SC
6	Subject Matter Specialist	<b>Vacant</b>						
7	Subject Matter Specialist	<b>Vacant</b>						
8	Programme Assistant	<b>Vacant</b>						
9	Computer Programmer	Sri Rabi Narayan Satapathy	Programme Assistant(Computer)	Information technology	9300+4200, 17050	21.11.2009	Temporary	Others
10	Farm Manager	Sagarika Muna	Farm Manager	Horticulture	9300+4200, 10,560	01.01.16	Temporary	ST
11	Accountant / Superintendent	<b>Vacant</b>						
12	Stenographer	<b>Vacant</b>						
13.	Driver	Upendra Mishra	Driver cum Mechanic	-	5200+1900, 7400	06.05.11	Temporary	Others
14.	Driver	Biswabasi Sarangi	Driver cum Mechanic	-	4750+1500, 6110	14.02.14	Temporary	Others
15.	Supporting staff	Prafulla Palei	Peon-cum-Watchman	-	4750+1500, 7670	28.06.14	Temporary	OBC
16.	Supporting staff	Krushna Ch Rout	Peon-cum-Watchman	-	5550+1500	01.12.14	Temporary	OBC

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	0.4
2.	Under Demonstration Units	0.2
3.	Under Crops	12.0
4.	Orchard/Agro-forestry	0.5
5.	Others with details	2.9
	Total	16.0

*Total area should be matched with breakup*

1.7. Infrastructure Development:

A) Buildings and others

S. No.	Name of infrastructure	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (sq.m)	Under use or not*	Source of funding
1.	Administrative Building					Yes	550	to be used shortly	ICAR
2.	Farmers Hostel	Not started							
3.	Staff Quarters (6)	Not started							
4.	Piggery unit	Not started							
5	Fencing			Incomplete / 2000 running ft. required					RKVY
6	Rain Water harvesting structure	Not started							
7	Threshing floor	Not started							
8	Farm godown		Completed up to plinth level						
9.	Dairy unit								
10.	Poultry unit					Yes	9×5mt	Under Use	RKVY
11.	Goatary unit	Not started							
12.	Mushroom Lab					Yes (spawn production)		Under Use	RKVY

13.	Mushroom production unit								
14.	Shade house					yes	18X5.5m	Under Use	RKVY
15.	Soil test Lab	Not started							
16	Seed Processing Unit				yes				ICAR

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

#### B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Mahindra Bolero	2010	5.0 lakh	149084	Running
Massey Tractor+trailer	2010	6.0 lakh	0966	Running
Motor Cycle	2012	0.53lakh	8407	Running

## C) Equipment &amp; AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab equipment (HomeScience)				
Digital refractrometer (B.P.Lab make)-1 no	2017-18	14,950	Functioning	ICAR
Drying Cabinet, Model BPL-25 (B.P.Lab make)—1 no	2017-18	19,898	Functioning	ICAR
Crown cap sealing machine (seapack make)-1 no,	2017-18	5900	Functioning	ICAR
Vaccum cap sealing machine (seapack make)-1 no	2017-18	1980	Functioning	ICAR
StainlessSteelKnife,strainer,decanter,measuring cup set,glass jar -1 no each	2017-18	2322	Functioning	ICAR
Food processor Fx10 (Bajaj make)-1 no	2017-18	4950	Functioning	ICAR
b. Farm machinery				
Rotavator	2012-2013	86,100	Running	ICAR
Seed cum fertilizer drill	2012-2013	52,100	Running	ICAR
Power thresher cum fan type winner(2nos)	2012-2013	39,600	Running	ICAR
Power sprayer(2nos)	2012-2013	12,688	Running	ICAR
Nine tyne cultivator	2012-2013	12,400	Running	ICAR
Rotavitor	2012-2013	86,100	Running	ICAR
c.AV Aids				
P A System	2011-12	43,445	Functioning	ICAR
DVD Player	2011-12	3790	Functioning	ICAR
Digital camera	2011-12	22,500	Functioning	ICAR
LCD	2011-12	34,900	Functioning	ICAR
Handy cam	2011-12	39,500	Functioning	ICAR
LCD Projector	2011-12	40,163	Functioning	ICAR
Sony Digital camera	2011-12	16,470	Functioning	ICAR
Nikon Digital camera	2011-12	4798	Functioning	ICAR
Picco projector	2017-18	22,000	Functioning	ICAR

## D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
Rotavator	2012-2013	86,100	Running	ICAR
Seed cum fertilizer drill	2012-2013	52,100	Running	ICAR
Power thresher cum fan type winner(2nos)	2012-2013	39,600	Running	ICAR
Power sprayer(2nos)	2012-2013	12,688	Running	ICAR

Nine tyne cultivator	2012-2013	12,400	Running	ICAR
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#### 1.8. Details SAC meeting\* conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1	6.9.18	35	In major thrust areas, effort should be made for doubling the farmers income.	Modules on Doubling the farm income have been prepared and being implemented in three farming situations at five villages.	
			Each SHG of Bolangir has an approval of Rs 10,000/ towards procurement of drudgery reducing farm implements, they may be trained on use of such farm implements for procurement.	KVK has conducted training on drudgery reduction tools and their usage to 150 farm women members of SHGs under Watershed departments.	
			Promotion of scientific management aspect of crop rather than varietal aspect/substitution.	Intervention on management and scientific crop husbandry have been given importance while formulating the action plan.	
			Promotion of seed production of onion variety Agri Found Light Red in the district so as to get quality seeds with awareness of farmers for transplanting in September.	On farm testings on seed production of Onion have been taken up and the result will be discussed .	
			Training programmes on canopy management of mango orchard should be given to more farmers with awareness programme for better adoption.	Trainings under canopy management in Mango with other aspects have been taken up in action plan of KVK during this year.	
			Development of technology package on season specific, drought specific, disease specific variety of paddy, greengram, cotton, blackgram for the District may be done.	This has been taken care of by KVK , but the progress was slow. In the event of joining of Scientist in Agronomy, he has been entrusted with this job and soon literature bulletins may be published.	
			Popularisation of non BT cotton in the District may be taken up	Cotton growers are being advised and trained for growing non-Bt cotton, but farmers are more interested for going into Bt cotton cultivation. However , a new initiative has been taken up this year for production of Organic Cotton by the SMS( Cotton) with capacity building of farmers by KVK.	
			Cluster demonstration on oilseed and pulses programme should be conducted in convergence mode so as to have quantifiable impact . Agril. Deptt.	The selection of farmers and site are being done with consultation of line deptt. officials. In every month Research Extension Linkage	

			, District Watershed, Reliance Foundation may be approached for selection of patches & farmers from their operational area.	meeting is being conducted at KVK to discuss activities and work in convergence mode.	
			Documentation of achievements on technologies assessed during last five years may be done.	The process has been completed and ready to go to press for publication and those will be distributed among the stake holders.	

*\* Salient recommendation of SAC in bullet form*

*Attach a copy of SAC proceedings along with list of participants*

## 2.a. District level data on agriculture, livestock and farming situation (2018-19)

Sl. no.	Item	Information
1	Major Farming system/enterprise	Agriculture+Horticulture+Animal Husbandry
2	Agro-climatic Zone	Western Central table land zone
3	Agro ecological situation	Plain land Irrigated; Plain land rainfed; Undulating Sub mountaneous track ; Undulating plain drought prone
4	Soil type	Mixed Red &black, Red, laterite &Mixed red and yellow
5	Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others	Paddy- 24 q/ha ,Arhar-12q/ha,Greengram-9q/ha,Groundnut-18q/ha,Sunflower-11q/ha
6	Mean yearly temperature, rainfall, humidity of the district	27.1°C, 855mm, 56 %
7	Production of major livestock products like milk, egg, meat etc.	Milk-88.01 TMT/ annum) ; Egg-370 Million/annum) ; Meat-10.13 TMT/annum)

Note: Please give recent data only

## 2.b. Details of operational area / villages (2018-19)

Sl. No.	Name of Taluk	Name of the block	Name of the villages	Major crops & enterprises	Major problems identified (crop-wise)	Identified Thrust Areas
1	Bolangir	Puintala	Banabahal	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Severe soil erosion in sloppy uplands. Severe crop weed competition in Kharif upland crops .	Crop diversification, Integrated Nutrient Management Practices,
2	Patnagarh	Patnagarh	Kaudia	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Fishery, Mushroom	Soil acidity - Poor knowledge about soil testing and soil health management Severe crop weed competition in Kharif upland crops	Quality seeds and seedling, Integrated Disease and pest, Weed management .Off season vegetable, Farm mechanization,
3	Bolangir	Puintala	Sirabahal	Paddy, Greengram, Arhar, Cucumber, Tomato, Mango Vegetable, Poultry, Goat, Mushroom	Non availability of waste land management techniques. Severe crop weed competition in Kharif upland crops	Crop diversification, Farm mechanization, promotion of nutritional garden
4	Bolangir	Bolangir	Baragaon	Paddy, Greengram, Arhar, Cucumber, Mango, Banana Vegetable, Poultry, Goat, Mushroom	Lack of storage facility for fruits and vegetables. Severe crop weed competition in Kharif upland crops	Crop diversification, Quality seeds and seedling, promotion of nutritional garden
5	Patnagarh	Patnagarh	Dhodamahuli	Paddy, Greengram, Arhar, Cucumber, Tomato Vegetable, Poultry, Goat	Severe crop weed competition in Kharif upland crops Soil erosion,	Crop diversification, Farm mechanization, promotion of nutritional garden
					Non availability of waste land management techniques	



6	Bolangir	Deogaon	Budelguma	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Inadequate knowledge about post harvest technology Lack of storage facility Severe crop weed competition in Kharif upland crops	Crop diversification, , Quality seeds and seedling, Farm mechanization, promotion of nutritional garden
7	Bolangir	Loisingha	Magurbeda	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Inadequate knowledge about post harvest technology	Quality seeds and seedling, Integrated Disease and pest, Weed management Off season vegetable, Farm mechanization,
8	Patnagarh	Patnagarh	Tamiya	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Lack of storage facility for fruits and vegetables Poor nutrient status and low water holding capacity of soil	Recycling of farm waste through vermicomposting, Crop diversification
9	Patnagarh	Patnagarh	Bijamagur	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Severe crop weed competition in Kharif upland crops Non availability of waste land management techniques	Crop diversification, Integrated Nutrient Management Practices, Quality seeds and seedling,
10	Bolangir	Saintala	Budhabahal	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Lack of irrigation facility during Rabi/Summer except Hirakud command area Severe crop weed competition in Kharif upland crops Lack of storage facility for fruits and vegetables	Off season vegetable, Farm mechanization, promotion of nutritional garden
11	Bolangir	Loisingha	Dhauradadar	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Lack of storage facility for fruits and vegetables Inadequate knowledge about post harvest technology	Recycling of farm waste through vermicomposting, Off season vegetable, Crop Diversification
12	Bolangir	Deogaon	Uparjhar	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Non availability of waste land management techniques Severe crop weed competition in Kharif upland crops	Farm mechanization/drudgery reduction of farm women
13	Bolangir	Bolangir	Gandhrel	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Severe crop weed competition in Kharif upland crops	Offseason vegetable cultivation

14	Bolangir	Loisingha	Talliudar	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Low and imbalance use of manures and fertilizers in all crops Lack of storage facility for fruits and vegetables	Crop diversification, Integrated Nutrient Management Practices, Quality seeds and seedling, Off season vegetable,
15	Bolangir	Bolangir	Larkipalli	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Low availability and adoption of dryland farming technique  Major weed problem in Kharif crops.	Crop diversification, Integrated Nutrient Management Practices, Farm mechanization, promotion of nutritional garden
16	Patnagarh	Patnagarh	Kutumunda	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Poor nutrient status and low water holding capacity of soil Lack of storage facility for fruits and vegetables	Crop diversification, Off season vegetable, promotion of nutritional garden
17	Bolangir	Deogaon	Jalia	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat, Mushroom	Poor nutrient status and low water holding capacity of soil Lack of storage facility for fruits and vegetables	Quality seeds and seedling, Off season vegetable, Farm mechanization, promotion of nutritional garden
18	Bolangir	Gudvella	Saragada	Paddy, Greengram, Arhar, Cucumber, Vegetable, Poultry, Goat	Severe soil erosion in sloppy uplands Lack of storage facility for fruits and vegetables	Integrated Nutrient Management Practices, Quality seeds and seedling, Farm mechanization, promotion of nutritional garden

## 2. c. Details of village adoption programme:

Name of the villages adopted by PC and SMS (2018-19) for its development and action plan

Name of village	Block	Action taken for development
Bargaon	Bolangir	Assessment on Integrated Management of Fruit flies in Pointed gourd FLD on Management of Downey Mildew in cucumber, Growth regulator in Brinjal, Poultry, Goat Feeding and Deworming, Cow feeding trial
Banabahal	Puintala	FLD on Management of Downey Mildew in cucumber, Poultry, Fodder
Sirabahal	Puintala	FLD on Management of bud necrosis in groundnut
Kaudia	Patnagarh	FLD on Management of Maize stem borer, Anthracnose in Mango, Fodder cultivation

## 2.1 Priority thrust areas

S. No	Thrust area
1.	Crop diversification
2.	Integrated Nutrient Management Practices
3.	Integrated Disease and pest Management
4.	Quality seeds and seedling production
5.	Income generation activities for rural women /school dropouts
6.	Value addition to seasonal vegetables/fruit
7	Feeding Management in Cows and Goats
8	Women empowerment through backyard poultry
9	Sustainable Livestock production during dry season
10	Proper health management of domestic animals and birds
11	Weed management and soil processing
12	Substitution of ruling varieties with improved /hybrid varieties
13	Market linkage and production strategies
14	Recycling of farm waste through vermicomposting
14	Farm mechanization/drudgery reduction of farm women
15	Offseason vegetable cultivation
16	Promotion of nutritional garden for nutritional security
17	Introduction of suitable varieties with improved packages of practices

18	Effective use of family labour through need based livelihood option
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### 3. TECHNICAL ACHIEVEMENTS

#### 3.A.Details of target and achievement of mandatory activities by KVK during the year 2018-19

OFT												FLD													
No. of technologies tested:												No. of technologies demonstrated:													
Number of OFTs		Number of farmers										Number of FLDs		Number of farmers											
Target	Achieve ment	Target	Achievement										Target	Achieve ment	Target	Achievement									
			SC		ST		Others		Total						SC		ST		Others		Total				
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T		
8	8	56	11	0	5	0	41	0	57	0	57	17	17	170	24	7	11	5	117	8	152	20	172		

Training												Extension activities											
Number of Courses		Number of Participants										Number of activities		Number of participants									
Tar get	Achie vemen t	Tar get	Achievement									Targ et	Achie vemen t	Tar get	Achievement								
			SC		ST		Others		Total						SC		ST		Others		Total		
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T
80	94	24 00	879	70	26 5	2 3	199 8	140	3134	231	3405	1350	1349	100 00	23 20	17 5	44 6	77	69 95	16 50	97 61	1902	1166 3

Impact of capacity building											Impact of Extension activities											
Number of Participants trained		Number of Trainees got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)									Number of Participants attended		Number of participants got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)									
Target	Achievement	SC		ST		Others		Total			Target	Achievement	SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T			M	F	M	F	M	F	M	F	T	
130	130	8	0	4	0	19	0	31	0	31	7000	8122	32	10	18	8	44	21	94	39	133	

Seed production (q)		Planting material (in Lakh)	
Target	Achievement	Target	Achievement
165	165	2.5	2.625

Livestock strains and fish fingerlings produced		Soil, water, plant, manures samples tested	
Target	Achievement	Target	Achievement
300 nos.	185 nos.	150 nos.	70nos.

\* Give no. only in case of fish fingerlings

Publication by KVKs							
Item	Number	No. circulated	No. of Research papers in NAAS rated Journals	Highest NAAS rating of any publication	Average NAAS rating of the publications	Details of awarded publication, if any	Details of Award given to the publication
Research paper	2	-					
Seminar/conference/ symposia papers	3	-					
Books	1	20					
Bulletins							
News letter	1	500					
Popular Articles	4	-					
Book Chapter	2	-					
Extension Pamphlets/ literature	7	4220					
Technical reports	20						
Electronic Publication (CD/DVD etc)							
TOTAL	40	4740					

## 1 Achievements on technologies assessed and refined

## OFT-1

1.	Title of On farm Trial	Assessment of tolerant varieties of Rice against BPH/ WBPH infestation
2.	Problem diagnosed	BPH / WBPH infestation in lowland paddy growing area due to susceptible variety i.e, Swarna
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TOP 1: Growing of Rice variety Hasanta ,Small bold grains, white kernel, straw colour hull. Tolerant to BPH , leaf folder, blast, sheath blight  TOP 2: Growing of Rice variety Pooja ,Medium size, slender grain , tolerant to drought condition , Tolerant to BPH & WBPH
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	. Varietal substitution
6.	Performance of the Technology with performance indicators	No of panicle /m <sup>2</sup> yield/ha
7.	Final recommendation for micro level situation	Growing of Rice variety Hasanta ,Small bold grains, white kernel, straw colour hull. Tolerant to BPH , leaf folder, blast, sheath blight
8.	Constraints identified and feedback for research	Non availability adequate amount of variety
9.	Process of farmers participation and their reaction	Farmers are readily to adopt the variety due to higher yield and less insect pest incidence

*Thematic area:* Varietal substitution

**Problem definition:** BPH / WBPH infestation in lowland paddy growing area due to susceptible variety i.e, Swarna

**Technology assessed:**

TOP 1: Growing of Rice variety Hasanta ,Small bold grains, white kernel, straw colour hull. Tolerant to BPH, leaf folder, blast, sheath blight

TOP 2: Growing of Rice variety Pooja ,Medium size, slender grain , tolerant to drought condition , Tolerant to BPH & WBPH

**Table: 1**

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	B:C ratio
		Panicles/m <sup>2</sup>	Grains/panicle	Test wt. (100 grain wt.)						
FP	7	257.6	95.8	19	23	35.8	Rs. 30,800	62,650	31,850	2.03
TOP 1	7	278.9	106.8	21	7.6	48.6	Rs. 30,800	84,700	53,900	2.75
TOP 2	7	279.7	109.9	22	10.2	44.5	Rs.30,800	77,875	47,075	2.52

## OFT-2

1.	Title of On farm Trial	Assessment weed Management practices in Rice
2.	Problem diagnosed	Monocot and dicot weed infestation in lowland & medium land paddy growing area
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TOP 1: Pre-emergence application Bensulfuron Methyl 0.6% + Pretilachlor 6% (RM) @ 10kg/ ha  TOP 2: Pre-emergence application Bensulfuron Methyl 0.6% + Pretilachlor 6% (RM) @ 7.5kg/ ha + Post emergence application of Bispyribac sodium @ 25 gm /ha
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	. Weed Management
6.	Performance of the Technology with performance indicators	No of panicle /m <sup>2</sup> ·yield/ha
7.	Final recommendation for micro level situation	TOP 2: Pre-emergence application Bensulfuron Methyl 0.6% + Pretilachlor 6% (RM) @ 7.5kg/ ha + Post emergence application of Bispyribac sodium @ 25 gm /ha
8.	Constraints identified and feedback for research	Less weed incidence
9.	Process of farmers participation and their reaction	Farmers are ready to adopt the technology.

*Thematic area:* Weed Management

**Problem definition:** Monocot and dicot weed infestation in lowland & medium land paddy growing area

**Technology assessed:**

TOP 1: Pre-emergence application Bensulfuron Methyl 0.6% + Pretilachlor 6% (RM) @10kg/ ha

TOP 2: Pre-emergence application Bensulfuron Methyl 0.6% + Pretilachlor 6% (RM) @ 7.5kg/ ha + Post emergence application of Bispyribac sodium @ 25 gm /ha

**Table: 1**

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	B:C ratio
		No. of effective tillers/hill	No. of spikelet per panicle	Test wt. (100 grain wt.)						
FP	7	257.6	95.8	19	23.2	42	Rs.30,200	73500	43300	2.43
TOP 1	7	278.9	106.8	21	21.1	46	Rs.29,700	80500	50800	2.71
TOP 2	7	279.7	109.9	22	21.1	49	Rs.31,200	85750	54550	2.74

**OFT-3**

1.	Title of On farm Trial	Assessment of effect of different date of sowing on yield of Cotton
2.	Problem diagnosed	Sowing time of cotton coincides with onset of monsoon ( generally first week of July) leading to wide gap in productivity
3.	Details of technologies selected for assessment/refinement (Assessed)	TO-1 : Sowing during 3 <sup>rd</sup> week of June TO-2 : Sowing during 4 <sup>th</sup> week of June
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RRTTS, Bhawanipatna , 2013
5.	Production system and thematic area	Irrigated up / medium land : Cotton – Pulses cropping system
6.	Performance of the Technology with performance indicators	Yield ( TO-1 : 10.41 Q/ha , TO-2 : 12.12 Q/ha ); Days to first plucking ( TO-1 : 133.5 days , TO-2 : 130.8 days ) ; Boll diameter (TO-1 : 4.31 cm, TO-2 : 4.57 cm )
7.	Final recommendation for micro level situation	Sowing of cotton during 4th week of June for higher yield due to pre seasoning of seeds in warm soil for better germination and growth at the onset of monsoon
8.	Constraints identified and feedback for research	Difficulty in land preparation before monsoon and Cotton of shorter duration ( 120 to 130 days ) may be developed for rainfed areas
9.	Process of farmers participation and their reaction	Farmers participated from start of land preparation to harvesting. Happy with the higher yield.



*Thematic area: Crop production*

Problem definition: Sowing time of cotton coincides with onset of monsoon (generally first week of July) leading to wide gap in productivity

Technology assessed: TO-1: Sowing of cotton during 3<sup>rd</sup> week of June and TO-2 : Sowing during 4th week of June against sowing during 1<sup>st</sup> week of July as farmers practice

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Boll diam. in cm	Days to first plucking	Test wt. (100 grain wt.)						
Sowing of cotton during 3 <sup>rd</sup> week of June	7	4.31	133.5	-	Incidence of leaf curling (24 %) and jassids (18 %)	10.41	18500	56734	38234	3.06
Sowing of cotton during 4th week of June	7	4.57	130.8	-	Incidence of leaf curling (26%) and jassids (15 %)	12.12	19500	66054	46554	3.38

Results: Sowing during 4th week of June gives yield 12.12 Q/ha. as compared to 10.41 Q/ha sown during 3<sup>rd</sup> week of June

**OFT-4**

1.	Title of On farm Trial	Assessment of integrated management of fruit flies in pointed gourd
2.	Problem diagnosed	Low yield from Pointed gourd due to moderate to severe infestation of fruit flies
3.	Details of technologies selected for assessment/refinement (Assessed)	TO- 1: Earthing up around the vine + Installation of Poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of malathion @ 1.5 ml /lit at 10 days interval TO- 2: Earthing up around the vine + Installation of poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of Protein hydrolyisate (0.3%)+ Thiamethoxam @0.4gm /lit at 10 days interval

4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT- 2016
5.	Production system and thematic area	Irrigated up / medium land : Vegetable-vegetable cropping system
6.	Performance of the Technology with performance indicators	Yield ( TO-1 : 213.14 Q/ha , TO-2 : 219 Q/ha ); Extent of infestation ( TO-1 : 13.1 % , TO-2 : 12.52 % ); Size of fruit (TO-1 : 5.82 cm, TO-2 : 6.1 cm )
7.	Final recommendation for micro level situation	Earthing up around the vine + Installation of poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of Protein hydrolisate (0.3%)+ Spraying Thiamethoxam@0.4gm/lit at 10 days interval
8.	Constraints identified and feedback for research	Difficulty in spraying and timely installation of poison bait
9.	Process of farmers participation and their reaction	Farmers participated during all IPM measures. Happy with the adult catch in the bait and higher yield.

*Thematic area: Crop production*

Problem definition: Low yield of quality pointed gourd due to infestation of fruit fly leading to yellowing, dropping and rotting of fruits

Technology assessed: TO-1: Earthing up around the vine + Installation of Poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of malathion @ 1.5 ml /lit at 10 days interval TO-2 : Earthing up around the vine + Installation of poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of Protein hydrolisate (0.3%)+ Spraying Thiamethoxam@0.4gm/lit at 10 days interval

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of healthy fruits/ Vine	Size of fruit (cm)	Test wt. (100 grain wt.)						
Earthing up around the vine + Installation of Poison Bait (10ml malathion+ 50 gm	7	47	5.82	-	Infestation of fruit by fruit flies (13.1 %)	213.14	71500	319710	248210	4.47

jaggery /lit) @ 20/ha and need based spraying of malathion @ 1.5 ml /lit at 10 days interval										
Earthing up around the vine + Installation of poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of Protein hydrolysate (0.3%)+ Spraying Thiamethoxam@0.4gm/lit at 10 days interval	7	61	6.1	-	Infestation of fruit by fruit flies (12.52 %)	219	72500	328500	256500	4.53

Results: IPM measures like Earthing up around the vine + Installation of poison Bait (10ml malathion+ 50 gm jaggery /lit) @ 20/ha and need based spraying of Protein hydrolysate (0.3%)+ Spraying Thiamethoxam@0.4gm/lit at 10 days interval controls the incidence of fruit flies at appreciable limit

#### OFT-5

1.	Title of On farm Trial	Performance of foliar application of nutrients on yield of green gram
2.	Problem diagnosed	Low yield due to no application of fertilizer
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TOP 1 : Foliar application 2 % DAP at pre flowering and 15 days after first spray TOP 2 : Foliar application 2 % NPK (19:19:19) pre flowing and 15 days after first spray
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	Nutrient Management.
6.	Performance of the Technology with performance indicators	No of pods per plant
7.	Final recommendation for micro level situation	Foliar application 2 % NPK (19:19:19) pre flowing and 15 days after first spray resulted higher production
8.	Constraints identified and feedback for research	Difficulty in spraying due to growth of canopy in the main field
9.	Process of farmers participation and their reaction	Farmers participated well and happy with the result

*Thematic area:* Nutrient management

Problem definition: No application of fertilizer

Technology assessed: TOP 1: Foliar application 2 % DAP at pre flowering and 15 days after first spray, TOP 2: Foliar application 2 % NPK (19:19:19) pre flowering and 15 days after first spray

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of effective tillers/hill	No. of spikelet per panicle	Test wt. (100 grain wt.)						
Greengram	7					8.0	25,720	48,000	22,280	1.86
						9.5	28,870	57,000	28,130	1.97
						9.7	29,050	58,200	29,150	2.00

#### OFT-6

1.	Title of On farm Trial	Assessment of low cost farm made feed formulations for cost effective milk production in cows
2.	Problem diagnosed	High cost of commercial cow feed leads to increase in cost of production of milk
3.	Details of technologies selected for assessment/refinement (Assessed)	TOP1:Low cost farm made feeding @ 3-3.5kg/day (Maize-40% , GNOC-25%, DORB 20%, wheat bran/chuni 10%, Mineral mix and Salt 5%)  TOP2: Low cost farm made feeding @ 3-3.5kg/day (Maize-30, broken rice 10%, GNOC-20%, MOC-5% DORB 20%, wheat bran/chuni 10%, Mineral mix and Salt 5%)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	NDDB, 2012

5.	Production system and thematic area	Livestock Production Management (Homestead)
6.	Performance of the Technology with performance indicators	Milk Production l./day (TOP1: 6.3l/day, TOP2:6.3l/day)
7.	Final recommendation for micro level situation	(Maize-30, broken rice 10%, GNOC-20%, MOC-5% DORB 20%, wheat bran/chuni 10%, Mineral mix and Salt 5%. Feeding @ 3-3.5kg/day/cow
8.	Constraints identified and feedback for research	Readily availability of Oil cakes
9.	Process of farmers participation and their reaction	Farmers participated in Feed preparation mixing the ingredients and happy with the acceptability from the cow with decrease in cost of production

*Thematic area: Livestock Production and Management*

Problem definition: High cost of commercial cow feed leads to increase in cost of production of milk mainly in case of 5-6l/day yielders

Technology assessed:

TOP1: Low cost farm made feeding @ 3-3.5kg/day

(Maize-40% , GNOC-25%, DORB 20%, wheat bran/chuni 10%, Mineral mix and Salt 5%)

TOP2: Low cost farm made feeding @ 3-3.5kg/day

(Maize-30, broken rice 10%, GNOC-20%, MOC-5% DORB 20%, wheat bran/chuni 10%, Mineral mix and Salt 5%)

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of effective tillers/hill	No. of spikelet per panicle	Test wt. (100 grain wt.)						
Maize-40% , GNOC-25%, DORB 20%, wheat bran/chuni 10%, Mineral mix and Salt 5% feeding @ 3-3.5kg/day	3	-	-	-	-	6.3l/day	46.5/day/cow	44,100/cow/yr	28000/cow/yr	2.79
Maize-30, broken rice 10%, GNOC-20%, MOC-5% DORB 20%, wheat	3	-	-	-	-	6.3l/day/cow	45/day	44,100/cow/yr	28,350/cow/yr	2.8

bran/chuni 10%, Mineral mix and Salt 5%) feeding @ 3-3.5kg/day										
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**OFT-7**

1.	Title of On farm Trial	Assessment of concentrate and mineral mixture supplementation on body weight gain in goats
2.	Problem diagnosed	Slow Body weight gain in goats due to browsing as the main source of feeding without any further feed supplementation throughout the year
3.	Details of technologies selected for assessment/refinement (Assessed)	TOP1:Browsing + Concentrate @100g/adult goat TOP2:Browsing + Mineral mixture @10g/adult goat TO3: Browsing + Concentrate @100g/adult goat + Mineral mixture @10g/adult goat (Deworming in all treatments, selection of 3months old goats)
4.	Source of Technology (ICAR/AICRP/SAU/other, please specify)	CIRG, 2012 NIANP, 2014
5.	Production system and thematic area	Livestock Production Management (Extensive-browsing)
6.	Performance of the Technology with performance indicators	Body weight gain (6m to 9m age) TOP1: 4.75Kg/3m TOP2: 3.03Kg/3m TOP3: 5.95Kg/3m
7.	Final recommendation for micro level situation	Browsing + Concentrate @100g/adult goat. Concentrate feeding on daily basis will increase the body weight gain in goat which will also be cost effective in-comparison to trial with both concentrate and mineral mix.
8.	Constraints identified and feedback for research	Area specific mineral mixture may be tried for justified result
9.	Process of farmers participation and their reaction	Farmers happy with the result of concentrate feeding in goat.

*Thematic area: Livestock Production and Management*

Problem definition: Slow Body weight gain in goats as browsing is the main source of feeding without any further feed supplementation throughout the year. The major concern is lean season when there is no grass to browse.

Technology assessed:

TOP1:Browsing + Concentrate @100g/adult goat

TOP2: Browsing + Mineral mixture @10g/adult goat

TO3: Browsing + Concentrate @100g/adult goat + Mineral mixture @10g/adult goat

(Deworming in all treatments, selection of 3months old goats)

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of effective tillers/hill	No. of spikelet per panicle	Test wt. (100 grain wt.)						
Browsing + Concentrate @100g/adult goat	20	-	-	-	-	4.75Kg/3m (Body Wt. Gain)	282/goat/3m wt	1306/goat/3m wt.	1024/goat/3m wt	4.63
Browsing + Mineral mixture @10g/adult goat	20	-	-	-	-	3.03 Kg/3m (Body Wt. Gain)	192/goat/3m wt	833/goat/3m wt.	641/goat/3m wt	4.33
Browsing + Concentrate@100g/adult goat + Mineral mixture@10g/adult goat	20	-	-	-	-	5.95 Kg/3m (Body Wt. Gain)	372/goat/3m wt	1636/goat/3m wt.	126/goat/3m wt 4	4.39

#### OFT-8

1.	Title of On farm Trial	Assessment of 3-row rice transplanter in paddy for drudgery reduction of farmwomen
2.	Problem diagnosed	High drudgery in manual transplanting
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TOP1-line transplanting with the help of rope  TOP2-Transplanting by 3-row rice transplanter,size of mat is 22 cm in width,45 cm in length & thickness of soil of 1.5 cm
4.	Source of Technology	AICRP on ESA, OUAT, 2015

5.	Production system and thematic area	Drudgery reduction
6.	Performance of the Technology with performance indicators	Output (m2/hr) -TOP 1: 50, TOP 2:130, WHR (Beats/min).- TOP 1:112, TOP 2:130,
7.	Final recommendation for micro level situation	Transplanting by 3-row rice transplanter,size of mat is 22 cm in width,45 cm in length & thickness of soil of 1.5 cm resulted in decrease in drudgery
8.	Constraints identified and feedback for research	3-row Rice Transplanter is suitable for upland, medium land and low land situation. But in low land situation special attention is to be given for water management and MAT nursery management
9.	Process of farmers participation and their reaction	Farmers are happy with the use of 3-row rice transplanter, need the machine in subsidy

*Thematic area:* Drudgery Reduction

Problem definition: High drudgery in manual transplanting

Technology assessed: TOP1--line transplanting with the help of rope, TOP2 Transplanting by 3-row rice transplanter, size of mat is 22 cm in width,45 cm in length & thickness of soil of 1.5 cm

Table:

Technology option	No. of trials	Yield component			% Increase in efficiency	% reduction on drudgery	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Output (m2/hr)	WHR (Beats/min)	EER (Kj/min)						
3 row rice transplanter	7	50,130	112,130	7.34, 16.64	-24, 96.96	-27.9, 63.29	33,000 32000	65000, 62400	32000, 30400	1.96 1.95

### 3.2 Achievements of Frontline Demonstrations



## A. Details of FLDs conducted during the year

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				
						M	F	M	F	M	F	M	F	T		
1	Rice	Integrated nutrient management	Use of CLCC in HYV rice and application of nitrogeous fertilizers in phases as per decision made through CLCC reading	2	2	1	0	1	0	8	0	10	0	10		
2	Cotton	Intercropping	Intercropping of Cotton+Cowpea ( 1:2 ratio) with 30 cm line spacing between each line . Sowing of cotton and cowpea during fourth week of June&Application of herbicide Pendimethalin @2.5litre/ha	2	2	1	0	1	0	8	0	10	0	10		
3	Sweetcorn	Varietal Substituon	Cultivation of Sweet corn var NHCS-130(Sweet honey) with 78-85 days duration . Seed rate 6kg/ha,Soil test based fertilizer application , Need based PP Measure	2	2	2	0	1	0	7	0	10	0	10		
4	Greengram	Varietal Substituon	Demonstration of performance of greengram var. IPM-02-14 with STBFR , herbicide Quizalfop ethyl(1000 ml/ha)	2	2	0	0	0	0	0	0	10	0	19		
5	Groundnut	Integrated pest management	Demonstration of Erection of blue trap @ 20/ha for pest monitoring + Seed treatment with Imidacloprid 70WS @ 5 gm/ kg seed+ Need based spraying of Thiamethoxam 25 WG @ 0.4 g / lit & Flonicamide 0.4 ml/ lit alternately at 10 days interval for management of bud and stem necrosis disease	2	2	1	0	1	0	8	0	10	0	10		
6	Maize	Integrated pest management	Demonstration of Whorl application of Cartap Hydrochloride 4 GR @ 4 -5 granules/ whorl and need based spray of	2	2	2	0	2	0	6	0	10	0	10		

			Lamda Cyhalothrin @ 2 ml/lit at 15 days interval for management of stem borer												
7	Mango	Integrated pest management	Demonstration of Spraying of COC @ 2.5 gm/lit after fruit is harvested during pre-khariff season with first spraying of carbendazim @ 1.5 gm/lit at time of first flowering time followed by Mancozeb 3 gm /lit after 15 days for management of floral anthracnose	0.5	0.5	3	0	0	0	7	0	10	0	10	
8	Cucumber	Integrated pest management	Demonstration of Seed treatment with Thiophanate methyl 70 WP@ 2 gm/kg seed + Foliar application of Chlorothalonil @ 2 ml/ lit and Cymoxanil 8 WP + Mancozeb 64 WP @ 2 gm/lit alternately at 12 days after interval for management of downey mildew	1	2	4	0	1	0	5	0	10	0	10	
9	Brinjal	Nutrient Management	Spraying of 2ppm(1ml/500 lit water ) triacontanol+borax 35 mg/l at 15 days after transplanting and again at time of full bloom.	2	2	6	0	0	0	0	0	4	0	10	
10	Onion	Seed production	Seed production in onion by seed to seed method	0	0	0	0	0	0	0	0	10	0	10	
11	Tomato	Varietal substitution	Growing of triple resistant tomato variety Arka rakshak	0	0	0	0	0	0	0	0	10	0	10	
12	Dairy	Livestock Production Management	Cultivation of hybrid napier ,two noded slits as planting material, planting at 50x50 cm with application of soil test based fertilizer; ( FYM 1 kg, DAP 50 gm , MOP 50 gm)/pit Feeding @ 25-30kg/day/cow	10	10	0	0	0	0	10	0	10	0	10	
13	Poultry	Livestock Production Management	Poultry Var: Rainbow rooster for meat and egg production Brooding, vaccination and feeding of chicks upto 21 days and then mostly in backyard	10 (200 birds)	10	2	0	1	0	7	0	10	0	10	
14	Goat	Livestock Production	Deworming with Closantel @10mg/Kg BW	9 (6	9	0	0	1	0	8	0	9	0	9	

		Management	Vitamin B complex 10 mg/Kg BW Repeat after 14 days	0 go ats )											
15	Mang o	Nutrient Management	Drenching of paclobutrazole @15 ml/10 lit. of water in the root zone of plant(7-15 yr. old orchard),3 ft away from trunk in the month of September.	1	1	1	2	1	2	3	2	5	6	1 1	
16	Kitch en Gard en	Women in Agri	Nutritional garden with nutrient rich vegetables and fruits (Vegetable plots with spinach, carrot, onion, tomato, cucurbits, raddish, broccoli, peas; 2 plants each from papaya and banana with one drumstick plant)	1	1	0	3	0	2	3	3	3	8	1 1	
17	Mush room	Women in Agri	Production of Paddy straw mushroom with thrashed straw (straw 5 kg with pulse powder 3% and soaking for 5 hr)	1	1	1	2	1	1	3	3	5	6	1 1	

#### 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 <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O					
Paddy	Kharif 2018-19	Irrigated medium & low land	Sandy loam	320	44	130	Greengram	7-10 July	16-18 December	955	5 7
Cotton	Kharif 2018-19	Irrigated up & medium land	Sandy loam	280	24	132	Brinjal	11-12 June	17-19 December	955	5 7
Sweetcorn	Rabi 2018-19	irrigated upland	Sandy loam	290	32	140	Arhar	14-18 November	23-25 January	470	1 8

Green gram	Rabi 2018-19	Rainfed medium land	Sandy loam	298	18	125	Paddy	11-12 January	2-3 April	330	11
Groundnut	kharif	Irrigated	Lateritic	280	16	130	Groundnut	7-10.7.18	3-12.10.18	490	
Maize	kharif	Irrigated	Red	320	20	130	Maize	3-5.7.18	26.9.18 to 3.10.18	478	
Mango	Kharif/Rabi	Rainfed	Mixed red/black	330	30	130	Mango	-	-	943	
Cucumber	Rabi	Irrigated	Mixed red/black	380	28	130	Brinjal	28-30 .1.19	1.3.19 to 18.3.19	212	
Brinjal	Rabi-2018-19	Irrigated up & medium land	Sandy loam	298	18	125	Tomato	November	March	248	
Onion	Rabi 2018-19	Irrigated Upland	Sandy loam	289	41	138	Onion	12 September	9 March	540	22
Tomato	Rabi 2018-19	Irrigated Upland	Sandy Loam	301	42	141	Tomato	18 September	16 March	540	22
Hybrid Napier	Kharif 2017-18	Irrigated	Sandy loam	290	21	117	Hybrid Napier	June	August and Cont.	914	48

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

Groundnut	Integrated pest management	Demonstration of Erection of blue trap @ 20/ ha for pest monitoring + Seed treatment with Imidacloprid 70WS @ 5 gm/ kg seed+ Need based spraying of Thiamethoxam 25 WG @ 0.4 g / lit & Flonicamide 0.4 ml/ lit alternately at 10 days interval for management of bud and stem necrosis disease	10	2	16.67	12.07	38.1	32000	91685	59685	2.86	29500	66385	36885	2.25
Total			10	2	16.67	12.07	38.1	32000	91685	59685					

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

\*\* BCR= GROSS RETURN/GROSS COST

#### Pulses

##### Frontline demonstration on pulse crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Greengram	Varietal Substitution	Demonstration of performance of greengram var. IPM-02-14 with STBFR , herbicide Quizalofop ethyl(1000 ml/ha)	10	2	8.8	2.3	28.22	8076	61,380	142,579	7.6	4042	16042	12042	4.0

	Total		10	2	8.8	2.3									

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

\*\* BCR= GROSS RETURN/GROSS COST

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Rice	Integrated nutrient management	Use of CLCC in HYV rice and application of nitrogenous fertilizers in phases as per decision made through CLCC reading	10	2	56	40	40	Panicle s/m 2 361	Panicle s/m 2 325	31,200	98000	66800	3.14 \	31,100	70000	38900	2.25

Cotton	Intercro pping	Intercropping of Cotton+Cowpea (1:2 ratio) with 30 cm line spacing between each line . Sowing of cotton and cowpea during fourth week of June&Application of herbicide Pendimethalin @2.5litre/ha	10	2	12.8 (Cotton Equiv elent Yield)	9.8 (Seed Cotton)	30.6 1	LE R- 1.2 1	LER- 1.0	205 17	6976 0	492 43	3.4	181 05	5341 0	35,30 5	2.95
Sweet corn	Varietal Substitut ion	Cultivation of Sweet corn var NHCS-130(Sweet honey) with 78-85 days duration . Seed rate 6kg/ha,Soil test based fertilizer application , Need based PP Measure	10	2	93.6	89	5.16	Co b len gth (c m) 18. 1	Cob lengt h (cm) 17.4	440 00	1581 20	114 120	3.5	440 00	1453 00	1063 00	3.3

Maize	Integrated pest management	Demonstration of Whorl application of Cartap Hydrochloride 4 GR @ 4 -5 granules/ whorl and need based spray of Lamda Cyhalothrin @ 2 ml/lit at 15 days interval for management of stem borer	10	2	52045 cobs	500 05 cobs	4.1	Extent of infestation in %	21 359	590 00	2081 80	149 180	3.5 3	570 00	2000 20	1430 20	3.5
Mango	Integrated pest management	Demonstration of Spraying of COC @ 2.5 gm/lit after fruit is harvested during pre-khariff season with first spraying of carbendazim @ 1.5 gm/lit at time of first flowering time followed by Mancozeb 3 gm /lit after 15 days for management of floral anthracnose	10	0.5	Cont			Extent of infection in %	27 14								



Cucumber	Integrated pest management	Demonstration of Seed treatment with Thiophanate methyl 70 WP@ 2 gm/kg seed + Foliar application of Chlorothalonil @ 2 ml/ lit and Cymoxanil 8 WP + Mancozeb 64 WP @ 2 gm/lit alternately at 12 days after interval for management of downey mildew	10	1	440.4	409	7.7	Extent of infection in % 14.6	25.6 10.4	76500	352320	275820	4.6	74000	327200	253200	4.4
Brinjal	Nutrient Management	Spraying of 2ppm(1ml/500 lit water ) triacontanol+borax 35 mg/l at 15 days after transplanting and again at time of full bloom.	10	2	181.5	134.3	35.1	20.5	17.4	99,300	181500	82,200	1.82	91,400	134300	42,900	1.46
Onion	Seed production	Seed production in onion by seed to seed method	10	1ha	4.5	3.7	21.6	18.5	25.7	1,01,188	3,00,812	1,99,624	2.9	101088	231812	131812	2.3
Tomato	Varietal substitution	Growing of triple resistant tomato variety Arka rakshak	10	0.5	429	343	25.07	67.4	88.9	1,21,740	2,57,400	1,35,660	2.11	1,20,740	2,05,800	85,060	1.7

Mango	Growth regulator	Drenching of paclobutrazole @15 ml/10 lit. of water in the root zone of plant(7-15 yr. old orchard),3 ft away from trunk in the month of September.	1 1	0.5	100	70	43			445	1500	105 5	3.3 7	400	1050	650	2.62
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## Livestock

[illegible]

Sheep and goat	LP M	Deworming with Closantel @10mg/Kg BW Vitamin B complex 10 mg/Kg BW Repeat after 14 days	9	60	1.85 Kg/3M	1.0 Kg/3M	85%	-	-	98/Goat (3m weight)	508/Goat (3m weight)	410/Goat (3m weight)	5.18	64/Goat (3m weight)	275/Goat (3m weight)	211/Goat (3m weight)	4.29
Duckery																	
Others (pl.specify)																	
Total			29														

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

\*\* BCR= GROSS RETURN/GROSS COST

#### Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl.specify)																	
Total																	

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

\*\* BCR= GROSS RETURN/GROSS COST

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				*Economics of check (Rs.) or Rs./unit			
				Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Paddy straw mushroom	Production of Paddy straw mushroom with thrashed straw (straw 5 kg with pulse powder 3% and soaking for 5 hr)	11	11	1.5kg/bed	1.6kg/bed	-6.7%	Days to first harvest-22	Days to first harvest-24	55/bed	150/bed	95/bed	2.72	60/bed	160/bed	100/bed	2.66
Button mushroom																
Vermicompost																
Sericulture																
Apiculture																
Others (pl. specify)																
Total		11	11													

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

\*\* BCR= GROSS RETURN/GROSS COST

#### Women empowerment

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women	Nutritional garden with nutrient rich vegetables and fruits (Vegetable plots with spinach, carrot, onion, tomato, cucurbits, raddish, broccoli, peas; 2 plants	11	1.1 q/5cent	0.4q/5cent	

[illegible]

**\*\* BCR= GROSS RETURN/GROSS COST**

[illegible]

[illegible]

Total										
Fodder crops										
Napier (Fodder)	Hybrid Napier	10	0.4	25q/10 cent	10q/10cent	150	17000/ cow/yr	28000/ cow/yr	11000/ cow/yr	1.64
Maize (Fodder)										
Sorghum (Fodder)										
Others (Pl. specify)										
Total										

#### Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1	Cucumber	Difficulty in spraying at full fruiting stage, however the protection measures with suitable pesticide gave 30 Q more yield per hectare
2	Maize	Whorl application of granular pesticides is labour consuming , but management of stem borer is quiet effective
3	Groundnut	Timely intervention with erection of blue trap and seed treatment was effective to suppress the necrosis disease
4	Mango	Spraying in floral parts in taller trees is difficult , however pea size fruit retention was greater leading to good fruit setting
5	Dairy (Fodder)	Difficult to maintain during winter and Summer due to scarcity of water

#### Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	30.01.19 24.1.19 31.01.19 08.02.19	1 1 1 1	50 25 30 30	Field Day on CLCC MGMT of Bud necrosis Field Day on Rainbow rooster Field Day on Fodder
2.	Farmers Training	14.08.19 18.8.18 30.08.18 30.10.18 10.12.18 to 12.12.18	1 1 1 1 1	25 25 25 25 15	Training on Fodder Trg. on Maize stem borer Training on brooding Training on mgmt. of kids Training on Poultry
3.	Media coverage				
4.	Training for extension functionaries	29.9.18	1	12	Training on AESA in paddy





**Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif2018 and Rabi 2018-19:**

**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 (%)		
				Distric yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Avg.	D	S	P
1	Arhar	Local	7.0	8.0	10.6	14.5	variety PRG176+Seed dressing, vitavax power@3gm/kg seed and rhizobium culture treatment@20gm/kg seed, Soil micronutrient application , Zypmite plus @1qtl/ha, Application of herbicide Imazethapyr @750 ml/ha, PP Chemical Lambdacyhalothrin @2ml/ltr	47	20	14.2	7.0	11.8	17.5	11.3	18.6
2	Groundnut	Local	14.1	17.2	14.4	20.4	Var Devi, Application of herbicides and Plant protection measures as per need	50	40	25.1	12.6	18.5	7.5	28.4	-10
3	Green gram	Jhainmung	4.5	4.8	4.5	8	Seed 40kg (Var. IPM 2-03) +500gm Rhizobium+2.5kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin 2ml/lit+ Yellow stick trap 50 pcs /ha+ Tricocard 10pcs/ha	63	30	9.3	5.1	7.5	4.8	4.5	8

4	Chick pea (Rabi - 2018- 19)	Local	5.3	9.1 8	7.68	15	50kg seed (Var. NBeG-3) +800gm Rhizobium+10kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin2ml/lit+ Yellow stick trap 50 pcs /ha	22	10	17. 65	9. 13	13 .3 9	9. 18	7. 68	20
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### 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	variety PRG176+Seed dressing, vitavax power@3gm/kg seed and rhizobium culture treatment@20gm/kg seed, Soil micronutrient application , Zypmite plus @1qtl/ha,Application of herbicide Imazethapyr@750 ml/ha,PP Chemical Lambdacyhalothrin@2 ml/ltr	19,500	35,000	15,500	1.8	26,400	59,000	32,600	2.3
2	Seed var. Devi, STBF, Application of Herbicide Imazethapyr@750 ml/ha, PP Chemical metalaxyl+mancozeb@ 2gm/ltr	35,250	70,500	35250	2.00	40980	94,250	53,270	2.3
3	Seed 40kg (Var. IPM 2- 03) +500gm Rhizobium+2.5kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin	16,300	27,000	10,700	1.6	21,200	45,000	23,800	2.1

	2ml/lit+ Yellow stick trap 50 pcs /ha								
4	50kg seed (Var. NbeG-3) +800gm Rhizobium+10kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin2ml/lit+ Yellow stick trap 50 pcs /ha	19,300	26,500	7,200	1.3	28,400	61,600	33,200	2.16

### C. Socio-economic impact parameters

Sl. No	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Mandays/household)
1	PRG176+Seed dressing, vitavax power@3gm/kg seed and rhizobium culture treatment@20gm/kg seed, Soil micronutrient application, Zymite plus @1qtl/ha, Application of herbicide Imazethapyr@750 ml/ha,PP Chemical Lambdacyhalothrin@2ml/ltr	1180	1000	50/-	180	-	To mitigate daily requirement, repayment of loan etc.	90 man days(in ha)
2	Groundnut var. Devi	1885 (in average cluster in ha)	1400	Rs50/	485	-	To mitigate daily requirement, repayment of loan etc.	140 Man days (ha)
3	Seed 40kg (Var. IPM 2-03) +500gm Rhizobium+2.5kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin 2ml/lit+ Yellow stick trap 50 pcs /ha+ Tricocard 10pcs/ha + Tricocard 10pcs/ha	750	530	60/-	220	-	To mitigate daily requirement, repayment of loan etc.	70 man days (in ha)

4	50kg seed (Var. NbeG-3) +800gm Rhizobium+10kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin2ml/lit+ Yellow stick trap 50 pcs /ha	1339	680	50/-	480	-	To mitigate daily requirement, repayment of loan etc.	60 man days(in ha)
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#### D. Farmers' perception of the intervention demonstrated

Sl. No.	Technologies demonstrated (with name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
1	PRG176+Seed dressing, vitavax power@3gm/kg seed and rhizobium culture treatment@20gm/kg seed, Soil micronutrient application, Zypmite plus @1qtl/ha, Application of herbicide Imazethapyr@750 ml/ha, PP Chemical Lambdacyhalothrin@2ml /ltr	Suitable	PRG176 variety performing good yield and of shorter duration than Asha	Yes	Pest problem, can be managed	Yes	Ensure availability of seed
2	Seed var. Devi, STBF, Application of Herbicide Imazethapyr@750 ml/ha, PP Chemical metalaxyl+mancozeb@2g m/ltr	Suitable	The yield of this variety Devi is very good and drought tolerant	Yes	Nil	Yes	
3	Seed 40kg (Var. IPM 2-03) +500gm Rhizobium+2.5kg PSB per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin 2ml/lit+ Yellow stick trap 50 pcs /ha+ Tricocard 10pcs/ha + Tricocard 10pcs/ha	Suitable	Var. IPM 2-03 performing good yield	Yes	No	Yes	-
4	50kg seed (Var. NBeG-3) +800gm Rhizobium+10kg PSB	Suitable	Variety NBeG-3 variety	Yes	No	Yes	-

	per ha and Soil test based fertilizer application. PP chemical Metalaxyl +Mancozeb @2 ml/lit + Dinotefuran @5ml/lit +Lambada Cyhalothin2ml/lit+ Yellow stick trap 50 pcs /ha		performing good yield				
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### E. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Variety PRG176(ICPL 87119) Performing very good yield	PRG176Performing very good	PRG176 performing better yield in comparison to local variety	Farmers satisfied with this technology and demand short duration Arhar variety
Application of Herbicide Imazethapyr	Application of Imazethapyr performing better for weed control	In local check ,There is no weed control so yield is very poor in comparison to Demo .	Farmers are very happy and satisfied with this technology
Seed Variety Devi is a early maturing and drought tolerant variety	Performance is very good yield	In local variety the yield quantity is very less in comparison to Demo variety	Farmers are very happy and satisfied this technology(yield is very good in comparison to local variety)
Application of Herbicide Imazethapyr@750ml/ha	Performance is very good for weed control	In local check ,There is no weed control so yield is very poor in comparison to Demo variety	Farmers are very happy and satisfied with this technology
Var. IPM 2-03Performing very good yield	Var. IPM 2-03Performing very good	Var. IPM 2-03Performing better yield in comparison to Local variety.	Farmers satisfied with this technology and demand huge amount of this variety of seed in proper time
Variety NBeG-3 Performing very good yield	NBeG-3 Performing very good	Variety NBeG-3 Performing better yield in comparison to Local variety.	Farmers satisfied with this technology and demand huge amount of this variety of seed in proper time

### F. Extension activities under FLD conducted:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1	Field day	11.07.18/ Sirabahal 16.7.2018 /Siranahal 28.3.18/Banabahal 16.3.2018/Banbahal	45 45 40 25

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



### H. Farmers Training and field visit



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



**J. Details of budget utilization**

Crop (provide crop wise information )	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Arhar	i) Critical input	1,62,000	1,62,000	0
	ii) TA/DA/POL etc. for monitoring	18,000	-	0
	iii) Extension Activities (Field day)		11,705	0
	iv)Publication of literature		6295	0
Groundnut	i) Critical input	2,16,000	2,16,000	0
	ii) TA/DA/POL etc. for monitoring	24,000	-	0
	iii) Extension Activities (Field day),Training and Misc.		17,700	0
	iv)Publication of literature		6300	0
Greengram	i) Critical input	1,62,000	1,62,000	0
	ii) TA/DA/POL etc. for monitoring	18,000	0	0
	iii) Extension Activities (Field day),training,and misc.		11,705	0
	iv)Publication of literature		6295	0
Chickpea	i) Critical input	81000	81000	0
	ii) TA/DA/POL etc. for monitoring	-	-	0
	iii) Extension Activities (Field day),training,and misc.	2705	2705	0
	iv)Publication of literature	6295	6295	0
	Total	690000	690000	0



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

### A) Farmers and farm women (on campus)

[illegible]

[illegible]

[illegible]

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
disease													
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
<b>IX. Production of Inputs at site</b>													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
<b>X. Capacity Building and Group Dynamics</b>													
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													
<b>XII. Others (Pl. Specify)</b>													
<b>TOTAL</b>	<b>2</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>7</b>	<b>21</b>	<b>28</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>29</b>	<b>21</b>	<b>50</b>

### B) Rural Youth (on campus)

[illegible]

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
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
<b>TOTAL</b>	<b>9</b>	<b>63</b>	<b>10</b>	<b>73</b>	<b>40</b>	<b>15</b>	<b>55</b>	<b>10</b>	<b>1</b>	<b>11</b>	<b>113</b>	<b>26</b>	<b>139</b>

### 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	2	15	5	20	2	0	2	0	0	0	17	5	22
Value addition	1	0	10	10	0	0	0	0	0	0	0	10	10
Integrated Pest Management	1	6	0	6	2	0	2	8	0	8	16	0	16
Integrated Nutrient management	1	5	0	5	3	0	3	2	0	2	10	0	10
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application	1	6	0	6	4	0	4	0	0	0	10	0	10
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs	1	8	2	10	1	1	2	0	0	0	9	3	12
Gender mainstreaming through SHGs													
<b>TOTAL</b>	<b>7</b>	<b>40</b>	<b>17</b>	<b>57</b>	<b>12</b>	<b>1</b>	<b>13</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>62</b>	<b>18</b>	<b>80</b>

**D) Farmers and farm women (off campus)**

[illegible]

[illegible]

[illegible]



[illegible]

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
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
<b>IX. Production of Inputs at site</b>													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
<b>X. Capacity Building and Group Dynamics</b>													
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													
<b>XI Agro-forestry</b>													
Production technologies													
Nursery management													
Integrated Farming Systems													
<b>XII. Others (Pl. Specify)</b>													
<b>TOTAL</b>	<b>26</b>	<b>406</b>	<b>80</b>	<b>486</b>	<b>76</b>	<b>13</b>	<b>89</b>	<b>63</b>	<b>12</b>	<b>75</b>	<b>537</b>	<b>103</b>	<b>640</b>

### E)RURAL YOUTH (Off Campus)

[illegible]

[illegible]

### **F) Extension Personnel (Off Campus)**

[illegible]

[illegible]

**G) Consolidated table (ON and OFF Campus)**

### **i. Farmers & Farm Women**

[illegible]

[illegible]

[illegible]

[illegible]

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				
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
TOTAL													
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
TOTAL													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
TOTAL													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
TOTAL													
XII. Others (Pl. specify)													
TOTAL	28	423	80	503	83	34	117	68	12	80	566	124	690



## ii. RURAL YOUTH (On and Off Campus)

[illegible]

### iii. Extension Personnel (On and Off Campus)

[illegible]

implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs	1	8	2	10	1	1	2	0	0	0	9	3	12
Gender mainstreaming through SHGs													
Crop intensification													
Others if any													
<b>TOTAL</b>	<b>7</b>	<b>40</b>	<b>17</b>	<b>57</b>	<b>12</b>	<b>1</b>	<b>13</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>62</b>	<b>18</b>	<b>80</b>

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

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
Agronomy	F/FW	Cotton based intercropping system	1	Off campus	25	0	25	8	0	8
	F/FW	Use of Leaf colour Chart for proper Nitrogen management in paddy	1		25	0	25	0	0	0
	F/FW	Integrated weed management in paddy	1		25	0	25	3	0	3
	F/FW	Improved agrotechnic in Sweetcorn	1	Off	23	-	23	2	-	2
	RY	Protected cultivation of High value mango	1	On Campus	15	0	15	6	0	6
	RY	Preparation and Use of Organic Inputs	1	On Campus	5	0	5	10	0	10
	IS	Improved techniques in production of Oilseed and Pulses	1	On Campus	10	0	10	0	0	0
Plant Protection	F/FW	Management of insect pest through natural enemies in field crops	1	Off-campus	12	0	12	3	0	3
	F/FW	Management of	1	Off-	23	0	23	2	0	2

		Maize stem borer/other insect pests		campus						
	F/FW	Insect Pest management in paddy	1	Off-campus	12	0	12	13	0	13
	F/FW	Management of diseases in cucurbit vegetables	1	Off-campus	4	0	4	21	0	21
	F/FW	Management of BPH and other sucking pest in paddy	1	Off-campus	24	0	24	1	0	1
	IS	Tools and procedures for conducting AESA in paddy	1	On-Campus	8	5	13	2	0	2
	F/FW	Integrated Pest Management in ground nut	1	On-campus	20	0	20	5	0	5
	RY	AESA and Ecological engineering of pest management in solanaceous vegetables	2	On-campus	19	0	19	6	0	6
	F/FW	Management of borer complex in Arhar	1	Off-campus	10	0	10	15	0	15
	IS	Novel and safe pesticides for crop protection	1	On-campus	6	0	6	10	0	10
	F/FW	Management of YMV disease in Greengram	1	Off-campus	22	0	22	3	0	3
	RY	Use of modern plant protection chemicals	2	On-campus	4	0	4	11	0	11
	IS	Use of ICT in Agriculture	1	On-campus	6	0	6	4	0	4
Home Sc.	F/FW	3-Row rice transplanter in paddy for drudgery reduction	1	Off-Campus	0	25	25	0	7	7
	F/FW	Humidity and disease management in paddy straw mushroom	1	Off-Campus	0	25	25	0	7	7
	F/FW	Women friendly small implements for drudgery reduction	1	Off-Campus	0	25	25	0	8	8
	F/FW	House hold food security by nutritional garden	1	Off-Campus	0	25	25	0	7	7
	RY	Mushroom Production	1	On Campus	0	10	10	0	5	5
	IS	Value addition in Tomato	1	On Campus	0	10	10	0	0	0
Soil	F/FW	Soil Health	1	On-	17	0	17	8	0	8

Sc.		management		Campus						
	F/FW	Deficiency symptoms of micronutrients in vegetables and management	1	Off-Campus	17	0	17	8	0	8
	F/FW	Management of Problem Soil	1	Off-Campus	12	2	14	10	1	11
	IS	Integrated farming System	1	On-Campus	9	1	10	1	1	2
	F/FW	Deficiency symptoms of micronutrients in vegetables and its management	1	On-Campus	0	0	0	4	21	25
	IS	Soil test based fertilizer Application	1	On-Campus	5	0	5	5	0	10
Animal	F/FW	Fodder and Azolla Production Tech and feeding management in dairy cows	1	Off-Campus	25	0	25	0	0	0
	F/FW	Brooding and Feeding Management in chicks	1	Off-Campus	10	0	25	15	0	15
	F/FW	Ration Planning for dairy cows	1	Off-Campus	25	0	25	0	0	0
	F/FW	Management of Mastitis and FMD in cows	1	Off-Campus	23	0	23	2	0	2
	F/FW	Feeding Management in goats for faster BW gain	1	Off-Campus	20	0	25	5	0	5
	RY	Intensive Semiintensive and Backyard Poultry farming	3	On-Campus	8	0	8	7	0	7
	F/FW	Care and Management of calves, heifers and pregnant cows	1	Off-Campus	19	0	19	6	0	6
	RY	Goat farming as a source of income generation	3	On-Campus	14	0	14	1	0	1
	F/FW	Care and Management of Kids: Vaccination and Deworming	1	Off-Campus	22	0	22	3	0	3
	RY	Income Generation activities by SHGs	3	On-Campus	10	0	10	5	0	5
	RY	Marketing strategies for Agricultural Produces	3	On-Campus	8	0	8	7	0	7
	F/FW	Disease Management in dairy cows with special reference to vaccination	1	Off-Campus	7	0	7	18	0	18

Agro- nomy, Home sc, Anim al Sc.	KKA	Vermicomposting, INM in cereals, Backyard poultry farming, Feeding management in cows, Mushroom cultivation, Kitchen gardening,	50	Off- Campus	2393	63	2962	931	20	95 1
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#### H) Vocational training programmes for Rural Youth

##### Details of training programmes for Rural Youth

Crop / Enterp rise	Identif ied Thrust Area	Trai ning 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	

\*training title should specify the major technology /skill transferred

#### I) Sponsored Training Programmes

S l. N o	Titl e	Them atic area	M on th	Durati on (days)	Cl ie nt	No. of cours es	No. of Participants										Sponso ring Agency
							Male			Female			Total				
				Other s	SC		S T	Oth ers	SC	ST	Oth ers	SC	ST	T ot al			
1	Ver mic om pos tin g	IGA	M ar ch	25		25	18	1	0	1	0	0	19	1	0	20	ASCI
	Mu shr oo m pro duc tion	IGA	Fe b	25		25	16	1	2	1	0	0	17	1	2	20	ASCI

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

Nature of Extension Activity	No. of activities	Farmers				Extension Officials			Total		
		M	F	T	SC/ST (% of total)	Male	Female	Total	Male	Female	Total
Field Day	9	285	31	316	28	9	0	9	294	31	325
KisanMela	4	149 9	33 2	183 1	31	13	6	19	1512	338	1850
KisanGhosthi											
Exhibition	4	153 7	29 3	183 0	29	15	5	20	1552	298	1850
Film Show	8	123	17	140	17	0	0	0	123	17	140
Method Demonstrations	2	27	11	38	10	2	0	2	29	11	40
Farmers Seminar											
Workshop	3	88	18	106	21	4	0	4	92	18	110
Group meetings	2	68	10	78	25	2	0	2	70	10	80
Lectures delivered as resource persons	15	635	15 0	785	29	10	5	15	645	155	800
Advisory Services	90	150 0	30 0	180 0	28	0	0	0	1500	300	1800
Scientific visit to farmers field	124	137 8	33 8	171 6	31	51	13	64	1429	351	1780
Farmers visit to KVK	1028	994	34	102 8	11	0	0	0	994	34	1028
Diagnostic visits	39	376	84	460	35	12	8	20	388	92	480
Exposure visits	2	38	2	40	10	0	0	0	38	2	40
Ex-trainees Sammelan	1	19	5	24	10	0	1	1	19	6	25
Soil health Camp	2	32	10	42	32	0	0	0	32	10	42
Animal Health Camp	1	25	0	25	65	2	0	2	27	0	27 (380 LS)
Agri mobile clinic											
Soil test campaigns	1	14	2	16	0	0	0	0	14	2	16
Farm Science Club Conveners meet											
Self Help Group Conveners meetings											
Mahila Mandals Conveners meetings											
Celebration of important days Akhi Tritiya , Jai Kisan Jai Vigyan Day, Mahila Kisan Divas, Women in Agriculture Day, World Food Day,	5	842	13 8	980	31	15	5	20	857	143	1000

World Soil Day											
Sankalp Se Siddhi											
Swatchta Hi Sewa	8	140	54	194	47	6	0	6	146	54	200
Mahila Kisan Divas	1	0	30	30	25	0	0	0	0	30	30
Any Other (Specify)											
<b>Total</b>	<b>1349</b>	<b>9620</b>	<b>1859</b>	<b>11479</b>	<b>-</b>	<b>141</b>	<b>43</b>	<b>184</b>	<b>9761</b>	<b>1902</b>	<b>11663</b>

#### B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	18
Radio talks	9
TV talks	-
Popular articles	4
Extension Literature	8
Other, if any	

### 3.5 a. Production and supply of Technological products

#### *Village seed*

Crop	Variety	Quantity of seed (q)	Value (Rs)	No. of farmers involved in village seed production	Number of farmers to whom seed provided			
					SC	ST	Other	Total
<b>Total</b>								

#### *KVK farm*

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom seed provided			
Paddy	Pratikshya	150				Other	Total
Paddy	Swarna sub 1	15					
<b>Grand Total</b>		165					

#### Production of planting materials by the KVKs

Crop	Variety	No. of planting materials	Value (Rs)	Number of farmers to whom planting material provided
------	---------	---------------------------	------------	--



				SC	ST	Other	Total
<b>Vegetable seedlings</b>							
Cauliflower	Barkha	1000	1,000	3	4	3	10
Cabbage	Indu	1000	1,000	7	1	2	10
Tomato	Arka Rakshak	10,000	20,000	3	4	10	17
Brinjal	Tarini	1000	1,000	5	4	1	10
Chilli	-	-					
Onion	Agrifound Dark red	2,49,000	37,350	5	10	20	35
Others							
<b>Fruits</b>							
Mango							
Guava							
Lime							
Papaya	Red lady	500	10,000	5	10	20	35
Banana							
Others							
Ornamental plants							
Medicinal and Aromatic							
Plantation							
Spices							
Turmeric							
Tuber							
Elephant yams							
Fodder crop saplings							
Forest Species							
Others, pl.specify							
Total		262500	70350	28	33	56	117

### Production of Bio-Products

Name of product	Quantity	Value (Rs.)	No. of Farmers benefitted			
	Kg		SC	ST	Other	Total
Bio-fertilizers						
Bio-pesticide						
Bio-fungicide						
Bio-agents						
Others, please specify.						
Total						

### Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted			
				SC	ST	Other	Total
Dairy animals							

Cows							
Buffaloes							
Calves							
Others (Pl. specify)							
Small ruminants							
Sheep							
Goat							
Other, please specify							
Poultry							
Broilers							
Layers							
Duals (broiler and layer)	Rainbow rooster	185	7770	6	8	7	21
Japanese Quail							
Turkey							
Emu							
Ducks							
Others (Pl. specify)							
Piggery							
Piglet							
Hog							
Others (Pl. specify)							
Fisheries							
Indian carp							
Exotic carp							
Mixed carp							
Fish fingerlings							
Spawn							
Others (Pl. specify)							
Grand Total		185	7770				21

**3.5. b. Seed Hub Programme-“Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India” NOT APPLICABLE**

i) Name of Seed Hub Centre:

Name of Nodal Officer :	
Address :	
e-mail :	
Phone No. : Mobile :	

ii) Quality Seed Production Reports

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed (F/S, C/S)
Kharif 2018						
Rabi 2018-19						
Summer/Spring 2019						

## iii) Financial Progress

Fund received (2016-17, 2017-18 and 2018-19)	Expenditure (Rs. in lakhs)		Unspent balance (Rs. in lakhs)	Remarks
	Infrastructure	Revolving fund		
2016-17				
2017-18				
2018-19				

## iv) Infrastructure Development

Item	Progress
Seed processing unit	
Seed storage structure	

## 3.6.

## (A) Literature Developed/Published (with full title, author &amp; reference)

Item	Title	Author's name	Number	Circulation
Research paper				
Seminar/conference/ symposia papers				
Books	Small Scale Poultry production	T.K.Palai H.Mallik	25	
Bulletins	BPH awareness	A.Das	500	
	FMD control measures	A.Das, T.K.Palai	100	
News letter	Harishankar	A.Das	500	
Popular Articles	Ballanced ration for milk production	T.K.Palai, S.Samanta	Mass	
	Fodder cultivation for Milk Production	T.K.Palai, S.Samanta		
	Integrated Duck and Fish farming	T.K.Palai, A.P.Nayak		
	Use of animal excreta in fish farming	T.K.Palai, A.P.Nayak		
	Azolla as a feed in dairy and fish farming	T.K.Palai, A.P.Nayak		
	Integrated livestock and fish farming			
Book Chapter				

Extension Pamphlets/ literature	Kharatia Moong production	A.Das	500	
	Goat product	T.K.Palai	500	
	Hybrid Napier cultivation and feeding to cows	T.K.Palai, A.Das	25	
	Azolla cultivation method	T.K.Palai, A.Das	25	
	Brooding tech. in chicks	T.K.Palai, A.Das	25	
	Min. mix. Feeding in cows	T.K.Palai, A.Das	25	
Technical reports	RE proceedings	A.Das	2	
	BGREI Reports	A.Das, S.pattanayak	2	
	CFLD reports	A.Das, S.pattanayak	2	
	KKA Reports	A.Das, T.K.Palai	2	
Electronic Publication (CD/DVD etc)				
TOTAL				

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

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

Sl. No.	Name of programme	Name of course	Name of KVK personnel and designation	Date and Duration	Organized by
1.	Workshop	Workshop cum kharif campaign	Ashis Das Scientist (PP) & I/C SSH	9-10.4.18 (2 days)	OUAT, BBSR
2.	Workshop	SLEC workshop		8-12.5.18 (5 days)	OUAT, BBSR
3.	Conference	Zonal conference of KVKs		26-28.5.18 (3 days)	OUAT, BBSR
4.	Training	Training programme on Operational modalities of KVKs		9-11.7.18 (3 days)	OUAT, BBSR
5.	Training	Orientation training programme on Agro-met advisories		10.8.18 (1 day)	ATARI, Kolkata
6.	Symposium	Symposium on Society of plant protection and Environment		27-28.10.18 (2 days)	OUAT, BBSR
7.	Strategy meeting	Rabi strategy meeting at Krishi Bhawan		14-16.11.18 (3 days)	OUAT, BBSR
8.	Training	Training programme on plant protection		13-15.12.18 (3 days)	ATARI, Kolkata
9.	Strategy meeting	Operationalisation of KALIA scheme		13.2.19 (1 day)	OUAT, BBSR
10.	Training	Training of trainers for skill training	Sarthaak Pattanayak SMS (Agronomy)	18-20. 9.18 (3 days)	BCKV, Kolkata
11.	Training	Capacity building training		21-24. 1.18 (4 days)	IIWM,, BBSR
12.	Orientation	Orientation program of newly recruit SMS		25-27.3.18 (3 days)	OUAT, BBSR
13.	Training	Training on preparation of Detailed Project Report on Agri Enterprises	Rahul Dev Behera SMS(Soil Sc.)	2.2.19 (1 day)	OUAT, BBST

14	Workshop	Workshop on PPV & FR		15.3.19 (1 day)	ATARI, Kolkata
15	TOT	Training of trainers for skill training	Sasmita Purohit Scientist (Home Science)	18-20. 9.18 (3 days)	BCKV, Kolkata

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

1. Name of Farmer : Satyabrata Thati
2. Address : Vill. Banabahal, GP : Bairasar; Block : Puintala Dist : Bolangir
3. Contact No. : 7008309439
4. Land holdings : 4 ha
5. Theme- Increasing Income from Okra through IPM technology
6. Description : The av. yield from okra was 90 q/ha out of which 25-30% becomes unfit for marketing or fails to fetch right market price due to infestation of okra shoot and fruit borer. To minimize the loss the technology promoted with success are :
  - # Seed treatment with Imidacloprid 70 WG @ 5 gm/ kg seed
  - # Herbicide application ( Quizalofop ethyl @ 1 lit/ ha at 15 DAS)
  - # Installation of pheromone trap for shoot and fruit borer( *Earias insulana* ) @ 50/ha .
  - # Release of *Trichogramma chilonis* ( @ 50,000 / ha at 10 days interval for 3-4 times)
  - # Need based spraying of Spinosad 0.4 ml/lit or Emamectin Benzoate @ 0.5 gm/lit at 12 DAI

7. Success : (from 0.5 ha under Okra )

Situation	Cost of cultivation	Yield	Marketable yield	Total Income	Net profit	C:B ratio
Before	25,000/-	52 Qtl	40 Qtl	60,000 /-	35,000/-	2. 4
After	28,000/-	65 Qtl	58 Qtl	87,000/-	58,000	3.1

8. Spread : Area Covered : 250 ha ; No. of Farmers: 1100

8. Views of the farmers- The fellow farmers like Kushal Karmi, Baisakhu Rout, Lalbabu Karmi who were also cultivating okra in very low scale expressed their satisfaction with the pest management strategy as they could find effect of integrated pest management and importance of seed treatment alongwith very low mammalian toxicity of novel pesticides like Spinosad & Emamectin Benzoate.

9. Suggested action plan(policy and market) for up-scaling- The volume of production for market by minimizing yield loss , can be scaled up wrt productivity if IPM measures are strengthened with availability of suitable inputs of IPM with local input dealers. This measure can attribute to increase in profit towards doubling the income. Okra being a popular vegetable in the district , always has a market demand round the year.

10. Linkages with the on-going Govt programme- Supply of vegetable minikits under NHM, Availability of plant protection materials in Surabhi outlets of Odisha Agro Industries, Establishment of Drip irrigation for vegetables under NHM, Promotion of vegetable clusters by Watershed Mission.

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

Sl. No.	Name/ Title of the technology	Name/ Details of the Innovator(s)	Brief details of the Innovative Technology

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

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Greengram	Mixing of boiled rice extract in seed for better crop growth	The crop gives a better survivility and lustrous growth

b. Give details of organic farming practiced by the farmer: Nil

Sl. No.	Crop / Enterprise	Area (ha)/ No. covered	Production	No. of farmers involved	Market available (Y/N)

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

Sl. No.	Brief details of the tool/ methodology followed	Purpose for which the tool was followed
1	Through trainings , phone calls , Field diagnostic visits , farmers visit to KVK	Need analysis of FW training
2	During expedition of FLD , OFT programmes and monitoring the programmes	Need analysis of FW/Ry/IS training
3	Extension activities like group meetings , Extrainees sammelan, field days , farmers fair, celebration of special days, other flagship programmes etc.	Need analysis of FW/ Ry training
4	From line dept. officials and extension workers during SAC meeting, RE linkage interface meeting, Review meetings, workshop on kharif and Rabi programmes	Need analysis of IS training

3.11. a. Details of equipment available in Soiland Water Testing Laboratory

Sl. No	Name of the Equipment	Qty.
1	Soil mini testing lab	3

3.11.b. Details of samples analyzed so far :

Number of soil samples analyzed			No. of Farmers	No. of Villages	Amount realized (in Rs.)
Through mini soil testing kit/labs	Through soil testing laboratory	Total			
70		70	550	18	nil

3.11.c. Details on World Soil Day

Sl. No.	Activity	No. of Participants	No. of VIPs	Name (s) of VIP(s)	Number of Soil Health Cards distributed	No. of farmers benefitted
1	Exhibition & seminar	200	5	Mrs. Bharati mahananda Satya Narayan Bhue, Gopal Bag	200	200

## 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

## 3.13. Technology week celebration

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

## 3.14. RAWF/ FETprogramme - is KVK involved? (Y/N) Yes

No of student trained	No of days stayed
8	60

ARS trainees trained	No of days stayed

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

Date	Name of the person	Purpose of visit
6.9.18	Prof. S.N.Pasupalak, VC, OUAT	11 <sup>th</sup> SAC meeting
14.6.18	Prof. P.K.Roul, DEE, OUAT	Monitoring of KVK activities
6.9.18	Sri A. Dakua, Collector & DM	11 <sup>th</sup> SAC meeting
6.9.18	Dr. S.S. Singh, Director, ATARI	11 <sup>th</sup> SAC meeting

## 4. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
IPM in vegetables	180	30	Rs 45,000/ ha	Rs 56,000/ ha
Prodn. technique in Greengram	75	25	Rs 22,000/ ha	Rs 35,000/ ha
Prodn. technique in Groundnut	70	20	Rs 28,000/ ha	Rs 36,000/ ha
Prodn. technique in Vegetables	75	15	Rs 50,000/ ha	Rs 70,000/ ha
Herbicide application in Paddy	145	35	Rs 15,000/ ha	Rs 18,000/ ha
Fodder Production For feeding in cattle	40	20	Rs. 12, 000/cow/year	Rs. 20,000/cow/year
Deworming in goats	30	100%	Rs. 3300/goat/year	Rs. 4000/goat/year

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants

## 4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

Horizontal spread of technologies	
Technology	Horizontal spread
Herbicide application in Paddy	4800 ha
INM in Vegetables	3300 ha
Prodn. technique in Greengram	1700 ha
Prodn. technique in Groundnut	2600 ha

Give information in the same format as in case studies

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

Sl. No.	Brief details of technology	Impact of the technology in subjective terms	Impact of the technology in objective terms
1	Use of neem coated Urea	Reduction of consumption by 30-35 %	560 farmers adopted and go for such type of urea
2	Use of Imazethapyr in greengram	Increase in by 40 % in 450 ha. lqnd	300 farmers adopted and go for such type of herbicide application

## 4.4. Details of innovations recorded by the KVK

Thematic area	
Name of the Innovation	
Details of Innovator	
Back ground of innovation	
Technology details	
Practical utility of innovation	

## 4.5. Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	
Name & complete address of the entrepreneur	
Role of KVK with quantitative data support:	
Timeline of the entrepreneurship development	
Technical Components of the Enterprise	
Status of entrepreneur before and after the enterprise	
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. ( Economic viability of the enterprise):	
Horizontal spread of enterprise	

## 4.6.Any other initiative taken by the KVK



During Oct. 2018 , there was report of BPH incidence in two blocks namely Deogaon and Saintala affecting 200 ha. of Rice which gradually covered 10 blocks out of 14. . KVK scientists soon took the matter, held extensive and intensive field visits with line deptt. officials with distribution of bulletins, pamphlets in local language with awareness and advisory to the farmers . It resulted containing the infestation to only 4200 ha. in the district out of 1,90,000 ha. of Rice resulting in 13 % yield loss .

## 5. LINKAGES

### 5.1. Functional linkage with different organizations

Name of organization	Nature of linkage
All line departments	Research- Extension linkage meeting in every month and work in field jointly for farmers
ATMA	Monitoring of BGREI, NFSM programmes
KVKs of neighbouring districts	Share of manpower, infrastructure
NHB	Monitoring of Orchards for viable saplings
CHES, CTCRI, NRRI and other ICAR institutes	Knowledge and skill development, Input Procurement
ARD	Animal Health camp

5.2. List of special programmes undertaken during 2018-19 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.)

#### (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.)
Skill training under ASCI	Entrepreneurship development through vermicomposting and mushroom production	January to March-2019	ASCI	3,30,000

## 6. PERFORMANCE OF INFRASTRUCTURE IN KVK

### 6.1. Performance of demonstration units (other than instructional farm)

Sl. No.	Name of demo Unit	Year of estt.	Area( Sq.mt )	Details of production			Amount (Rs.)		Remarks
				Variety/breed	Produce	Qty.	Cost of inputs	Gross income	
1.	Nutritional garden/	2014	200 sq.	cowpea		15kg	3912	300	
2.				Okra		17 kg		340	

3.	Crop Cafetaria		mt	Cauliflower		30kg		450	
4.				cabbage		30 kg		450	
5.				onion					
6.	Poly house	2011	99	papaya		350 no.	1793 5.45	7000	
7.				onion		249000		37350	
				tomato		5000 no.		10000	

## 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	
Paddy	7.7.18	6.12.18	0.5	Swarna Sub I	F/S	15	31500	45465	
	10.7.18	10.12.08	5.0	Pratiksha	F/S	150	31500	45465	

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

Sl. No.	Name of the Product	Qty. (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Mushroom spawn	500 bottles	4808	10000	

## 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.	Backyard bird	Rainbow rooster	21 days old chick	185	6090	7851	

## 6.5. Utilization of hostel facilities: NA

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Total :			

(For whole of the year)

## 6.6. Utilization of staff quarters: NA

Whether staff quarters has been completed:

No. of staffquarters:

Date of completion:

Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI

## 7. FINANCIAL PERFORMANCE

### 7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Current Account	SBI, Bolangir	Bhagirathi Chowk	30966088644
Current Account	SBI, ADB, Bolangir	College Chowk	31149194881

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

Item	Released by ICAR		Expenditure		Unspent balance as on -
	Kharif	Rabi	Kharif	Rabi	
Ground nut		240000		240000	0

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2019
	Kharif	Rabi	Kharif	Rabi	
Arhar	180000		180000		0
Greengram		180000		180000	0
Chickpea		90000		90000	0

### 7.4. Utilization of KVK funds during the year 2018-19 (Not audited)

Sl. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	Avail. At compt. Ofc		
2	Traveling allowances	100000	70000	70000
3	Contingencies			
A	Stationary. Telephone, Postage and Other Exp on office running			257357
B	POL, Repair of vehicles tractor and implement			162643
C	Vocational training			232800
D	FLD except Oilseed and Pulses			110000
E	OFT			30000
F	Training on Extension Functionaries	800000	798800	6000
G	Library maint. And adding of books and journals	0	0	0
H	Maintainance of building	0	0	0
I	Revolving fund	0	0	0
J	Swachhta Expenditure	0	0	0
K	SCP Cont.	200000	200000	50708
<b>TOTAL (A)</b>				

B. Non-Recurring Contingencies				
1				
2				
3				
4				
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		1100000	1068800	919508

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year (Kind + cash)
2016-17	699661	229578	377959	17280.00 + 415840 (Kind)
2017-18	17280	794131 (Including Rs..200000 received from DEE as seed money)	504912.45	306498.55 + 583680 (Kind)  (KIND of Rs.2,28,552/- of the year year 2015-16 remained outstanding at OSSC)
2018-19	306498.55	808834	581086	306498 + 500115(Kind)

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

(iii) Details of marketing channels created for the SHGs

7.7. Joint activity carried out with line departments and ATMA

Name of activity	Number of activity	Season	With line department	With ATMA	With both
KKA	10	Kharif and Rabi	Agriculture, Horticulture, ARD, Watershed		
Monitoring of BGREI	18	Kharif	Agriculture	ATMA	
Pest Surveillance	12	Kharif and Rabi	Agriculture, Horticulture		
Animal Health camp	1	Rahi	ARD		
World Soil Day, Pre-Rabi campaign, Exhibition	5	Kharif and Rabi	Agriculture, Horticulture, ARD, Watershed		

8. Other information

8.1. Prevalent diseases in Crops

Name of the disease	Crop	Date of outbreak	Area affected (in ha)	% Commodity loss	Preventive measures taken for area (in ha)
BPH infestation	Paddy	Oct 1st week	5460	25	Awareness programmes, capacity building of farmers

## 8.2. Prevalent diseases in Livestock/Fishery

Name of the disease	Species affected	Date of outbreak	Number of death/ Morbidity rate (%)	Number of animals vaccinated	Preventive measures taken in pond (in ha)
FMD	Cow	Aug-Sep	40	30,000	

## 9.1. Nehru YuvaKendra(NYK) Training NA

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

## 9.2. PPV & FR Sensitization training Programme: NA

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

## 9.3. mKisanPortal (National Farmers' Portal/ SMSPortal)

Type of message	No. of messages	No. of farmers covered
Crop	35	8000
Livestock	11	2450
Fishery	4	122
Weather	16	130
Marketing	11	25
Awareness	15	75
Training information		
Other	6	5420
<b>Total</b>	98	

## 9.4. KVK Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	4326
2.	No. of farmers registered in the portal	15135
3.	Mobile Apps developed by KVK	
4.	Name of the App	
5.	Language of the App	
6.	Meant for crop/ livestock/ fishery/ others	

7.	No. of times downloaded	
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## 9.5. a. Observation of Swachh Bharat Programme

Date/ Duration of Observation	Activities undertaken
18.9.18 to 2.10.18 (15 days)	Cleaning of Campus, nearby institute, Villages Toilet construction in village, Disposal of waste, Awareness in school children, Awareness among villagers
16.12.18 to 31.12.18	Cleaning of Campus, nearby institute, Villages Toilet construction in village, Disposal of waste, Awareness in school children, Awareness among villagers

## b. Details of Swachhta activities with expenditure NIL

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

## 9.6. Observation of National Science day

Date of Observation	Activities undertaken

## 9.7. Programme with SeemaSurakshaBal/ BSF

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
Sadeipali High School	24.12.18	Agriculture allied and Swachata	Chart paper, Drawing sheet, Black board, Chalk

Give good quality 1-2 photograph(s)



## 9.9. Details of 'Pre-Rabi Campaign' Programme

Date of programme	No. of Union Ministers attended the programme	No. of Hon'ble MPs (Loksabha/Rajyasabha) participated	No. of State Govt. Ministers	Participants (No.)							Coverage by Door Darshan (Yes/No)	Coverage by other channels (Number)
				MLAs Attended the programme	Chairman ZilaPanchayat	Distt. Collector/DM	Bank Officials	Farmers	Govt. Officials, PRI members etc.	Total		
13.3.19	-	-	-	-	1	1	2	176	20	200		yes

## 9.10. Details of Swachhta Hi Sewaprogramme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1	30	7	250	-	-

## 9.11. Details of MahilaKisan Divas programme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1	15.10.18	1	50	-	-

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

Sl. No.	Name of Farmer	Address of the farmer with contact no.	Innovation/ Leading in enterprise
1	Siba Prasad Barik	Village- Uparjhar, Bolangir-7608949481	Fodder farming, Goatery
2	Raju Sahu	Village- Dangaghat, Bolangir-9348522356	Dairy and Goatery
3	Udaya Naik	Village: Bargaon, Bolangir 9938732203	All season cultivation of sweet corn
4	Subhranshu Sahu	Village- Peepalbahali, Puintala-8280156256	Backyard poultry
5	Angad Biswal	Village:Dhaunradadar, Loisingha-9668736670	Integrated Farming System
6	Jayaram Meher	Village:Kaudia,Patnagarh, -9937980234	Broccoli cultivation
7	Pradumna Teji	Village:Magurbeda, Loisingha-9937623894	Relay cropping of Pointedgourd in single trellis system
8	Omprakas Meher	Village:Tarabha, Bolangir- 9692016440	Production of Oyster mushroom by using waste Newspaper substrate
9	Satyabrata Thati	Village:Banbahal, Bolangir- 8658942615	Floriculture
10	Mukunda Badhei	Village:Magurbeda, Loisingha-9439875271	Onion storage structure

## 9.13. Revenue generation

Sl.No.	Name of Head	Income(Rs.)	Sponsoring agency
1.	Revolving Fund	589316	OUAT
2.			
3.			

## 9.14. Resource Generation: Nil

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

## 9.15. Performance of Automatic Weather Station in KVK

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





## 9.16. 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
Odisha	Bolangir	Coningent plan for drought situation	3	40	Contingent measures for crops, livestock, Fisheries if rainfall is delayed or abrupt cessation for few days to few weeks

## 10. Report on Cereal Systems Initiative for South Asia (CSISA)

a) Year:

b) Introduction / General Information:

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

## 11. Details of TSP

a. Achievements of physical output under TSP during 2018-19

Programmes	Physical achievements
Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)	
On-farm trials (Number)	
Frontline demonstrations (Number)	
Farmers training (in lakh)	
Extension personnel training (in lakh)	
Participants in extension activities (in lakh)	
Seed production (in tonnes)	

Planting material production (in lakh)	
Livestock strains and fingerlings production (in lakh)	
Soil, water, plant, manures samples testing (in lakh)	
Provision of mobile agro – advisory to farmers (in lakh)	
No. of otherprogrammes (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)	

b. Fund received under TSP in 2018-19 (Rs. In lakh):

**c. Achievements of physical outcome under TSP during 2018-19**

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

#### d. Location and Beneficiary Details during 2018-19

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

12. Progress report of NICRA KVK (Technology Demonstration component) during the period  
(Applicable for KVKs identified under NICRA)

**Not Applicable**

## Natural Resource Management

[illegible]

## Crop Management

[illegible]

## Livestock and fisheries

[illegible]

## Institutional interventions

[illegible]

## Capacity building

[illegible]

## Extension activities

Thematic area	No of activities	No of beneficiaries								
		SC	ST	Other			Total			
		M	F	M	F	M	F	M	F	T

Detailed report should be provided in the circulated Performa

13. Awards/Recognition received by the KVK NIL

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

Award received by Farmers from the KVK district

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
1	Best farmer on the occasion of OUAT Foundation Day	Udaya Naik	2018-19	OUAT	Citation, Certificate	Crop Diversification
2	Best farm women On Mahila Kisan Diwas	Radharani Bhue	2018-19	KVK	Citation, Certificate	Speech on Women empowerment

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

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

Sl. No.	Name of the organization / Society	Trust Deed No.& date	Date of Trust Registration Address	Proposed Activity	Commodity Identified	No. of Members	Financial position (Rupees in lakh)	Success indicator

## 16. Integrated Farming System (IFS)

## Details of KVK Demo. Unit

Sl. No.	Module details (Component-wise)	Area under IFS (ha)	Production (Commodity-wise)	Cost of production in Rs. (Component-wise)	Value realized in Rs. (Commodity-wise)	No. of farmer adopted practicing IFS	% Change in adoption during the year
1	Mango Orchard	1	-				Newly established

## 17. Technologies for Doubling Farmers' Income

Sl. No.	Name of the Technology	Brief Details of Technology (3- 5 bullet points)	Net Return to the farmer (Rs.) per ha per year due to the technology	No. of farmers adopted the technology in the district	One high resolution 'Photo' in 'jpg' format for each technology
1	Paddy + Greengram production system	# Paddy var. Sahabghadhan, line transplanting , herbicide oxadiargyl # Greengram var. TARM-1 paira, herbicide Imazethapyr, 1.5 % DAP spray once at flowering and second after 15 days # Mineral mixture @ 50 gm/cow, Fodder Hyb. Napier ;Dhingri mushroom (20 beds); Banaraja poultry(20 no.); Tissue culture banana G-naine(10 no.)	45,200 (FP 29,00)	2	
2	Paddy / Vegetable-Greengram production system	# Paddy Var. pratikshya, 15 days early transplanting , herbicide, almix, STBF application # Veg like Brinjal, tomato, onion, micronutrient application, herbicide pendimethalin , seed treatment and nursery treatment with metalaxyl & mancozeb # Greengram IPM 02-14, micronutrient, YMV management # Mineral mixture @ 50 gm/cow, Fodder Hyb. Napier ;Dhingri mushroom (20 beds); Banaraja poultry(20 no.); Tissue culture banana G-naine(10 no.)	1,20,800 (FP 77,000)	2	
3	Rice/ Groundnut-Greengram production system	# G.Nut var. Devi, Herbicide imazethapyr, micronutrient zypmite , drenching with chloropyriphos, seed dressing with biofertiliser, veg. like growing of onion, cauliflower, Tomato # Pooja var. transplanting 21 days old seedling, herbicide bysphyribac sodium # Greengram Durga var. line sowing, Q.ethyl herbicide, micronutrient application.	88,600 (FP 55,100)	2	

		# Mineral mixture @ 50 gm/cow, Fodder Hyb. Napier ;Dhingri mushroom (20 beds); Banaraja poultry(20 no.); Tissue culture banana G-naine(10 no.)			
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18. Report on Digital Farming Initiatives in Agriculture/ Digital Ag. Extension Service NIL

Phase	Database prepared/ covered for		KVK level Committee		Various activity conducted for farmers
	Total no. of villages	Total no. of farmers	Date of formation	Name of members	
I (up-to 15.03.2018)					
II (up-to 24.04.218)					
Total					

19. Information on Visit of Ministers to KVKs, if any NIL

Date of Visit	Name of Hon'ble Minister	Name of Ministry	Salient points in his/ her observation (2-3 bulleted points)

20. a) Information on **ASCI** Skill Development Training Programme, if undertaken during 2017-18 and 2018-19

Year	Name of the Job role	Name of the certified Trainer of KVK for the Job role	Date of start of training	Date of completion of training	No. of participants	Whether uploaded to SDMS Portal (Y/N)	Fund utilized for the training (Rs.)
2016-17							
2017-18							
2018-19	Master trainer on Vermi composting	S. Pattanayak	2.3.19	24.3.19	20	Y	164400
	Master trainer on Mushroom	S. Purohit	21.1.19	15.2.19	20	Y	164400

b) Information on Skill Development Training Programme (**Other than ASCI or less than 200 hrs.**, if any) if undertaken during 2018-19

Thematic area of training	Title of the training	Duration (in hrs.)	No. of participants										Fund utilized for the training (Rs.)
			SC		ST		Other		Total				
			M	F	M	F	M	F	M	F	T		

21. Information on NARI Project(if applicable) NA

Name of Nodal Officer	No. of OFT on specified aspects	Title(s) of OFT	No. of FLD on specified aspects	No. of capacity development programme on specified aspects	Total no. of farm women/ girls involved in the project	Details of Issues related to gender mainstreaming addressed through the project

22. Information on Krishi Kalyan Abhiyan Phase- I/ Phase-II/ Phase-III, if applicable

**Krishi Kalyan Abhiyan- I and II**

**A. Training**

Name of programme	No. of programmes	No. of farmers benefitted									No. of officials attended the programme
		SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T	
Training on vermicomposting, Mushroom production, Kitchen gardening	25 trainings	318	68	69	30	684	81	1071	179	1250	45
Training on vermicomposting, Mushroom production, backyard poultry, IPM, Integrated farming etc	25 trainings	298	80	53	35	679	61	1030	176	1206	50



**B. Distribution of seed/ planting materials/ input/ others**

Name of programme	No. of Programme	Total quantity distributed				No. of farmers benefited									No. of other officials (except KVK) attended the programme
		Seed (q)	Planting material (lakh)	Input (kg)	Other (kg/ No.)	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F	T	
Distribution of seeds, saplings	25	4811	9340			1218		251		5592				7460	25
Distribution of seeds, saplings	9	4100	5470			1012		519		3849				5380	25

**C. Livestock and Fishery related activities**

Name of programme	No. of Programme	Activities performed				No. of farmers benefited									No. of other officials (except KVK) attended the programme
		No. of animals vaccinated	No. of animals dewormed	Feed/ nutrient supplements provided (kg)	Any other (Distribution of animals/ birds/ fingerlings) [No.]	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F	T	
AI, Vaccination of bovines and goats/ sheeps	50	10985												4769	52
AI, Vaccination of bovines and goats/ sheeps	75	504												97	12

**D. Other activities**

Name of programme	Activities	No. of farmers benefited									No. of other officials (except KVK) attended the programme
		SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T	
KKA-I	Soil Health Card Distributed	340	25	150	28	2450	300			3239	25
	NADEP Pit established	90		45		165				300	20
	Farm implements distributed	11		4		15				30	19
	Others, if any										
KKA-II	Soil Health Card Distributed	24		12		318				354	15
	NADEP Pit established										
	Farm implements distributed										
	Others, if any										

**Krishi Kalyan Abhiyan- III**

No. of villages covered	No. of animal inseminated	No. of farmers benefitted									Any other, if any (pl. specify)
		SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T	
34	91	19	0	11	0	30	18	60	18	78	

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

Sl. No.	Name of the programme	Date of the programme	Venue	Purpose	No. of participants
1	Research Extension Linkage meeting ( between KVK, line deptt. officials & bankers )	Every month on 3 <sup>rd</sup> Tuesday	KVK	for convergence of programmes taken by Line deptt. & KVK	12-13 in each meeting

24. Good quality action photographs of overall achievements of KVK during the year (best 10)

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