

ANNUAL REPORT 2019-20 (April 2019 to March 2020)

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	
At : Larkipali,(RE Farm) PO. Rajendra College Dist. Bolangir – 767002 ODISHA	06652250165	06652250165	kvkbolangir.ouat@gmail.com 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	kvkbolangir.ouat@gmail.com

1.4. Year of sanction of KVK: 2009

1.5. Staff Position (as on 1st April, 2019)

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	Vacant						
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	Vacant						
7	Subject Matter Specialist	Vacant						
8	Programme Assistant	Vacant						
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	Vacant						
12	Stenographer	Vacant						
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	0.5
2.	Under Demonstration Units	0.5
3.	Under Crops	11.0
4.	Orchard/Agro-forestry	1.0
5.	Others	3.0
	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 after formal inauguration	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					Yes		Under Use	RKVY
9.	Dairy unit	Not started							
10.	Poultry unit	-				Yes	9×5mt	Under Use	RKVY
11.	Goatery unit	Not started							
12.	Mushroom Lab	-				Yes (spawn production)		Under Use	RKVY
13.	Mushroom production unit	Not started							
14.	Shade house	Not started				yes	18X5.5m	Under Use	RKVY
15.	Soil test Lab	Not started							
16	Seed Processing Unit	Not started							

* 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	177324	Running
Massey Tractor+trailer	2010	6.0 lakh	0998	Running
Motor Cycle	2012	0.53lakh	9123	Running

C) Equipment & 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	2012-13	86,100	Running	ICAR
Seed cum fertilizer drill	2012-13	52,100	Running	ICAR
Power thresher cum fan type winner(2nos)	2012-13	39,600	Running	ICAR
Power sprayer(2nos)	2012-13	12,688	Running	ICAR
Nine tyne cultivator	2012-13	12,400	Running	ICAR
Rotavator	2012-13	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

1.8. Details SAC meeting* conducted in the year

Sl. No.	Date	No. of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1.	7.11.19	40	Paddy variety Swarna Shreya may be through On farm testing for its performance	Planned in 2020-21 by intervention through of OFT with suitable cropping system	
			Protein rich rice, CR Dhan 310 need to be promoted and upscaled	Demonstration on CR Dhan 310 in larger area has been planned for upscaling	
			Short duration Arhar (90 to 100 days) should be tested and promoted, if found good in yield	Short duration of Arhar to be tested subject to availability of seed	
			Nutritional garden should be promoted more in the district with more demonstrations, trainings	Demonstration of nutritional garden in larger area including more households have been planned	
			For on campus RY and IS training line department to be cooperative to provide the names of the participants	Line deptts. have been apprised of this issue to select beneficiaries for the purpose	
			KVK should provide technical support to farmers operating under FPOs with facilitation and promotion by NABARD.	This has been taken care of with help of NABARD and is to be carried out in the year 2020-21.	
			Rice Var. Hasanta, tolerant against BPH / WBPH may be recommend to line department for popularization in adoption by farmers.	It has been recommended to line deptt. and the main constraint is unavailability of adequate seed for procurement	
			Promising technologies and findings of KVK should be communicated to respective line department for awareness among farmers with horizontal and vertical expansion.	It has been communicated to the concerned line deptt. for popularization	

			Organic farming may be given importance through technological intervention	It will be take care of through trainings and demonstration in the current year	
			At migration affected blocks KVK should plan to impart training on mushroom, vermicomposting, poultry, dairy, goatery. Nutrition garden may be given priority to combat malnutrition	Migration affected villages shall be included through survey and appropriate interventions as suggested may be taken up.	
			Vermicompost, mushroom production and dairy farming need to be converged for efficient use of farm byproducts	This will be taken up in the farmers field for efficient use of farm byproducts	
			Value addition in vegetables for empowerment of farm women in income generation may be given emphasis.	This sector has been given emphasis , but due to vacant post of Home Scientist the interventions are not gaining intensity	
			Convergence of farmers` developmental activities may be focused in KVK module villages, so as to give a visibility for other villages.	This will be done through more emphasis on farmers empowerment	

** 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 (2019-20)

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 ⁰ 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 (2019-20)

2. c. Details of village adoption programme:

Name of the villages adopted by PC and SMS (2019-20) for its development and action plan

Name of village	Block	Action taken for development
Bargaon	Bolangir	FLD on Bypass fat feeding to cows , FLD on feeding Management in Goats, FLD on deworming in goats, FLD on brooding mgmt in chicks, OFT on Improved poultry breeds, Trainings on various aspects, Group meetings and diagnostic field visits; FLD on management of sheath blight in Paddy, FLD on management of downy mildew in cucumber; Jal sakti abhiyaan for judicious use of water
Ratanpur	Deogaoan	FLD on feeding Management in Goats, FLD on deworming in goats, Trainings on various aspects, Group meetings and diagnostic field visits; Jal sakti abhiyaan for judicious use of water
Peepalbahali	Puintala	OFT on feeding of pretreated straw , FLD on feeding Management in Goats, FLD on deworming in goats, FLD on Bypass fat feeding to cows, Trainings on various aspects, Group meetings and diagnostic field visits; Jal sakti abhiyaan for judicious use of water
Banabahal	Puintala	FLD on brooding mgmt in chicks, OFT on Improved poultry breeds, FLD on feeding Management in Goats, Trainings on various aspects, Group meetings and diagnostic field visits; OFT on assessment of BPH tolerant Paddy; FLD on fruit borer management in okra; FLD on management of downy mildew in cucumber; Jal sakti abhiyaan for judicious use of water

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

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	Bolangir	Bargaon	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
2.	Bolangir	Deo-gaon	Ratanpur	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
3.	Bolangir	Puintala	Peepalbahali	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	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,
5.	Bolangir	Puintal	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

9.	Sustainable Livestock production during dry season
10.	Proper health and housing 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
15.	Farm mechanization/drudgery reduction of farm women
16.	Offseason vegetable cultivation
17.	Promotion of nutritional garden for nutritional security
18.	Introduction of suitable varieties with improved packages of practices
19.	Effective use of family labour through need based livelihood option

3. TECHNICAL ACHIEVEMENTS

3.A.Details of target and achievement of mandatory activities by KVK during the year

OFT												FLD											
No. of technologies tested:												No. of technologies demonstrated:											
Number of OFTs		Number of farmers										Number of FLDs		Number of farmers									
Target	Achievement	Target	Achievement									Target	Achievement	Target	Achievement								
			SC		ST		Others		Total						SC		ST		Others		Total		
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T
8	10	80	28	1	8	3	52	0	88	4	92	17	19	180	53	6	25	4	88	-	176	10	186

Training												Extension activities											
Number of Courses												Number of participants											
Target	Achievement	Target	Achievement									Target	Achievement	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
85	81	1900	252	50	243	37	1214	179	1503	266	1769	80	92	8000	2320	175	446	77	6995	1650	9761	1902	9325

Impact of capacity building												Impact of Extension activities											
Number of Participants trained												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											Target										
200											0.5										
Achievement											Achievement										
194											0.6										

Livestock strains and fish fingerlings produced (in lakh)*											Soil, water, plant, manures samples tested (in lakh)										
Target											Target										
500 nos											50 nos.										
Achievement											Achievement										
686 nos.											56 nos.										

* 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	1	-					
Seminar/conference/ symposia papers	3	-					
Books							
Bulletins							
News letter	1	500					
Popular Articles	5						
Book Chapter							
Extension Pamphlets/ literature	2	1000					
Technical reports	12	24					
Electronic Publication (CD/DVD etc)	8	12					
TOTAL	32	1536					

1 Achievements on technologies assessed and refined OFT-1

1	Title of On farm Trial	Assessment of high density planting on yield of cotton
2	Problem diagnosed	Low yield due to low plant density in upland condition
3	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Top1: Spacing- (60X15)cm , Variety- BS-30 Top 2:Spacing-(60x10)cm , variety- BS-30
4	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	AICRP on Cotton 2016 on spacing & CICR 2008 on variety
5	Production system and thematic area	High density Cotton
6	Performance of the Technology with performance indicators	Duration, Plant height, No. of sympodia, No.of Manopodia, Fibre length, Yield (Q/ha)
7	Final recommendation for micro level situation	Spacing-(60x10)cm , variety- BS-30
8	Constraints identified and feedback for research	Labour scarcity however they want more seed supply for next season
9	Process of farmers participation and their reaction	Farmers satisfied with Yield and economics

Thematic area: High density Cotton planting

Problem definition: Low yield due to low plant density in upland condition

Technology assessed:

Top1: Spacing- (60X15)cm , Variety- BS-30

Top 2:Spacing-(60x10) cm , variety- BS-30

Table: 2

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 Weigh(g)	Fiber length (cm)	Lint Index						
FP: Spacing-(90 x40) cm, variety- BS-30	7	2.3	26.2	34.4	15%	17.1	43500	99180	55680	2.28
Top1: Spacing- (60X15) cm, Variety- BS-30	7	2.24	25.1	33.7	22%	23.4	47600	135720	88120	2.85
Top 2: Spacing- (60x10) cm, variety- BS-30	7	2.21	24.1	32.2	26%	25.2	49100	146160	97060	2.98

OFT-2

1	Title of On farm Trial	Assessment of suitable variety of greengram in rice- greengram paira cropping system
2	Problem diagnosed	Low yield from local Greengram in Paddy-greengram (Paira) cropping system
3	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Top1:Rice (Swarna) – green gram (IPM 2-14) + 2% spray of DAP at pre flowering and again after 15 days of first spray Top 2: Rice (Swarna) – green gram (IPM-02-03) + 2% spray of DAP at pre flowering and again after 15 days of first spray
4	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT 2015
5	Production system and thematic area	Rice Green gram paira cropping
6	Performance of the Technology with performance indicators	No. of branches / plant , plant height ; No.of pods / plant,, Yield (Q/ha) Cost of intervention. Additional income over additional investment Yield (q/ha), B:C ratio
7	Final recommendation for micro level situation	Rice (Swarna) – green gram (IPM-02-03) + 2% spray of DAP at pre flowering and again after 15 days of first spray
8	Constraints identified and feedback for research	water scarcity, farmers want IPM 2-3 variety for next season
9	Process of farmers participation and their reaction	Farmers are satisfied with the technology of Rice (Swarna) – green gram (IPM-02-03) + 2% spray of DAP at pre flowering and again after 15 days of first spray

Thematic area: Rice- Green gram paira Cropping

Problem identified: Low yield from local Greengram in Paddy-greengram (Paira) cropping system

Technology assessed:

Top1:Rice (Swarna) – green gram (IPM 2-14) + 2% spray of DAP at pre flowering and again after 15 days of first spray

Top 2: Rice (Swarna) – green gram (IPM-02-03) + 2% spray of DAP at pre flowering and again after 15 days of 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
		Pods/Plant (nos)	Pod length(cm)	Grains/pod(nos.)	Test wt. (g)						
Rice (Swarna) – Greengram (var. Jhain mong – 2 Q/ha) and no application of any nutrient	7	8	5.4	6	33.4	30%	2.7	7100	19035	11935	2.68

Top1:Rice (Swarna) – green gram (IPM 2-14) + 2% spray of DAP at pre flowering and again after 15 days of first spray	7	12	8.3	10	37.5	22%	6.2	8850	43710	34860	4.93
Top 2: Rice (Swarna) – green gram (IPM-02-03) + 2% spray of DAP at pre flowering and again after 15 days of first spray	7	14	10.2	14	42.1	22.5%	7.1	8850	50055	41205	5.65

OFT-3

1.	Title of On farm Trial	Assessment of suitable tolerant variety of Rice against incidence of BPH/WBPH
2.	Problem diagnosed	Low yield due to incidence of BPH/WBPH in semi-low land kharif Paddy
3.	Details of technologies selected for assessment (Mention either Assessed or Refined)	TO1- Growing of Rice variety Pratikshya (140 days, Tolerant to BPH having yield potential of 45q/ha) TO2- Growing of Rice variety Hasanta(145 days, Small bold grains, white kernel, straw colour hull. Tolerant to BPH , leaf folder, blast, sheath blight . Yield Potential 55-60 Q)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	Integrated pest management
6.	Performance of the Technology with performance indicators	Yield/ha ; Extent of damage
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 of desired quantity of seed 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: Integrated pest management

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 Pratikshya (140 days, Tolerant to BPH having yield potential of 45q/ha)

Table:

Technology option	No. of trials	Yield component			Insect pest incidence (BPH) (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	B:C ratio
		No. of Nymphs / hill	Grains/panicle	Test wt. (100 grain wt.)						
FP	6	5.03	95.8	19	23.3	34.90	Rs. 26000	52350	26350	2.01
TOP 1	6	2.54	106.8	21	13.3	40.64	Rs. 28000	60960	32960	2.17
TOP 2	6	2.03	112.9	22	8.6	44.82	Rs.28000	67230	39230	2.40

OFT-4

1.	Title of On farm Trial	Assessment of IPM module for management of Gram pod borer in Pigeon pea
2.	Problem diagnosed	Low yield due to incidence of gram pod borer at pod formation stage
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO1- Maize as border crop, bird percher @ 50/ha, spraying of Emamectin benzoate 5% SG @ 0.45 g/ lit TO2- Maize as border crop, Pheromone trap @ 50/ha, need based spraying of Indoxacarb 15.8% SC @ 0.66 ml/ lit
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	Integrated pest management
6.	Performance of the Technology with performance indicators	Extent of infestation of crop and number of pods affected
7.	Final recommendation for micro level situation	Maize as border crop, Pheromone trap @ 50/ha, need based spraying of Indoxacarb 15.8% SC @ 0.66 ml/ lit for management of pod borer may manage the infestation at manageable level .
8.	Constraints identified and feedback for research	Availability of Pheromone trap at ease and pesticides are not easily available in local market
9.	Process of farmers participation and their reaction	Farmers are ready to adopt the technology to continue.

Thematic area: Integrated pest management

Problem definition: Low yield due to incidence of gram pod borer at pod formation stage

Technology assessed:

TOP 1: Maize as border crop, bird percher @ 50/ha, spraying of Emamectin benzoate 5% SG @ 0.45 g/ lit

TOP 2: Maize as border crop, Pheromone trap @ 50/ha, need based spraying of Indoxacarb 15.8% SC @ 0.66 ml/ lit

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence i.e. Extent of plants affected (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Extent of Pod infestation (%)	No. of seeds/ pod	Test wt. (100 grain wt.)						
FP	10	22.6	4.92	-	33.6	8.8	22500	61600	39100	2.70
TO1	10	16.2	5.10	-	18.8	10.93	26000	76510	40510	2.94
TO2	10	14.6	5.16		16.4	12.27	27000	85890	58890	3.18

OFT-5

1.	Title of On farm Trial	Assessment of different management system for control of whitefly in cotton
2.	Problem diagnosed	Low yield due to incidence of white fly in cotton
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO1- Planting of maize as border crop around the field, intercropping of cowpea @ 8:2 ratio TO2- Application of Azadirachtin 0.15%@ 1.5 Lit./ ha twice @ 30 & 45 DAS TO3- Application of Flonicamid 50% WG @ 175 gm/ha twice at 10 days interval
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	Integrated pest management
6.	Performance of the Technology with performance indicators	Extent of infestation of whitefly, Yield of intercrop and main crop , compatibility with existing system
7.	Final recommendation for micro level situation	Crop failure due to heavy rainfall of 620 mm in 48 hrs
8.	Constraints identified and feedback for research	Difficulty in planting of intercrop and border crop
9.	Process of farmers participation and their reaction	To be tested once again

Thematic area: Integrated pest management

Problem definition: Low yield due to incidence of white fly in cotton that cause curling and dwarfing of leaves and incidence of viral disease

Technology assessed:

TO1- Planting of maize as border crop around the field, intercropping of cowpea @ 8:2 ratio

TO2- Application of Azadirachtin 0.15%@ 1.5 Lit./ ha twice @ 30 & 45 DAS

TO3- Application of Flonicamid 50% WG @ 175 gm/ha twice at 10 days interval

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence No. of whiteflies/ plant	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Extent of infection (%)		Test wt. (100 grain wt.)						
FP	10	35.6		-	10.57					
TO1	10	28.0		-	9.08					
TO2	10	25.1			8.68					
TO3	10	21.6			7.96					

OFT-6

1.	Title of On farm Trial	Assessment of different management system for control of YMV in Greengram
2.	Problem diagnosed	Low yield due to incidence of YMV in greengram
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO1- Yellow trap @ 20/ ha + Spray of Difenthiuron @ 0.5 gm/ lit + Flonicamide @ 0.33 gm/ lit at 10 DAI alternately TO2- Yellow trap @ 20/ ha + Spray of Neem oil 3000 ppm @ 5 ml / lit + Dinotefuran @ 0.4 gm/ lit at 10 DAI alternately
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT
5.	Production system and thematic area	Integrated pest management
6.	Performance of the Technology with performance indicators	YMV management with this technology is advantageous over the farmers practice AND Extent of infection by whitefly, the vector ; Yield and economics
7.	Final recommendation for micro level situation	Management with Yellow trap @ 20/ ha + Spray of Difenthiuron @ 0.5 gm/ lit + Flonicamide @ 0.33 gm/ lit at 10 DAI alternately is better than the existing method
8.	Constraints identified and feedback for research	Difficulty in preparation of local made yellow trap ; commercial ones are not available in local market
9.	Process of farmers participation and their reaction	Satisfied with the technology using novel molecules

Thematic area: Integrated pest management

Problem definition: Low yield due to incidence of viral disease YMV , caused by white fly that sucks sap and acts as vector for the disease.

Technology assessed:

TO1- Yellow trap @ 20/ ha + Spray of Difenthiuron @ 0.5 gm/ lit + Flonicamide @ 0.33 gm/ lit at 10 DAI alternately

TO2- Yellowtrap @ 20/ ha + Spray of Neem oil 3000 ppm @ 5 ml / lit + Dinotefuran @ 0.4 gm/ lit at 10 DAI alternately

Table:

Technology option	No. of trials	Yield component			Extent of YMV infection in plant (%)	Yield (q/ha)	Cost of cultivation(Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
			No. of Pods/ Plant	Test wt. (100 grain wt.)						
FP	10		16.3	-	32.6	4.04	15000	28280	13280	1.88
TO1	10		30.9	-	16.4	6.16	19500	43120	23620	2.20
TO2	10		27.6		17.6	5.55	19000	38850	19850	2.05

OFT-7

1.	Title of On farm Trial	Assessment of Sulphur and Boron application on pod filling and development in kharif groundnut
2.	Problem diagnosed	Low yield due to poor pod filling & development in kharif groundnut
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO-1 : Soil test based fert. application + lime 5q/ha with application of Sulphur @ 30kg /ha TO-2 : Soil test based fert. Application + lime 5q/ha with application of Sulphur @ 30kg/ha along with Borax 10 kg/ha
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	AICRP on Dryland Agriculture, Phulbani, 2015
5.	Production system and thematic area	Groundnut-Vegetables and Integrated nutrient management
6.	Performance of the Technology with performance indicators	No. of pods per plant, yield (q/ha), cost of cultivation, gross return, net return, B:C ratio
7.	Final recommendation for micro level situation	Soil test based fert. Application + lime 5q/ha with application of Sulphur @ 30kg/ha along with Borax 10 kg/ha
8.	Constraints identified and feedback for research	Application of fertilizers not timely which reduce the development of pod
9.	Process of farmers participation and their reaction	Farmers were satisfied with their yield and economics

Thematic area: Nutrient management

Problem definition: Low yield due to poor pod filling & development in kharif groundnut

Technology assessed:

TO-1 : Soil test based fert. application + lime 5q/ha with application of Sulphur@ 30kg /ha

TO-2 : Soil test based fert. Application + lime 5q/ha with application of Sulphur @ 30kg/ha along with Borax 10 kg/ha

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 pods/plant	No. of spikelet per panicle	Test wt. (100 grain wt.)						
FP : Application of 20:40:20,N:P:K Fertilizer., No soil testing No micronutrient application	7	16			-	16.8	34500	85512	51012	2.42
TO-1 : Soil test based fert. application + lime 5q/ha with application of Sulphur @ 30kg /ha	7	20				19.8	38750	100782	62032	2.60
TO-1 : Soil test based fert. Application + lime 5q/ha with application of Sulphur @ 30kg/ha along with Borax 10 kg/ha	7	21				20.5	39800	104345	64545	2.62

OFT-8

1.	Title of On farm Trial	Assessment of B and Mo application on management of browning and whiptail disorder in rabi cauliflower
2.	Problem diagnosed	Low yield due to incidence of browning & whiptail disorder in rabi cauliflower
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO-1 : STBR(NPK)+ Spraying of Borax (0.2 %) at 30 & 45 DAT TO-2 : STBR (NPK) + Spraying of Ammonium molybdate (0.1%) at 30 & 45 DAT TO-3 : STBR (NPK)+ Spraying of Borax (0.2 %) & Ammonium molybdate (0.1%) at 30 & 45 DAT

4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	AICRP on Micronutrient and Pollutant, OUAT, 2016
5.	Production system and thematic area	Vegetable-vegetable and nutrient management
6.	Performance of the Technology with performance indicators	No. of pods per plant, yield (q/ha), cost of cultivation, gross return, net return, B:C ratio
7.	Final recommendation for micro level situation	STBR (NPK)+ Spraying of Borax (0.2 %) & Ammonium molybdate (0.1%) at 30 & 45 DAT
8.	Constraints identified and feedback for research	Difficulty in spraying and timely availability of micronutrients
9.	Process of farmers participation and their reaction	Farmers were satisfied with the technology of STBR application with Spraying of Borax (0.2 %) & Ammonium molybdate (0.1%) at 30 & 45 DAT

Thematic area: Nutrient management

Problem definition: Low yield due to incidence of browning & whiptail disorder in rabi cauliflower

Technology assessed:

TO-1 : STBR(NPK)+ Spraying of Borax (0.2 %) at 30 & 45 DAT

TO-2 : STBR (NPK) + Spraying of Ammonium molybdate (0.1%) at 30 & 45 DAT

TO-3 : STBR (NPK)+ Spraying of Borax (0.2 %) & Ammonium molybdate (0.1%) at 30 & 45 DAT

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
		Curd weight (g)	No. of spikelet per panicle	Test wt. (100 grain wt.)						
FP : No application of any micronutrient	7	760			-	285	77500	171000	93500	2.20
TO-1 : STBR(NPK)+ Spraying of Borax (0.2 %) at 30 & 45 DAT	7	894				302	79900	181200	101300	2.26
TO-2 : STBR (NPK) + Spraying of Ammonium molybdate (0.1%) at 30 & 45 DAT	7	923				311	81485	186600	105115	2.29
TO-3 : STBR (NPK)+ Spraying of Borax (0.2 %) & Ammonium molybdate (0.1%) at 30 & 45 DAT	7	1012				351	83885	210600	126715	2.51

OFT-9

1.	Title of On farm Trial	Assessment of Feeding of pre-treated straws for milk production in Desi cows
2.	Problem diagnosed	Low milk production in Desi cows due to heavy raw straw feeding
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO-1 : Soaking chaffed straw in water for 12 hrs and draining the red water and washing with fresh water and feeding to the cow (6-8kg/day) TO-2: Soaking chaffed straw in alkaline water (1%) for 30 min and draining the red water and washing with fresh water and feeding to the cow (6-8kg/day). TO-3: 4kg urea in 10 l of water/100kg straw (2-3 cm). Stored in airtight condition for 21 days. 30 min before feeding the feed need to be exposed to air to remove the smell
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Technical Bulletin NIANP, 2012 e-Course on Animal Nutrition and Feed Tech., IASRI Agricultural Technology Compendium, ICAR, 2004
5.	Production system and thematic area	Homestead and Livestock Production Management
6.	Performance of the Technology with performance indicators	Increase in Milk yield and Health status
7.	Final recommendation for micro level situation	Feeding of soaked chaffed straw resulted in increase milk yield. Urea treated straw gave best result
8.	Constraints identified and feedback for research	All farmers may not be in accord to feed urea treated straw
9.	Process of farmers participation and their reaction	Participated farmers were happy with the result

Thematic area: Livestock Production Management

Problem definition: Low Milk yield in potentially good desi cows due to heavy raw straw feeding.

Technology assessed:

TO-1 : Soaking chaffed straw in water for 12 hrs and draining the red water and washing with fresh water and feeding to the cow (6-8kg/day)

TO-2: Soaking chaffed straw in alkaline water (1%) for 30 min and draining the red water and washing with fresh water and feeding to the cow (6-8kg/day).

TO-3: 4kg urea in 10 l of water/100kg straw (2-3 cm). Stored in airtight condition for 21 days. 30 min before feeding the feed need to be exposed to air to remove the smell.

Table:

Technology option	No. of trials	Yield component Avg Milk yield	Health status (% fall sick)	% Change	Cost of production	Gross return	Net return	BC ratio
FP : Raw straw feeding	7	0.6 l/day/cow	All healthy	-	Rs. 7/cow/day (Labour)	Rs 15/cow/day	Rs 8/cow/day	2.14
TO-1 : Soaking chaffed straw	7	0.74 l/cow/day	All healthy	23.3	Rs.10/cow/day	Rs 22.2/cow/day	Rs	2.22

in water for 12 hrs and draining the red water and washing with fresh water and feeding to the cow (6-8kg/day)					(Labour)		12.2/cow/day	
TO-2 : Soaking chaffed straw in alkaline water (1%) for 30 min and draining the red water and washing with fresh water and feeding to the cow (6-8kg/day).	7	0.790 l/cow/day	All healthy	31.6	Rs. 10/cow/day (Labour)	Rs 23.7/cow/day	Rs 13.7/cow/day	2.37
TO-3 : 4kg urea in 10 l of water/100kg straw (2-3 cm). Stored in airtight condition for 21 days. 30 min before feeding the feed need to be exposed to air to remove the smell.	7	0.890 l/cow/day	All healthy	48.3	Rs. 11/cow/day (Labour +Urea)	Rs 26.7/cow/day	Rs 15.7/cow/day	2.42

OFT-10

1.	Title of On farm Trial	Comparative Assessment of improved poultry breeds for production in Backyard system
2.	Problem diagnosed	Poor production and income from local nondescript desi type chicken
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	TO-1 : Rearing of Kadaknath with proper brooding and backyard feeding management TO-2: Rearing of Aseel with proper brooding and backyard feeding management
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Source : Annual Report 2016-17, Dir. of Poultry , ICAR Annual Report 2017-18, ICAR-CARI
5.	Production system and thematic area	Homestead cum Backyard and Livestock Production Management
6.	Performance of the Technology with performance indicators	Chick Mortality, Body weight at 1m, 2m, 4m and age of laying, annual egg production, Cost of Intervention, Additional income over additional investment, BC Ratio
7.	Final recommendation for micro level situation	Growth rate of both Kadaknath and Aseel is better than Desi birds. Kadaknath growth rate is slightly better than Aseel
8.	Constraints identified and feedback for research	Readily availability of Pure Kadaknath and Aseel chick may be an issue
9.	Process of farmers participation and their reaction	Farmers were highly satisfied and expecting even better return in future

Thematic area: Livestock Production Management

Problem definition: Poor production and income from local nondescript desi type chicken

Technology assessed:

TO-1 : Rearing of Kadaknath chick with proper brooding management and feeding upto 15 days

TO-2: Rearing of Aseel chicks with proper brooding management and feeding upto 15 days

Table:

Technology option	No. of trials	Body weight gain in 2m	Chick mortality	% Change in weight gain	Cost of production	Gross return	Net return	BC ratio
FP : Rearing Desi birds with out proper brooding and feeding management	7	0.409 Kg/bird	11%	-	Rs. 30 (Labour cost for 2m/bird)	Rs. 123 (@ Rs. 300/Kg of meat)	Rs. 93/bird	4.1
TO-1 : Rearing of Kadaknath chick with proper brooding management and feeding upto 15 days	7	0.776 Kg/bird	2%	89.7	Rs. 46 (Labour cost for 2m/bird + Feed cost + vaccine)	Rs. 233 (@ Rs. 300/Kg of meat)	Rs. 187/bird	5.06
TO-2 : Rearing of Aseel chick with proper brooding management and feeding upto 15 days	7	0.766 Kg/bird	3%	87.2	Rs. 46 (Labour cost for 2m/bird + Feed cost + vaccine)	Rs. 230 (@ Rs. 300/Kg of meat)	Rs. 184/bird	5.0

3.2 Achievements of Frontline Demonstrations

A. Details of FLDs conducted during the year

Cereals

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration									Reasons for shortfall in achievement
				Proposed	Actual	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F	T	
1.	Finger Millet	Varietal substitution	Growing of Finger Millet Var. Arjun The variety having duration 100-105 days, yield potential 6t/ha, Resistance to blast and stem borer.	2	2	0	0	10	0	0	0	10	0	10	
2.	Ground-nut	Weed management	Pre emergence application of Oxyflourofen @ 200 ml / ha followed by early post emergence spray of imazethapyr 750 gm /ha.	2	2	2	0	0	0	8	0	10	0	10	
3.	Paddy	Varietal Substitution	Growing Rice Var. CR Dhan 310 of 120-125 days , Has protein content of at least 10% with moderately high Zinc. ; Tolerant to blast, brown spot, tungro virus, BLB, moderately resistant to sheath blight	2	2	0	0	10	0	0	0	10	0	10	
4.	Vegetable crops	Kitchen garden	Trellis structure with PP rope for raising cucurbits	1	10	2	0	0	0	8	0	10	0	10	

			Protray for raising seedlings in small quantity Cement ring tank for vermi composting, Growing vegetables round the year covering leafy vegetables, sola , Solanaceous vegetables, Roots and Tubers, cucurbits suiting to consumption pattern + Two Papaya Plants ,One Lemon, one drumstick and two Banana and floriculture in bunds												
5.	Rice	Integrated pest management	Demonstration of Need based Spraying of the combination fungicide Azoxystrobin + difenconazole @ 1ml/ lit twice at 15 days interval starting from initiation of the infection to control Sheath blight in rice	5	5	2	0	1	0	7	0	1 0	0	1 0	
6.	Chili	Integrated pest management	Demonstration of seed treatment with Gaucho @ 7gm/ kg seed, removal of affected parts, need based spraying of Difenthiuron @ 0.4 gm/lit and Etoxazole @ 1 ml/ lit alternately at 10-15 DAI for management of thrips and mites in Chilli	2	2	9	0	1	0	0	0	1 0	0	1 0	
7.	Okra	Integrated pest mana- gement	Demonstration of three spraying of Tebuconazole 50% + Trifloxystrobin 25 % @ 1ml / lit and difenconazole 25 % @ @ 1ml / lit at 10 days interval after initiation of the diseaseto control Cercospora leaf spot of Okra	1	1	2	0	0	0	8	0	1 0	0	1 0	
8.	Cucumbe r	Integrated pest mana- gement	Demonstration of management in combination with cultural and chemical measures (clean cultivation, drainage). Seed treatment with ridomil MZ 0.25% + three times removal of lower infected leaves and spraying with mancozeb 0.25% to manage downy mildew disease in cucumber	1	1	1	0	1	0	8	0	1 0	0	1 0	
9.	Arhar	Soil fertility management	Seed inoculation of Rhizobium @ 20gm/kg seed ; PSB @ 6 Kg mixed with 300 kg of FYM and 15Kg lime, incubated at 30% moisture for a week & applied in soil enhances microbial load by 15 to 20 times	2	2	5	0	5	5	0	5	10	0	1 0	
10	Greengra m	Soil fertility management	Foliar application of 2 % DAP at pre- flowering stage followed by NPK (19:19:19) at 15 days after first spray	2	2	7	0	2	0	1	0	10	0	1 0	
11	Tomato	Soil fertility management	Soil application of Gypsum @ 2.5 Q/ ha. , Foliar application of Calcium carbonate 5%	1	1	1	0	1	0	8	0	10	0	1 0	

			(1-2 Tbsp/ 4.5 lit) of water												
12	Onion	Soil fertility management	Application of Sulphur @ 45 kg/ha along with the soil test based fertiliser application	1	1	0	0	0	0	10	0	10	0	10	
13	Marigold	Yield increment in ornamental crops	Demonstration of high yielding Marigold variety Bidhan marigold , spacing 40x 30 cm and suitable package of practice , Av. Flowers per plant is 128, Orange and compact flowers	1	1	4	1	4	1	2	0	8	2	10	
14	Papaya	Production technology in vegetable	Growing of Papaya variety , Redlady with integrated nutrient management	2	1	4	0	3	0	3	0	10	0	10	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P ₂ O ₅	K ₂ O					
Finger Millet	Khjarif	Rainfed	Laterite	335	17.8	110.2	Green gram	30.07.2019	01.11.19	450 mm	33
Groundnut	Kharif	Rainfed	Sandy Loam	324	15.5	104.3	Brinjal	20.06.2019	18.10.19	540 mm	41
Rice	Kharif 19-20	Rainfed lowland	Mixed red/black	380	28	130	Rice	3 rd wk. July	1 st week Dec.	700 mm	43
Kitchen garden	Kharif / Rabi 19-20	Irrigated upland	Mixed red/black	380	28	130	Rice	4 th wk. July / Nov	1 st week Oct./ Feb.	700 mm	43
Rice	Kharif 19-20	Rainfed med. land	Mixed red/black	350	30	118	Rice	4 th wk. July	3 rd week Dec.	700 mm	39
Chilli	Rabi 19-20	Irrigated up land	Sandy loam	298	18	125	Rice	4 th week November	March	43 mm	14
Okra	Rabi 19-20	Irrigated Up land	Sandy loam	289	41	138	Brinjal	3 rd week January	9 March	54 mm	12
Cucumber	Rabi 19-20	Irrigated Upland	Sandy Loam	301	42	141	Okra	3 rd week January	16 March	78 mm	17
Arhar	Kharif	Rainfed semi-upland	Sandy loam	265	14	128	Paddy	8 th june	15 th Dec.	765 mm	49
Greengram	Kharif	Rainfed	Sandy loam	287	17	143	Brinjal	2 nd wk Aug	4 th Nov	556	43

		mediumland								mm	
Tomato	Rabi	Irrigated upland	Sandy loam	271	15	134	Maize	4 th wk October	3 rd wk Feb	51 mm	23
Onion	Rabi	Irrigated medium land	Sandy loam	296	18	125	Onion	3 rd December	4t wk march	43 mm	19
Marigold	Rabi	Irrigated upland	Sandy loam	265	14	128	Paddy	2 nd wk Jan	4t wk march	39 mm	21
Papaya	Rabi	Irrigated upland	Mixed red/black	265	14	128	Vegetab les	1 st wk Jan.	-	38 mm	22

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
Ground Nut	Weed management	Pre emergence application of Oxyflourofen @ 200 ml / ha followed by early post emergence spray of imazethapyr 750 gm /ha.	10	2	12.4	11.5	7.8	37500	63116	25616	1.68	38800	58535	19735	1.51

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

** BCR= GROSS RETURN/GROSS COST

Pulses

Frontline demonstration on pulse crops

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

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

** BCR= GROSS RETURN/GROSS COST

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BC R	Gross Cost	Gross Return	Net Return	** BC R
Finger Millet	Varietal substitution	Growing of Finger Millet Var. Arjun The variety having duration 100-105 days,	10	2	14.5	7.8	46.2 %	Plant height(cm) (102)	Plant height(cm) (61)	14350	45675	31245	3.18	11500	24570	13070	2.14
								Earhead/m ² (102)	Earhead/m ² (75)								
								No of Fingers /earhead (7.1)	No of Fingers /earhead (4.8)								
Groundnut	Weed management	Pre emergence application of Oxyfluorfen @ 200 ml / ha followed by early post emergence spray of imazethapyr 750 gm /ha.	10	2	12.4	11.5	7.8%	Plant height (cm) (42.7)	Plant height (cm) (41.4)	37500	63116	25616	1.68	38800	58535	19735	1.51
								No of branches/plant (5.5)	No of branches/plant (5.2)								
								No of pods/plant (13.6)	No of pods/plant (12.8)								
								Shelling % (61.3)	Shelling % (56.5)								
Paddy	Varietal Substitution	Growing Rice Var. CR Dhan 310 of 120-125 days , Has protein content of at least 10% with moderately high Zinc. ; Tolerant to blast, brown spot, tungro virus, BLB, moderately	10	2	45.7	43.0	5.9%	Plant height(cm) (95)	Plant height(cm) (87)	43100	82945.5	39845	1.92	43100	78045	34944	1.81
								Panicle/m ² (nos) (301)	Panicle/m ² (nos) (282)								
								Test weight (g) (23.6)	Test weight (g) (22.1)								

		resistant to sheath blight						Protein content (10.2)	Protein content (6.4)								
Vegetables	Kitchen Garden	Trellis structure with PP rope for raising cucurbits Protray for raising seedlings in small quantity Cement ring tank for vermi composting, Growing vegetables round the year covering leafy vegetables, sola , Solanaceous vegetables, Roots and Tubers, cucurbits suiting to consumption pattern +Two Papaya Plants ,One Lemon, one drumstick and two Banana and floriculture in bunds	10	1	4950	3964	20%	Okra (200q/ha)	Okra (160q/ha)	50000	60000	55000	12.0	50000	48000	43000	9.60
								Cucumbar (175q/ha)	Cucumbar (122q/ha)	50000	52500	47500	10.5	50000	36600	31600	7.32
								Brinjal (400q/ha)	Brinjal (300q/ha)	50000	12000	11500	24.0	50000	90000	85000	18.0
								Tomato (400q/ha)	Tomato (300q/ha)	50000	80000	75000	16.0	50000	60000	55000	12.0
								Chilly(250 q/ha)	Chilly(140 q/ha)	50000	75000	70000	15.0	50000	42000	37000	8.40
								Sub total kharif (1425q/ha)	Sub total kharif (1022q/ha)	250000	387500	362500	15.50	250000	276600	251600	11.06
								Papaya (1000q/ha)	Papaya (1000q/ha)	18200	10000	81800	5.49	18200	10000	81800	5.49
								Banana (400q/ha)	Banana (400q/ha)	21200	16000	13880	7.55	21200	16000	13880	7.55
								subtotal annual (1400q/h)	subtotal annual (1400q/h)	394000	260000	220600	6.60	394000	260000	220600	6.60
								Cabbage (300q/ha)	Cabbage (220q/ha)	50000	60000	55000	12.0	50000	44000	39000	8.80
								Cauliflower (250q/ha)	Cauliflower (200q/ha)	50000	50000	45000	10.0	50000	40000	35000	8.00
								Okra (200q/ha)	Okra (160q/ha)	50000	60000	55000	12.0	50000	48000	43000	9.60
								Cucumbar (175q/ha)	Cucumbar (122q/ha)	50000	52500	47500	10.5	50000	36600	31600	7.32
								Brinjal (400q/ha)	Brinjal (300q/ha)	50000	12000	11500	24.0	50000	90000	85000	18.0
								Tomato (400q/ha)	Tomato (300q/ha)	50000	80000	75000	16.0	50000	60000	55000	12.0
								Chilly(250 q/ha)	Chilly(140 q/ha)	50000	75000	70000	15.0	50000	42000	37000	8.40

								Marigold (150/ha)	Marigold (100q/ha)	20376 2	33000 0	12623 8	1.62	20376 2	22000 0	16238	1.08
								subtotal rabi(212q/ ha)	subtotal rabi(1542q /ha)	55376 2	53050 00	47512 38	9.58	55376 2	38260 00	32722 38	6.91
								Total (4950q/h)	Total (3964q/h)	11977 62	11780 000	10582 238	10.5 6	11977 62	91920 00	79942 38	8.19
Rice	Integra ted pest manag ement	Demonstration of Need based Spraying of the combination fungicide Azoxystrobin + difenconazole @ 1ml/ lit twice at 15 days interval starting from initiation of the infection to control Sheath blight in rice	10	5	44.6 6	40.2 3	9.9	Extent of infection 12.2 %	Extent of infection 16.5 %	36800	75922	39122	2.06 \\	35000	68391	33391	1.95
Chilli	Integra ted pest manag ement	Demonstration of seed treatment with Gaucho @ 7gm/ kg seed, removal of affected parts, need based spraying of Difenthiuron @ 0.4 gm/lit and Etoxazole @ 1 ml/ lit alternately at 10-15 DAI for management of thrips and mites	10	2	138. 8	111. 9	24	Extent of infection 20.4 %	Extent of infection 34.8 %	92000	41640 0	32440 0	4.52	84000	33570 0	25170 0	3.99

Okra	Integrated pest management	Demonstration of three spraying of Tebuconazole 50% + Trifloxystrobin 25 % @ 1ml / lit and difenconazole 25 % @ @ 1ml / lit at 10 days interval after initiation of the disease to control Cercospora leaf spot of Okra	10	2	111.7	101.5	10.04	Extent of infection 12.8 %	Extent of infection 18.64 %	52000	167550	115550	3.23	48000	152250	104250	3.17
Cucumber	Integrated pest management	Demonstration of management in combination with cultural and chemical measures (clean cultivation, drainage). Seed treatment with ridomil MZ 0.25% + three times removal of lower infected leaves and spraying with mancozeb 0.25% to manage downy mildew disease in Cucumber	10	2	445.2	407.1	8.6	Extent of infection 16 %	Extent of infection 29.4 %	80000	356000	276000	4.45	75800	325600	249800	4.29

Arhar	Soil fertility management	Seed inoculation of Rhizobium @ 20gm/kg seed ; PSB @ 6 Kg mixed with 300 kg of FYM and 15Kg lime, incubated at 30% moisture for a week and applied in soil enhances beneficial microbial load by 15 to 20 times	10	2	14.7	12.5	17.6	33700	85260	51560	2.52	30500	72500	42000	2.37		
Greengram	Soil fertility management	Foliar application of 2 % DAP at pre flowering stage followed by NPK (19:19:19) at 15 days after first spray	10	2	9.8	8.2	19.5	28570	69090	40520	2.42	25855	57810	31955	2.23		
Toamto	Soil fertility management	Soil application of Gypsum @ 2.5 Q/ ha. , Foliar application of Calcium carbonate 5% (1-2 Tbsp/ 4.5 lit) of water	10	1	435	358	21.5	86 (No of fruits/plant)	53 (No of fruits/plant)	125970	261000	135030	2.07	120850	214800	93950	1.77
Onion	Soil fertility management	Application of Sulphur @ 45 kg/ha along with the soil test based fertiliser application	10	1	371	316	17.4	54.7 (Bulb weight)	68.6 (Bulb weight)	103750	296800	193050	2.86	96250	252800	156550	2.62

Marigold	Yield increment in ornamental crops	Demonstration of high yielding Marigold variety Bidhan marigold , spacing 40x30 cm and suitable package of practice , Av. Flowers per plant is 128, Orange and compact flowers	10	1	250	160	56	No. of flowers/ plant 150	100	82000	202000	120000	2.46	78000	135000	57000	1.73
Papaya	Production technology in vegetable	Growing of Papaya variety , Redlady with integrated nutrient management	10		450	300	50	No. of fruits / plant 90	50	137700	450000	312300	3.2	132000	300000	168000	2.2

Livestock

[illegible]

[illegible]

* 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.)			
					Demons ration	Check		Demons ration	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
Oyster mushroom	Enterprise development															
Button mushroom																
Vermicompost																
Sericulture																
Apiculture																
Others (pl.specify)																
Total																

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

** BCR= GROSS RETURN/GROSS COST

Women empowerment

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women	Nutritiional garden with nutrient rich vegetables and fruits (Vegetable plots with spinach, carrot, onion, tomato, cucurbits, raddish, broccoli, peas;	10			

	2 plants each from papaya and banana with one drumstick plant)				
Pregnant women					
Adolescent Girl					
Other women					
Children					
Neonatal					
Infants					

Farm implements and machinery

[illegible]

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

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

Demonstration details on crop hybrids	NIL
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[illegible]

[illegible]

Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1	Rice	Promising and novel effective molecules are not available at all or not timely available in local market , Difficulty in application due to drudgery while working .
2	Cucumber	Difficulty in spraying at full fruiting stage, however the protection measures with suitable pesticide gave 38 Q more yield per hectare
3	Okra	Pheromone trap for fruit borer is a promising technology. However the availability is too scarce. Suitable measures may be taken at University level for preparation of lures as a component of IPM .
4	Marigold	Bidhan Marigold cuttings are not easily available .
5	Onion	Suitable variety of Kharif Onion is required in the district
6	Rice	Seed of variety CR dhan 310 may be made available for kharif crop

Extension and Training activities under FLD

Sl.No.	Activity	Date	No. of activities	No.of participants	Remarks
1.	Field days	11.11.19 22.02.20 16.03.20 20.01.20 12.03.20 17.03.20	1 1 1 1 1 1	25 25 25 25 25 25	Field Day on Sheath blight in rice Field Day on Cercospora leaf spot in Okra Field Day on mgt of downy mildew in cucumber Field Day on Bypass fat feeding in cows Field Day on Mustard Field Day on Artificial Brooding MGMT in chicks
2.	Farmers Training	22.04.19 24.06.19 25-27.07.19 30.07.19 06.08.19 30.8.19 12.09.19 16.09.19 21.12.19 11.10.19 15.10.19 23.10.19 08-10.08.19 16-18.07.19 25.01.20 16.02.20 3.2 20	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 25 15 25 25 25 25 25 25 25 25 25 15 15 25 25 25	Training on cultural management in rice Trg. on cultural manipulation for mgt of sucking pests Training on AESA in Rice Training on management of chillithrips and mites Training on Management of sheath blight in rice Training on Management of high density cotton Trg. On management of B & Mo deficiency in vegetables Trg. on growing of protein rich cultivation of rice Training on management of leaf spot of okra Training on Brooding MGMT in chicks Method of lime application to curb bossom end rot Training on mgmt practices in Backyard poultry farming Trg. On Feeding, housing & disease mgmt in goats Trg. On feeding strategies of Desi and CB cows Trg. On feeding of bypass fat and min mix in cows Training on foliar application of fertilisers Training on seed inoculation in pulses

3.	Media coverage	In different dates throughout the year	11	mass	On different activities of KVK
4.	Training for extension functionaries	20.08.19 27.9.19 2.12.19 16.12.19 20.01.20 22.01.20	1 1 1 1 1 1	10 10 10 10 10 10	Training on Ration planning strategies for milch cows Nutrient def. in crops and management Training on novel PP chemicals for pest management Training on recent trend on management of mastitis Training on crop diversification in rainfed area Training on climate resilient agriculture

**Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif 2019 and Rabi 2019-20:
CROP 1 (Pigeon Pea)**

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	No. of farm-ers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1	Pigeon Pea, Var. PRG176	Local Asha	7.0	8.0	10.6	14.5	Seed dressing with vitavax power@3gm/kg seed ; rhizobium treatment @20gm/kg seed, Soil micronutrient (Zypmite plus @1qtl/ha), herbicide Imazethapyr @750 ml/ha, PP Chemical Emmectin benzoate @0.5gm/ltr ; Dinitrofuran @ 0.4gm/lit Metalaxyl+ Mancozeb @ 2.5gm/lit	47	20	14.2	7.0	11.8	17.5	11.3	18.6

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 Emactin benzoate @0.5gm/ltr Dinitrofurran @ 0.4gm/lit Metalaxyl+ Mancozeb @ 2.5gm/lit	19,500	35,000	15,500	1.8	26,400	59,000	32,600	2.3

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 (Man days/house hold)
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 Emactin benzoate @0.5gm/ltr Dinitrofurran @ 0.4gm/lit Metalaxyl+ Mancozeb @ 2.5gm/lit	1180	1000	50	180	-	To meet daily requirement, repayment of loan etc.	90 man-days / ha

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	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 Emactin benzoate @0.5gm/ltr Dinitrofuran @ 0.4gm/lit Metalaxyl+ Mancozeb @ 2.5gm/lit	Suitable	PRG176 variety performing good yield and of shorter duration than Asha	Yes	Pest problem, can be managed	Yes	Ensure availability of seed

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	PRG176 Performing 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

F. Extension activities under FLD conducted:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1	Field day	12.12.19/ Sirabahal	50
2	Field day	09.12.19/ Bagala	50

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



H. Farmers' training photographs



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	
	ii) TA/DA/POL etc. for monitoring	18,000	-	
	iii) Extension Activities (Field day),training& misc.		11,705	
	iv)Publication of literature		0	6295
	Total	1,80,000	1,73, 705	6295

Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif 2019 and Rabi 2019-20:

CROP – 2 (Rape seed and Mustard) (Rabi 2019-20)

B. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1	Mustard var. Uttara	Local	3.1	7.5	12	10	Seed 4Kg/ ha)+Herbicide (Pyrazosulfuron ethyl 10EC) 500ml + Sulphur 10kg + Pro Green Bag (8 nos.) + Bavistin (100g)	40	20	8.28	7.54	7.96	30	12	55

J. 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	Seed (Var-Uttara 4Kg)+Herbicide (Pyrazosulfuron ethyl 10EC) 500ml + Sulphur 10kg + Pro Green Bag (8 nos.) + Bavistin (100g)	3700	13710	10010	3.7	7821.2	35231.4	27410.2	4.5

K. 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 (Man days/house hold)

1	Seed (Var-Uttara 4Kg)+Herbicide (Pyrazosulfuron ethyl 10EC) 500ml + Sulphur 10kg + Pro Green Bag (8 nos.) + Bavistin (100g)	159.335	159.335	44.25	-	-	For livelihood support	16 man-days / ha
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L. 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	Seed (Var-Uttara 4Kg)+Herbicide (Pyrazosulfuron ethyl 10EC) 500ml + Sulphur 10kg + Pro Green Bag (8 nos.) + Bavistin (100g)	Suitable	Uttara variety performing good yield and of shorter duration than Local variety	Yes	Pest problem, can be managed	Yes	Farmers more productive high yielding variety

M. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Variety is resistance to White rust and powdery mildew	Variety Uttara Performing very good	Uttara performing better yield in comparison to local variety	Farmers satisfied with this technology and demand High yielding variety

N. Extension activities under FLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1	Field day	12.03.2020/ Bargaon	40

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



11. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Arhar	i) Critical input	1,08,000	1,08,000	0
	ii) TA/DA/POL etc. for monitoring	12,000	-	
	iii) Extension Activities (Field day),training& misc.		5,705	0
	iv)Publication of literature			6295
	Total	1,20,000	1,13,705	6,295

A) Farmers and farm women (on campus)

[illegible]

[illegible]

[illegible]

B) Rural Youth (on campus)

[illegible]

C) Extension Personnel (on campus)

[illegible]

[illegible]

[illegible]

[illegible]

E) RURAL YOUTH (Off Campus)

[illegible]

[illegible]

[illegible]

i. Farmers & Farm Women

[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
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
TOTAL													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
TOTAL													
III. Soil Health and Fertility Management													
Soil fertility management	6	71	35	106	0	10	10	17	17	34	88	62	150
Soil and Water Conservation													
Integrated Nutrient Management	8	91	15	106	35	22	57	12	25	37	138	62	200
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops	1	13	11	24	0	0	0	1	0	1	14	11	25
Nutrient Use Efficiency													
Soil and Water Testing	1	4	1	5	0	0	0	15	5	20	19	6	25
Others, if any													
TOTAL	16	179	62	241	35	29	64	40	44	84	259	141	400
IV. Livestock Production and Management													
Dairy Management	4	68	16	84	11	0	11	5	0	5	84	16	100
Poultry Management	2	39	1	40	2	0	2	5	3	8	46	4	50
Piggery Management													
Rabbit Management													
Disease Management	2	17	4	21	10	1	11	4	14	18	31	19	50
Feed management	5	61	0	61	33	0	33	31	0	31	125	0	125
Production of quality animal products													
Others, if any Goat farming	2	16	1	17	6	0	6	16	11	27	38	12	50
TOTAL	15	201	22	223	62	1	63	61	28	89	324	51	375

[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
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	58	846	98	844	206	46	252	173	81	254	1225	225	1450

ii. RURAL YOUTH (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Mushroom Production													
Bee-keeping													
Integrated farming	4	30	0	30	15	9	24	6	0	6	51	9	60
Seed production													
Production of organic inputs	3	14	0	14	24	0	24	7	0	7	45	0	45
Nutritional Gardening	1	0	5	5	0	10	10	0	15	15	0	15	15

iii. Extension Personnel (On and Off Campus)

[illegible]

Value addition													
Integrated Pest Management	1	7	0	7	1	0	1	2	0	2	10	0	10
Rejuvenation of old orchards													
Value addition													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals	1	6	1	7	1	0	1	2	0	2	9	1	10
Livestock feed and fodder production	1	10	7	17	6	2	8	0	0	0	16	9	25
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others (climate resilient agril.)	1	5	2	7	1	0	1	1	1	2	7	3	10
TOTAL	7	43	14	57	12	3	15	8	1	9	63	18	81

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
Crop Production	FW	Nutrient management in cotton based intercropping	1	Off-campus	25	-	25	-	-	-
	FW	Herbicide management in Groundnut	1	Off-campus	25	-	25	2	-	2
	FW	Use of CLCC in Rice	1	Off-campus	25	-	25	-	-	-
	FW	Sowing	1	Off-	18	7	25	18	7	25

		techniques of Finger Millet		campus						
	FW	Brown manuring in Rice	1	Off-campus	25	-	25	24	-	24
	FW	High density planting in Cotton	1	Off-campus	25	-	25	25	-	25
	FW	Cult. Tech of protein rich Rice	1	Off-campus	25	-	25	-	-	-
	RY	Vermicomposting	1	ON campus	15	-	15	3	-	3
	FW	Rice –pulses paira cropping system	1	Off-campus	25	-	25	2	-	2
	RY	Devt. of IFS model	1	ON campus	15	-	15	-	-	-
	IS	Crop Diversification in rainfed area	1	ON campus	9	1	10	2	1	3
	IS	Climate resilient agriculture	1	ON campus	8	2	10	-	-	-
Plant Protection	F/FW	Cultural management of insect pest in pre-kharif season	1	Off-campus	25	-	25	9	-	9
	F/FW	Cultural practices for management of polyphagous insect pests of Maize	1	Off-campus	25	-	25	11	-	11
	F/FW	Cultural manipulation in Cotton crop for management of sucking pests	1	Off-campus	25	-	25	20	-	20
	F/FW	Nature of damage and management of fall army worm in Maize	1	Off-campus	25	-	25	15	-	15
	F/FW	Pest management measures against BPH/ WBPH during nursery raising / transplanting of Rice	1	ON - campus	25	-	25	-	-	-
	F/FW	Nature of damage and management of mites and thrips in Chilli	1	Off-Campus	13	12	25	7	12	19
	F/FW	Management of Sheath blight disease in Rice	1	Off-campus	25	-	25	15	-	15
	F/FW	Management of leaf folder and stem borer in Rice	1	Off-campus	25	-	25	4	-	4
	F/FW	Effective chemicals against BPH / WBPH and methods of	1	On-campus	25	-	25	13	-	13

		use								
	F/FW	Nature of damage and management to control gram pod borer in Arhar	1	Off-campus	25	-	25	4	-	4
	F/FW	Management of shoot and fruit borer in Okra	1	Off-campus	25	-	25	2	-	2
	F/FW	Control of leaf spot and YMV disease in Okra	1	Off-campus	25	-	25	3	-	3
	F/FW	Pest management in Nutritional garden	1	Off-campus	16	9	25	16	9	25
	F/FW	Wilt management in Solanaceous vegetables	1	Off-campus	25	-	25	4	-	4
	RY	AESA and Ecological Engineering for pest management in Rice	3	On-campus	15	-	15	4	-	4
	RY	Preparation & appln. of new PP chemicals	3	On-campus	15	-	15	4	-	5
	RY	Management of insect pest through biorationals	3	On-campus	15	-	15	15	-	15
	RY	Production of Organic inputs & their application	3	On-campus	15	-	15	15	-	15
	RY	Development of para extension youth through skill training	3	On-campus	15	-	15	9	-	9
	IS	Novel PP chemicals and their metabolism in pest management	1	On-campus	10	-	10	3	-	3
Soil Sc.	F/FW	Importance of soil testing & interpretation of result	1	Off campus	19	6	25	15	5	20
	F/FW	Soil sample collection technique	1	Off campus	4	21	25	3	12	15
	F/FW	Calculation on quantity of fertilizers mix for application in paddy	1	Off campus	16	9	25	4	1	5
	F/FW	Foliar application of nutrients in water stress condition	1	On campus	19	6	25	5	6	11
	F/FW	Judicious nutrient application in Arhar	1	Off campus	11	14	25	1	2	3

F/FW	Methods of micronutrient application in groundnut	1	Off campus	13	12	25	4	6	11
IS	Nutrient deficiency symptoms and their management	1	On campus	10	0	10	4	0	4
F/FW	Deficiency of B & Mo in cauliflower and its management	1	Off campus	14	11	25	1	0	1
F/FW	Procedure of green manuring in rice	1	On campus	20	5	25	7	2	9
F/FW	Methods of incorporation of compost for improving soil health in vegetables	1	Off campus	22	3	25	0	0	0
F/FW	Methods of lime application for management of blossom end rot in tomato	1	Off campus	25	0	25	0	0	0
F/FW	Methods of conservation of beneficial microbes in soil	1	Off campus	4	21	25	3	13	16
RY	Vermicompost production technology	1	On campus	15	0	15	7	0	7
F/FW	Preparation of microbial consortia and its application in Pigeon pea	1	Off campus	25	0	25	4	0	4
RY	Management of acid soil	1	On campus	15	0	15	4	0	4
F/FW	Site specific nutrient management in maize	1	Off campus	25	0	25	0	0	0
F/FW	Knowledge on S combining fertilizers & its application in onion	1	Off campus	9	16	25	3	12	15
RY	Skill on selection of compound fertilizers for application in field crops	1	On campus	15	0	15	6	0	6
IS	Nutrient management in different agro-ecological situation	1	On campus	4	6	10	1	1	2
F/FW	The techniques of seed inoculation	1	Off campus	0	0	0	12	13	25

		with biofertilizers in pulses and oil seed								
	F/FW	Management of acid soil for soil amelioration	1	Off campus	0	0	0	18	7	25
	R/Y	Nutrient deficiency in soil & crop its management	1	On campus	0	0	0	4	11	15
Animal Sc.	F/FW	Importance of mineral mixture feeding for obtaining correct time puberty	1	Off campus	25	0	25	7	0	7
	F/FW	Fodder cultivation strategies and method to feed cows	1	Off campus	25	0	25	15	0	15
	F/FW	Vaccination schedule and strategies to be followed for cows	1	Off campus	6	19	25	4	15	19
	F/FW	Proper housing management to prevent diseases in cows	1	Off campus	25	0	25	14	0	14
	F/FW	Thorn-less cactus cultivation in waste land and feeding to livestock	1	Off campus	25	0	25	1	0	1
	R/Y	Feeding strategies of Desi and CB cows for effective milk production	3	On campus	15	0	15	1	0	1
	F/FW	Feeding of treated straw to increase milk yield in cows	1	Off campus	25	0	25	15	0	15
	F/FW	Vaccination strategies for goats	1	Off campus	13	12	25	8	11	19
	R/Y	Feeding housing and disease management in goats	3	On campus	14	1	15	8	1	9
	F/FW	Sanitary practices in shed and during milking to prevent mastitis	1	Off campus	25	0	25	10	0	10
	IS	Ration planning strategies for milch cows	1	On campus	16	9	25	6	2	8
	F/FW	Azolla cultivation for feeding of cattle	1	Off campus	25	0	25	18	0	18
	F/FW	Brooding	1	Off	21	4	25	3	3	6

Details of training programmes for Rural Youth

[illegible]

I) Sponsored Training Programmes

[illegible]

[illegible]

B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	16
Radio talks	9
TV talks	-
Popular articles	3
Extension Literature	4
Other, if any (Survey on use of ICT by farmers)	320

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
Total								

KVK farm

Crop	Variety	Quantity of seed(q)	Value (Rs)	Number of farmers to whom seed provided			
				SC	ST	Other	Total
Rice	Pooja	150	450000				
	Sahabhagidhan	44	130000				
Grand Total							

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
Tomato	Arka rakshak	7000	77,900	3	4	3	10
Brinjal	Pusa Kranti	7100		7	1	2	10
Chilli	Siam hot	7000		8	1	1	10
Onion	AFLR	30,000		5	1	14	20
Cabbage	Indu	2000		3	2	5	10
Cauliflower	Barkha	2000		4	3	5	12
Papaya	Red Lady	1920		4	-	8	12
Marigold	Seracole	1500		3	3	4	10
Drumstic	PKM - 1	480		11	5	24	40
Fruits							
Mango							
Guava							
Lime							

Papaya							
Banana							
Others							
Ornamental plants							
Medicinal and Aromatic							
Plantation							
Spices							
Turmeric							
Tuber							
Elephant yams							
Fodder crop saplings							
Forest Species							
Others, pl.specify							
Total							

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 Vermiculture	12 kg	12000	8	2	-	10
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	Banaraja/ Kadaknath	686	33,496				
Broilers							
Layers							
Duals (broiler and layer)							

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				

3.5. b. Seed Hub Programme-“Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India”

i) Name of Seed Hub Centre: NA

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	Not sanctioned
Seed storage structure	Completed and under Use

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

Item	Title	Author's name	Number	Circulation
Research paper	Influence of different sources of liming materials on conc. & uptake of micronutrients & heavy metals for Maize crop grown in acid soil of odisha	R.D.Behera(SMS) S.Pattanayak (SMS)		
Seminar/conference/symposia papers				
Books				
Bulletins				
News letter				
Popular Articles				
Book Chapter				
Extension Pamphlets/literature				
Technical reports				
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.	Zonal Research Agril . Extension Council workshop		Ashis Das, SS & H	10.04.19	RRTTS , Chiplima
2.	Problem prioritization workshop		Ashis Das, SS & H Dr. T. Palai S. Pattanayak R D Behera	12-15.05.19	KVK, Sonapur
3.	SLREC workshop		Ashis Das, SS & H R D Behera	22-25.05.19	OUAT
4.	Workshop on rainfed agril. at CRIDA, Jhansi		S. Pattanayak	27-31.05.19	ICRAF
5.	Zonal Conference of KVKs		Ashis Das, SS & H	8-10.6.19	UBKVV, WB
6.	Awareness programme cum skill development for Fall Army Worm		R D Behera	24.06. 19	Govt., of Odisha
7.	QRT workshop		Ashis Das, SS & H R D Behera	7.9.19	ATARI, Kolkota
8	Winter school on climate change & Smart animal agril.		Dr T. Palai	6-26.09.19	OUAT
9	Orientation workshop of SCATE partners at NASC complex		S. Pattanayak	22.10.19	ICAR
10	Master trainer on Nursery worker		Ms S. Muna	9-11 .12.19	ASCI
11	Master trainer on Poultry grower		Dr. T. Palai	9-11 .12.19	ASCI
12	Training on Operational modalities of KVK		S. Pattanayak	27-29.12.19	OUAT
13	Workshop on Household pest management		Ashis Das, SSH	18.01.20	OUAT
14	Seminar on Climate Smart Agriculture		S. Pattanayak	28-29 .01.20	ICAR-NIWA
15	National conference of KVKs		Ashis Das, SSH	28.2 - 1.3.20	ICAR, N. Delhi

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 Emmamectin 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

9. 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 & Emmamectin Benzoate.

10. 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.

11. 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

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 , Extranees 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 Soil and 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	Awareness on Soil health and its implication & Seminar	178	3	Mrs. Bharati Mahananda Pandav Sahu Gopal Bag	20	178

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

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 : Not Done

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

3.14. RAWE/ FET programme - is KVK involved? (Y/N) NOT DONE

No of student trained	No of days stayed

ARS trainees trained	No of days stayed

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

Date	Name of the person	Purpose of visit
21.06.19	Jt. Secretary , Agril , Govt of Odisha	Monitoring of dist. agril. affair
11.09.19	Smt Sangita Singdeo, MP , Bolangir	Attend national Animal disease control programme
7.11.19	Dr S.K. Roy, Principal Scientist, ATARI	SAC meeting
7.2.2020	Prof. P.K.Agarwal , VC, OUAT	KVK monitoring
7.2.2020	Prof. L.M. Garnayak, Dean, Research, OUAT	KVK monitoring
28.02.20	Prof K. K. Rout , Dean, CA, BBSR and Nodal Officer for Bolangir	Monitoring agricultural activity of district

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	100	25	40,000/ ha	62,000/ ha
Prodn. technique in Pigeon Pea	50	30	12,000/ ha	18,000/ ha
Prodn. technique in Oilseed crops	70	20	16,000/ ha	23,000/ ha
Soil health enhancement	75	15	20,000/ ha	32,000/ ha
Crop Production technology	125	20	22,000/ ha	33,000 / ha
Novel pesticides for IPM	130	40	15,000/ ha	22,000/ ha
Fodder Production For feeding in cattle	40	20	12, 000/cow/year	20,000/cow/year
Deworming in goats	30	100%	3300/goat/year	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 Groundnut	6000 ha
INM in Vegetables	4500 ha
IPM in Vegetables	3000 ha
Short duration Rice in rainfed ecosystem	32000 ha
Kitchen / Nutritional gardening	6660 households

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 ICT measures for gain of	Timely getting of information	120 farmers adopted and go for

	knowledge through survey	on plant protection, marketing of farm produce by 200 farmers	implementation of advisories
2	Awareness on control of Fall Army worm	32 villages took community approach to counter the fall army worm in Maize	150 farmers judiciously managed the insect pest in their maize crop
3	Judicious use of water in Agriculture through Jal Sakti Abhiyan	Campaign in 10 villages for Judicious use of water in Agriculture	No. of Irrigation in vegetable crops reduced to 6.2 from 7.1 per crop by 54 farmers

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

In the event of Pandemic situation of COVID-19, KVK has taken initiative to aware farmers on origin, nature of infection, disease syndrome , preventive measures to check spread , community guidelines to be followed etc . In the process 150 farmers from 10 villages were sensitized .

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 stockings on quality planting material
CHES, NRRI and other ICAR institutes	Knowledge and skill development, Input Procurement
ARD	Animal Health camp, Awareness camp on disease management
Reliance Foundation	Jal sakti abhiyan for judicious use of water, capacity devt. trainings
ICARDA, N. Delhi	Procurement of thornless cactus, monitoring of tech. activities
AIR	Broadcast of tech. messages and audio conference with farmers

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.)
Construction of godown	To stock seed of farm produce	June 2019	RKVY	18,00,000

(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 Poultry and nursery	Feb to March-2020	ASCI	3,92,000

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.	Poly house	2011	90	Tomato, Brinjal , chilli, Onion, Cabbage, Cauliflower		55100 no.	15,834	77,900	
2.	Crop cafeteria	2017	200	Marigold, Drumstick, Papaya		3900 nos.			
	Total					59000 nos.			

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	19.7.19	6.12.19	2	Binadhan	F/S	44	31500	132000	
	30.7.19	22.12.20	5	Pooja	F/S	150	315000	450000	

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.	Vermiculture	12 kg	9000	12000	

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 poultry	Rainbow rooster	30 days old chick	686 nos.	26,000	33,496	Sold to farmers

6.5. Utilization of hostel facilities

Accommodation available (No. of beds) NA

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 staff quarters:

Date of completion:

Occupancy details:

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

7. FINANCIAL PERFORMANCE

7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Savings Account(Flexi account , Surabhi scheme)	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 31.03.2020
	Kharif	Rabi	Kharif	Rabi	
Mustard		1,20,000		1,13,705	6295

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

Item	Released by ICAR		Expenditure		Unspent balance as on 31.03.2020
	Kharif	Rabi	Kharif	Rabi	
Pigeon Pea	178800		172505		6295

7.4. Utilization of KVK funds during the year 2019-20 (Not audited) in Rupees

Sl.No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	Available with Comptroller , OUAT		
2	Traveling allowances	1,40,000	1,40,000	1,40,000
3	HRD	30,000	30,000	30,000
4	Contingencies			
A	OE/ POL	4,00,000	4,00,000	4,00,000
B				
C	Training	3,00,000	3,00,000	2,73,834.40
D				
E	FLD	1,50,000	1,50,000	1,50,000
F	OFT	1,50,000	1,50,000	72,352
G	SCSP	3,00,000	3,00,000	2,93,705
H				
I				
J				
TOTAL (A)		14, 70,000	14, 70,000	13,59,891.40

B. Non-Recurring Contingencies				
1	Library books	10,000	10,000	10,000
2				
3				
4				
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		14, 80,000	14, 80,000	13,69,891.40

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year (Kind + cash)
2017-18	17,280	7,94,131 (Including Rs 2,00,000 received from DEE as seed money)	5,04,912.45	306498.55 + 583680 (Kind) (KIND of Rs.2,28,552/- of the year 2015-16 remained outstanding at OSSC)
2018-19	3,06,498.55	8,08,834	5,81,086	5,34,246
2019-20	5,34,246	6,91,369 + receipt of Rs 2,00,000 from DEE	8,57,820 (including return of Rs 4,00,000 to DEE)	5,67,795 (= Rs 54,720 as cash + Rs 5,13,075 as kinds)

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
Monitoring and tech backstopping of farmers	6	Kharif / Rabi	ICARDA , Bolangir division		
Monitoring of BGREI	8	Kharif	Agriculture	ATMA	both
Pest Surveillance	12	Kharif / Rabi	Agriculture, Horticulture		
Animal Health camp	4	Rabi/ Summer	ARD		
World Soil Day, National animal disease control Programme , Fertiliser application programe,	3	Kharif / Rabi	Agriculture, Horticulture, ARD,		
Exhibition	4	Kharif / Rabi	Rajendra University, Irrigation deptt., Agriculture deptt.	ATMA	both
Plantation ,	1	Kharif	IFFCO		
Swachhata abhiyan	2	Kharif	Mass education department		

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	4700	15	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)
Lumpy skin disease	Cow	Incidence and prevalence , not in outbreak situation		Vaccination done by dist ARD	
Goat Pox	Goat		3%	Vaccination done by dist ARD	
FMD	Cow		nil	Vaccination done by dist ARD	
RD	Poultry		60 %	-	
Avian pox	Poultry		2 %	Vaccination done by dist ARD	

9.1. Nehru Yuva Kendra(NYK) Training NIL

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

9.2. PPV & FR Sensitization training Programme NIL

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
Total	98	

9.4. KVK Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	3462
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	

9.5. a. Observation of Swachh Bharat Programme

Date/ Duration of Observation	Activities undertaken
11.9.19 to 02.10.19	Cleaning of Campus, nearby institute, Villages, Disposal of plastic waste, Awareness in school children, Awareness among villagers for not using plastics
02.10.19	Observation Swachhata hi seva on 150 th birth anniversary of Mahatama Gandhi in school with debate , essay, quiz competition etc.

b. Details of Swachhta activities with expenditure

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)		
Total		

9.6. Observation of National Science day .. NIL

Date of Observation	Activities undertaken

9.7. Programme with SeemaSurakshaBal/ BSF NIL

Title of Programme	Date	No. of participants

9.8. Agriculture Knowledge in rural school NIL

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

Give good quality 1-2 photograph(s)

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

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		

9.10. Details of Swachhta Hi Sewaprogramme organized 11.09.19 to 02.10 .19

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1	6 activities	6	190	-	-

9.11. Details of Mahila Kisan Divas programme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1.	International women's day	2	40	-	-

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	6,91,369	OUAT
2.			

9.14. Resource Generation:

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 ... NA

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	No. of Farmers contacted	A brief about contingent plan executed by the KVK
Odisha	Bolangir	Contingent plan for drought situation	3	40	Contingent measures for crops, live-stock, Fisheries wrt delayed or abrupt cessation for few days to few weeks

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

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.... NA

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

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

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

d. Location and Beneficiary Details during 2019-20

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

Crop Management

Livestock and fisheries

Institutional interventions

[illegible]

Capacity building

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

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

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
1						
2						

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	Rajib Dharua	2019-20	OUAT	Citation, Certificate	Crop Diversification
2	PPFVR	Udaya nayak	2019-20	OUAT	Citation, Certificate	Protection of local germplasm

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

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	<ul style="list-style-type: none"> # Paddy var. Sahabhagidhan, 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	<ul style="list-style-type: none"> # 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	<ul style="list-style-type: none"> # 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. # Mineral mixture @ 50 gm/cow, Fodder Hyb. Napier ;Dhingri mushroom (20 beds); Banaraja poultry(20 no.); Tissue culture banana G-naine(10 no.) 	88,600 (FP 55,100)	2	

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

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

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

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 2018-19 & 19-20

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.)
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
2019-20	Master trainer on Poultry	T.Palai	14.02.2020	16.03.2020	20	Y	2,12,000
	Master trainer on Nursery	S. Muna	1.3.2020	23.03.2020 (incomplete due to lockdown)	20	N	1,54,800

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

A. Training

[illegible]

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

[illegible][illegible]

D. Other activities : NOT APPLICABLE

[illegible]

KrishiKalyanAbhiyan- III NOT APPLICABLE

Krishnakalyan/Abhyas- II NOT APPLICABLE											
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	

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	Awareness on safety measures wrt COVID - 19	18.03.2020	KVK	To aware farmers on steps to be taken for personal and community safety	18

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

			
FLD on leaf spot in okra	FLD on Sheath blight in Rice	OFT on Hasanta (BPH tolerant)	FLD on protein rich rice var.
			
FLD on S & B appln. in G.nut	FLD on weed mgt in G. nut	Microbial consortium in Arhar	Training of farmers
			
Swachhata hi seva	Jal sakti abhiyan	I-day celebration	Trg on hyb napier
