

# **ANNUAL PROGRESS REPORT**

**April 2018 to March 2019**

**KVK, GAJAPATI, ODISHA**

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

### **1. GENERAL INFORMATION ABOUT THE KVK**

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

Address	Telephone		E mail
KVK, Gajapati	Office	FAX	
At-R.Udayagiri, Odisha	06817240362		kvgajapati.ouat@gmail.com gajapatikvk@yahoo.co.in

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

Address	Telephone		E mail
	Office	FAX	
Odisha University of Agriculture and Technology Bhubaneswar, Odisha			

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Sangram Paramaguru	9937888736	9937888736	kvgajapati.ouat@gmail.com gajapatikvk@yahoo.co.in

#### 1.4. Year of sanction of KVK: 2005

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

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline/	Pay Scale with present basic	Date of joining	Permanent/ Temporary	Category (SC/ST/OBC/ Others)
1	Senior Scientist& Head	Dr Sangram Paramaguru	Senior Scientist & Head	Agril. Extension	15600-39100 AGP-8000 Basic-22320	17.5.2018	Permanent	Others
2	Subject Matter Specialist	Miss. Rashmita Toppo	Scientist	Horticulture	15600-39,100 AGP-6000 Basic-17610	27.07.2015	Permanent	ST
3	Subject Matter Specialist	Mr. Dwarika Mohan Das	Scientist	Ag. Engg.	15600-39,100 AGP-6000 Basic-16920	31.10.2015	Permanent	Others
4	Subject Matter Specialist	Mr. Sanjib Kumar Mandi	Subject Matter Specialist	Agronomy	15600-39,100 AGP-5400 Basic-15600	20.08.2018	Permanent	ST
5	Subject Matter Specialist	-	-	-	-	-	-	-
6	Subject Matter Specialist	-	-	-	-	-	-	-
7	Subject Matter Specialist	-	-	-	-	-	-	-
8	Programme Assistant	-	-	-	-	-	-	-
9	Computer Programmer	Mr Manoj Kumar Sahu	Programme Assistant	Computer	9300-34,800 GP-4200 Basic-15680	27.01.2006	Permanent	Others
10	Farm Manager	Miss Mamata Mahali	Farm Manager	Ag. Engg.	9300-34,800 GP-4200 Basic-9300	11.02.2018	Permanent	ST
11	Accountant / Superintendent	-	-	-	-	-	-	-
12	Stenographer	-	-	-	-	-	-	-
13.	Driver	Mr. Sampada Kumar Sethi	Driver cum Mechanic		5200-20,200 GP-1900 Basic-7970	01.08.2007	Permanent	SC
14.	Driver	Mr. Ranjan Kumar Pattnaik	Driver cum Mechanic		5200-20,200 GP-1900 Basic-7400	01.03.2011	Permanent	Others
15.	Supporting staff	Mr. Rama Chandra Behera	Peon cum watchman		4750-14680 GP-1500 Basic-6270	31.07.2008	Permanent	SC
16.	Supporting staff	Mr. Prakash Chandra Sethy	Peon cum watchman		4750-14680 GP-1500 Basic-5340	01.12.2015	Temporary	SC

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1.	Under Buildings	1
2.	Under Demonstration Units	0.2
3.	Under Crops	1.8
4.	Orchard/Agro-forestry	11.75
5.	Others with details	9.86
	Total	24.61

*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					Totally completed	330	Under use	ICAR
2.	Farmers Hostel					Totally completed	250	Under Use	ICAR
3.	Staff Quarters (6)	Not yet started							
4.	Piggery unit								
5.	Fencing								
6.	Rain Water harvesting structure								
7.	Threshing floor								
8.	Farm godown								
9.	Dairy unit								
10.	Poultry unit					Totally completed	24	Under Use	RKVY
11.	Goatary unit								
12.	Mushroom Lab					Totally completed		Yet to start	State Govt.

13.	Mushroom production unit								
14.	Shade house								
15.	Soil test Lab					Totally completed	-	Under use	ICAR
16	Poly House					Totally completed	100	Under use	RKVY
17	Training hall					Totally completed	120	Under use	State Govt.
18	Vermicompost unit					Totally completed	22	Under use	RKVY

\* 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	2017	800000	16000	Good Condition
Tractor	2006	450000	200 hrs	Good Condition
Motor Cycle	2010	49000	52000	Good Condition

#### C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab equipment				
Equipments of soil lab	2016	3200000	Working	ICAR
Mushroom Spawn Unit	2010	2500000	Not started	RKVY
b. Farm machinery				
Pumpset	2016	10530	Working	ICAR
Self pumping pump	2016	3755	Working	ICAR
Bottom MB Plough	2017	17868	Working	ICAR
5 tyne Cultivator	2017	21635	Working	ICAR
Straight Tyne	2017	4354	Working	ICAR
Power Sprayer	2017	9685	Working	ICAR
c.AV Aids				

Amplifier, Mixer, Microphone, Speaker	2017	39802	Working	ICAR
Projector	2017	33937	Working	ICAR
Projector screen	2017	3580	Working	ICAR
Semi SLR camera	2017	20043	Working	ICAR
Display Board	2017	5028	Working	ICAR
White Board	2017	1885	Working	ICAR

## D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
Mini Tractor	2017	428425	Working	ICAR

## 1.8. Details SAC meeting\* conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1.	14.12.2018	20	<ul style="list-style-type: none"> <li>Nutritional garden demonstration</li> <li>Management of Mango Stone weevil and fruit fly</li> <li>Total number of trainees/beneficiaries should be increased to more than 2500 per annum.</li> <li>Market linkage for marketing of sweet corn, baby corn and broccolis</li> <li>Awareness and training programme on BPH prevention in Rice.</li> <li>Trials on performance of Cashew nut varieties Jagannath and Balabhadra.</li> <li>Value addition of Cashew apple.</li> <li>Management of Tea mosquito bug</li> <li>Mushroom spawn production in KVK</li> </ul>	<ul style="list-style-type: none"> <li>Has been included and demonstrated in five adopted villages as per the action plan 2017-18.</li> <li>FLD on Chemical management of stone weevil in Mango has been taken up Rabi-2017-18. Demonstration and training on IPM on Fruit fly will be taken up in future</li> <li>Planned and taken up</li> <li>Has been planned and discussed with DDH and RMC, Gajapati</li> <li>Diagnostic field visits, awareness, advisory and training programme has been conducted</li> <li>Trials in KVK campus will be taken up in near future.</li> <li>Demonstration has already been conducted in past and only vocational training will be conducted soon</li> <li>Demonstration and trials has been conducted earlier. Awareness, training and advisory will be taken up.</li> <li>In Process</li> </ul>	

\* Salient recommendation of SAC in bullet form

Attach a copy of SAC proceedings along with list of participants

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

Sl. no.	Item	Information
1	Major Farming system/enterprise	Rice-fallow, Rice-Paira Greengram/Blackgram, Maize –fallow, Ragi-Fallow
2	Agro-climatic Zone	North Eastern Ghat Zone
3	Agro ecological situation	AES-I - Red loam soil, Low rainfall, moderate elevation (300-500 m) Moderate irrigation AES-II- Black forest & red loam soil, Moderate rainfall, high irrigation AES-III- Laterite soil, moderate rainfall, high irrigation
4	Soil type	Red Loamy soils, Laterite Soils, Black soils
5	Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others	Rice-39.81 q/ha, Maize-35 q/ha, Ragi-15 q/ha Greengram-15 q/ha, Blackgram-16 q/ha, Arhar-25 q/ha Groundnut -40 q/ha, Sesame-8q/ha Brinjal-152 q/ha, Cauliflower-145.6 q/ha, Chilli-8.1
6	Mean yearly temperature, rainfall, humidity of the district	Max Temp -39 <sup>0</sup> C Minimim Temp-10 <sup>0</sup> C Rainfall-1423 mm, Relative Humidity-78-85%
7	Production of major livestock products like milk, egg, meat etc.	Milk-20.70 MT, Egg-154 Lakhs, Meat-1923 MT

Note: Please give recent data only

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

Sl. No.	Name of Taluk	Name of the block	Name of the villages	Major crops & enterprises	Major problems identified (crop-wise)	Identified Thrust Areas
1	-	R.Udayagiri	R.Udayagiri	Rice, Maize, Ragi, Mango	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Maize-Imbalanced use of fertilizer Mango-Stone weevil	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management,
2		R.Udayagiri	Alama, Phuka	Rice, Maize, vegetables, mango ,	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Maize-Imbalanced use of fertilizer	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest

				marigold, poultry	Mango-Stone weevil Vegetable-Imbalance fertilizer application, Disease and pest incidence, Mite infestation in marigold and not following GAP(pinching), RD disease low body weight in poultry	management, Integrated nutrient Management, Crop diversification to high value vegetables, Scientific production technology for commercial flower, vaccination & Feed management
3		R.Udayagiri	Sabarpalli, Anukampa, Phatachencheda, Kankadaguda	Rice, Ragi Vegetable, Cashew nut , Mango, Poultry	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Vegetable-Imbalance fertilizer application, Disease and pest incidence, Mango-Stone weevil, Fruit drop and fruitfly Tea mosquito bug in cashew, RD disease low body weight in poultry	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Crop diversification to high value vegetables, Orchard management vaccination & Feed management
4		Mohana	P.Govindpur, Kaithpada	Rice, Maize, Ragi, Blackgram, Greegram vegetables	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Maize-Imbalanced use of fertilizer, Pod borer and powdery mildew in greengram & blackgram, Vegetable-Imbalance fertilizer application, Disease and pest incidence	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Crop diversification to high value vegetables,
5		Mohana	Kesara	Rice, Maize, Ragi, Arhar, Vegetables	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Maize-Imbalanced use of fertilizer, Pod borer in Arhar Vegetable-Imbalance fertilizer application, Disease and pest incidence	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Crop diversification to high value vegetables
6		Mohana	Akili, Jubagaon, Kharidhepa, Manikpur, Govindpur	Rice, Maize, Ragi, Blackgram, Greegram vegetables, mango, Poultry	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Maize-Imbalanced use of fertilizer, Pod borer and powdery mildew in greengram & blackgram, Vegetable-Imbalance fertilizer application, Disease and pest	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Crop diversification to high value vegetables, Orchard Management, vaccination & Feed



					incidence Mango-Stone weevil, Fruit drop and fruitfly, RD disease low body weight in poultry	management
7		Nuagada	Titising	Rice, Ragi, Vegetables, mango, Sunflower	Acidic Soil, Rice-stem borer, Gall midge, BPH,Blast, Sheath Blight Vegetable-Imbalance fertilizer application, Disease and pest incidence Mango-Stone weevil, Fruit drop and fruitfly, Head borer infestation & Imbalance fertilizer application	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Crop diversification to high value vegetables, Orchard Management
8		Rayagada	Landusahi, Koinpur	Rice, Maize, Vegetables, Mango, Cashew nut, Poultry	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Maize-Imbalanced use of fertilizer, Vegetable-Imbalance fertilizer application, Disease and pest incidence Mango-Stone weevil, Fruit drop and fruitfly, Tea mosquito bug in cashew RD disease low body weight in poultry	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Crop diversification to high value vegetables, Orchard Management, vaccination & Feed management
9		Gumma	Padampur, Kujasing, Adamguda, S.Kurlunda	Rice, Greengram, Blackgram, Groundnut, Sesame,poultry	Acidic Soil,Rice-stem borer, Gall midge, BPH,Blast, Sheath Blight Pod borer and powdery mildew in greengram & blackgram, RD disease low body weight in poultry	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, vaccination and Feed management
10		Gumma	Tarabha	Rice, Greengram, Blackgram, Groundnut, Sesame, poultry , Vegetable	Acidic Soil,Rice-stem borer, Gall midge, BPH,Blast, Sheath Blight Pod borer and powdery mildew in greengram & blackgram, Vegetable-Imbalance fertilizer application, Disease and pest incidence RD disease low body weight in poultry,	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, vaccination and Feed management, Vegetable- Crop diversification to high value vegetables

11		Gosani	Vanna, Budura	Rice, Greengram, Blackgram, Groundnut, Sesame, Vegetable	Acidic Soil, Rice-stem borer, Gall midge, BPH, Blast, Sheath Blight Pod borer and powdery mildew in greengram & blackgram, Vegetable-Imbalance fertilizer application, Disease and pest incidence	Soil Health Management, Varietal replacement with high yielding varieties Integrated disease and pest management, Integrated nutrient Management, Vegetable- Crop diversification to high value vegetables
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2. c. Details of village adoption programme:

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

Name of village	Block	Action taken for development
R.Udayagiri	R.Udayagiri	OFT, FLD, Training
Alama	R.Udayagiri	OFT, FLD, Training
Phuka	R.Udayagiri	OFT
Sabarpalli	R.Udayagiri	OFT, FLD, Training
Anukampa	R.Udayagiri	FLD, Training
Phatachencheda	R.Udayagiri	FLD, Training
Kankadaguda	R.Udayagiri	OFT, FLD, Training
P.Govindpur	Mohana	OFT, FLD, Training
Kaithpada	Mohana	OFT, FLD, Training
Kesara	Mohana	OFT, FLD, Training
Jubagaon	Mohana	OFT, FLD, Training
Akili	Mohana	FLD, Training
Govindpur	Mohana	Training
Manikpur	Mohana	FLD, Training
Kharidhepa	Mohana	FLD, Training
Titisingh	Nuagada	OFT, FLD, Training
Landusahi	Rayagada	OFT, FLD, Training
Koinpur	Rayagada	FLD, Training
Padampur	Gumma	FLD, Training
Kujasing	Gumma	CFLD, Training
Adamguda	Gumma	CFLD, Training

S.Kurlunda	Gumma	CFLD, Training
Tarabha	Gumma	CFLD, Training
Vanna	Gosani	FLD, Training
Budura	Gosani	FLD, Training

## 2.1 Priority thrust areas

S. No	Thrust area
1.	Varietal replacement with high yielding varieties
2.	Organic cultivation
3.	Integrated Nutrient management
4.	Scientific seed production
5.	Integrated pest management
6.	Seed and seedling treatment
7.	Scientific storage methods
8.	Value addition and preservation
9.	Crop diversification
10.	Mushroom cultivation
11.	Scientific graft/gootee production
12.	Apiculture
13.	Improved pest management
14.	Intercropping
15.	Varietal replacement
16.	Irregular bearing of fruit
17.	Fruit production technology
18.	Acid soil management
19.	Composting
20.	Crop diversification
21.	Natural Resource management
22.	Entrepreneurship development
23.	Integrated weed management
24.	Production technology



Livestock strains and fish fingerlings produced (in lakh)*		Soil, water, plant, manures samples tested (in lakh)	
Target		Target	
Achievement		Achievement	
		60	

\* 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							
Seminar/conference/ symposia papers							
Books	5	2500					
Bulletins							
News letter	2	1000					
Popular Articles							
Book Chapter							
Extension Pamphlets/ literature							
Technical reports	1	25					
Electronic Publication (CD/DVD etc)							
TOTAL	8	3525					

# 1 Achievements on technologies assessed and refined

## OFT-1

1.	Title of On farm Trial	Assessment of Chemical Weed Management in Groundnut
2.	Problem diagnosed	Low yield due to sever weed infestation

3.	Details of technologies selected for assessment/refinement (Assessed)	FP (TO <sub>1</sub> ) - No herbicide application only hand weeding TO <sub>2</sub> - Spraying of Quizalofop ethyl 5% EC @ 1lit/ha TO <sub>3</sub> - Post emergence application of Imazethapyr 10% SL @ 0.75 kg /ha at 20 DAS
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT 2016-17
5.	Production system and thematic area	Weed Management
6.	Performance of the Technology with performance indicators	Weed biomass, WCE, Yield parameters
7.	Final recommendation for micro level situation	Post emergence application of Imazethapyr 10% SL @ 0.75 kg /ha at 20 DAS is recommended to reduce cost of cultivation
8.	Constraints identified and feedback for research	Yield is low as compared to hand weeding but labour cost is reduced due to use of herbicide
9.	Process of farmers participation and their reaction	Eagerly accepted the technology

*Thematic area: Weed Management*

Problem definition: Low yield due to sever weed infestation

Technology assessed: **Assessment of Chemical Weed Management in Groundnut**

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
		Weed Density (No./m <sup>2</sup> ) 40 DAS	Weed Biomass (g/ m <sup>2</sup> ) 40 DAS	WCE (%)						
FP (TO <sub>1</sub> ) - No herbicide application only hand weeding	7	10.5	3.44	85.1	-	13.07	46815	78420	31605	1.68
TO <sub>2</sub> - Spraying of	7	29.3	12.22	47.05	-	12.15	40675	72900	32225	1.79

Quizalofop ethyl 5% EC @ 1lit/ha										
TO <sub>3</sub> Post emergence application of Imazethapyr 10% SL @ 0.75 kg /ha	7	21.8	10.20	55.81	-	12.57	41215	75420	34205	1.85

Results:

OFT-2

1.	Title of On farm Trial	<b>Assessment on IDM measures against <i>Phomopsis blight</i> in Brinjal</b>
2.	Problem diagnosed	Low yield due to <i>Phomopsis blight</i> in brinjal
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP (TO <sub>1</sub> ) - Application of Carbendazim TO <sub>2</sub> - Application of lime @2q/ha, Seed treatment with Thiram + Carboxyn @ 2.5g/kg seed + alternate spraying of Metalaxyl + Mancozeb 72 WP @ 1kg/ha and Copper oxychloride @1.5 kg/ha TO <sub>3</sub> - Application of lime @2q/ha, Seed treatment with Thiram + Carboxyn @ 2.5g/kg seed + alternate spraying of Metalaxyl + Mancozeb 72 WP @ 1kg/ha and Clorothalonil @ 1l/ha
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	IIHR, 2014
5.	Production system and thematic area	Integrated Disease Management
6.	Performance of the Technology with performance indicators	Fruit surface affected (%) Leaf surface affected (%)
7.	Final recommendation for micro level situation	Application of lime @2q/ha, Seed treatment with Thiram + Carboxyn @ 2.5g/kg seed + alternate spraying of Metalaxyl + Mancozeb 72 WP @ 1kg/ha and Clorothalonil @ 1l/ha
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	-

*Thematic area: Integrated Disease Management*

Problem definition: Low yield due to *Phomopsis* blight in brinjal

Technology assessed: **Assessment on IDM measures against *Phomopsis blight* in Brinjal**

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
		Change in Percent Disease Index (%)	Change in yield (%)	-						
FP (TO <sub>1</sub> ) - Application of Carbendazim	7				32	208	82000	208000	126000	2.53
TO <sub>2</sub> Application of lime @2q/ha, Seed treatment with Thiram + Carboxyn @ 2.5g/kg seed + alternate spraying of Metalaxyl + Mancozeb 72 WP @ 1kg/ha and Copper oxychloride @1.5 kg/ha	7	49	30.76		16.3	265	87000	252000	165000	2.72
TO <sub>3</sub> Application of lime @2q/ha, Seed treatment with Thiram + Carboxyn @ 2.5g/kg seed + alternate spraying of Metalaxyl + Mancozeb 72 WP @ 1kg/ha and Clorothalonyl @ 1l/ha	7	46	30.7		17.28	272	101000	272000	171000	2.69



Results:

OFT-3

1.	Title of On farm Trial	<b>Assessment of leaf curl tolerant chilli varieties</b>
2.	Problem diagnosed	Low yield due to leaf curl virus
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP (TO <sub>1</sub> ) - Cultivation of Chili F1 hyb. VNR 205 TO <sub>2</sub> - Cultivation of Chili F1 hyb. Arka Harita TO <sub>3</sub> - Cultivation of Chili F1 hyb. Arka Meghna
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	IIHR, 2014
5.	Production system and thematic area	Varietal Evaluation
6.	Performance of the Technology with performance indicators	PDI (%), Fruit wt(g)
7.	Final recommendation for micro level situation	Chilli variety Arka Harita is recommended for green chilli and Arka Meghna for dried chilli
8.	Constraints identified and feedback for research	Farmers preferred Arka Harita for green chilli and Arka Meghna for dried chilli pupose
9.	Process of farmers participation and their reaction	Accepted the technology as per their preferences

*Thematic area: Varietal Evaluation*

Problem definition: Low yield due to leaf curl virus

Technology assessed: Assessment of leaf curl tolerant chilli varieties

Table:

Technology option	No. of trials	Yield component			Leaf curl Incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Yield contributing characters (10 fruit weight in g)	-	-						
FP (TO <sub>1</sub> ) - Cultivation of Chili F1 hyb. VNR 205	7	28.19	-	-	48.57	98.08	35020	53942	18922	1.54
TO <sub>2</sub> Cultivation of Chili F1 hyb. Arka Harita	7	36.04	-	-	15.71	124.41	34782	68426	33644	1.97
TO <sub>3</sub> - Cultivation of Chili F1 hyb. Arka Meghna	7	32.51	-	-	17.14	119.79	34502	65883	31375	1.91

## Results:

## OFT-4

1.	Title of On farm Trial	<b>Assessment of triple disease resistant tomato hybrids</b>
2.	Problem diagnosed	Heavy loss due to incidence of ToLCV, Bacterial Wilt & early blight
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP (TO <sub>1</sub> ) - Cultivation of tomato hybrid Lakshmi TO <sub>2</sub> - Cultivation of tomato hybrid Arka Rakshak TO <sub>3</sub> - Cultivation of tomato hybrid Arka Samrat
4.	Source of Technology (ICAR/AICRP/SAU/other, please specify)	IIHR, 2014
5.	Production system and thematic area	Varietal Evaluation

6.	Performance of the Technology with performance indicators	Wilt incidence (%), early blight & ToLCV incidence (%), Fruit wt(g)
7.	Final recommendation for micro level situation	Cultivation of both the tomato hybrid Arka Samrat and Arka Rakshak is recommended for obtaining higher yield
8.	Constraints identified and feedback for research	Availability of seeds of these hybrids are is a constraint however seedlings will be supplied by KVK farm in the district as per the demand
9.	Process of farmers participation and their reaction	Farmers accepted the varieties for its keeping quality

*Thematic area: Varietal Evaluation*

Problem definition: Heavy loss due to incidence of ToLCV, Bacterial Wilt & early blight

Technology assessed: Assessment of triple disease resistant tomato hybrids

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
		fruit weight in g	Wilt incidence (%)	-						
FP (TO <sub>1</sub> ) - Cultivation of tomato hybrid Lakshmi	7	48.19	15.71	-	37.14	394.00	55220	118200	62980	2.14
TO <sub>2</sub> Cultivation of tomato hybrid Arka Rakshak	7	52.85	5.71	-	11.43	504.53	54482.86	151360.29	96877.43	2.78
TO <sub>3</sub> Cultivation of tomato hybrid Arka Samrat	7	59.09	7.14	-	11.20	501.78	54207.86	150534	96326.57	2.70

Results:

**Please provide all the OFTs in same format**

### 3.2 Achievements of Frontline Demonstrations

#### A. Details of FLDs conducted during the year

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration										Reasons for shortfall in achievement
				Proposed	Actual	SC		ST		Others		Total				
						M	F	M	F	M	F	M	F	T		
1	Blackgram	Weed Management	Demonstration on Weed Management in Black gram - Application of Imazethapyr + Pendimethalin (Ready Mix) @ 1000ml/ha as pre-emergence Effective weed control of broadleaves, grasses and sedges	1	1			5				5		5	-	
2	Greengram	INM	Demonstration on Integrated Nutrient Management in Greengram Integrated Nutrient Management (NPK @ 20:40:40 kg/ha, 10 kg Borax /ha, Rhizobium inoculation @ 20g/kg seeds)	1	1			5				5		5	-	
3	Tomato	Weed Management	Demonstration on Weed Management in Tomato - Spraying of Metribuzin @ 0.5% a.i. /ha at 4DAT with 1 hand weeding at 30 DAT - Variety: Arka Samrat (Tomato Hybrid)	1	1			5				5		5	-	
4	Rice	IDM	Demonstration on chemical management of gall midge in rice  Application of Phorate 10G @ 10kg/ha in 10 days interval for two times	1	1			5				5		5	-	
5	Rice	IDM	Demonstration on Validamycin for control of Sheath blight in Rice Application of Validamycin @ 1lt./ha, 3 times in 7 days interval	1	1			5				5		5	-	
6	Cowpea	Varietal Substitution	Demonstration on bushy type YMV resistant Cowpea var. Kashi Kanchan Cultivation of Cowpea var. Kashi Kanchan (Seed rate = 20 kg/ha, lime= 2 q/ha, seed treatment with Rhizobium culture 30g/kg, Nutrient = NPK 25:75:60kg/ha (half N, full P & K as basal and half N at 10-15 DAS), need based plant protection measures	0.5	0.5			5				5		5	-	

7	Brinjal	Varietal Substitution	Demonstration on wilt tolerant brinjal var. Swarna Shyamali Cultivation of wilt tolerant brinjal var. Swarna Shyamali (duration- 140-150 days, avg. yield- 60-65 t/ha, grown round the year) Seedling dip with Imidachloprid @ 3ml/l, Spacing = 60x50 cm, Nutrient- NPK@200:150:100 (half N, full P & K as basal, rest N at 30 DAT) on STBF, need based pesticide application	0.5	0.5			5				5		5	-
8	Broccoli	Crop Diversification	Demonstration on application of AMC (Arka Microbial Consortium) in Broccoli Application of AMC (Arka Microbial Consortium) in form of Seed treatment @ 10g per 100g seed + Soil drenching @20g/l at 10 DAT + Soil application @5 kg /500 kg FYM at root zone of standing crop 45 DAT + 75% of RDF (increases yield upto 5-15% & reduction in fertilizer use to 25-30%)	0.5	0.5			5				5		5	-
9	Marigold	Crop Diversification	Demonstration on Marigold cultivar Seracole Seedling raising- Aug- September ,Transplanting- October –November. Plant spacing – 45 x 30 cm, Nipping- 30 DAT (2-3 cm terminal portion should be tipped / removed to encourage the branching). Manuring- 5t/ha of FYM, NPK- 45:90:75 kg/ha as basal, 45 kg N/ha as top dressing 45 days after planting, post harvest treatment of flowers with 1g Al <sub>2</sub> SO <sub>4</sub> / 10l water for ½ an hour, need based plant protection measures. (Avg. yield- 30-33 q/ha)	0.5	0.5			5				5		5	-
10	Nutritional Garden	Food Security and Income Generation	Demonstration on Nutritional garden for nutritional security of tribal family Development of Nutritional garden using HYV crops in backyard (2nos. Papaya plants, 2nos. of Drumstick plants, 2 nos. Banana plants, 1 nos. Lime, 5nos. of Elephant foot yam, 5 nos. of Cassava, 2 nos. of pumpkin, 2 nos. of country bean, Green leafy & seasonal vegetables) & trellising structure, poly-vermi bed, low cost poly tunnel, Use of FYM	-	-			50				50		50	-

## Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O					
Blackgram	Rabi 2018-19	Rainfed upland, Rice/Maize-Blackgram	Red laterite	318.6	38.2	318.3	Rice	12.12.2018	14.02.2019		
Greengram	Rabi 2018-19	Rainfed upland & Medium land, Rice- Green gram	Red loam and laterite	302.1	28.3	298.4	Rice	19.12.2018	22.02.2019		
Tomato	Rabi 2018-19	Irrigated medium & upland, Maize/Rice-Tomato	Red loam and laterite	294.5	19.5	78.26	Rice	24.01.2019	27.03.2019		
Rice	Kharif 2018	Rainfed medium land, Rice- fallow	Clay loam	318.6	38.4	318.5	Rice	07.07.2018	15.12.2018		
Rice	Kharif 2018	Rainfed upland, irrigated medium land, Rice-fallow, Rice- vegetable	Clay loam	278.5	49	132	Fallow	12.07.2018	21.12.2018		
Cowpea	Kharif 2018	Rainfed upland, Vegetable-fallow	Red loam and laterite	244.1	53.4	322.5	Cowpea/ pigeon pea	11.07.2018	20.10.2018		
Brinjal	Rabi 2018	Irrigated upland Vegetable-Vegetable	Red loam and laterite	312.3	36.7	318.4	Cauliflower	05.12.2018	20.03.2019		
Broccoli	Rabi 2018-19	Irrigated upland, Vegetable-Vegetable, Rice-vegetable	Red loam and laterite	374.4	16.3	115.3	Rice/ Brinjal	03.12.2018	24.02.201911.03.2019		
Marigold	Rabi 2018-19	Irrigated medium land, Vegetable-Vegetable, Rice-vegetable	Red loam and laterite	215.9	21.02	259.6	Brinjal	03.02.19	18.04.2019		
Chilli	Rabi 2019-8-19			239.2	57.4	378.9	Cauliflower	12.01.2019	18.03.2019		

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.

Cereals:  
Frontline demonstrations on Cereal crops

[illegible]

## Frontline demonstrations on oilseed crops: NA

[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

### 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
Blackgram	Weed Management	Demonstration on Weed Management in Black gram Application of Imazethapyr + Pendimethalin (Ready Mix) @ 1000ml/ha as pre-emergence Effective weed control of broadleaves, grasses and sedges	10	1	8.45	8.32	(-) 1.56	20450	41600	21150	2.03	24850	42250	17400	1.7
Greengram	INM	Demonstration on Integrated Nutrient Management in Greengram Integrated Nutrient Management (NPK @ 20:40:40 kg/ha, 10 kg Borax /ha, Rhizobium inoculation @ 20g/kg seeds)	10	1	6.8	5.6	21.4	16425	34000	17575	2.07	15295	28000	12705	1.83
	Total		20												

\* 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 Parameter		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	**BCR	Gross Cost	Gross Return	Net Return	**BCR
Tomato	Weed Management	Demonstration on Weed Management in Tomato - Spraying of Metribuzin @ 0.5% a.i. /ha at 4DAT with 1 hand weeding at 30 DAT - Variety: Arka Samrat (Tomato Hybrid)	5	1	395	389	-0.75	(Weed control efficiency %)  79.51	  85.96	53875	118500	64625	2.2	57625	119400	61490	2.07
Cowpea	Varietal Substitution	Demonstration on bushy type YMV resistant Cowpea var. Kashi Kanchan Cultivation of Cowpea var. Kashi Kanchan (Seed rate = 20 kg/ha, lime= 2 q/ha, seed treatment with Rhizobium culture 30g/kg, Nutrient = NPK 25:75:60kg/ha (half N, full P & K as basal and half N at 10-15 DAS), need based plant protection measures	5	1	60.98	38.95	56.5	(Plant disease incidence %)  14	  42	12866	30490	17624	2.36	10790	19475	8685	1.81

Brinjal	Varietal Substitution	Demonstration on wilt tolerant brinjal var. Swarna Shyamali Cultivation of wilt tolerant brinjal var. Swarna Shyamali (duration- 140-150 days, avg. yield- 60-65 t/ha, grown round the year)	5	1	346.5	277.58	24.82	(Wilt Incidence %) 8	36	43711	173260	129549	3.96	41457	138790	97333	3.35
Broccoli	Crop Diversification	Demonstration on application of AMC (Arka Microbial Consortium) in Broccoli Application of AMC (Arka Microbial Consortium) in form of Seed treatment @ 10g per 100g seed + Soil drenching @20g/l at 10 DAT + Soil application @5 kg /500 kg FYM at root zone of standing crop 45 DAT + 75% of RDF (increases yield upto 5-15% & reduction in fertilizer use to 25-30%)	5	1	325.1	251.72	23.82	(Bud weight in g) 325.1	126.8	45577	109886	64309	2.41	45126	88760	43634	1.97s

Marigold	Crop Diversification	Demonstration on Marigold cultivar Seracole Seedling raising- Aug- September ,Transplanting- October –November. Plant spacing – 45 x 30 cm, Nipping- 30 DAT (2-3 cm terminal portion should be tipped / removed to encourage the branching). Manuring- 5t/ha of FYM, NPK- 45:90:75 kg/ha as basal, 45 kg N/ha as top dressing 45 days after planting, post harvest treatment of flowers with 1g $\text{Al}_2\text{SO}_4$ / 10l water for ½ an hour, need based plant protection measures. (Avg. yield- 30-33 q/ha)	5	1	92.26	52.06	77.22	Weight of 100 flowers 0.57	0.37	36407	52060	15653	1.43	42400	92260	49860	2.18
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Nutritional Garden	Food Security and Income Generation	Demonstration on Nutritional garden for nutritional security of tribal family Development of Nutritional garden using HYV crops in backyard (2nos. Papaya plants, 2nos. of Drumstick plants, 2 nos. Banana plants, 1 nos. Lime, 5nos. of Elephant foot yam, 5 nos. of Cassava, 2 nos. of pumpkin, 2 nos. of country bean, Green leafy & seasonal vegetables) & trellising structure, poly-vermi bed, low cost poly tunnel, Use of FYM	50	Home stead	continuing												
		Total															

## 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

[illegible]

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					
Pregnant women					
Adolescent Girl					
Other women					
Children					
Neonatal					
Infants					

#### Farm implements and machinery

Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit)			
					Demonstration	Check									

\* 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

[illegible][illegible]

## Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1	Black gram	However B:C ratio for the weed management technology was higher than the farmer's practice of hand weeding the yield was comparatively low in both the crops. Also there is a reduction in cost of cultivation due to use of herbicides.
2	Tomato	
3	Brinjal	Performance of wilt tolerant brinjal var. Swarna Shyamali is better than the check, but there is unavailability of the seeds commercially in the market. However seedling are supplied to the farmers from KVK Farm.

## Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	15.02.2019 8.3.2019	2	100	Under CFLD Programmes
2.	Farmers Training	20.11.2018 27.11.2018 24.09.2018 24.10.2018 1.12.2018	5	125	Under FLD programmes
3.	Media coverage	18.04.2018 23.06.2018 04.07.2018 29.09.2018 03.10.2018 06.10.2018 06.12.2018 15.12.2018	13	Mass	Including Press and electronic media
4.	Training for extension functionaries	29.03.2019 30.03.2019	2	30	-



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

### A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1	Greengram	Greenmoon g	3.6	138	104	140	Variety: IPM 02-03 Seed rate : 20 Kg/ha, Foliar spray of 19:19:19 NPK, Borris (0.1 %) at preflowering and pod development stage, Neem oil @ 0.15%, Yellow sticky trap @ 20 pcs/ha, Imazethapyr 10 SL (@ 750 ml/ha) at 21-25	100	Greenmoon g	3.6	138	104	140	Variety: IPM 02-03 Seed rate : 20 Kg/ha, Foliar spray of 19:19:19 NPK, Borris (0.1 %) at preflowering and pod development stage, Neem oil @ 0.15%, Yellow sticky trap @ 20 pcs/ha, Imazethapyr 10 SL (@ 750 ml/ha) at 21-25	Greengram

							DAS, Carbendazi m + Mancozeb @ 2 gm/l, Imidacloprid 17.5 EC @ 2ml/5 l							DAS, Carbendazi m + Mancozeb @ 2 gm/l, Imidacloprid 17.5 EC @ 2ml/5 l	
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### B. Economic parameters

Sl. No.	Variety demonstrated & Technology demonstrated	Farmer's Existing plot				Demonstration plot			
		Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
1.	1.Variety: IPM 02-03 2.Seed rate 20 kg/ha 3. Seed treatment with Carbendazim + Mancozeb @ 2 gm/l 4. Foliar spray (2%) of 19:19:19 NPK at vegetative stage 5. Post emergence application of Imazethapyr 10 SL (@ 750 ml/ha at 21-25 DAS to control weed, 6. Plant protection for Pod borer - Neem oil @ 2.5 ml./lt, Imidacloprid 17.5 EC @ 2ml/5 l & Yellow sticky trap @ 20 pcs/ha 7. Seed Production and Post harvest management.	12295	18000	5705	1.46	15968	27825	11857	1.74

**C. Socio-economic impact parameters**

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Mandays/house hold)
1.	Crop: Greengram Variety: IPM 02-03	557	350	50	20	90	Family Development, repairing of house and Children higher education	3

**D. Oilseed Farmers' perception of the intervention demonstrated**

Sl. No.	Technologies demonstrated (with name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any





**E. Specific Characteristics of Technology and Performance**

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Greengram variety IPM 02-03 is resistant to YMV, large seed and high yield potential.	Yield performance is good.	Seed quality is better than local variety.	Farmers are satisfied with the variety and technology demonstrated.

**F. Extension activities under FLD conducted:**

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1.	Training-Greengram	13.11.2018 at Tarangada	100
2.	Training-Greengram	22.11.2018 at Tarangada	100
3.	Field day-Greengram	15.02.2019 at Tarangada	50
4.	Field day-Greengram	08.03.2019 at Tarangada	50

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

			
Seedling stage	Vegetative Stage	Flowering stage	Harvesting Stage

**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.)
Greengram	i) Critical input	322800	322800	-
	ii) TA/DA/POL etc. for monitoring	3800	3800	-
	iii) Extension Activities (Field day)	24700	24700	-
	iv) Publication of literature	7500	7500	-
	Total	358800	358800	-

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

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

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

### B) Rural Youth (on campus)

[illegible]

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Tailoring and Stitching													
Rural Crafts													
TOTAL													

### C) Extension Personnel (on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops													
Value addition													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology	1	5	3					6	1		11	4	15
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs	1	5	3					6	1		11	4	15
Gender mainstreaming through SHGs													
TOTAL	2	10	6					12	2		22	8	30

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

[illegible]

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Piggery Management													
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products													
Others, if any Goat farming													
<b>V. Home Science/Women empowerment</b>													
Household food security by kitchen gardening and nutrition gardening													
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care													
Others, if any													
<b>VI.Agril. Engineering</b>													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
<b>VII. Plant Protection</b>													
Integrated Pest Management	3							43	32	75	43	32	75
Integrated Disease Management	4							71	26	97	71	26	97

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
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides	1							17	8	25	17	8	25
Others, if any	1							22	3	25	22	3	25
<b>VIII. Fisheries</b>													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease													
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
<b>IX. Production of Inputs at site</b>													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
<b>X. Capacity Building and Group Dynamics</b>													
Leadership development	1							11	14	25	11	14	25
Group dynamics	3	4						17	54	71	21	54	75
Formation and Management of SHGs	1							23	02	25	23	02	25



Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
<b>XII. Others (Pl. Specify)</b>													
<b>TOTAL</b>	20	4						281	212	493	285	212	497

### E) RURAL YOUTH (Off Campus)

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
TOTAL	1							10	10	20	10	10	20

### F) Extension Personnel (Off Campus)

[illegible]

[illegible]

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

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

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
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	1							11	14	25	11	14	25
TOTAL	3	4						17	54	71	21	54	75
<b>X. Capacity Building and Group Dynamics</b>	1							23	02	25	23	02	25
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													
<b>XI Agro-forestry</b>													
Production technologies													
Nursery management													
Integrated Farming Systems													
TOTAL													
<b>XII. Others (Pl. specify)</b>													
TOTAL	28	7		3				396	294	690	403	294	697

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

[illegible]



[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
agriculture)													
TOTAL	1							10	10	20	10	10	20

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

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
Protected cultivation technology	1	5	3					6	1	7	11	4	15
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs	1	5	3					6	1		11	4	15

Gender mainstreaming through SHGs													
Crop intensification													
Others if any													
<b>TOTAL</b>	<b>2</b>	<b>10</b>	<b>6</b>					<b>12</b>	<b>2</b>		<b>22</b>	<b>8</b>	<b>30</b>

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

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Agronomy	Farmers & Farm Women	Weed management in transplanted rice	1	Off	22	3	25	22	3	25
Agronomy	Farmers & Farm Women	Relay cropping of pulse in rice based cropping system	1	Off	10	15	25	10	15	25
Agronomy	Farmers & Farm Women	Production technology of Green gram	1	Off	23	2	25	23	2	25
Agronomy	Farmers & Farm Women	Integrated nutrient management in maize	1	Off	12	13	25	12	13	25
Agronomy	Farmers & Farm Women	Integrated nutrient management in green gram	1	Off	22	3	25	22	3	25
Agronomy	Farmers & Farm Women	Improved package of practices in ground nut	1	Off	15	10	25	15	10	25
Agronomy	Extension Personnel	Commercial method of producing vermicompost	1	Off	11	4	15	6	1	7
Horticulture	Farmers & Farm Women	Scientific cultivation of bushy type cowpea	1	Off	7	18	25	7	18	25
Horticulture	Farmers & Farm Women	Scientific cultivation of chilli	1	Off	16	9	25	16	9	25
Horticulture	Farmers & Farm Women	Scientific cultivation of brinjal	1	Off	21	4	25	21	4	25
Horticulture	Farmers & Farm Women	Integrated nutrient management in cauliflower	1	Off	14	11	25	14	11	25
Horticulture	Farmers & Farm Women	Integrated nutrient management in Tomato	1	Off	0	25	25	0	25	25
Horticulture	Farmers & Farm Women	Production technology of Kharif Onion	1	Off	9	16	25	9	16	25
Horticulture	Farmers &	Production technology	1	Off	10	15	25	10	15	25

	Farm Women	and nutrient management in broccoli								
Horticulture	Farmers & Farm Women	Orchard management techniques	1	Off	14	11	25	14	11	25
Plant protection	Farmers & Farm Women	IPM in paddy	1	Off	25	0	25	25	0	25
Plant protection	Farmers & Farm Women	Weed management in upland rice	1	Off	22	3	25	22	3	25
Plant protection	Farmers & Farm Women	IDM in nursery rice	1	Off	15	10	25	15	10	25
Plant protection	Farmers & Farm Women	IDM in ginger	1	Off	18	7	25	18	7	25
Plant protection	Farmers & Farm Women	IDM in lemon	1	Off	7	18	25	7	18	25
Plant protection	Farmers & Farm Women	IDM in groundnut	1	Off	16	8	25	16	8	25
Plant protection	Farmers & Farm Women	Vermicomposting	1	Off	16	8	25	16	8	25
Plant protection	Farmers & Farm Women	IPM in greengram	1	Off	11	14	25	11	14	25
Plant protection	Farmers & Farm Women	IDM in rabi nursery rice	1	Off	22	3	25	22	3	25
Agricultural Extension	Farmers & Farm Women	Leadership development	1	Off	11	14	25	11	14	25
Agricultural Extension	Farmers & Farm Women	Capacity building training on post harvest management of millets	1	Off	23	02	25	23	02	25
Agricultural Extension	Farmers & Farm Women	Capacity building training on formation of FPO	1	Off	4	21	25	4	21	25
Agricultural Extension	Farmers & Farm Women	Crop planning for irrigation command area of any minor/major irrigation project	1	Off	25	0	25	25	0	25
Agricultural Extension	Farmers & Farm Women	Creation of basic awareness on FPO	1	Off	16	8	25	21	0	21

#### *H) Vocational training programmes for Rural Youth*

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

[illegible]

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

### I) Sponsored Training Programmes

Sl.No	Title	Thematic area	Month	Duration (days)	Client	No. of courses	No. of Participants										Sponsoring Agency
					PF/R/Y/EF		Male			Female			Total				
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1	Mango grower	Orchard management	1	25	RY/PF	1	3	0	17	0	0	0	3	0	17	20	Agriculture Skill Council of India

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

[illegible]

Method Demonstrations	3		5	5							10
Farmers Seminar											
Workshop											
Group meetings											
Lectures delivered as resource persons	4			Mass							Mass
Advisory Services											
Scientific visit to farmers field	137			1740		20		20			1760
Farmers visit to KVK	1269			1269							
Diagnostic visits	137			1740		20		20			1760
Exposure visits	1		20	20							20
Ex-trainees Sammelan											
Soil health Camp											
Animal Health Camp											
Agri mobile clinic											
Soil test campaigns											
Farm Science Club Conveners meet	3	46	24	70		3		3			73
Self Help Group Conveners meetings	3		60	60							60
Mahila Mandals Conveners meetings											
Celebration of important days (Agril. Education Day, Jai Kisan Jai Vigyan, MahilaKisan Divas, Women in Agriculture Day, World Food Day, World Meteorological Day, World Soil Day))	7			7195		14		14			7209
Sankalp Se Siddhi											
Swatchta Hi Sewa	2			103		7	1	8			111
Mahila Kisan Divas	1		48	48		2		2			50
Any Other (Specify)											
Total	1570	46	157	12450		79	4	83	46	157	11270

## B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	13
Radio talks	0
TV talks	5
Popular articles	0
Extension Literature	12
Other, if any	0

## 3.5 a. Production and supply of Technological products

*Village seed NA*

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 NA*

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom seed provided			
				SC	ST	Other	Total
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
<b>Vegetable seedlings</b>							
Cauliflower	Megha	1285	2570		3		3
Cabbage	BC-90	740	1480		2		2
Tomato	Arka Rakshak, Arka Samrat	39180	78360		7		7
Brinjal	Swarna Shyamali	29965	29965		8		8
Chilli	Arka Harita, Arka Meghna	23230	46460		8		8
Onion	-						
Others (Capsicum)	Indira	94	188		3		3
Broccoli	Green Magic	1100	2200		3		3
<b>Fruits</b>							
Mango	-	-	-	-	-	-	-
Guava	-	-	-	-	-	-	-
Lime	-	-	-	-	-	-	-
Papaya	Red Lady	22	440		1	-	1
Banana	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-
Ornamental plants	Marigold, Sesonal plants	44780	54340		7		7
Medicinal and Aromatic	-	-	-	-	-	-	-
Plantation	-	-	-	-	-	-	-
Spices	-	-	-	-	-	-	-
Turmeric	-	-	-	-	-	-	-
Tuber	-	-	-	-	-	-	-
Elephant yams	-	-	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-	-
Others, pl.specify	-	-	-	-	-	-	-
<b>Total</b>		<b>140396</b>	<b>216003</b>		<b>42</b>		<b>42</b>

**Production of Bio-Products NA**

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



## Production of livestock materials NA

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted			
				SC	ST	Other	Total
<b>Dairy animals</b>							
Cows							
Buffaloes							
Calves							
Others (Pl. specify)							
<b>Small ruminants</b>							
Sheep							
Goat							
Other, please specify							
<b>Poultry</b>							
Broilers							
Layers							
Duals (broiler and layer)							
Japanese Quail							
Turkey							
Emu							
Ducks							
Others (Pl. specify)							
<b>Piggery</b>							
Piglet							
Hog							
Others (Pl. specify)							
<b>Fisheries</b>							
Indian carp							
Exotic carp							
Mixed carp							
Fish fingerlings							
Spawn							
Others (Pl. specify)							
<b>Grand Total</b>							

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

i) Name of Seed Hub Centre:

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

ii) Quality Seed Production Reports

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed (F/S, C/S)

Kharif 2018						
Rabi 2018-19						
Summer/Spring 2019						

## iii) Financial Progress

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

## iv) Infrastructure Development

Item	Progress
Seed processing unit	
Seed storage structure	

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

Item	Title	Author's name	Number	Circulation
Research paper	-	-	-	-
Seminar/conference/ symposia papers	-	-	-	-
Books	Baigyanika Paddhati O Krushi Kaushala Dwara Amba Chasa	Rashmita Toppo	25	25
Bulletins	-	-	-	-
News letter	Sabujagiri , 11 <sup>th</sup> Yr, No 1 and 2	Dr. Sangram Paramaguru, Miss. Rashmita Toppo, Mr. Chandan Maharana, Mr. Sanjib Kumar Mandi, Mr. Manoj Kumar Sahu	500	500
Popular Articles	-	-	-	-
Book Chapter	-	-	-	-
Extension Pamphlets/ literature	Unnata Pranalire Genduphula Chasa	Rashmita Toppo, Dr. Sangram Paramaguru	500	500
	Pala O Dhingiri Chhatu Chasa	Mr. Chandan Maharana Dr. Sangram Paramaguru	500	500
	Bunda Jalasechanare Chasi ra Unnati	Rashmita Toppo, Mr. Chandan Maharana, Dr. Sangram Paramaguru	500	500
	Samannwita Rogapoka Parichala, Dhana	Mr. Chandan Maharana, Mr. Sanjib Kumar Mandi Dr. Sangram Paramaguru	500	500
Technical reports	-	-	-	-
Electronic Publication (CD/DVD etc)	-	-	-	-
TOTAL	7		2525	2525

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 and personnel designation	Date and Duration	Organized by
1.	Workshop	Improved production practices in horticulture crop	Rashmita Toppo	4-6.04.2018	IIHR
2.	ToT programme for Mango Grower	ToT programme for Mango Grower	Rashmita Toppo	18-20.09.2018	ASCI
3.	ToT programme for Vermicompost Production	ToT programme for Vermicompost Production	Chandan Maharana	18-20.09.2018	ASCI
4.	workshop	Farming System for Nutrition' organized by MSSRF, Chennai	Rashmita Toppo	05-06.02.2019	MSSRF, Chennai
5.	Conference	Farmers First for Conserving Soil and Water Resources in Eastern Region (FFCSWR-2019)	Rashmita Toppo	06-08.02.2019	Society of Soil conservation
6.	Training	On-farm water management technologies for improving water productivity	Sanjib Kumar Mandi	21- 24.01.2019	IWM
7.	Orientation Training Programme	Operational Modalities for KVKs	Sanjib Kumar Mandi	25- 27.03.2019	DEE, OUAT, BBSR

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

Name of farmer	Sri Rama Badamundi
Address	Village- Alama GP- Ramagiri Block- R.Udayagiri District- Gajapati
Contact details (Phone, mobile, email Id)	9439160795
Landholding (in ha.)	2
Name and description of the farm/ enterprise	Rice-Vegetable (0.8ha), Maize-fallow (0.8ha) Livestock – Cattle (6 nos.)
Economic impact	His annual Income has increased 4.2 folds after the intervention of KVK i.e. through FLD, training, advisory of Scientists and his interest for new technologies. He has also designed one 3 tyne type cycle weeder for weeding and hoeing in vegetable crop.
Social impact	He is recognized as an innovative and progressive farmer among his

	fellow farmers. His interview telecasted in Doordarshan's Krushi Darshan has brought him more popularity among nearby villages.
Environmental impact	He also encourages his farmer friends to follow Soil test based fertilizer application and organic manures in farming.
Horizontal/ Vertical spread	Nearby village farmers are also influenced by his technology adoption

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
1	Three tyne cycle weeder	Sri Rama Badamundi	Three tyne cycle weeder is used for weeding, hoeing and hedging operation. This implement works 3 times better than manual labour with a capacity of 180-200 sq mt per hour in comparison to human capacity of 50-60 sq mt per hour. Cost of operation: Manpower- Rs. 5000/ha, 3 tyne cycle weeder Rs. 1250/ha
2	Organic-pesticides used for lemon	Sri Biren Badaraita	He produces organic pesticide using neem leaves, pongamia leaves, cow dung and urine, goat droppings and urine with chulah ash mixed with detergent and spraying on crops at fortnightly interval. This is a local innovation that detergent binds the ashes and other components which remain on the crop leaves being sticky that ward away the pests. It is found to be effective in controlling pest incidence in lemon.

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	Brinjal	Dusting with ash to control shoot and fruit borer and sucking pest in brinjal	Ashes generated from chulah are dusted during the early morning over the crops like brinjal
2	Rice-pulses cropping system, Vegetables	Begunia ( <i>Vitex negundo</i> L.) plantation in bund	Begunia acts as a barrier crop planted in field bund
3	Rice, vegetables	Boiling of barks and leaves of neem in water and decant concentrate is sprayed after diluting.	Neem leaves and barks are boiled in water followed by diluting 10 times and sprayed on crop for controlling pest infestation.
4	Mango	Use of <i>Cassia fistula</i> leaves for early and even ripening of the mango fruits	Placing 2-3 leaflets are put inside the container with mango and covered for 24-48hrs to fasten the ripening process
	Maize + ragi	Sowing of Maize & Ragi mixed crop Maize as main crop and Ragi as subsidiary crop No proper maintenance of spacing in ragi	- For utilizing space in between rows of maize Effective control of weed with additional income from ragi

b. Give details of organic farming practiced by the farmer NA

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	How-How networking	Degree of knowledge, skill and attitude
2	Why-why networking	Problem identification and prioritization, Need analysis
	Group discussion Diagnostic field visit Farmer Scientist interaction Farmer visit to KVK Feedback from farmers District department officials and extension personnel	

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

Sl. No	Name of the Equipment	Qty.
1	Flame Photometer with PC Software	1
2	Electronic Precision Balance	2
3	Refrigerated Centrifuge	1
4	Physical Balance	1
5	Hydrometer	1
6	Thermometer	1
7	Horizontal Rotary shaker	1
8	Hot air Oven Digital	1
9	Distilled water unit	1
10	PH Meter Micro controller based	1
11	EC meter	1
12	Mechanical Stirrer	1
13	Magnetic Stirrer with hot plate	1
14	Soil Moisture meter	1
15	KEL plus Automatic Nitrogen and Protein Estimation System	1
16	Automatic Micro Compatible digestive system	1
17	Automatic Scrubber System	1
18	Automatic Distillation system	1
19	Titration system	1
20	UV Spectrometer	1

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			

60		60	300	21	-

## 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 programme	106	11	1. Mrs. Amita Mandal, Block Chairman 2. Sri Bijay Kumar Pradhan, DDA, Gajapati 3. Sri T.V. Prasad Rao, Asst. Registrar, Co-operative soc. 4. Sri M.K. Pashayat, PD, Watershed Gajapati 5. Sri Sudyumna Pal, DDM-NABARD, Gajapati 6. Sri Damodar Ugursandi, LDM, Gajapati 7. Sri Prasanta Ku. Patnaik, DAO, R.Udayagiri 8. Sri Smrutiranjana Satapathy 9. Tehsildar, R. Udayagiri 10. Mr. Bhima Paik, ATMA-Chairman 11. Sri Jacob Majhi, ZP Member	40	106
2	Seminar	50	9			

## 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

Type of activities	No. of activities	Number of participants	Related crop/livestock technology
Awareness programme on new vegetable varieties	1	25	Broccoli, Tomato var. Arka Rakshak and Arka Samrat
Visit of Demo unit	8	20	Use of AMC in vegetables Nursery raising of vegetables Vermicompost production Marigold cultivation Capsicum cultivation Azolla cultivation

			Backyard poultry rearing Mango graft production unit
Distribution of Literature (No.)	4	80	News Letter, Booklets

## 3.14. RAWE/ FET programme - is KVK involved? (N)

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
07.05.2018	Mr. S.K. Acharya, CEO, Hi Tech Medical College & Hospital	
16.06.2018	Mr. J.N. Padhy, Asst. Director (Coordination/OS), DAC & FW, GI, Krishi Bhawan, New Delhi	Review and Monitoring of KKA activities taken up by KVK in the villages of the district
25.7.2018	Dr. J.K Sundaray ICAR CIFA, Kausalya Ganga, Bhubaneswar, Odisha	To participate in the Farmer-Scientist Interface meeting at Chandragiri, organized by ICAR-CIFA in collaboration with KVK
27.7.2018	Dr K.S. Das, Principal Scientist ATARI-Kolkata	Visited demo unit and reviewed the KVK activities and attended the Farmer-Scientist Interface meeting at Chandragiri
27.7.2018	Dr P. Das, Principal Scientist ICAR-CIFA	To participate in the Farmer-Scientist Interface meeting at Chandragiri, organized by ICAR-CIFA in collaboration with KVK
27.7.2018	Dr S. Shankar, Scientist ICAR-CIFA	To participate in the Farmer-Scientist Interface meeting at Chandragiri, organized by ICAR-CIFA in collaboration with KVK
27.7.2018	Miss Basanti Mallik MLA, Mohana, Odisha	Visited the Demo unit and enquired about the new agricultural technologies suitable for farmers of Mohana block
20.8.2018	Dr. P.R Mishra Professor, Entomology,OUAT	Inspection and diagnostic field visit during severe Fall Army Worm Infestation in Maize in the district
02.10.2018	Mr. Pradeep Kumar Nayak BDO, R.Udayagiri	Invited as the Guest of Honour in the Swachata Divas and inauguration day of KKA Phase –II programme
02.10.2018	Mrs Bharati Mishra Principal, Mahendra Tanaya Junior College, R.Udayagiri	Invitee in the Swachata Divas and inauguration day of KKA Phase –II programme
24.10.2018	Dr. Saurabh Garg, Principal Secretary, Agriculture, IAS Min. of Agri. & Farmers Empowerment	Inspection of damage caused due to Cyclone-Titli in KVK Farm and in the district
4.11.2018	Sri Rama Chandra Panda Member, S.P.B. Odisha,	Visited the Demo unit

16.12.2018	Prof. Surendranath Pasupalak Hon'ble Vice Chancellor, OUAT, Bhubaneswar	Review and Monitoring of KVK activities and Inspection of Demo unit
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#### 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./ha)	After (Rs./ha)
Cultivation of Broccoli	28	100	112000/-	144000/-
Cultivation of Sweet corn	45	100	62000/-	94500/-
Rice var. Bina Dhan-11	25	100	22500/-	29250/-
Rice var. DRR 42	25	100	21350/-	28600/-

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
Cultivation of Broccoli	1600 ha
Cultivation of Sweet corn	230 ha
Cultivation of Brinjal var Swarna Shyamali	8 ha

Give information in the same format as in case studies

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

Sl. No.	Brief details of technology	Impact of the technology in subjective terms	Impact of the technology in objective terms

##### 4.4. Details of innovations recorded by the KVK

Thematic area	Agricultural Engineering
Name of the Innovation	3 tyne cycle weeder
Details of Innovator	Name : Sri Rama Badamundi Father's Name: Sri Gangadhar Badamundi Village: Alama, GP: Ramagiri Block: R. Udayagiri District: Gajapati Educational Qualification : Under- Matriculation Land Holding: 5 acre
Back ground of innovation	Alama is one of the vegetable growing village of the block. High cost is involved for intercultural operations and weeding in vegetable cultivation. Non-availability of labour during the peak period is another problem. But when Sri Rama Badamundi attended the exhibition at Gajapati Mahotsav he was inspired by the cycle weeder displayed which was a single tine weeder. Thus he started to design a cycle weeder that could be used for weeding, hoeing and ridging in any vegetable crop at a time.



Technology details	Three tyne cycle weeder consists of 3 tynes one cycle wheel one frame and one handle. It is easily operated in push pull mode with adjustable tynes made up of mild steel. It is used for weeding, hoeing and hedging operation. Cost of operation of 3 tyne cycle weeder is Rs.1250/ha
Practical utility of innovation	This implement works 3 times better than manual labour with a capacity of 180-200 m <sup>2</sup> per hour in comparison to human capacity of 50-60 m <sup>2</sup> per hour.

#### 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

### 5. LINKAGES

#### 5.1. Functional linkage with different organizations

Name of organization	Nature of linkage
Department of District Agriculture Officer, ATMA, Veterinary office, Fishery Office, Horticulture, Watershed and soil Conservation, Minor Irrigation, NABARD, Lead Bank, SACAL NGO, Suraksha NGO, LANDESA NGO	Convergence programme for improvement of wholesome agriculture and doubling of farmers income, Forward linkage and sharing of inputs
Reliance Foundation	Providing technical advisory and news for news paper and mobile advisory
KVK Ganjam-I & II, KVK, Rayagada	Ring Partner for sharing Manpower, Equipments etc.

#### 5.2. List of special programmes undertaken during 2018-19 by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NABARD/NHM/NFDB/Other Agencies (**information of previous years should not be provided**)

## a) Programmes for infrastructure development

Name of the programme/ scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)

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

Name of the programme/ scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)

## 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	2010	50	Vegetable Seedlings and sapling	Planting Material	137464	155678.50	216003	Papaya, Drumstick Vegetables seedlings
2.									
3.									
4.									
5.									
6.									
7.									
	Total		500			137464	155678.50	216003	

## 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	
Cauliflower	21.07.2018	28.8.2018	0.002	Megha	Seedling	850 nos	155678.50	1700	
Brinjal	21.07.2018	28.8.2018	0.002	Swarna Shyamali	Seedling	1695 nos.		1695	
Marigold	04.12.2018	14.01.2019	0.002	Seracole	Seedling	44600 nos.		53520	
Papaya	9.10.2018	28.8.2018	0.002	Red Lady	Seedling	22 nos		440	
Cabbage	10.10.2018	5.12.2018	0.002	BC-90	Seedling	740 nos		1480	
Annuals	20.11.2018	14.01.2019	0.002	-	Seedling	140 nos		700	
Broccoli, Tomato	22.11.2018	5.12.2018	0.002	Green Magic, Arka Samrat, Arka Rakshak	Seedling	1840 nos 430 nos		3680 860	
Capsicum	5.1.2019	1.2.2019	0.002	Indira	Seedling	94		188	
Brinjal, Tomato Cauliflower	10.12.2018	6.12.2018	0.002	Swarna Shyamali Arka Samrat, Arka Rakshak	Vegetables	28160 nos 39180 nos 435 nos		28160 78360 870	
Beans	24.05.2018	29.8.2018	0.01	Raikia Beans	Vegetables	0.083 q		2905	
Brinjal	4.1.2019	29.3.2019	0.01	Swarna Shyamali	Vegetables	0.019q		380	
Tomato	2.1.2019	29.3.2019	0.01	Arka Rakshak	Vegetables	0.034q		340	
Knolkhol	2.1.2019	29.3.2019	0.01	-	Vegetables	0.005q		55	
Coconut	-	19.01.2019 11.3.2019	5 nos	-	Nuts	33 nos		990	
Mango & Litchi	-	8.05.2018	11.75ha	-	Fruits	165.35q		35100	

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

Sl. No.	Name of the Product	Qty. (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.					

## 6.4. Performance of instructional farm (livestock and fisheries production) NA

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.							
2.							
3.							

## 6.5. Utilization of hostel facilities

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
	0	0	Non availability of beds and shortage of rooms
Total :			

(For whole of the year)

## 6.6. Utilization of staff quarters

Whether staff quarters has been completed: No

No. of staff quarters: 0

Date of completion:

Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI

7. FINANCIAL PERFORMANCE

## 7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Current Account	State Bank of India	R.Udayagiri	11570672119
Current Account	State Bank of India	R.Udayagiri	30450420961

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

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

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2018
	Kharif	Rabi	Kharif	Rabi	
Greengram		358800		358800	0

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

Sl. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	5850000	5850000	4082421
2	Traveling allowances	75000	75000	75000
3	Contingencies - 798800			
A	Office Expenditure, Elec. Bill, Telephone bill etc	798800	798800	798800
B	POL			
C	FLD, OFT, Demo Unit, Module, Trg Material			
D	Training			
E	Extn Activities			
F	Soil Day celebration			
GG	Swachhta Expenditure			
TOTAL (A)		6723800	6723800	4956221
<b>B. Non-Recurring Contingencies</b>				
1				
2				
3				
4				
TOTAL (B)				
<b>C. REVOLVING FUND</b>		-	-	155678.50
GRAND TOTAL (A+B+C)		6723800	6723800	5111899.50

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year (Kind + cash)
2015-16	119325	90172	64428	209497
2016-17	209497	204675	67095	39639.5
2017-18	39639.5	336115	208017	376439
2018-19	376439	255807	155678.50	353188

## 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

## 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)

## 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)

## 9.1. Nehru Yuva Kendra (NYK) Training

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

## 9.2. PPV &amp; FR Sensitization training Programme

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

## 9.3. mKisan Portal (National Farmers' Portal/ SMS Portal)

Type of message	No. of messages	No. of farmers covered
Crop	80	13922
Livestock	0	
Fishery	0	
Weather	3	13922
Marketing	0	
Awareness	12	13922
Training information	0	
Other	1	
<b>Total</b>	<b>96</b>	<b>13922</b>

## 9.4. KVK Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	340
2.	No. of farmers registered in the portal	13922
3.	Mobile Apps developed by KVK	0
4.	Name of the App	0
5.	Language of the App	0
6.	Meant for crop/ livestock/ fishery/ others	0
7.	No. of times downloaded	0

## 9.5. a. Observation of Swachh Bharat Programme

Date/ Duration of Observation	Activities undertaken
27.09.2018	Awareness programme on cleanliness and layout of kitchen garden with Debate, Essay and drawing competition on Swachh Bharat was held in Govt. (SSD) Girls High School, Sunduraba
29.09.2018	Awareness programme with Debate, Essay and drawing competition on Swachh Bharat was held in Govt. High School , R. Udayagiri
29.09.2018	Awareness programme with Debate, Essay and drawing competition on Swachh Bharat was held in Odisha Adarsha Vidyalaya
01.10.2018	Awareness programme with Debate, Essay and drawing competition on Swachh Bharat was held in Mahendra Tanaya Junior College, R. Udayagiri
15.09.2018 to 01.10.2018	Swachhata Pakhwada observation and awareness on cleanliness in KVK Campus, nearby villages, public places and educational institutes

## b. Details of Swachhta activities with expenditure

Activities	Number	Expenditure (in Rs.)
1. Digitization of office records/ e-office	-	
2. Basic maintenance	28	
3. Sanitation and SBM	69	
4. Cleaning and beautification of surrounding areas	2	
5. Vermicomposting/ Composting of biodegradable waste management & other activities on generate of wealth for waste	15	
6. Used water for agriculture/ horticulture application	-	
7. Swachhta Awareness at local level	5	
8. Swachhta Workshops	-	
9. Swachhta Pledge	1	
10. Display and Banner	1	
11. Foster healthy competition	5	12000
12. Involvement of print and electronic media	3	
13. Involving the farmers, farm women and village youth in the adopted villages (no of adopted village)	5	
14 No of Staff members involved in the activities	9	
15 No of VIP/VVIPs involved in the activities	3	
16. Any other specific activity (in details)	-	
<b>Total</b>	<b>134</b>	<b>12000</b>

## 9.6. Observation of National Science day

Date of Observation	Activities undertaken

## 9.7. Programme with Seema Suraksha Bal/ BSF

Title of Programme	Date	No. of participants

## 9.8. Agriculture Knowledge in rural school

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

Give good quality 1-2 photograph(s)

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

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

## 9.10. Details of Swachhta Hi Sewa programme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1	Awareness campaign, Cleaning of village streets, Rallies etc	5	250	-	-

## 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	Awareness on different value addition technologies for locally cultivated millets, fruits and vegetables	3	48	-	-



## 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	Sri Rama Badamundi	Village- Alama GP- Ramagiri Block-R.Udayagiri Ph. No. 9439160795	Three tyne cycle weeder is used for weeding, hoeing and hedging operation. This implement works 3 times better than manual labour with a capacity of 180-200 sq mt per hour in comparison to human capacity of 50-60 sq mt per hour. Cost of operation: Manpower- Rs. 5000/ha, 3 tyne cycle weeder Rs.1250/ha
2	Sri Biren Badaraita	Village- Leobo GP- Attarsing Block- Nuagada Ph. No. 8763455312	He produces organic pesticide using neem leaves, pongamia leaves, cow dung and urine, goat droppings and urine with chulah ash mixed with detergent and spraying on crops at fortnightly interval. This is a local innovation that detergent binds the ashes and other components which remain on the crop leaves being sticky that ward away the pests. It is found to be effective in controlling pest incidence in lemon.

## 9.13. Revenue generation

Sl.No.	Name of Head	Income(Rs.)	Sponsoring agency
1.			
2.			
3.			

## 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

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

## 9.16. Contingent crop planning

Name of the state	Name of district/KVK	Thematic area	Number of programmes organized	Number of Farmers contacted	A brief about contingent plan executed by the KVK

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

a) Year:

b) Introduction / General Information:

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

## 11. Details of TSP

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

Programmes	Physical achievements
Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)	429.0
On-farm trials (Number)	5.0
Frontline demonstrations (Number)	16.0
Farmers training (in lakh)	70.1
Extension personnel training (in lakh)	30.0
Participants in extension activities (in lakh)	711.0
Seed production (in tonnes)	0.0
Planting material production (in lakh)	67400.4
Livestock strains and fingerlings production (in lakh)	0.0
Soil, water, plant, manures samples testing (in lakh)	15.0
Provision of mobile agro – advisory to farmers (in lakh)	18.1
No. of other programmes (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)	23.0

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

c. Achievements of physical outcome under TSP during 2017-18

Sl. No.	Description	Unit	Achievements
1	Change in family income	%	23.43
2	Change in family consumption level	%	13.54
3	Change in availability of agricultural implements/ tools etc.	No. per household	8

## d. Location and Beneficiary Details during 2017-18

<i>District</i>	<i>Sub-district</i>	<i>No. of Village covered</i>	<i>Name of village(s) covered</i>	<i>ST population benefitted (No.)</i>		
				M	F	T
Gajapati	Gumma	13	Loba	35	15	50
			Gaiba	50	0	50
			Parida	50	0	50
			Jhami	50		50
			Serango	30	0	30
			Bapunbudi	63	38	101
			Tarangada	51	0	51
			Tarava	48	2	50
			Tarava	12	0	12
			Bhubani	15	0	15
			Tarangada	38	2	40
			Neridiguda	13	0	13
			Anukunda	42	5	47
	Mohana	9	Chandiput	50	0	50
			Birikote	45	0	45
			Govindapur	53	5	58
			Labarsingi	56	19	75
			Jubagaon	50	28	78
			Kaithapada	79	29	108
			Jubagaon	51	8	59
			P.Govindpur	22	0	22
			Kaithapada	11	1	12
	R. Udayagiri	21	Ranalai	47	3	50
			Chellagada	36	14	50
			Mahendragada	24	6	30
			Ramgiri	41	4	45
			Sabarpalli	43	12	55
			Phatachanchada	40	27	67
			Kushapalli	46	9	55
			Lubursing	43	19	62
			Sunduruba	44	7	51
			Chadiapada	21	16	37
			Makapada	73	33	106
			Kankadaguda	55	29	84
			Anukumpa	56	30	86
			Alama	64	11	75
			Kankadaguda	46	12	58
			Sabarpalli	44	14	58
			Phtachencheda	59	24	83
			Anukampa	36	23	59
			Sundaraba	28	29	57
			R.Udayagiri	23	20	43
	Rayagada	6	Burujang	7	0	7
			Jiranga	50	0	50

			Narayanpur	10	0	10
			Landusahi	51	0	51
			Koinpur	50	0	50
			Landusahi	50	0	50
	Gosani	2	Uppalada	5	0	5
			Tatipati	40	0	40
	Nuagada	8	Badapada	31	0	31
			Tabarada	51	0	51
			Luhangar	50	0	50
			Titising	56	19	75
			Souri	34	21	55
			Titising	31	27	58
			Leoba	8	0	8
			Attarsing	15	0	15
	Kashinagar	2	k. sitapur	30	3	33
			Allada	31	7	38

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

## Natural Resource Management

[illegible]

## Crop Management

[illegible]

## Livestock and fisheries

[illegible]

## Institutional interventions

Name of intervention undertaken	No of units	Area (ha)	No of farmers covered / benefitted								Remarks	
			SC		ST		Other		Total			
			M	F	M	F	M	F	M	F	T	

## 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	Year	Conferring Authority	Amount	Purpose

## Award received by Farmers from the KVK district

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

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 adoption of the technology	No. of farmers adopted the technology in the district	One high resolution 'Photo' in 'jpg' format for each technology
1	Rice-paira Greengram	<ul style="list-style-type: none"> <li>•Early line transplanting</li> <li>•Improved agronomic practices</li> <li>•Soil test based fertilizer application</li> <li>•Piara cropping with Green gram/Blackgram with 25% more seed</li> <li>•Seed treatment with</li> </ul>	Rs. 37760/-	2	

		rhizobium + PSM					
2	Maize+ Cowpea	<ul style="list-style-type: none"> <li>• Intercropping of Hyb. Maize with cow pea (2:2)</li> <li>• Application of PMS for Acid soil amendment</li> <li>• Soil test based fertilizer application</li> </ul>	Rs. 23462/-	2			
3	Orchard based farming system	<ul style="list-style-type: none"> <li>• Training &amp; pruning of orchard</li> <li>• INM and IPDM in Mango</li> <li>• Apiculture</li> </ul>	Rs. 55210/-	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 2017-18 and 2018-19

Year	Name of the Job role	Name of the certified Trainer of KVK for the Job role	Date of start of training	Date of completion of training	No. of participants	Whether uploaded to SDMS Portal (Y/N)	Fund utilized for the training (Rs.)
2016-17	-	-	-	-	-	-	-
2017-18	-	-	-	-	-	-	-
2018-19	Mango Grower	Miss Rashmita Toppo	10.12.2018	10.01.2019	20	Y	165200
	Vermicompost Producer	Mr. Chandan Maharana	-	-	-	N	0

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)

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



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

**Krishi Kalyan Abhiyan- I and II****A. Training**

Name of programme	No. of programmes	No. of farmers benefitted									No. of officials attended the programme
		SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T	
KKA-I	25	70	05	699	112	299	77	1068	194	1262	181
KKA-II	25	03	01	924	431	30	07	957	439	1396	85

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

Name of programme	No. of Programme	Total quantity distributed				No. of farmers benefited									No. of other officials (except KVK) attended the programme
		Seed (q)	Planting material (lakh)	Input (kg)	Other (kg/ No.)	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F	T	
KKA-I	25	497.5	0.125	-	-	2048	7	2664	1035	887	209	5599	1251	6850	69
KKA-II	25	50	0.09	-	-	72	9	1923	395	623	28	2618	432	3050	35

**C. Livestock and Fishery related activities**

Name of programme	No. of Programme	Activities performed				No. of farmers benefited									No. of other officials (except KVK) attended the programme
		No. of animals vaccinated	No. of animals dewormed	Feed/ nutrient supplements provided (kg)	Any other (Distribution of animals/ birds/ fingerlings) [No.]	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F	T	
KKA-I	25	10316	-	-	-	87	4	518	3	9683	21	10288	28	10316	37

<b>ККА-II</b>	25	3737	-	-	-	18	2	298	7	3398	14	3714	23	3737	28
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#### D. Other activities

[illegible]

### *Krishi Kalyan Abhiyan- III*

[illegible]

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

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

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**PROCEEDINGS OF 14<sup>th</sup> SCIENTIFIC ADVISORY COMMITTEE MEETING OF  
KRISHI VIGYAN KENDRA, GAJAPATI**

The 14<sup>th</sup> Scientific Advisory Committee meeting of K.V.K Gajapati, R. Udayagiri was held on Dt. 14.12.2018 at 10:30 AM under the Chairmanship of Prof. Prasanjit Mishra, Joint Director, Dean Extension Education, O.U.A.T, Bhubaneswar. Members present in this meeting are annexed herewith. At the onset of the meeting, Dr. Sangram Paramaguru, Senior Scientist & Head welcomed the members and requested the dignitaries to inaugurate the meeting by lighting the lamp.

The Chairman has highlighted role of K.V.K. in the district for development of the farming community. He also emphasized the importance of SAC meeting and participation of the members. Senior Scientist & Head circulated the approved proceeding of last SAC to all the members for collecting the feedback and presented the proceedings in brief. The chairman after taking consent of the house approved the proceedings. Afterwards he presented the brief Achievement report of Rabi 2017-18 and Kharif 2018 along with action plan of Rabi 2018-19 of KVK, Gajapati.

Then Members of the advisory committee discussed and given the following suggestions for improving the activities conducted by KVK,

**Agenda – 1: Approval of the proceedings of last SAC meeting**

After brief introductory remarks, he advised the Senior Scientist & Head to start the proceedings as per agenda. Senior Scientist & Head circulated the proceeding of last SAC to all the members for collecting the feedback and presented the proceedings in brief. The chairman after taking consent of the house approved the proceedings.

**Agenda -2: Action taken on the proceedings of the last SAC meeting**

The Senior Scientist & Head presented the actions taken by the KVK on the recommendation of the last SAC meeting as follows:-

Sl No	Recommendations	Action Taken
1	Floriculture (Tuberose, Gladioli, Marigold) and offseason vegetable cultivation and new systems of vegetable propagation like trails system should be popularised	FLD on marigold cultivar Seracole has been included in Rabi 2018-19
2	Biological pest management practices in vegetables like brinjal, cabbage, tomato, okra and IPM on field crops like paddy and pigeon pea should be given priority	OFT on IDM measures against <i>Phomopsis blight</i> in Brinjal has conducted during Kharif 2018, IPM against <i>Spodoptera litura</i> in Groundnut
3	Impact study of the technology demonstrated by the KVK will be undertaken and the data on horizontal spread of different technology may be estimated	Impact study in 5 adopted villages on DFI modules, OFT, FLD, Training and cluster demonstration on oilseed and pulses has been started in 1 <sup>st</sup> phase
4	Existing marketing network has to be studied by one of the farmers' club representative and the benefit of information regarding this may be extended to the farmers to get proper price for their produce	Farmers producer organisation for millet in Mohana and R.Udayagir block will be conducted in collaboration with SACAL and Suraksha NGO
5	Value addition of locally available fruits, vegetables and oyster mushrooms should be taken up on entrepreneurship developing mode focusing on women and marginal farmers.	Value addition for locally available fruits vegetables and oyster mushrooms will be included in Action plan 2019-20

6	Backyard poultry should be promoted by introducing new breed and a brooding unit should be established by SHG in adopted village of KVK	Demonstration of backyard poultry Kadaknath has been included in the action plan as special FLD under TSP for 50 Nos beneficiaries
7	Nutritional garden demonstration has been appreciated by all the members present in the house and it is being need of the hour and may be taken up in clusters around the district.	Another 5 villages included in this programme in clusters
8	As Mango Stone weevil and fruit fly is a major concern for decreasing yield and marketability of mangoes so demonstration and trials along with training programmes should be taken up.	Demonstration on chemical management of stone weevil in Mango has been included in Action plan during Rabi 2018-19
9	Total number of trainees/beneficiaries should be increased to more than 2500 per annum.	Till date a total 3045 numbers beneficiaries has been trained during different training programme (2018-19)
10	Awareness and training programme should be conducted time to time for preventing any epidemic occurrence particularly on BPH in Rice	Training programme on BPH and awareness through KMAS has been taken up
11	DDH has suggested for taking up trials on performance of Cashew nut varieties like Jagannath and Balabhadra. He also suggested for taking up steps in management of Tea mosquito bug.	Trials on new Cashew varieties will be taken up in 2019-20. A training programme on Tea mosquito bug will be conducted in Rabi 2018-19
12	Members also suggested for starting up the Mushroom spawn unit in KVK as early as possible for year around supply of quality spawn	Already initiation on mushroom spawn production unit installation is going on and production will be started within 2 months

### Agenda-3: Achievements made by the KVK

Senior Scientist & Head presented the brief Achievement report of Kharif 2017-18 and Rabi 2018 of KVK, Gajapati

#### i) Training

K.V.K. has conducted 28 numbers of training programmes for practicing farmers & farm women, 5 for rural youth where 700 nos. of farmers & farm women and 100 nos. of rural youth participated. Moreover, 2 nos. of training programmes were conducted for 30 numbers In-service personnel and one vocational training for participants were trained during the period April 2017 to December 2018. Following suggestions were given by the members to be included in the future action plan,

- Training on IPM in Mango & citrus should be included.
- Training programme on wilt resistant brinjal varieties & management of shoot & fruit borer in brinjal should be taken care.
- Training on exotic high value vegetable cultivation practices.
- Training on organic farming should be added.

#### ii) Front Line Demonstration

K.V.K has conducted 14 nos. of FLDs in involving 290 beneficiaries in the areas of plant protection, Horticulture, Agricultural Engineering & cluster demonstration on pulse (Green gram and Blackgram) and oilseeds (Groundnut and Sesame) during Kharif 2016 & Rabi 2016-17 FLD

programmes were discussed. The chairman discussed on the FLDs and the house made following suggestions.

- Demonstration on IPM/ management of Fruit fly in Mango should be prioritised.
- Off-season vegetable cultivation in the district should be promoted
- Demonstration on drip irrigation system & mulching in the district may be popularised.
- Demonstration of flower cultivation (Gerbera, lilium, marigold, tuberosa) in open condition should be taken up.

### **iii) On-Farm Testing**

K.V.K. had conducted 5 nos. of OFTs involving 35 beneficiaries in plant protection, Horticulture, Agricultural Engineering & Forestry during Kharif 2016 & Rabi 2016-17 were discussed. Interactions were made among the members and following activities suggested.

- Trials on drought resistant and dry land varieties to sustain production in rainfed areas need to be taken up.
- Trials on intercropping of cowpea, arhar or vegetables in maize to control soil erosion & to maintain soil fertility should be included.
- Trial on biological control of disease & pest in different vegetable crops should be emphasized.
- Trials on floriculture, high value exotic vegetables may be included.
- Trial for controlling soil erosion in forest areas should be included.

### **iv) Other Extension Activities**

K.V.K. had conducted 1886 nos. of extension activities such as Exhibition, Field days, Special day celebration, Radio talk, Television talk, Scientists visit to farmers' field, Kissan Gosthi, No. of farmers visit to KVK, Farmers' club meetings held, SHG convention, Ex – trainees sammelan, Film show, Group meeting, Lectures delivered as resource person etc. where 20127 nos. participants attended. The Chairman discussed on the extension activities and the house made following suggestions.

- New technologies on farm machineries and new generation pesticides should be displayed by different companies during the Farmer's fair.
- KVK need to arrange awareness campaign for sensitizing farmers on soil test based fertiliser application.

The Chairman in his remarks stated that the programmes should be very much strategic for the benefit of farming community and particularly on need based technology for the district. He advised that finalization of technology demonstration should be made with the help of experts. He expressed that linkage must be established between university, KVK and Govt. and all should work in co-operation without lapses for the betterment of farmers. He appreciated the quality planting materials produced in KVK instructional farm and advised to conduct training on value addition of local fruits and vegetable as well as to facilitate better market linkage through formation of groups.

### **Agenda-4: Action Plan:**

The Senior Scientist & Head presented the detailed action plan of KVK for the year 2017-18. All total 12 OFTs, 20 FLDs, and 96 training programmes of 140 days duration involving a target of 2160 participants including 90 In-service personnel and 535 extension activities were proposed to be conducted during the year. The members have made their valuable views about the achievements and proposed action plan of the KVK and suggestions are recorded.

### **Agenda-5: Release of books and publications of the KVK:**

On this Occasion two booklets dedicated to the farmers of the district on “Scientific cultivation Practices in Groundnut and Sesamum” was released by the Chairman and members present on the dias.

**Agenda-6: Suggestion by SAC Members**

An open house vibrant discussion was made about the different activities of KVK in strengthening the farming community of the district in particular about the achievements made by the K.V.K during the period April 2016 to March 2017 the following suggestions for improving the action plan 2017-18.

Sri Bhagaban Sahu, DDH, Paralakhemundi suggested,

- To take up assessment of new fruit varieties such as custard apple var. Arka Vikram and Mango var Arka Neelachal Keshari and Arka Arun etc.
- Grafted brinjal and planting material production through micro cuttings of turmeric rhizome in portray may be demonstrated in KVK campus.

Dr. K.C. Acharya, CDVO, Parakhemundi emphasized on,

- Rearing of indigenous breeds of cattle is more popular among farmers therefore AI in cattle for exotic breeds is not successful in tribal villages.
- For doubling farmers income goat, sheep and poultry farming has a great role thus he has suggested to demonstrate new improved breeds of Ram and Buck in KVK campus for breeding in adopted villages for increasing improved breed population.
- Scientific management of piggery may be demonstrated by KVK in the villages where piggery is popular as pork is highly nutritious meat among all.
- Marketing of poultry and value added products of poultry and dairy through formation of Federation and Producer organization may be accelerated in the district.
- Sheep rearing for wool production may be demonstrated in the district.

Sri Prasant Ku. Pattnaik, DAO, R. Udayagiri suggested that,

- Improved rice variety of medium, short duration and drought tolerant like Sahabhagi dhan may be demonstrated in the upland areas of the district.
- Demonstration of BPH and Sheath blight resistant rice varieties may be demonstrated.
- Popularization of biofertilizer, bio-pesticides and botanicals may be demonstrated and popularized in the district.
- Improved practices for Pulse cultivation may be demonstrated by introducing YMV resistant varieties of Green gram var. IPM 02-14, seed treatment with Rhizobium and Ammonium molybdate or Sodium molybdate, foliar application of nutrients.
- Improved new Black gram and Horse gram varieties developed at CPR Berhampur/IIPR Kanpur may be demonstrated in the district.
- Demonstration of 0.5HP Solar Nano Pump may be established in the KVK Campus with micro-irrigation system.
- Demonstration of pod borer resistant Arhar variety may be demonstration.

Miss Sujata Rani Panda, Deputy Ranger, R,Udayagiri

- Suggested to grow seedlings and saplings of different tree and forest plants like *Acacia auriculiformis*, Teak, and Coconut which are suitable for Agri-silviculture and Horti-silviculture in KVK Campus.

Sri Sudyumna Pal, DDM-NABARD, suggested,

- To give a project proposal for low cost hatchery establishment in the KVK Campus for demonstration purpose,
- Location specific training on value addition of local fruit and vegetable in the district
- Provision of RCT training to rural youth may be achieved in collaboration with KVK for bee keeping, bee box making and colony rearing in the district.

Sri Damodar Ugurasandi, LDM, suggested to

- Take up demonstration on aromatic grass cultivation for soil conservation and establishment of oil extraction unit in the district.
- Also construction of dew and rain water harvesting may be popularized in the district,
- To popularize micro-irrigation like drip and sprinkler in the district,
- Intercropping with Sorghum and other minor millets may be demonstrated.
- Sorghum cultivation with micro-irrigation may be demonstrated.

Suggestion from different NGOs,

- Training for mushroom cultivation with different substrate may be demonstrated.
- Mushroom spawn production may be taken up by KVK for supplying the demand in the district, also skill training on spawn production to different SHGs may be facilitated by KVK.

Dr. Debendra Debata, ADR, RRTTS, Kandhamal

- Suggested to include demo unit on grafted brinjal in the KVK campus.
- Demonstration unit of Hybrid Maize developed at OUAT may be taken up round the year in KVK campus.
- Training on care and management of Honey bee rearing may be taken up by KVK.
- Mushroom Spawn production in KVK campus may be started as soon as possible to meet the demand in the district.

Dr. S.K. Srivastav, Director, ICAR-CIWA emphasized on,

- Training and demonstration of organic farming may be given to farm women,
- Demand driven agriculture may be popularized among farmers like Floriculture, Fishery, Poultry etc.
- Importance and necessity of transmission of information, different policies, technologies and schemes among different ICAR institutes, KVK, Line departments and NGOs
- Demonstration of technologies for drudgery reduction of farm women should be taken up by KVK

Concluding remark by Prof. Prasanjit Mishra, JDE-DEE, OUAT, Bhubaneswar,

- The district with a more than 55% tribal population has tremendous potential for upgrading socioeconomic status through poultry rearing, bee keeping, mushroom cultivation and value addition of local fruit.
- For increasing productivity in important field crops new improved disease resistant varieties must be introduced in the district through demonstration.
- Opportunities from convergence activities of KVK-district department and ICAR institutes should be taken as ICAR has focused all its activities in the district under STC programme.
- Strength of the districts i.e. cooler climate must be utilized for offseason and exotic vegetable cultivation.



- Utilization of green maize stalks through silage making with smaller pieces may be demonstrated by KVK and District administration should take up bio-ethanol production in the district from maize stalk.
- KVK should start Paddy straw Mushroom spawn production from March 2018 positively.

Then, an interaction meet between farmer's representative, Scientists and other officials was conducted and different issues of farmers have been discussed.

#### **Presidential remarks by the Chairman:**

Finally the Chairman concluded with his words, saying all the line departments should work in convergence for the development of farming community, he also assured for providing all type of technical support from KVK towards district line departments expecting the same from their end. He also advised to take up all the demonstrations and trials in an effective way.

The session was ended with the vote of thanks by Mr. Sandeep Mohanty, Scientist (Plant Protection), KVK Gajapati followed by visit of members to the instructional farm of KVK and adopted villages after lunch for monitoring different activities by KVK. Afterwards, Dean Extension Education, O.U.A.T along with Senior Scientist and Head met the District Magistrate-cum-Collector and discussed on the various aspects of KVK activities.

#### **Members Present in the 14<sup>th</sup> SAC meeting of KVK, Gajapati on 14.12.2018 :**

Sl. No.	Name & Designation	Status
1	Prof. Prasanjit Mishra, Joint Director, Dean Extension Education, O.U.A.T, Bhubaneswar	Chairman
2	Dr. S.K. Srivastav, Director, ICAR-CIWA	ICAR, Representative
3	Sri Bhagaban Sahu, DDH, Paralakhemundi	Member
4	Dr. K.C. Acharya, CDVO, Parakhemundi	Member
5	Sri Prasant Ku. Pattnaik, DAO, R. Udayagiri Representative of DDA, Gajapati	Member
6	Miss Sujata Rani Panda, Deputy Ranger, Department of Forestry, R,Udayagiri	Member
7	Sri Sudyumna Pal, DDM-NABARD, Gajapati	Member
8	Sri Damodar Ugurasandi, LDM, Gajapati	Member
9	Dr. Debendra Debata, ADR, RRTTS, Kandhamal	Member
10	Sri Bibhuti Bhusan Mishra Addl. P.D Watershed	Member
11	Mr. Binod Kumar Jena I/c-Senior Scientist and Head, KVK, Rayagada	Member
12	Dr.G.S.P Satapathy BVO, R.Udayagiri, Gajapati	Invitee

13	Sri Prasanta Kumar Mahapatra Surakha NGO,	Member
14	Surendra Panda SWAS NGO, Pralakhemundi	Member
15	Sri Tapan Kumar Panda CCD, Paralakhemundi	Member
16	Sri Santanu Patra Reliance Foundation, Bhubaneswar	Invitee
17	Sri Umasankar Sahu Progressive Farmer & Krushak Sathi, P.Govindpur, Mohana	Member
18	Sri Chaitanya Paik Progressive Farmer,	Member
19	Sri Babana Sabar Progressive Farmer,	Member
20	Dr. Sangram Paramaguru Senior Scientist and Head, KVK, Gajapati	Member-Convener

**Senior Scientist and Head  
KVK, Gajapati**

## SUCCESS CASE

<b>Name of farmer</b>	: Sri Rama Badamundi
<b>Father's Name</b>	: Sri Gangadhar Badamundi
<b>Village</b>	: Alama
<b>GP</b>	: Ramagiri
<b>Block</b>	: R.Udayagiri
<b>District</b>	: Gajapati
<b>Family members</b>	: 5
<b>Land holding</b>	: 2 ha
<b>Educational Qualification</b>	: Under- Matriculation



### Major crops:

Maize in 2 acre ( Rainfed unbunded upland), Rice in 2 acre (Rainfed medium land) in Kharif season and vegetable in with an annual income of Rs. 101305.00/ha.

### Constraints faced:

The farming situation includes erratic rainfall and acidic soil with micro-nutrient deficiency. One nearby perennial water source is only source of irrigation. In this situation enhancing net return with limited resources, adaptation of new interventions, Labour intensiveness, dry-spell/heavy rain/cyclone etc., becomes a challenge.

### KVK Interventions:

- Intercropping of Maize + cow pea (2:2) at 30x90cm (Plant to plant-30 cm) has been demonstrated in his field during 2016-17 since then he has been practicing this technology and gaining profit as compared to sole cropping of maize. As per the advice of the scientist he is using Maize var. PAC 740 which is a hybrid variety while Cowpea var. Kashi Kanchan is a bushy type YMV resistant variety suitable for intercropping.
- Before he was not following seed treatment for any crop other than rice but due to KVK intervention he is now treating maize and vegetable seeds as well as vegetable seedlings with suitable fungicides and pesticides.
- He is now treating the cow pea seeds with *Rhizobium* culture and using *Azotobacter* and PSB in vegetables. Also he is applying fertilizers on the basis of soil test results and recommendation given by KVK.
- INM & IPM measures in Rice intervened by KVK has increased his income from rice to 1.78
- The income from vegetables has been raised to 2.9 laks due to INM in offseason cauliflower and Rabi Knolkhol.
- He has also opted for high value vegetable cultivation with Broccoli, Carrot, Radish, Tomato and Gardenpea under the technical guidance of the KVK scientists.

### Farm Innovation:

- Sri Rama Badamundi has also designed a Three tyne cycle weeder which is used for weeding, hoeing and hedging operation in the vegetable field.
- This implement works 3 times better than manual labour with a capacity of 180-200 m<sup>2</sup> per hour in comparison to human capacity of 50-60 m<sup>2</sup> per hour, and the cost of operation is only Rs.1250.00.
- The implement is appreciated in district level as well as in state level. He has also recognized by ATARI Kolkata and felicitated in the Farm Innovators' meet at ATARI, Kolkata during 2018-19.
- Farmers of his village and nearby villages are also procuring his designed weeder and using in their fields.

### Cost Analysis:

Crop	Season	Yield (q/ha)	Cost of cultivation (Rs)	Gross Income (Rs)	Net Income (Rs)	B:C Ratio
Rice	Kharif	32.2	28000	49910	21910	4.2
Maize + Cowpea	Kharif	56.54 (MEY)	31200	80570	49370	
Vegetables	Rabi	436	52600	348800	296200	
Total	-	-	111800	479280	340480	

**Social Impact :**

He is recognized as an innovative and progressive farmer among his fellow farmers. His interview telecasted in Doordarshan's Krushi Darshan has brought him more popularity among nearby villages. He also encourages his farmer friends to follow Soil test based fertilizer application and organic manures in farming. Nearby village farmers are also influenced by his technology adoption.



**Photographs showing Sri Rama Badamundi giving interview for Krushi Darshan, Doordarshan, demonstration of his 3 tyne cycle weeder and working in his vegetable field**





**OFT on weed management in Ground nut**



**OFT on weed management in Tomato**



**FLD on Validamycin for control of Sheath blight in Rice**



**FLD on control of gall midge in Rice**





**Assessment of triple disease resistant tomato hybrids**



**FLD on bushy type YMV resistant Cowpea var. Kashi Kanchan**



**FLD on wilt tolerant brinjal var. Swarna Shyamali**



**FLD on application of Arka Microbial Consortium in Broccoli**





Cluster frontline demonstration on pulses – Green Gram var. IPM 02-03