

ANNUAL PROGRESS REPORT  
April 2016 to March 2017

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### Instructions for Filling the Format

1. Do not change/modify/ delete any column of any of the table. However, additional rows can be created, if required.
2. Do not merge columns, rows.
3. Please repeat the name of KVK in each table in the column “Name of KVK”
4. Do not fill the non-numerical values in numeric field
5. Do not repeat the unit while reporting data as it is already mentioned in the heading row
6. Strictly fill the data in desired unit only. If it is reported in other unit, convert it in the desired unit
7. Please mention only standard English names of crops (Do not mention Urd, Arhar, Til, Kulthi, Moong, Bajra, etc.)
8. Additional relevant information may be provided at the end of Format by creating heading “Additional Information”
9. Also read the instructions mentioned just below the table
10. Your suggestions for improvement in the format for your simplicity as well as data compilation may be given at the end of the format
11. Do not press any Enter Key in any of the columns while making entry in the columns of the table. Use only arrow key /Tab key/ mouse pointer while movement from one column/row to another.
12. Grey color cells in summary table need not to be filled.
13. Crop name should be spelled correct and standard English name should be used i.e Cereals, Pulses, Oilseed:- Rice (not use Paddy), Wheat, Barley, Kodo, Kutki, Maize, Jwar, Bajra, Pigeon pea (not use Tur, Arhar, Red gram), Blackgram (not use Urd), Greengram (not use Moong/Moongbean), Chickpea (not use Gram, Chana), Field pea, Horse gram (Kulthi), Lentil, Mustard (not use Rai, Sarsoan), Soybean, Linseed, Groundnut, Sesame (not use Til), Niger (not use Ram Til), Safflower (not use Kusum).  
Vegetable :- Vegetable pea, Bottle guard, Bitter guard, Okra (not use Bhindi or Ladies finger).  
Fruits :- Mango, Guava, Custard apple, Pear etc.  
Spices :- Black Peeper, Turmeric, Ginger, Cardamom etc.

REPORTING PERIOD – April 2016 to March 2017  
Summary of KVK Annual Report (Quantifiable Achievement) for the year 2016-17

S.N.	Quantifiable Achievement	Number	Beneficiaries (nos.)	
1	On Farm Testing			
	Proposed OFT	20		164
	On Going OFT	--		--
	Technologies assessed (Completed OFT)	17		143
	Technologies refined	--		--
	On farm trials conducted	17		143
2	Frontline demonstrations			
	Proposed Frontline demonstrations	25		360
	On Going Frontline demonstrations	01		34
	FLDs conducted on crops	19		281
	Area under crops (ha.)	146		315
	FLD on farm implement and tools	--		--
	FLD on livestock/ AH enterprises (Dairy/ Sheep and Goat/Poultry/ Duckery/ Piggery etc.)	04		40
	FLD on Fisheries - Finger lings	--		--
	FLD on other enterprises (Bee keeping, lac, mushroom, sericulture, value addition, vermi compost, etc.)	--		--
	FLD on Women in Agriculture - (Nutritional garden, Income generation, Value addition, Drudgery reduction, etc.)			
3	Training programmes	No. of Course	Duration (days)	Participants
	Farmers	30	30	750
	Farm women	--	--	--
	Rural youth	7	14	105
	Extension personnel/ In service	10	20	100
	Vocational trainings	--	--	--
	Sponsored Training	03	51	140
	Total	50	115	1095
		No. of programmes	Participants	
4	Extension Programmes	508		2244
5	Production of technology inputs etc	Qty	Beneficiaries (nos.)	
	Seed (qt.)	81.4 (130q of Naveen paddy unprocessed)		--
	Planting material produced (nos.)	7476		45
6	Livestock	Qty	Beneficiaries (nos.)	
	Livestock strains ( Nos)	--		--
	Milk Yield - Cow, Buffelo etc. (in liter)	--		--
	Fish (Kg.)	--	--	
	Fingerlings (nos.)	--	--	
	Poultry-Eggs (nos.)	--	--	
	Ducks (nos.)	--	--	
	Chicks etc. (nos.)	956	180	
7	Bio Products	Qty	Beneficiaries (nos.)	
	Bio Agents -Earth worm (Kg.)	04		06

	Trichoderma (kg.)	--	--
	Bio Fertilizers- Vermi compost, Rhizobium, PSB , BGA , Mycorriza , Azotobacter , Azospirillum etc. (Kg.)	1500	10
	Bio Pesticide-Panchgavya, Neem Extract , Neem oil etc.(lit.)	--	--
8	Any other significant achievement in the Zone	Nos.	Participants/ beneficiaries
	Award (Best KVK award and scientist and farmer's award)	01	Indu Bhusan Swain (Farmer)
	Publications ( Res. Paper/ pop. Art./Bulletin,etc.)	05	2500
	KVK News letter	01	500
	SAC Meetings conducted	01	50
	Soil sample tested	470	385
	Water sample tested	25	25
	RWH System (Special training and field visit on RWH structure and MIS in KVKs)	--	--
	KVK-KMA (Message and beneficiaries)	60	16000
	Convergence programmes	03	--
	Sponsored programmes	03	140
	KVK Progressive Farmers interaction	01	100
	No. of Technology Week Celebrations	--	--
	Attended HRD activities organized by ZPD	05	12
	Attended HRD activities organized by DES	06	25
	Attended HRD activities by KVK Staff(Refresher /Short course, Training programme etc. )	--	--
9	Current status of Revolving Funds ( Amt. in Rs.)	Rs.565631/- (This amount has refunded to Directorate of Extension Education, OUAT, BBSR)	
10		No. of blocks	No. of villages
	Outreach of KVK in the District	12	152
11		ICAR	SAU Others
	No. of important visitors to KVK (nos.)	02	16 04
12		Working (Yes/No)	No. of Update
	Status of KVK Website	Yes	10
13		Application received	Application disposed
	Status of RTI (nos.)	02	02
14		Query received	Query dissolved
	Citizen Charter (nos.)	--	--
15		Working (Yes/No)	No. of programme viewed
	E-connectivity	No	--
16		Filled	Vacant
	Staff Position	13	03
17	Workshop/ Seminar/ Conference attended by staff of KVK ( nos)	04	
18	Publication received from ICAR /other organization (nos.)	02	
19		Particulars	Organization
	Agri alerts (epidemic, high serious nature problem, Cyclone etc. reported first time to ZPD, SAU, Agri. Deptt. and ICAR)	--	--

# GENERAL INFORMATION

## 1.1. Staff Position (as on date)

Summary of Staff position in KVKs on March, 2017

Name of KVK	Sanctioned Posts	PC (1)		SMS (6)		PA (3)		Admn. (6)		Total	
		Sanc.	Filled	Sanc.	Filled	Sanc.	Filled	Sanc.	Filled	Sanc.	Filled
Kalahandi	16	1	0	6	5	3	3	6	5	16	13

Name of KVK	Sanction post	Name of the incumbent	Discipline	Higist degree	Subject of specilization	Pay scale	Present pay	Date of joing	Per./Temp.	Category
Kalahandi	Programme Coordinator	--	-	-	-	-	-	-	-	-
Kalahandi	Subject Matter Specialist1	Tapan Kumar Das (I/c PC)	Plant protection	M.Sc (Ag)	Entomology	15,600-39,100 with AGP-6000/-	19810	10.02.2014	Permanent	Others
Kalahandi	Subject Matter Specialist2	Madhumita Jena	Extension	P.hD	Ag. Extension	15,600-39,100 with AGP-6000/-	19810	08.04.2010	Permanent	Others
Kalahandi	Subject Matter Specialist3	Tulasi Majhi	Horticulture	M.Sc. (Ag.)	Post-harvest management	15,600-39,100 with AGP-6000/-	18320	22.05.2012	Permanent	ST
Kalahandi	Subject Matter Specialist4	Lata Malik	Soil Science	M.Sc. (Ag.)	Soil Science/Soil fertility/Microbiology	15,600-39,100 with AGP-6000/-	20590	05.05.2006	Permanent	SC
Kalahandi	Subject Matter Specialist5	Dr. Hrudananda Malik	Animal Science	P.hD	Animal Biotechnology	15,600-39,100 with AGP-6000/-	16250	16.06.2015	Permanent	SC
Kalahandi	Subject Matter Specialist6	--	-	-	-	-	-	-	-	-
Kalahandi	Programme Assistant	Srisrikrushna Behera	Plant Physiology	M.Sc. (Ag.)	Plant Physiology	9,300-34,800 with AGP-4200/-	9710	26.03.2016	Permanent	Others
Kalahandi	Farm Manager	Priyadarsini Swain	Plant Breeding & genetics	M.Sc. (Ag.)	Plant Breeding and Genetics	9,300-34,800 with AGP-4200/-	11010	09.04.12	Permanent	Others
Kalahandi	Computer Programmer	Dillip Kumar Barik	Computer Science	B.com	TALLY	9,300-34,800 with AGP-4200/-	11010	04.12.12	Permanent	Others
Kalahandi	Accountant / superintendent	--	--	-	-	-	-	-	-	-
Kalahandi	Stenographer	Chandrakanti	B.A	B.A	B.A	5,200-20,200	5430	28.07.2015	Permanent	SC

Name of KVK	Sanction post	Name of the incumbent	Discipline	Higist degree	Subject of specilization	Pay scale	Present pay	Date of joing	Per./Temp.	Category
		Mallick				with AGP-2400/-				
Kalahandi	Driver	Keshab Chandra Sa	Matric	Matric	Matric	5,200-20,200 with AGP-1900/-	6860	19.07.08	Permanent	OBC
Kalahandi	Driver	Pradeep Kumar Pradhan	Matric	Matric	Matric	5,200-20,200 with AGP-1900/-	5420	27.07.2015	Permanent	ST
Kalahandi	Supporting staff	Bhuta Naik		Class V		4400/- to 7440/- with AGP-1300/-	5790	26.07.08	Permanent	SC
Kalahandi	Supporting staff	Sangita Goud	-	Class IV	-	4750/- to 14680/- with AGP-1500/-	5140	-	-	-

1.2. DISTRICT PROFILE (detail of geographical area, cultivation, Land, resources, opportunities, irrigation, populations etc.)–

KVK Name	Agro-climatic zone	No . of Blocks	No. of Panchayats	Population	Literacy	SC and ST Population	No. of farmers	Average land holding
Kalahandi	Western undulating zone	13	272	1576869	60.22	736036	256809	0.29 ha

1.3. DETAILS OF ADOPTED VILLAGE during the reporting period (Approved by competent Authority in meetings/workshops)

KVK Name	Village Name	Year of adoption	Block Name	Distance from KVK	Population	Number of farmers (having land in the village)
Kalahandi	Kinipadar	2015-16	M.Rampur	60	240	100
Kalahandi	Sindhipadar	2015	Th.Rampur	70	300	56
Kalahandi	Khaliapali	2015	Karlamunda	80	270	120
Kalahandi	Kamardha	2015	Lanjigarh	50	320	142
Kalahandi	Temri	2015	Golamunda	55	250	110

1.4. THRUST AREAS identified by KVK (Approved by competent Authority in meetings/workshop)

KVK Name	THRUST AREA
Kalahandi	Crop diversification in Rainfed upland situation
Kalahandi	Promotion of drought resistance short duration paddy varieties
Kalahandi	optimum utilization of Paddy fallow areas by suitable cropping pattern
Kalahandi	Promotion of green manuring for sustainable soil health.
Kalahandi	Promotion of integrated Pest Management with proper crop management for harnessing productivity.
Kalahandi	Focus should be on effective water use efficiency through drip and sprinkler irrigation system & precision farming in horticultural crop.
Kalahandi	Yield enhancement of vegetable crops by proper management of fruit & shoot borer in Brinjal, wilt in Tomato, Fruit fly in cruciferous species, micro nutrient disorder in cole crops etc.
Kalahandi	Promotion of off season vegetable cultivation
Kalahandi	Promotion of Kharif onion cultivation
Kalahandi	Emphasis on promotion of nutritional supplements in large ruminants for better milk yield.
Kalahandi	Providing nutritional and livelihood security to the women groups through various entrepreneurial activities i.e Poultry rearing, vermicomposting, Mushroom Production, Nursery Raising , value addition in crop, vegetable & milk etc.

1.4. PROBLEM IDENTIFIED by KVK (Approved by competent Authority in meetings/workshop)

KVK Name	Problem identified	Methods of problem identification	Location Name of Village & Block
Kalahandi	Low yield of paddy in upland and under monoculture cropping pattern	PRA, Group Discussion and Response Analysis	Kamardha, Lanjigarh
Kalahandi	Low profit from cultivation of traditional old rice varieties susceptible to pest and diseases	Group Discussion and Response Analysis	Kamardha, Lanjigarh



Kalahandi	Heavy weed infestation, imbalance nutrition and improper management of soil health	Group Discussion and village survey	Temri, Golamunda
Kalahandi	High incidence of insect pest results in poor yield of different crops	Group Discussion and Response Analysis	Temri, Golamunda
Kalahandi	Low yield in cotton owing to heavy infestation of bollworms & sucking pest and improper crop management practices.	Focused group Discussion and Response Analysis	Kamardha, Lanjigarh
Kalahandi	Low profit from imbalance fertilizer application without soil testing	Group Discussion and Response Analysis	Temri, Golamunda
Kalahandi	Bacterial and fungal wilt in solanaceous vegetables.	Group Discussion and Response Analysis	Kamardha, Lanjigarh
Kalahandi	Low profit from traditional variety of vegetable cultivation	Diagnostic field visit, Group Discussion and Response Analysis	Sindhipadar, Th.rampur
Kalahandi	Wastage of paddy straw and cotton stubbles in the field.	Group Discussion and Response Analysis	Kinipadar, M.Rampur
Kalahandi	Broadcasting of sunflower in pulses with poor nutrient management leading to low yield.	Diagnostic field visit, Group Discussion and Response Analysis	Sindhipadar, Th.rampur
Kalahandi	Poor egg laying capacity and high mortality of indigenous poultry bird.	Group Discussion and Response Analysis	Kinipadar, M.Rampur
Kalahandi	No value addition of surplus farm produce	Focused group Discussion and Response Analysis	Kinipadar, M.Rampur
Kalahandi	Indiscriminate use of pesticides and chemical fertilizers in cereals and vegetable.	Group Discussion and Response Analysis	Khaliapali, Karlamunda
Kalahandi	Inadequate pre and post stocking management with improper size and species combination.	Group Discussion and Response Analysis	Kamardha, Lanjigarh
Kalahandi	Lack of awareness of harvesting of paddy straw for mushroom cultivation.	Group Discussion and Response Analysis	Khaliapali, Karlamunda
Kalahandi	Malnutrition and drudgery of the people.	PRA, Group Discussion and Response Analysis	Kinipadar, M.Rampur
Kalahandi	Cultivation of local maize varieties results low production	PRA, Group Discussion and Response Analysis	Kamardha, Lanjigarh
Kalahandi	Improper crop management practices and use of local cultivars causes low yield in sunflower	Diagnostic field visit, Focused group Discussion and Response Analysis	Sindhipadar, Th.rampur
Kalahandi	Unavailability of FYM/ organic inputs	Group Discussion and Response Analysis	Khaliapali, Karlamunda
Kalahandi	Indiscriminate use of pesticides enhances cost and resulting in residue problem.	Diagnostic field visit, Group Discussion and Response Analysis	Khaliapali, Karlamunda
Kalahandi	Lack of awareness of harvesting of paddy straw for mushroom cultivation.	Group Discussion and Response Analysis	Temri, Golamunda
Kalahandi	Cultivation of local maize varieties results low production	PRA and Response Analysis	Khaliapali, Karlamunda
Kalahandi	Traditional method of production system in mustard and niger	PRA, Group Discussion and Response Analysis	Sindhipadar, Th.rampur
Kalahandi	Improper crop management practices and use of local cultivars causes low yield in sunflower	PRA, Group Discussion and Response Analysis	Temri, Golamunda

Kalahandi	Unavailability of FYM/ organic inputs	Village survey, Group Discussion and Response Analysis	Khaliapali, Karlamunda
Kalahandi	Indiscriminate use of pesticides enhances cost and resulting in residue problem.	Diagnostic field visit, Group Discussion and Response Analysis	Sindhipadar, Th.rampur
Kalahandi	Low yield of pulses(green gram and black gram) and oil seed(sunflower, groundnut) because of non-descript cultivars and traditional package of practices	PRA, Group Discussion and Response Analysis	Temri, Golamunda
Kalahandi	Improper utilization of uplands, hilly terrain and undulated land	Group Discussion and Response Analysis	Sindhipadar Th.Rampur

## 2. On Farm Testing (OFT)

Note-

- Thematic area should be spelled correct and follow standard pattern i.e. Integrated Nutrient Management in place of INM or Inte. Nutrient Mngt. Etc.
- Crop name should be spelled correct and standard English name should be used i.e Chick pea in place of gram/chana , Paddy in place of Rice/chawal , brinjal in place of egg plant/bhata/baigan etc.
- Don't press enter key to navigate among column use arrow or tab key
- don't add space before or after statement within the table cell
- Kindly mention realistic estimated yield of your crop under trail.
- If crop has been not yet harvested, mark it \* on that

### 2.1 Information about OFT

KVK name	Year	Season	Problem diagnose	Title of OFT	Category of technology (Assessment/Refinement)	Thematic Area	Crop/enterprise	Farming Situations	No. of trials	Results (q/ha)			Net Returns (Rs./ha)			Recommendations
										FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	T <sub>3</sub>	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	T <sub>3</sub>	
kalahandi	2016	Kharif	Low yield due to loss of chemical fertilizer	Assessment of nutrient management and Plant growth regulator application on yield enhancement in Black gram	Assessment	Integrated Nutrient Management	Black gram	Rainfed Upland	7	5.3	6.4	--	19500	25300	--	Plant growth regulator plays a vital role in the yield enhancement of the crop.
kalahandi	2016	Kharif	Low yield of rice due to poor nutrient	Assessment of Rice nutrient manager in transplanted	Assessment	Integrated nutrient management	Rice	Rainfed Medium land	7	20.2	28.4	--	9440	14440	--	--

			manage ment	d rice													
kalaha ndi	201 6	Kha rif	Lesser yield due to non use of required amount of NPK and Bio- fertilizer.	Assessmen t of bio- fertilizer application in Tomato	Assessme nt	Integrate d Nutrient Manage ment	Tomato	Rainfed Upland	7		195	225	--	110500	134500	--	Balanced dose of fertilizer mixed with appropriate amount of bio fertilizer enhances the yield of crop.
kalaha ndi	201 6	Kha rif	Low income from Onion due to cultivat ion in Rabi season	Assessmen t of Kharif Onion cultivation in rainfed upland situation	Assessme nt	Integrate d Crop Manage ment	Onion	Rainfed Upland	7		153	197	210	144500	196700	216200	Cultivation of Kharif onion Var. Bhima Red and Bhima Dark Red. Seedling treatment with Tricoderma viridae @5g/l of water and cultivation in raised bed system with soil test based fertilizer application
kalaha ndi	201 6	Kha rif	No cultivat ion of table purpose Banana	Assessmen t on Performan ce of Tissue culture Banana var. Champa and Amrutpani	Assessme nt	Varietal evaluatio n	Banana	Irrigate d Medium land	7		238	212	252	112400	896000	113600	Varietal trial on Performance of tissue culture Banana Champa and Amrutpani
kalaha ndi	201 6	Kha rif	Leaves becomes yellow, producti on of few pods and size of pods is reduced,	Assessmen t of IPM for YMV manageme nt in Kharif green gram	Assessme nt	Integrate d Pest Manage ment	Green gram	Rainfed Up land	7		4.7	5.6 (T2)	6.4 (T3) 6.6 (T4)	14500	15000	21500 22500	YMV management in Green gram saves the crop from loss upto 40%

			grains quality deteriora te													
kalaha ndi	201 6	Kha rif	Low yield due to pod borer infestatio n	Assessmen t of Emmamec tin benzoate 5% SG for control of gram pod borer in pigeon pea	Assessme nt	Integrate d Pest Manage ment	Pigeon Pea	Rainfed Upland	7	12.2	14.1		23600	30400	--	--
kalaha ndi	201 6- 17	Kha rif	Low concepti on rate, high rate of abortion and under nourishe d new born kid	Assessmen t on effect of mineral supplemen ts on performan ce of pre- parturient goat	Assessm ent	Livestoc k producti on and manage ment	Goat	Rain fed upland	13	45 gm/da y	63 gm/d ay		1850/6 month/ goat	3020/ 6month/ goat	--	Mineral supplements should be added to goat ration with routine deworming and vaccination
kalaha ndi	201 6- 17	Kha rif	Low growth rate, Low appetite, frequent occurren ces of diseases and weak and emaciate d animal	Assessmen t on effect of liver tonic on performan ce of pre- parturient cattle	Assessm ent	Livestoc k producti on and manage ment	Cattle	Rain fed upland	13	3.42 L/day	4.3 L/da y		8080/ 6month/ cow	12790/ 6month/ cow	--	Liver tonic should be recommended to growing calf with proper care and management
Kalaha ndi	201 6- 17	Rabi	Low yield green gram due to	Assessmen t of VAM in green gram	Assessme nt	Integrate d nutrient manage ment	Green gram	Irrigate d Medium land	7	5.6	6.6	--	11080	13680	--	--

			poor nutrient management													
Kalahandi	2016-17	Rabi	Low yield and oil content of Sunflower due to Boron deficiency	Assessment of Sulphur and Boron application in Sunflower	Assessment	Soil Fertility management	Sunflower	Irrigated Medium land	7	12.6	14.9		32680	40520	--	Boron and Sulphur application in Sunflower increases the oil content upto 18.25%
Kalahandi	2016-17	Rabi	Low yield of Tomato due to high weed infestation and high moisture loss in upland condition	Assessment on Performance of Polymulching in Tomato crops for resource conservation	Assessment	Integrated weed and water management	Tomato	Irrigated Medium Land	7	275	312	338	90250	105600	117400	T2- 50 micron thickness polymulch T3- 50 micron Polymulch + Drip Irrigation
Kalahandi	2016-17	Rabi	Low yield due to loss of soil applied chemical fertilizer	Assessment on Performance of foliar application of water soluble fertilizer in potato	Assessment	Nutrient management	Potato	Irrigated Medium Land	7	254	348	316	121500	177500	153500	19:19:19 NPK water soluble fertilizer in potato at 45 days and 60 days after sowing.
Kalahandi	2016-17	Rabi	Low yield due to high infestation of fruit borer	Assessment of Integrated Management in Tomato fruit borer	Assessment	Integrated Pest management	Tomato	Irrigated Medium land	7	145	197	202217	102000	151000 (T2)	153000 (T3) 168500 (T4)	--

	2016-17	Rabi	High disease incidence causes low crop yield	Assessment of combine fungicide (Tricyclozole + Propiconazole) 52.5 SC against Sheath blight in Paddy	Assessment	Integrated Disease Management	Paddy	Irrigated Medium land	07	21.5	28.8	--	14100	21320	--	Combine fungicide affects against sheath blight in paddy upto 39%
Kalahandi	2016-17	Rabi	Low conception rate, high rate of abortion and undernourished new born calf	Assessment on effect of feed supplements on performance of pre-parturient cattle	Assessment	Livestock production and management	Cattle	Rain fed Medium land	13	3.55L/day	4.75 L/day	--	9120/6month/cow	14525/6month/cow	--	Mineral supplements should be added to cattle ration with routine deworming and vaccination
Kalahandi	2016-17	Rabi	Low growth rate, Unhealthy animal, weak and emaciated animal	Assessment on effect of anti parasite on performance of cattle	Assessment	Livestock diseases management	Cattle	Rain fed Medium land	13	2.9 L/day	3.56 L/day	--	7920/6month/cow	10258/6month/cow	--	Ecto parasite and endo parasite should be administered at regular interval with proper care and management

## 2.2 Economic Performance

KV K name	OFT Title	Parameters			Average Cost of cultivation (Rs/ha)			Average Gross Return (Rs/ha)			Average Net Return (Rs/ha)			Benefit-Cost Ratio (Gross Return / Gross Cost)		
		Name and unit of Parameter	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	Refined Practice, if any (T <sub>3</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	Refined Practice, if any

																(T <sub>3</sub> )
Kala handi	Assessment of nutrient management and Plant growth regulator application on yield enhancement in Black gram	No. of nodules/plant No. of pods/plant	07 28	09 34	1760 0	19500		37100	44800		19500	25300	--	2.10	2.29	--
Kala handi	Assessment of Rice nutrient manager in transplanted rice	Height (cm) Panicle length (cm)	90.4 21.2	92.5 23.1	1480 0	19400	--	24240	33840	--	9440	14440	--	1.62	1.74	--
Kala handi	Assessment of bio-fertilizer application in Tomato	No of Fruits/Plant Fruit weight (gm) Plant Height (cm)	52 85 65	68 92 73	6500 0	68000	-	175500	20250 0	--	110500	134500	--	2.7	2.9	--
Kala handi	Assessment of Kharif Onion cultivation in rainfed upland situation	Bulb size (cm) Bulb Wt. (g)	38 59	45 42 72 85 T2 T3	8500 0	98800	98800	229500	29550 0	315000	144500	196700	216200	2.7	2.9	3.1
Kala handi	Assessment on Performance of Tissue culture Banana var.	No of fruit/plant Bunch weight (Kg)	275 28 90.4	307 34 104.8	7800 0	80000	80000	190400	16960 0	193600	112400	89600	113600	2.4	2.1	2.5



	Champa and Amrutpani	Bunch length (Cm)														
Kala hand i	Assessment of IPM for YMV management in Kharif green gram	No of Pod/plant % of YMV infested plant	22 27	28 29 30 8 5 2 T2 T3 T4	9000	9200	7300 7200	23500	25200	28800 29700	14500	16000	21500 22500	1.6	1.8	2.04 2.14
Kala hand i	Assessment of Emmamectin benzoate 5% SG for control of gram pod borer in pigeon pea	No of infested pod/plant No. of pod/plant	124 95	143 115	2640 0	28200	--	54900	63450	--	28500	35250	--	2.0	2.2	--
Kala hand i	Assessment on effect of mineral supplements on performance of pre-parturient goat	Growth rate and body weight gain of goat	45 gm/day	63 gm/day	--	1180 6 month/ goat	16506 month/ goat	--	3030 6 month/ goat	46706 month/goat	--	1850/6 month/g oat	3020/6 month/ goat	2 .56	2.83	--
Kala hand i	Assessment on effect of liver tonic on performance of pre-parturient cattle	Milk yield and body weight gain of calf	3.42 L/day 290 g/day	4.3 L/day 275 g/day	-	5460 /6month / Cow	6560/6 month/ cow	-	13540 6month/ cow	19350 6month/ cow	-	8080/6m oth/ cow	12790/6 month/ cow	2.48	2.94	--
Kala hand i	Assessment of VAM in	No. of nodules/plant	07 32	09 45	1020 0	11400	--	21280	25080	--	11080	13680	--	2.08	2.2	--

	green gram	No. of pods/plant														
Kala hand i	Assessme nt of Sulphur and Boron applicatio n in Sunflower	Oil content (%) Diameter of the flower (cm)	32 14	40 20	2780 0	31000	--	60480	71520	--	32680	40520	--	2.1	2.3	--
Kala hand i	Assessme nt on Performan ce of Poly mulching in Tomato crops for resource conservati on	No. of fruit/Plant Fruit Wt (g)	84 42	115 138 54 82 T2 T3	6100 0	66000	68500	151250	17160 0	185900	90250	105600	117400	2.4	2.6	2.7
Kala hand i	Assessme nt on Performan ce of foliar applicatio n of water soluble fertilizer in potato	No. of fruit/Plant	20	35.6 T2 29.2T3	6900 0	83500	83500	190500	26100 0	237000	121500	177500	153500	2.7	3.1	2.8
Kala hand i	Assessme nt of Integrated Managem ent in Tomato fruit borer	Percentage of damaged fruit	17	08(T2) 05(T3) 03(T4)	6000 0	70000	71600 73850	145000	19700 0	202000 217000	85000	127000	130400 143150	2.41	2.81	2.82 2.93
Kala hand i	Assessme nt of combine fungicide (Tricycloz ole +Propicon azole ) 52.5 SC	Disease infestation % No of effective tiller/hill	24.5 10	3.5 15	1785 0	20000	--	25800	34200	--	8000	14200	--	1.4	1.7	--

	against Sheath blight in Paddy															
Kala handi	Assessment on effect of feed supplements on performance of pre-parturient cattle	Milk yield and body weight gain of calf	3.55 L/day 310g/day	4.75 L/day 285g/day	4930 /6month/cow	6850 /6month/cow	--	14050/6 month/cow	21375 /6month/cow	--	9120/6month/cow	14525/6 month/cow	--	2.84	3.12	--
Kala handi	Assessment on effect of anti parasite on performance of cattle	Milk yield and occurrences of diseases	2.9 L/day 1/6month	3.56 L/day 3/6month	5130 /6month/cow	5762/6 month/cow	--	13050/6 month/cow	16020 /6month/cow	--	7920/6month/cow	10258/6 month/cow	--	2.54	2.78	--

### 2.3 Information about Home Science OFT: ( For All Thematic Area)

KVK Name	Year	Season	Problem diagnose	Title of OFT	Category of technology (Assessment/Refinement)	Thematic Area	Details of Technology Selected for Assessment	Characteristics of Technology / Variety / Product / Enterprise	Farming / Enterprise Situation	No. of trials	Recommendations

### 2.4 (A) Economic Performance Home Science OFT: (For Drudgery Reduction)

KVK name	OFT Title	Performance Indicator / Parameter													
		Output m2/h		Est. Energy Expenditure kj/min.		WHR beat/min		% reduction in drudgery		% increase in efficiency		Cardiac Cost of Work		% Saving of cardiac Cost	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2

### 2.4 (B) Economic Performance Home Science OFT: (For Income Genration)

KVK name	OFT Title	Performance Indicator / Parameter											
		Production per unit		Cost of input		Incremental income		Yield(Kg/ha)		Net Return		Saving in Rs	BC ratio
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2		

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#### 2.4 (C) Economic Performance Home Science OFT: (For value addition)

KVK name	OFT Title	Performance Indicator / Parameter													
		Composition of product		Input used		outcome (Kg)		Cost of input		Incremental income		Net Return		Saving in Rs	BC ratio
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2		

#### 2.4(D) Economic Performance Home Science OFT: (For Nutritional security)

KVK name	OFT Title	Performance Indicator / Parameter				Nutrient Intake (Unit)								Anthropometric measurements					
		Name of vegetable/Fruit/Product		Per capita Consumption gm/day		Energy (kcal)		Protein (gm)		Iron (mg)		Calcium (mg)		Increase in Weight (Kg)		Increase in Height (cm )		Increase in BMI (%)	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2

#### 2.5 Feedback from KVK to Research System

Name of KVK	Feedback
Kalahandi	Trial on Control of Weed (Chenopodium albam) in Green gram.
Kalahandi	Trial on management of wilt and Fruit & shoot borer in Brinjal
Kalahandi	Trial on factor responsible for causing bitterness in cucurbitaceous plants.

### 3. Achievements of Frontline Demonstrations (FLD)

#### 3.1. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated and popularized during previous years and recommended for large scale adoption in the district

KVK Name	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
Kalahandi	Ragi	Varietal evaluation	Demonstration of HY Ragi Var. Bhairabi in unbunded upland	Training cum Result Demonstration	35	154	82
Kalahandi	Sweet corn	Varietal evaluation	Performance of Sweet Corn variety 'Mishti'	Training cum Result Demonstration	42	285	140
Kalahandi	Maize	Varietal evaluation	Demonstration on intercropping of maize with cowpew	Training cum Method Demonstration	32	120	85
Kalahandi	Paddy	Integrated Nutrient management	Demonstration of Zinc in enhancement of paddy	Video show	58	147	160
Kalahandi	Bitter gourd	Integrated crop Management	Demonstration on Performance of Tricontanol (PGR) in Bittergourd	Training cum Result Demonstration	30	68	62
Kalahandi	watermelon	Varietal evaluation	Demonstration on watermelon var. Arka Manik	Video show cum Result Demonstration	50	184	100
Kalahandi	Paddy	Integrated pest management	Demonstration of integrated pest management for yellow stem borer in paddy	Awareness campaign& Result Demonstration	80	240	300
Kalahandi	paddy	Integrated diseases management	Demonstration of integrated disease management for blast in paddy	Awareness campaign& Result Demonstration	82	154	324
Kalahandi	Groundnut	Integrated diseases management	Demonstration on IDM of collar rot in groundnut	Awareness campaign& Result Demonstration	50	130	158
Kalahandi	Tomato	Integrated diseases management	Demonstration of <i>Virex-H</i> for management of leaf curl in tomato	Awareness campaign & Result Demonstration	30	55	30
Kalahandi	Goat rearing	production	Effect of Fenbendazole on performance of goat	Video show cum training	15	35	35
Kalahandi	Cattle rearing	Production	Effect of liquid calcium supplement on performance cattle	Video show cum training	18	37	37

Note-

- Thematic area should be spelled correct and follow standard pattern i.e. Integrated Nutrient Management in place of INM or Inte. Nutrient Mngt. Etc.
- \*Crop name should be spelled correct and standard English name should be i.e Chick pea in place of gram, Paddy in place of Rice , brinjal in place of egg plant etc.

- \*Don't press enter key to navigate among col use arrow or tab key
- \*don't add space before or after statement within the table cell
- Kindly mention realistic estimated yield of your crop under Demonstration.
- If crop has been not yet harvested, mark it \* on that

### 3.2 Details of FLDs implemented

KVK Name	year	Season	Thematic area	Technology demonstrated	Name of Crop/ Enterprise	Name of Variety/Technology/Enterprizes	Crop- Area (ha) / Entrep - No.	Results (q/ha)		% change	No. of farmers				
								FP (T <sub>1</sub> )	RP (T <sub>2</sub> )		SC	ST	Others	General	Total
Kalahandi	2016	Kharif	Integrated Weed Management	Demonstration on Integrated Weed management in Transplanted Paddy	Paddy	Application of granular formulation of Bensulfuron methyl 0.6% + Pretilachlor 6% herbicide at 3 DAT provides effective solution for weed control in rice by inhibiting the growth of the most important perennial, annual species of weeds and provides ease of application by hand dispersal in rice fields.	0.4	22.2	29.4	32	0	2	3	0	5
Kalahandi	2016	Kharif	Intercropping Management practices	Demonstration on Intercropping of Maize with Cowpea in unbounded Kharif upland	Maize & cowpea	T2- Maize with cowpea (Maize Spacing 60 X 30cm in 2:2 ratio, planting of cowpea at 7 DAS of maize)	0.4	27.4	12.5(Maize) 24.9 (Cowpea)	36.4	3	0	2	0	5
Kalahandi	2016	Kharif	Integrated Nutrient Management	Demonstration of nutrient management in tissue culture Banana	Banana	FYM-10-15 kg per pit, 300-100-300 gm NPK per pit, N 200gm at 2,4,6 months and K 300gm at 2,6 months after planting.	0.4	340	376	10.5	0	2	0	3	5
Kalahandi	2016	Kharif	Varietal Evaluation	Demonstration on production performance of cowpea variety Utkal manika	Cowpea	Moderately tolerant to YMV disease, fruits are fleshy type and yield potential of 35q/ha	0.4	215	310	44.18	-	4	1	-	5

Kalahandi	2016	Kharif	Integrated Crop Management	Demonstration on performance of GA3 application in Brinjal	Brinjal	Application of GA3 @ 30 ppm. at 70 days after transplanting during (flowering Stage)	0.4	253	285	12.64	-	-	5	-	5
Kalahandi	2016	Kharif	Integrated Pest Management	Demonstration on insecticides with botanicals and parasites for management of stem borer in paddy	Paddy	T-1 = Cartaphydrochloride 4% @ 1.25 kg/ 10 decimal in nursery field, T-2 = Spraying of neem oil 1.0% @ 2.5 ml/l of water T-3 = Release of <i>T. japonicum</i> @ 50.000/ha twice in 15 days interval	0.4	16.8	21.6	28.5	--	--	5	--	5
Kalahandi	2016	Kharif	Integrated Pest Management	Demonstration on integrated pest management of pod borer in pigeon pea	Pigeon Pea	Installation of pheromone trap @ 20 /acre with application of neem based pesticide @5ml/liter at vegetative stage & spraying of Triazophos + Deltamethrin @2ml/liter of water for management of pod borer in pigeon pea.	0.4	8.7	11.8(T2) 11.5(T3)	26.27 24.34	1	1	2	1	5
Kalahandi	2016	Kharif	Livestock production and Management	Demonstration on effect of deworming drugs on performance of goat	Goat	Administration of fenbendazole 5 mg/goat	50 nos.	41gm /day	58gm/ day	29.3	3	3	4	-	10
Kalahandi	2016	Kharif	Livestock production and Management	Demonstration on effect of liquid calcium supplement performance of dairy cow	Cattle	Administration of liquid calcium , 100ml/day/cow	50nos.	3.52 L/day	4.58 L/day	23.11	-	3	7	-	10

Kalahandi	2016-17	Rabi	Weed management	Demonstration of herbicides against weed management in Groundnut	Ground nut	T-1 : No herbicide application, manual weeding at irrational stage / time of crop growth T-2 : Application of pre-emergence herbicide, Oxyflourofen @ 200ml/ha at 0-3 DAS+hand weeding T-3 : Post emergence application of Quizolfop ethyl @ 1000ml/ha at 15-20 DAS + one hand weeding T-4 :Post emergence application Imazethapyr @ 750 ml/ha at 15-20 DAS + one hand weeding	0.4	15.2	17.3	13.8	0	3	0	2	5
Kalahandi	2016-17	Rabi	Lea Colour Chart	Demonstration on Performance of leaf colour chart in rice	Paddy	Basal application of 13 Kg Urea +Application of urea based on leaf colour chart reading at 7 days interval from 14 days onwards after transplanting (P and K as basal 30:30 Kg/ha), VAR- Jogesh	0.4	24.5	31.3	27.7	1	0	2	2	5
Kalahandi	2016-17	Rabi	Integrated nutrient management	Demonstration of Boron & Sulphur application in Onion.	Onion	Soil application of Sulfex@20kg/ha & spraying of Borax@0.5% during bulb formation stage with RDF as per soil test value.	0.4	280	310	10.7	0	0	0	5	5
Kalahandi	2016-17	Rabi	Integrated nutrient management	Demonstration on Application of lime & Rhizobium in groundnut	Ground nut	Application of Lime.2LR+20g/Kg of seed treatment with Rhizobium	0.4	15.6	17.2	10.2	0	3	0	2	5
Kalahandi		Rabi	Varietal Evaluation	Demonstration on Cauliflower var. Summer King	Cauliflower	Summer King	0.4	318	345	8.49	-	2	3	-	5
Kalahandi		Rabi	Integrated Crop Management	Demonstration on Performance of Growth regulator in Watermelon	Watermelon	Application of Micronutrient @ 3g/L of water	0.4	285	354	24.2	-	-	5	-	5



Kalahandi	2016-17	Rabi	Integrated Pest Management	Demonstration on Management of panicle mite in Kharif paddy	Paddy	T-1 = Seed treatment with Imidachloprid 70% WS @ 7gm/kg seed, T-2= Installation of sticky trap @50/ha and T-3 = Need based spraying of Acetameprid @ 100 gm/ acr at 7days interval	0.4	19.5	23.8	22.05	0	0	2	3	5
Kalahandi	2016	Rabi	Integrated Disease Management	Demonstration on Management of wilting in Brinjal	Brinjal	T1=Seedling root dip and Soil application of T Viridae @ 2kg /ac T2= soil drenching of Redomil MZ 1250g/ha & Proper water management practices	0.4	138	172 164	24.63 18.84	1	2	2	0	5
Kalahandi	2016	Rabi	Livestock production	Demonstration on fodder cultivation	Fodder crop	Cultivation of Hybrid napier	2 h	4.25L/day	5.45 L/day	22.01	-	-	10	-	10
Kalahandi	2016	Rabi	Livestock production	Demonstration on duck farming	Duck	Rearing of Khaki camble duck	50 nos.	1.25kg/6month	1.68kg/6month	25.59	-	2	8	-	10

Kalahandi	2016	Kharif	Production technology	Cluster FLD on Pulses (Pigeon Pea)	Pigeon Pea	<p>Seed inoculation with Rhizobium culture (20gm per kg of seeds)</p> <p>Application of Pendimethalin (0.75 kg ai/ha) as pre-emergence (3days after sowing of seed) followed by two hand weeding after 21 DAS &amp; 45 DAS to control weed population.</p> <p>Spraying of Azadirachtin 0.15% @ 1.5 Lit./ ha + Flubendiamide 48 SC @ 200 ml /h (First spraying at 50% flowering and second 15-20 days after 1ST spraying) to control pod borer infestation.</p> <p>Installation of pheromone trap @ 50/ha for mass trapping of male pod borer during flowering stage.</p> <p>Spraying of plant hormone (planofix) 4ml/15lit of water at pre-flowering stage</p>	30	10.8	13.7	26.8	1	40	22	--	63
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Kalahandi			Production technology	Cluster FLD on Oilseed (Ground nut)	Ground nut	<p>Application of Gypsum 250kg/ha in the soil during final ploughing</p> <p>Line sowing of seeds (30cmx15cm)</p> <p>Seed treatment with Vita vax Power (Carboxin) @ 5 gm/kg of seed before sowing.</p> <p>Application of Imazethapyr @ 750 ml/ha as (20-30 days after sowing based on weed density )as post emergence</p> <p>Foliar application of Boron @ 1kg/ha at pre-flowering stage.</p> <p>To control early leaf spot spraying of Tebuconazol 25.9% EC @ 1ml/lit</p> <p>To control bud necrosis spraying of Imidacloprid 17.8% S.L. @ 2ml/5 liter of water or Acetamiprid 20% S.P. @ 100 gm/liter of water</p>	30	15.2	12.3	23.5	17	8	-	25	50
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Kalahandi	2016-17	Rabi	Production technology	Cluster FLD on Pulses (Black gram)	Black Gram	<p>Seed Treatment with Thiomethoxam 75 WG @ 5 gm / Kg seed to protect from sucking pests.</p> <p>Seed treatment with appropriate Rhizobium culture (bacteria culture) @20 grams of culture per 1kg of seed before sowing greatly helps in germination.</p> <p>Application of imazethapyr(2%) + pendimethalin(30%) (RM) @ 1000 ml/ha as pre- emergence spray in pre-rabi black gram to control weed infestation</p> <p>Application of Delta+Triazophous@1lit/ha to control jassid population.</p> <p>For control of whitefly population in Black gram spraying of Imidacloprid 17.8% S.L. @ 2ml/5 liter of water.</p> <p>Application planofix hormone @4ml/15lit of water before flowering for better pod development.</p>	30	5.2	6.7	28.8	4	16	0	15	53
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Kalahandi	2016-17	Rabi	Production technology	Cluster FLD on Oliseed (Ground nut)	Ground nut	<p>Application of Gypsum 250kg/ha in the soil during final ploughing</p> <p>Line sowing of seeds (30cmx15cm)</p> <p>Seed treatment with Vita vax Power (Carboxin) @ 5 gm/kg of seed before sowing.</p> <p>Application of Imazethapyr @ 750 ml/ha as (20-30 days after sowing based on weed density )as post emergence</p> <p>Foliar application of Boron @ 1kg/ha at pre-flowering stage.</p> <p>To control early leaf spot spraying of Tebuconazol 25.9% EC @ 1ml/lit</p> <p>To control bud necrosis spraying of Imidacloprid 17.8% S.L. @ 2ml/5 liter of water or Acetamiprid 20% S.P. @ 100 gm/liter of water</p>	30	14.9	17.2	15.4	0	16	20	4	40
Kalahandi	2016-17	Rabi	Production technology	Cluster FLD on Oilseed (Sunflower)	Sunflower	<p>Application of Gypsum 250kg/ha in the soil during final ploughing</p> <p>Line sowing of treated (seed treatment with vitavax power 5gm per kg of seeds)seeds (Spacing should be 60*30cm )</p> <p>Application of 25kg Sulphur and 2kg boron per ha at the time of final ploughing</p> <p>Cultural operation to be done 3rd and 5th week after sowing the seeds.</p> <p>To control alternaria leaf spot spraying of Mancozeb/Propiconazole at required quantity.</p> <p>To control wilt spraying of Carbendazim or Bavistin @ 2gmper liter of water</p>	20	--	--	--	26	0	8	0	34

### 3.3 Economic Impact of FLD

KVK Name	Technology demonstrated	Name of Crop/ Enterprise	Parameters			Cost of cultivation (Rs/ha)		Gross Return (Rs/ha)		Average Net Return (Rs/ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)	
			Name and unit of Parameter	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )	FP (T <sub>1</sub> )	RP (T <sub>2</sub> )
Kalahan di	Demonstration on Integrated Weed management in Transplanted Paddy	Paddy	No. of Tiller/hill Panicle length (cm)	10 15	16 22	17760	22050	26640	35280	8880	13230	1.5	1.6
Kalahan di	Demonstration on Intercropping of Maize with Cowpea in unbounded Kharif upland	Maize & cowpea	Plant height(cm) Cobb weight (gm)	156.6 265.5	156.8 265.9	26400	26400	41100	46140	14700	19740	1.56	1.75
Kalahan di	Demonstration of nutrient management in tissue culture Banana	Banana	No of fruit/plant Bunch weight (Kg) Bunch length (Cm)	252 24 85.7	285 31 90.5	121000	125000	238000	263200	117000	138200	1.9	2.1
Kalahan di	Demonstration on production performance of cowpea variety Utkal Manika	Cowpea	Fruit Length(cm)  No. of Fruit/ Plant	83  89	42.1  125	56000	68000	129000	186000	73000	118000	2.3	2.7
Kalahan di	Demonstration on Performance of GA3 application in Brinjal	Brinjal	Fruit Size (cm) Fruit Wt. (g)	53.5  82	65.2  108	58000	62000	139150	156750	81150	94750	2.3	2.5

Kalahan di	Demonstration on insecticides with botanicals and parasites for management of stem borer in paddy	Paddy	% of dead heart % of white ear head	23 26	06 07	13000	15200	20160	25920	7160	10270	1.5	1.7
Kalahan di	Demonstration on integrated pest management of pod borer in pigeon pea	Pigeon Pea	Pod borer infestation (%) No of infested Pod/plant	29 78	8 11(T2) 27 18 (T3)	15000	15850 15900	39150	53100 51750	24150	37250 35850	2.62	3.35 3.25
Kalahan di	Demonstration on effect of deworming drugs on performance of goat	Goat	Body weight gain And incidence of disease	41gm /day 1case/6month	58gm/day 3/case/6month	1130/6month/goat	1450/6month/goat	2920/6month/goat	4160/6month/goat	1790/6month/goat	2710/6month/goat	2.58	2.86
Kalahan di	Demonstration on effect of liquid calcium supplement performance of dairy cow	Cattle	Milk yield	3.52 L/day	4.58 L/day	6525/6month/cow	8800/6month/cow	13900/6month/cow	20600/6month/cow	7375/6month/cow	11800/6month/cow	2.13	2.34
Kalahan di	Demonstration of herbicides against weed management in Groundnut	Ground nut	No. of Pod/plant No of seed/pod Plant height (cm)	31 02 40	40 02 52	33700	35000	76000	86500	42300	51000	2.25	2.45
Kalahan di	Demonstration on Performance of leaf colour chart in rice	Paddy	No.of Tiller/hill Panicle length (cm)	9 18	16 27	18700	22100	29400	37560	10700	17460	1.57	1.69

Kalahandi	Demonstration of Boron & Sulphur application in Onion.	Onion	Bulb diameter (cm) Bulb Weight (gm)	15 30	18 46	68200	71500	168000	186000	99800	114500	2.4	2.6
Kalahandi	Demonstration on Application of lime & Rhizobium in groundnut	Groundnut	Avg. no. of peg/plant- Avg no of seed/peg-	36 02	45 02	31200	32400	78000	86000	46800	53600	2.5	2.6
Kalahandi	Demonstration on Cauliflower var. Summer King	Cauliflower	Curd wt.(g)	850	1150	68500	72500	190800	207000	122300	134500	2.7	2.8
Kalahandi	Demonstration on Performance of Growth regulator in Watermelon	Watermelon	Vine Length(cm)	68	92	86500	97500	242250	300900	155750	203400	2.8	3.0
Kalahandi	Demonstration on Management of panicle mite in Kharif paddy	Paddy	% of infestation	19	5	14100	16800	23400	28560	9300	11760	1.6	1.7
Kalahandi	Demonstration on Management of wilting in Brinjal	Brinjal	Wilting % No of infestation plant/10mt <sup>2</sup>	32 09	08 02 11 03 T2 T3	42000	44000 44500	138000	172000 164000	96000	128000 119500	3.28	3.90 3.68
Kalahandi	Demonstration on fodder cultivation	Fodder crop	Milk yield and growth rate of calf	4.25L/day	5.45 L/day	5230/ 6month/ cow	6930/ 6mont h/ cow	16830/ 6mont h/ cow	24525/ 6month/ cow	11150/ 6mont h /cow	17595/6month/cow	3.18	3.53
Kalahandi	Demonstration on duck farming	Duck	Body weight gain	1.25kg/ 6month	1.68kg/ 6month	450/10 bird	630/ 10 bird	1125/ 10 bird	1750/ 10 bird	675/ 10 bird	1120/10 bird	2.5	2.77



Kalahan di	Cluster FLD on Pulses (Pigeon Pea)	Pigeon Pea	No of Pod/plant No of grain /pod	142 03	195 02	22800	26800	48600	61650	25800	34850	2.1	2.3
Kalahan di	Cluster FLD on Oilseed (Ground nut)	Ground nut	No. of Pod/plant No of seed/pod Plant height (cm)	30 02 42	42 02 55	21900	24500	61500	76000	39600	51500	2.8	3.1
Kalahan di	Cluster FLD on Pulses (Black gram)	Black Gram	Avg. No.of Pod/Plant Pod length (cm) No of seed/pod 1000seed weight (gm)	29 4.3 6 39	38 4.7 6 45	17600	20650	37500	50250	19900	29600	2.13	2.43
Kalahan di	Cluster FLD on Oliseed (Ground nut)	Ground nut	No. of Pod/plant No of seed/pod Plant height (cm)	35 02 40	51 02 52	25200	26800	74500	86000	49300	59200	2.9	3.2
Kalahan di	Cluster FLD on Oilseed (Sunflower)	Sunflower	Result awaited										

### 3.4 Information about Home Science FLDs - (For All Thematic Area)

KVK name	Year	Season	Thematic Area	Problem Identified	Technology to be Demonstrated as Solution to the Identified Problem	Crop/ Enterprise (In which crop Enterprise or Farming Activity)	Name of Variety/Technology/Entrep rizes	Farming Situation	Proposed area (ha)	No. of Beneficiaries

### 3.5 (A) Economic Performance Home Science FLD: (For Drudgery Reduction)

KVK name	OFT Title					Performance Indicator / Parameter									
		Output m2/h		Est. Energy Expenditure kj/min.		WHR beat/min		% reduction in drudgery		% increase in efficiency		Cardiac Cost of Work		% Saving of cardiac Cost	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2

### 3.5 (B) Economic Performance Home Science FLD: (For Income Genration)

KVK name	OFT Title	Performance Indicator / Parameter											
		Production per unit		Cost of input		Incremental income		Yield(Kg/ha)		Net Return		Saving in Rs	BC ratio
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2		

### 3.5 (C) Economic Performance Home Science FLD: (For value addition)

KVK name	OFT Title	Performance Indicator / Parameter													
		Composition of product		Input used		outcome (Kg)		Cost of input		Incremental income		Net Return		Saving in Rs	BC ratio
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2		

### 3.5 (D) Economic Performance Home Science FLD: (For Nutritional security)

KVK name	OFT Title	Performance Indicator / Parameter				Nutrient Intake (Unit)								Anthropometric measurements					
		Name of vegetable/Fruit/Product		Per capita Consumption gm/ day		Energy (kcal)		Protein (gm)		Iron (mg)		Calcium (mg)		Increase in Weight (Kg)		Increase in Height (cm )		Increase in BMI (%)	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2

### 3.6 Training and Extension activities proposed under FLD

KVK Name	Crop	Activity	No. of activities organized	Number of participants	Remarks
Kalahandi	Demonstration on Integrated Weed management in Transplanted Paddy	Training cum Method demonstration	02	75	
Kalahandi	Demonstration on Intercropping of Maize with Cowpea in unbounded Kharif upland	Training cum Method demonstration	02	80	
Kalahandi	Demonstration of nutrient management in tissue culture Banana	Training cum Video show	02	100	

Kalahandi	Demonstration on production performance of cowpea variety Utkal manika	Training cum Method demonstration	02	70	
Kalahandi	Demonstration on performance of GA3 application in Brinjal	Training & Field Day	02	120	
Kalahandi	Demonstration on insecticides with botanicals and parasites for management of stem borer in paddy	Training cum Method demonstration	02	100	
Kalahandi	Demonstration on Management of panicle mite in Kharif paddy	Training cum Method demonstration	02	150	
Kalahandi	Demonstration on Management of wilting in Brinjal	Training & Field Day	02	120	
Kalahandi	Demonstration on integrated pest management of pod borer in pigeon pea	Training & Video show	02	100	
Kalahandi	Demonstration on de-worming drugs on performance of goat	Training cum Method demonstration	02	120	
Kalahandi	Demonstration of liquid calcium supplements on performance of lactating cattle	Training & Field Day	02	120	
Kalahandi	Demonstration of herbicides against weed management in Groundnut	Training cum Method demonstration	02	120	
Kalahandi	Demonstration on Performance of leaf colour chart in rice	Training cum Method demonstration	02	80	
Kalahandi	Demonstration of biofertilizer application in Tomato	Training & Field Day	02	120	
Kalahandi	Demonstration of Boron & Sulphur application in Onion.	Training & Video Show	02	100	
Kalahandi	Demonstration on Application of lime & Rhizobium in groundnut	Training cum Result demonstration	02	120	
Kalahandi	Demonstration on foliar application of water soluble fertilizers in chilly	Training cum Method demonstration	02	100	
Kalahandi	Demonstration on Fodder farming for enhancing the milk yield of milch cows.	Training cum Result demonstration	02	75	
Kalahandi	Demonstration on Duck farming	Training cum Video show	02	100	

### 3.7 Details of FLD on crop hybrids.

S. No.	Name of the KVK	Name of the Crop	Name of the Hybrids	Source of Hybrid (Institute/Firm)	No. of farmers	Area in ha.
1	Kalahandi	Cauliflower	Summer King	Private firm	05	0.4
2	Kalahandi	Sunflower	Sunbred 278	Private firm	34	20

#### 4. Feedback System

##### 4.1. Feedback of the Farmers to KVK

Name of KVK	Feedback			
	Technology appropriations	Methodology used	Benefits of OFT/FLD	Future Adoption
Kalahandi	Soil application of Sulfex @20kg/ha & spraying of Borax @0.5% during bulb formation stage with RDF as per soil test value	Training cum Method Demonstration	Boron & Sulphur application in Onion helps in better bulb formation and pungency helps in keeping the Onion for longer period.	Soil application of Sulfex @20kg/ha & spraying of Borax @0.5% during bulb formation stage
Kalahandi	Post emergence application Imazethapyr @ 750 ml/ha at 15-20 DAS + one hand weeding	Training cum Result Demonstration and regular field visit	Demonstration of herbicides against weed management in Groundnut- Post emergence application of herbicide effective control the weed population	Post emergence application Imazethapyr @ 750 ml/ha at 15-20 DAS + one hand weeding
Kalahandi	Soil drenching of Redomil MZ 1250g/ha & Proper water management practices	Training cum Result Demonstration and regular field visit	Demonstration on Management of wilting in Brinjal	Soil drenching of Redomil MZ 1250g/ha & Proper water management practices
Kalahandi	Installation of sticky trap @50/ha and Need based spraying of Acetameprid @ 100 gm/ acr at 7days interval	Training cum Result Demonstration and regular field visit	Demonstration on Management of panicle mite in Kharif paddy	Installation of sticky trap @50/ha and Need based spraying of Acetameprid @ 100 gm/ acr at 7days interval

##### 4.2. Feedback from KVK to Research System.

Name of KVK	Feedback basic of OFT on Technology Tested
Kalahandi	

4. Documentation of the need assessment conducted by the KVK for the training programme

<b>Name of KVK</b>	<b>Category of the training</b>	<b>Methods of need assessment</b>	<b>Date and place</b>	<b>No. of participants involved</b>
Kalahandi	FW- Seed sowing, fertilizer and water management in Ragi	Village survey & group discussion	16.07.2016, Golamunda	30
Kalahandi	FW- Seed treatment, sowing and fertilizer management in Cotton	Village survey & group discussion	20.07.2016, Risida, Karlamunda	50
Kalahandi	FW-. Fertilizer management in rice production	Field visit and interaction with villagers	20.07.2016, Risida, Karlamunda	40
Kalahandi	FW- Enhancement of soil fertility by green manuring in Cotton	Group discussion and survey method	16.07.2016, Golamunda	25
Kalahandi	FW-. Integrated nutrient management in Maize production	Field visit and interaction with villagers	12.10.2016, DamodarPur, Bhawanipatna	0
Kalahandi	FW- Cotton – Arhar intercropping management	Group discussion and village survey	12.10.2016, Bhangabari, Bhawanipatna	35
Kalahandi	FW- Water management in Maize	Field visit and interaction with villagers	05.10.2016, Dh'garh	25
Kalahandi	Micronutrient deficiency in cotton and their remedies	Group discussion and checklist method	12.07.2016, Panimunda, Lanjigarh	30
Kalahandi	Fertilizer management in Maize	Group discussion and checklist method	02.09.2016, Kinipadar, M.Rampur	42
Kalahandi	Integrated Nutrient Management in Cotton	Field visit and interaction with villagers	15.09.2016, Dahal, Narla	40
Kalahandi	Integrated Nutrient Management in tissue culture Banana	Field visit and interaction with villagers	12.10.2016, Bhimdanga, Bhawanipatna	55
Kalahandi	Use of Bio-fertilizer in Brinjal	Group discussion and survey method	20.10.2016, Goudtola, Kesinga	54
Kalahandi	Integrated Nutrient Management in Cabbage	Field visit and interaction with villagers	15.10.2016, Dumal, Bhawanipatna	50
Kalahandi	Planting of Cucurbitaceous crop in trelling method.	Field visit and interaction with villagers	20.07.2016, Risida, Karlamunda	50
Kalahandi	Kharif onion cultivation	Group discussion and checklist method	20.07.2016, Risida, Karlamunda	40
Kalahandi	Benefit of water soluble fertilizer in vegetable crops	Group discussion and checklist method	16.07.2016, Golamunda	35
Kalahandi	Hitech nursey raising techniques of solanaceous crops	Group discussion and checklist method	02.09.2016, Kinipadar, M.Rampur	35
Kalahandi	Cultivation of high value and low volume crops for higher income	Brain storming and checklist method	16.07.2016, Golamunda	35
Kalahandi	Propagation techniques of Fruit crops	Brain storming and checklist method	12.08.2016, Karlamunda	25

Kalahandi	Integrated nutrient Management in Banana	Group discussion and checklist method	15.09.2016, Dahal, Narla	30
Kalahandi	Zero energy cool chamber for vegetable crops	Brain storming and checklist method	30.08.2016, DAO conference	42
Kalahandi	Integrated farming system for sustainable farming	DAO conference	30.08.2016, DAO conference	40
Kalahandi	Biological control of sucking pest in cotton crop.	Group discussion and village survey	12.07.2016, Pipalpada, Lanjigarh	55
Kalahandi	Integrated Management of blast disease of paddy	Field visit and interaction with villagers	5.08.016, Boria, Kesinga	54
Kalahandi	Integrated management of panicle mite in Kharif paddy	Brain storming and checklist method	12.08.2016, Karlamunda	50
Kalahandi	Bio intensive pest management strategies in cotton crop	Field visit and interaction with villagers	02.09.2016, Kinipadar, M.Rampur	50
Kalahandi	Fruit & shoot borer management in brinjal	Field visit and interaction with villagers	05.10.2016, Junagarh	40
Kalahandi	Management of wilting disease in Kharif tomato	Brain storming and checklist method	05.10.2016, Junagarh	35
Kalahandi	Integrated management of sucking pest in cotton	Field visit and interaction with villagers	05.10.2016, Dh'garh	35
Kalahandi	Integrated sucking pest management strategies in cotton.	DAO conference	30.10.2016,, DAO conference	25
Kalahandi	Safe and judicious use of pesticide in paddy	DAO conference	30.10.2016,, DAO conference	30
Kalahandi	Training on clean milk production in cattle	Field visit and interaction with villagers	10.07.2016, Khamarpadar, Lanjigarh	40
Kalahandi	Care and management of duckery	Group discussion and village survey	02.09.2016, Kinipadar, M.Rampur	55
Kalahandi	Training on different fungal diseases affecting large ruminants	Field visit and interaction with villagers	16.07.2016, Khasiguda, Golamunda	54
Kalahandi	Training on fodder farming	Field visit and interaction with villagers	12.07.2016, Pipalpada, Lanjigarh	50
Kalahandi	Training on layout of housing system in goat	Brain storming and checklist method	5.08.016, Patharla, Kesinga	50
Kalahandi	Training on feed management in lactating cow	Field visit and interaction with villagers	05.10.2016, Panigaon, Junagarh	40
Kalahandi	Training on profitable backyard poultry farming	Field visit and interaction with villagers	05.10.2016, Junagarh	35
Kalahandi	Training on care and management of pregnant doe	Group discussion and village survey	12.10.2016, Dangariguda, Bhawanipatna	50
Kalahandi	Training on sustainable livelihood through backyard goat farming	Brain storming and checklist method	16.07.2016, Golamunda	25
Kalahandi	Primary processing and packaging of pulses crops for income generation	Field visit and interaction with villagers	12.07.2016, Pipalpada, Lanjigarh	35
Kalahandi	Recycling of agricultural waste for sustainable livelihood.	Group discussion and village survey	15.09.2016, Dahal, Narla	40

Kalahandi	Drudgery reducing techniques for farm women for increasing working efficiency.	Brain storming and checklist method	12.07.2016, Pipalpada, Lanjigarh	35
Kalahandi	Effective Transfer of Technology through Farm Field School	DAO conference	30.08.2016, DAO conference	25
Kalahandi	Application of ICT in the Agri- marketing system	DAO conference	30.08.2016, DAO conference	30
Kalahandi	Leadership development techniques	DAO conference	30.08.2016, DAO conference	42
Kalahandi	Methods and Techniques for conducting demonstration	DAO conference	30.08.2016, DAO conference	40
Kalahandi	Market led extension for commercialization in agriculture	DAO conference	30.08.2016, DAO conference	55

#### Abbreviation Used

FW	(A) Farmers & Farm Women
RY	(B) Rural Youths
IS	(C) Extension Personnel
ONC	On Campus Training Programme
OFC	Off Campus Training Programme
M	Male
F	Female
T	Total

#### Thematic Areas for Training

CRP	Crop Production
HOV	Horticulture – Vegetable Crops
HOF	Horticulture-Fruits
HOO	Horticulture- Ornamental Plants
HOP	Horticulture- Plantation crops
HOT	Horticulture- Tuber crops
HOS	Horticulture- Spices
HOM	Horticulture- Medicinal and Aromatic Plants
SFM	Soil Health and Fertility Management
LPM	Livestock Production and Management
WOE	Home Science/Women empowerment
AEG	Agril. Engineering
PLP	Plant Protection
FIS	Fisheries
PIS	Production of Inputs at site
CBD	Capacity Building and Group Dynamics
AGF	Agro-forestry
OTH	Others
RYH	Rural Youth
EXP	Extension Personnel

## 5. TRAINING PROGRAMMES

1. Training programmes should be strictly covered under above mentioned thematic areas only,
2. For category, training type and thematic area, mention code/abbreviations only

Table 5.1. Details of Training programmes conducted by the KVKs

Name of KVK	Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							Gen		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Kalahandi	F/FW	Off campus	CRP	FW- Seed sowing, fertilizer and water management in Ragi	01	01	0	0	0	0	9	10	6	0
Kalahandi	F/FW	Off campus	CRP	FW- Seed treatment, sowing and fertilizer management in Cotton	01	01	3	1	2	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW-. Fertilizer management in rice production	01	01	5	0	1	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW- Enhancement of soil fertility by green manuring in Cotton	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Cotton – Arhar intercropping management	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Water management in Maize	01	01	1	3	2	5	3	0	11	0
Kalahandi	F/FW	Off campus	SFM	Fertilizer management in Maize	01	01	23	0	0	0	2	0	0	0
Kalahandi	F/FW	Off campus	SFM	Micronutrient deficiency in cotton and their remedies	01	01	9	0	2	0	11	3	0	0
Kalahandi	F/FW	Off campus	SFM	Integrated Nutrient Management in Cotton	01	01	9	0	1	0	8	3	4	0
Kalahandi	F/FW	Off campus	SFM	Integrated Nutrient Management in tissue culture Banana	01	01	0	0	2	0	0	0	21	2
Kalahandi	F/FW	Off campus	SFM	Use of Bio-fertilizer in Brinjal	01	01	7	0	0	0	4	0	10	4
Kalahandi	F/FW	Off campus	SFM	Integrated Nutrient Management in Cabbage	01	01	5	0	0	0	7	5	5	3
Kalahandi	F and FW	Off Campus	HOV	Planting of Cucurbitaceous crop in trelling method.	HOV	1	-	-	-	-	23	-	02	-



Name of KVK	Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							Gen		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Kalahandi	F/FW	Off campus	CRP	FW- Seed sowing, fertilizer and water management in Ragi	01	01	0	0	0	0	9	10	6	0
Kalahandi	F/FW	Off campus	CRP	FW- Seed treatment, sowing and fertilizer management in Cotton	01	01	3	1	2	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW-. Fertilizer management in rice production	01	01	5	0	1	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW- Enhancement of soil fertility by green manuring in Cotton	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Cotton – Arhar intercropping management	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Water management in Maize	01	01	1	3	2	5	3	0	11	0
Kalahandi	F and Fw	Off Campus	HOV	Benefit of water soluble Benefit of water soluble fertilizer in vegetable crops	HOV	1	-	-	10	-	6		9	-
Kalahandi	F and Fw	Off Campus	HOV	Hitech nursery raising techniques of solanaceous crops	01	1	-	-	20	-	2	-	-	3
Kalahandi	F and Fw	Off Campus	HOF	Integrated nutrient Management in Banana	01	1	1	-	-	2	13	3	5	1
Kalahandi	F/FW	Off campus	PLP	Biological control of sucking pest in cotton crop.	01	01	2	0	0	0	3	7	3	0
Kalahandi	F/FW	Off campus	PLP	Integrated Management of blast disease of paddy	01	01	22	0	1	0	2	0	0	0
Kalahandi	F/FW	Off campus	PLP	Integrated management of panicle mite in Kharif paddy	01	01	6	0	7	0	2	0	10	0
Kalahandi	F/FW	Off campus	PLP	Bio intensive pest management strategies in cotton crop	01	01	3	0	0	0	10	11	1	0
Kalahandi	F/FW	Off campus	PLP	Fruit & shoot borer management in brinjal	01	01	0	0	0	0	12	4	6	3
Kalahandi	F/FW	Off campus	PLP	Management of wilting disease in Kharif tomato	01	01	8	0	10	0	2	2	3	0

Name of KVK	Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							Gen		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Kalahandi	F/FW	Off campus	CRP	FW- Seed sowing, fertilizer and water management in Ragi	01	01	0	0	0	0	9	10	6	0
Kalahandi	F/FW	Off campus	CRP	FW- Seed treatment, sowing and fertilizer management in Cotton	01	01	3	1	2	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW-. Fertilizer management in rice production	01	01	5	0	1	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW- Enhancement of soil fertility by green manuring in Cotton	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Cotton – Arhar intercropping management	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Water management in Maize	01	01	1	3	2	5	3	0	11	0
Kalahandi	F/FW	Off campus	LPM	Training on clean milk production in cattle	01	01	0	0	0	0	22	3	0	0
Kalahandi	F/FW	Off campus	LPM	Care and management of duckery	01	01	0	0	0	0	15	10	0	0
Kalahandi	F/FW	Off campus	LPM	Training on different fungal diseases affecting large ruminants	01	01	0	0	0	0	9	14	2	0
Kalahandi	F/FW	Off campus	LPM	Training on fodder farming	01	01	0	0	0	0	24	0	1	0
Kalahandi	F/FW	Off campus	LPM	Training on layout of housing system in goat	01	01	0	0	0	0	9	0	16	0
Kalahandi	F/FW	Off campus	LPM	Training on feed management in lactating cow	01	01	0	0	0	0	16	0	9	0
Kalahandi	F/FW	Off campus	LPM	Training on profitable backyard poultry farming	01	01	0	0	0	0	6	0	19	0
Kalahandi	F/FW	Off campus	LPM	Training on care and management of pregnant doe	01	01	0	0	0	0	1	0	12	12
Kalahandi	RY	Off Campus	PLP	Integrated management of sucking pest in cotton	02	02	1	2	5	0	1	2	4	0

Name of KVK	Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							Gen		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Kalahandi	F/FW	Off campus	CRP	FW- Seed sowing, fertilizer and water management in Ragi	01	01	0	0	0	0	9	10	6	0
Kalahandi	F/FW	Off campus	CRP	FW- Seed treatment, sowing and fertilizer management in Cotton	01	01	3	1	2	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW-. Fertilizer management in rice production	01	01	5	0	1	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW- Enhancement of soil fertility by green manuring in Cotton	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Cotton – Arhar intercropping management	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Water management in Maize	01	01	1	3	2	5	3	0	11	0
Kalahandi	RY	Off Campus	LPM	Training on sustainable livelihood through backyard goat farming	02	02	0	0	2	0	8	0	5	0
Kalahandi	RY	Off Campus	HOV	Cultivation of high value and low volume crops for higher income	02	02	-	-	-	-	-	-	9	6
Kalahandi	RY	Off Campus	HOF	Propagation techniques of Fruit crops	02	02	-	-	2	-	-	-	13	-
Kalahandi	RY	On campus	EXT	Primary processing and packaging of pulses crops for income generation	02	02	0	0	0	0	1	0	11	3
Kalahandi	RY	On campus	EXT	Recycling of agricultural waste for sustainable livelihood.	02	02	0	0	0	9	0	0	2	4
Kalahandi	RY	On campus	EXT	Drudgery reducing techniques for farm women for increasing working efficiency.	02	02	0	0	0	1	0	0	4	10
Kalahandi	IS	On Campus	HOV	Zero energy cool chamber for vegetable crops	HOV	2	1	-	-	-	-	-	8	1
Kalahandi	IS	On Campus	HOV	Integrated farming system for sustainable farming	HOV	1	-	-	2	-	2	-	6	-

Name of KVK	Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants							
							Gen		SC		ST		Others	
							M	F	M	F	M	F	M	F
1	2	3	4	5	7	8	9	10	11	12	13	14	15	16
Kalahandi	F/FW	Off campus	CRP	FW- Seed sowing, fertilizer and water management in Ragi	01	01	0	0	0	0	9	10	6	0
Kalahandi	F/FW	Off campus	CRP	FW- Seed treatment, sowing and fertilizer management in Cotton	01	01	3	1	2	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW-. Fertilizer management in rice production	01	01	5	0	1	0	1	0	18	0
Kalahandi	F/FW	Off campus	CRP	FW- Enhancement of soil fertility by green manuring in Cotton	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Cotton – Arhar intercropping management	01	01	5	0	4	3	2	1	10	0
Kalahandi	F/FW	Off campus	CRP	FW- Water management in Maize	01	01	1	3	2	5	3	0	11	0
Kalahandi	IS	Off Campus	PLP	Integrated sucking pest management strategies in cotton.	02	02	0	2	1	0	1	2	3	1
Kalahandi	IS	Off Campus	PLP	Safe and judicious use of pesticide in paddy	02	02	3	0	2	0	1	0	3	1
Kalahandi	IS	On Campus	EXT	Effective Transfer of Technology through Farm Field School	02	02	0	0	1	0	3	0	6	0
Kalahandi	IS	On Campus	EXT	Application of ICT in the Agri- marketing system	02	02	0	0	2	0	1	0	7	0
Kalahandi	IS	On Campus	EXT	Leadership development techniques	2	2	2	0	4	0	1	0	3	0
Kalahandi	IS	On Campus	EXT	Methods and Techniques for conducting demonstration	2	2	1	0	1	0	1	0	7	0
Kalahandi	IS	On Campus	EXT	Market led extension for commercialization in agriculture	2	2	1	0	4	0	1	0	4	0

Table 5.2. Details of Vocational training programmes for Rural Youth conducted by the KVKs

Name of KVK	Training title	Crop / Enterprise	Identified Thrust Area	Duration of training (days)	Number of Beneficiaries							
					Gen		SC		ST		Others	
					M	F	M	F	M	F	M	F
Kalahandi	Integrated management of sucking pest in cotton	Cotton	Sustainable Income generation	02	1	2	5	0	1	2	4	0
Kalahandi	Training on sustainable livelihood through backyard goat farming	Goat	Sustainable Income generation	02	0	0	2	0	8	0	5	0
Kalahandi	Primary processing and packaging of pulses crops for income generation	Primary Processed foods	Sustainable Income generation	02	0	0	0	0	1	0	11	3
Kalahandi	Recycling of agricultural waste for sustainable livelihood.	Recycling of agriculture waste	Sustainable Income generation	02	0	0	0	9	0	0	2	4
Kalahandi	Drudgery reducing techniques for farm women for increasing working efficiency.	Drudgery reduction	Sustainable Income generation	02	0	0	0	1	0	0	4	10

Table 5.3. Details of training programme conducted for livelihood security in rural areas by the KVKs

Name of KVK	Training title	Self employed after training			Number of persons employed else where
		Type of units	Number of units	Number of persons employed	
Kalahandi	Recycling of agricultural waste for sustainable livelihood	Rural youth	10	10	05
Kalahandi	Propagation techniques of Fruit crops	Rural youth	02	10	06

Table 5.4. Sponsored Training Programmes

Name of KVK	Title	Thematic area (as given in abbreviation table)	Sub-theme (as per column no 5 of Table T1)	Client (FW/ RY/ IS)	Duration (days)	No. of courses	No. of Participants								Sponsoring Agency	Fund received for training (Rs.)
							Gen		Others		SC		ST			
							M	F	M	F	M	F	M	F		
Kalahandi	Skill Development training programme on Mushroom cultivation (Small Entrepreneur)	Mushroom cultivation (Small Entrepreneur)	--	RY	25	100	5	1	5	0	4	0	5	0	National Skill Council of India, New Delhi	138000

Kalahandi	Skill Development training programme on Small Poultry farmer	Small Poultry farmer	--	RY	25	100	15	2	0	0	3	0	0	0	National Skill Council of India, New Delhi	138000
Kalahandi	Training cum awareness programme on Protection of Plant Varieties & Farmers Right Act,2001	Protection of Plant Varieties & Farmers Right Act,2001	-	FW	1	100	20	12	28	15	0	0	14	11	Protection of Plant Varieties & Farmers Right Authority, New Delhi	78800

Table 5.5 Training Programmes for Panchayatiraj Institutions Office-bearers & members

Name of KVK	Title	Thematic area (as given in abbreviation table)	Sub-theme (as per column no 5 of Table T1)	Client (FW/ RY/ IS)	Duration (days)	No. of courses	No. of Participants								Sponsoring Agency	Fund received for training (Rs.)
							Gen		Others		SC		ST			
							M	F	M	F	M	F	M	F		

Table 5.6 Evaluation/Follow up & Impact of the training programmes conducted by the KVK (all types of trainings)

Name of KVK	Title of the training	No. of trainees	Change in knowledge (Score)		Change in Production (q/ha)		Change in Income (Rs)		Impact on 1. Area expanded (ha) 2. No. of farmers adopted (no.) 3. % change in knowledge, production & Income
			Before	After	Before	After	Before	After	
Kalahandi	Recycling of agricultural waste for sustainable livelihood (Mushroom Production)	15	3	7	500gm/ Mushroom bed	800gm/ Mushroom bed	60/- per bed	100/- per bed	1. 10 no of Women groups are engaged in Mushroom production 2. 100 3. 65%
Kalahandi	Training on sustainable livelihood through backyard goat farming	15	2	8	--	--	4000	78500	1.40 farm families have initiated scientifically rearing of backyard goat farming 2.75 3.50%

# 6. EXTENSION ACTIVITIES

Name of the KVK	Activity	No. of activities (Targeted)	No. of activities (Achieved)	Detail of Participants						Remarks		
				Farmers (Others)		SC/ST (Farmers)		Extension Officials		Purpose	Topic s	Crop Stages
				M	F	M	F	M	F			
Kalahandi	Field Day	05	05	285	45	210	60	18	12			
Kalahandi	Kisan Mela	01	01							-		
Kalahandi	Kisan Ghosthi	-	-									
Kalahandi	Exhibition	03	03	358	52	245	58	120	50			
Kalahandi	Film Show	06	06	250	40	190	30	18	10			
Kalahandi	Method Demonstrations	2	24	90	42	122	58	15	10			
Kalahandi	Farmers Seminar	-	-									
Kalahandi	Workshop	01	01	25	35	18	10	0	0			
Kalahandi	Group meetings	--	--									
Kalahandi	Lectures delivered as resource persons	30	30	120	60	50	30	17	10			
Kalahandi	Newspaper coverage	06	06									
Kalahandi	Radio talks	00	00									
Kalahandi	TV talks	03	03									
Kalahandi	Popular articles	02	02									
Kalahandi	Extension Literature	05	05									
Kalahandi	Farm advisory Services	-	-									
Kalahandi	Scientific visit to farmers field	70	70	250	80	200	40					
Kalahandi	Farmers visit to KVK	350	322	151	16	188	12					
Kalahandi	Diagnostic visits	15	15	50	10	35	10					
Kalahandi	Exposure visits	-	-									
Kalahandi	Ex-trainees Sammelan	0	-									
Kalahandi	Soil health Camp	2	2	57	20	23	50	10	10			
Kalahandi	Animal Health Camp	2	2	30	15	80	50	10	10			
Kalahandi	Agri mobile clinic	-	-									
Kalahandi	Soil test campaigns	-	-									
Kalahandi	Farm Science Club conveners meet	01	01	30	0	20	0	12	10			
Kalahandi	Self Help Group conveners meetings	04	04	-	40	-	50	4	8			
Kalahandi	Mahila Mandals conveners meetings	04	04	--	40	--	60	4	8			
Kalahandi	Celebration of important days (World environment day)	02	02	41	12	35	12	6	6			

## 7. Literature Developed/Published (with full title, author & reference)

### 7.1 KVK Newsletters

KVK Name	Date of start	Periodicity	Number of copies printed	Number of copies distributed
Kalahandi	April-September, 2016	Quarterly	500	500

### 7.2 Literature developed/published

KVK Name	Type	Title	Author's name	Number of copies
Kalahandi	Extension Literature	Kalahandi district at a glance	Senior scientist & head and all the staff of KVK, Kalahandi	500
Kalahandi	Extension Literature	Performance of Crop Cafeteria	Senior scientist & head and all the staff of KVK, Kalahandi	500
Kalahandi	Extension Literature	Year Planner 2015-16	Senior scientist & head and all the staff of KVK, Kalahandi	500
Kalahandi	Extension Literature	Contingent crop plan of Kalahandi district	Senior scientist & head and all the staff of KVK, Kalahandi	500
Kalahandi	Extension Literature	Agricultural spots of Kalahandi district	Senior scientist & head and all the staff of KVK, Kalahandi	500

### 7.3 Details of Electronic Media Produced

KVK Name	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
Kalahandi	DVD	Pradhan Mantry Fasala bema yojana	01
Kalahandi	DVD	World soil Day	01
Kalahandi	DVD	Training cum Awareness programme on Protection of Plant varieties and Farmers Right Act, 2001	01



## 8. Production and supply of Technological products

### 8.1 SEED production

KVK Name	Major group/class	Crop	Variety	Quantity (qt.)	Value (Rs.)	Provided to No. of Farmers	Expected area coverage (ha.)
Kalahandi	Foundation	Paddy	Lalaat	81.4		--	1.6
Kalahandi	Foundation	Paddy	Naveen	130(unprocessed)		--	
Kalahandi	Paddy Straw	Paddy Straw	Straw (Lalaat and Naveen)	28	2800	05	--
Kalahandi	Undersized seed	Paddy	Lalaat	1.5	375	01	--

### 8.2 Planting Material production

KVK Name	Major group/class	Crop	Variety	Nos.	Value (Rs.)	Provided to No. of Farmers	Expected area coverage (ha.)
Kalahandi	Hybrid	Tomato	Laxmi, Pusa Ruby	2417	1450	15	07
Kalahandi	Hybrid	Brinjal	VNR-212	3150	2030	19	10
Kalahandi	Hybrid	Chilly	SuperJhankar	800	640	5	03
Kalahandi	Hybrid	Cabbage	Kohinoor	600	1200	3	03
Kalahandi	Hybrid	Cauliflower	Kimaya	500	900	3	03

### 8.3 Production Units (bio-agents / bio pesticides/ bio fertilizers etc.) \* Name of product should follow same pattern and spelled correct

KVK Name	Major Group Bio agent/Bio fertilizers/Bio Pesticides	Name of the Product	Qty (In Kg)	Qty (In No)	Value (Rs.)	Provided to No. of Farmers	Expected area coverage (ha.)
Kalahandi	Bio Agents	Earthworm	04	--	2000	06	12
Kalahandi	Bio Fertilizer	Vermicompost	1500	--	7500	10	15
Kalahandi	Mushroom cultivation	V.Volvaceae & Pleurotus spp.	100	--		140	80
Kalahandi	Mushroom Spawn	V.Volvaceae & Pleurotus spp.	--	1000	16000	85	80

### 8.4 Livestock and fisheries production

KVK Name	Name of the animal / bird / aquatics	Breed	Type of Produce	Qty. (kg/qt./litre )	Value (Rs.)	No. of Beneficiaries
Kalahandi	Poultry Chicks	Banaraja	21 days old chicks	956	47800	180

9. Activities of Soil and Water Testing Laboratory

9.1 Details of soil samples analyzed so far :

KVK Name	Status of establishment of Lab	Year of establishment	Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized	Soil report distributed to the farmers (Nos)
Kalahandi	Functioning	March, 2005	Village survey	470	310	55	--	385

9.2 Details of water samples analyzed so far :

KVK Name	Status of establishment of Lab	Year of establishment	Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized	Water report distributed to the farmers (Nos)
Kalahandi	Functioning	March, 2005	Village survey	25	25	12	--	--

10. Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Name of KVK	Date	Title of the training course	Client (PF/RV/EF)	No. of Courses	No. of Participants including SC/ST			No. of SC/ST Participants		
					Male	Female	Total	Male	Female	Total

11. Utilization of Farmers Hostel facilities

KVK Name	Months	Year	Title of the training course	Duration of training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)	Accommodation available (No. of beds)
Kalahandi	September	2016	Training of Agri Farm implements	21	20	21	-	25
Kalahandi	January & February	2017	Skill Development training Programme on Small Poultry Farmer	25	20	25	--	25
Kalahandi	January & February	2017	Skill Development training Programme on Mushroom cultivation (Small Entrepreneur)	25	20	25	--	25

12. Utilization of Staff Quarters facilities

KVK Name	Year of construction	Year of allotment	No. of quarters occupied	No. of quarters vacant	Reasons for vacant quarters, if any
Kalahandi	2011	2012	02	--	-

### 13. Details of SAC Meeting

KVK Name	Date of SAC meeting	No. of SAC members attended	Major recommendations
Kalahandi	29.12.2016	40	Promotion of Kharif Onion and Potato cultivation Development of micro bankable projects for sustainable development Promotion of scavenging type birds and awareness on quail farming Promotion cum awareness programme on Fodder cultivation among dairy farmers. Promotion of short duration paddy varieties and adoption of techniques for precision farming among the vegetable growers. To meet the challenges of agri-marketing farmers should be aware of offseason vegetable cultivation and creation of Farmers Interest Group and Farmers producer organization.

### 14. Status of Kisan Mobile Advisory (KVK-KMA)

KVK Name	No. of messages sent	No. of beneficiary		Sponsoring agency (NIC, Farmers Portal, etc.)	Major recommendations
		Farmers	Ext. Pers.		
Kalahandi	60	16000	1000	Farmers portal	Insect pest infestation of cereal ,pulses, fruit and vegetables Weather forecast and information about alarming situation related to agro-meteorology.

### 15. Status of Convergence with various agricultural schemes (Central & State sponsored)

KVK Name	Name of scheme	Name of Agency (Central/state)	Funds received (Rs.)	Activities organized	Operational Area	Remarks
Kalahandi	Bringing Green Revolution in Eastern India	State	50000	Monitoring and diagnostic field visit to all the BGREI block.	All the blocks of Kalahandi district	
Kalahandi	National Food Security Mission ( Pulses), Kalahandi	Central	--	Monitoring the activities jointly in all the blocks.	All the blocks of Kalahandi district	
Kalahandi	Agriculture Technology Management Agency, Kalahandi	Central	--	ATMA Governing Board Meeting, District level Farmers information committee, FarmersScientist Interaction, Farmers Fair, Diagnostic field visits etc	All the blocks of Kalahandi district	

### 16. Status of Revolving Funds (Rs.)

KVK Name	Account No.	Opening balance (Rs.)	Closing balance (Rs.)	Current status (Rs.)
Kalahandi	31944687691	353569	565631 (The amount Rs.5656361/- is refunded to DEE, OUAT, BBSR)	Nil

### 17. Awards & Recognitions

KVK Name	Name of award /awardee	Type of award (Ind./Group/Inst./Farmer)	Awarding Organizations	Amount received
Kalahandi	Sj.Indu Bhusan Swain	(Individual)	55 <sup>th</sup> Foundation Day of Odisha University of Agriculture & Technology, Bhubaneswar	Nil

18. Details of KVK Agro-technological Park .

a) Have you prepared layout plan, where sent?

S.No.	Name of KVK	Technology park proposal developed(yes/no)	If yes, where sent ? (ZPD/DES/any other, pl. sp.)
1	Kalahandi	Yes	Yes

b) Details about Technology Park

Name of KVK	Name of Component of Park	Detail Information (If established)
Kalahandi	Crop Cafeteria	Tomato (Laxmi, Pusa Ruby )- 2417
Kalahandi	Technology Desk	Brinjal(VNR-212)- 3150
Kalahandi	Visitors Gallery	Chilly(SuperJhankar)- 800
Kalahandi	Technology Exhibition	Cabbage(Kohinoor)- 600
Kalahandi	Technology Gate-Valve	Cauliflower(Kimaya)-500

c). Crop Cafeteria-

Sr. No.	Theme of Crop Cafeteria	No. of Crop Cafeteria

19. Farm Innovators- list of 10 Farm Innovators from the District

Sr. No.	Name of KVK	Name of Farm Innovator	Name of the Innovation	Address of the farmer with Mobile No.
1.	Kalahandi	Indubhusan Swain	Banana cultivation	At/Po-Boria Via- Utkela, Block- Kesinga, Dist- Kalahandi Mobile no- 91-9938090828
2.	Kalahandi	Ghanashyam Verma	Agro-forestry model	Village-Jurkabadi, Block- Kesinga Mobile no-91-9938514100
3.	Kalahandi	Durga Charan Pradhan	Cotton Ridger	At- Bangalipada, Po- Kikia, Via- Utkela, Block- Kesinga, Dist- Kalahandi Mobile no- 91-9583474582
4.	Kalahandi	Prahallad Budhia	Integrated farming system	Village- Kanakpur,Block- Bhawaniatna Mobile no- 8018698722 / 7894581168
5.	Kalahandi	Ajit Pradhan	Hybrid Paddy	Village-Dahal, Po-Kandel, Block- Narla Mobile no- 91-9777870404
6.	Kalahandi	Janmenjaya Mahapatra	Pond based farming system	Village-Durduri, Block- Bhawanipatna Mobile no- 91-9777870404
7.	Kalahandi	Ashok Kumar Pattnaik	Horticulture based farming system	Village- Ghantabahal, Block- Junagarh Mobile no- 91-9439120060
8.	Kalahandi	Murali Budhia	Integrated Farming system	Village- Kanakpur,Block- Bhawaniatna Mobile no- 91-7894581168
9.	Kalahandi	Kesab Chandra Bhoi	Hybrid sunflower production	At/Po-Kashrupada, Block- Kesinga Mobile no- 91-7894581168
10.	Kalahandi	Ahalya Sahu	Mushroom Production	Village- Malgaon Block- Bhwanipatna Mobile no- 91-9777463293

## 20. KVK interaction with progressive farmers

Sr. No.	Date and month of interaction programme with progressive farmers	No. of progressive farmers to be participated
Kalahandi	26.10.2016, Dahala village, Narla Block	100

## 21. Outreach of KVK

Name of KVK	Number of Blocks		Number of Villages	
	Intensive	Extensive	Intensive	Extensive
Kalahandi	10	12	64	152

Intensive- OFTS, FLDS etc

Extensive- Literatures, Publications, Awareness programmes etc.

## 22. Technology Demonstration under Tribal Sub Plan on Pulses/ Programme on Harnessing Pulses/ Quality Protein Maize, if applicable.

Sr. No.	Name of crop under Technology demonstration	Area under the programme	No. of Extension Activities	Remarks / Lessons learnt

## 23. KVK Ring

Sr. No.	Name of Ring Partner	Sharing Activity	Lessons learnt/ Experiences gained.
Kalahandi	KVK, Nuapada	Resource sharing, Knowledge sharing, Distribution of technical material (News letter, Extension literature)	Easy transfer of regional technology to nearby districts.
Kalahandi	KVK, Bolangir	Resource sharing, Knowledge sharing, Distribution of technical material (News letter, Extension literature)	Easy transfer of regional technology to nearby districts.

## 24. Important visitors to KVK

Name of KVK	Name of Visitor	Date of Visit	ICAR	SAUs	Others	Remarks
Kalahandi	Prof.S .N Pasupalak, Hon'ble Vice Chancellor, OUAT, BBSR	25.04.2016	--	SAUs		4 <sup>th</sup> Annual Commemoration Day, College of Agriculture, Bhawanipatna
Kalahandi	Prof.S .N Pasupalak, Hon'ble Vice Chancellor, OUAT, BBSR	19.03.2017	--	SAUs		5 <sup>th</sup> Annual Commemoration Day, College of Agriculture, Bhawanipatna
Kalahandi	Prof L.M Gadnayak Dean, College of Agriculture, Bhubaneswar	25.04.2016	--	SAUs		4 <sup>th</sup> Annual Commemoration Day, College of Agriculture, Bhawanipatna
Kalahandi	Prof L.M Gadnayak Dean, College of Agriculture, Bhubaneswar	19.03.2017	--	SAUs		5 <sup>th</sup> Annual Commemoration Day, College of Agriculture, Bhawanipatna
Kalahandi	Prof L.K Babu Dean Students Welfare	25.04.2016	-	SAUs		4 <sup>th</sup> Annual Commemoration Day, College of Agriculture, Bhawanipatna
Kalahandi	Prof L.K Babu Dean Students Welfare	19.03.2017	--	SAUs		5 <sup>th</sup> Annual Commemoration Day, College of Agriculture, Bhawanipatna

						Bhawanipatna
Kalahandi	Prof. Pravat Rout DPME, OUAT, Bhubaneswar	22.10.2016	--	SAUs		Visit to KVK
Kalahandi	Dr.Man Singh Joint Director, Directorate of Rice Development, Govt. of India, Bihar	08 & 09.02.2017	--	SAUs	Directorate of Rice Development, Bihar <b>Govt of India</b>	NALMOT team visit to Cluster Demonstration and Pulse Seed Hub Programme.
Kalahandi	Dr.S.K Srivastava Principal Scientist, Central Institute for Women in Agriculture, Bhubaneswar	10.08.2016	--	ICAR		Workshop cum training programme on IPM practices in the field of Agriculture
Kalahandi	Dr.Naresh Babu Principal Scientist, Central Institute for Women in Agriculture, Bhubaneswar	10.08.2016	--	ICAR		Workshop cum training programme on IPM practices in the field of Agriculture
Kalahandi	Prof. Kedarshwar Pradhan Principal Scientist, Central Pulse Research, Berhampur	15.03.2017	--	SAUs	Govt of Odisha	Training cum awareness Programme on Protection of Plant Varieties & Farmers Right Act
Kalahandi	Prof. Subash Ch. Mahapatra Joint Director, Directorate of Extension Education, OUAT, Bhubaneswar	29.12.2016	SAUs	SAUs	--	16 <sup>th</sup> Scientific Advisory Committee Meeting
Kalahandi	Prof.K.Barik Asst. Director of Research, OUAT, Bhubaneswar	16.02.2017	SAUs	SAUs	--	Visit to KVK, Kalahandi
Kalahandi	Prof.R.K Raj, Retd. Joint Director, Directorate of Extension Education, OUAT, Bhubaneswar	08.12.2016	SAUs	SAUs	--	Visit to KVK, Kalahandi
Kalahandi	Prof. Subash Ch. Mahapatra, Joint Director, Directorate of Extension Education, OUAT, Bhubaneswar	15.03.2017	SAUs	SAUs	--	Training cum awareness Programme on Protection of Plant Varieties & Farmers Right Act
Kalahandi	Deepak Kumar Mishra, Evaluation Team Care India NGO, Bhubaneswar	11.03.2016	--	SAUs	Care India NGO	Evaluation of Path way Project
Kalahandi	Manoj Kumar Beherea, Evaluation Team Care India NGO, Bhubaneswar	11.03.2016	--	SAUs	Care India NGO	Evaluation of Path way Project
Kalahandi	Dr. Prasanna Mishra, Retd. Professor Veterinary, O.U.A.T	26.03.2017	SAUs	SAUs	--	Assessment test on Skill Development training Programme on Mushroom Cultivation (Small Entrepreneur)

#### 25. Status of KVK Website:

Sr. No.	Name of KVK	Date of start of website	No. of updates since inception	No. of visitors
	Kalahandi	<a href="http://www.kvkkalahandizpdvii.org">www.kvkkalahandizpdvii.org</a>	10	5211

#### 26. E-CONNECTIVITY

Name of KVK	Number and Date of Lecture delivered from KVK Hub				No. of lectors organized by KVK	Brief achievements	Remarks
	Date	No. of Staff attended	No. of call received from Hub	No. of Call mate to Hub by KVK			

27. Status of RTI

Sr. No.	Name of KVK	No. of RTI applications received	No. of RTI appeals	Remarks
01	Kalahandi	02	02	--

28. Status of Citizen Charter

Sr. No.	Name of KVK	Query received( Nos)	Query Disposed( Nos)	Remarks
	--	--	--	--

29. Attended HRD Programmes organized by ZPD

Name of KVK	Name of Staff	Post held	Programme attended (Nos)	Remarks
Kalahandi	Tapan Kumar Das	Senior scientist & Head	05	
Kalahandi	Lata Mallick	Scientist (Soil Science)	01	
Kalahandi	Madhumita Jena	Scientist (Agril Extension)	03	
Kalahandi	Tulasi Majhi	Scientist (Horticulture)	01	
Kalahandi	Dr.Hrudananda Malik	Scientist (Animal Science)	02	
	Total	--	12	

Name of KVK	Total Number of staff Attended HRD Programme organized by ZPD (nos)	Total Number of Programme attended (Nos)
Kalahandi	05	12

30. Attended HRD Programmes organized by DES

Name of KVK	Name of Staff	Post held	Programme attended (Nos)	Remarks
Kalahandi	Tapan Kumar Das	Senior scientist & Head	12	
Kalahandi	Lata Mallick	Scientist (Soil Science)	02	
Kalahandi	Madhumita Jena	Scientist (Agril Extension)	04	
Kalahandi	Tulasi Majhi	Scientist (Horticulture)	02	
Kalahandi	Dr.Hrudananda Malik	Scientist (Animal Science)	02	
Kalahandi	Srikrushna Behera	Programme Asst. (Plant Physiology)	03	
			25	

Name of KVK	Total Number of staff Attended HRD Programmes organized by DES (nos)	Total Number of Programmes attended (Nos)
Kalahandi	06	25

31. Attended HRD Programmes by KVK Staff (Refresher course, Short course, Training programme etc.)

Name of KVK	Name of Staff	Post held	Programmes attended (Nos)	Remarks
--	--	--	--	--

Name of KVK	Total Number of staff Attended HRD Programmes by KVK staff (nos)	Total Number of Programmes attended (Nos)
--	--	--

32. Agri alert report (Epidemic, high serious nature problem, Cyclone etc. reported first time to ZPD, SAU, Agri. Deptt. and ICAR)

Name of KVK	Alert observed	Particulars	Reported to organization
--	--	--	--

### 33. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Name of KVK	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
--	--	--	--	--

### 34. INTERVENTIONS ON DROUGHT MITIGATION

Introduction of alternate crops/varieties

Name of KVK	Crops/cultivars	Area (ha)	Number of beneficiaries
Cluster Demonstration on Black gram	Black gram	30	53

Major area coverage under alternate crops/varieties

Name of KVK	Crops	Area (ha)	Number of beneficiaries
--	--	--	--

Farmers-scientists interaction on livestock management

Name of KVK	Livestock components	Number of interactions	No. of participants

Animal health camps organized

Name of KVK	Number of camps	No. of animals	No. of farmers
Kalahandi	02	100	80

Seed distribution in drought hit states

Name of KVK	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers

Seedlings and Saplings distributed

Name of KVK	Crops	Quantity (No.s)	Coverage of area (ha)	Number of farmers
Seedlings				

Bio-control Agents



Name of KVK	Bio-control Agents	Quantity (q)	Coverage of Area (ha)	No. of farmers

#### Bio-Fertilizer

Name of KVK	Bio-Fertilizer	Quantity (kg)	Coverage of Area (ha)	No. of farmers
Kalahandi	Vermicompost	1500	15	10

#### Vermes Produced

Name of KVK	Vermes Produced	Quantity (q)	Coverage of Area (ha)	No. of Farmers
Klahandi	<i>E.Foetida</i>	0.04	10	6

#### Large scale adoption of resource conservation technologies

Name of KVK	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers

#### Awareness campaign

Name of KVK	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
Kalahandi	02	100	02	100	04	400	--	--	03	800	06	510

### 35. Proposal of NICRA

#### 1. Technologies to be Demonstrated

Name of Technology	Name of Crop	Area (ha.)	Yield	% change in Yield	No. of farmers benefitted
Demonstration of stress tolerant varieties	Maize C.v- 4325	6	16.8	29.76	24
	Black gram-PU 31	14	9.8	22.44	52
	Green gram-TARM1	9	8.6	24.41	36
	Brinjal C.v- VNR- 218, 212	1.2	212	35.81	38
	Tomato C.v- Utkala kumari	2.2	173	22.54	33
	Chilli C.v- Agnirekha	1.5	20	40	43
	Okra C.v- VNR-999	1.2	110	24.36	23
	Cowpea C.v- Sweta M	1.1	252	34.4	25
Intercropping of crops	Cotton + local Arhar	21	12.8	24.21	59
Demonstration on backyard poultry farming	Vanaraja	600 no	1400 gm/3month	39.28	45

Feed and mineral supplementation to cattle	Mineral mixture	250 no	1150 kg/lactation	33.29	36
Vaccination to livestock	HS vaccine, FMD vaccine, BQ vaccine	460 nos.	1060 kg/lactation	23.11	46

## 2. Proposed Extension Activities in NICRA Village

Name of Activity	Number of Participants/Beneficiaries to be Covered			
	Farmers	Farm Women	Official	Total
Exposure visit of farmers	22	8	5	1
Strengthen - SHG	22	18	5	1
Field days	65	35	8	2
Method demonstrations	84	46	17	7
Awareness	93	42	10	3

## 3. Proposed Training Activities in NICRA Village

Name of Activity	Number of Participants/Beneficiaries to be Covered			
	Farmers	Farm Women	Official	Total
Farmers and farm women training	234	66	20	300

## 4. Proposed Activities for Fodder Bank

Established (Years)	Capacity	Current Status
1015	15 q	7 q

## 5. Proposed Activities for Seed Bank

	Capacity	Current Status
2015	20 q	12 q

## 6. Public Representative/District Administration Visited in NICRA Village

Name of Representative/Officer	Designation	Date of Visit	Any Special Remark by Visitors
Dr. R.K. Pattanaik,	Associate Dean, COA, Bhawanipatna	13.5.16	Various demonstration activities were well executed in NICRA adopted village
Mr. Laxaman Kumar Palta Singh,	DDA, Kalahandi	13.5.16	An well approach for climate resilient agriculture
Dr. Subash Chandra Mohapatra,	Joint Director, DEE, OUAT	28.11.2016	Various demonstration and NRM activities are well executed in Pipalpada village. Farmers are keenly interested to learn regarding climate resilient agriculture

## 7. Feedback of Farmers for future improvement, if any.

36. Proposed works under NAIP (in NAIP monitoring format)

37. Case study / Success Story to be developed – Two best only in the following format

Name of the KVK, TITLE, Introduction, KVK intervention, Output, Outcome, Impact

Sr. no.	Name of KVK	No. of success stories	No. of case studies
1	Kalahandi	02	--

## Success Story-1

### CROP DIVERSIFICATION : FOR PROFITABILITY, FOOD AND NUTRITIONAL SECURITY

#### Name and Address of the Farmer

Name : Sri, Indu Bhusan Swain  
Village : Boria  
Block : Kesinga  
District : Kalahandi  
Enterprise : Paddy, Pigeon pea, Banana and Cotton

#### Background Information:

Kalahandi is a tribal dominated district of Odisha and majority of the population depend on agriculture as their primary source of livelihood. Village Boria is situated at 30 km away from Bhawanipatna. Paddy is the only crop was grown during Kharif. During a diagnostic visit the scientist encouraged the farmers to go for low value to high value crops and from high water requiring crops to low water requiring crops. Along with Paddy in Kharif some pulses, oilseed, short duration fruits and vegetables can also be grown which has higher profitability and production potentiality that can play a big role in changing their livelihood besides providing nutritional security. During 2012-13, Pigeon pea Var. ICPL 87-119 was demonstrated in the farmers field of that village.

Sj. Indu Bhusan Swain, one of the farmers of the village was earning his livelihood from 16 acres of land. Due to traditional method of rice cultivation and poor crop productivity, he was not satisfied with the lower income. He used to cultivate only paddy both in the upland and low land. Sri Swain, after consulting with the KVK Scientists, was convinced to grow pigeon pea, cotton and banana along with Kharif paddy. He grows paddy, banana and cotton in 5 ac, 10 ac and 1 ac area respectively.

#### Description of the Technology:

**Arhar** : Line sowing of Pigeon pea (Var. ICPL 87-119) seeds (45 X30cm) ,Seed treatment with Rhizobium culture (1kg seed @ 20gms of culture ) , Application of NPK @20:40:20 kg/ha as basal application, Weed management after 21 days of sowing ,Spraying of Chloropyriphos (2ml/lit of water) and planofix hormone (1 ml /4lit of water).

**Banana and Cotton:** Crop cultivation with complete Package of Practice.

## Dissemination of Technology:

Capacity building through training, FLD OFT and other extension activities, Diagnostic visit of KVK Scientist time to time, Method demonstration showcasing all the package of practices, Distribution of extension literature on management practices of Pigeon pea, banana and cotton etc. ATMA (Dept. of Agriculture) and Horticulture (under NHM), also extended their helping hand by providing frequent training programmes to update their knowledge level and different, Linkage with ICRISAT, Department of Horticulture and Agriculture was facilitated for inputs and all Govt. supports.

## Success Point:

**Arhar:** On time sowing of the seed and seed treatment with Rhizobium culture, Application of recommended dose of fertilizer, Optimum care during critical growth stage of the crop, IPM and Weed management, Increase in knowledge and exposure to new technologies.

### Banana and Cotton:

Adoption of improved technologies like proper planning, layout, planting, INM, IPM, etc. in banana and cotton. Marketing information gave him a great support to sell the harvested produce, which earned him maximum rates and fetches good profits. Shifted from monoculture of paddy cultivation to Arhar, Cotton and Banana cultivation.

## Outcome

Productivity of Pigeon pea (Asha) recorded a higher yield of 30.4 % over local variety. He got a net profit of Rs. 4, 27,300/- per year.

Crop	Area (ha)	Yield (Q/ha)	Cost of cultivation (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	Total Gross income (Rs.)	Total Net Income (Rs.)	BC Ratio
Rice	2.0	35	21,500	35,000	13,500	70,000	26,000	1.62
Arhar	5.0	15	25,000	73,500	48,500	3,67,500	2,42,500	2.94
Banana	1.0		1,00,000	2,50,000	1,50,000	2,50,000	1,50,000	2.50

Cotton	0.4	17.5	22,000	68,250	46,250	27,300	8800	3.10
TOTAL						7,14,800	4,27,300	

### **IMPACT**

Horizontal expansion of pigeon pea is remarkable. Area of Pigeon pea has been increased from 5 ha to 80 ha. Farmers are now much aware to produce the HYV of Pulses rather than local degenerated variety. Area under tissue culture banana and cotton also enhanced in Boria and nearby villages. Net income of Sri, Swain is Rs. 4, 27,300/- (Rice, Arhar, Banana and Cotton). By seeing his success farmers are shifting from monoculture paddy cultivation to Pulse (Arhar), Banana and cotton cultivation. Farmers from inside, outside the district and also from outside states are visiting his farm and he became a source of inspiration for others.

## **Success Story-2**

### **Integrated farming system- A milestone of success**

Name of the farmer: Prahlad Budhia

At- Kanakpur

Block: Bhawanipatna

Dist: Kalahandi (Odisha)

Mob. No : 8018698722 / 7894581168

### **Background Information**

Village Kanakpur of Bhawanipatna block of Kalahandi district is just 8 km away from Bhawanipatna town. Agriculture is a primary source of income for the farming community of Kanakpur village. The existing farming system in the village was agriculture + dairying, where primary source of income was agriculture enterprise particularly from commodities like paddy. After KVK's intervention the farming systems was transformed to agriculture + horticulture + animal husbandry. Where horticulture crop became a primary source of income i.e banana, ridge gourd, bitter melon, cucumber, cowpea, brinjal, tomato, etc grown on in commercial basis which adds significant contribution to their income. Above all the members have shown a positive attitude towards change in the existing farming systems.

**Description of the Technology:**

Seed production in Paddy.

**Papaya cultivation ( KVK intervention during 2012-13)**-Looking at the potential of papaya cultivation in the village and his interest, KVK Scientist advised him to go for developing a small papaya orchard in his 0.4 ha of upland with a spacing of 1.5.m x 1.5 m. Banana cultivation (PoP of Tissue culture) with utilization of the interspaces with off season vegetables like tomato, ridge gourd, cowpea, bitter gourd, cucumber etc. Pisciculture, Milk and paneer preparation, Hybrid Paddy cultivation, Dairy with cross breed cows

**Disemination of the Technology :**

- Capacity building through Training, FLD, OFT and other extension activities by KVK.
- Involved in different FLD & OFT programmes of KVK
- Diagnostic visit of KVK Scientist time to time
- Exposure visit by KVK and other line department
- Method demonstration showcasing all the package of practices
- Distribution of extension literature on management practices of papaya, cucurbits, banana etc.
- Training was conducted where nearby farmers also participated to notice the benefit out of IFS.
- ATMA(Dept.of Agriculture) and Horticulture ( under NHM), also extended their helping hand to the interested farmers by providing frequent training programmes to update their knowledge level.

### **Institutes involved :**

Krishi Vigyan Kendra, Kalahandi

Horticulture Department – National Horticulture Mission

Agriculture Department , Kalahandi

RRTTS, Bhawanipatna

### **Success Point**

- Equal emphasis is given to all the component of the farming system.
- All the sound technology has been completed in time.
- Increased in knowledge and exposed to new technologies Adopt IFS model
- Shifted from paddy cultivation to Paddy + Diaring + Horticulture (Fruit & Vegetable)+ pisciculture.

### **Outcome**

<b><u>Sl. No</u></b>	<b><u>Enterprises</u></b>	<b><u>Area (acre)</u></b>	<b><u>Season</u></b>	<b><u>Yield (Q)</u></b>	<b><u>Cost of cultivation (Rs)</u></b>	<b><u>Gross return(Rs)</u></b>	<b><u>Profit (Rs)</u></b>	<b><u>B:C ratio</u></b>
1	Paddy	1.5	Kharif	40	16,000	40,000	24,000	2.5
2	Banana	0.5	Kharif	500 bunches	27,500	75,000	47,500	2.72
3	Papaya	0.15	Kharif	79.8	15,000	79,800	64,800	4.65
4.	Sugarcane	0.2	Kharif	20,000 (canes)	20,000	52,000	32,000	2.6
5.	Tomato	0.2	Rabi	29	10,000	30,000	20,000	3.0
5	Brinjal	0.25	Rabi	20	9,000	32,000	23,000	3.5

6	Cowpea + Beans	0.2	K + R	15 11	14,000	40,000	26,000	2.85
7	Ridge gourd	0.2	Kharif	20	11000	25000	14,000	2.27
8	Cucumber	0.3	Kharif	20	7,000	20,000	13,000	2.85
9	Fishery	0.5	Kharif	4.0 q	6,000	18,000	12,000	3.6
10	Diary	2 nos.	--	8.0 lit/day	5,000	28,800	23,800	5.76
	Total				1,40,500	4,40,600	3,00,100	3.13

### **Impact :**

By seeing his success farmers are shifting from monoculture paddy cultivation to horticulture based farming system. Farmers also include new enterprise like dairy and poultry with their paddy-paddy farming system. Income substantially increased with technological intervention in sustainable manner. Many farmers of the district have been motivated by his success and some farmers with av. holding size of 2.0 ha. have adopted fruit and vegetable based farming model with input assistance like drip irrigation, bore well, weeders, Poly house etc . from ATMA & NHM schemes of the district. KVK has maintained regular liasoning with them

38. Well labeled Photographs for each activity of the KVK (Soft copies as well as hard copy- specially for all OFT along with the problem) –