

# ANNUAL ACTION PLAN

2023-24

**KVK, JAJPUR**



**OUAT, BHUBANESWAR**



## BASIC INFORMATION OF THE DISTRICT

1	Geographical area	2,89,900 ha
2	Gross cropped area	2,50,602 ha
3	Total cultivated area	1,45,450 ha
	Upland	51754 ha (36%)
	Medium land	48036 ha (33%)
	Low land	45660 ha (31%)
4	Net sown area	1,37,000 ha
	Fallow land	5000 ha
	Waste land	4000 ha
5	Total Paddy area	1,17,000 ha
6	Cropping intensity	170 %
7	Soil type	Alluvial soil, red laterite soil, saline soil
8	No of GP	331
9	No of village	1859
	Total population	1826000
	SC population	3,73513
	ST population	125989
10	No of Agriculture laboures	81,907
11	No of non Agriculturelaboures	2,45,421
12	Irrigation potential	
	-Kharif	47%
	- Rabi	27%
13	Fertilizer consumption	
	-Kharif	111.2 kg/ha
	- Rabi	56.86 kg/ha
	- Average	84.03 kg/ha
	- Humidity	62% -87 %
	- Temperature	
	- Min	14 ° C
	- Max	43 ° C
	- Annual Rain fall	1559.9 mm
	- No. of rainy day	73.2
	- PH range	4 to 7.40

## 2. Training programme to be organized (April 2023 to March 2024)

### (a) Farmers and farmwomen

Title of Training	No.	Duration	Venue On/Off	Tentative Date	No. of Participants									
					SC		ST		Other		Total			
					M	F	M	F	M	F	M	F	T	
<b>Crop production</b>														
Integrated weed management in Jute	1	1	Off	June ,2023	2	-	-	-	23	-	25	-	25	
Nursery management for quality rice seedling production	1	1	Off	June,2023	1	-	-	-	24	-	25	-	25	
INM in rice	1	1	Off	July, 2023	1	-	-	-	24	-	25	-	25	
IWM in maize and sweetcorn	1	1	Off	July, 2023	-	-	-	-	25	-	25	-	25	
IWM in sugarcane	1	1	Off	August, 2023	2	1	-	-	22	-	24	1	25	
Management of problematic soil for higher yield and sustainability	1	1	Off	Oct, 2023	-	-	-	-	25	-	25	-	25	
Integrated Farming system for livelihood security	1	1	Off	Sept, 2023	-	-	-	-	25	-	25	-	25	
Improved jute harvesting and retting for quality fiber production	1	1	Off	Oct, 2023	-	-	-	-	25	-	25	-	25	
Cultivation of stress tolerant rice varieties to mitigate climate change	1	1	Off	Oct, 2023	1	-	-	-	24	-	25	-	25	
INM in groundnut	1	1	Off	Nov, 2023	1	-	-	-	24	-	25	-	25	
Integrated Nutrient Management in sugarcane	1	1	Off	Nov,2023	-	2	-	-	22	1	22	3	25	

Intercropping for higher yield and sustainability	1	1	Off	Dec, 2023	-	-	-	-	25	-	25	-	25
Integrated weed management in pulse crops (greengram,blackgram)	1	1	Off	Jan, 2024	3	1	-	-	21	-	24	1	25
Integrated nutrient management in Jute	1	1	Off	Feb,2024	2	1	-	-	22	-	24	1	25
<b>Soil Science</b>													
Technique of soil sample collection & fertilizer management	1	1	Off	June, 2023	2	1	-	-	22	-	24	1	25
Nitrogen management in rice	1	1	Off	July, 2023	1	1	-	-	23	-	24	1	25
INM in maize	1	1	Off	August, 2023	2	1	-	-	22	-	24	1	25
Micronutrient deficiency in rice	1	1	Off	Sept, 2023	3	-	-	-	21	1	24	1	25
Bio-fertilizer application in Vegetable	1	1	Off	Sept, 2023	1	-	-	-	23	1	24	1	25
Technique of soil sample collection & fertilizer management	1	1	Off	Oct, 2023	2	1	-	-	22	-	24	1	25
INM in brinjal	1	1	Off	Oct, 2023	-	-	-	-	23	2	23	2	25
INM in potato	1	1	Off	Nov, 2023	1	-	-	-	23	1	24	1	25
Bio-fertilizer and their application in cole crops	1	1	Off	Nov, 2023	-	-	-	-	23	2	23	2	25
INM in Okra	1	1	Off	Dec, 2023	-	-	-	-	20	5	20	5	25
Method lime application in groundnut	1	1	Off	Dec, 2023	1	-	-	-	23	1	24	1	25
Management of acid soil	1	1	Off	Jan, 2024	-	-	-	-	20	5	20	5	25
Waste decomposer for decomposing paddy straw	1	1	Off	Jan, 2024	-	-	-	-	20	5	20	5	25
Foliar application of urea phosphate in greengram	1	1	Off	Feb, 2024	2	1	-	-	22	-	24	1	25
<b>Plant protection</b>													
IPM practices for control of disease in rice	1	1	Off	June, 2023	5	-	-	-	20	-	25	-	25
Management of hoppers in rice	1	1	Off	June, 2023	-	2	2	-	20	1	22	3	25

IPM on paddy pest	1	1	Off	July, 2023	-	2	-	-	22	1	22	3	25
IPM of sucking pest complex in papaya	1	1	Off	August, 2023	-	2	-	-	22	1	22	3	25
Management of shoot borer in sugarcane	1	1	Off	August, 20.23	4	-	-	-	20	1	24	1	25
IPM in maize FAW	1	1	Off	Sept, 2023	-	-	-	-	24	1	24	1	25
Major pest and disease of okra	1	1	Off	Sept, 2023	1	-	-	-	24	-	25	-	25
IPM of brinjal fruit & shoot borer in brinjal	1	1	Off	Oct, 2023	2	1	-	-	22	-	24	1	25
IDM of groundnut disease	1	1	Off	Nov, 2023	2	1	-	-	22	-	24	1	25
Management of sucking pest in chilli	1	1	Off	Nov, 2023	-	2	-	-	22	1	22	3	25
Management of leaf feeder in cabbage	1	1	Off	Dec, 2023	1	-	-	-	24	-	25	-	25
IDM in bittergourd	1	1	Off	Dec, 2023	2	1	-	-	22	-	24	1	25
IPM of white fly in greengram	1	1	Off	Jan, 2024	-	-	-	-	25	-	25	-	25
Management of white fly in cucurbit	1	1	Off	Feb, 2024	-	-	-	-	25	-	25	-	25
<b>Horticulture</b>													
Major diseases & pest of brinjal, okra & their control measures	1	1	Off	June, 2023	1	2	-	-	22	-	23	2	25
Sorting, grading & packaging of vegetable	1	1	Off	June, 2023	-	2	-	-	22	1	22	3	25
Profitable papaya Cultivation techniques	1	1	Off	July, 2023	5	-	-	-	20	-	25	-	25
cultivation techniques of potato	1	1	Off	Sept, 2023	-	-	-	-	24	1	24	1	25
Cultivation techniques of T.C Banana for higher income	1	1	Off	August, 2023	-	2	2	-	20	1	22	3	25
Production techniques of marigold & Tube rose	1	1	Off	August, 2023	-	2	-	-	22	1	22	3	25

Important medicinal plants and their uses	1	1	Off	Sept, 2023	4	-	-	-	20	1	24	1	25
Cultivation techniques of cauliflower for increasing yield and quality	1	1	Off	Oct, 2023	1	2	1	1	20	-	22	3	25
Improved management practices in capsicum	1	1	Off	Nov, 2023	3	1	-	-	18	3	21	4	25
Cultivation techniques of onion, garlic	1	1	Off	Dec, 2023	-	-	-	-	24	1	24	1	25
Different trellis system in cucurbits	1	1	Off	Jan, 2024	3	1	-	-	18	3	21	4	25
pointed gourd cultivation for higher income	1	1	Off	Feb, 2024	3	1	-	-	18	3	21	4	25
Vegetable based Integrated farming system for increasing income	1	1	Off	Feb, 2024	3	2	2	1	12	5	17	8	25
Scientific cultivation techniques of betelvine	1	1	Off	March, 2024	4	-	-	-	20	1	24	1	25
<b>Agril. Engineering</b>													
Use of Bullock drawn implements for labour saving	1	1	Off	June, 2023	-	-	-	-	21	4	21	4	25
Utility of pulse thresher	1	1	Off	July, 2023	-	-	-	-	21	4	21	4	25
Care and safety measure during operation of implements	1	1	Off	July, 2023	-	2	-	-		2 3	-	25	25
Use of mechanical weeders in rice	1	1	Off	August, 2023	-	-	-	-	25	-	25	-	25
Small implements for farm women	1	1	Off	August, 2023	2	-	1	-	20	2	23	2	25
Utility of mulching in vegetable	1	1	Off	Sept, 2023	-	-	-	-	21	4	21	4	25
Different line sowing implements for cereal and pulses	1	1	Off	Sept, 2023	-	2	-	-		2 3	-	25	25
Utility of micro irrigation	1	1	Off	Oct, 2023									
Use of mini dal mill	1	1	Off	Nov, 2023	-	-	2	-	20	3	22	3	25
Value addition of tomato	1	1	Off	Dec, 2023	-	2	-	-		2 3	-	25	25

Value addition of oyster mushroom	1	1	Off	Jan, 2024	1	1	-	-	23	-	24	1	25
Use of sprinkler irrigation in pulse	1	1	Off	Feb, 2024	1	1	-	-	23	-	24	1	25
Use of solar dryer	1	1	Off	Feb, 2024	-	-	2	-	20	3	22	3	25
Use of different groundnut harvesting machineries	1	1	Off	March, 2024	-	-	-	-	20	5	20	5	25
<b>Agril. Extension</b>													
Formation and management of farmers producer group	1	1	Off	June, 2023	5	-	-	-	20	-	25	-	25
Management of SHGs	1	1	Off	June, 2023	3	-	-	-	22	-	25	-	25
Organic farming and its role in sustainable development	1	1	Off	July, 2023	2	-	-	-	23	-	25	-	25
Climate resilient technology for sustainable development	1	1	Off	Aug, 2023	1	-	-	-	24	-	25	-	25
Income generation activities of SHGs	1	1	Off	Aug, 2023	3	-	-	-	22	-	25	-	25
Alternative livelihood options for resource poor farm family	1	1	Off	Sept, 2023	5	-	-	-	20	-	25	-	25
Role and importance of ITKs in agricultural development	1	1	Off	Sept, 2023	5	-	-	-	20	-	25	-	25
Role and importance of ICT in agricultural development	1	1	Off	Oct, 2023	3	-	-	-	22	-	25	-	25
Alternative livelihood options for resource poor farm family	1	1	Off	Oct, 2023	3	-	-	-	22	-	25	-	25
Role and importance of farm records in agricultural development	1	1	Off	Nov, 2023	5	-	-	-	20	-	25	-	25
Role and importance of ICT in agricultural development	1	1	Off	Nov, 2023	4	-	-	-	21	-	25	-	25

Scientific cultivation of groundnut	1	1	Off	Dec, 2023	5	-	-	-	20	-	25	-	25
Scientific cultivation of greengram	1	1	Off	Jan, 2024	3	-	-	-	22	-	25	-	25
Formation and management of farmers producer group	1	1	Off	Feb, 2024	5	-	-	-	20	-	25	-	25

**(b) Rural youths**

Thematic area	Title of Training	No.	Duration	Venue	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
<b>I. Crop production</b>														
ICM	Integrated Farming System for Livelihood security	1	3	On	19.12.23 to 21.12.23	3	-	-	-	12	-	15	-	15
ICM	Seed production for higher income	1	3	On	14.02.2024 to 16.2.2024	-	-	-	-	15	-	15	-	15
<b>II. Soil Sc.</b>														
ICM	Azolla production technique	1	3	On	26.9.23 to 28.9.23	3	2	-	-	8	2	11	4	15
Soil fertility management	Method of vermicomposting	1	3	On	13.12.23 to 15.12.23	1	1	-	-	13	-	14	1	15
<b>III. Plant Protection</b>														
IPM	Preparation of Bio-agent	1	3	On	11.09.23 to 13.9.23	3	2	-	-	8	2	11	4	15
IPM	Beekeeping for enhancing rural income	1	3	On	6.12.23 to 8.12.23	2	2	-	-	5	6	7	8	15
<b>IV. Horticulture</b>														
Nursery raising	Improved method of seedling	1	3	On	14.09.23 to 16.9.23	-	3	-	-	6	6	6	9	15



	production technique													
Cultivation of flower	Commercial flower cultivation especially Exotic flower	1	3	On	28.12.23 to 30.12.23	2	2	-	-	5	6	7	8	15
<b>V.Agril. Engg.</b>														
Installation and maintenance of micro irrigation system	Entrepreneurship development through custom hiring center	1	3	On	18.7.2023 to 20.7.2023	-	-	-	-	13	2	13	2	15
Value addition	Value addition of tomato	1	3	On	19.12.2023 to 21.12.2023	-	3	-	-	-	12	-	15	15
<b>VI.Agril. Extn.</b>														
CBD	Entrepreneurship development	1	3	On	19.12.23 to 21.12.23	2	-	-	-	13	-	15	-	15
CBD	Farming system approach	1	3	On	14.02.2024 to 16.2.2024	2	-	-	-	13	-	15	-	15

**(c) Extension functionaries**

Thrust area/ Thematic area	Title of Training	No.	Duration	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
<b>I.Crop production</b>														
ICM	Organic farming for sustainable crop production	1	1	On	27.09.2023	-	4	-	-	-	11	-	15	15
ICM	Contingency planning for crop production under changing climate	1	1	On	18.01.2024	1	1	-	-	13	-	14	1	15

<b>II. Soil Sc.</b>														
Soil fertility management	Use of soil test kit (Mridaparikhyak)	1	1	On	16.11.24	-	3	-	-	6	7	9	6	15
Soil fertility management	Management of problematic soil	1	1	On	22.02.24	2	2	-	-	5	6	7	8	15
<b>III. Plant Protection</b>														
IPDM	Safe use of pesticide	1	1	On	18.10.23	1	1	-	-	13	-	14	1	15
IPDM	Application of new generation pesticide	1	1	On	07.12.23	-	3	-	-	6	7	9	6	15
<b>IV.Horticulture</b>														
	Hi-tech horticulture	1	1	On	17.11.2023	-	3	-	-	6	6	6	9	15
Production technology	Exotic vegetable cultivation	1	1	On	10.1.2024	2	-	-	-	8	5	10	5	15
<b>V.Agril. Engg.</b>														
Repair and maintenance of farm mechnery& implements	Importance of Custom hiring center	1	1	On	22.8.2023	-	-	-	-	12	3	12	3	15
Farm mechanization	Precision farming	1	1	On	22.2.2024	-	4	-	-	-	11	-	15	15
<b>VI.Agril. Extn.</b>														
CBD	Market led extension	1	1	On	27.09.2023	2	-	-	-	11	2	13	2	15
CBD	Cyber extension	1	1	On	18.01.2024	2	-	-	-	11	2	13	2	15

## On-Farm Testing

Sl. No	Title of OFT	Season	Problem	No. of Trial	Technology option	Observation parameter	Source of tech.
1	Assessment of INM in scented rice	Kharif, 2023	Low yield due to Improper nutrient management in scented rice	7	FP- Scented rice var. Sitabhog Use of low dose of fertilizer (40-30-20 kg NPK/ha +FYM 1 t/ha) TO <sub>1</sub> - Recommended dose of fertilizer (60-30-30 kg NPK/ha + FYM 2.5 t/ha + Zn 5kg/ha+ S 20kg/ha) TO <sub>2</sub> - Recommended dose of fertilizer (60-30-30 kg NPK/ha + FYM 5 t/ha + Zn 5kg/ha+ S 20kg/ha + Azospirillum 5kg/ha + PSM 5kg/ha)	Plant ht. (cm), days to 50% flowering, No of tillers/m <sup>2</sup> , Panicle Length (cm), No of Grains/panicle.Test wt(g)	RRTTS, Bahawanipatn aOUAT 2015
2	Assessment of Sulphur management in greengram	Rabi 2023-24	Low yield due to poor plant growth and pod filling .	7	FP- Use of low dose of fertilizer (20-20-0 kg NPK/ha ) TO <sub>1</sub> - Recommended dose of fertilizer (20-40-20 kg NPK/ha) + FYM 5 t/ha + sulphur 30 kg/ha (through elemental Sulphur- Bentonite sulphur 90%) TO <sub>2</sub> - Recommended dose of fertilizer (20-40-20kg NPK/ha) + FYM 5 t/ha + S 30kg/ha (through Phospo gypsum)	Plant ht. (cm), no. of branches /plant, No of pods/plant, test wt.	TO <sub>1</sub> - OUAT 2016-17, Annual report  TO <sub>2</sub> - BCKV, 2012
3	Assessment of seed less watermelon varieties	Kharif, 2023	Less profit from watermelon cultivation	7	FP- Cultivation of variety Sugar baby TO <sub>1</sub> - Cultivation of variety shonima. red flesh Triploid,seed less, high yielding (15t/ha), TSS-13-14% unique type, sweet, juicy, longer shelf life and transport quality TO <sub>2</sub> - Cultivation of variety Swarna. Yellow flesh, green rind, individual fruit weight 2.5 to 3 kg, 3-4 fruit/plant, yield 15 t/ha, sowing time Oct-Nov	No. of fruit/plant, fruit size & weight	Kerala Agricultural University, 2016

4	Assessment of Arka vegetable special (Micronutrient technology for higher yield & quality in cauliflower)	Rabi 2023-24	Low curd weight and curd size	7	FP- NPK @120:50:50 kg/ha +Foliar application of micronutrient ( 3ml./lit) at 30 DAT TO <sub>1</sub> - STBF + application of Nutrivite Arka vegetable special @5g/lit. first spray 25-30 days after planting second spray 25 days after first spray TO <sub>2</sub> - STBF +application of Nutrivite Arka vegetable special + Soil application with 5 kg Arka Microbial consortium mixed with 500kg FYM/ha	Size of curd, curd weight, shelf life of curd	: IIHR, Bangalore 2016
5	Assessment of nano urea liquid fertilizer in transplanted rice	Kharif 2023	Low yield due to Improper use of urea fertilizer	7	FP- 100 % N (as conventional urea application), P and K TO <sub>1</sub> - 50 % recommended N + 100 % P and K as basal application and two sprays Nano urea @ 0.2 % tillering and PI stage TO <sub>2</sub> - 75 % recommended N + 100 % P and K as basal application and two sprays Nano urea @ 0.2% at tillering and PI stage	Initial and post harvest soil test value No. of effective tillers /sq m, No. of filled grain per panicle, 1000 grain weight (gm)	TO <sub>1</sub> - OUAT,(IFFCO project), 2020  TO <sub>2</sub> - AAU, Annual report 2019-20
6	Assessment of decomposer for in situ residue management in rice	Rabi 2023-24	Burning of paddy straw in rice field causes increasing air pollution, nutrient loss & degradation of soil health	7	FP- Harvesting of rice in combine harvester and burning of residue in the field TO <sub>1</sub> - NRRI decomposer @10 capsules in 100 liter of water with 2% jaggery solution for 1 ha TO <sub>2</sub> - PUSA decomposer @4 capsules in 25 liter of water with 2% jaggery solution and pulse powder for 1 ha	period of decomposition, rate of decomposition, rate of decomposition Cost of intervention(before & after)	ICAR-IARI, 2020
7	Assessment of IPM Module for the	Kharif, 2023	Low yield due to incidence of ,SB,BPH, LF,WBPH and other pests,	7	FP- Application of Chlorantraniliprole 0.4 G @ 10kg/ha and spraying of Chloropyriphos + Cypermethrin @ 1 l/ha TO <sub>1</sub> - Seed treatment with Ps. fluorescence @ 8g/kg of seed/seedlings, bird perches 10	BPH & WBPH/ hill, dead heart	TO <sub>1</sub> - AICRP on Biological

	management of insect pest of rice		Injudicious use of pesticides etc.		<p>nos./ha, release of bio-agents 1 lakh/ha (T. chilonis ) six times, spraying of Bt. @ 2 kg/ha two times and spraying of Ps. fluorescence @ 2.5 kg/ha</p> <p>TO<sub>2</sub>- Nursery treatment with fipronil 0.3G@20kg/ha + Pheromone trap installation for pest monitoring + release of <i>Trichogramma japonicum</i> @ 50,000/ha six + Bt spray @ 1 kg/ha at evening hours at 30 &amp; 50 DAT + neem oil spray 0.15% (1500 ppm) @ 3ml/lit at 65 DAT + need based spraying of pesticides (Ethiprole + imidacloprid) based on pest severity (e.g. SB/BPH,LF etc.)</p>	%Spiders/ hill, mirid bugs/ hill,	<p>Control, OUAT 2015</p> <p>TO<sub>2</sub>- RRTTS, Ranital -21-22</p>
8	Assessment of some IPM modules against fruit fly infesting bitter gourd	Rabi 2023-24	Low yield due to heavy fruit incidence	7	<p>FP- Spraying of Chlo +Cyper @1 lit/ha</p> <p>TO<sub>1</sub>- Soil application of chlorpyrifos 1.5 % dust in the inter spaces @ 25 kg/ ha at 30 DAG + Placement and spot application of Jaggery (100g), cartap hydrochloride (2 g) &amp; water (1 liter) poison bait + Installation of cue lure @ 20/ha + Periodic removal and destructions of damaged fruits</p> <p>TO<sub>2</sub>- Food bait @ (20 baits/ ha, 100ml/ bait) (Mixture of 1kg cucumber fruit pulp +50g Gur + 100mlcow urine +0.5 lit water and kept for over night, diluted in 5 lit water and added 10 ml malathion) + Pheromone trap with Cue- lure @25 traps / ha installed at 20 DAS (Change of lure at 20 days interval) + foliar spray with Spinosad 45SC @ 20 ml/ ha at 30, 45, 60 and 75 DAS.</p>	fruit fly incidence %, Vine growth, no of infested fruits /plant , fly /trap	<p>TO<sub>1</sub>- RRTTS, RANITAL-2018</p> <p>TO<sub>2</sub>- RRTTS, Bhubaneswar-2023</p>

9	Assessment of different bullock drawn seed-cum-fertilizer drills for sowing of maize	Kharif 2023	High labour cost for sowing of maize behind the plough	7	FP- Sowing behind the plough TO <sub>1</sub> - Bullock drawn single- row- seed cum fertilizer drill TO <sub>2</sub> - Bullock drawn three -row seed- cum fertilizer drill	Plant population (nos/sqm), No of cobs/plant, cob weight(g.), labour saving (mandays/ha), cost saving (Rs./ha), No. of missing plant/sqm	AICRP on UAE, CAET, OUAT 2014
10	Assessment of groundnut digger	Rabi, 2023-24	Manual digging is labour intensive	7	FP- Manual with spade TO <sub>1</sub> - Tractor drawn straight blade groundnut digger TO <sub>2</sub> - Tractor drawn triangular blade groundnut digger	field capacity (ha/h), cost of digging (Rs/ha), Labour requirement (mandays/ha)	CAET, OUAT, 2017-18
11	Assessment of effectiveness of different extension methods to access information on rice production	Kharif 2023	Poor accessibility to accurate and timely information on technical knowledge/advisory in rice production	30	FP- Farmers getting information from peer group, input dealers, extension functionaries, mass media and, KMA TO <sub>1</sub> - Delivering need based technology through Video lecture followed by focus group discussion along with traditional existing extension methods would provide need based information, skill and objective clarification through FGD, along with traditional existing mechanism of transfer of technology TO <sub>2</sub> - Providing timely & need based information to farmers regarding situation specific rice varieties, crop management, farm machineries, nutrient and pest management, post harvest management etc., through rice Xpert App along with traditional existing mechanism of transfer of technology	Timely Availability / delivery of technology, suitability of technology, ease in handling the extension method, retention and retrieval of information (All parameters to be taken on a three point scale and measured through weighted matrix)	

12	Assessment of the performance of FPOs with varied levels of task and commodity to enhance net return	Karif/Rabi/ Zaid- Summer 2023-24		40	<p>FP- Farmers marketing their produce through intermediaries</p> <p>TO<sub>1</sub>- FPO dealing with a single commodity with a single task i.e., Vegetable/ Pulse/ or any other commodity -Marketing</p> <p>TO<sub>2</sub>- FPO dealing with multi-commodity with multi-task i.e., Pulses, Crops Vegetable, Enterprises- sorting, grading, packing, value addition, branding, leveling and marketing</p>	<p>Easy to produce (Score out of 10)</p> <p>Easy to sell (Score out of 10)</p> <p>Farmers interest to become a member (Score out of 10)</p> <p>Business planning and market linkage with various national and international companies (Score out of 10)</p> <p>Share capital contributed (Score out of 10)</p>	
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## Frontline Demonstration

Title of FLD	Season	Problem	No. of Demo	Farmers practice	Details of Technology	Observation parameter	Source of tech.
Demonstration on Integrated Weed Management in Maize	Kharif 2023	Low yield due to heavy weed infestation	13	Weeding through earthing up at 15 DAS + use of herbicide 2-4-D @500g/ha at 45 DAS	Weeding through earthing up at 15 DAS +use of herbicide Tembotrione 42% SC @287.5 ml/ha at 40 DAS	Weed flora count, WCE (%), No of cobs/plant, cob weight(g.)	OUAT, Annual Report 2016
Demonstration on IWM for managing weeds during kharif in direct seeded rice	Kharif 2023	Low yield due to high incidence of weed and more labour requirement for weeding	13	Manual weeding at 30 DAS	Use of herbicide Pyrazo sulphuron ethyl 200g/ha at 3 DAS fb Bispyribac Sodium 200 ml at 25 DAS in rainfed direct seeded rice	No of tillers/hill, EBT/sq.m ,No of grains /panicle, weed count.WCE (%)	OUAT, Annual report, 2016
Demonstration retting of jute fibre	Rabi 2023-24	Jute retting time is more than 15 days. Improper retting gives low quality of extracted Jute fibre	13	Retting of Jute fibre through traditional method. Keeping Jute bundles in stagnant water under submerged condition and	Retting of jute fibre through use of CRIJAF sona @30 kg/ha by sprinkling over jute bundles and then manual stripping	Quality fiber recovery %, reduction in retting duration	OUAT, Annual report, 2016



				manual method of stripping			
Demonstration on Integrated Nutrient Management in sugarcane for higher yield and profitability	Rabi 2023-24	Low yield due to low dose of fertilizer application	13	Improper dose of chemical fertilizer(130-40-40 NPK kg/ha) and no use of biofertiliser	Soil test based fertilizer application in sugarcane @ 250:100:60 kg N:P2O5:K2O+60 kg elemental S/ha recorded highest cane yield of 81.44 t/ha and was most remunerative	Cane length, cane wt,	OUAT, Annual report, 2016
Demonstration on INM in Tube rose	Kharif 2023	Less profit due to low yield and quality	13	NPK @80:40:50 kg/ha without organic fertilizer	NPK @80:40:50 kg/ha + vermicompost @ 1kg/m <sup>2</sup> + karanj oil cake @ 250g/m <sup>2</sup>	Plant height , leaves/plant, spike length, no. of florets/spike, floret length, spike/plant, floret width, flower yield, bloom life & shelf life	OUAT 2016-17, Annual report
Demonstration on Arka Banana special on yield and quality of fingers	Kharif 2023	Low yield in banana due to low bunch weight, less finger size and weight	13	Imbalanced fertilizer application without micronutrient	STBF + foliar spray from 4-5 months of planting at monthly interval on whole plant till bunch formation and there after two sprays on whole bunch with 75gm of Arka banana special in 15 litre of water (12 kg/acre)	Bunch wt., finger size, finger wt, plant height, no. of leaves/plant	IIHR Bangalore 2016
Demonstration of Lean to Type trellis in bittergourd for higher production	Rabi 2023-24	Low yield in ground trellis system	13	Cultivation in ground trellis system	Lean to type trellis – stakes are joined between two adjoining bed forming an A shaped structure horizontal stakes are installed at the top joining of all other beds . The stakes support the climbing vines. Strings are	Length of fruit, Wt. of fruit, incidence of fruit rot	CHES, BBSR, 2014

					used to secure adjoining stakes. trellis height 2m		
Demonstration on capsicum variety Arka Athulya	Rabi 2023-24	Low yield & profit due to improper varietal selection	13	Cultivation of capsicum variety (California wonder)	Cultivation of capsicum variety Arka Athulya with recommended package of practices	Plant height, no. of branches, no. of fruits/plant, fruit weight	IIHR, Banglore, 2014
Demonstration on Boron application in low land Rice	Kharif 2023	Low yield due to more chaffy grain & low panicle weight	13	Use NPK 70:40:40 Kg/ha without Boron application	STBF NPK + Foliar spray of 0.25% Borax at PI & preflowering stage	No of tiller/m <sup>2</sup> , no of filled grains/panicle. sterility%	AICRP on Micronutrient - 2016, OUAT, BBSR
Demonstration on INM in maize under irrigated medium land situation	Kharif 2023	Poor plant growth and low cob weight due to low dose of fertiliser	13	Lower dose of chemical fertilizer 70:30:30 NPK kg/ha	Application of N:P:K:B:Zn @ 150:75:60:1:5 kg/ ha + Lime 0.1 LR + FYM @ 5 t ha	Plant height, cob length and weight, Grain wt.	RRTSS, Bhawanipatna, O UAT, 2017-18
Demonstration on foliar application of urea phosphate in greengram.	Rabi 2023-24	Poor branching & low pod setting	13	Only basal (15:30:15)NPK kg/ha & no foliar application	75% N + 75% P & full dose of K + foliar spray of 2% Urea phosphate at 20 & 35 DAS	No of branch/plant, No of pods/plant, No of grains/pod	RRTSS Coastal Zone- 2017
Demonstration on Integrated Nutrient Management in Pointed gourd	Rabi 2023-24	Low yield and poor plant growth	13	Improper dose of chemical fertilizer (100:50:50) kg NPK/ha and no use of biofertiliser	STBF (120:80:80) kg NPK/ha + 5 kg lime mixed with 100 kg of FYM & inoculated with 4kg Azotobactor, Azospirillum & PSB	No of fruit/plant, Fruit weight (gm)	AINP, Biofertilizer- 2016-17, OUAT
Demonstration on management of Fall Army Worm	Kharif 2023	Low yield due to Heavy incidence of FAW	13	Application of Profeno+ Cyper @ 2ml/lit	Seed treatment with (cyzapyr + thiamethoxam) @ 6 ml/ kg seed + Installation of bird perches up to 45 DAS + Foliar application of tetraniliprole @ 200 ml/ ha at 30	Plant and cob damage %, no of larvae/plant	RRTSS Ranital- 2022

<i>(Spodoptera frugiperda)</i> in maize					DAS + Whorl application and field placement of Poison baits (10 kg rice bran + 2 kg jaggery+ 2-3 l of water+ 100 g thiodicarb) at 45 DAS		
Management of leaf curl viral disease in papaya	Kharif 2023	Low yield due to heavy incidence of sucking pests	13	Spraying of dinetofuran@0.4g/l	Soil application of carbofuran 3 G around the plant twice (once during transplanting and another at 30 DAT) + Alternate application of Flonicamid 50 WG @ 150 g/ ha and neem oil formulations (1500 ppm )@ 1.5 l/ ha at 15 days interval + Installation of YST @ 25/ha + Coriander as intercrop	No of infected plants,%age of disease incidence , no of white fly/3 leaf	RTTS Ranital-2018
Demonstration of integrated management of white fly in Greengram	Rabi 2023-24	Low yield due to Heavy incidence of MYMV	13	Spraying of thiamethoxam @0.4g/lit	Seed treatment with Imidacloprid 600 FS @ 5 ml/ kg seed + Installation of Yellow Sticky Trap @ 50/ ha + Spraying Neem oil formulation 0.15% @ 3 ml/ l of water at 30 DAS + Diafenthiuron 50% WP @ 1 gm /l at 45 DAS	No of White fly /3 leaf , % of MYMV incidence	RRTTS,Ranital OUAT, BBSR,20-21
Demonstration on management strategies against the little leaf disease in Bitter gourd	Rabi 2023-24	Low yield due to heavy incidence of little leaf disease in bitter gourd		Spraying of Imidacloprid 17.8SL @ 0.5ml/Lit of water	Seed treatment with Imidacloprid 600 FS @ 5 ml/ kg seed. + Soil application of Rynaxypyr 0.4 G @ 10 kg/ ha at 30 DAS + YST at 2-3 leaf stage + Alternate Foliar spray of neem oil formulations (1500 ppm) @ 1.5 l/ ha and Flonicamid	no of hoppers /3 leaf, disease incidence %	RRTTS,Ranital , OUAT -2021-22

					50 WG @ 150 g/ ha at 40, 50, 60 DAS + Foliar application of vegetable micronutrient mixture @ 2.5 g/ l of water twice at 30 and 45 DAS		
Demonstration on plastic punnets for storage of paddy straw mushroom	Kharif 2023	Distress sale due to low shelf life	13	Direct selling	Pre-cooling 6 kg paddy straw mushroom at 14°C for 2h followed by packing in 75 µ HIPS punnet (24 no of punnets with 250 g sample) can be transported to distant markets in modified EPS cabinet with 6 kg ice placed in the separate side compartment	Shelf life (no. of days), Additional income over additional investment	AICRP on PHT, CAET, OUAT, 2017-18
Demonstration on Greengram thresher	Rabi 2023-24	High labour cost	13	Manual beating	Operated by 1.0 hp electric. Average capacity 40kg/hr.	Threshing capacity(q/h), threshing cost(Rs/q)	CAET 2021-22
Demonstration on sprinkler irrigation for higher yield in greengram	Rabi, 2023-24	No supplemental irrigation leads to low yield	13	No irrigation	Sprinkler irrigation once at Pre-flowering stage and once at pod formation	Cost of irrigation (Rs/ha), plant height, no. of pods /plant,	IIWM, BBSR, 2017-18
Demonstration on drip irrigation with mulching in tomato	Rabi, 2023-24	Low irrigation efficiency and yield due to flood irrigation, severe weed infestation increases the cost and reduces the yield	13	No mulching with flood irrigation	Use of 50 micron mulch film with inline drip irrigation(emitter discharge 4 lph ) operating for 1 hr-2hr daily and water use efficiency will be increased by 30-40% yield enhancement (15-20)%	Irrigation interval, weeding cost, irrigation water used (mm)	Annual report AICRP on PHET, 2020-21

Demonstration on Integrated nutrient management in colocasia	Kharif 2023	Low yield from existing local variety	13	Improper fertilizer application	Application of balanced dose of fertilizer I,e. 40-15-40 kg NPK with 10 tonnes of FYM per ha	No. of corms/plant, weight of the corm, yield/plant	CTCRI, BBSR, 2019
Demonstration on high yielding IVY gourd variety Arka Nilachal kunkhi	Rabi 2023-24	Low yield due to use of local variety	13	Local variety	Arka Nilachal Kunkhi is a dual purpose variety with fruit weight of 23-25 gm. Each plant bears 800-850 fruit with yield potential of 18-20 kg per vine. Moderately tolerant to Anthracnose, downy mildew and fusarium wilt.	No. of fruits/plant, individual fruit wt. fruit yield/plant	CHES Bhubaneswar, 2005
Demonstration on effectiveness of short technology videos on technology adoption	Rabi 2023-24	Less efficacy of existing dissemination modes i.e. text messages/verbal advisory	30	Farmers are getting text messages and advisories from various sources	Short videos will be prepared on different segments of pulse crop and disseminated through WhatsApp at appropriate time to a selected group of producers	<p>Informative and timeliness of the information / technology / skill delivered</p> <p>-Understanding the method and process depicted in the video</p> <p>-Retention, retrieval &amp; re-use of the content</p> <p>(Observation to be taken on a three point scale and measured in a weighted matrix)</p>	

Demonstration on planting time for better market price of Cauliflower	Rabi 2023-24	Distress sale of Cauliflower in rabi season	5	Farmers generally plant the seedling in the month of October	Planting of seedling 1 month before onset of normal planting period (October)	Selling rate, curd weight, Head weight, Disease & pest incidence, Market price	
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**Seed and planting material production by utilization of instructional farm (Crops / Enterprises)**

Name of the Crop / Enterprise	Variety / Type	Period From..... to .....	Area (ha.)	Details of Production				
				Type of Produce	Expected Production (quintals)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)
Paddy	Kalachampa	July to Dec 2023	6 ha	FS	240	4,80,000/-	7,68,000/-	2,88,000/-
Brinjal	JK-80-31, Tarini	July, 2023 to March 2024	0.26	Planting material	10000	4700/-	10000/-	5300/-
Chilli	Daiya, Siamhot	July, 2023 to March 2024	0.3	Planting material	10000	3000/-	5000/-	2000/-
Papaya	Vinayak, Pearl swapna , Red lady	July, 2023 to March 2024	2.0	Planting material	5000	60000/-	1,25,000/-	65000/-
Tomato	Arka Rakshak	Sept, 2023 to March 2024	0.6	Planting material	15000	8500/-	15000/-	6500/-
Onion	Agri found light red (AFLR)	Sept, 2023 to March 2024	0.8	Planting material	1,00,000	50000/-	10,000/-	5000/-
Cauliflower	White contesa, Payal	Sept, 2023 to Dec, 2024	0.13	Planting material	5000	2600/-	5000/-	2400/-

Cabbage	Pusa drum head, Lucky ball	Sept, 2023 to Dec, 2024	0.13	Planting material	5000	2500/-	5000/-	2500/-
Capsicum	Ayesha, Nandini	Sept, 2023 to Dec, 2024	0.13	Planting material	10000	10000/-	20,000/-	10000/-
Broccoli	KT-Sel-1, Known-you F <sub>1</sub> Hybrid	Sept, 2022 to Dec, 2022	0.13	Planting material	5000	5000/-	2500/-	2500/-
Drumstick	ODC-3, PKM-1	July 2022 to March 2023	5	Planting material	2000	2000/-	8000/-	12000/-
Vermicompost	E.foetida	Round the year			30 q.	15,000/-	45,000/-	30,000/-
Vermi worm	E.foetida				10 kg	1000/-	5000/-	4000/-
Mushroom	P. sajorcaju				200 kg	10000/-	16000/-	6000/-
Poultry	Kadakhath and Chhabro				2000 nos.	100000/-	130000/-	30000/-
Honey	Apis cerena indica				10 kg	10000/-	12000/-	2000/-
Fish fingerling	IMC				500 kg (5000 no.)	10000/-	40000/-	30000/-

### Extension Activities

Sl. No.	Activities/ Sub-activities	No. of activities proposed	Farmers				Extension Officials			Total		
			M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
1.	Field Day	15	324	43	367		5	3	8	329	46	375
2.	KisanMela	2	200	75	275		12	5	17	212	80	292
3.	Kisan Ghosthi	5	120	25	145		6	2	8	126	27	153
4.	Exhibition	5	326	25	351		138	11	149	464	36	500
5.	Film Show	48	555	32	587		10	3	13	565	35	600
6.	Method Demonstrations	15	310	20	330		20	3	23	330	23	360
7.	Farmers Seminar	5	85	5	90		8	2	10	93	7	100





