

## Action Plan 2023-24 KVK, Kalahandi

### 1. Training

Name of KVK : KALAHANDI												
Category of Participants	No. of Participants											
	General			SC			ST			Grand Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Farmers and Farm women	550	337	887	484	215	579	397	212	609	1431	764	2195
Rural Youth	52	21	73	28	15	43	36	13	49	116	49	165
Extension functionaries	40	12	52	28	9	37	37	14	51	105	35	140

### 2. On Farm Trial

#### OFT-1

SL. No	Parameter	Detail
1	Problem statement	Severe defoliation and premature aging of plant due to incidence of major foliar diseases
2	Thematic area	IDM
3	Title of OFT	Assessment of management practices for control of foliar disease in ground nut
4	Technology options	<p>FP-Spraying of Metalaxyl 8%+Mancozeb 64% @ 2-3 gm/litre water after disease appearance.</p> <p>TO1- Seed treatment with Tebuconazole @ 1.5 g/kg followed by furrow application of T. viride @ 4kg enriched in 50kg FYM/ha as basal application, then broadcasting of T. viride @ 4kg enriched in 250kg FYM/ha at 40 DAS &amp; 2 sprays of Tebuconazole @ 1ml/lit. starting from initiation of foliar diseases and 2nd spray at 15 days interval</p> <p>TO2- Seed treatment with Tebuconazole 2DS @1.5g/ kg seeds + spraying Tebuconazole 50% + Trifloxystobin 25% WG @ 1.32g/L at 40 and 65 DAS)</p>
5	No. of location	7
6	Parameters to be	Percentage disease index, disease severity

	assessed	
7	Source of technology	Annual Report, OUAT, 2016, SLREC, AICRP on Ground nut 2018, OUAT

### OFT-2

SL. No	Parameter	Detail
1	Problem statement	Severe reduction in leaf area along with stunting of whole plants due to severe infestation of sucking pests in chilli.
2	Thematic area	IDM
3	Title of OFT	Assessment of integrated management of leaf curl diseases in chilli
4	Technology options	FP- Tank mixing of pesticides like Imidacloprid 17.8 SL @ 10ml/15 litre, Chloropyriphos 20 EC @ 2ml/litre, Cypermethrin 25 EC etc.  TO1: Foliar spray of Spiromesifen 22.9% SC @500 ml/ha  TO2: Seed treatment with Imidachloprid 600FS @ 5ml /kg seed and Foliar spraying of spiromesifen 22.9%SC @ 1 ml/ l of water twice at 30and 45 DAT
5	No. of location	7
6	Parameters to be assessed	% disease index, disease severity
7	Source of technology	RRTTS, BBSR,2016, SLREC Proc. 2016, SLREC, RRTTS (CZ), OUAT, 2019

### OFT-3

SL. No	Parameter	Detail
1	Problem statement	No supplement of fortified elements
2	Thematic area	Varietal Evaluation
3	Title of OFT	Assessment of Biofortified sweet potato varieties fr nutritional security

4	Technology options	FP- Local variety talmula Kanda TO1: Bhu sona High Beta carotene (14.0 mg/100g) content as compared to 2-3 mg/100g beta carotene in popular varieties , tuber yield 19.8 t/ha, dry matter- 27-29%, starch-20% Total sugar- 2-2.4 TO2: Bhu Krishna High anthocyanin (90mg/100 g) tuber yield-18t/ha, dry matter- 24.5- 25.5%, starch- 19.5%, total sugar- 1.9-2.2% and salinity stress tolerant
5	No. of location	7
6	Parameters to be assessed	Tuber Yield (q/ha), colour of the flesh, length of the tuber (cm)
7	Source of technology	CTCRI, 2017

#### OFT-4

SL. No	Parameter	Detail
1	Problem statement	Low yield due to no use of secondary nutrients and micro nutrients
2	Thematic area	Nutrient Management
3	Title of OFT	Assessment of Effect on foliar application of micronutrient on growth and yield of Bittergourd
4	Technology options	FP- Only use of NPK, no use of Secondary Nutrients & Micro nutrients To1- Foliar application of mixture of micronutrients involving Zn, Mo, Cu, Fe and Mn (50 ppm of Mo and 100 ppm each of rest 4 micronutrients). TO2- Combined application of micronutrients B and Zn @ 100 ppm each.
5	No. of location	7
6	Parameters to be assessed	Weight of Fruit, No. of fruit/Plant, Yield (q/ha), Net Return, B:C ratio
7	Source of technology	To1- OUAT, Annual Report, 2014-15, To2- IIVR, Annual Report, 2017-18

#### OFT-5

SL. No	Parameter	Detail
1	Problem statement	Residue burning and delayed field preparation
2	Thematic area	Crop Residue Management

3	Title of OFT	Assessment of Decomposer for residue management in Rice
4	Technology options	FP- Residue burning/ Flooding followed by incorporation TO1: Prepare PUSA decomposer (750g jaggery + 25 lit water + 250g pulse powder + 20 capsules). After 10days mix with 500l of water and sprinkle for 1 ha. TO2: NRRI decomposer @ 1kg in 100l of water for 1MT residue, 5% urea solution. 10% cowdung slurry. Spread straws in 15-20cm layer. Apply 20 NRRI decomposer +10 L urea solution + 10 L cowdung slurry in one layer. Prepare 5 such layers. Insert 3-4 PVC pipes for aeration and paster the pile with 0.5-1 inch layer of cowdung slurry along with field soil. Sprinkle 100-150l water on pile once in 5days.
5	No. of location	7
6	Parameters to be assessed	Period of decomposition,
7	Source of technology	To1- Source: ICAR- IARI, 2020, To2- ICAR-NRRI, 2021

#### OFT-6

SL. No	Parameter	Detail
1	Problem statement	Low yield due to heavy weed infestation( <i>Echinochloa crusgalli</i> , <i>cyperus sp.</i> ) and scarcity of labour in peak season
2	Thematic area	Weed Management
3	Title of OFT	Assessment of herbicides for weed management in transplanted medium land rice
4	Technology options	FP- Application of Butachlor @1kg a.i/ha Variety MTU-1153 TO1: Application of pre-mix (Cyhalofop butyl + penoxulam) @135g a.i/ha at 20DAT TO2: TO2- Pre-emergence application of pendimethalin @0.75kg a.i/ha followed by Post-emergence application of pre-mix (Chlorimuron ethyl + metsulfuron methyl)@ 4gm a.i/ha @20DAT
5	No. of location	7
6	Parameters to be assessed	WCE(%), panicle length, No of grain/panicle
7	Source of technology	SLREC proceeding , OUAT, 2020

#### OFT-7

SL. No	Parameter	Detail
1	Problem statement	Low yield due to heavy weed infestation( <i>Echinochloa crusgalli</i> , <i>cyperus sp.</i> ) and scarcity of labour in peak season

2	Thematic area	Weed Management
3	Title of OFT	Assessment of herbicides for weed management in transplanted medium land rice
4	Technology options	FP- Application of Butachlor @1kg a.i/ha Variety MTU-1153 TO1: Application of pre-mix (Cyhalofop butyl + penoxulam) @135g a.i/ha at 20DAT TO2: TO2- Pre-emergence application of pendimethalin @0.75kg a.i/ha followed by Post-emergence application of pre-mix (Chlorimuron ethyl + metsulfuron methyl)@ 4gm a.i/ha @20DAT
5	No. of location	7
6	Parameters to be assessed	WCE(%), panicle length, No of grain/panicle
7	Source of technology	SLREC proceeding , OUAT, 2020

#### OFT-8

SL. No	Parameter	Detail
1	Problem statement	Unavailability of qualitative seeds
2	Thematic area	-
3	Title of OFT	Assessment of effectiveness of different models of seed production programmes
4	Technology options	FP- Farmers generally use their own stored seed material for production purpose. TO1: seed is produced under Govt. Seed Production Programme TO2: seed is produced under Seed Hub Programme of KVK TO3: seed is produced under Seed Village Programme/ Seed Bank Programme
5	No. of location	7
6	Parameters to be assessed	Production (Qtl) , Seed replacement rate , Price over MSP, Quantity of seeds multiplied
7	Source of technology	Annual report, OUAT, 2017-18

#### OFT-9

SL. No	Parameter	Detail
1	Problem statement	Low FCR and egg laying potential due to heat stress

2	Thematic area	Poultry Management
3	Title of OFT	Assessment of different trace elements on heat stress and production in poultry birds
4	Technology options	FP- Rearing local fowl with only concentrate feeding @ 60 g/bird/day supported by scavenging feeding TO1: Dietary inclusion of Betaine @ 50g/100kg feed and concentrate feeding @ 60 g/bird/day supported by scavenging feeding TO2: Dietary inclusion of Selenium @ 15g/100 kg feed and concentrate feeding @ 60 g/bird/day supported by scavenging feeding
5	No. of location	7
6	Parameters to be assessed	Body wt. gain, FCR, egg laying capacity
7	Source of technology	Annual report, OUAT, 2017-18

#### OFT-10

SL. No	Parameter	Detail
1	Problem statement	Low bargain price of the commodity due to unorganised farmer groups
2	Thematic area	-
3	Title of OFT	Assessment the performance of FPOs with varied level of task and commodity to enhance income
4	Technology options	FP- Farmers marketing their commodity through intermediaries (Fluctuating price) TO1: FPOs dealing with single commodity with single task – Marketing of specific commodity by various channels TO2:FPOs dealing with single commodity with multiple tasks-services provided from Production to marketing of a specific commodity. TO3:FPOs dealing with multi commodities with single task-Marketing of several commodities by various channels TO4:FPOs dealing with multi commodities with multiple tasks-services provided from Production to marketing of several commodities.
5	No. of location	-
6	Parameters to be assessed	Scoring out of 10, Total share capital deposited in the bank , No of FIGs ,Meeting status , Volume of commodity , Annual turnover, Annual profit
7	Source of technology	-

### 3. Front Line Demonstration

#### FLD-1

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Paddy
2	Technology to be demonstrated	Demonstration of high yielding rice variety Sarunima
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Cultivation of rice variety Sarunima (CR Dhan 210). Duration -110-115 days, Average Yield- 7.8 t/ha , long slender grains, Moderately resistant to leaf blast, neck blast, brown spot, sheath rot, stem borer, leaf folder and green leaf hopper, The seed rate 50 kg/ha, spacing 20x10cm and use of RDF (80:40:40) N:P2O5:K2O (kg/ha).
6	Reason for demonstration of technology	Low yield of short duration rice variety

#### FLD-2

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Cotton
2	Technology to be demonstrated	Demonstration on IWM in Cotton in rainfed upland
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Application of pendimethalin @ 1.0 Kg a.i./ ha as pre-emergence with Quizalofop-p-ethyle @ 50g a.i./ ha and one hand weeding at 45 DAS.
6	Reason for demonstration of technology	Low yield due to weed infestation

#### FLD-3

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Paddy
2	Technology to be demonstrated	Demonstration on IWM in Ragi in rainfed upland

3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Pre emergence application of oxyflurofen @ 37.5 g a.i./ha + one hand weeding at 45 DAT
6	Reason for demonstration of technology	Low yield due to weed infestation

#### FLD-4

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Banana
2	Technology to be demonstrated	Demonstration on Arka Banana special on yield and quality of fingers
3	Area to be covered	0.4 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	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 75 gm of arka banana special in 15 litre of water (12Kg/acre)
6	Reason for demonstration of technology	Low yield in banana due to low bunch weight, less finger size and weight

#### FLD-5

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Tomato, Brinjal, Chilly
2	Technology to be demonstrated	Demonstration on vegetable seedling raising under poly tunnel
3	Area to be covered	0.4 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Preparation of low cost poly tunnel by using 200 micron polythene of 35 mt <sup>2</sup> vegetable seeds like tomato, onion, chilly to be grown
6	Reason for demonstration of technology	Less sustained vegetable seedling raising due to more mortality in nursery bed

#### FLD-6



<b>SL. No</b>	<b>Parameter</b>	<b>Detail</b>
1	Name of crop/commodity/enterprise	Watermelon
2	Technology to be demonstrated	Demonstration of high yielding watermelon variety Arka Akash
3	Area to be covered	0.4 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	High yielding F1 hybrid, dark green with light green broken specks slightly deep foliage, oblong fruit red flesh with Tss 12-13% brix, average fruit wt 6.5 Kg with 1 fruit/vine duration- 90-95 days. Fruit Yield 65-to 70 t/ha red flesh, juicy and very good taste. Good keeping and transportation quality.
6	Reason for demonstration of technology	High cost of private company hybrid seeds

#### **FLD-7**

<b>SL. No</b>	<b>Parameter</b>	<b>Detail</b>
1	Name of crop/commodity/enterprise	Dragon Fruit
2	Technology to be demonstrated	Demonstration of dragon fruit cultivation
3	Area to be covered	0.4 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	The most common propagation method is by cuttings,dig the pit size of 60*60*60 cm and plant to plant spacing 2*2 mt.These pits should be field top soil and compost with 100gm of SSP.
6	Reason for demonstration of technology	Demand of dragon fruit in the district

#### **FLD-8**

<b>SL. No</b>	<b>Parameter</b>	<b>Detail</b>
1	Name of crop/commodity/enterprise	Banana
2	Technology to be demonstrated	Demonstration on Integrated management of panama wilt of banana
3	Area to be covered	2 ha

4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Application of neem Cake @250g/plant+ Application of Lime( CaCO <sub>3</sub> ) @ 10 g/plant +Sucker dipping in Carbendazim (0.2%) for 30 minutes+ Carbendazim drenching (0.2%) @ 3.5 L/plant (2nd 4th , 6th MAP)+ Carbendazim injection @ 3ml of 2% solution (3rd, 5th, 7th MAP)
6	Reason for demonstration of technology	Low yield due to high mortality of banana plant population.

#### FLD-9

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Paddy
2	Technology to be demonstrated	Demonstration on suitable fungicides for management of blast disease in Paddy
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Seed treatment with either tricyclazole @ 3 gm/kg of seed or carboxin 37.5%+ thiram37.5% @2.5 gm/kg and foliar spraying of either tricyclazole @ 300gm/ha or spraying of isoprothilane 40% EC @ 750 ml/ha twice at 15 days interval starting from the initiation of Disease.
6	Reason for demonstration of technology	Low yield due to high incidence of blast disease in rice crop.

#### FLD-10

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Cotton
2	Technology to be demonstrated	Demonstration of IPM Strategies in cotton crop for management of major pests of cotton.
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Timely sowing of crop Installation of yellow sticky traps @ 40/acre Installation of pheromone traps for monitoring moth emergence of American boll worm, spotted bollworm and <i>Spodoptera litura</i> @ 2 trap/ha and pink boll worm @ 1

		trap/ha Conservation of natural enemies by planting border row of bajra, sorghum, cowpea Need based application of IGRs Flonicamid, Diafenthiuron and Spiromesifen.
6	Reason for demonstration of technology	Low income due to indiscriminate use of pesticides in cotton crop.

#### FLD-11

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Brinjal
2	Technology to be demonstrated	Demonstration of Biological control of Brinjal shoot and fruit borer
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Pheromone trap@1 for 400 sq.m. + weekly release of 50,000 to 60,000 Trichogramma chilonis + two sprays of BT @1ml/L at 10 days interval at peak flowering.
6	Reason for demonstration of technology	High marketable loss due to severe damaged fruits

#### FLD-12

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Cow
2	Technology to be demonstrated	Demonstration on KMnO <sub>4</sub> as teat dips for prevention of Mastitis in Crossbred dairy animals
3	Area to be covered	-
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	KMnO <sub>4</sub> (3% ) solution as teat dips post milking for 30 secs/teat along with standing posture of feeding of animals for min 45 mins.
6	Reason for demonstration of technology	Increase incidence of mastitis due various unhygienic practices during milking

#### FLD-13

SL. No	Parameter	Detail
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1	Name of crop/commodity/enterprise	Goat
2	Technology to be demonstrated	Demonstration on deworming and supplement feeding on body weight gain of kids
3	Area to be covered	-
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Rearing of kids (1 month) by deworming (Ivermectin @200µg/kg b.wt) + Vitamin and mineral supplementation @ 10g/daily
6	Reason for demonstration of technology	No deworming and supplement feeding

#### FLD-14

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Hen
2	Technology to be demonstrated	Demonstration on deworming and calcium supplement on egg production of hen
3	Area to be covered	-
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Free range feeding with deworming and calcium supplementation @ 1ml/bird (10 days every month for 1 year)
6	Reason for demonstration of technology	Low egg production in desi and improved backyard hens

#### FLD-15

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Rice
2	Technology to be demonstrated	Demonstration on effectiveness of short technology videos on technology adoption
3	Area to be covered	-
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Preparation of small videos (1.5-2.0 minutes) on different activities of production process of selected commodities and the same will be sent through WhatsApp to the identified farmers.

6	Reason for demonstration of technology	Less efficacy of existing dissemination modes i.e. text messages/verbal advisory
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#### FLD-16

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Mustard
2	Technology to be demonstrated	Demonstration on toria variety Sushree in Rainfed medium land
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Toria variety Sushree (Toria variety ORTM(m)-7-2 released in the name of Sushree with the average yield of 1380 kg/ha, Oil content 42% , duration 85days. Suitable for late sown.)
6	Reason for demonstration of technology	Less no of siliqua per plant of local variety

#### FLD-17

SL. No	Parameter	Detail
1	Name of crop/commodity/enterprise	Napier
2	Technology to be demonstrated	Demonstration on perennial fodder cultivation (Super napier) on baren land and field boundary for non competitive land use
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Planting of 400 rooted slips of hybrid napier per 100 meter length of field with a spacing of 50 x 50 cm and feeding@ 10% of B.wt with concentrate feed (1.5-2kg/day) and straw (10-12 kg/day). Source: IGFRI, Proven technology-III)
6	Reason for demonstration of technology	Low milk yield, High cost of concentrate feeding, lack of fodder feeding, Unavailability of land for fodder cultivation

#### FLD-18

SL. No	Parameter	Detail
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1	Name of crop/commodity/enterprise	Cotton
2	Technology to be demonstrated	Demonstration on Portable Cotton Picker
3	Area to be covered	2 ha
4	No. of demonstrations to be conducted	13
5	Traits of demonstrated technology	Use of Portable Cotton Picker
6	Reason for demonstration of technology	High cost for Manual Picking

#### 4. Extension Activities to be conducted

SL No.	Name of the Programme
1	Farmer scientist interaction
2	Field day
3	Diagnostic field visit
4	Exposure visit
5	Awareness Camp
6	Advisory Services
7	Method Demonstrations

#### 5. Other Extension Activities

SL No.	Name of the Activity
1	Radio talks
2	TV talks
3	Popular articles
4	Extension Literature

#### 6. Production of Seeds, planting materials and bio-products

Seeds		Quantity (in q)
Name of Crop	Name of Variety	
Rice	MTU-1153	150

Rice	MTU-1156	150
Bio-product		
Name of product		
Vermicompost		40 q
<b>Planting materials</b>		<b>Quantity (in No.)</b>
<b>Name of plant/vegetables</b>	<b>Name of variety</b>	
Tomato Seedling	Laxmi, Sahoo	20000
Brinjal Seedling	VNR-212	30000
Chilly Seedling	VNR-315	15000
Capsicum seedling	Indra	5000
Cabbage Seedling	Green boll, Disha	15000
Cauliflower Seedling	Megha, Sweta	15000
Onion Seedling	AFLR, Bhima Super	5000
Papaya	Red lady	500
Dragon Fruit	Red Flesh	500
Drumstick	ODC-3	500
Mango	Dasheri, Ambrapalli	500

### 9. Soil, Water and plant sample analysis

Parameter	Quantity (in No.)
Soil sample	500
Water sample	300
Plant sample	-

### 10. Expected Revenue Generation (Rs. In Lakh)

Expected Revenue Generation	Rs. In Lakh
-	15 L

### 11. Status of Revolving fund as on date (2022-23)

Opening Balance	Income during the year	Expenditure during the year	Net Balance
10,89,618.74	-	-	-

## 12. Brief about Flagship Programme (as applicable)

Name of the Flagship programme	Major Activities
NICRA	Natural resource management Crop production intervention Livestock and fisheries intervention Institutional intervention (Training and awareness)
SCSP	Income generating activities (FLDs) Skill development training Distribution of QPM and other materials (Chicks, spawn and vermibed) Development of small scale vermicompost and Nutritional garden Awareness campaign
CFLD	Scientific cultivation of Pigeon pea (LRG-52) 30 ha Scientific cultivation of Black gram (PU-10) 10ha Scientific cultivation of Sunflower (KBSH-53) 30Ha

## 13. Status of fund utilization

Fund received during 2021-22 (Rs. In Lakh)	Expenditure incurred as on date 31.3.2022 (Rs. In Lakh)
1098958	1098958

## 14. Special Programme to be organized

Name of programme	Organization to be involved
Scientific Bee Keeping	KVK

## 15. Special day to be observed

Name of occasion	Expected no. of participants
World soil day	50
Mahila Kisan Diwas	50
Kisan Diwas	50
World Food Day	50

## 16. Issues (in Bullets)

- Repairing and renovation of administrative building.
- Land development for demo unit.
- Fencing of Paddy seed production unit
- Requirement of Staff room and quarter.