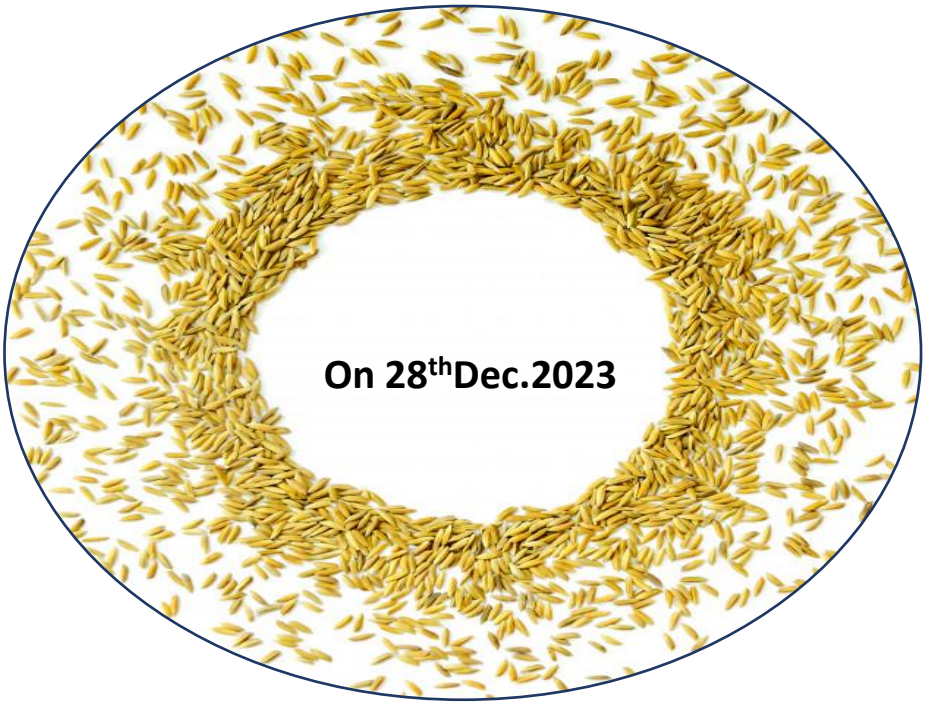
13TH SCIENTIFC ADVISORY COMMITTEE MEETING



KRISHI VIGYAN KENDRA, GANJAM-II,BERHAMPUR

ODISHA UNIVERSITY OF AGRICULTURE & TECHNOLOGY

BHUBANESWAR

INTRODUCTION

Krishi Vigyan Kendra, Ganjam-II was established by ICAR in June 2012 under the control of OUAT at Ratanpur farm. At present this institution is operating in its new location at Golanthara, block -Rangeilunda. It is surrounded by Kandhamal in the North-West, Nayagarh in the North, Khurda in the North-East, Gajapati district in the West and Bay of Bengal in the South-East. On its southern periphery the district borders the state of Andhra Pradesh. Ganjam district is broadly divided into two divisions spreading over an area of 8206.0 Sq.km. The plains lie between the Eastern Ghats and the Bay of Bengal. Since the hills are close to the sea, the rivers flowing from the hills are not very long and are subject to sudden floods. The plains are narrow because of the absence of big rivers. The coastal plains in the east contain more fertile and irrigated lands. The southeastern portion is fertile. Ganjam economy is predominantly agrarian. Around 80 percent of the population depends on agriculture and allied activities. The long sea and Chilika coastline are a source of rich marine products and lime shells. Ganjam is a major salt-producing district in the state.

KVK serves as a knowledge hub and resource center of agricultural technologies for the farmers of the district. It operates as per the mandates of ICAR for the upliftment of the socio-economic condition of the farming community. Ganjam-II is the 2nd Krishi Vigyan Kendra of Ganjam district and lies between $19^0$4' to $20^0$17' Longitude and $84^0$7' to $85^0$12'. Latitude

KVK is an integral part of the National Agricultural Research System (NARS), which aims at assessment of location specific technology modules in agriculture and allied enterprises, through technology assessment, refinement and demonstrations. KVKs have been functioning as Knowledge and Resource Centre of agricultural technology supporting initiatives of public, private and voluntary sectors for improving the agricultural economy of the district and are linking the NARS with extension system and farmers.

MANDATE

The mandate of KVK is **Technology Assessment and Demonstration** for its **Application** and **Capacity Development**.

K.V.K. ACTIVITIES

To implement the mandate effectively, the following activities are envisaged for each KVK

1. On-farm testing to assess the location specificity of agricultural technologies under various farming systems.
2. Frontline demonstrations to establish the production potential of technologies on the farmer's fields.
3. Capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies.
4. To work as Knowledge and Resource Centre of agricultural technologies for supporting initiatives of the public, private and voluntary sector in improving the agricultural economy of the district.
5. Provide farm advisories using ICT and other media means on varied subjects of interest to farmers

In addition, KVKs produce quality technological products (seed, planting material, bio-agents, livestock) and make them available to farmers, organize frontline extension activities, identify and document selected farm innovations and converge with ongoing schemes and programs within the mandate of KVK.

THRUST AREAS OF KVK

- Increasing productivity of cereals , pulses and oilseed .
- crop diversification in upland area during Kharif .
- Increasing yield and quality of vegetables .
- Promoting organic farming
- Popularization of high valued crops
- Yield enhancement in aquaculture
- Streaming the functioning of the existing FPOs
- Providing suiting IGA of women SHG

BASIC INFORMATION OFGANJAM DISTRICT

Agro-climatic Zone	East and South East Coastal Plain Zone**(Ganjam-II)** North Eastern Ghat Zone**(Ganjam-I)**
Geographical Area	8,21,000 ha
Cultivated Area	4,06,000 ha
High Land	1,89,715 ha (47% of cultivated area)
Medium Land	1,13,460 ha (28% of cultivated area)
Low land	1,02,825 ha (25% of cultivated area)
Irrigation Potential	
*Kharif*Area Irrigated	2,89,591 ha
*Rabi*Area Irrigated	61,779 ha
Soil Type	Laterite soil, Black cotton soil, Red
Average annual rainfall	1275.2mm
Cropping Intensity	202 %
Major crops grown	Rice, ragi, greengram, blackgram, sesame, groundnut, vegetables, sugarcane, chilly, ginger, cotton, etc.

ADOPTED VILLAGES

Village Name	Year of adoption	Block Name
Raijhol	2012	Kukudakhandi
Padripalli	2012	Kukudakhandi
Dighapada	2012	Hinjilikatu
Bhimpur	2013	Pursotampur
Balrampur	2013	Chhtrapur
Giria	2016	Hinjilikatu
Putipadar(ST)	2017	Rangeilunda
Jharapadar	2017	Ganjam
Rajanapalli	2017	Chhatrapur
Narayanpur(ST)	2019	Patrapur

Panada	2019	Chikit
Sanabiswanathpur	2020	Rangeilunda
Medinipur	2022	Kukudakhandi

CROPPING SYSTEM

Sl. No	Name of the block	Cropping system followed
1	Khalikote	Rice-oilseed/pulse, Rice-vegetable, Vegetable-vegetable
2	Ganjam	Rice-pulse/oilseed, Vegetable-vegetable,
3	Chatrapur	Rice-pulse/oilseed
4	Purushotampur	Rice-pulse/oilseed, Rice-vegetable, Vegetable-vegetable
5	Rangeilunda	Rice-pulse, Rice- vegetable, Vegetable-vegetable
6	Patrapur	Rice-pulse, Rice- vegetable, Rice-fallow
7	Chikiti	Rice-pulse, Rice-vegetable
8	Kukudakhandi	Rice-pulse, Rice-vegetable, Vegetable-vegetable
9	Hinjili	Rice-pulse/oilseed, Rice-vegetable, Vegetable-Vegetable
10	Digapahandi	Rice-pulse,
11	Sanakhemundi	Rice-pulse/vegetable- Sesame, Vegetable-vegetable

FARMERS PROBLEMS

- Natural calamities- Drought & Cyclone
- Poor irrigation facility-34% (Moisture stress during rabi pulses and oilseeds)
- A severe attack of crop diseases and pests (BPH, YMV-22%, Blast -30% & Fruit and shoot borer- 40 % in Brinjal)
- Weed problem in paddy (More than 24 species)
- Improper Nutrient of management in crops (Rice, Pulses & Oilseeds- Less use of P, K & S)
- Soil Acidity- More than 70% (PMS not available during requirement)
- Poor availability of agri-inputs (Seeds, Biofertilizers & Fertilizers)
- Low Productivity of crops, livestock and Pisciculture.
- Small size and fragmented land holding-0.92 ha
- Seasonal Migration (after paddy harvesting)

12TH SAC RECOMMENDATIONS

As per the guidelines of the Indian Council of Agricultural Research (ICAR), New Delhi and after obtaining the administrative approval of the Hon'ble Vice-Chancellor, Odisha University of Agriculture and Technology, the Scientific Advisory Committee has been formed. Hon'ble Vice-Chancellor, OUAT acts as the Chairman and the Dean, Extension Education, OUAT, acts as the Co-chairman of the SAC committee. Zonal Project Director, Zone-VII, ICAR; Chief District Agriculture Officer, District Agriculture Officer, Dy. Director Horticulture, Horticulturist, Soil Conservation Officer, District Fishery Officer, Chief District Veterinary Officer, Lead Bank Manager, Director All India Radio; Director, Doordarshan; District Manager, OAIC; General Manager, DIC; District Social Welfare Officer, two progressive farmers male, two progressive farm women and heads of two NGO are the esteemed members of the committee. Sr. Scientist and Head of K.V.K. acts as the member secretary of the committee. KVK always gave theutmost careto SAC recommendations during the formulation of the KVK action plan (Intervention framework) for the district context.

Sl. No	Recommendation	Action taken
1.	IFS should be promoted in a sustainable manner	➢ FLD on IFS has been taken up with scientific approaches ➢ Training conducted- 7 nos. ➢ Villages covered- 18 (Govindanagar, Golanthara, Nandika, Ambagaon, Balipada, Rangailunda-T. Berhampur, Giria, Padripali, Kukudakhandi- Nistipur, Sumandi, Sukunda, Pallinabhapur, Hinjali, Sasanpadar, Dayapalli, Santoshpur) ➢ No of farmers covered: 32 nos ➢ Area covered- 8.16 ha . ➢ KMAs- 4, Video – 5 nos
2.	OFT on little millet should be taken up	➢ OFT on little millet has been taken up in kharif 2023 ➢ Farmers covered- 10 ➢ Area-2 ha ➢ Villages covered- Padripalli, Dhapasahi, Tumba
3.	More demonstration on pulses and millet should be taken up	➢ Demonstration on green gram has been taken up under IRRI-DSR programmme in 25 acre in villages Oriya Sahi, Pathara, Radhamohanpur, Sanabiswanathpur during this rabi season. OFT on finger millet and little millet has already been taken in Sanabiswanathpur, Badakusumi, Medinipur, Tumba, Padripalli ➢ No of farmers covered- 42

		➢ Area covered-12 ha ➢ Season- Kharif And Rabi 2022-23
4.	Demonstration of seed production should be promoted	➢ Dhanicha seed production-2ha ➢ Rice seed production-5 ha ➢ Season- Kharif 2023
5.	Promotion of natural farming in the district should be encouraged	➢ 440 no of farmers are trained on natural farming till yet. KVK has a demonstration unit of natural farming in its campus . ➢ Area covered-42 ha ➢ Villages covered- Golanthara, Kusumi, Chikarada, Sanabiswanathpur, Medinipur, Pursotampur, Badakharida, Kolasingh, Ralaba, Mahisanpur.
6.	Use of solar trap should be encouraged	➢ Different Solar based machines along with traps are demonstrated in resilience project & in KVK demonstration unit for the benefit of farmers
7.	FLD on brackish water aquaculture should be emphasised.	➢ FLD on brackish water aquaculture (crab cultivation) has been taken up. ➢ No of farmers covered- 10 ➢ Area covered-1 ha ➢ Villages covered- Sonapur, Surala, Kaitha ➢ Season- Kharif 2023
8.	Demonstration on dragon fruit should be taken up extensively.	➢ FLD on dragon fruit ll be taken up in Rabi2023-24 and will be conducted soon taking the QPMs from ICAR-CHES.

ACHIEVEMENTS OF THE MANDATORY ACTIVITIES

(Rabi 2022-23 to Kharif 2023)

Detail of On-Farm Testing

Crop/ Component	Technology Assessed	Technology option	Details of technologies	Yield (q/ha)
Marigold	Assessment of foliar application of biostimulants on growth and flowering of African marigold	FP	No application of growth regulator	112.74
		TO_1	Spray of Seaweed extract @ 1% at 30,45,60 DAT	133.57
		TO_2	Spray of humic acid @ 0.2 % at 30,45,60 DAT	140.42

Betel vine	Assessment of integrated nutrient management in betel vine	FP	Application of N-P_2O_5-K_2O (100:50:0) + Mustard Oil Cake (MOC) @ 3 q /ha	11,96,390
		TO_1	STBF (50%NPK) + MOC @ 1.5 t/ha + Vermicompost (VC) @ 10 t/ha	15,12,595
		TO_2	STBF (50%NPK) +MOC @ 1.5 t/ha + Vermicompost (VC) @ 10 t/ha + consortia of azotobacter, azosprillum and PSB each @ 4 kg/ha inoculated to 300 kg VC, mixed with 15 kg lime incubated at 30 % moisture for a week and applied in the rhizosphere.	16,23,980
Chilli	Assessment of chemical management of Die back in Chilli	FP	No seed treatment	131.5
		TO_1	Seed treatment with Vitavax @ 2g/ kg of seed and application of Difenconazole 25 EC @ 1ml/lt of water from initial disease appearance twice at 10 days interval. Source -Annual Report, OUAT, 2015	154.6
		TO_2	Seed treatment with Trichoderma viridae@ 2.5g/ kg of seed and application of Pyraclostrobin 20 WG @ 1gm/lt of water from initial disease appearance twice at 10 days interval Source - University of Agricultural sciences, Dharwad, Karnataka, 2015	160.4
Fish	Assessment of different Parasiticidal agents in controlling external parasites in grow-out carp culture system	FP	Application of synthetic pyrethroids like cypermethrin 10% EC / deltamethrin 2.8% EC/ Formalin	$24.75^{a} \pm 2.15$
		TO_1	Ivermectin 2% w/w in feed @250 ppm & fed to the fishes for 4-5 days	$29.68^{bc} \pm 2.15$
		TO_2	Ivermectin 2% w/v in pond water @ 200ml/Acre-m	$31.19^{b} \pm 2.15$

Little millet	Assessment of little millet varieties	FP	Cultivation of local Suan	5.8
		TO_1	Cultivation of little millet Var. OLM 208	8.4
		TO_2	Cultivation of little millet Kalinga suan -217	9.3
Papaya	Assessment of integrated nutrient management on growth and yield of papaya	FP	FP : Application of chemical fertilizer NPK (200:200:200 g/plant)+FYM @1kg/plant	
		TO_1	T O_1 : Application 300-300-300 g NPK/plant with borax@0.2% and Zn SO4@0.5% sprays at 5th month of planting and 1 spray at fruit setting and spray after 12 months of planting, Source: Technical Bulletin IIHR,2009	Results awaited
		TO_2	T O_2 : 75% STBF (NPK) + vermi-compost @ 4 t/ha + Azotobacter@4kg/ha + PSB@4 kg/ha Source : Annual Report, OUAT, 2012-13	Results awaited
Papaya	Assessment of YMV management in Papaya	FP	Spraying of Imidachloprid@ 200ml/ha	
		TO_1	-Application of Thiomethoxam 25%WG @ 200gm/ ha twice at 15 days interval	Result awaited
		TO_2	-Soil application of Neem cake @ 2.5q/ha and foliar application of Flonicamide 50%WG@ 200gm/ha of water twice at 15 days interval	Result awaited
Fish	Assessment of genetically improved Catla spawns for maximizing fry production in nursery tanks	FP	Normal Catla spawns with traditional Nursery Rearing	35.47^{a}
		TO_1	Normal Catla spawns with Recommended Practice(SD@50 L/ha, Phased manuring for plankton and Feeding for 1-5 days@100g/1 L spawn, 6-10 days@ 200g/1 L spawn, 10-15 days @300g/day, 15 days onwards@5% body wt	42.58^{b}
		TO_2	Improved Catla Spawn with Recommended Practice	46.72^{c}

Details of Front Line Demonstration

Sl No	Technology demonstrated	Detail of Technology		Results (q/ha)
1	Demonstration on Arjun variety of Finger millet	FP	Cultivation of local variety: Budha mandua	12.1
		RP	Cultivation of Finger millet variety:OEB-526 (Arjun)	16.4
2	Demonstration on weed management in transplanted Rice	FP	Hand weeding at 30 DA	34.6
		RP	Pre-emergence application of pretilachlor 6% + bensulfuron methyl 0.6 % GR(Ready mix) 600g/ha at 3 DAT fb post emergence application of Bispyribac Sodium 10 EC 25g/ha at 20 DAT	39.6
3	Demonstration on influence of micronutrient on yield attributes of bitter gourd	FP	No use of micronutrient	145.15
		RP	Technology to be demonstrated(RP): Foliar application of B and Zn @ 100 ppm each at 30-35 days after sowing.	176.20
4	Demonstration on trellies system in pointed gourd for higher production	FP	Flat bed system of cultivation without trellis	171.2
		RP	Bower type trellies system	211.5
5	Demonstration on application of herbicide against weed flora in onion	FP	No use of weedicide	120.2
		RP	Oxyfluorfen 23.5% EC application before planting followed by two hand weeding at 30 and 60 days after transplanting	152.7
6	Demonstration on application of sulphur in onion	FP	Application of NPK fertilizers only (80:40:40 kg N: P_2O_5 :K_2O /ha)	126.5
		RP	Application of STBF based NPK along with sulphur @ 30 kg/ha	159.8
7	Demonstration on integrated nutrient management in chilli	FP	Application of NPK fertilizers only (100:50:40 Kg N: P_2O_5 :K_2O /ha)	124.3
		RP	STBF NPK, Nitrogen to be applied in 3 split doses, Soil application of Azospirillum @ 4kg/ha should be mixed with 100 kg FYM	158.4
8	Demonstration on integrated nutrient management in Ragi	FP	Application of N: P_2O_5 :K_2O @40:20:0 kg /ha	13.1
		RP	STBF+ FYM @5t/ha+Azotobacter,Azosspirillum and PSB @4 kg each per hectare	16.8
9	Demonstration on integrated nutrient	FP	Application of chemical fertilizer 120:60:40 N:P_2O_5:K_2O Kg/ha	186.4

Sl No	Technology demonstrated	Detail of Technology		Results (q/ha)
	management in brinjal	RP	Technology Demonstrated : STBF+ inoculation of OUAT consortia bio-fertilisers to pre-limed(5%) 300 Kg FYM/VC(1:25) incubated for 7 days at 30% moisture and applied in the rhizosphere on the day of planting	239.2
10	Demonstration on integrated nutrient management in betel vine	FP	Application of N-P_2O_5-K_2O (100:50:0) + Mustard Oil Cake (MOC) @ 3 q /ha	
		RP	STBF (50%) +MOC @ 1.5 t/ha + Vermicompost (VC) @ 10 t/ha + consortia of azotobacter, azosprillum and PSB @ 4 kg/ha inoculated to 300kg VC, mixed with 15 kg lime incubated at 30 % moisture for a week and applied in the rhizosphere.	Results awaited
11	Demonstration on management of Diamond back moth in Cauliflower	FP	Spraying of Imidacloprid@ 200ml/ha.	187.5
		RP	Spray of Azadiractin 5% @200ml/ha at the time of flowering, Spraying of Novaluron 10 % EC + Emamectin benzoate 5% EC @ 200g/ha twice at 15 days interval	232.4
12	Demonstration of Blast disease management practices in Kharif Ragi	FP	Spraying of carbendazim @ 2gm/lt	9.5
		RP	Seed and planting material treated with Tricyclazole @3gm/kg of seed and Three sprays of Prochloraz 26.25% + Tricyclazole 22.5% SE @ 1 lt/ha at 10 days interval	13.81
13	Demonstration on yearlings production	FP	Practicing fry and fingerlings production, No yearling production	25.82
		RP	Yearlings production practices SD@Stocking fry 2 lakh/ha, Fry fed with de-oiled rice bran (crude protein: 12 to 15 percent)@2% biomass, with the occasional feeding of raw rice bran and groundnut oil cake. Source : FAO Fisheries and Aquaculture Technical paper no. 578, 2013	33.27
14	Demonstration on use of floating fish feed for yield enhancement in pisciculture	FP	Rice Bran and Oil cake feeding without maintaining CP level	30.65
		RP	Feeding floating fish feed (CP-24/4mm) @ 5-2% body wt. twice daily with equal installments. Maintenance of water quality parameters at Optimum level	41.46
15	Demonstration on use of floating fish feed for	FP	Rice Bran and Oil cake feeding without maintaining CP level	30.65

Sl No	Technology demonstrated	Detail of Technology		Results (q/ha)
	yield enhancement in pisciculture	RP	Feeding floating fish feed (CP-24/4mm) @ 5-2% body wt. twice daily with equal installments. Maintenance of water quality parameters at Optimum level	41.46
16	Demonstration of CIFTEQ^{TM} fish descaling machine	FP	Removal of fish scale through manual method by using various hand tools	98±3.43
		RP	CIFTEQ^{TM} Hand operated / Motorised fish descaling machine	95±4.06
17	Demonstration on use of Probiotic for enhanced pond productivity	FP	Indiscriminate application of Lime and Organic mannure	25.78
		RP	Alternative application of both soil and water probiotic @1kg or lt/Ac at fortnight interval.	34.92
18	Demonstration on Carp starter -II compound feed for raising fry to fingerling	FP	Indiscriminate feeding and not maintaining the proper CP level in juvenile feed.	25.78
		RP	Feeding Carp Starter-II compound feed (CP-32%) in Nursery pond	34.92
19	Demonstration of crab fattening in HDPE box	FP	Pond culture of crab	360
		RP	Fattening of crab in HDPE box (Size 500gm)	520
20	Demonstration on low input poultry breed Bhejaguda in Backyard.	FP	Rearing of indigenous bird	1.05
		RP	Rearing of Bhejaguda breed	1.35

Training

Type	Target			Achievement		
	No.	Duration (in Days)	No of Farmers	No.	Duration (in Days)	No of Farmers
Farmers & Farm Women	72	72	1800	72	72	1800
Rural Youths	20	40	300	20	40	300
In-Service Personnel	12	12	120	12	12	120
Total	**104**	**124**	**2220**	**104**	**124**	**2220**

Other Extension Activities

Extension Activities	Achievement	
	No	Participants
Field Days	8	400
Kisan Mela	31	600
Diagnostic visit	58	810
Group Meeting	6	150
Scientific Visit to farmers Fields	152	750
Farmers Visits	260	260
Lecture Delivered by KVK Scientists	15	500
Exhibitions	1	Mass

Film Shows	1	Mass
Radio Programmes	6	Mass
TV Shows	16	Mass
Soil Testing Campaigns	12	62
Soil testing	561	1146
Water testing	30	54
KMA	45	34200
Celebration Day	18	1700

Publication

Sl.No	Item	No.	No. of copies printed
1	Book/ Booklet	5	2500
2	Leaflets	5	2500
3	Poster/Flex	20	20
4	News letter	1	500
5	News paper Coverage	18	-
6	Popular Articles	8	4000
7	Technical bulletins	15	15
8	Technical report	12	24
9	Training material	05	-
10	CDs/ DVDs	01	10

Revolving Fund

(i) Achievement Paddy seed

Season	Variety	Category	Area (ha)	Production (q)
Kharif 2023	Swarnasub-1	Paddy	5	150 (Approximate)

(ii) Quality planting material production

Name of plant	Variety	No. produced
Tomato	Arkarakshak	53000
Chilli	Arkaharita, Arka Meghana	78000
Drumstick	Bhagya, PKM-1,ODC-3	3650
Papaya	Sapna F1, Vinayak	3500
Onion	Red -3	103000

Name of the item	**No./ Kg .produced**
Vermi-compost-	30 q
Earthworm (Eisenia Foetida)	15 kg
Ornamental fish -	500
Yearling / fingerling	10000(Advance fingerling > 100 mm)

ACTION PLAN 2024-25

ON-FARM TESTING (OFT)

Sl. No.	Problem Identified	Technology Assessed	Details of technologies		Observation Parameter
1	Low yield from local little millet varieties	Assessment of Little millet varieties. (Year-II) Kharif 2024 Beneficiary -07	FP	Local suan var. sana suan	Effective tillers/ Plant, No of fingers per ear , no. of grains per ear, 1000 grain weight.
			TO_1	Little millet variety-Kalinga suan 217	
			TO_2	Little millet variety-OLM-208	
2	Residue burning causes environmental pollution as well as decreasing soil microbial properties.	Assessment of decomposer for in-situ residue management in Rice (Year-II) Rabi- 2024-25 Beneficiary -07	FP	Harvesting of rice in combine harvester and burning of residue in the field.	Period of decomposition, Soil Microbial Properties
			TO_1	NRRI decomposer @ 10 capsules in 100 lit .of cow dung slurry + 2 % jaggery solution + 0.5% urea solution kept for 7 days and sprayed for 1 ha	
			TO_2	PUSA decomposer@ 4 capsules in 25 lit of water with 2 % jaggery solution and pulse powder for 1 ha.	
3	Higher application rate and less efficiency of urea fertiliser	Assessment of nano nitrogen in rice (Year-I) Kharif 2024	FP	Application of chemical fertilizer NPK (80:40:30 kg/ha)+FYM @ 2 t/ha	No. of effective tillers/hill, soil test value (before planting and after harvesting)
			TO_1	75% N (STBF)soil application (25% basal+50% at tillering + 25% at PI) + Foliar spray of nano urea @4ml/L of water at tillering and PI)	
			TO_2	50% N (STBF) soil application (25% basal+ 50% at tillering +25% at PI) + Foliar spray of nano urea @4ml/L of water at tillering and PI)	
4	Farmers are getting low flower yield due to imbalance use of nutrients	Assessment of integrated nutrient management in kewda (Year-I) Kharif 2024	FP	Application of chemical fertilizer 15:15:0 g N: P2O5:K2O/ plant/year + FYM@ 10 kg/pit	No. of flower/plant, length and weight of flower, soil testing values before and after crop
			TO_1	STBF+ FYM @ 10kg/pit twice	
			TO_2	STBF+ FYM @ 10kg/pit + Microbial consortia @12kg/ha	
5	Leaf discoloration , Stunted	Assessment of combine insecticides for	FP	Spraying of Imidachloprid@ 200ml/ha.	Pest incidences (%)/m2
			TO_1	Application of (Flubendamide	

	growth & low yield	managing major insect pests in rice Kharif - 2024 (Year-I)		19.9% + Thiacloprid 19.9% W.W.SC480) @ 300ml/ha twice i.e. at tillering& P.I stages for management of rice stem borer, gall midge, leaf folder and BPH	
			TO_2	Application of (Ethiprole 40% + Imidacloprid 40%) @ 125g/ha twice i.e. at tillering & P.I. stages for management of rice stem borer, gall midge, leaf folder and BPH	
6	Low yield YMV infestation	Assessment YMV management in Ridgegourd Rabi 2023-24 (Year-II)	FP	Application of Chloropyriphos @1lt/ha	No. of affected plant / %/m2
			TO_1	Planting material treatment with Imidachloprid 17.8%SL @3ml/lt of water and foliar spraying of Thiomethoxam 25%WG @ 200gm/ha twice at 15days interval.	
			TO_2	Planting material treatment with Pymetrozine50%WG@2ml/lt of water and foliar spraying of Pymetrozine50%WG @ 250ml/ha twice at 15days interval.	
7	Low yield and return from the Existing BIOFLOC system	Assessment of economic performance of different species in Biofloc system. Year Round 2024-25 (Year-I)	FP	Stocking Vietnam koi @ 100 per m^3	Survival rate, ABW (g), Yield (q/ha) Water quality Parameter: pH, DO_2, Alkalinity, Ammonia, Nitrite and Nitrate
			TO_1	Stocking of all male tilapia fingerlings @ 100 per m^3 Source : NFDB, 2018	
			TO_2	Stocking of Amur carp fingerlings @ 40 per m^3 Source : NFDB, 2018	

FRONT LINE DEMONSTRATION

Sl No.	Problem Identified	Title	Technology		Observation Parameter
1	Low yield in Rice due to heavy weeds	Demonstration on Weed management in transplanted Rice (Year-II) Kharif 2024	FP	Hand weeding at 30 DAT	Weeds per meter sq., Weed control efficiency ,Yield qt/ha.
			RP	Pre-emergence application of pretilachlor 6% + bensulfuron methyl 0.6 % GR(Ready mix) 600g/ha at 3 DAT fb post emergence application of Bispyribac Sodium 10 EC 25g/ha at 20 DAT	
2	Low yield from the existing variety.	Demonstration on Arjun variety of Finger millet (Year-II) Kharif 2024	FP	Cultivation of local variety.	Effective tillers/ $m^{2,}$ No of fingers per ear ,ear weight, no. of grains per ear, 1000 grain weight.
			RP	Cultivation of Finger millet variety:OEB-526 (Arjun)	
3	Low yield in maize due to heavy weed infestation .	Demonstration on weed management in maize (Year-II) Kharif 2024	FP	Hand weeding at 40 -45 DAS	No. of Weeds /m^2 weed control efficiency, yield per ha
			RP	Post-emergence application of tembotrine 34.4% SC@ 100g/ha at 20 DAS(4-5 leaf stage)	
4	Low yield due to imbalanced dose of fertilizer	Demonstration of Foliar nutrition on mungbean productivity. (Year-II) Rabi-2024	FP	Basal application of 20: 40:20 NPK kg/ha.	Plant height, Pod/plant , seeds/pod.
			RP	Use of recommended NPK(19: 19:19) along with application of Boron 20 % @ 2.5 g/lit of water at flower initiation.	
5	Farmers are getting yield due to improper nutrient management.	Demonstration on INM in ragi	FP	Application of 40:20:0 kg N: P_2O_5:K_2O per hectare	No.of fingers/ear, soil testing values before and after crop.
			RP	STBF+ FYM @5t/ha +Azotobacter,Azosspirillum and PSB @4 kg each per hectare	
6	Low leaf quality and yield due to	Demonstration on integrated nutrient management in	FP	Application of N-P_2O_5-K_2O (100:50:50) + Mustard Oil Cake (MOC) @ 3 q /ha	Vine length , No of leaves/ vine

	poor nutrient management	betel vine	RP	STBF (50%) +MOC @ 1.5 t/ha + Vermicompost (VC) @ 10 t/ha + consortia of azotobacter, azosprillum and PSB @ 4 kg/ha inoculated to 300kg VC, mixed with 15 kg lime incubated at 30 % moisture for a week and applied in the rhizosphere.	
7	Low productivity due to improper nutrient management	Demonstration on integrated nutrient management in green gram	FP	Application of chemical fertilizer (15:40:0 Kg N: P_2O_5 :K_2O /ha) only	No. of pods/plant, grain yield
			RP	Application of 75% STBF +Foliar application of WSF NPK(19:19:19) @2% at 25 and 40 DAS	
8	Farmers are getting low yield due to imbalance use of nutrients	Demonstration on OUAT consortia biofertiliser application in cauliflower	FP	Application of chemical fertilizer 100:50:30 N:$P_2O_{5:}K_2O$ Kg/ha	Observation Parameters: Curd weight (g), soil test value (before sowing and after harvesting)
			RP	Technology Demonstrated : STBF+ inoculation of OUAT consortia bio-fertilisers to pre-limed(5%) 300 Kg FYM/VC(1:25) incubated for 7 days at 30% moisture and applied in the rhizosphere on the day of planting	
9	Leaf discoloration , Stunted growth & low yield	Demonstration of YMV management in Papaya Kharif -2024	FP	Spraying of Imidachloprid@ 200ml/ha	No.of affected plant/m2
			RP	Soil application of Neem cake @ 2.5q/ha and foliar application of Flonicamide 50%WG@ 200gm/ha of water twice at 15 days interval	
10	Low market price Low yield	Demonstration on IPM-Aphid management in Marigold. Rabi, 2024(year-II)	FP	Spraying of Imidacloprid@ 200ml/ha.	Aphid% / m2
			RP	Application of neemcake @2.5q/ha at the time of planting, Installation of Yellow sticky trap @ 50/ha & foliar spraying of Flonicamide 50%WG @ 200gm/ha twice at 15 days interval.	

11	Low yield of rice due to BPH infestation	Demonstration on chemical management of fruit borer in pointed gourd Rabi, 2024(year-II)	FP	Application of Chloropyriphos @1lt/ha	No .of insect/m2
			RP	Application of Neemazole @5ml/lt at 15 days interval upto flowering,use of Pheromone Trap @75 no.s/ha need base application of Flubendiamide 39.35%M/MS.c @ 125ml/ha and Chlorotraniliprole 18.5% W/WS.c @150ml/ha twice after 15 days interval.	
12	Leaves and cobs are damage and low yield	Demonstration on management of Fall Army Worm in Maize Kharif - 2024	FP	Spraying of Chloropyriphos @ 2 ml/lt.	No. of infested plants/m^2, No. of damaged cobs/m^2
			RP	Seed treatment with(Cyantraniliprole 19.8% + Thiamethoxam 19.8% FS)@ 6 ml/kg of seed, spraying with Azadirachtin 1500ppm @ 3ml/L of water at 21DAS and(Thiamethoxam 12.6% + Lambdacyhalothrin 9.5% ZC) @125 ml/ha at 35 DAS	
13	Growth differentiation, In-complete harvest, disease problem, low market price	Demonstration of crab fattening in HDPE box Year Round 2024-25 (Year-I)	FP	Pond culture of crab	Yield Water quality Parameter: Plankton, pH, $DO_{2,}$ Alkalinity, Hardness
			RP	Fattening of crab in HDPE box (Size 500gm) Stocking of crabs of 150-200 gm size in individual HDPE box for fattening purpose.	
14	Indiscriminate use of Organic fertiliser and environmental temperature variation leads to infestation of external crustacean parasites. Yield and economic loss	Demonstration on Use of CIFRI Agrcure (Tandav) for controlling Argulus in Polyculture system (OFT converted to FLD) Year Round 2024-25 (Year-I)	FP	Application of synthetic pyrethroids like cypermethrin 10% EC / deltamethrin 2.8% EC/ Formalin	-% of infestation, recovery, Reoccurance, Water quality Parameter: Plankton, pH, $DO_{2,}$ Alkalinity, Hardness
			RP	Application of CIFRI-Argcure (Tandav/Danav) @ 40 ml per acre-m, 3 times in 7 days interval ICAR-CIFRI 2022	
15	Un-utilized or Under-utilized farm pond bund area	Demonstration of strengthening of pond based IFS Year Round 2024-25 (Year-II)	FP	Un-utilized or Under-utilized farm pond bund area	Yield, Fish health Index Water quality Parameter: Plankton, pH, $DO_{2,}$ Alkalinity,
			RP	Fish-Horiculuture-Livestock integrated farming, Stocking of yearlings of IMC @ 5000 nos/ha, planting of papaya, banana and drumstick	

				on pond dykes + Poultry rearing Source : COF (OUAT), 2018	Hardness
16	Low income from existing carp culture	Demonstration on Polyculture of Fresh Water Prawn with Grass carp. Year Round 2024-25 (Year-I)	FP	Culture of IMC only (SD @ 7500 nos Fisngerlings/ha)	**Growth Parameter:** Avg. Body Wt. & Length, Survivability%, SGR (%); **Water quality Parameter:** Plankton, pH, $DO_{2,}$ Alkalinity, Hardness
			RP	Stocking of Fresh water Prawn PL @ 10,000 along with Grass carp Fingerlings @500 Nos + Catla @3000 Nos + Rohu @2000 Nos COF (OUAT), 2020	
17	Low growth of normal Catla within stipulated time period.	Demonstration of Genetically Improved (GI) catla in composite carp culture (OFT converted to FLD) Year Round 2024-25 (Year-I)	FP	Culture of traditional catla in composite carp culture	**Growth Parameter:** Avg. Body Wt. & Length, Survivability%, SGR (%); **Water quality Parameter:** Plankton, pH, $DO_{2,}$ Alkalinity, Hardness
			RP	Incorporation of GI-catla in composite carp culture with species ratio :- GI-Catla: Rohu: Mrigal::3:4:3 @ 10000 nos/ha COF (OUAT), 2020	

TRAINING

Type	**Target**		
	No.	**Duration (in Days)**	**Participants**
Farmers & Farm Women	72	72	1800
Rural Youths	20	40	300
In-Service Personnel	12	12	120
Vocational training	6	32	90
Total	110	156	2310

OTHER EXTENSION ACTIVITIES

Extension Activities	Target	
	No	Participants
Field Days	15	450
KisanMela	2	2000
Diagnostic visit	55	780
Group Meeting	5	125
Scientific Visit to farmers Fields	150	1200
Farmers Visits	300	1000
Lecture Delivered by KVK Scientists	20	700
Exhibitions	6	Mass
Film Shows	2	100
Radio Programmes	12	Mass
TV Shows (News-18- Annadata& DD-Oriya-Palishri)	15	Mass
SAC Meeting	1	40
Animal health camp	2	100
Soil Test Campaigns	4	50
KMA	50	40000
Video Documentation	5	-
Soil testing	500	-

Seed production

Crop	Variety	Class	Area (ha)
Rice	Swarna Sub -1	FS	5
Greengram	Virat	TL	1
Black gram	PU-39	TL	2

Quality Planting material production

Name of the crop	Details of production		
	Variety	Type of Produce	Qty.
Tomato	ArkaRakshak, Arka Samrat, Swarna Sampad	Seedling	100000 no.
Chilli	ArkaHarita, Arka Meghna	Seedling	100000no.
Brinjal	Swarna Shyamali	Seedling	50000
Onion	Red 3, Bhima Super	Seedling	100000
Papaya	SapnaF1, Red lady	Sapling	5000
drumstick	PKM-1, Bhagya	Sapling	5000
Others	As per farmers demand	Cuttings	10000

Other materials/ Commodities

Season	Name of item	Quantity/No.
Kharif/Rabi	Vermi-compost	25 q
Kharif/Rabi	Earthworm(EiseniaFoetida)	20 kg
Kharif/Rabi	Fish	2 q
Kharif/Rabi	Ornamental fish	5000 pairs
Kharif/Rabi	Yearling	5000 nos.

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