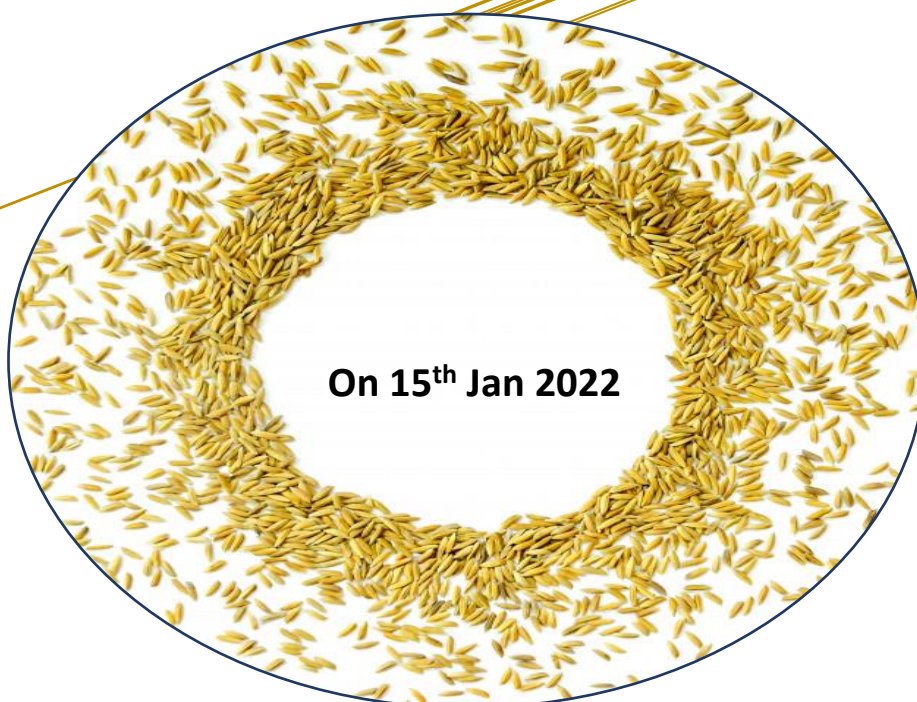


11TH SCIENTIFIC ADVISORY COMMITTEE MEETING



KRISHI VIGYAN KENDRA, GANJAM-II



**ODISHA UNIVERSITY OF AGRICULTURE & TECHNOLOGY
BHUBANESWAR**



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1.0 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 19⁰⁴' to 20¹⁷' Longitude and 84⁰⁷' to 85¹²'.
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.

2.0 MANDATE

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

3.0 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.

4.0 THRUST AREAS OF KVK

- 🌱 Crop diversification.
- 🌱 Integrated Farming System.
- 🌱 Integrated Disease and Pest Management Practices in crops.
- 🌱 Integrated Nutrient Management practices in crops.
- 🌱 Integrated weed management in field crops.
- 🌱 Off season vegetable cultivation .
- 🌱 Improving productivity of horticultural crops.
- 🌱 Floriculture for income generation.
- 🌱 Organic farming.
- 🌱 Farm mechanization and soil and water conservation
- 🌱 Nutritional Garden for nutritional security of farm families
- 🌱 Scientific management of Dairy ,Goatery and Fishery.
- 🌱 Drudgery reduction & Farm mechanization in agriculture
- 🌱 Value addition in seasonal vegetables and fruits.
- 🌱 Agroforestry.

5.0 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	
<i>Kharif</i> Area Irrigated	2,89,591 ha
<i>Rabi</i> 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.

6.0 ADOPTED VILLAGES

Village Name	Year of adoption	Block Name
Raijhol	2012	Kukudakhandi
Padripalli	2012	Kukudakhandi
Dighapada	2012	Hinjilikatu
Bhimpur	2013	Pursotampur

Village Name	Year of adoption	Block Name
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

7.0 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

8.0 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)

9.0 SWOC ANALYSIS OF KVK

Strength	Weakness	Opportunities	Constraints
<p>(i)Ecological</p> <ul style="list-style-type: none"> ■ Hot and humid climate favoring rice crop ■ Low rainfall, well-drained sandy loam soil for Kharif groundnut ■ Alluvial soil, moderate rainfall and high-water table for vegetable ■ Saline marshy land and water bodies for fish cultivation ■ Good forest coverage with fertile soil 	<p>(i)Ecological</p> <ul style="list-style-type: none"> ■ Low and erratic rainfall leading to the drought situation ■ Acid soil with low water holding capacity ■ Soil erosion causes land degradation ■ Indiscriminate deforestation and siltation of reservoirs and water storage structure ■ Prone to cyclone ■ Soil salinity due to ingress of the sea and Chilika water ■ Low groundwater table ■ Flood situation during Kharif 	<p>(i)Ecological</p> <ul style="list-style-type: none"> ■ Integrated watershed management ■ Potential for seashore plantation of cashew and coconut ■ pisciculture in tank ■ Expansion of area under coconut, mango, citrus and banana. ■ Harnessing groundwater potential 	<p>(i)Ecological</p> <ul style="list-style-type: none"> ■ Weather aberration like drought and flood ■ Gradual decline in the groundwater table ■ Upsetting natural balance due to deforestation
<p>(ii)Socio-economic</p> <ul style="list-style-type: none"> ■ Social cohesion among the farmer ■ Cheap and efficient labour force ■ Existence of women SHG ■ Committed network of NGO ■ Traditional fishermen community ■ Large and skilled farmers for entrepreneurship development 	<p>(ii)Socio-economic</p> <ul style="list-style-type: none"> ■ Alcoholism in male ■ Castism and superstitions ■ Exploitation by rural money lenders ■ Migration of labour force ■ Small and fragmented landholding ■ Predominance of a landless and marginal farmer ■ Lack of farmers organization ■ The exploitation of the middle man 	<p>(ii)Socio-economic</p> <ul style="list-style-type: none"> ■ Labor-intensive work ■ Women SHG ■ Availability of family labour 	<p>ii)Socio-economic</p> <ul style="list-style-type: none"> ■ Diversion of agricultural land to non-agricultural use ■ The exploitation of middlemen ■ Migration of agricultural labour to industrial work

Strength	Weakness	Opportunities	Constraints
<p>(iii)Infrastructure</p> <ul style="list-style-type: none"> ■ Well connected with NH, State highways and railways ■ Viable credit institutions, SCSs and commercial banks ■ Milk route of grater in Ganjam Milk union ■ Fish seed hatchery ■ Diversities 	<p>(iii)Infrastructure</p> <ul style="list-style-type: none"> ■ Inadequate agro-processing and storage structure ■ Inadequate irrigation ■ Disorganized marketing ■ Non-availability of fruit preservation unit ■ Defunct LIPs 	<p>(iii)Infrastructure</p> <ul style="list-style-type: none"> ■ Formation of FPO ■ Construction of MIP, Cross bunds and tube well ■ Installation of cold storage ■ Establishment of fish and prawn processing units ■ Agro service centers and seed processing units ■ Installation of fruit preservation and processing unit 	<p>(iii)Infrastructure</p> <ul style="list-style-type: none"> ■ Procurement of seed, vegetables and fruits from neighboring states ■ A potential risk for Aska sugar factory
<p>(iv)Production system</p> <ul style="list-style-type: none"> ■ Diversities of paddy to pulse, oilseed and vegetable crop varieties ■ Village tank for freshwater fish culture ■ Rearing of cows, goat and poultry birds ■ Brackish water prawn culture, shrimp and marine fish cultivation and integrated fish production ■ Cashew plantation ■ Commercial Kewda cultivation for the perfume industry ■ Extensive cultivation of coconut and areca nut ■ Agroforestry and Silvi-pasture ■ Mango and orange orchard ■ High water table for 	<p>(iv)Production system</p> <ul style="list-style-type: none"> ■ Yield gap due to lack of scientific know-how ■ Mono-cropping of sugarcane ■ Poor soil and water management ■ Excess use of nitrogen and imbalance fertilizer dose ■ Zinc deficiency in field crop ■ Distress sale of rice and vegetables ■ A technological gap in the management of livestock ■ High mortality of goat ■ Non-availability of green fodder for ruminants ■ Monkey and wild boar menace ■ The low market price of dairy product ■ Lack of rejuvenation of old orchard 	<p>(iv) Production</p> <ul style="list-style-type: none"> ■ Expansion of area under lime and mango ■ Expansion of area under turmeric and ginger cultivation ■ Commercial floriculture ■ Rejuvenation of old orchard ■ Apiary for landless farmer ■ Expansion of area under sugarcane ■ Breed up-gradation and dairy ■ Community fodder cultivation for dairy ■ Scope for breed up gradation in goaterly and poultry ■ Renovation of fish tanks and composite pisciculture ■ Freshwater prawn hatchery ■ Establishment of poultry hatchery ■ Brackish water fishery ■ Pisciculture 	<p>(iv)Production system</p> <ul style="list-style-type: none"> ■ Distress sale and middle-men-ship in the vegetable market ■ Imbalance use of fertilizer leads to land degradation ■ Wild boar and monkey menace ■ Leaching of soil nutrients due to flooding

Strength	Weakness	Opportunities	Constraints
irrigation ■ extensive sugarcane and maize cultivation ■ Ginger and turmeric cultivation		isthe waterlogged wasteland ■ Protected cultivation of vegetables and flowers ■ Micro-irrigation for fruit cultivation	

10.0 10TH 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 and the Collector and District Magistrate of the District as invited Chief Guest. KVK always gave the utmost care to SAC recommendations during the formulation of the KVK action plan (Intervention framework) for the district context.

Sl. No	Recommendation	Action taken
1.	New generation pesticides should be included in fishery activities.	<ul style="list-style-type: none"> 💧 Application of Cypermethrin along with Ivermectin has been included in the OFT programme and communicated to farmers through farm-advisory service and KMAs. 💧 No of Farmer covered -29 💧 Area covered -18.50 ha 💧 Villages covered- Gautami, Kalajamuna, Rangailunda, Allipur, Humma, Dayapalli, and Podingi 💧 KMAs- 5 💧 Season- Kharif (round the year)
2.	Introduction of new varieties of the crop should be based on the cropping system of the AES	<ul style="list-style-type: none"> 💧 Rice- CR-800,CR-310, CR-311 💧 Blackgram- OBG-33 💧 Arhar- BRG-2, 4 💧 Ragi- Kalua & Arjuna under demonstration. 💧 Drum stick- Bhagya, PKM-1 💧 Tomato- Arka Rakshak, Arka Samrat 💧 Chilli- Arka Harita-31, Arka Meghana-35 💧 Brinjal- Swarna Syamali 💧 Pointed gourd- Swarna Alukik, Swarna Rekha 💧 Poultry- Kadaknath

		<ul style="list-style-type: none"> 💧 Tuberose- Arka Prajwal, Arka Nirantar 💧 Fishery- Amur carp 💧 Farmers Covered- 290 💧 Area-283 ha
3.	Technology on higher production and productivity of desi onion is to be disseminated	<ul style="list-style-type: none"> 💧 Training and awareness programme conducted on scientific cultivation and seed production of desi onion. 💧 Hybrid Onion var. Red-3 has been demonstrated in farmers' fields under the SCSP demonstration programme. 💧 No of Farmers covered- 42 💧 Area covered-3 ha 💧 Villages-R.Sumandi, Kulihala, Padadiki, Mendhrajpur&Dengapadar 💧 Season- Rabi 2021-22 💧 Yield increased- from 246 q/ha to 350-400 q/ha
4.	INM in green gram has to be demonstrated for yield increase	<ul style="list-style-type: none"> 💧 OFT and Cluster demonstration on INM in green gram (IPM 02-14, Virat IPM -205-7) for yield enhancement has been conducted 💧 INM-STBF+FYM@5ton/ha+Lime@5qt/ha+ Seed inoculation with Rhizobium @ 20gm/kg of seed and PSB @4kg/ha 💧 No of Farmers covered- 60 💧 Area covered-15 ha 💧 Villages covered- Kusapada, Tumba, B. Saradapur, Titigaon, Rajnapalli, Sana Biswanathpur 💧 Season- Rabi 2020-21 💧 Yield increased from- 5.1 to 6.7 qt/ha
5.	Training and demonstration on aphid management in Marigold has to be taken up	<ul style="list-style-type: none"> 💧 Imparted need based trainings to farmers on aphids management with recommendation of new generation pesticides . 💧 Acephate + Immidachloprid @2gm/lit or oxydementon – methyl @ 2ml/lit. of water 💧 No of Farmers covered- 25 💧 Area covered-5 ha 💧 Villages covered- Golanthara, Kusumi 💧 Season- Rabi 2021-22
6.	Joint visits have to be conducted to adopted villages for better impact	<ul style="list-style-type: none"> 💧 Joint field visits have been conducted in various programmes with AAO, AHO, AFO, BAO, DAO, DDH and CDAO in most of the blocks
7.	FLD on disease management in Biofloc fish farming and awareness for its intensification is	<ul style="list-style-type: none"> 💧 A WhatsApp Group FISH farmers and Officials have been created in Ganjam district 💧 From time-to-time Biofloc issues are addressed by officials to farmers 💧 Mass awareness through Tv Talk (10 Nos) and the booklet

	to be taken care of by KVK	<p>have been developed and distributed to the needy farmers.</p> <ul style="list-style-type: none"> 💧 Biofloc Unit reached- 22 Nos. in the districts 💧 No of training conducted-03 Nos (F/FW-01, RY-01, Ins-01) 💧 Now farmers are more interested in Biofloc
8.	New generation pesticides should be included in the FLD programme	<ul style="list-style-type: none"> 💧 Conducted demonstration on BPH in rice 💧 Need base alternate spraying of Flonicamid @175gm/ha 💧 Pymetrozine @ 250gm/ha with neem oil @2.5ml/lit of water. 💧 Installation of Spider trap@25/ha 💧 No of Farmers covered- 10 💧 Area covered-2 ha 💧 Villages covered- Kusapada, Ganjam 💧 Season- Rabi 2021-22
9.	Awareness & demonstration on under exploited vegetable has to be included in KVK programme	<ul style="list-style-type: none"> 💧 Trainings and demonstrations on scientific cultivation of underexploited vegetables like a little gourd, Ghia kunduri, Deshi onion sweet potato, elephant foot yam etc. have been conducted. 💧 No of Farmers-45 💧 Area Covered- 16 ha 💧 Villages covered- 32 villages 💧 A WhatsApp Group created i.e., Annadata 💧 TV Talk Telecasted -24
10.	KVK should demonstrate technologies in identified farmer's fields under TARA scheme.	<ul style="list-style-type: none"> 💧 During the year 2021-22 TARA farmers covered under FLD, OFT and capacity building programs of different disciplines. 💧 Farmers covered- 25 nos. 💧 KVK extended all possible technical know-how to farmers on field crops, fruits, vegetables and flowers.
11.	Training on spawn production and value addition of mushrooms should be included in the action plan	<ul style="list-style-type: none"> 💧 Conducted 2 nos. training on mushroom spawn production to the mushroom farmers 💧 Imparted training in convergence TATA Trust for more transformation of technologies to farmers. 💧 Value addition of Oyster mushroom production will be taken up in Feb 2022. 💧 OFT and FLD has been conducted on mushroom production. 💧 Farmers covered- 30 💧 Villages covered- 10 💧 Horizontal spread-27 villages 💧 Now mushroom farmers became agripreneurs
12	Varieties suitable under perennial fodder cultivation are to be	<ul style="list-style-type: none"> 💧 Technical know-how has been extended to farmers on Hybrid Napier grass (CO-2, CO-3, CO-4), Para, Dinanath, Azolla, Stylo and Gini grass.

	demonstrated	
13.	Faba bean should be continued in the coming year, 2021-22.	Due to non availability of seeds this programme could not be taken up however it will be conducted in Kharif 2022.

11.0 ACHIEVEMENTS OF THE MANDATORY ACTIVITIES

(Rabi 2020-21 to Kharif 2021)

11.1 Detail of On-Farm Testing

Crop/Component	Technology Assessed	Technology option	Details of technologies	Yield (q/ha)
Rabi 2020-21				
Blackgram	Assessment on chemical weed management in Blackgram	FP	No use of weedicide	4.1
		TO ₁	Pendimethalin 30 % EC @ 1kg/ha at 3 DAS as Pre emergence	6.2
		TO ₂	Pendimethalin 30% EC+ Imazethapyr 2%EC premix @1.00 kg a.i/ha at 2DAS as pre emergence	6.9
Chilli	Assessment of chilli varieties	FP	Cultivation of F1 hybrid Daiya	142.5
		TO ₁	Cultivation of hybrid chilli variety Arka Meghna	166.8
		TO ₂	Cultivation of hybrid chilli variety Arka Harita	163.1
Cauliflower	Assessment of secondary (sulphur) and Micro (Boron) nutrients for curd quality and higher yield in cauliflower	FP	Low curd quality and yield due to secondary and micronutrient deficiency	190.5
		TO ₁	STBF (NPK) + Sulphur @ 30 kg ha ⁻¹ + 1 kg Boron as Borax as basal application	242.1
		TO ₂	STBF (NPK) +Sulphur @ 30 kg ha ⁻¹ + two foliar spray Borax @ 0.25% at 10 days interval starting from 30 days after planting.	236.8
Greengram	Assessment of integrated nutrient management on yield enhancement of green gram	FP	Application of chemical fertilizer (15:40:0 Kg N: P ₂ O ₅ :K ₂ O/ha) only	5.0
		TO ₁	100% STBF + FYM @5t ha ⁻¹	5.8
		TO ₂	TO ₂ 100% STBF + FYM@5t ha ⁻¹ + Rhizobium seed treatment@20g kg ⁻¹ seed+ Soil application of PSB @ 4 kg ha ⁻¹	6.1
		TO ₃	100% STBF + FYM@5t ha ⁻¹ + Lime @5q ha ⁻¹ + Rhizobium seed treatment@20g kg ⁻¹ seed+ Soil application of PSB @ 4 kg ha ⁻¹	7.0

Fishery	Assessment of different Parasiticidal agents in controlling external parasites in the grow-out carp culture system	FP	Mechanical removal of the Parasite or in a few cases use of Formalin (37% HCHO)	24.75±3.42
		TO ₁	Pond application of Synthetic Pyrethroid like Deltamethrin (Deltaguard) 2.8% @ 80ml/Acre-mt (4 times in a weekly interval	29.68±2.65
		TO ₂	Application of Ivermectin (Paracure IV) @ 50 µg/Kg ⁻¹ fish through feed	31.19±2.28
Kharif, 2021				
Rice	Assessment of biofortified rice varieties	FP	Cultivation of Rice variety LALAT	38.3
		TO ₁	Cultivation of rice variety CR DHAN 310	41.6
		TO ₂	Cultivation of rice variety CR DHAN 311	44.3
Drumstick	Assessment of drumstick varieties for higher yield	FP	Cultivation of Local cultivar	Cont.
		TO ₁	Cultivation of Drumstick variety Bhagya	-
		TO ₂	Cultivation of Drumstick variety PKM-1	-
Papaya	Assessment of integrated nutrient management on growth and yield of papaya	FP	Application of chemical fertilizer NPK (200:200:200 g/plant)+FYM @1kg/plant	Cont.
		TO ₁	100% STBF (NPK) + FYM@ 20 kg/plant + Azotobacter@20g/plant +PSB@20g/plant	
		TO ₂	75% STBF(NPK)+ Azotobacter @100g/plant + PSB@ 100g/plant + Vermi compost @2kg/plant	
Beetle vine	Assessment of Integrated disease management practices for Collar rot in Beetle vine	FP	Spraying of Carbandazim@ 1kg/ha. 12 q/ha	8,07,625 No of leaves /ha
		TO ₁	Planting material treatment with Trichoderma viridae@ 2g/lit at the time sowing and need base alternative spraying of chlorothalonil 75% wp (Kavach) @ 1.5 gm/lit. and carbendazim 2 gm/lit at 15 days interval	9,08,600 No of leaves /ha
		TO ₂	Planting material treatment with Tebuconazole @ 1.5 g/lit 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 & 2 sprays of Tebuconazole @ 1ml/lit.	10,02,400 No of leaves /ha

			starting from initiation of foliar diseases and 2nd spray at 15 days interval .	
Mushroom	Assessment on the management of competitor moulds in paddy straw mushroom	FP	Pre-soaking of straw for 10 to 12 hours with no management for moulds	0.61kg/bed
		TO ₁	Treatment of pre-soaked paddy straw for 10 to 12 hours in boiling water.	0.8 kg/bed
		TO ₂	Pre-soaking of a paddy straw bundle with 0.02% of bleaching powder for 6 hours	0.94 kg/bed
		TO ₃	Pre-soaking of Paddy straw with 1% calcium carbonate for 6 hours	1.1 kg/bed
Fishery	Assessment of Probiotics as remedial measures for pisciculture in problematic waters.	FP	Application of Organic manure & Lime	23.08±3.12
		TO ₁	Application of Water probiotic @ 1kg/Ac at fortnight interval.	29.65±2.67
		TO ₂	Application of Soil Probiotic @ 1lt/Ac at Fortnight interval.	32.58±1.89
		TO ₃	Alternative application of both soil & water probiotic at fortnight interval	35.62±2.35
ICT	Assessment of knowledge of farmers on climate-resilient practices	FP	Cultivation of Rice (Pooja) by conventional method without any resilient practices	% Knowledge increase: FP-18.0 TO ₁ -31.0 TO ₂ -46.0
		TO ₁	Cultivation of Rice with resilience practices including varietal replacement in the low land area like Swarna sub-1 with practiced only 3 resilience practices (Seed+ Seed treatment +Line transplanting)	Rate of Adoption of RP FP-11.0 TO ₁ -28.0 TO ₂ -48.0 Yield FP-34.0q/ha TO ₁ : 39 q/ha TO ₂ : 43.2q/ha
		TO ₂	Cultivation of crop with integrated resilient practices like Swarna sub-1 with practiced 6 resilience (Seed+ Seed treatment+ Line transplanting+INM+Weed management+ Water management)	B.C Ratio FP-1:4 TO ₁ :1:6 TO ₂ : 1:8

11.2 Details of Front Line Demonstration

Technology demonstrated		Detail of Technology	Results (q/ha)	% increase in Yield
Rabi 2020-21				
Demonstration of herbicides in weed management in Groundnut	FP	No use of herbicide, hand weeding at 20 DAS	18.7	
	RP	Pre emergence application of Oxyflourfen @ 0.2 kg/ha at 2DAS followed by early post emergence spray of imazethapyr100g/ha at 15 DAS	23.2	24.1
Demonstration of sunflower hybrid LSFH-171	FP	KBSH-1(matures in 95-105 days,plant height 150-180cm,size of head 15-20cm, oil content 42-44 percent, Yield-12-15 q/ha but susceptible to downy mildew disease).	12.9	
	RP	Cultivation of downy mildew resistant sunflower hybrid LSFH-171(Duration: 100-120 days, seed yield-15-22qtl/ha, oil content 38-40 %.resistant to downy mildew resistant).	19.3	49.6
Demonstration of tomato variety- Arka Rakshak	FP	Cultivation of hybrid tomato variety Laxmi yield potential of 350q/ha.	348.3	
	RP	Cultivation of hybrid tomato variety- Arka Rakshak.	410.5	17.85 %
Demonstration on onion variety- Arka yojith	FP	Cultivation of desi onion (multiplier onion) which is susceptible to purple blotch disease	17.10	
	RP	cultivation of hybrid onion variety Arka yojith	19.20	12.16%
Demonstraionof Foliar Spray of Micronurient in Marigold	FP	No spray of micronutrient	100.9	
	RP	Foliar Spray of Micronurient in Marigold	118.4	17.34 %
Demonstration on acid soil management in sunflower	FP	Application of NPK fertilizers only (50:69:30 Kg N: P ₂ O ₅ :K ₂ O /ha)	12.90	-
	RP	Demonstration on acid soil management in sunflower	18.20	41.1
Demonstration on consortia biofertilizer application in tomato	FP	Application of chemical fertilizer 120:46:30 N:P ₂ O ₅ :K ₂ O Kg/ha	329.2	-
	RP	Demonstration on consortia biofertiliser application in tomato	408.4	24.05
Demonstration on integrated nutrient management in chilli	FP	Application of NPK fertilizers only (20:40:40 Kg N: P ₂ O ₅ :K ₂ O /ha)	128.6	-
	RP	Demonstration on integrated nutrient management in chilli	163.7	27.3
Demonstration	FP	Spraying of Carbandazim@ 1kg/ha	19.52	

Technology demonstrated	Detail of Technology		Results (q/ha)	% increase in Yield			
on chemical management of Collar rot disease in Rabi, Groundnut	RP	Seed treatment with Tebuconazole @ 1.5 g/kg followed by furrow application of <i>T. viride</i> @ 4kg enriched in 50kg FYM/ha as basal application, then broadcasting of <i>T. viride</i> @ 4kg enriched in 250kg FYM/ha at 40 DAS & 2 sprays of Tebuconazole @ 1ml/lit. starting from the initiation of foliar diseases and 2nd spray at 15 days interval	23.56	20.18			
Demonstration on IPM against tea mosquito bug in cashewnut	FP	No use of pesticides	8				
	RP	Application of Lamdacyalothrin @ 2 ml/lt. at new flushing stage, Malathion @ 5 ml/lt. at flowering & Profenophos @ 2 ml/lt. at fruiting stage.	14	75			
Demonstration on management of tobacco caterpillar in Sunflower	FP	No spray of chemicals	13.22				
	RP	Spray Dichlorovos 76% EC 250ml/Acre 2 times in 15 days interval	16.90	28.03			
Demonstration on Yearling stocking for yield enhancement in Pisciculture	FP	Stocking of Fish fry/fingerlings and not maintaining the stocking ratio	33.65± 3.22				
	RP	Yearling Stocking in Community pond @ 5,000 Nos./ha; Surface : Column : Bottom feeder :: 3 : 4 : 3	42.85± 2.95				
Demonstration on Amur carp as substitute to Mrigal in composite pisciculture	FP	Maintaining stocking ratio of Catla: Rohu : Mrigal:: 30:40:30	25.65± 3.48				
	RP	Stocking ratio Catla: Rohu:Mrigal:Amur carp:: 30:40:10:20 @ 7500 nos/ha with proper soil and water quality management.	34.33± 2.50				
Demonstration on Pond based Farming System	FP	Practicing only pisciculture	26.70± 3.15				
	RP	Full utilization of bund area (app.30% of WSA) with animal (Poultry/Duckery/Cow)-horticulture (Fruit and vegetables) components to get more production from a unit area with a reduced avg. cost of cultivation	31.25± 2.14	17.04			
Demonstration on Use of Insulated fish bags to preserve the quality of Fish	FP	Use of local made bamboo basket or Plastic bag during retail vending	Taste	Odour	Flavor	color	Textu
	RP	Use of 3 layered insulated Fish carrying bags during retail vending.	8.5± 1.67	7.0± 2.35	7.0± 1.2	5.6± 0.85	6.9± 1.68
			9.53± 1.35	8.46± 2.1	8.2± 2.32	7.31± 1.5	8.27± 1.42

Technology demonstrated	Detail of Technology		Results (q/ha)	% increase in Yield
Demonstration on low input poultry breeds Kadaknath in Backyard.	FP	Rearing of indigenous bird	1.15 body wtgain /year	32% Mortality
	RP	Rearing of Kadaknath breed (Source: ICAR-CIFT, 2009)	0.870 body wtgain /year	7 %Mortality
Kharif 2021				
Demonstration of high yielding ragi variety Arjun.	FP	Cultivation of local variety BUDHA MANDIA (duration 105-110 days, light brown colour seeds, yield 20-27q/ha.)	11.74	
	RP	Arjun (duration of the variety is 110 days and the yield potential 18-50 q/ha, moderately resistant to leaf, neck blast can tolerate dry spell of 10-12 days at vegetative and 6-8 days at reproductive stages).	18.12	54.3
Demonstration of herbicide in Rice	FP	Manual weeding (Hand weeding at 21 DAT)	39.2	
	RP	Bispyribac sodium + Almix(metsulfuron methyl + chlorimuron- ethyl) on 25 DAT @ (20+4 g)/ha as post emergence	45.6	16.32
Demonstration on cowpea variety- Kashi Kanchan	FP	Cultivation of varieties (VNR-44) susceptible to YMV.	102.1	
	RP	Cultivation of variety Kasi Kanchan (YMV resistant).	119.4	16.94
Demonstration of tuberose cultivar Arka Prajawal	FP	Cultivation of old existing variety Calcutta single	4.31	
	RP	Cultivation of variety Arka Prajawal	5.02	16.87 %
Demonstration on integrated nutrient management in tuberose	FP	Application of 100% RDF+ FYM 1kg/m ²	4.66	-
	RP	Demonstration on INM in tuberose	5.81	24.8%
Demonstration on consortia biofertilizer application in brinjal	FP	Application of chemical fertilizer 120:46:30 N:P ₂ O ₅ :K ₂ O Kg/ha	192.3	-
	RP	Demonstration on OUAT consortia biofertiliser application in brinjal	244.8	27.3
Demonstration on the management of Bacterial leaf blight in Rice	FP	Spraying of Carbandazim@ 1kg/ha	35.2	
	RP	Application of Copper oxy chloride @ 3gm/lt of water + Streptomycin @ 1gm/lt of water	41.3	17.33
Demonstration	FP	Spraying of Carbandazim@ 1kg/ha	36.1	

Technology demonstrated	Detail of Technology		Results (q/ha)	% increase in Yield
of chemical management practices for BPH in Rice	RP	Skip row planting(after 3m),Instalation of spider trap @ 25/ha,need based alternate spraying of Flonicamid @175gm/ha &pymetrozin 50% WG @ 250gm/ha with mix of neem oil @ 2.5ml/lit of water	42.7	18.2
Demonstration on yearlings production	FP	Practicing fry and fingerlings production, No yearling production	24.52± 1.85	
	RP	Yearlings production practices	34.60± 2.32	41.10

11.3 Cluster Demonstration on Pulse

Sl No.	Name of crop	Technology demonstrated	Location Village/Block	Area (ha) / No.	No. of the beneficiary	Results (q/ha)
1	Greengram Var. virat	<ul style="list-style-type: none"> ■ Improved seeds (Virat) @ 20 kg/ha in line sowing ■ Seed treatment by Trichoderma Viridae (5gm/Kg) of seed. ■ STBF application. ■ Spraying of NPK (19:19:19) @ 25kg/ha for better flowering and ■ Spraying of Sulphur 90% @40kg/ha for better growth of Root. ■ Spraying of Neem oil @ 2.5ml/lit to prevent Insects and pests. ■ Spraying of Prophenophos+ Cypermethrin@1ml /lt for control of jassidspod borer and other insects. ■ Use of pro supper gunny bag for storage of seeds 	Kushapada Digapahandi	10	25	FP- 3.6 RP – 4.8 Yield gap- 33.3%

11.4 Training

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

11.5 Other Extension Activities

Extension Activities	Achievement	
	No	Participants
Field Days	8	400
Kisan Mela	1	300
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
KMA	35	20200
Celebration Day	18	1700

11.6 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	16	-
6	Popular Articles	10	5000
7	Technical bulletins	15	15
8	Technical report	12	24
9	Training material	05	-
10	Training Calender	01	100
11	CDs/ DVDs	01	10

11.7 Revolving Fund

(i) Achievement Paddy seed

Season	Variety	Category	Area (ha)	Production (q)
Kharif 2021	CRDHAN-800	Paddy	3	82

(ii) Quality planting material production

Name of plant	Variety	No. produced
Tomato	Arkarakshak	22000
Chilli	Arka harita, Arka Meghana	25000
Drumstick	Bhagya, PKM-1	1300
Papaya	Sapna F1, Vinayak	600
Onion	Red -3	10000

Other materials produced

Name of the item	No./ Kg .produced
Vermi-compost-	22 q
Earthworm (Eisenia Foetida)	10 kg
Ornamental fish -	520
Yearling / fingerling	10500(Advance fingerling, > 100 mm

11.8 Existing Demo Unit

Demo-Units	Quantity of Output Area/No./ Kg etc	Demo-Units	Quantity of Output Area/No./ Kg etc
Vermicompost	2 no.	Azolla Unit	3 nos.
Medicinal garden	40 no of plant variety	Sunflower(LSFH-171)	0.05 ha
Drumstick Unit (PKM-1)	0.05 ha	Mango orchard (Amrapalli, Malika, Dusheri)	120 nos
Poly house (seedlings of Tomato, brinjal, broccoli, capsicum, chilli)	2 units	Green gram(IPM 02-14)	1 ha
Poultry(Var. Kadaknath, Chabro)	100 chicks	Ornamental fish culture, biofloc	5 units
Pond based farming system	1 unit	Crop cafeteria	0.08 acre
Peri urban garden	1 unit	Broad spectrum botanicals	3 units

12.0 ACTION PLAN 2022-23

12.1 ON-FARM TESTING (OFT)

Crop/ Component	Technology Assessed	Technology option	Details of technologies	No. of farmers
Rice	Assessment of	FP	Cultivation of medium rice varieties	7

	Biofortified rice varieties	TO ₁	Medium duration (120-125 days), semi-dwarf plant type (110 cm) with medium slender and good grain quality. It is suitable for irrigated and favorable shallow rainfed areas. The national average grain yield is 4.5 t ha ⁻¹ and it contains an average of 10.2% protein in polished rice	
		TO ₂	Medium duration(120-125 days),semi-dwarf plant (110cm),medium slender, good grain quality, high protein rice 10.1% protein and moderately high level of Zn content(20ppm) in polished rice.National average grain yield is 4.3t/ha. In Odisha, grain yields 5.5 t/ha.	
		TO ₃	Medium duration 130 days, Rich in zinc (24.9ppm)in polished grains in comparison to 12-16 ppm zinc in popular varieties. Grain yield 50.0 q/ha	
Greengram	Assessment on chemical weed management in Greengram	FP	No weeding	7
		TO ₁	Pendimethalin 30 % EC @ 1kg/ha at 3 DAS as PE	
		TO ₂	Pendimethalin30% EC+Imazethapyr2% ECaspremix @1kg a.i/ha at 2DAS as PE	
Okra	Assessment of Okra hybrids for resistance to MYVMV	FP	Cultivation of Okra hybrid Radhika attacked by YVMV	7
		TO ₁	Cultivation of Okra hybrid Arka Nikita resistant to MYVMV.	
		TO ₂	Cultivation of Okra hybrid Kashi Kranti resistant to MYVMV	
Bitter gourd	Assessment of different trellises in a bitter gourd for higher production	FP	Ground Trellising	7
		TO ₁	Single trellis	
		TO ₂	Lean-to type trellis	
Soil	Assessment of integrated nutrient management on growth and yield of papaya	FP	Application of chemical fertilizer NPK (200:200:200 g/plant)+FYM @1kg/plant	7
		TO ₁	100% STBF (NPK) + FYM@ 20 kg/plant + Azotobacter@20g/plant +PSB@20g/plant	
		TO ₂	75% STBF (NPK) + Azotobacter @100g/plant + PSB@ 100g/plant + Vermicompost @2kg/plant	
Soil	Assessment of integrated nutrient management in	FP	Application of N-P ₂ O ₅ -K ₂ O (100:50:50) + Mustard Oil Cake (MOC) @ 3 q /ha	7
		TO ₁	STBF (NPK) + MOC @ 1.5 t/ha +	

	betel vine		Vermicompost (VC) @ 10 t/ha	
		TO ₂	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.	
Ragi	Assessment of Blast disease management practices in Kharif Ragi	FP	Spraying of Carbandazim@ 1kg/ha. 12 q/ha	7
		TO ₁	Seed & planting material treatment with tricyclazole @ 3 g/kg of seed and foliar spraying of tricyclazole @ 300 g/ha, twice at 15 days interval	
		TO ₂	Planting material treatment with Thiophanate Methyl @ 1gm/kg of seed and foliar spraying of Thiophanate Methyl@ 1gm/l of water twice at 10 days intervals.	
Chilli	Assessment of chemical management of Dieback in Chilli	FP	No seed treatment.	7
		TO ₁	Seed treatment with Vitavax @ 2g/ kg of seed and application of Difenconazole 25 EC @ 1ml/l of water from initial disease appearance at 10 days interval	
		TO ₂	Seed treatment with T.viridae@ 2.5g/ kg of seed and application of Pyraclostrobin 20 WG @ 1gm/l of water from initial disease appearance at 10 days interval	
Fishery	Assessment of Ivermectin in controlling Argulosis	FP	Application of synthetic pyrethroids like cypermethrin 10% EC / deltamethrin 2.8% EC	5
		TO ₁	Ivermectin 2% w/w in feed @250 ppm & fed to the fishes for 4-5 days	
		TO ₂	Ivermectin 2% w/v in pond water @ 200ml/Acre-m	
Fishery	Assessment of genetically improved Catla spawns for maximizing fry production in nursery tanks	FP	Normal Catla spawns with traditional Nursery Rearing	5
		TO ₁	Normal Catla spawns with BMP	
		TO ₂	Improved Catla Spawn with traditional Nursery Rearing	
		TO ₃	Improved Catla Spawn with BMP	
Mushroom	Assessment of packaging practices of paddy straw mushroom (Var. V.	FP	Packaging of fresh mushroom buds in polythene bags	10
		TO ₁	Fresh mushroom buds washed with potassium metabisulfite (KMS 0.1 % and citric acid) for 10 minutes and allowed to air dry in a muslin cloth for	

	Volvacea		30 minutes and packed in polypropylene bags punched with 10 holes stored at room temp.	
		TO ₂	Fresh mushroom buds washed with potassium metabisulfite (KMS 0.1 % and citric acid) for 10 minutes and allowed to air dry in a muslin cloth for 30 minutes and packed in paper bags punched with 10 holes (0.5 cm diameter) stored at room temp.	
		TO ₃	Fresh mushroom buds were washed with potassium metabisulphite (KMS 0.1 % and citric acid) for 10 minutes and allowed to air dry in a muslin cloth for 30 minutes and packed in 75 µ HIPs punnet.	
Mushroom	Assessment onthe management of competitor moulds in paddy straw mushroom	FP	Pre-soaking of straw for 10 to 12 hours with no management for moulds	10
		TO ₁	Pre-soaking of a paddy straw bundle with 0.02% of bleaching powder for 6 hours(Source-ACRIP on mushroom, CTMRT, OUAT, Bhubaneswar,2014)	
		TO ₂	Presoaking of Paddy straw with 1% calcium carbonate for 6 hours (Source-ACRIP on the mushroom, CTMRT, OUAT, Bhubaneswar,2014	
Knowledge	Assessment of knowledge of farmers on climate-resilient practices	FP	Cultivation of Rice (Pooja) by conventional method without any resilient practices	30
		TO ₁	Cultivation of Rice with resilience practices including varietal replacement in the low land area like Swarna sub-1 with practiced only 3 resilience practices (Seed+ Seed treatment +Line transplanting)	
		TO ₂	Cultivation of crop with integrated resilient practices like Swarna sub-1 with practiced 6 resilience (Seed+ Seed treatment+ Line transplanting+INM+Weed management+ Water management)	
ICM	Assessment of the adoption of crop management practices of greengram	FP	Cultivation of crops by conventional agricultural practices	30
		TO ₁	Cultivation of crops with improved crop management practices	
		TO ₂	Cultivation of crop with integrated management practices	

12.2 FRONT LINE DEMONSTRATION

Crop	Title	Technology		No. of demo	Area (ha)
Rice	Demonstration of new generation herbicide in transplanted Rice	FP	One hand weeding at 21 DAT	10	2
		RP	Application of Fenoxaprop-ethyl(Whip super9%EC) at 56.25 g ha-I applied 10 days after rice transplanting		
Ragi	Demonstration of high yielding ragi variety Arjun	FP	Local variety BUDHA MANDIA (duration 105-110 days, light brown colour seeds, yield 20-27q/ha.)	10	2
		RP	Arjun (Duration of the variety is 110 days and the yield potential 18-50 q/ha, moderately resistant to leaf, neck blast can tolerate dry spell of 10-12 days at vegetative and 6-8 days at reproductive stages) (Source:OUAT CPR,BERHAMPUR,2015-16)		
Blackgram	Demonstration of high yielding blackgram variety OBG 33(Sashi)	FP	Local variety	10	2
		RP	Duration: 75 days Potential yield: 8.4 q/ ha Adaptability: Rabi season and rainfed uplands during Kharif in Odisha Yield Advantage: 13.5 % over Prasad Other characteristics: Moderately resistant to YMV, Anthracnose and Powdery mildew		
Sesame	Demonstration of high yielding Sesame variety Smarak (OSC 560)	FP	Local variety	10	2
		RP	Golden yellow seed coat colour,Duration: 80-85 days, Avg yield 8-8.5 q/ha.moderately resistant to leaf curl, resistance to phyllody, powdery mildew and aphids.oil content 48-52%, test weight 3-3.3g.		
Brinjal	Demonstration of Brinjal variety- Swarna Shyamali for high profit	FP	Cultivation of variety Tulasi, which is susceptible to wilting	10	1
		RP	Cultivation of brinjal variety- Swarna Shyamli for high profit.		
Bottle gourd	Demonstration of bottle gourd variety BBOG-3-1 for higher yield	FP	Cultivation of bottle gourd variety Sarita.	10	1
		RP	Cultivation of bottle gourd variety BBOG-3-1 for higher yield		
Chilli	Demonstration of foliar application of growth regulator in chilli	FP	No application of growth regulator	10	1
		RP	A spray of growth regulator Triacntanol.		
Marigold	Demonstraion on use of plant growth regulator to increase the productivity of Marigold	FP	No spray growth regulator.	10	1
		RP	Foliar spray of 250 ppm gibberellic acid at 25 days after transplanting (DAT)		

Okra	Demonstration on integrated nutrient management in okra	FP	Application of N: P ₂ O ₅ :K ₂ O @87:46:30 kg /ha.	10	1
		RP	Application of 75% STBF +25%N through neem cake.		
Brinjal	Demonstration on consortia biofertilizer application in brinjal	FP	Application of chemical fertilizer 120:46:30 N:P ₂ O ₅ :K ₂ O Kg/ha.	10	1
		RP	STBF+ inoculation of OUAT consortia bio-fertilizers 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.		
Chilli	Demonstration on integrated nutrient management in chilli	FP	Application of NPK fertilizers only (20:40:40 kg N: P ₂ O ₅ :K ₂ O /ha) .	10	1
		RP	Use of STBF based NPK + biofertilizer (Azotobactor, Azospirillum and PSB @ each 4kg/ha)+ vermicompost @5t/ha increases the dry chilli by 8.5% over soil test based fertilizer application.		
Cauliflower	Demonstration on the application of Sulphur and Boron for curd quality and higher yield in cauliflower	FP	Application of chemical fertilizer (110:46:45Kg N: P ₂ O ₅ :K ₂ O /ha) only	10	1
		RP	STBF (NPK) + Sulphur @ 30 kg ha ⁻¹ + 1 kg Boron as Borax as basal application .		
Beetle vine	Demonstration of Integrated disease management practices for Collar rot in Beetle vine	FP	Spraying of Carbandazim@ 1kg/ha	10	1
		RP	Planting material treatment with Tebuconazole @ 1.5 g/lit 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 & 2 sprays of Tebuconazole @ 1ml/lit. starting from the initiation of foliar diseases and 2nd spray at 15 days intervals.		
Cauliflower	Demonstration on the management of Diamondback moth in Cauliflower	FP	Spraying of Imidacloprid@ 200ml/ha.	10	1
		RP	Spraying of Azadiractin 5% @200ml/ha at the time of flowering, Spraying of Novaluron 10 % EC + Emamectin benzoate 5% EC @ 200g/ha twice at 10 days interval.		
Rice	Demonstration on chemical management of BPH In Rice	FP	Imbalanced dose of nitrogenous fertilizer & spraying of Buprofezin@ 1lt/ ha.	10	1
		RP	Skip row planting (after 3 m), installation of spider trap @ 25/ ha. need based alternate spraying (based on ETL) of Flonicamid 175gm/ ha and pymetrozin 50WG @ 250 gm/ha. with tank mix of neem oil @ 2.5 ml/ltwater .		
Paddy	Demonstration of	FP	Spraying of carbendazim @ 2gm/lt.	10	2

	Bacterial Leaf Blight management in Paddy	RP	Application of Copper oxy chloride 88% W/W @ 3gm/lit of water + Plantomycin @ 1gm/lit of water 2-3 times 10days interval at initiation of symptom add extra potash fert @ 6-7 kg/ ha		
Fish	Demonstration on use of floating fish feed for yield enhancement in pisciculture	FP	Rice Bran and Oil cake feeding without maintaining CP level	10	2
		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.		
Fish	Demonstration on use of Probiotic for enhanced pond productivity	FP	Indiscriminate application of Lime and Organic manure.	5	2
		RP	An alternative application of both soil and water probiotic @1kg or lt/Ac at fortnight interval.		
Fish	Demonstration on yearlings production	FP	Practicing fry and fingerlings production, No yearling production	5	2
		RP	Yearlings production practices		
Fish	Demonstration on Mono-sex 'GIFT' (Genetically Improved Farmed Tilapia) culture in Farm ponds	FP	Practicing composite pisciculture or left unutilized	5	2
		RP	Stocking of Farm Ponds with GIFT @ 15000 Nos./ha		
Marigold	Demonstration on cultivation of marigold var. Seracole for income generation of farmwomen	FP	Cultivation of local variety marigold (makhamali).	10	0.8
		RP	Cultivation of seracola variety marigold for income generation of farmwomen		
Nutritional garden	Demonstration on a nutritional garden for nutritional security of farm families	FP	Under-utilised backyard	10	0.4
		RP	i. Growing vegetables round the year covering leafy vegetables, other vegetables, Roots and Tubers, cucurbits suiting to consumption pattern + Two Papaya Plants, One Lemon, one drumstick and two Banana. ii. Trellis structure with PP rope for raising cucurbits iii. Pro tray for raising seedlings in small quantity + 3. cement ring tank for vermicomposting,		
Poultry	Demonstration on low input poultry breed Kadaknathin Backyard	FP	Rearing of indigenous bird	10	-
		RP	Rearing of Kadaknath breed		

12.3 TRAINING

Type	Target		
	No.	Duration (in Days)	Participants
Farmers & Farm Women	72	72	1800
Rural Youths	20	24	180
In-Service Personnel	6	12	90
Vocational training	6	32	90
Total	96	140	2160

12.4 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	52	20900
Video Documentation	5	-

12.5 PLANTING MATERIALS

Name of the crop	Details of production		
	Variety	Type of Produce	Qty.
Papaya	Red lady	PM	1000nos
Drumstick	PKM-1	PM	500nos
Tomato	Utkalraja	PM	10000nos
Chilli	Ukalrashmi	PM	10000
Capsicum	Onion	PM	10000
