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 lies between the Eastern Ghats and the Bay of Bengal. Since the hills are close to the sea, the rivers flowing from 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 south eastern portion is fertile. Ganjam economy is predominantly agrarian. Around 80 percentage of the population depends on agriculture and allied activities. The long sea and Chilika coast line is a source of rich marine products and lime shells. Ganjam is a major salt producing district in the state.

KVK serves as the knowledge hub and resource centre of agricultural technologies for the farmers of the district. It operates as per mandates of ICAR for the upliftment of 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

MANDATE

Assessment, refinement and demonstration of proven technologies/products under different 'micro farming' situations**.**

K.V.K ACTIVITIES

The mandate of KVK is Technology Assessment and Demonstration for its application and Capacity Development to implement the mandate effectively, the following activities are envisaged.

- On-farm testing to assess the location specificity of agricultural technologies under various farming systems.
  Frontline demonstrations to establish production potential of technologies on the farmers' fields.
- Capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies.
- To work as Knowledge and Resource Centre of agricultural technologies for supporting initiatives of public, private and voluntary sector in improving the agricultural economy of the district.
- 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 it 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.

BASIC INFORMATION OFGANJAM DISTRICT

Agro-climatic Zone	East and South East Coastal Plain Zone
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	Paddy, 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

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

SWOT (Strengths, Weakness, Opportunities and threats) Analysis of KVKs

Strength	Weakness	Opportunities	Threats
(i)Ecological -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 cover with fertile soil (ii)Socio-economic -social cohesion among the farmer -Cheap and efficient labour force -Existence of women SHG -Comitted net work of NGO -Traditional fishermen community -Large and skilled farmers for entrepreneurship development (iii)Infrastructure -Well communicated road ways and rail ways -Viable credit institution, SCSs and commercial banks -Milk route of grater Gajapati Ganjam Milk union -Fish seed hatchery -Diversities (iv)Production system -Diversities of paddy to pulse, oilseed and vegetable crop varieties -village tank for fresh water fish culture -Rearing of cows, goat and poultry birds -Brackish water prawn	(i) Ecological -Low and fluctuating rainfall leading to drought situation -Acid soil with low water holding capacity -soil erosion causing land degradation - Indiscriminate deforestation and siltation of reservoirs and water storage structure -Prone to cyclone -soil salinity due to ingress of sea and Chilika water -Low ground water table -Flood situation during kharif (ii)socio economic - Alcoholism in male -Castism and superstitions -Exploitation by rural money lenders -Migration of labour force -Small and fragmented land holding -predominance of landless and marginal farmer -Lack of farmers organization -Exploitation of middle man (iii)Infrastructure -Inadequate agro-processing and storage structure -Inadequate irrigation -Disorganized marketing -Non availability of fruit preservation unit -Defunct LIPs (iv)Production system	(i) Ecological -Integrated watershed management -Potential for sea shore plantation of cashew and coconut -pisciculture in tank -Expansion of area under coconut, mango ,citrus and banana. -Harnessing ground water potential (ii)Socio-economic -labour intensive work -Women SHG - Availability of family labour (iii)Infrastructure -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 (iv)Production -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 goatery and poultry -Renovation of fish tanks and composite pisciculture	(i)Ecological -Weather aberration like drought and flood -Gradual decline in ground water table -Upsetting natural balance due to deforestation (ii) Socio-economic -Diversion of agriculture land to non-agricultural use -Exploitation of middle men -Migration of agricultural labour to industrial work (iii)Infrastructure -Procurement of seed, vegetable and fruits from neighboring states -Potential risk for Aska sugar factory (iv)Production system -Distress sale and middle-men-ship in vegetable market -Imbalance use of fertilizer leading to land degradation -Wild boar and monkey menace -Leaching of soil nutrient due to flooding

culture, shrimp and marine fish cultivation and integrated fish production -Cashew plantation -commercial Kewda cultivation for perfume industry -Extensive cultivation of coconut and areca nut -Agro forestry and silvi-pasture -Mango and orange orchard -High water table for irrigation - extensive sugarcane and maize cultivation -Ginger and turmeric cultivation	-Yield gap due to lack of scientific knowhow -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 -Technological gap in management of livestock -high mortality of goat - non availability of green fodder for ruminants -Monkey and wild boar menace -Low market price of dairy product -Lack of rejuvenation of old orchard	-Fresh water prawn hatchery - establishment of poultry hatchery -Brackish water fishery - Pisciculture in water logged waste land -Protected cultivation of vegetable and flowers - micro irrigation for fruit cultivation	

9th SAC RECOMMENDATION

Salient Recommendations	Action taken
Cultivation of Faba bean as moisture stress tolerant crop.	Awareness has been created among the farmers for cultivation of Faba bean as stress tolerant crop. Demonstration will be taken up under SCSP programme with availability of seed.
Demonstration of super early variety green gram(Virat-IPM 25).	Green gram var. Virat-IPM 25 has been demonstrated in farmer's fields under RESILIENCE project, rabi 2020-21.
Groundnut var. Dharani (TCGS 1043) is to be popularized.	Demonstration on Groundnut var. Dharani (TCGS 1043) has been included in SCSP demonstration programme.
Emphasis should be given on package and practices of ragi cultivation. Simultaneously	Assessment on ragi varieties, demonstration on its scientific cultivation has been taken up in adopted villages. Need based training with odia literature are also supported.

training has to be imparted to SHG group members on value addition of finger millet.	Training has been conducted from time to time on post harvest management and value addition of finger millet.
Distribution transferrable technology of KVK to the district in odia language.	Technologies demonstrated are being presented before line department personnel during field days, meeting and seminar. Publication of each demonstrated technology in odia language are provided to farmers. During exhibition & farmer's fair, literatures are also distributed for its large scale dissemination.
Popularization of Kadaknathbreed of poultry in the district.	FLD on back yard poultry var. Kadaknath will be taken up during rabi, 2020-21 in identified villages. A demonstration unit of Kadaknath has been maintained in the campus for imparting training to visiting farmers.
Focus on crop diversification.	Farmers are trending towards non paddy crop as evident from increase in area of pulse and oil seed cultivation in the district. CFLD on oil seeds and pulses are being conducted every year to increase area under non paddy crop.
Training on Lac cultivation	KVK scientists visited Lac cultivation cluster patch at village Makarajholo. Training will be provided on its package and practices to the targeted farmers.
Demonstration of low cost women friendly technology	Women friendly technologies such as mushroom cultivation, back yard poultry rearing, value addition, nutritional gardening, flower cultivation and use of small farm implements for drudgery reduction etc. have been popularised through FLD, OFT and training progrmme.

ACHIEVEMENTS OF THE MANDATORY ACTIVITIES

(Rabi 2019-20 to Kharif 2020)

Detail of On –Farm Testing

Crop/ Component	Technology Assessed	Technology option	Details of technologies	Yield (q/ha)
Blackgram	Assessment on chemical weed management in Blackgram	FP	No use of weedicide	4.21
		TO_1	Pendimethalin 30 % EC @ 1kg/ha at 3 DAS as PE	5.73
		TO_2	Pendimethalin 30% EC+ Imazethapyr 2%EC premix @1.00 kg a.i/ha at 2DAS as pre emergence	6.64
Ragi	Assessment of performance of high yielding ragi varieties	FP	Use of local variety Budha mandia	13.2
		TO_1	Cultivation of Ragi variety BHAIRABI (Source: CPR, Berhampur,OUAT)	16.2
		TO_2	Cultivation of Ragi variety ARJUN	19.3
		TO_3	Cultivation of Ragi variety KALUA	18.6
Chilli	Assessment of chilli varieties	FP	Cultivation of F1 hybrid Daiya	25.8
		TO_1	Cultivation of hybrid chilli variety Arka Meghna	31.62
		TO_2	Cultivation of hybrid chilli variety Arka Harita	29.22
Tuberose	Assessment of tuberose cultivars	FP	Cultivation of old existing variety Calcutta single	4.71
		TO_1	Cultivation of variety Arka Prajawal	5.42
		TO_2	Cultivation of variety Arka Nirantar	5.01
Cauliflower	Assessment of secondary (sulphur) and Micro (Boron) nutrient for curd quality and higher yield in cauliflower	FP	Low curd quality and yield due to secondary and micro nutrient deficiency	191.3
		TO_1	STBF (NPK) + Sulphur @ 30 kg ha^{-1} + 1 kg Boron as Borax as basal application	241.4
		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	235.7
Green gram	Assessment of integrated nutrient management on yield enhancement of green gram	FP	Application of chemical fertilizer (15:40:0 Kg N: P_2O_5 :K_2O /ha) only	5.1
		TO_1	100% STBF + FYM @5t ha^{-1}	6.0
		TO_2	100% STBF + FYM@5t ha^{-1}+ Rhizobium seed treatment@20g kg $^{-1}$seed+ Soil application of PSB @ 4 kg ha^{-1}	6.3
		TO_3	100% STBF + FYM@5t ha^{-1} + Lime @0.2 LR + Rhizobium seed treatment@20g kg $^{-1}$seed+ Soil application of PSB @ 4 kg ha^{-1}	7.2

Groundnut	Assessment of Integrated disease management practices for Collar rot in Rabi , Groundnut	FP	Spraying of Carbandazim@ 1kg/ha	31.7
		TO_1	Seed treatment with carboxin 37.5% + Thiram 37.5 % (Vitavax power) @ 2.5 gm/ kg seeds during sowing and need base alternative spraying of chlorothalonil 75% wp (Kavach) @ 1.5 gm/lt. and carbendazim 2 gm/lt at 15 days interval	33.8
		TO_2	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 & 2 sprays of Tebuconazole @ 1ml/lit. starting from initiation of foliar diseases and 2nd spray at 15 days interval	35.6
Beetle vine	Assessment of Integrated disease management practices for Collar rot in Beetle vine	FP	Spraying of Carbandazim@ 1kg/ha. 12 q/ha	-
		TO_1	Planting material treatment with Trichoderma viridae@ 2g/lt at the time sowing and need base alternative spraying of chlorothalonil 75% wp (Kavach) @ 1.5 gm/lt. and carbendazim 2 gm/lt at 15 days interval.	-
		TO_2	Planting material treatment with Tebuconazole @ 1.5 g/lt 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 initiation of foliar diseases and 2nd spray at 15 days interval .	-
Fish	Assessment of Amur carp for increasing fish production in mixed carp culture	FP	Stocking ratio Catla: Rohu : Mrigal:: 30:40:30	23.22± 1.24
		TO_1	Stocking ratio Catla: Rohu : Mrigal :Amur carp :: 30:40:20:10	33.43± 2.32
		TO_2	Stocking ratio Catla: Rohu:Mrigal:Amur carp :: 30:40:15:15	32.21± 3.20
		TO_3	Stocking ratio Catla: Rohu:Mrigal:Amur carp :: 30:40:10:20	34.33± 2.50
Fish	Assessment of different Parasiticidal agents in controlling external parasites in	FP	Mechanical removal of the Parasite or in few cases use of Formalin (37% HCHO)	23.80± 3.22
		TO_1	Pond application of Synthetic Pyrethroid like Deltamethrin	28.68± 2.85

	grow-out carp culture system		(Deltaguard) 2.8% @ 80ml/Acre-mt (4 times in weekly interval	
		TO_2	Application of Ivermectin (Paracure IV) @ 50 µg/Kg^{-1}fish through feed.	30.09± 3.28
Mushroom	Assessment on management of competitor moulds in paddy straw mushroom	FP	Existing practices of farmers with no management of moulds	0.61
		TO_1	Pre soaking of paddy straw bundle with 0.02% of bleaching powder for 6 hours	0.94
		TO_2	Presoaking of Paddy straw with 1% calcium carbonate for 6 hours	1.1

Details of FLD

Technology demonstrated	**Detail of Technology**		**Results (q/ha)**	**% increase in Yield**
Demonstration Of herbicides in weed management in Groundnut	FP	No use of herbicide, hand weeding at 20 DAS	18.66	
	RP	Pre emergence application of Oxyflourfen @ 0.2 kg/haat 2DAS followed by early post emergence spray of imazethapyr100g/ha at 15 DAS	22.95	23 %
Demonstration of sunflower hybrid LSFH-171	FP	KBSH-1(matures in 90-95 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 diseases	13.8	
	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)	18.2	31.9
Demonstration of High yielding rice variety Pratibha	FP	Cultivation of rice variety MTU 1001	35.12	
	RP	Cultivation of rice variety Pratibha (Duration 125 days, potential yield- 52.3 q/ha, adaptability to rainfed and irrigated medium land, Resistance to brown spot and glume discoloration)	42.89	22.12
Demonstration of herbicide in Rice	FP	Manual weeding (Hand weeding at 21 DAT)	34.3	
	RP	Bispyribac sodium + Almix(metsulfuron methyl + chlorimuron-ethyl) on 25 @ (20+4 g)/ha as post emergence	43.37	26.44
Demonstration of tomato variety-Arka Rakshak	FP	Cultivation of hybrid tomato variety Laxmi yield potential of 350q/ha	350.3	
	RP	Cultivation of hybridtomato variety-Arka Rakshak	412.5	17.75 %

Demonstration of Foliar Spray of Micronurient in Marigold	FP	No spray of micronutrient	95.9	
	RP	Foliar Spray of Micronurient in Marigold	114.4	19.29%
Demonstration on cowpea variety-Kashi Kanchan	FP	Cultivation of varieties (bhagyalaxmi) which is attacked by YMV with yield potential of 120q/ha	102.1	
	RP	Cultivation of variety Kasi Kanchan	119.4	16.94 %
Demonstration on wilt complex management in Tomato	FP	Spraying of Carbandazim@1kg/ha	218	
	RP	Management of wilt complex in Tomato	280	28.44
Demonstration on consortia biofertiliser application in tomato	FP	Application of chemical fertilizer 120:46:30 N:P_2O_5:K_2O Kg/ha	336.6	
	RP	Demonstration on consortia biofertiliser application in tomato	415.7	23.5
Demonstration on INM in groundnut	FP	Application of NPK fertilizers only (20:40:40 Kg N: P_2O_5 :K_2O /ha)	18.74	-
	RP	Demonstration on INM in groundnut	23.16	23.6
Demonstration on acid soil management in sunflower	FP	Application of NPK fertilizers only (50:69:30 Kg N: P_2O_5 :K_2O /ha)	13.46	
	RP	Demonstration on acid soil management in sunflower	18.47	37.22
Demonstration on integrated nutrient management in tuberose	FP	Application of 100% RDF+ FYM 1kg/m^2	4.72	
	RP	Demonstration on INM in tuberose	5.92	25.4 %
Demonstration on management of Diamond back moth in Cabbage	FP	Spraying of Imidacloprid@ 200ml/ha	420	
	RP	Management of Diamond back moth in cabbage	500	19.04
Demonstration on management of Blast disease in Rice	FP	Spraying of Carbandazim@ 1kg/ha	36.7	
	RP	Seed treatment with tricyclazole @ 3 g/kg of seed and foliar spraying of tricyclazole @ 300 g/ ha, twice at 15 days interval	44.2	20.43
Demonstration of Rice varieties for tolerance against BPH in Kharif Rice	FP	Growing of Pooja varieties (145-150 days)	41.2	-
	RP	Growing of Hasant varieties (145 days)	45.4	10.19
Demonstration on Yearling stocking for yield enhancement in Community pond	FP	Stocking of Fish fry/fingerlings and not maintaining the stocking ratio	31.70	75
	RP	Yearling Stocking in Community pond @ 5,000 Nos./ha; Surface : Column : Bottom feeder :: 3 : 4 : 3	42.00	94
Demonstration on Pond based Farming System	FP	Practicing only pisciculture	26.70	-
	RP	Fish-cum-poultry-vegetable Integrated farming system	31.25	4.30

Demonstration on use of Calcium propionate [$Ca(C_2H_5COO)_2$] during fish curing	FP	Salting or drying practice followed in un-hygenic condition without any effective preservation methods/value addition	8.5±1.67	30±3.20
	RP	Application of food grade preservatives during curing;	9.53±1.35	15.4±2.89
Demonstration on low input poultry breed Kadaknath in Backyard	FP	Rearing of indigenous bird	Yield kg/bird (6 month)-0.43	
	RP	Rearing of Kadaknath breed Kadaknath bird body wt at 20 weeks 1170g, Avg. annual egg production 190. Tolerance to acute stress condition. Brooding management for 21 days, vaccination with against RD on 7th Day, 28 day, IBD on 14th day	Yield kg/bird (6 month)-0.65	Mortality(%) decrease-25%

CLUSTER DEMONSTRATION ON PULSE

Sl No.	Name of crop	Variety	Location Village/Block	Area (ha) / No.	No. of beneficiary
1	Greengram	IPM 02-14	Jharapalli,Panada Block-Chikiti	10	25

TRAININGS

Type	Target			Achievement		
	No.	Duration (in Days)	No of Farmers	No.	Duration (in Days)	No of Farmers
Farmers & Farm Women	60	60	1500	60	60	1500
Rural Youths	20	40	300	20	40	300
In-Service Personnel	6	12	60	3	6	30
Total	86	112	1860	83	106	1830

OTHER EXTENSION ACTIVITIES

Extension Activities	Achievement (Up to March 18)	
	No	Participants
Field Days	8	400
Kisan Mela	2	600
Diagnostic visit	48	790
Group Meeting	6	150
Scientific Visit to farmers Fields	170	830
Farmers Visits	250	250
Lecture Delivered by KVK Scientists	20	700
Exhibitions	2	Mass

Film Shows	1	Mass
Radio Programmes	6	Mass
TV Shows (News-18- Annadata & DD-Oriya-Palishri	15	Mass
Soil Testing Campaigns	170	170
KMA	41	20200
Celebration Day	12	2100

PUBLICATION

Sl.No.	Item	No.	No. of copies printed
1	Book/ Booklet	3	1500
2	Leaflets	02	2000
3	Poster/Flex	18	18
4	News letter	1	500
5	News paper Coverage	12	-
6	Popular Articles	10	5000
7	Technical bulletins	14	14
8	Technical report	06	30
9	Training material	06	12
10	Training Calender	01	100
11	CDs/ DVDs	01	10

REVOLVING FUND

(i) Achievement Paddy seed

Season	Variety	Category	Area (ha)	Production (q)
Kharif 2020	Paddy seed- Swarna Sub-1	FS	5.0	200 q
Kharif 2020	Greengram-IPM02-14	TL	2.0	10.2 q
Rabi 2020-21	Greengram-IPM02-14	TL	1.0	Cont….

(ii) Quality planting material production

Name of plant	**Variety**	**No. produced**
Papaya	Red lady / Sapna F1	1500 nos
Drumstick	PKM-1	1100 nos
Tomato	Arka Rakshak	5000 nos
Chilli	Arka harita/ Arka Meghana	7000 nos
Onion	Arka bindu	100000 nos
Brinjal	Akshita	10000 nos

Name	**No. produced**
Vermicompost	22.5 q
Vermin	16.00 kg

Existing Demo Units*:*

Demo-Units	Quantity of Output Area/No./ Kg etc	Demo-Units	Quantity of Output Area/No./ Kg etc
Vermicompost	3q	Azola 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

ACTION PLAN (Rabi-2020-21)

ON FARM TESTING (OFT)

Crop	Title	Treatments	No. of farmers
Blackgram	Assessment on chemical weed management in Blackgram	FP -No weeding	7
		TO_1 - Pendimethalin 30 % EC @ 1kg/ha at 3 DAS as PE	
		TO_2 -Pendimethalin 30% EC+ Imazethapyr 2%EC premix @1.00 kg a.i/ha at 2DAS as pre emergence	
Chilli	Assessment of chilli varieties	FP - Cultivation of Chili F1 hyb. Daya	7
		TO_1 - Cultivation of Chili F1 hyb. Arka Harita	
		TO_2 - Cultivation of Chili F1 hyb. Arka Meghna	
Cauliflower	Assessment of secondary(sulphur)/ Micro(Boron) nutrient for curd quality and higher yield in cauliflower	FP - Application of chemical fertilizer (110:46:45Kg N: P_2O_5 :K_2O /ha) only	7
		TO_1 - STBF (NPK) + Sulphur @ 30 kg ha^{-1} + 1 kg Boron as Borax as basal application	
		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	
Greengram	Assessment of integrated nutrient management on yield enhancement of greengram	FP - Application of chemical fertilizer (15:40:0 Kg N: P_2O_5 :K_2O /ha) only	7
		TO_1 - 100% STBF + FYM @5t/ha	
		TO_2 - 100% STBF + FYM@5t/ha+Rhizobium seed treatment@20g/kg seed+ Soil application of PSB @ 4 kg/ha	
		$T0_3$-100% STBF + FYM@5t/ha + Lime @ 0.2 LR + Rhizobium seed treatment@20g/kg seed+ Soil	
		application of PSB @ 4 kg/ha	
Fish	Assessment of Soil and water Probiotics as remedial measures for pisciculture in problematic waters.	FP - Application of Organic manure	7
		TO_1 - Application of Water probiotic @ 1kg/Ac at fortnight interval.	
		TO_2 - Application of Soil Probiotic @ 1lt/Ac at Fortnight interval.	
		$T0_3$ - Alternative application of both soil and water probiotic at fortnight interval.	
Fish	Assessment of different Parasiticidal agents in controlling external parasites in grow-out carp culture system	FP - Mechanical removal of the Parasite or in few cases use of Formalin (37% HCHO)	7
		TO_1 - Pond application of Synthetic Pyrethroid like Cypermrthrin 10% EC @60 ml/Acre.mt or Deltamethrin 2.8% @ 80ml/Acre-mt (4 times in weekly interval)	
		TO_2 - Application of Emamectin Benzoate/Ivermectin @ 50 µg/Kg^{-1} fish through feed.	

FRONT LINE DEMONSTRATION

Crop	Title	Technology	No. of demo	Area (ha)
Groundnut	Demonstration Of herbicides in weed management in Groundnut	FP-No use of herbicide, hand weeding at 20 DAS	10	2 ha
		RP-Technology to be demonstrated : Pre emergence application of Oxyflourfen @ 0.04 kg/ha followed by early post emergence spray of imazethapyr 0.12/ha.		
Sunflower	Demonstration of sunflower hybrid LSFH-171	FP-KBSH-1(matures in 90-95 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 diseases	10	2
		RP-Cultivation of downy mildew resistant sunflower hybrid LSFH-171 with 60:90:60NP2O5K2O Kg/ha .Application of sulphur @20kg/ha SSP OR apply gypsum @200kg/ha as basal. Spray Borax @ 0.2%(2g/l of water) to capitulum at ray floret opening stage to improve seed set and seed filling.		
Onion	Demonstration on onion variety- Arka bindu	FP-Cultivation of varieties (Agrifound darkred) susceptible to neck benting	10	1
		RP-Demonstration on onion variety- Arka bindu		
Tomato	Demonstration of tomato variety- Arka Rakshak	FP-Cultivation of hybrid tomato variety Laxmi yield potential of 350q/ha	10	1 ha
		RP-Cultivation of tomato variety- Arka Rakshak		
Marigold	Demonstraion of Foliar Spray of Micronurient in Marigold	FP-No spray of micronutrient	10	1
		RP-Foliar spray of 0.5% Zinc sulphate sprayed at 10^{th} and 30th day after transplanting of seedlings		
Sunflower	Demonstration on acid soil management in sunflower	FP-Application of NPK fertilizers only (50:69:30 Kg N: P_2O_5 :K_2O /ha)	10	2
		RP-STBF +FYM @5t/ha +lime @0.2 LR +Bio-inoculant (azotobacter and azospirillum)@10 kg/ha		
Tomato	Demonstration on consortia biofertilisers application in tomato	FP-Application of chemical fertilizer 120:46:30 N:P_2O_5:K_2O Kg/ha	1010	1
		RP-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/sowing of crops		
Chilli	Demonstration on integrated nutrient management in chilli	FP-Application of NPK fertilizers only (20:40:40 Kg N: P_2O_5 :K_2O /ha	10	1
		RP-Use of STBF based NPK + biofertilizer (Azotobactor, Azosprillum &PSB @ each 4kg/ha)+ vermicompost @5t/ha increases the dry chilli by 8.5% over soil test based fertilizer application		
Rice	Demonstration of rice varieties for	FP-Growing of Pooja (145-150 days)	10	2

	Tolerance against BPH in Kharif, Rice	RP-Growing of Hasanta(145 days)		
Groundnut	Demonstration of chemical management of Collar rot disease in Rabi, Groundnut	FP-Spraying of Carbandazim@ 1kg/ha. RP-Management of collar rot problem in Groundnut.	10	2
Sunflower	Demonstration of management of tobacco caterpillar in Sunflower	FP-No spray of chemicals RP-Management of tobacco caterpillar in sunflower	10	2
Cashewnut	Demonstration on chemical management of tea mosquito bug in cashewnut	FP-No use of pesticides. RP-Demonstration on chemical management of tea mosquito bug in cashewnut	10	2
Poultry	Demonstration on artificial brooding management in chicks.	FP-Improper brooding management RP-Brooding management for 21 days with floor space of 0.3 sqft/bird with help of chick guards, artificial heat @ 1-3 watt per chick , feeders and drinkers @ 1 each per 50 chicks, vaccination with against RD on 7^{th} day, 28 day, IBD on 14^{th} day . Use of electrolytes, preventive antibiotics during brooding.	10	200 nos
Fish	Demonstration on Yearling stocking for yield enhancement in Community pond	FP-Stocking of Fish fry and not maintaining the stocking ratio RP-Yearling Stocking in Community pond	10	2
Fish	Demonstration on Use of Insulated fish bag to preserve quality of Fish	FP-Use of local made bamboo basket or Plastic bag during retail vending RP-Use of 3 layered insulated Fish carrying bag during retail vending.	10	2
Fish	Demonstration on Pond based Farming System	FP-Practicing only pisciculture RP-Full utilization of bund area (app.30% of WSA) with animal (Poultry/Duckery/Cow)-horticulture (Fruit and vegetables) components so as to get more production from unit area with a reduced avg. cost of cultivation	10	2
Fish	Demonstration on Amur carp as substitute to Mrigal in composite pisciculture	FP-Maintaining stocking ratio of Catla: Rohu : Mrigal:: 30:40:30 RP-Stocking ratio Catla: Rohu:Mrigal:Amur carp :: 30:40:10:20 @ 7500 nos/ha with proper soil and water quality management.	10	2
Poultry	Demonstration on low input poultry breed Kadaknath in Backyard	FP-Rearing of indigenous bird RP-Rearing of Kadaknath breed	10	200 nos

FRONT LINE DEMONSTRATIONS (PULSES)

Name of the crop	Variety	Demonstrated area	No. of. Demo
Greengram	PM02-14	10 ha	25

TRAININGS:

Type	Target		
	No.	Duration (in Days)	Participants
Farmers & Farm Women	30	30	750
Rural Youths	10	20	150
In-Service Personnel	5	10	50
Vocational training	5	30	75
Total	50	80	1025

OTHER EXTENSION ACTIVITIES:

Extension Activities	Target	
	No	Participants
Field Days	5	150
Kisan Mela	2	2000
Diagnostic visit	55	780
Group Meeting	5	125
Scientific Visit to farmers Fields	120	1000
Farmers Visits	200	200
Lecture Delivers by KVK Scientists	20	700
Exhibitions	2	Mass
Film Shows	2	100
Radio Programmes	6	Mass
TV Shows	6	Mass
SAC Meeting	1	33
KMA	30	20900

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	8000nos
Chilli	Ukalrashmi	PM	8000
Capsicum	Onion	PM	10000

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