THE 9TH SCIENTIFIC ADVISORY COMMITTEE MEETING

16/01/2020

KRISHI VIGYAN KENDRA, GANJAM-II

ODISHA UNIVERSITY OF AGRICULTURE AND 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 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 2ndKrishi 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	8,71,000 ha
Cultivated Area	4,06,000 ha
High Land	1,90,820 ha (47% of cultivated area)
Medium Land	1,13,680 ha (28% of cultivated area)
Low land	1,01,500 ha (25% of cultivated area)
Irrigation Potential	
*Kharif*Area Irrigated	3,13,038 ha
*Rabi*Area Irrigated	69,781 ha
Soil Type	Laterite soil, Black cotton soil, Red
Average annual rainfall	1276.2mm
Cropping Intensity	202 %
Major crops grown	Paddy, maize, ragi, greengram, blackgram, groundnut, vegetables, sugarcane, chilly, ginger, cotton etc.

STATUS OF MAJOR CROPS AND COMMODITY OF GANJAM DISTRICT

Sl. No.	**Name of the crop**	**Kharif**			**Rabi**		
		A	**Y**	**P**	**A**	**Y**	**P**
01	Paddy	251.32	550	138.14	0.54		
02	Ragi	45.0	895	40.28	0.94	1003	2.44
03	Maize	10.95	2282	27.66	0.93		
04	Groundnut	11.40	1250	14.25	18.68	1928	36.02
05	Sesamum	11.63	414	4.81	14.57	420	6.12
06	Sunflower				0.49	1115	0.55
07	Green gram	3.58	455	1.63	155.84	521	81.19
08	Black gram	16.38	466	7.63	32.80	468	15.35
09	Pigeonpea	13.6	934	12.7			

Sl.No.	Name of the crop	Area (In '000 ha)	Productivity (in Kg./ha)	Production (in '000 MT)
01	Brinjal	5.02	25750	129.16
02	Cabbage	1.51	27920	42.05
03	Cauliflower	2.41	14760	35.56
04	Okra	3.46	8760	30.33
05	Pea	0.34	9060	3.07
06	Chilli	5.42	1360	7.37
07	Tomato	4.42	12870	56.87
08	Onion	0.59	8650	5.11
09	Potato	0.36	15120	5.49
10	Sweet Potato	7.52	9780	73.55
11	Radish	0.54	11750	6.38
12	Other vegetables	25.18	15548	391.49

ADOPTED VILLAGES

Village Name	Year of adoption	Block Name	Distance from KVK	Population	Number of farmers (having land in the village)
Raijhol	2012	Kukudakhandi	15 km	256	130
Padripalli	2012	Kukudakhandi	10 km	167	120
Dighapada	2012	Hinjilikatu	35 km	270	226
Bhimpur	2013	Pursotampur	45 km	230	90
Balrampur	2013	Chhtrapur	42 km	190	133
Giria	2016	Hinjilikatu	30 km	1980	1700
Putipadar(ST)	2017	Rangeilunda	30 km	1200	980
Jharapadar	2017	Ganjam	50 km	550	450
Rajanapalli	2017	Chhatrapur	45 km	509	410
Narayanpur(ST)	2019	Patrapur	35 KM	142	53
Panada	2019	Chikit	8 KM	540	370

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	Til-rice-pulse/vegetable, Vegetable-vegetable

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

Strength	Weakness	Opportunities	Threats
(i)Ecological -Hot and humid climate favouring 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 -Black cotton soil for cotton 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 and salt harvester -Large and skilled farmers for	(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	(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	(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

entreprenueurship 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 -Biological pest control laboratory at Chatrapur -Fish seed hatchery -Diversities (iv)Production system -Diversities of paddy, pulse, oilseed and vegetable crop varieties -village tank for fresh water 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 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	-Engagement of child labour in agriculture -Small and fragmented land holding -predominance of landless and marginal farmer -Lack of farmers organization -Exploitation of middle man (iii)Infrastructure -Inadequate agroprocessing and storage structure -Inadequate irrigation -Disorganized marketing -Non availability of fruit preservation unit -Defunt LIPs (iv)Production system -Yield gap due to lack of scientific knowhow -Monocropping 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 -Technological gap in management of pisciculture Lack of rejuvenation of old orchard	-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 upgradation and dairy -Community fodder cultivation for dairy -Scope for breed up gradation in goatery and poultry -Renovation of fish tanks and composite pisciculture -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	-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

SCIENTIFIC ADVISORY COMMITTEE (SAC)

As per the guidelines of Indian Council of Agricultural Research (ICAR), New Delhi and after obtaining the administrative approval of the Hon'ble Vice-Chancellor, Orissa 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; Deputy Director of Agriculture, District Agriculture Officer, 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, 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. The main objective of the SAC meeting is to assess the activities of KVK achieved during last year and to finalize the action plan for the next year.

8th SAC RECOMMENDATION

Recommendation	Action taken
➢ Tolerant variety of Brinjal must be included.	➢ Demonstration and training on fruit and shoot borer tolerant and wilting tolerant variety Swarna shyamali has been included in this action plan 2019-20.
➢ In varietal trials disease pest parameters should be studied.	➢ Assessment on performance of high yielding Ragi varieties, assessment on leaf curl tolerant variety and tuberose cultivar will be taken up this year with observation on disease pest parameters.
➢ Point gourd demonstration in trails method.	➢ Point gourd cultivation in trellis method will be demonstrated in instructional farm.
➢ Prominent disease management practices.	➢ Assessment of Integrated disease management practices for Collar rot in Rabi Groundnut, Front Line demonstration on management of Blast disease in Rice, FLD on wilt complex management in Tomato, FLD on management of Fruit fly in mango. FLD on management of diamond back moth in Cabbage will be taken up in year 2019-20,

➢ Weed management in Pulse crop.	Assessment on chemical weed management in blackgram will be conducted during rabi-2019-20. Under CFLD programme weed management on green gram will also be taken up.
➢ Foliar spray in green gram should be practiced.	➢ Under CFLD programme foliar spray practice is being carried out.
➢ Arhar variety IPCL20338 should be popularised.	➢ Demonstration on Arhar variety IPCL20338 will be taken up in KVK farm.
➢ Local variety of vegetables should be popularised.	➢ Under PPV & FRA programme emphasis has been given on cultivation of local varieties
➢ Emphasis on organic farming.	➢ Training and demonstration is being carried out from time to time on organic farming.
➢ Value addition of fish should be emphasized .	➢ FLD on use of calcium propionate for preservation of cured fish, Training on value addition and value added product from fish and shell fish has been done.
➢ Demonstration units in KVK campus.	➢ KVK has been shifted to its new location at Golanthara on 31st Dec. 2018 hence the demonstration units are being established during 2019-20.
➢ Programme on Kewda (Pandanusodorifer) cultivation.	➢ Training on scientific cultivation of Kewda has been included in the action plan 2019-20

ACHIEVEMENTS OF THE MANDATORY ACTIVITIES (April 2019 to December 2019)

Detail of On –Farm Testing

Crop/ Component	Technology Assessed	Technology option	Details of technologies	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
Ragi	Assessment of performance of high yielding ragi varieties	TO_1	Bhairabi Duration 105-110 days, yield potential 24-44 q/ha.	19.8	19980	39600	19620	1.98
		TO_2	Arjun Duration of the variety is 110 days and the yield potential 18-38q/ha,	22.7	19980	45500	25520	2.04
		TO_3	Kalua Duration of the variety 110 days. yield potential 26-35q/ha.	20.4	19980	40780	20800	2.27
Tuberose	Assessment of tuberose cultivars	TO_1	Arka Prajawal: The flowers buds are slightly pinkish in colour, while the flowers are white and single , Long stiff spike (120cm, 50 florets per spike) Yield potential - 20 tonnes/ha	8.92	5.40 No. of spike per clump	46.80 No. of floret Per spike	543696	4.20
		TO_2	Arka Nirantar: White single flowers ,spike length is of 95-100cm,yield potential-15 tonnes/ha	7.71	4.60 No. of spike per clump	42.00 No. of floret Per spike	461826	3.98
Rice	Assessment of Performance of rice varieties for Tolerance against BPH in Kharif, Rice	TO_1	Growing of Pooja(150 day	43.8	46312	64386	18074	1.39
		TO_2	Growing of Hasanta(145 days)	45.6	46965	67032	20067	1.42

Details of FLD

Technology demonstrated	Detail of Technology	Name of Crop/ Enterprise	Name of Variety/ Technology/ Enterprises	Crop- Area (ha)/ Entrep - No.	Results (q/ha)		% increase in Yield
					FP (T_1)	RP (T_2)	
Demonstration of weed management in rice	Application of Bensulfuron methyl+ pretilachlor (Londax power) @60+600g/ha at 3 DAT	Rice	Pooja	1	**40.56**	**45.28**	**11.63**
Demonstration of High yielding rice variety Pratibha	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)	Rice	Pratibha	1	38.45	43.72	13.7
Demonstration on cowpea variety- Kashi Kanchan	Kasi Kanchan variety is bushy(height50-60 cm),, early flowering(40-45days after sowing) early picking(50-55 days after sowing and resistant to YMV, bushy, green fleshy pod, suitable for both Kharif and Rabi, yield 150-175 q/ha	Cowpea	Kashi Kanchan	1	108.01	148.69	37.66%

<table>
<tr><td>Demonstration of Arka Microbial Consortium in brinjal plant</td><td>Seed treatment with Arka Microbial Consortium (10-20g inoculum is used to treat 100-200 gram seeds) with the main field application of one acre of land, five kg of AMC can be mixed with 500 kg of FYM and applied near the root zone in standing crop</td><td>Brinjal</td><td>Akshita</td><td>1 ha</td><td>244.0</td><td>283.04</td><td>16</td></tr>
<tr><td>Demonstration on integrated nutrient management in tuberose</td><td>Application of 75% STBF +FYM 1kg/m^2 + Vermicompost (300g/m^2)+ Azospirillum 2g/plant + PSB 2g/plant</td><td>Tuberose</td><td>Calcutta single</td><td>0.4 ha</td><td>4.98</td><td>6.70</td><td>34.5%</td></tr>
<tr><td>Demonstration on management of Blast disease in Rice</td><td>Seed treatment with tricyclazole @ 3 g/kg of seed and foliar spraying of tricyclazole @ 300 g/ ha, twice at 15 days interval</td><td>Rice</td><td>-</td><td>1 ha</td><td>26.7</td><td>38.2</td><td>43%</td></tr>
<tr><td>Demonstration on use of Sea Weed Extract for better growth and survivability of carp Fry in Nursery</td><td>Use of sea weed extract @ 1 Kg/Ac/month+ Mineral Mixture 1kg/Ac/month in two split doses at fortnight interval for better natural productivity of pond</td><td colspan="6">Fish, 2 ha
<table>
<tr><th rowspan="2">Results</th><th colspan="6">Yield Parameter</th><th rowspan="2">Survival %</th><th colspan="3">Water parameters</th><th rowspan="2">Gross Return (Rs/ha)</th><th rowspan="2">Net Return Rs/ha</th><th rowspan="2">BC Ratio</th></tr>
<tr><th colspan="3">Avg Length (mm)</th><th colspan="3">Avg Wt (gm)</th><th>pH</th><th>Plankton ml</th><th>DO ppm</th></tr>
<tr><th></th><th>C</th><th>R</th><th>M</th><th>C</th><th>R</th><th>M</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr>
<tr><td>FP</td><td>70</td><td>65</td><td>68</td><td>10.50</td><td>8.80</td><td>9.50</td><td>60</td><td>7.30</td><td>1.70 ml</td><td>6.0</td><td>178000</td><td>65000</td><td>1.57</td></tr>
<tr><td>Demo</td><td>85</td><td>80</td><td>75</td><td>12.80</td><td>11.00</td><td>10.20</td><td>78</td><td>7.40</td><td>2.40 ml</td><td>6.0</td><td>205000</td><td>93000</td><td>1.83</td></tr>
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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	50

TRAININGS

Type	Target			Achievement (April 2919 to Dec. 2019)		
	No.	Duration (in Days)	No of Farmers	No.	Duration (in Days)	No of Farmers
Farmers & Farm Women	60	60	1500	55	55	1375
Rural Youths	20	40	300	13	26	195
In-Service Personnel	6	12	90	0	0	0
Vocational training	6	32	90	0	0	0
Total	**92**	**144**	**1980**	**68**	**81**	**1570**

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

KVK	Variety	Category	Area (ha)	Production (q)
Kharif 2019	Swarna Sub-1	FS	4.0	150 q

(ii) Quality planting material production

Name of plant	Variety	No. produced
Papaya	Red lady	2000nos
Drumstick	PKM-1	1000nos
Tomato	Utkalraja	20000nos
Chilli	Utkalrashmi	20000
Capsicum	California wonder	2000

(iii) Others

Name	**No. produced**
Vermicompost	12 q
Vermin	5.5 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 (2020-21)

ON FARM TESTING (OFT)

Crop	Title	Treatments	No. of farmers
Rice	Assessment of different herbicide combination on weed management in transplanted rice	TO_1 - Hand weeding twice at 25 & 45 DAT TO_2 - Pretilachlor on 3 DAT @ 750 g/ha followed by Almix (metsulfuron methyl + chlorimuron- ethyl) on 25 DAT @ 4g/ha TO_3 - Bispyribac sodium + Almix(metsulfuron methyl + chlorimuron- ethyl) on 25 DAT @ (20+4 g)/ha as post emergency	5
Greengram	Assessment on chemical weed management in Greengram	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	07
Tuberose	Assessment of tuberose cultivars	TO_1 - Cultivation of Arka Prajawal TO_2 - Cultivation of Arka Nirantar	07
Chilli	Assessment of leaf curl tolerant chilli varieties	TO_1 - Cultivation of Chili F1 hyb. Arka Harita TO_2 - Cultivation of Chili F1 hyb. Arka Meghna	07
Cauliflower	Assessment of secondary(sulphur)/ Micro(Boron) nutrient for curd quality and higher yield in cauliflower	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	05
Green gram	Assessment of integrated nutrient management on	TO_1 - 100% STBF + FYM @5t/ha	07

	yield enhancement of greengram	TO_2 - 100% STBF + FYM@5t/ha+l Rhizobium seed treatment@20g/kg seed+ Soil application of PSB @ 4 kg/ha TO_3 - 100% STBF + FYM@5t/ha + Lime @5q/ha + Rhizobium seed treatment@20g/kg seed+ Soil application of PSB @ 4 kg/ha	
Rice	Assessment of BPH control in chemical managemnt in Kharif Rice	TO_1 - Spraying of Acephate 50%+Imidachloprid 17.8% SL @1.5kg/hact. TO_2 - Spraying of Flubendiamide 4%+Buprofezin 28%@700ml/hact.	07
Groundnut	Assessment of Integrated disease management practices for Collar rot in Rabi, Groundnut	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. TO_2 - Seed treatment with Tebuconazole @ 1.5 g/kg followed by furrow application o*f 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	07
Fish (Amur carp)	Assessment of Amur carp for increasing fish production in mixed carp culture	TO_1 - Stocking ratio Catla: Rohu : Mrigal :Amur carp :: 30:40:10:20 TO_2 - Stocking ratio Catla: Rohu:Mrigal:Amur carp :: 30:40:0:30	05
Fish	Assessment of different Parasiticidal agents in controlling external parasites in grow-out carp culture system	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.	05

FRONT LINE DEMONSTRATION

Crop	Title	Technology	No. of demo	Area (ha)
Ragi	Demonstration of ragi variety Arjun	Cultivation of ragi variety Arjun Duration of the variety is 110 days and the yield potential 23-32 q/ha, resistant to blast diseases	10	1
Rice	Demonstration of High yielding rice variety Pratibha	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	10	1

Groundnut	Demonstration Of herbicides in weed management in Groundnut	Pre emergence application of Oxyflourfen @ 0.04 kg/ha followed by early post emergence spray of imazethapyr 0.12/ha.	10	1
Sunflower	Demonstration of sunflower hybrid LSFH-171	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	10	1
Cowpea	Demonstration on cowpea variety-Kashi Kanchan	Cultivation of variety Kasi Kanchan, Kasi Kanchan variety is bushy (height50-60 cm), photo insensitive, early flowering (40-45days after sowing) early picking (50-55 days after sowing and resistant to YMV, bushy, green fleshy pod, suitable for both Kharif and Rabi, yield 150-175 q/ha	05	0.4
Ridge gourd	Demonstration on Downey mildew tolerant ridge gourd variety: BRG 3-1	Cultivation Of Ridge Gourd Variety: BRG 3-1,Sowing to 1st harvest- 55 to 60 days (kharif). Flowers are hermaphrodite in nature. Fruits are borne in clusters of 4-8 in numbers. Fruiting period- 40 to 50 days. Tolerant to anthracnose and downy mildew	05	0.4
Tomato	Demonstration of tomato variety-Arka Rakshak	Cultivation of triple disease resistant tomato F_1 hybrid Arka Rakshak Successfully withstood against to LCV, (tomato leaf curl virus) BW (bacterial wilt) & EB (early blight), Fruits square round, large size (80-100g), fruits suitable for fresh market and processing, potential yield 75-80 t/ha.in 140 days	05	0.4
Marigold	Demonstraion of Foliar Spray of Micronurient in Marigold	Foliar spray of 0.5% Zinc sulphate sprayed at 10^{th} and 30th day after transplanting of seedlings	05	0.4
Tuberose	Demonstration on INM in tuberose	Application of 75% STBF +FYM 1kg/m^2 + Vermicompost (300g/m^2)+2g/plant Azospirillum + 2g/plant PSB	05	0.4
Rice	Demonstration on application of micronutrients for yield enhancement in rice	Application of Zn @ 7.5 kg/ha through ZnSO4 and B @ 1 kg/ha through borax along with RDF increases the yield of rice by 30% and 22% respectively.	05	0.4
Tomato	Demonstration on consortia biofertilisers application in tomato	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	05	0.4
Groundnut	Demonstration on INM in groundnut	Application STBF based NPK + FYM @ 5t/ha+ sulphur 40 kg /ha + boron @ 1kg/ha as basal application	05	1

Rice	Demonstration on management of Blast disease in Rice	Seed treatment with tricyclazole @ 3 g/kg of seed and foliar spraying of tricyclazole @ 300 g/ ha, twice at 15 days interval	05	1
Okra	Demonstration of chemical management of YMV in Okra	Management of YMV in Okra Alternate spraying of thiomethoxam 25%wg @ 200gm /ha & Difenthurion 50% wt @ 750gm /ha followed by yellow sticky trap @ 20/ ha	05	0.4
Cabbage	Demonstration on management of Diamond back moth in Cabbage	Management of Diamond back moth in cabbage spray of Azadiractin 5% @200ml/ha at the time of flowering, Spraying of novaluron 10 % EC & 750 ml/ha & Emamectin benzoate 5% EC @ 200g/ha at 10-15 days interval	05	0.4
Tomato	Demonstration of leaf minor in tomato through chemical management	Installation of yellow sticky traps @ 20 /ha alternate spraying of phosalone 35% EC@ 1250/ha & Thiomethoxam 25% @200gm/ha in 10 days interval	05	0.4
Fish	Demonstration on Yearling stocking for yield enhancement in Community pond	Stocking density :- Yearling @ 5,000 Nos./ha Stocking ratio :- Surface : Column : Bottom feeder :: 3 : 4 : 3 Species composition:- Surface feeder (30%): Catla (ZP. Feeder) Column feeder (40%)- Rohu (Phytopkt. feeder)- 25-30% & Grass carp (Macro-vegetation feeder)- 10-15% Bottom feeder (30%)- Mrigal (Plant origin feeder)- 10-20% & Common carp (Animal origin feeder)- 10-20% Soil & Water quality mgmt..- Application of suitable Aquifers	05	2
Fish	Demonstration on use of Sea Weed Extract for better growth and survivability of carp Fry in Nursery	Application of sea weed extract @ 1 Kg/Ac/month+ Mineral Mixture 1kg/Ac/month in two split doses at fortnight interval, significantly maintains the desired plankton level and increases the fish yield. Sea weed extract is a liquid organic bio fertilizer having organic micro nutrient, NPK and Natural Growth Hormones. Plankton development within four Ds with no incidence of black soil and ammonia formation.	05	2
Fish	Demonstration on Monosex GIFT tilapia culture for obtaining better pond productivity	Male grows faster than female. Hardy utilises both artificial and natural food for growth. Can be effectively carried out in cemented tanks/cisterns. 2-3 crops can be obtained in a year with proper feed, soil and water quality management.	05	2
Fish	Demonstration on use of Calcium propionate	Dip treatment of fish in saturated brine containing 3% $Ca(C_2H_5COO)_2$] for 30 minutes after salting. Calcium propionate as a food grade preservative/additive (E 282) brings increased shelf	05	2

	[$Ca(C_2H_5COO)_2$] during fish curing	life (6months-1year : dried fish and up to 4 months : salted fish) but reducing the insect and fungal attack during and after preservation.		

FRONT LINE DEMONSTRATIONS (OILSEEDS AND PULSES)

Name of the crop	Variety	Demonstrated area	No. of. Demo
Pulse			
Greengram	TARM-1	20 ha	50

TRAININGS:

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

OTHER EXTENSION ACTIVITIES:

Extension Activities	Target		Achievement (Up to Nov 17)	
	No	Participants	No	Participants
Field Days	15	450	5	150
Kisan Mela	2	2000	2	600
Diagnostic visit	55	780	23	245
Group Meeting	5	125	03	75
Scientific Visit to farmers Fields	150	1200	59	470
Farmers Visits	300	200	78	
Lecture Delivers by KVK Scientists	20	700	-	-
Exhibitions	6	Mass	2	Mass
Film Shows	2	100	1	Mass
Radio Programmes	12	Mass	6	Mass
TV Shows	6	Mass	19	Mass
SAC Meeting	2	50	-	-
Animal health camp	2	100	-	-
Soil Test Campaigns	4	50	3	178
KMA	52	20900	36	20900

PLANTING MATERIALS

Name of the crop	Details of production		
	Variety	Type of Produce	Qty.
Papaya	Red lady	PM	2000nos
Drumstick	PKM-1	PM	2000nos
Tomato	Utkalraja	PM	20000nos

Chilli	Ukalrashmi	PM	20000
Capsicum	California wonder	PM	2000

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