



ACTION PLAN

(April 2019 to March 2020)



Krishi Vigyan Kendra, Angul, Odisha Zone-V (ICAR-ATARI, Kolkata)



**Odisha University of Agriculture & Technology
Bhubaneswar**

ACTION PLAN 2019-2020

1. Name of the KVK: Krishi Vigyan Kendra, Angul

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1. Name of host organization:

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2. Training programme to be organized (April 2019 to March 2020)

(a) Farmers and farmwomen

Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Nursery raising	Nursery management of kharif onion	1	1	On	17.6.19					9	16	9	16	25
Water management	Moisture management in kharif onion to get higher yield	1	1	On	3.7.19					10	15	10	15	25
Post-harvest management	Post-harvest management and storing of kharif onion	1	1	On	14.11.19					6	19	6	19	25
Cultivation of Fruit	Modern scientific methods of banana cultivation to boost banana yield	1	2	On	10.10.19					14	11	14	11	25
Yield increment	Bunch feeding technique in banana cultivation	1	1	On	1.11.19					12	13	12	13	25
Management of physiological disorders	Physiological disorders in mango and their management to get quality fruits	1	1	On	6.9.19					11	14	11	14	25
Use of growth regulators	Growth regulator application in fruits and vegetables	1	1	On	18.9.19					10	15	10	15	25
Integrated nutrient management	Role of secondary and micronutrients in quality vegetable production	1	2	On	11.12.19					12	13	12	13	25
Layout and Management of Orchards	Intercropping possibilities in fruit orchards for additional income	1	1	On	16.8.19					6	19	6	19	25
Training and pruning	Trellis system of growing cucurbit vegetables	1	1	On	16.1.20					14	11	14	11	25
Production and management technology	Improved package of practices of Medicinal and Aromatic crops	1	1	On	5.3.20					09	16	9	16	25
Integrated Pest Management	Management of insect pests in pigeonpea	1	1	Off	12.6.19					16	9	16	9	25

Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Integrated Pest Management	Use of neem and neem based pesticides	1	1	Off	7.8.19	2		1		22		25		25
Integrated Disease Management	Seed treatment for insect pest and disease management	1	1	Off	11.9.19	2		1		22		25		25
Integrated Pest Management	Insect pests of cashew and their management	1	1	Off	12.3.20	2		1		22		25		25
Integrated Pest Management	Integrated pest management practices in okra	1	1	Off	18.3.20	2		1		22		25		25
Integrated Pest Management	Management of major insect pests and diseases of greengram and blackgram	1	2	Off	10.12.19	2		1		22		25		25
Integrated Pest Management	Management of insect pests in Litchi	1	1	Off	3.7.19	2		1		22		25		25
Integrated Disease Management	Disease management in banana	1	1	Off	22.11.19	2		1		22		25		25
Safe use of pesticides	Need based Safe use of pesticides	1	1	Off	26.9.19	2		1		22		25		25
Integrated Pest Management	Integrated pest management in Kharif Paddy	1	1	Off	12.9.19	2		1		22		25		25
Value addition	Value addition of cashew apple	1	1	Off	28.06.19	2		1		22		25		25
Value addition	Value added product from Jackfruit	1	1	Off	09.07.2019	2		1		22		25		25
Location specific drudgery reduction technologies	Use of fruit harvester for drudgery reduction of farm women	1	1	Off	24.06.2019	2		1		22		25		25
Storage loss minimization techniques	Storage loss minimization techniques in cereals and pulses	1	1	Off	19.07.2019	2		1		22		25		25
Household food security by kitchen gardening and nutrition gardening	Nutritional gardening for rural farm women	1	1	Off	26.08.2019	2		1		22		25		25
Location specific drudgery reduction technologies	Use of post harvest implements in groundnut cultivation	1	1	Off	10.09.2019	2		1		22		25		25

Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Design and development of low/minimum cost diet	Preparation of low cost nutritious recipes from local produce	1	1	Off	26.09.2019	2		1		22		25		25
Income generation activities for empowerment of rural Women	Drying of Oyster Mushroom	1	1	Off	08.11.2019	2		1		22		25		25
Location specific drudgery reduction technologies	Use of weeding implements in vegetable cultivation	1	1	Off	20.11.2019	2		1		22		25		25
Storage loss minimization techniques	Storage techniques of fruits and vegetables	1	1	Off	11.12.2019	2		1		22		25		25
Location specific drudgery reduction technologies	Drudgery reduction of farm women by using Mahua flower stamen remover	1	1	Off	18.03.2019	2		1		22		25		25
Poultry Management	Quail farming in semi-intensive system	1	1	Off	13.6.19	2		1		22		25		25
Dairy Management	Care and management of Mastitis in dairy animals	1	1	Off	8.8.19	2		1		22		25		25
Poultry Management	Complete documentation and record keeping in poultry farming	1	1	Off	11.9.19	2		1		22		25		25
Dairy Management	Repeat breeding and anestrus management in dairy animals	1	1	Off	13.3.20	2		1		22		25		25
Goat farming	Feeding and health management in goats	1	1	Off	17.3.20	2		1		22		25		25
Disease Management	Various Contagious disease & their control in dairy animals	1	1	Off	11.12.19	2		1		22		25		25
Feed management	Feeding of processed crop residues for better utilization by dairy animal	1	1	Off	2.7.19	2		1		22		25		25
Poultry Management	Management of heat and cold stress in poultry	1	1	Off	15.11.19	2		1		22		25		25

Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Production of quality animal products	Clean milk production	1	1	Off	26.9.19	2		1		22		25		25
Production Management	Fishpond preparation and its management	1	2	Off	12.6.19					9	16	9	16	25
Production Management	Carp fingerling production in seasonal ponds	1	1	Off	25.6.19					10	15	10	15	25
Production Management	Water management practices for enhancement of fish yield	1	2	Off	22.7.19					6	19	6	19	25
Production Management	Production of stunted yearlings	1	1	Off	20.11.19					14	11	14	11	25
Production Management	Species selection & management of stocking density in composite Carp culture system	1	1	Off	5.7.19					12	13	12	13	25
Production Management	Culture of Amur Carp with IMC & its scientific management	1	1	Off	8.7.19					11	14	11	14	25
Production Management	Poultry cum fish farming technique	1	1	Off	15.11.19					10	15	10	15	25
Production Management	Monoculture of F. W. Prawn	1	1	Off	22.10.19					12	13	12	13	25
Disease Management	Fish Disease diagnosis and management	1	1	Off	6.12.19					6	19	6	19	25
Production Management	Use of FRP Carp hatchery for fish seed production	1	1	Off	9.10.19					14	11	14	11	25
Production Management	Ornamental fish culture technique in backyard (FW)	1	1	Off	17.12.19					09	16	9	16	25
Extension Management	Strengthening of rainfed production system for sustainable agriculture	1	2	On	30.7.19-31.7.19					15	10	15	10	25

(b) Rural youths

Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Nursery Management of Horticulture crops	Nursery management in vegetable crops	1	2	On	18.10.19	1			1	11	2	12	3	15
Post-harvest Technology	Post-harvest handling of horticultural crops to increase their shelf life	1	2	On	5.2.20	1		1		9	4	11	4	15
Nursery management in horticultural crops	Quality planting material production in fruit crops	1	5	On	15.7.19					10		10		10
Production of organic inputs	Preparation of all kinds of insect traps and its use in pest management.	1	2	On	19.7.19					8	7	8	7	15
IPDM	Integrated pest and disease management in groundnut	1	2	On	20.1.20					10	5	10	5	15
Bee Keeping	Rearing of honeybee	1	5	On	4.2.20					10		10		10
Mushroom production	Indoor and outdoor method of mushroom cultivation	1	2	On	2.7.19					8	7	8	7	15
Enterprise development	Value added products from oyster mushroom	1	2	On	21.1.20					5	10	5	10	15
Enterprise development	Enterprise development through processing and value addition of fruits and vegetables	1	5	On	10.2.20						10		10	10
Fodder production	Hydroponic fodder cultivation for livestock feed management	1	2	On	11.9.19					8	7	8	7	15
Poultry production	Important diseases of poultry and their prevention	1	2	On	25.7.19					11	4	11	4	15
Value addition	Value addition in milk	1	2	On	24.9.19					11	4	11	4	15
Dairying	Commercial dairy farming	1	5	On	4.2.20					6	4	6	4	10
Feed Management	Use of different types of probiotic for augmentation of fish yield	1	2	On	28.6.19					4	11	4	11	15
Income Generation	Ornamental fish Aquarium preparation technique & its marketing for women empowerment	1	2	On	16.10.19	1	2	1	1	1	9	3	12	15

Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Feed Management	Low cost fish feed preparation methods and its use	1	5	On	7.8.19	1		1		5	8	7	8	15
Group dynamics	Strengthening agriculture extension through farmers producer organization	1	2	On	28.8.19-29.8.19					10	5	10	5	15
Information & Communication Technology	ICTs for effective Agriculture decision making	1	2	On	25.9.19-26.9.19					10	5	10	5	15
Entrepreneurship development	Rural Enterprises for established entrepreneurs	1	2	On	17.10.19-18.10.19					10	5	10	5	15

(c) Extension functionaries

Thrust area/ Thematic area	Title of Training	No.	Duration (Days)	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Protected cultivation technology	Micro irrigation systems and mulching for increasing water use efficiency in horticultural crops	1	1	On	3.3.20	1			1	11	2	12	3	15
Productivity enhancement in fruit crops	Calendar wise operations to be conducted in mango	1	1	On	2.8.19	1		1		9	4	11	4	15
Integrated Pest Management	Integrated pest management practices in different field crops	1	1	On	24.9.19	1			1	11	2	12	3	15
Integrated Pest Management	Use of bio agents in IPM practice	1	1	On	20.8.19	1		1		9	4	11	4	15
Gender mainstreaming through SHGs	Gender friendly post-harvest technologies/ equipment	1	1	On	23.07.19						15		15	15
Low cost and nutrient efficient diet designing	Preparation of Nutri-guide for women and children	1	1	On	19.02.2020						15		15	15
Management in farm animals	Metabolic diseases in dairy cow and its preventive measures	1	2	On	23.9.19	3	2			8	2	11	4	15
Management in farm animals	Bird flu and its preventive measures	1	2	On	20.8.19	3	2			8	2	11	4	15
Production Management	Innovative Aquaculture Practices	1	2	On	6.11.19	2	3			2	8	4	11	15
Production Management	Medium carp culture with IMC	1	2	On	23.7.19					6	9	6	9	15
Project Management	Project Management skills for senior agriculture officers	1	2	On	23.7.19					6	9	6	9	15
Sustainable Agriculture	Climate change adaptation in agriculture	1	2	On	23.9.19	3	2			8	2	11	4	15

Abstract of Training: Consolidated table (ON and OFF Campus)

Farmers and Farm women

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
I. Crop Production													
Weed Management													
Resource Conservation Technologies													
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management													
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)													
TOTAL													
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management	1	22	3	25							22	3	25
Water management	1	20	5	25							20	5	25
Enterprise development													
Skill development													
Yield increment	1	21	4	25							21	4	25
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising	1	18	7	25							18	7	25
Exotic vegetables like Broccoli													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Training of cucurbits	1	15	10	25							15	10	25
Post-harvest management	1	17	8	25							17	8	25
TOTAL	6	113	37	150							113	37	150
b) Fruits													
Training and Pruning													
Layout and Management of Orchards	1	21	4	25							21	4	25
Cultivation of Fruit	1	18	7	25							18	7	25
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Use of growth regulators	1	22	3	25							22	3	25

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Management of physiological disorders	1	21	4	25							21	4	25
TOTAL	4	82	18	100							82	18	100
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
TOTAL													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology	1	19	6	25							19	6	25
Post harvest technology and value addition													
Others, if any													
TOTAL	1	19	6	25							19	6	25
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Micro-nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
TOTAL													
IV. Livestock Production and Management													
Dairy Management	2	34	4	38	6	2	8	2	2	4	42	8	50
Poultry Management	3	60	3	63	3	3	6	3	3	6	66	9	75
Piggery Management													
Rabbit Management													
Disease Management	1	18	1	19	3	1	4	1	1	2	22	3	25
Feed management	1	18	1	19	3	1	4	1	1	2	22	3	25
Production of quality animal products	1	18	1	19	3	1	4	1	1	2	22	3	25
Goat farming	1	18	1	19	3	1	4	1	1	2	22	3	25
TOTAL	9	166	11	177	21	9	30	9	9	18	196	29	225
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	1											25	25
Design and development of low/minimum cost diet	1											25	25
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques	2											50	50
Enterprise development	1											25	25
Value addition	2												
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies	4											100	100
Rural Crafts													
Capacity building													
Women and childcare													
Others, if any													
TOTAL	11											225	225
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
TOTAL													
VII. Plant Protection													
Integrated Pest Management	7	148	9	157	12		12	6		6	166	9	175
Integrated Disease Management	2	44		44	4		4	2		2	50		50
Biocontrol of pests and diseases													
Production of bio control agents and bio pesticides													
Safe use of pesticides	1	22		22	2		2	1		1	25		25
TOTAL	10	214	9	223	18		18	9		9	241	9	250
VIII. Fisheries													
Integrated fish farming	1	10	15	25							10	15	25
Carp breeding and hatchery management													
Carp fry and fingerling rearing	1	10	15	25							10	15	25
Composite fish culture & fish disease	3	37	38	75							37	38	75
Fish feed preparation & its application to fishpond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn	1	12	13	25							12	13	25
Breeding and culture of ornamental fishes	1	9	16	25							9	16	25
Portable plastic carp hatchery	1	14	11	25							14	11	25
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Fishpond preparation and its management	1	9	16	25							9	16	25
Water management practices for enhancement of fish yield	1	6	19	25							6	19	25
Production of stunted yearlings	1	14	11	25							14	11	25
TOTAL	11	121	154	275							121	154	275
IX. Production of Inputs at site													
Seed Production													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
TOTAL													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Rainfed production system	1	15	10								15	10	25
TOTAL													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
TOTAL													
XII. Others (Pl. Specify)													
TOTAL	53	730	245	950	39	9	48	18	9	27	787	488	1275

Rural youth

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Mushroom Production	1	8	7	15							8	7	15
Beekeeping	1	10		10							10		10
Integrated farming													
Seed production													
Production of organic inputs	1	8	7	15							8	7	15
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													

Thematic Area	No. of Courses	No. of Participants									Grand Total			
		Other			SC			ST			M	F	T	
		M	F	T	M	F	T	M	F	T				
Repair and maintenance of farm machinery and implements														
Nursery Management of Horticulture crops	2	16	4	20	3	1	4		1	1	19	6	25	
Training and pruning of orchards														
Value addition	1	11	4	15							11	4	15	
Production of quality animal products														
Dairying	1	6	4	10							6	4	10	
Sheep and goat rearing														
Quail farming														
Piggery														
Rabbit farming														
Poultry production	1	11	4	15							11	4	15	
Ornamental fisheries														
Para vets														
Para extension workers														
Composite fish culture														
Freshwater prawn culture														
Shrimp farming														
Pearl culture														
Cold water fisheries														
Fish harvest and processing technology														
Fry and fingerling rearing														
Small scale processing														
Postharvest Technology	1	6	4	10	3	1	4		1	1	9	6	15	
Tailoring and Stitching														
Rural Crafts														
Enterprise development	5	15	48	63	2	2	4	2	1	3	19	46	65	
Fodder production	1	8	7	15							8	7	15	
IPDM	1	10	5	15							10	5	15	
ICT application in agriculture	1	10	5	15							10	5	15	
Group dynamics	1	10	5	15							10	5	15	
Entrepreneurship development	1	10	5	15							10	5	15	
TOTAL	19	139	109	248	8	4	12	2	3	5	149	111	250	

Extension functionaries

Thematic Area	No. of Courses	No. of Participants									Grand Total			
		Other			SC			ST			M	F	T	
		M	F	T	M	F	T	M	F	T				
Productivity enhancement in field crops														
Integrated Pest Management	2	20	6	26	2		2	1	1	2	23	7	30	
Integrated Nutrient management														
Rejuvenation of old orchards														
Value addition														
Protected cultivation technology	1	6	4	10	3	1	4		1	1	9	6	15	
Formation and Management of SHGs														
Group Dynamics and farmers organization	2	20	10	30							20	10	30	
Information networking among farmers														
Capacity building for ICT application														
Care and maintenance of farm machinery and implements														
WTO and IPR issues														
Management in farm animals	2	16	4	20	6	4	10				22	8	30	
Livestock feed and fodder production														
Household food security														
Women and Childcare														
Low cost and nutrient efficient diet designing	1		15	15								15	15	
Production and use of organic inputs														
Gender mainstreaming through SHGs	1		15	15								15	15	
Crop intensification														
Productivity enhancement in fruit crops	1	6	4	10	3	1	4		1	1	9	6	15	
Innovative Aquaculture Practices	1	2	8	10	2	3	5				4	11	15	
Medium carp culture with IMC	1	6	9	15							6	9	15	
TOTAL	12	76	75	151	16	9	25	1	3	4	93	87	180	

3. Frontline demonstration to be conducted*

A. Crop: Onion

Thrust Area: Increase in kharif onion yield

Thematic Area: Yield increment

Season: Kharif, 2019-20

Farming Situation: River valley alluvial with medium rainfall

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
1	Onion	1 ha	Demonstration of broad bed and furrow method of planting: Broad bed furrows (BBF) of 15 cm height and 120 cm top width with 45 cm furrow are formed to achieve proper spacing and population density. It is suitable for drip and sprinkler irrigation as well. BBF is the best method for Kharif onion production because the excess water can be drained out through the furrow, which improves aeration and helps in reducing the incidence of Anthracnose disease.	Bulb weight (g), Bulb diameter (cm), Yield (q), Anthracnose incidence	Broad bed and furrow maker, Quality seedlings of suitable kharif variety							5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Nursery management in late kharif onion	1	F/FW	1 day	Off					11	14	11	14	25
Training	Moisture management in late kharif onion	1	F/FW	1 day	Off					12	13	12	13	25
Training	Post-harvest handling and storage in late kharif onion	1	F/FW	1 day	Off					18	7	18	7	25
Pamphlet	Nursery management in kharif onion													
Short video	Kharif onion cultivation practices													

B. Crop: Banana

Thrust Area: Banana yield enhancement by increasing bunch weight

Thematic Area: Yield increment

Season: Kharif, 2019-20

Farming Situation: Rainfed, medium land

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
2	Banana	1 ha	Demonstration of bunch feeding technology to increase bunch weight and finger size in banana: De-navelling and post-shooting feeding of N, K and S through the distal stalk-end of rachis involves de-navelling that saves mobilization of nutrients into the unwanted rink of banana plant and earns additional income when the excised male bud is used as a vegetable. The technique involves blending 15 g of (approximately 7.5g of urea) and 7.5 g of sulphate of potash dissolved in 100 ml water in 500 g of fresh cow dung and applying the slurry to the de-navelled stalk-end of bunch soon after fruit set. About 10-15cm long rachis should be available after the last hand to tie the plastic bag (used and milk bag is convenient) with a strong string.	Finger/hand weight of lower hands, Size of finger, Bunch weight	Urea, SOP, Polythene packets							5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Bunch feeding technique in banana cultivation	1	F/FW	1 day	Off					12	13	12	13	25
Training	Modern scientific methods of banana cultivation to boost banana yield	1	F/FW	2 days	Off					18	7	18	7	25
Booklet	Recent Advances on banana production													
Short video	Bunch feeding technique													

C. Crop: Tomato

Thrust Area: Substitution of locally available wilt susceptible hybrids with triple resistant hybrid

Thematic Area: Yield increment through varietal substitution

Season: Rabi, 2019-20

Farming Situation: River valley alluvial with medium rainfall

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
3	Tomato	1 ha	Demonstration of triple resistant (early blight, bacterial wilt, leaf curl virus) tomato var. Arka Rakhyak F1 hybrid developed by crossing IIHR-2834 X IIHR-2833. First F1 hybrid with triple disease resistance to ToLCV, BW and early blight. Fruits square round, large (90-100g), deep red colored and firm. Suitable for fresh market and processing. Duration-140 days, Yield: 75-80 t/ha	Wilt incidence (%), PDI of early blight, Fruit wt (g), No of fruits per plant	Seedlings of Arka Rakhyak							5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants										
						SC		ST		Other		Total				
						M	F	M	F	M	F	M	F	T		
QPM production																

D. Crop: Tomato

Thrust Area: Reducing unmarketable fruits in tomato

Thematic Area: Integrated nutrient management

Season: Rabi, 2019-20

Farming Situation: Medium land irrigated, Paddy-vegetable

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
4	Tomato	1 ha	Demonstration of application of micronutrients for increasing marketable fruit yield in tomato: Use of Arka Vegetable Micronutrient Formulation as spray after flowering @ 10-20 g/litre. Its recommended for all vegetable crops at different doses, Contains most of the micronutrients such as Zn, B, Fe, Cu, Mn, Mo And Cl and most of the secondary nutrients such as Ca, Mg, S And K can be mixed with any fungicide or insecticide, Enhances fruit quality in terms of fruit appearance, fruit keeping quality and taste.	No. of marketable and unmarketable fruits per plant, Fruit wt (g), Fruit weight per plant, Fruit yield/ha	Arka Vegetable Special (Micronutrient mixture)							5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/ Off	No. of Participants									
						SC		ST		Other		Total			
						M	F	M	F	M	F	M	F	T	
Training	Role of secondary and micronutrients in quality vegetable production	1	F/FW	2 days	Off	12	13	12	13	25					

E. Crop: Pigeon pea

Thrust Area: Increase in pigeon pea yield

Thematic Area: IPM

Season: Kharif, 2019-20

Farming Situation: Rainfed medium land

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration										
					Name of Inputs	Demo	Local	SC		ST		Other		Total				
								M	F	M	F	M	F	M	F	T		
5	Pigeon pea	1 ha	Eco-friendly management with alternate application of botanicals, biological and chemicals Spraying of Azadiractin 0.15% @ 1.5 l/ha at 50% flowering followed by flubendiamide 48SC @ 200ml/ha (2ml/5 litre water) and Bt @ 1kg/ha (2g/litre) at 15 days intervals	Pest monitoring, no of infested fruits/plant	Azadiractin 0.15%, flubendiamide 48SC, Bt									5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Management of insect pests in pigeonpea	1	F/FW	1 day	Off					16	9	16	9	25

F. Crop: Okra

Thrust Area: Sucking pest management in okra to control YVMV and increase yield

Thematic Area: IPM

Season: Rabi, 2019-20

Farming Situation: Irrigated, medium land

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration										
					Name of Inputs	Demo	Local	SC		ST		Other		Total				
								M	F	M	F	M	F	M	F	T		
6	Okra	1 ha	Demonstration of integrated management for sucking pests in okra: Seed Treatment with Imidacloprid 600 FS @ 5 gm / Kg, Installation of Yellow Sticky Trap @ 50 / ha and spraying Acetamiprid 20 SP @ 125 gm / ha at 30 and 45 DAS	Pest monitoring, no of nymph and adults /plants (white fly, leaf hopper)	Imidacloprid 600 FS, Yellow Sticky Trap, Acetamiprid 20 SP									5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Integrated pest management practices in okra	1	F/FW	1 day	Off	2		1		22		25		25

G. Crop: Litchi

Thrust Area: Control of litchi borer to enhance marketable yield

Thematic Area: IPM

Season: Rabi, 2019-20

Farming Situation: Rainfed upland

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration										
					Name of Inputs	Demo	Local	SC		ST		Other		Total				
								M	F	M	F	M	F	M	F	T		
7	Litchi	1 ha	Demonstration of Integrated management practices against Litchi Borer Before flower opening spraying of neem oil @ 5ml/liter, Ten days after fruit set when the fruits about pea-sized; spraying of Immidacloprid 17.8 SL @ 0.7-1.0 ml/ L water and 10 days before fruit harvesting spraying of Emamectin Benzoate 5% SG @ 0.7 g/L water	Pest monitoring, no of infested fruits/plant	Neem oil, Immidacloprid 17.8 SL and Emamectin Benzoate 5% SG									5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Management of insect pests in litchi	1	F/FW	1 day	Off	2		1		22		25		25

H. Crop: Cashew nut

Thrust Area: Control of Tea Mosquito Bug to enhance yield

Thematic Area: Integrated Pest management

Season: Rabi, 2019-20

Farming Situation: Rainfed upland

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration							
					Name of Inputs	Demo	Local	SC		ST		Other		Total	
								M	F	M	F	M	F	M	F
8	Cashew nut	1 ha	Demonstration of Integrated management of Tea Mosquito Bug in Cashew Apple: Application of Lambda cyhalothrin 4.9CS @ 0.003% followed by profenophos @ 0.05% or vice versa at flushing and flowering stage	Presence of nymphs and adults/ m ² . Presence of honey dew	Lambda cyhalothrin 4.9CS, Profenophos							5		5	5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Insect pests of cashew and their management	1	F/FW	1 day	Off campus	2		1		22		25		25

I. **Crop:** Jackfruit

Thrust Area: Post-harvest technology and value addition of fruits

Thematic Area: value addition

Season: Kharif

Farming Situation: Homestead

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
9	Jackfruit	10 no.	Jack fruit Bar (1kg pulp + 2g citric acid + 0.5g sodium benzoate +boiling to 50° brix); Short drying process (12 hrs at 55 ⁰ C) with natural colour, Storage Period- 12 months	Sensory Evaluation Keeping quality (Month)	Solar dryer, packaging materials, preservatives-	3000	500		2				8		10	10

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Extension activity	Field day	1	25	1	off						25		25	25
Training	Value added product from Jackfruit	1	25	1	off						25		25	25

J. Crop/ Enterprise: Naveen Mango Harvester

Thrust Area: Drudgery reduction through use of farm implements.

Thematic Area: Location specific drudgery reduction technologies

Season: Kharif

Farming Situation: Homestead

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration										
					Name of Inputs	Demo	Local	SC		ST		Other		Total				
								M	F	M	F	M	F	M	F	T		
10	Drudgery Reduction for picking of mango from Orchard by Fruit Harvester	10 no.	Output-140 fruits/hr, Damage to the fruit is avoided. Operation is made safer and women friendly as the worker does not have to climb on the tree and the chances of injury are eliminated	Output (Noof fruits/hr) Reduction in drudgery (%) Increase in harvest efficiency (%) Labour (Mandays /ha) Saving in cost: (Rs.)	Fruit harvester-	2500			2					8			10	10

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants									
						SC		ST		Other		Total			
						M	F	M	F	M	F	M	F	T	
Field day	Field day	1	25	1	Off							25		25	25
Training	Use of fruit harvester for drudgery reduction of farm women	1	25	1	Off							25		25	25

K. Crop/Enterprise: Nutritional garden for Improving Nutritional Security of farm family

Thrust Area: Family food and nutritional security.

Thematic Area: Household food security by kitchen gardening and nutrition gardening

Season: Kharif-Rabi

Farming Situation: Homestead

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
11	Organic Nutritional Garden	10 no.	Nutritional garden with Protein, Vitamin & iron rich vegetables and fruits Support structure: Low cost poly tunnel for seedlings raising+ Trellising structure+ Vermit ank	Consumption of vegetables/day, Mean increase in consumption of nutrients as compared to RDA (%), additional Income (Rs.), availability of vegetable/day, annual yield /qtl).	Seeds and seedlings Pro trays for nursery raising	3500	2000		3				7		10	10

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Field day	Field day	1	25	1	Off						25		25	25
Training	Nutritional gardening for rural farm women	1	25	1	Off						25		25	25

- L. **Crop/Enterprise:** Mahua flower stamen remover
Thrust Area: Drudgery reduction through use of farm implements.
Thematic Area: Location specific drudgery reduction technologies
Season: Rabi
Farming Situation: Homestead

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
12	Mahua flower stamen remover (pedal operated)	10 nos	Mahua flower stamen remover (pedal operated) OUAT Make for food use. Capacity – 16 kg/ hr, labour saving, drudgery reduction cost of operation – Rs.2/- per kg of flower	Output (No of flowers/hr) Reduction in drudgery (%) Increase in efficiency (%)	Mahua flower stamen remover (pedal operated)	12000	1000		2				8		10	10

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Fieldday	Field day	1	25	1	Off						25		25	25
Training	Drudgery reduction of farm women by using Mahua flower stamen remover	1	25	1	Off						25		25	25

M. Enterprise: Poultry

Thrust Area: To solve the problem of poor weight gain in local poultry varieties

Thematic Area: Poultry management

Season: Rabi, 2019-20

Farming Situation: Poultry based homestead

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
13	Poultry variety 'Kadakhath'	10 no	Demonstration on improved backyard poultry breed Kadakhath: Kadakhath birds body weight at 20 weeks 1170 gms, average annual egg production 190, production parameters show tolerance to acute stress conditions	Body weight at 1 month, 2 months, 4 month and at start of laying, egg production per annum	Kadakhath chicks			2	1	1	1	5		8	2	10

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Complete documentation and record keeping in poultry farming	1	F/FW	1 day	Off	2		1		22		25		25

N. **Crop:** Hydroponic maize fodder
Thrust Area: Green feed supplement to enhance milk production
Thematic Area: Feed management
Season: Rabi, 2019-20
Farming Situation: Semi-intensive dairy farming

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration										
					Name of Inputs	Demo	Local	SC		ST		Other		Total				
								M	F	M	F	M	F	M	F	T		
14	Hydrponic maize fodder	5 no	Demonstration on hydroponic maize fodder production for feeding in dairy farming: Each 6 kg of green hydroponic fodder is equivalent to 10 kg of green fodder and 1 kg concentrate feed. <u>Method of cultivation:</u> Collect and dry good quality maize seed. Wash the seed with stirring to remove dirt and floating dead seeds. Wash in 0.1% salt again to minimize fungal growth and drain. Seed allowed soaking water for 12 hours and draining water and washing with clean water. Transfer seed to a gunny bag and allowed to sprout (for 24 hrs or more depending on ambient temperature). Transfer sprouted seeds to clean plastic trays and spread evenly. Sprinkling of water daily at regular intervals (once every 2 hrs in summer and once every 4 hours in winter) on sprouted seeds. Do not disturb seeds otherwise. On 7 th day one kg of maize seed yields about 8 kg of hydroponic fodder. Feeding of hydroponic maize fodder @ 6kg/day/animal or 12 kg/day/animal.	Feed intake/cow/day, milk production in kg/cow/day, change in milk fat and SNF%	Maize seed, Clean plastic trays									5		5	0	5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Hydroponic fodder cultivation for livestock feed management	1	Rural youth	2 days	On					8	7	8	7	15

O. Enterprise: Goatery

Thrust Area: Reduction in kid mortality by providing supplementary feeding

Thematic Area: Goat farming

Season: Rabi, 2019-20

Farming Situation: Semi intensive goat rearing

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
15	Goat	5 no	Demonstration on concentrate feeding in mother goats (Does) for reducing kid mortality: Rearing of mother goats (Does) in last month of pregnancy and early lactation (during the period scarcity of green fodder i.e. lean season) by use of concentrate (Crude protein 16% -18 %) + gram straw ad libitum in the ratio of 50:50.	Kid mortality rate (at weaning), body weight of kids at birth and at weaning	Feed concentrate (Crude protein 16% - 18 %) + gram straw			1		1		3		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Feeding and health management in goats	1	F/FW	1 day	Off	2		1		22		25		25

P. **Crop:** IMC and Amur carp

Thrust Area: To adopt Diversified Pisciculture practices through replacement of slow-growing Mrigal with genetically improved common carp for increasing the avg. yield

Thematic Area: Production Management

Season: Kharif, 2019

Farming Situation: Low land- Kharif & Rabi - Pond Based

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
16	IMC and Amur carp	05 no./ 0.4 ha.	Stocking density- 10000 fingerlings per ha with species ratio- catla: rohu: Amur carp :: 2.5:6:1.5	Growth parameters- Length (mm) & Weight (gm), growth rate (%)	Fish fingerlings, feed, Lime, cow dung, urea, SSP, CIFAX	30,000	26,000					5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/ Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Field Day	Culture of Amur Carp with IMC & its scientific management	1	-	1	Off					20	30	20	30	50
Training	Culture of Amur Carp with IMC & its scientific management	1	F/FW	1	Off					11	14	11	14	25

Q. **Crop:** Farm made Fish feed mixture

Thrust Area: To use farm made pellet feed using locally available feed ingredients for enhancement of plankton quantity & pond productivity

Thematic Area: Feed Management

Season: Kharif, 2019

Farming Situation: Low land- Kharif & Rabi - Pond Based

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
17	Farm made Fish feed mixture	05 no./0.4 ha.	Preparation of sinking pellet feed using locally available feed ingredients GNOC: MOC : Soya badi powder: dry fish and prawn powder :vitamin mineral mixture: RB (1:2:1:1:5) by small scale feed grinder (20-30 kg/hr) and small scale feed pelletizer (20-30 kg/hr) and feeding @ 5-2% of body weight daily	Growth parameters- Length (mm) & Weight (gm), growth rate (%), FCR	Fish fingerlings, farm made feed mixture, Lime, cow dung, urea, SSP, CIFAX	28,000	22,000			2		3		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/ Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Low cost fish feed preparation methods and its use	1	VT	5	On	1		1		5	8	7	8	15

R. **Crop:** IMC

Thrust Area: To Adopt fingerling raising technique as short term income generating activity for utilization of seasonal ponds

Thematic Area: Production Management

Season: Kharif, 2019

Farming Situation: Low land- Kharif - Pond Based

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
18	IMC	05 no./ 0.1 ha.	Stocking of 1,00,000 IMC fry, feeding @ 8% of biomass (1 st month) & 6% (rest 2 months), liming @ 80-100 kg/ac in seasonal water bodies for fingerling production	Growth parameters- Length (mm) & Weight (gm), growth rate (%)	Fish fry, feed, Lime, cow dung, urea, SSP, CIFAX	34,000	30,000			2		3		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/ Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Field Day	Carp fingerling production in seasonal ponds	1	-	1	Off					40	10	40	10	50
Training	Carp fingerling production in seasonal ponds	1	F/FW	1	Off					10	15	10	15	25

S. **Crop:** IMC & F.W Prawn

Thrust Area: To Include Freshwater prawn, *M. rosenbergii* in mixed carp culture for diversification & more income

Thematic Area: Production Management

Season: Rabi, 2019-20

Farming Situation: Low land Rabi-Pond Based

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration										
					Name of Inputs	Demo	Local	SC		ST		Other		Total				
								M	F	M	F	M	F	M	F	T		
19	Rabi, 2019-20	05 no./ 0.4 ha.	Stocking of F. W. Prawn <i>M. rosenbergii</i> juveniles @ 7500 no./ ha with 5000 no. of Catla, Rohu & Grass Carp fingerlings	Growth parameters-Length (mm) & Weight (gm), growth rate (%)	Fish fry, feed, Lime, cow dung, urea, SSP, CIFAX & probiotic	50,000	30,000							5		5		5

Extension and Training activities under FLD:

Activity	Title of Activity	No.	Clientele	Duration	Venue On/ Off	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Training	Monoculture of F. W. Prawn	1	F/FW	1	Off					12	13	12	13	25

* Repeat the above tables and information in Point no. 4 for EACH FLD being proposed.

1. Case Study [Agril.Extension]

Title: Consumer preference study for various vegetables in the district

Expected output: Result of the study will help the farmers to plan market led production for better price and will enable the KVK for utilizing farmers' preference in selection of varieties for KVK intervention.

Identified vegetables: Brinjal, Chilli, Cucumber, Bittergourd, Okra

Sl.No.	Name of the Vegetable	Parameters to be studied	Highly preferred	Moderately preferred	Less preferred
1	Brinjal	Colour: (Green/Black/Purple/ White)			
		Size: (Large/ Medium/ Small)			
		Shape: (Elongated/ Round/ Oval/ Oblong)			
		With thorn/ thorn less			
		Preference for specific production pockets			
2	Chilli	Colour: (Green/Black/White)			
		Size:(Large/ Medium/ Small)			
		Shape: (Round/Slender/ Medium robust)			
		Pungency			
		Aroma			
3	Cucumber	Preference for specific production pockets			
		Colour: (Green/ White)			
		Size: (Large/ Medium/Small)			
		Texture: (Smooth/Fine)			
4	Bittergourd	Preference for specific production pockets			
		Colour: (Dark green/ Green/ White)			
		Size: (Large/ Medium/Small)			
		Firm spine/ smooth spine			
5	Okra	Preference for specific production pockets			
		Colour: (Green/ Dark green/ Violet)			
		Size: (Large/ Medium/Small)			
		Soft/Hard			
		Preference for specific production pockets			

Any other suitable parameters can be taken keeping in view the consumer preferences in a specific district.

T. a) Seed and planting material production by utilization of instructional farm (Crops / Enterprises)

Name of the Crop / Enterprise	Variety / Type	Period From to	Area (ha.)	Details of Production				
				Type of Produce	Expected Production (quintals)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)
Sesamum	Amrit / Prachi	Kharif	0.5	FS	5	15000	25000	10000
Greengram	IPM 02-3	Rabi	0.5	FS	3	24000	54000	30000
Tomato	Arka Rakshak	July 19 to March 20			25000 nos.	37500	50000	12500
Brinjal	JK 8031, Tarini	July 19 to March 20			10000 nos.	15000	20000	5000
Chilly	Daiya, VNR Krishna	July 19 to March 20			10000 nos.	15000	20000	5000
Cabbage	Harekrishna	Sep. 19- Dec. 19			2,500 nos.	3750	5000	1250
Cauliflower	Marble, Snowball	Sep. 19- Dec. 19			2,500 nos.	3750	5000	1250
Papaya	VNR Vinayak	July 19 to March 20			1000 nos.	12000	15000	3000
Drumstick	Multiplex Dwarf	July 19 to March 20			500 nos.	6000	7500	1500
Onion	Bhima Dark Red	July 19 – Oct. 19			250000 nos.	10000	14780	4780
Marigold	Seracole / BM 2	Sep. 19- Dec. 19			2000 nos.	3500	4000	500
Capsicum	Indra (Hybrid) / Swarna Athulya	Sep. 19- Dec. 19			500 nos.	1500	2000	500
Guava Air layer	VNR Bihi	Jun. 19 – Sep. 19			300 nos.	7350	8100	750
Mango grafts		Jun. 19 – Sep. 19			500 nos.	17000	18500	1500
Medicinal plants	Mixed as per demand	Jun. 19 – Sep. 19			100 nos.	1100	1500	400
Vermicompost	Eisinia foetida	Round the year			16	12000	16000	4000
Azolla	Azolla caroliniana	Round the year			0.8			
Mushroom spawn	V.volviceae, OSM-11, P.sajocaju, Hypsizygous ulmarius,	Round the year			4000 bottles	48000	56000	8000
Mushroom	V.volviceae, OSM-11, P.sajocaju, Hypsizygous ulmarius,	Round the year			1.75	6000	8750	2750
Honey	Apis cerena indica	Round the year			0.19	650	6650	6000
Ornamental fish fingerlings	Molly, Guppy, Platy, Swordtail & Goldfish	July 2019 to March 2020			2500 nos.	1000	3000	2000

Name of the Crop / Enterprise	Variety / Type	Period From to	Area (ha.)	Details of Production				
				Type of Produce	Expected Production (quintals)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)
Advanced fingerlings	Advanced IMC fry & fingerlings	May 2019 to Sept. 2019			70000 nos.	25000	75000	50000
Poultry	Pallishree, Kadaknath, Aseel	Round the year			750 nos.	25000	37500	12500
Goat	Black Bengal	Round the year			4 nos.	6000	8000	2000
Mango		Mar. 20			1	1000	2000	1000

b) Village Seed Production Programme

Name of the Crop / Enterprise	Variety / Type	Period From..... to	Area (ha.)	No. of farmers	Details of Production				
					Type of Produce	Expected Production(q)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)

U. Extension Activities

Sl. No.	Activities/ Sub-activities	No. of activities proposed	Farmers				Extension Officials			Total		
			M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
1.	Field Day	9	255	103	358	1.37	14	6	20	269	109	378
2.	Kisan Mela	3	346	144	490	1.2	34	16	50	380	160	540
3.	Kisan Ghosthi	2	45	20	65	0.8	2	3	5	47	23	70
4.	Exhibition	4	1884	264	2148	10	22	6	28	1884	270	2176
5.	Film Show	13	300	100	400	1.6	2	4	6	302	104	406
6.	Method Demonstrations	12	166	64	230	2.2	2	2	4	118	66	234
7.	Farmers Seminar											
8.	Workshop											
9.	Group meetings	18	288	124	412	0.8	1	1	2	289	125	414
10.	Lectures delivered as resource persons	15	384	89	473	3.2	22	5	27	406	94	500
11.	Advisory Services	54										Mass
12.	Scientific visit to farmers field	163	2409	456	2865	5.6	2	5	7	2411	461	2872
13.	Farmers visit to KVK	1	1892	39	1931	1.6				1892	39	1931

Sl. No.	Activities/ Sub-activities	No. of activities proposed	Farmers				Extension Officials			Total		
			M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
14.	Diagnostic visits	14	237	56	293	0.7	2	5	7	239	61	300
15.	Exposure visits	7	72	13	85	0.3	1	4	5	73	17	90
16.	Ex-trainees Sammelan	1	23	5	28		2	5	7	25	10	35
17.	Soil health Camp											
18.	Animal Health Camp	1	36	10	46	0.1	2	2	4	38	12	50
19.	Agri mobile clinic											
20.	Soil test campaigns											
21.	Farm Science Club Conveners meet	10	232	61	293	5.6	4	3	7	236	64	300
22.	Self Help Group Conveners meetings	1		22	22	3		3	3		25	25
23.	Mahila Mandals Conveners meetings											
24.	Celebration of important days (Agril. Education Day, Jai Kisan Jai Vigyan, Mahila Kisan Divas, Women in Agriculture Day, World Food Day, World Meteorological Day, World Soil Day, National Fish Farmers Day)	7	817	249	1066	7	18	10	28	735	259	1094
25.	Sankalp Se Siddhi											
26.	Swatchta Hi Sewa	4	32	24	56	0.5				32	24	56
27.	Mahila Kisan Diwas	1		29	29	0.5		1	1	0	30	30
28.	Any Other (Specify)											
	Total	340	9418	1872	11118		130	81	211	9376	1953	11500

V. Revolving Fund (in Rs.)

Opening balance of 2019-2020 (As on 01.04.2019)	Amount proposed to be invested during 2019-2020	Expected Return
3,76,379	2,00,000	4,00,000

W. Expected fund from other sources and its proposed utilization

Project	Source	Amount to be received (Rs. in lakh)
Mission Sakti Capacity building	State Govt.	3.5

9. On-farm trials to be conducted*

i.	Season:	Late Kharif
ii.	Title of the OFT:	Assessment of different plant growth regulators for crop regulation in mango
iii.	Thematic Area:	Crop regulation
iv.	Problem diagnosed:	Alternate bearing in mango orchards
v.	Important Cause:	Existing orchards of biennial bearing mango varieties where growth regulators are not used
vi.	Production system:	
vii.	Micro farming system:	Medium textured red loam with low rainfall, Rainfed upland
viii.	Technology for Testing:	Use of different growth regulators to induce flowering in mango in off year
ix.	Existing Practice:	No specific practices followed for off year flowering
x.	Hypothesis:	
xi.	Objective(s):	Flowering induction in mango orchard during off year
xii.	Treatments:	
	Farmers Practice (FP):	No use of growth regulators in off year and no fruit/flower thinning practiced in on year
	Technology option-I (TO-I):	Application of paclobutrazol@ 0.25g a.i./m ² canopy spread
	Technology option-II (TO-II): and so on	Application of ethephon 5-8 sprays @ 200ppm fortnightly interval
xiii.	Critical Inputs:	Growth regulators [Paclobutrazol and ethrel]
xiv.	Unit Size:	0.2 ha
xv.	No of Replications:	7
xvi.	Unit Cost:	
xvii.	Total Cost:	
xviii.	Monitoring Indicator:	
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	<p>TO₁: IHR, Annual Reports 2016-17, Developed by: CHES, Bhubaneswar</p> <p>TO₂: Source: Plant growth regulators, 2012, Directorate of Plant Protection Quarantine and Storage, GOI, MoAgril. (Document source: agritech.tnau.ac.in/crop_protection/pdf/8_Approved_uses_registered_PGR.pdf)</p>

i.	Season:	Rabi, 2019-20
ii.	Title of the OFT:	Assessment of different Cowpea varieties for higher yield
iii.	Thematic Area:	Yield increment through varietal substitution
iv.	Problem diagnosed:	Non flowering in cowpea varieties
v.	Important Cause:	Use of varieties from market unsuitable for growing in the region
vi.	Production system:	
vii.	Micro farming system:	Medium land irrigated, Paddy-vegetable CS
viii.	Technology for Testing:	
ix.	Existing Practice:	Use of varieties from private companies available in the market
x.	Hypothesis:	
xi.	Objective(s):	To provide the farmers with a variety of cowpea suitable to the micro farming situation
xii.	Treatments:	
	Farmers Practice (FP):	Use of varieties from private companies available in the market
	Technology option-I (TO-I):	Kashi Kanchan: Dwarf and bush type (height 50-60 cm), photo-insensitive, early flowering (40-45 days after sowing) and early picking (50-55 days after sowing) variety, Suitable for growing in both spring-summer and rainy seasons, Pods are about 30-35 cm long, dark green, soft, fleshy and free from parchment, Resistant to golden mosaic virus and <i>P. cruenta</i> . Yield- 15-17 t/ ha
	Technology option-II (TO-II): and so on	Swarna Mukut: Pods straight round, light green pod (20-25cm). Mature dried seeds are kidney shaped and yellowish brown. Under field conditions, the variety is least infected by cowpea mosaic viral disease and pod borer infestation. Time of sowing: February-March and June- July. Seed rate: 25-30 kg/ha. Maturity: First harvest 45-50 days after sowing. Average fresh pod yield: 12-15 t/ha
xiii.	Critical Inputs:	Seeds of the varieties Kashi Kanchan and Swarna Mukut
xiv.	Unit Size:	0.2 ha
xv.	No of Replications:	7
xvi.	Unit Cost:	
xvii.	Total Cost:	
xviii.	Monitoring Indicator:	
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	TO ₁ : IIVR, Varanasi, https://www.iivr.org.in/kashi-kanchan TO ₂ : RCER-ICAR, Patna, 2011

i.	Season:	Kharif 2019
ii.	Title of the OFT:	Assessment of integrated management practices against BPH/WBPH in rice
iii.	Thematic Area:	Integrated pest management
iv.	Problem diagnosed:	Severe BPH/WBPH attack in paddy
v.	Important Cause:	Indiscriminate use of single chemical over a long period of time for control of BPH/WBPH
vi.	Production system:	
vii.	Micro farming system:	Rainfed medium land
viii.	Technology for Testing:	Use of IPM practices for testing their effectiveness against BPH/WBPH
ix.	Existing Practice:	Spraying of chloropyriphos @ 3ml/liter of water during tillering stage
x.	Hypothesis:	Use of IPM practices will help in controlling the BPH/WBPH
xi.	Objective(s):	Control of BPH/WBPH attack by a combination of pest control measures
xii.	Treatments:	
	Farmers Practice (FP):	Spraying of chloropyriphos @ 3ml/liter of water during tillering stage
	Technology option-I (TO-I):	Making alleys at a distance of 2 m in paddy field. use of spider trap @ 25/ha, neem based Alternate Spraying of flonicamid 50 WG @ 150 gm /ha and neem based pesticide 3000 ppm @ 1500 ml/ha at 10 days interval
	Technology option-II (TO-II): and so on	Making alleys at a distance of 2 m in paddy field. use of spider trap @ 25/ha, neem based Alternate Spraying of flonicamid 50 WG @ 150 gm /ha and neem based pesticide 3000 ppm @ 1500 ml/ha at 10 days interval and Spraying of Dichlorovous 76% EC @ 200ml /acre at 15 days interval commencing from insect appearance
xiii.	Critical Inputs:	Spider trap, Flonicamid 50 WG, Neem based pesticide, Dichlorovous 76% EC
xiv.	Unit Size:	0.2 ha
xv.	No of Replications:	7
xvi.	Unit Cost:	
xvii.	Total Cost:	
xviii.	Monitoring Indicator:	Additional income over additional investment, Yield (q/ha), B:C ratio
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	RRTTS, Ranital,2018

i.	Season:	Rabi, 2019-20
ii.	Title of the OFT:	Assessment of Azoxystrobin 23%SC for management of root rot in greengram during Rabi season
iii.	Thematic Area:	Integrated disease management
iv.	Problem diagnosed:	Root rot in greengram causing yield loss
v.	Important Cause:	Lack of awareness on IDM practices for pulses
vi.	Production system:	Rice-vegetable-pulse system
vii.	Micro farming system:	Rainfed medium land
viii.	Technology for Testing:	Use of fungicides for testing their effectiveness against Root rot
ix.	Existing Practice:	Repeated spraying of mancozeb @ 2gm/lit of water during vegetative stage
x.	Hypothesis:	Use of proper fungicides will help in controlling the root rot in green gram
xi.	Objective(s):	Control of root rot in green gram
xii.	Treatments:	
	Farmers Practice (FP):	Repeated spraying of mancozeb @ 2gm/lit of water during vegetative stage
	Technology option-I (TO-I):	Spraying of Cyamoxil 8% + Mancozeb 64% @ 2gm / lit of water
	Technology option-II (TO-II): and so on	Spraying of Azoxystrobin @1ml/lit. of water during seedling stage
xiii.	Critical Inputs:	Cyamoxil 8% + Mancozeb 64% and Azoxystrobin
xiv.	Unit Size:	0.2 ha
xv.	No of Replications:	7
xvi.	Unit Cost:	
xvii.	Total Cost:	
xviii.	Monitoring Indicator:	Additional income over additional investment Yield (q/ha), B:C ratio
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	IIPR, 2010

i.	Season:	Kharif
ii.	Title of the OFT:	Assessment of value added products from cashew apple
iii.	Thematic Area:	Value addition
iv.	Problem diagnosed:	Economical and nutritional loss due to 100 % wastage of cashew apple
v.	Important Cause:	Lack of knowledge and skill on value addition Unutilization of cashew apple due to astringency in taste
vi.	Production system:	
vii.	Micro farming system:	Homestead
viii.	Technology for Testing:	Value added products of cashew apple like cashew apple candy and cashew apple RTS
ix.	Existing Practice:	Un-utilization of cashew apple due to astringent in taste.
x.	Hypothesis:	Assessment of value added products from cashew apple
xi.	Objective(s):	To minimize the wastage of cashew apple. To observe the effectiveness of technology in increasing the shelf life of cashew apple pulp in the form of RTS. To find out the overall acceptability of the products.
xii.	Treatments:	
	Farmers Practice (FP):	Ripe cashew apple -Astringent due to presence of tannins Colour-creamy white, No income
	Technology option-I (TO-I):	Cashew apple candy – Storage period -180 days, Colour-Creamy white De-tanned ripe cashew apple-1 kg, Sugar -1 kg, Citric acid 1g, Potassium meta bisulphite 4 pinches Preparation of cashew apple candy in desired packaging
	Technology option-II (TO-II): and so on.....	Cashew apple RTS – Storage period -60 days, Colour –Dusky white For 10 lt = Fruit Juice 2.5 lt (Tanin extracted by Polyvinyl pyrolidone (PVP) at 1.4g/l) + water 7.5 lt, Sugar 1.5 kg + Citric Acid 10 g + Sodium Benzoate 1.2g in desired packaging
xiii.	Critical Inputs:	Chemicals, packaging materials,
xiv.	Unit Size:	100 RTS bottles, 100 CANDY
xv.	No of Replications:	5
xvi.	Unit Cost:	300
xvii.	Total Cost:	1500
xviii.	Monitoring Indicator:	Sensory evaluation, TSS (°Brix), Net Profit (Rs./Lt), Marketability
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	OUAT 2010

i.	Season:	Rabi
ii.	Title of the OFT:	Assessment on preparation of value added products from raw mango for income generation
iii.	Thematic Area:	Income generation
iv.	Problem diagnosed:	Immature fruit drop due to heavy wind and storm
v.	Important Cause:	Heavy wind and storm
vi.	Production system:	Mango orchard
vii.	Micro farming system:	Homestead
viii.	Technology for Testing:	Preparation of green mango RTS and Preparation of amchur powder
ix.	Existing Practice:	No value addition only table purpose
x.	Hypothesis:	Assessment on preparation of value added products from raw mango for income generation
xi.	Objective(s):	To find out the suitability of the technology To observe the effectiveness of technology in increasing the shelf life of pulp in the form of RTS. To enhance income by adding value to the product.
xii.	Treatments:	
	Farmers Practice (FP):	No value addition only table purpose
	Technology option-I (TO-I):	Preparation of green mango RTS with sugar, citric acid and pasteurisation
	Technology option-II (TO-II): and so on.....	Preparation of amchur powder cutting into slices, dipping in 2% salt solution for an hour and dipping in 2000 ppm SO ₂ solution for 2 hour and sun drying
xiii.	Critical Inputs:	Chemicals, packaging materials,
xiv.	Unit Size:	100 RTS bottles, 10kg amchur powder
xv.	No of Replications:	5
xvi.	Unit Cost:	400
xvii.	Total Cost:	2000
xviii.	Monitoring Indicator:	Sensory evaluation, TSS (°Brix), Net Profit (Rs./Lt), Marketability
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	TNAU, 2015

i.	Season:	Kharif 2019
ii.	Title of the OFT:	Assessment of two different herbal formulations on amelioration of infertility conditions in dairy cows
iii.	Thematic Area:	Dairy management
iv.	Problem diagnosed:	Infertility in cows post partum period
v.	Important Cause:	Improper feed management and no nutrient supplement
vi.	Production system:	Livestock based
vii.	Micro farming system:	Semi intensive dairy farming. Home stead
viii.	Technology for Testing:	Assessment of herbal formulations on amelioration of infertility conditions in dairy cows
ix.	Existing Practice:	Grazing with no extra nutritional supplement
x.	Hypothesis:	Supply of herbal formulations will help in amelioration of infertility conditions in dairy cows
xi.	Objective(s):	Amelioration of infertility conditions in dairy cows
xii.	Treatments:	
	Farmers Practice (FP):	Only grazing
	Technology option-I (TO-I):	Feeding of herbal formulation of dried Bel and curry leaves
	Technology option-II (TO-II): and so on	Feeding of herbal formulation with aloe vera, moringa and others
xiii.	Critical Inputs:	Herbal formulation of dried Bel and curry leaves and Herbal formulation with aloe vera, moringa
xiv.	Unit Size:	-
xv.	No of Replications:	15
xvi.	Unit Cost:	
xvii.	Total Cost:	
xviii.	Monitoring Indicator:	Cost of intervention, additional income over additional investment, B:C ratio
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	AICRP on NPIERPA at TANUVAS, 2017-18

i.	Season:	Round the year, 2019-20
ii.	Title of the OFT:	Assessment of goat breeds for upgradation of non descript goats in semi intensive goat farming to improve production in local non descript goats
iii.	Thematic Area:	Goat farming
iv.	Problem diagnosed:	Low weight gain in goats, low birth weight in kids and less weight at weaning in non descript animals
v.	Important Cause:	Use of local nondescript goats in goatery
vi.	Production system:	Livestock based
vii.	Micro farming system:	Semi intensive goat rearing, Home stead
viii.	Technology for Testing:	Assessment of goat breeds for upgradation of non descript goats in semi intensive goat farming
ix.	Existing Practice:	Indiscriminate breeding through nondescript buck
x.	Hypothesis:	Upgradation of non descript goats will help in decreasing the commonly faced problems of low weight gain in goats and low birth weight in kids
xi.	Objective(s):	Upgradation of non descript goats in semi intensive goat farming
xii.	Treatments:	
	Farmers Practice (FP):	Indiscriminate breeding through nondescript buck (Birth weight of kids-0.7-0.9 kg, Adult weight-8 kg, twinning/kidding, Age of puberty-12-13 months)
	Technology option-I (TO-I):	Rotation of Black Bengal bucks, periodic deworming (3 times/yr), vaccination (PPR, Goat pox, ET, FMD) and mineral supplementation
	Technology option-II (TO-II): and so on	Rotation of Ganjam bucks combined periodic deworming (3 times/yr), vaccination (PPR, Goat pox, ET, FMD) and mineral supplementation
xiii.	Critical Inputs:	Black Bengal bucks, Ganjam bucks
xiv.	Unit Size:	
xv.	No of Replications:	
xvi.	Unit Cost:	
xvii.	Total Cost:	
xviii.	Monitoring Indicator:	Additional income over additional investment Yield (q/ha), B:C ratio
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	TO1- AICRP on Goats (Black Bengal Goats) WBFASU 2017-18 TO2- AICRP on Goats (Ganjam Goats) OUAT 2017-18

i.	Season:	Kharif
ii.	Title of the OFT:	Assessment of Probiotic on the growth performance of IMC fingerlings
iii.	Thematic Area:	Feed Management
iv.	Problem diagnosed:	<ul style="list-style-type: none"> • Lower yield and income due to poor growth & survivability status of fish seed • Unscientific Feed Management
v.	Important Cause:	Poor growth & survivability status of fish seed
vi.	Production system:	Intensive culture method
vii.	Micro farming system:	Low land- Kharif - Pond Based
viii.	Technology for Testing:	Effect of probiotic dose on fish seed growth
ix.	Existing Practice:	Non use of probiotics with feed
x.	Hypothesis:	Better growth & increased survivability of fingerlings through plankton production due to addition of probiotic in fish feed
xi.	Objective(s):	To test the growth of fingerlings due to use of feed additives or probiotics
xii.	Treatments:	2 no.
	Farmers Practice (FP):	Non use of probiotics with feed
	Technology option-I (TO-I):	Use of probiotics (Aqualac gold) @ 5 gm/kg feed twice daily at the time of feed application for rearing of fingerlings
	Technology option-II (TO-II): and so on.....	Use of probiotics (Aqualac gold) @ 15 gm/kg feed twice daily at the time of feed application for rearing of fingerlings
xiii.	Critical Inputs:	Probiotics (Aqualac gold)
xiv.	Unit Size:	0.2 ha.
xv.	No of Replications:	03
xvi.	Unit Cost:	16,000
xvii.	Total Cost:	80,000
xviii.	Monitoring Indicator:	Fish Yield in (no./ha.), % change in yield and B:C ratio
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	http://www.researchgate.net , 2018

i.	Season:	Kharif
ii.	Title of the OFT:	Assessment of stocking density of <i>Puntius gonionotus</i> (Java Punti) in composite fish culture system
iii.	Thematic Area:	Production Management
iv.	Problem diagnosed:	<ul style="list-style-type: none"> • Lack of knowledge on proper stocking density resulting disease susceptibility • Improper utilization of pond biotic potential. • Extensive method of culture practice resulting low yield
v.	Important Cause:	Improper utilization of pond biotic potential
vi.	Production system:	Composite fish culture system in semi-intensive method
vii.	Micro farming system:	Low land- Kharif & Rabi - Pond Based
viii.	Technology for Testing:	Management of stocking density of minor Carps in Composite fish culture system
ix.	Existing Practice:	Indian Major Carp (IMC), Single Stocking @ 10,000 fingerlings / ha harvesting once after 12 months
x.	Hypothesis:	More yield & income due to proper utilization of pond biotic potential through management of stocking density
xi.	Objective(s):	To verify the increased yield due to incorporation of minor carps in Composite fish culture with optimum stocking density
xii.	Treatments:	2 no.
	Farmers Practice (FP):	Indian Major Carp (IMC), Single Stocking @ 10,000 fingerlings / ha harvesting once after 12 months
	Technology option-I (TO-I):	Incorporation of <i>Puntius gonionotus</i> @ 10 % or 1000 no./ha in the Major Carp system i.e. (Catla:Rohu :Mrigal) @ 10000 no. /ha and culture for 5-6 months
	Technology option-II (TO-II): and so on.....	Incorporation of <i>Puntius gonionotus</i> @ 20 % or 2000 no./ha in the Major Carp system i.e. (Catla:Rohu :Mrigal) @ 10000 no. /ha and culture for 5-6 months
xiii.	Critical Inputs:	IMC & Java punti fingerlings
xiv.	Unit Size:	0.2 ha.
xv.	No of Replications:	03
xvi.	Unit Cost:	18,000
xvii.	Total Cost:	90,000
xviii.	Monitoring Indicator:	Fish Yield in (no./ha.), % change in yield and B:C ratio
xix.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	CIFA, Kausalyaganga, Bhubaneswar, 2004 www.cifa.nic.in/products

i.	Season:	Rabi
ii.	Title of the OFT:	Assessment of different planting time for better market price of Tomato
iii.	Thematic Area:	Production and Market Management
iv.	Problem diagnosed:	Distress sale of Tomato in rabi season
v.	Important Cause:	Farmers generally plant the seedling in the month of October
vi.	Production system:	Rice-Vegetable
vii.	Micro farming system:	Medium land irrigated
viii.	Technology for Testing:	Staggered planting of tomato for fetching better price
ix.	Existing Practice:	Farmers follow normal sowing window
x.	Hypothesis:	Shifting planting time by 15 days earlier and 15 days later will fetch good market price
xi.	Objective(s):	To analyse the market price by deviating normal sowing window
xii.	Treatments:	2 no.
	Farmers Practice (FP):	Farmers generally plant the seedling in the month of October
	Technology option-I (TO-I):	Planting of seedling 15 days before onset of normal planting period
	Technology option-II (TO-II): and so on.....	Planting of seedling 15 days after completion of normal planting period
xiii.	Monitoring Indicator:	Plant height, No. of fruits/plant- Fruit weight, Disease & pest incidence Market price
xiv.	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):	

*Repeat the same format for EACH OFT being proposed.

10. List of Projects to be implemented by funding from other sources (other than KVK fund)

Sl. No.	Name of the project	Fund expected (Rs.)
1.	Mission Shakti	3.5 lakhs

11. No. of success stories proposed to be developed with their tentative titles

Three No. (Stunted yearling production technique, Fry & fingerling production, Ornamental fish rearing)

Scientific Advisory Committee

Date of SAC meeting held during 2018-19	Proposed date during 2019-2020
12.03.2019	25.10.2019

12. Soil and water testing

Details	No. of Samples	No. of Farmers									No. of Villages	No. of SHC distributed
		SC		ST		Other		Total				
		M	F	M	F	M	F	M	F	T		
Soil Samples	100	25		10		340		375	25	400	20	340
Water Samples												
Other (Pl. specify)												
Total	100	25		10		340		375	25	400	20	340

13. Fund requirement and expenditure (Rs.)*

Heads	Expenditure (last year) (Rs.) up to 31.03.2019	Expected fund requirement (Rs.)
Recurring		
i. Pay & allowance	To be provided by Comptroller, OUAT	1,01,00,000
ii. Contingency	11,00,000	15,00,000
iii. TA	80,000	1,50,000
iv. HRD		-
Non-recurring (specify)		
i. Works (Farm road with culvert)	2,50,000	10,00,000
ii. Furniture & Equipment		
iii. Vehicle and tractor		10,00,000
Total	14,30,000	1,37,50,000

* Any additional requirement may be suitably justified.

14. Every KVK should bring a brief write-up supported by quality photographs about the technology having wide acceptability among the farming community of the district with factual data

Triple resistant tomato variety Arka Rakhak:

Tomato is one of the most popular vegetables of Angul cultivated in an area of 2770 ha with a productivity of around 15 T/ha. But the problems in tomato cultivation in the area involve diseases like wilting, leaf curl virus and early blight etc. The varieties available in the private sector are no doubt high yielding but they are not resistant to wilt or blight or leaf curl virus. The so called wilt tolerant private hybrids do not perform well under high wilting intensity regions and the effectiveness of management methods of wilting is not satisfactory in many cases. So there was a need among the farmers for a high yielding hybrid having tolerance to wilting and leaf curl virus etc. The variety Arka Rakhak came as a ray of hope for solution to this need. This variety along with Arka Samrat variety which again was another similar hybrid with triple resistance and higher yield was accessed in the farmer's field in Chakradharpur village of Chhendipada block and Hantiganj village of Athmallik block. Except some selective occurrence of blight like symptoms the crop in the field was totally free from wilting, leaf curling diseases. The yield accessed was also quite higher to that of the existing hybrids used by the farmers which ranged between 40 to 50 T/ha. Some advanced farmers following advanced farming operations are also getting higher yield than this. Another important feedback from the farmers was that the shelf life of the tomato variety was quite high ranging from 30 to 40 days under normal room temperature, hence the glut in the market can be somewhat managed. The variety is recommended for growing in all the seasons most importantly in the kharif season hence suitable for staggered planting by farmers to take advantage of the market price. As this a variety having high TSS and very nice colour hence the suitability for processing purpose is also in no doubt. Hence the farmers are gradually adopting this variety for their cultivation purpose to get higher yield.



FINGERLING RAISING OF IN SEASONAL PONDS

Fish being a source of cheap animal protein, is an important source of diet for a large section of economically backward population of the country. Fisheries are the only sector that offers cheap and good animal protein to the people, particularly to the economically weaker sections of the society. Thereby, it serves as a means for ensuring national food security. It is also a major contributor towards foreign exchange earnings for the country through export of fish and fish products.

The availability of quality seed is prerequisite for rapid expansion and growth of aquaculture. However, uncertainty in timely seed supply, lack of knowledge regarding fish seed rearing in intensive manner, improper utilization of seasonal water bodies are the major constraints. Ponds in Angul District are typically homestead ponds of less than 1.0 ha in size & are endowed with large number of unutilized water bodies like derelict canals, drains and seasonal ponds. Most of these seasonal water bodies retain water for a short duration, mostly during rainy season & even low level of investment in these seasonal water bodies could yield handsome income within a short span of time. Because Farmers practicing only the **Traditional method of Carp culture** i.e. (Catla 40 :Rohu 30 :Mrigal 30) @ 5000 no. /ha, and culture for 10-12 months **resulting lower yield i.e. 17 q/ha. with net income of Rs.1,04,000 & BC ratio of 2.04** as compared to **seed production technique** i.e. (Stocking of 1, 00,000 IMC fry in 0.3 ha. area, feeding @ 8 % of biomass (1st month) & 6% (rest 2 months), liming @80-100 kg/ac. & with other management practices leading to production of 72,000 fingerlings / 2 crops /3 months with **net income of Rs. 2,28,000 & BC ratio of 4.8**. So this Fingerling production technique in seasonal fallow ponds, as an added livelihood activity may diversify the farmer's portfolio, thus increasing options and reducing risk of economic loss & widely accepted among farming community of the district. Angul, one of the Industrial districts of the state, contributes **16230 MT of fish from 3478.35 ha.** of water area in terms of pond and tanks, supplies **100 million fish seed** whereas the **demand is more than 250 million seeds annually**. So the utilization of unutilized seasonal ponds, to some extent, could solve the scarcity of seed production for rural aquaculture in the district. By this advanced technology, the rural farmers can aware about scientific carp seed rearing practices in their village ponds resulting in increase of fish production and productivity status from their ponds along with production and supply of quality seed in the locality and adoption of better management practices (BMPs) for enhancement of production in a sustainable way.

Wider adoption of this technology has open doors to:

- Fill the gap in fish seed production and make the district self sufficient in fish production.
- Create **employment (112 no. farmers** of Angul district) and income generating opportunities for the rural poor and enhance their food and livelihood security.
- Increase returns on available resources & **spread to 36.8 ha. area comprising 42 villages.**
- Reduce poverty through Entrepreneurship development **(87 no. Entrepreneurs).**
- Empower **women (08 SHG's)** and potentially contribute to the conservation of native fishes as well.
- Generate interest among perspective farmers to adopt fish seed production as a lucrative Enterprise

