

REVISED PROFORMA FOR ACTION PLAN 2019-2020

1. Name of the KVK: Nayagarh

Address	Telephone	E mail
Krishi Vigyan Kendra At-Panipoila Po-Balugaon Dist Nayagarh Pin-752070	-	nayagarhkvk@yahoo.com kvknayagarh.ouat@gmail.com

2. Name of host organization : OUAT, Bhubaneswar

Address	Telephone		E mail
	Office	FAX	
Odisha University of Agriculture and Technology, Bhubaneswar	0674- 2397818/23978 68/2397669	-	-

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

(a) Farmers and farmwomen

Thematic area	Title of Training	No .	Duratio n	Venu e On/ Off	Tentative Date	No. of Participants													
						SC		ST		Other		Total							
						M	F	M	F	M	F	M	F	T					
I. Plant Protection																			
IDM	Training on use of cultural and mechanical practices for BPH Management in Paddy	1	1	Off	July 19														25
IDM	Training on new generation pesticides for Sheath blight Management in Paddy	1	1	Off	August 19														25
IDM	Training on seed treatment for BLB Management in Paddy	1	1	Off	August 19														25
IPM	Training on use of seed treatment for YMV management in greengram	1	1	Off	September 19														25

IPM	Training on mechanical practices and use of new generation Pesticides for YMV management in greengram	1	1	Off	October 19															25	
IDM	Training on cultural,mechanical and new generation pesticides for Leaf curl management in chill	1	1	Off	Nov 2019																25
IPM	Training on Mechanical practices and new generation pesticides for control of DBM in Cabbage	1	1	Off	December 19																25
IDM	Training on use of Bio control methods for management fruit and shoot borer in Brinjal	1	1	Off	December 19																25
IPM	Training on pesticides management for control of fruit and shoot borer in brinjal	1	1	Off	December 19																25
II. Home Science																					
Value addition	Scientific technique of preparation of Amchur powder	1	1	Off	July 19																25
Value addition	Method of split preparation in green mango	1	1	Off	August 19																25
Income generation	Scientific technique of paddy straw mushroom packaging	1	1	Off	August 19																25
Income generation	Cultivation technique of paddy straw mushroom using threshed straw from excel flow thresher	1	1	Off	September 19																25
Nutrition	Designing of	1	1	Off	October 19																25

mgt.	nutritional garden																		
Nursery raising	Method of seeding raising in pro tray	1	1	Off	November 19														25
Backyard	Feeding management in poultry chicks	1	1	Off	December 19														25
Backyard	Brooding management in poultry chicks	1	1	Off	December19														25
III. Agriculture Engineering																			
Farm mechanization	Use of wetland power weeder in paddy cultivation	1	1	Off	July 19														25
Water management	Water management technique in different field crops.	1	1	Off	July 19														25
Water management	Water management technique greengram cultivation.	1	1	Off	August19														25
Farm mechanization	Technique of MAT type seedling raising for using self propelled Rice Transplanter	1	1	Off	August 19														25
Farm mechanization	Working Principle & operation of Seed cum fertilizer drill.	1	1	Off	September 19														25
Farm mechanization	Use of power operated maize sheller for mechanized shelling.	1	1	Off	October 19														25
Farm mechanization	Use of dryland power weeder in brinjal cultivation.	1	1	Off	November 19														25
Farm mechanization	Repair & maintenance of Farm Implements	1	1	Off	December19														25
Farm mechanization	Use of self propelled rice transplanter	1	1	Off	December19														25
IV. Agricultural extension																			
ICT	ICT in Agriculture	1	1	ONC	July 19														25
Marketing approach	Market Led extension	1	1	ONC	July 19														25
Group dynamics	Cooperative and Contract Farming	1	1	ONC	August19														25
Group	Leadership development for	1	1	OFC	August 19														25

dynamics	community work																	
Group dynamics	Role & responsibilities of SHGs	1	1	OFC	November 19													25
ICT	Effective delivery of message among farmers	1	1	ONC	December19													25
V. Soil Science																		
SFM	Fertilizer management in maize	01	01	OFC	July-19													25
SFM	Micronutrient deficiency in paddy and their remedies	01	01	OFC	June-19													25
SFM	Integrated Nutrient Management in Arhar and maize	01	01	ONC	June-19													25
SFM	Integrated Nutrient Management in sugarcane	01	01	OFC	November-19													25
SFM	Use if Bio-fertilizer in solanaceous crops	01	01	OFC	October-19													25
SFM	Use of nano zinc in maize	01	01	OFC	July-19													25
SFM	Use of VAM in Greengram	01	01	ONC	December 19													25
SFM	Application of Boron in Cauliflower	01	01	OFC	November 19													25
SFM	Integrated Nutrient Management in Chilli	01	01	OFC	January 2020													25
VI. Forestry																		
Agro forestry	Propagation of bamboos for culm cutting method	1	1	ONC	July 19													25
Agro forestry	MPT and their cultivation techniques	1	1	ONC	July 19													25
Agro forestry	Meeting of fuel wood through homestead forestry	1	1	ONC	August19													25
Agro forestry	Important medicinal plants and their uses	1	1	OFC	August 19													25
Agro forestry	Growing of Acacia Mangium for profit maximization	1	1	OFC	September19													25
VII. Agronomy																		
CP	Nutrient management in	1	1	OFC	November 19													25

	Blackgram under Rice-Blackgram paira cropping system,																
IWM	Intigrated weed management in Greengram	1	1	OFC	November 19												25
VIII. Horticulture																	
Floriculture	Scientific and commercial cultivation of marigold	1	1	OFC	October 2019												25
CP	Scientific method of seedling raising of Bitter gourd after late harvest of paddy.	1	1	OFC	November 2019												25
CP	Scientific cultivation of Hybrid Tomatao	1	1	OFC	November 19												25
INM	Micronutrients deficiency symptoms in tomato and their management	1	1	OFC	December 19												25

(b) Rural youths

Thematic area	Title of Training	No.	Duration	Venue On/Off	Tentative Date	No. of Participants											
						SC		ST		Other		Total					
						M	F	M	F	M	F	M	F	T			
I. Plant Protection																	
IPM	Stored grain pest management	1	2	ONC	August 19												20
Income generation	Scientific beekeeping for income	1	4	ONC	January 2020												10

	generation																
II. Home Science																	
Income generation	Method and technique of cultivation of oyster mushroom	1	2	ONC	Nov 19												20
Organic farming	Vermicomposting for upliftment of rural woman income	1	2	ONC	August 19												20
Backyard	Rearing of backyard poultry for empowerment of rural youth	1	2	ONC	Sept 19												20
Value addition	Preparation of different value added products of fruits & vegetables	1	4	ONC													10
Income generation	Scientific mushroom spawn production technique	1	4	ONC													10
III. Agriculture Engineering																	
Water management	Water management in vegetable cultivation.	1	2	ONC	August 19												20
Farm mechanization	Repair & maintenance of Pumpset .	1	2	ONC	Sept 19												20
Farm mechanization	Different safety measures in use of farm implements.	1	2	ONC	October 19												20
mechanization	Operation and maintenance of farm implements	1	4	ONC													10

	used in paddy cultivation																
Farm mechanization	Entrepreneurship development through farm mechanization	1	4	ONC													10
IV. Agricultural Extension																	
Group dynamics	Enriching the farm profitability through FPOs	1	4	ONC	August 19												20
Group dynamics	Formation and management of farmers producers organization	1	4	ONC	December 2019												10
V. Soil Science																	
SFM	Preparation of NADEP & its use	1	2	ONC	Sept 19												20
SFM	Preparation of Vermicompost & vermiwash	1	2	ONC	July 19												20

(c) Extension functionaries

Thrust area/ Thematic area	Title of Training	No.	Duration	Venue On/Off	Tentative Date	No. of Participants											
						SC		ST		Other		Total					
						M	F	M	F	M	F	M	F	T			
I. Plant Protection																	
IPDM	Bio intensive pest management in vegetable crops	1	2	OFC	August 19												20
IPM	Training on recent advances in Pest management in Paddy	1	2	OFC	September 19												20
II. Home Science																	
Income generation	Scientific technique of mushroom spawn	1	2	OFC	August 19												20

	production															
Income generation	Scientific technique of enhancing the self life of vegetable and fruits by value addition	1	2	OFC	Sept 19											20
III. Agril. Engineering																
Farm mechanization	Mechanization in pulses cultivation	1	2	OFC	August 19											20
Farm mechanization	Operation & maintenance of harvesting implements in Paddy	1	2	OFC	Sept 19											20
IV. Agricultural Extension																
ICT	Management of Information System	1	2	OFC	August 19											20
V. Soil Science																
SFM	Liming of acid soil and their management	1	2	ONC	August 19											20
SFM	Nutrient management in paddy crop	1	2	ONC	September 19											20
SFM	Importance of liquid biofertilizer in agricultural crops.	1	2	ONC	Nov 19											20

**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	1															25
Resource Conservation Technologies																
Cropping Systems																
Crop Diversification																
Integrated Farming																
Water management																
Seed production																
Nursery management																
Integrated Crop Management	1															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							
Fodder production																	
Production of organic inputs																	
Others, (cultivation of crops)																	
TOTAL	2																50
II. Horticulture																	
a) Vegetable Crops																	
Integrated nutrient management	1																25
Water management																	
Enterprise development																	
Skill development																	
Yield increment	1																25
Production of low volume and high value crops	1																25
Off-season vegetables																	
Nursery raising																	
Exotic vegetables like Broccoli																	
Export potential vegetables																	
Grading and standardization																	
Protective cultivation (Green Houses, Shade Net etc.)																	
Others, if any (Cultivation of Vegetable)	1																25
TOTAL	4																100
b) Fruits																	
Training and Pruning																	
Layout and Management of Orchards																	
Cultivation of Fruit																	
Management of young plants/orchards																	
Rejuvenation of old orchards																	
Export potential fruits																	
Micro irrigation systems of orchards																	
Plant propagation techniques																	
Others, if any(INM)																	
TOTAL																	
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																	

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				
TOTAL														
g) Medicinal and Aromatic Plants														
Nursery management	1													25
Production and management technology														
Post harvest technology and value addition														
Others, if any														
TOTAL	1													25
III. Soil Health and Fertility Management														
Soil fertility management	9													225
Soil and Water Conservation														
Integrated Nutrient Management														
Production and use of organic inputs														
Management of Problematic soils														
Micro nutrient deficiency in crops														
Nutrient Use Efficiency														
Soil and Water Testing														
Others, if any														
TOTAL	9													225
IV. Livestock Production and Management														
Dairy Management														
Poultry Management														
Piggery Management														
Rabbit Management														
Disease Management														
Feed management														
Production of quality animal products														
Others, if any (Goat farming)														
TOTAL														
V. Home Science/Women empowerment														
Household food security by kitchen gardening and nutrition gardening	1													25
Design and development of low/minimum cost diet														
Designing and development for high nutrient efficiency diet														
Minimization of nutrient loss in processing														
Gender mainstreaming through SHGs														
Storage loss minimization techniques														
Enterprise development														
Value addition														
Income generation activities for empowerment of rural Women	7													175
Location specific drudgery reduction technologies														
Rural Crafts														

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				
Capacity building														
Women and child care														
Others, if any														
TOTAL	8													200
VI. Agril. Engineering														
Installation and maintenance of micro irrigation systems														
Use of Plastics in farming practices														
Production of small tools and implements														
Repair and maintenance of farm machinery and implements	1													25
Small scale processing and value addition														
Post Harvest Technology														
Others, if any	8													200
TOTAL	9													225
VII. Plant Protection														
Integrated Pest Management														
Integrated Disease Management	9													225
Bio-control of pests and diseases														
Production of bio control agents and bio pesticides														
Others, if any														
TOTAL	9													225
VIII. Fisheries														
Integrated fish farming														
Carp breeding and hatchery management														
Carp fry and fingerling rearing														
Composite fish culture & fish disease														
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond														
Hatchery management and culture of freshwater prawn														
Breeding and culture of ornamental fishes														
Portable plastic carp hatchery														
Pen culture of fish and prawn														
Shrimp farming														
Edible oyster farming														
Pearl culture														
Fish processing and value addition														
Others, if any														
TOTAL														
IX. Production of Inputs at site														
Seed Production														
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														

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				
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	1													25
Mobilization of social capital														
Entrepreneurial development of farmers/youths														
WTO and IPR issues														
Others, if any														
TOTAL	6													150
XI Agro-forestry														
Production technologies	2													50
Nursery management	3													75
Integrated Farming Systems														
TOTAL	5													125
XII. Others (Pl. Specify)														
TOTAL	52													1300

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													20
Bee-keeping														
Integrated farming														
Seed production														
Production of organic inputs														
Planting material production														
Vermi-culture	1													20
Sericulture														
Protected cultivation of vegetable crops														
Commercial fruit production														
Repair and maintenance of farm machinery and implements	1													20

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			
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production	1												20
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													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Enterprise development													
Others if any	6												120
TOTAL	10												200

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												40
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
Protected cultivation technology													

Formation and Management of SHGs														
Group Dynamics and farmers organization														
Information networking among farmers														
Capacity building for ICT application	1	15	0	15	3	0	3	2	0	2	20	0	20	
Care and maintenance of farm machinery and implements														
WTO and IPR issues														
Management in farm animals														
Livestock feed and fodder production														
Household food security														
Women and Child care														
Low cost and nutrient efficient diet designing														
Production and use of organic inputs														
Gender mainstreaming through SHGs														
Crop intensification														
Others if any	7													140
TOTAL	10													200

4. Frontline demonstration to be conducted*

Plant Protection

FLD 1: Demonstration of Integrated management of DBM in Cabbage during Rabi

Crop: Cabbage

Thrust Area: Indiscriminate use of single chemical over a long period and Lack of use of associated cultural practices as component of IPM

Thematic Area: IPM

Season: Rabi 2019-20

Farming Situation: Irrigated upland/medium land

FLD 2: Demonstration of Integrated management of YMV in green gram

Crop: Green gram

Thrust Area: Indiscriminate use of single chemical over a long period and Lack of use of associated cultural practices as component of IPM Lack of knowledge about alternative chemicals or botanicals

Thematic Area: IDM

Season: Rabi 2019-20

Farming Situation: Rainfed med/low land

FLD 3: Demonstration of integrated management thrips & mites in chilli during Rabi

Crop: Chilli

Thrust Area: Lack of knowledge on use of IPM practices against sucking pests
Lack of knowledge about alternative chemicals or botanicals

Thematic Area: IPM

Season:Rabi 2019-20

Farming Situation:Irrigated medium land

FLD 4: Demonstration of Bio intensive management of Brinjal fruit and shoot borer

Crop: Brinjal

Thrust Area: Lack of knowledge on pest management measures

Thematic Area: IPM

Season:Rabi 2019-20

Farming Situation: Paddy –veg, Irrigated up/medium land

Home Science

FLD 1: Demonstration of enhancing self life of Tomato through Tomato powder

Crop: Tomato

Thrust Area: Distress sale of Tomato(Rs. 4-5/kg)

Thematic Area: Value addition

Season:Rabi 2019-20

Farming Situation:

FLD 2: Demonstration of nutritional garden for Improving Nutritional Security of farm family

Crop: Vegetables

Thrust Area: Poor availability of vegetable round the year leading to Malnourishment

Thematic Area: Nutritional security

Season:Rabi 2019-20

Farming Situation:

FLD 3: Demonstration of production of paddystraw mushroom with Crumpled straw

Crop: Mushroom

Thrust Area: Poor family income. Under utilization of threshed paddy straw

Thematic Area: Income generation

Season:Rabi 2019-20

Farming Situation:

FLD 4: Demonstration on artificial brooding management in chicks

Crop: Poultry

Thrust Area: Poor sustainability of backyard poultry rearing with improved breeds due to non availability of brooded chicks at village level and due to mortality of chicks during brooding and rearing.

Thematic Area: Income generation

Season:Rabi 2019-20

Farming Situation: homestead

Agriculture Engineering

FLD 1: Demonstration of Power operated Maize Sheller for mechanized shelling in Kharif season

Crop: Maize

Thrust Area: Less efficiency and less output by manual shelling of Maize. It is a high labour and cost intensive process

Thematic Area:Mechanization

Season:Kharif 2019

Farming Situation: Rainfed upland

FLD 2: Demonstration of Tractor drawn Multi crop Seed cum Fertilizer drill for mechanized line sowing in Greengram in Rabi season

Crop: Greengram

Thrust Area: High labour cost and more time involved in sowing behind the bullock drawn plough

Thematic Area: Mechanisation

Season:Rabi 2019-20

Farming Situation: Rainfed upland

FLD 3: Demonstration of Dry Land Power Weeder in Brinjal for weeding in Kharif season

Crop: Brinjal

Thrust Area: High labour cost and more time involved in manual weeding operation

Thematic Area: Mechanization

Season: Kharif 2019

Farming Situation: Rainfed up/Medium land

FLD 4: Demonstration of 8 row Self Propelled Rice Transplanter for mechanized line transplanting in Kharif season

Crop: Rice

Thrust Area: Labour intensive, time consuming, High cost of operation involved in manual transplanting

Thematic Area: Mechanization

Season: Kharif 2019

Farming Situation:Rainfed

Soil Science

FLD 1: Demonstration on boron application in low land rice

Crop: Rice

Thrust Area: Low yield due to more chaffy grains in the panicle attributed by boron deficiency

Thematic Area: Soil fertility

Season:Kharif 2019

Farming Situation: Rainfed low land

FLD 2: Demonstration of production technology of Vermicompost

Crop: Vermicompost

Thrust Area: Inadequate availability of FYM for crops & its low nutrient status

Thematic Area:Income generation

Season: Kharif 2019

Farming Situation:

FLD 3: Demonstration on INM in Greengram

Crop: Greengram

Thrust Area: Lower yield due to lesser pod filling attributed by improper nutrient management

Thematic Area: INM

Season: Rabi 2019-20

Farming Situation: Paddy-Fallow, Irrigated upland

FLD 4: Demonstration on Nutrient management Blackgram for Rice- blackgram paira cropping system

Crop: Blackgram

Thrust Area: Lower yield of Blackgram as paira crop due to improper nutrient management

Thematic Area: INM

Season: Rabi 2019-20

Farming Situation: Rainfed Medium/Low land

Horticulture

FLD 1: Demonstration of marigold variety Bidhan marigold 2 for higher yield

Crop: Marigold

Thrust Area: Low yield of local varieties and small flower size

Thematic Area: Yield increment

Season: Rabi 2019-20

Farming Situation: Irrigated up land

FLD 2: Demonstration of portray raising of seedlings to avoid late planting of Bitter gourd after late harvest of paddy

Crop: Bitter gourd

Thrust Area: Late planting of Bitter gourd due to late harvest of paddy

Thematic Area: Nursery raising

Season: Rabi 2019-20

Farming Situation: Irrigated up land

FLD 3: Demonstration of triple resistant (early blight, bacterial wilt, leaf curl virus) tomato var. ArkaRakhyak

Crop: Brinjal

Thrust Area: Low yield of local varieties and high wilting, early blight and leaf curl incidence

Thematic Area: Yield increment

Season: Rabi 2019-20

Farming Situation: Irrigated up/medium land

FLD 4: Demonstration of application of micronutrients for increasing marketable fruit yield in tomato

Crop: Tomato

Thrust Area: Low marketable fruit yield due to incidence of physiological disorders

Thematic Area: INM

Season: Rabi 2019-20

Farming Situation: Irrigated up/medium land

Agrilculture Extension

FLD 1: Demonstration on Chemical weed management in Greengram

Crop: Greengram

Thrust Area: Lower yield due to high weed infestation and high cost of manual hand weeding

Thematic Area: Weed management

Season: Rabi 2019-20

Farming Situation: Irrigated up/medium land

FLD 2: Demonstration on effectiveness of short technology videos on technology adoption

Crop:

Thrust Area: Less efficacy of existing dissemination modes i.e. text messages/verbal advisory

Thematic Area: ICT

Season:Rabi 2019-20

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.	Cabbage		Growing of mustard as trap crop 16;1 ratio,15days before transplanting of main crop +Ph.eromone trap @25/ha and alternate spraying of Neem oil 5% and Spinosad 45SC @125ml/ha	No of larvae/plant % of infestation	Pheromone Trap , Neem Oil & Spinosad 45SC														10
2.	Greengram		Seed treatment with Imidacloprid 600 FS @ 5 ml / kg seed + Yellow sticky trap @ 50/ha + Neem oil @5ml/lit spray on appearance of white fly + Spraying of Diafenthiuron 50 WP @ 312.5 g a.i./ha	Stage of the plant, Presence of white fly ,pest count/leaf/ plant	Imidacloprid 600FS, Yellow Sticky Trap, Neem Oil & Diafenthiuron 50 WP														10
3.	Chilli		Soil application of neem cake @2.5 qt/ha,Installation of Blue sticky traps	No of thrips/leaf , no of mites/sq.in	Neem Cake, Blue Sticky														10

			@50nos/ha, & need based application of Difenthiuron @1gm/lt & Spiromesifen 240 SC @ 0.6ml/ lit alternately at 10 days interval	ch leaves	Trap, Difenthiuron & Spiromesifen 240 SC													
4	Brinjal		Soil application of neem cake @250Kg/ha Installation of pheromone traps @25no/ha Spraying of neem oil 1500ppm @ 5ml /lit at weekly intervals. Release of Trichogramma chilonis @ 50,000/ha.10days interval 6 times Collection and destruction of damaged shoot and fruits. Use of tolerant variety. application of Spinosad 4ml/10lit . if neede	No of infested twig , moth catches /trap,Percentage of infested fruits	Neem Cake, Pheromone Trap, Neem Oil 1500 ppm, Trichogramma chilonis & Spinosad													10
5	Tomato		Tomatoes dried in the cabinet drier at 80oC for 10 hours(Tomato powder-5.0g+ Onion-0.5g+corn flour-2.0g+cumin	Colour, flavour, Taste, Overall acceptability, Self life(Days)	Tomato powder , Onion, Corn flour,													10

			powder-0.5g+peper-0.3g+salt-1.5g), Shelf life: 6 months		Cumin Powder , Peper & Comm on salt													
6	Vegetable		A nutritional garden with trailis structure, vermi compost unit, protray for seedling raising will facilitate production of vegetables round the year and improve nutrient intake at household level	Consumpti on of vegetables /day Availabilit y of vegetable/ day	Vegeta ble seeds and Seedlin gs													10
7	Mushroom		Straw-5kg, pulse powder 3%, soaking period-5hrs)	Days to first flush, Size of fruiting body,	Straw & pulse Powder													10
8	Poultry		Brooding management for 21 days with floor space of 0.3 sqft/bird with help of chick guards, artificial heat @ 1-3 watt per chick , feeders and drinkers @ 1 each per 50 chicks, vaccination with against RD on 7 th day, 28 day, IBD	Chick mortallity rate during brooding period, body weight at 21 days, survivabilit y of birds till start of laying.	Chicks, Chick Guard, Electric Balb, Feeders , Drinkers & Vaccine against RD and IBD													10

			on 14 th day . Use of electrolytes, preventive antibiotics during brooding.															
9	Maize		The machine is operated by 1 hp single phase electric motor and consists of a threshing cylinder, concave, cylinder casing, cleaning fan and feeding hopper. In axial flow concept, the dehusked cobs (with grains) are fed on hopper which moves axially and the cobs (with out grains) are thrown out from the other end after complete threshing. The threshing cylinder is of peg type. Capacity – 300Kg/h. Cleaning efficiency – 98%	Capacity (Kg/h), Cleaning efficiency(%), Shelling efficiency(%), Damaged / broken grain (%), Labour requirement (man-days/q)	Maize Sheller													10
10	Greengram		Tractor drawn Multi crop Seed cum Fertilizer drill - Field capacity – 0.4ha/h, sowing of seeds in 9 row with the help of tractor operated Seed cum	Plant population / sq.m, Labour requirement (MDs/ha), No. of	Tractor drawn Multi crop Seed cum Fertilizer drill													10

			Fertilizer drill with vertical rotor feed mechanism and shovel type Furrow opener	missing plant per meter length, Field capacity (ha/h), Field efficiency(%)														
11	Brinjal		(4-stroke petrol engine) - Weeding, hoeing and ridging are possible for the row spacing of 60 cm- 90 cm. Capacity: 0.08 ha/h	Field capacity (ha/h), Weeding Index, Labour requirement (man days/ha), Plant injury percentage (%), Fuel consumption (l/h)	Dry Land Power Weeder													10
12	Rice		Self Propelled 8-row Rice Transplanter - Suitable for line transplanting under medium land condition. • Spacing: 23.8 cm x 14/16/18 cm, Field Capacity – 0.15ha/h. It is operated by Diesel	Field capacity (ha/h), Missing hills (hills/m), Labour requirement (man days/ha), No of	Self Propelled 8-row Rice Transplanter													10

			engine.	tillers / hill, No of seedlings / hill														
13	Rice		Boron is an essential micronutrient, which is responsible for cell wall formation and stabilization, pollen germination and pollen tube growth, imparts drought tolerance to plants . Application of STBR NPK as basal and two foliar spray of B as borax@ 0.25% at PI and pre flowering stage helps in high pollination and more filled grains. Also it increases Nitrogen use efficiency of the plant.	Initial and after harvest soil test value, No. of tillers/ m2, No. of filled grain per panicle, Sterility %, 1000 grain weight (gm)	Borax													10
14	Vermicom post		Vermiculture is a process by which all types of biodegradable wastes such as farm	Nutrient status of vermicom post ,	Wel decomposed cowdung,													10

			<p>wastes, kitchen wastes, bio-wastes of agro based industries, livestock wastes etc. are converted while passing through the worm-gut to nutrient rich vermicompost. Vermi worms are used here act as biological agents to consume those wastes and to deposit excreta vermicompost is rich nutrient status as compared to FYM along with added advantages of enzymes and growth regulators. Vermicompost can substitute FYM and waste recycling can be achieved through this technology.</p>		Well decomposed farm wastes & Vermi worms											
15	Greengram		<p>Soil test based NPK with FYM @ 5 t/ha and seed inoculation with Rhizobium @ 20g/kg and treatment with ammonium molybdate @ 10 g /</p>	<p>Nodule no /plant, Nodule wt/plant, efficiency, pod wt/plant, grain weight /plant</p>	<p>Rhizobium culture & Ammonium molybdate</p>											10

			25 kg of seed increases the nutrient use efficiency through biological nitrogen fixation. Rhizobium inoculation helps in high nodulation and Ammonium molybdate provides Mo which is highly essential for Nitrogenase enzyme activity which helps in Biological Nitrogen Fixation.													
16	Blackgram		Blackgram can fix biological nitrogen and requires more P and K. As P and K are less mobile in soil, total recommended fertilizer dose of blackgram is added to the rice crop at PI stage so that black gram can use the residual fertility. For supplement nutrients to Blackgram, foliar spray of 1% DAP+ 1% MOP can be given at 20 and 40	Pod no per plant, no of filled pod/plant, pod weight per plant, seed yield per plant	DAP & MOP											10

			DAS of Black gram which will enhance the yield of Blackgram as paira crop.															
17	Marigold		Number of flowers per plant (128flowers/plant). The flowers are attractive, orange in colour, compact and found suitable for making garland, Flower dia- 4. Cm, Yield- 285 kg/plant	Flower diameter, No. of flowers per plant, flower yield (q/ha)	Cuttings of Marigold Var-BM 2													10
18	Bitter gourd		The seedling tray (pro tray) is filled with the growing medium (moistened coco peat). One seed per cell is sown and covered with medium. The entire stack of 10 trays will be covered using polyethylene sheet to ensure conservation of moisture until germination. The stacked trays are spread once the germination commences to avoid etiolation. The trays	Date of planting of Bitter gourd seedlings, Seedling germination percentage, Seedling survival percentage, Fruit yield (q/ha)	Seedling tray, moistened Coco and Polyethylene sheet													10

			<p>are irrigated lightly. Drenching the trays with fungicides as a precautionary measure against seedling mortality is also being done. Spraying of 0.3 per cent (3g / litre) water soluble fertilizer using poly feed (19 all with trace elements) twice (12 and 20 days after sowing) for enhance the growth of the seedlings. The seedlings at right stage of planting are hardened. Systemic insecticides are sprayed for managing the insect vectors. The seedlings would be ready in about 21-30 days for transplanting to the main field.</p>												
19	Tamato		F1 hybrid developed by crossing IIHR-2834 X IIHR-2833.	Wilt incidence (%), PDI	Tamato hybrid seedlin										10

			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	of early blight,, Fruit wt(g), No of fruits per plant, Yield (q/ha)	gs Var-Arka rakshyak													
20	Tomato		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 fruits per plant, Fruit wt(g), Fruits weight per plant	Mixed Micronutrient Solutions													10
21	Greengram		Pendimethalin is a pre emergence herbicide which gives wide spectrum of weed control like grasses, sedges and	Weed flora composition, Weed control efficiency, pod	Pendimethalin													10

			<p>broadleaf weeds. The mode of action of herbicide is inhibition of root and shoot growth resulting in inhibition of emergence. Pre emergence application takes care of the early flush of weeds and post emergence application of imazethapyr takes care of grassy weeds emerged in later phases in pulses with ALS inhibition and restricts synthesis of essential aminoacids</p>	<p>wt/plant, grain weight /plant</p>														
22	ICT		<p>Production packages will be divided into different segments and short videos will be produced and disseminated through whatsapp.</p>	<p>Understanding the method and process depicted in the video -Retention of the message</p>														10

Extension and Training activities under FLD:

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

Training	Training on Mechanical practices and new generation pesticides for control of DBM in Cabbage	1	F/FW	1	Off														25	
Field Day	Demonstration of Integrated management of DBM in Cabbage during Rabi																			40
Field Day	Demonstration of Integrated management of YMV in green gram	1	F/FW	1	Off															25
Training	Training on use of seed treatment for YMV management in greengram	1	F/FW	1	Off															25
Training	Training on mechanical practices and use of new generation Pesticides for YMV management in greengram	1	F/FW	1	Off															25
Training	Training on cultural,mechanical and new generation pesticides for Leaf curl management in chill	1	F/FW	1	Off															25
Field Day	Demonstration of integrated management thrips & mites in chilli during Rabi	1	F/FW	1	Off															25

Training	Training on use of Bio control methods for management fruit and shoot borer in Brinjal	1	F/FW	1	Off									25
Training	Training on pesticides management for control of fruit and shoot borer in brinjal	1	F/FW	1	Off									25
Field day	Demonstration of Biointensive management of Brinjal fruit and shoot borer													
Field Day	Demonstration of enhancing self life of Tomato through Tomato powder	1	F/FW	1	Off									25
Training	Scientific technique of enhancing the self life of vegetable and fruits by value addition	1	EF	1	Off									20
Field Day	Demonstration of nutritional garden for Improving Nutritional Security of farm family	1	F/FW	1	Off									40
Training	Designing of nutritional garden	1	F/FW	1	Off									25
Field Day	Demonstration of production of	1	F/FW	1	Off									40

	paddystraw mushroom with Crumpled straw													
Training	Cultivation technique of paddy straw mushroom using threshed straw from excel flow thresher	1	F/FW	1	Off									25
Field Day	Demonstration on artificial brooding management in chicks	1	F/FW	1	Off									40
Training	Rearing of backyard poultry for empowerment of rural youth	1	F/FW	1	Off									25
Field Day	Demonstration of Power operated Maize Sheller for mechanized shelling in Kharif season	1	F/FW	1	Off									40
Training	Use of power operated maize sheller for mechanized shelling.	1	F/FW	1	Off									25
Field Day	Demonstration of Tractor drawn Multi crop Seed cum Fertilizer drill for mechanized line sowing in Greengram in Rabi season	1	F/FW	1	Off									40
Training	Working Principle	1	F/FW	1	Off									25

	& operation of Seed cum fertilizer drill.													
Field Day	Demonstration of Dry Land Power Weeder in Brinjal for weeding in Kharif season	1	F/FW	1	Off									40
Training	Use of dryland power weeder in brinjal cultivation.	1	F/FW	1	Off									25
Field Day	Demonstration of 8 row Self Propelled Rice Transplanter for mechanized line transplanting in Kharif season	1	F/FW	1	Off									40
Training	Use of self propelled rice transplanter	1	F/FW	1	Off									25
Field Day	Demonstration on boron application in low land rice	1	F/FW	1	Off									40
Training	Micronutrient deficiency in paddy and their remedies	1	F/FW	1	Off									25
Field Day	Demonstration of production technology of Vermicompost	1	F/FW	1	Off									40
Training	Preparation of Vermicompost & vermiwash	1	RY	1	Off									20
Field Day	Demonstration on INM in	1	F/FW	1	Off									40

	Greengram													
Training	INM in Greengram.	1	F/FW	1	Off									25
Field Day	Demonstration on Nutrient management Blackgram for Rice- blackgram paira cropping system	1	F/FW	1	Off									40
Training	Nutrient management in Blackgram under Rice-Blackgram paira cropping system,	1	F/FW	1	Off									25
Field Day	Demonstration of marigold variety Bidhan marigold 2 for higher yield	1	F/FW	1	Off									40
Training	Scientific and commercial cultivation of marigold,	1	F/FW	1	Off									25
Field Day	Demonstration of pro tray raising of seedlings to avoid late planting of Bitter gourd after late harvest of paddy	1	F/FW	1	Off									40
Training	Scientific method of seedling raising of Bitter gourd after late harvest of paddy.	1	F/FW	1	Off									25
Field Day	Demonstration of triple resistant (early blight,	1	F/FW	1	Off									40

	bacterial wilt, leaf curl virus) tomato var. Arka Rakhyak													
Training	Scientific cultivation of Hybrid Tomatao	1	F/FW	1	Off									25
Field Day	Demonstration of application of micronutrients for increasing marketable fruit yield in tomato	1	F/FW	1	Off									40
Training	Micronutrients deficiency symptoms in tomato and their management,	1	F/FW	1	Off									25
Field Day	Demonstration on Chemical weed management in Greengram	1	F/FW	1	Off									40
Training	Intigrated weed management in Greengram	1	F/FW	1	Off									25

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

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

Name of the Crop / Enterprise	Variety / Type	Period From..... to	Area (No/h a.)	Details of Production				
				Type of	Expected (quintals)	Production	Cost of inputs	Expected Gross

			Prod uce		(Rs.)	income (Rs.)	Income (Rs.)
Forest Seedlings	Teak,Mangium,Bamboo				2000	7000	17000	10000
Mango Graft	Amrapalli				500	9000	20000	11000
Vegetable seedlings	Brinjal,tomato,papaya,drumstick,c auliflower				50000	55000	1,16,500	61500
Mushroom cultivation	Paddy straw,Oyester				200kg			
Mushroom Spawn	Paddy straw,Oyester				5000 no of bottles			
Honey bee	Apis cerana Indica				25kg	2000	10000	8000
Vermicompost	Esenia foetida				25qt	25000	37500	12500
Indian major carps(fry & Fingerlings)					50000	10000	25000	15000
Poultry	Banaraja				2000	95000	110000	15000
Marigold cuttings	Ceracola				20000	8500	20000	11500
Sugarcane	Charchica				0.3ha(New crop will be taken)	22000	37500	15500
	Sabita				0.3ha(New crop will be taken)	22000	37500	15500
Sugarcane Ratoon	Sabita				10 ton	8000	25000	17000
Azolla					1 Qtl.	500	1000	500

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.)

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6. 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	21			840							
2.	KisanMela	2			400							
3.	KisanGhosthi	2			60							
4.	Exhibition	3			600							
5.	Film Show	30			704							
6.	Method Demonstrations	3			150							
7.	Farmers Seminar	2			100							
8.	Workshop	1			100							
9.	Group meetings	1			100							
10.	Lectures delivered as resource persons	5			120							
11.	Advisory Services	7			1500							
12.	Scientific visit to farmers field	100			700							
13.	Farmers visit to KVK	600			240							
14.	Diagnostic visits	85			432							
15.	Exposure visits	10			200							
16.	Ex-trainees Sammelan	1			120							
17.	Soil health Camp	1			200							
18.	Animal Health Camp	2			100							
19.	Agri mobile clinic	1			100							
20.	Soil test campaigns	1			30							
21.	Farm Science Club Conveners meet	1			30							
22.	Self Help Group Conveners meetings	1			100							

7. Revolving Fund (in Rs.2,00,000)

8. Expected fund from other sources and its proposed utilization

Project	Source	Amount to be received (Rs. in lakh)
IRRI	Govt. of Odisha	
ARYA	ICAR	

9. OFT: 1

Plant Protection

- i. **Season: Kharif, 2019**
- ii. **Title of the OFT: Assessment of rice varieties tolerant to BPH in shallow low land during Kharif**
- iii. **Thematic Area: IDM**
- iv. **Problem diagnosed: Lower yield due to high BPH/WBPH Infestation**
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system: Rainfed shallow Low Land Paddy-Fallow**
- viii. **Technology for Testing:**
- ix. **Existing Practice:**
- x. **Hypothesis:**
- xi. **Objective(s):**
- xii. **Treatments:**
Farmers Practice (FP): Cultivation of rice Var:MTU-7029
Technology option-I (TO-I): Cultivation of tolerant variety: Hasant
Technology option-II (TO-II): Cultivation of tolerant variety: Pratikshya
- xiii. **Critical Inputs:**
- xiv. **Unit Size:**
- xv. **No of Replications: 07**
- xvi. **Unit Cost:**
- xvii. **Total Cost:**
- xviii. **Monitoring Indicator:**
- xix. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT: 2

- i. **Season: Kharif, 2019**
- ii. **Title of the OFT: Assessment of New generation fungicides for Sheath Blight management in Rice**
- iii. **Thematic Area: IDM**
- iv. **Problem diagnosed: Lack of knowledge about alternative chemicals or botanicals**
Lack of use of associated cultural practices as component of IDM
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system: Paddy-Fallow ,Rainfed med/Low land**
- viii. **Technology for Testing:**
- ix. **Existing Practice:**
- x. **Hypothesis:**
- xi. **Objective(s):**
- xii. **Treatments:**
Farmers Practice (FP): Application of Hexaconazole @ 2ml/lit.

Technology option-I (TO-I): Spraying of the combination fungicide Azoxystrobin+ difenconazole @ 1ml/l twice at 15 days interval starting from initiation of the infection

Technology option-II (TO-II): Spraying of Trifloxystrobin 25%+Tebuconazole 50% 75 WG twice after 30 & 60 DAT @400 gm/ha

- xiii. **Critical Inputs:**
- xiv. **Unit Size:**
- xv. **No of Replications: 07**
- xvi. **Unit Cost:**
- xvii. **Total Cost:**
- xviii. **Monitoring Indicator:**
- xx. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-1

Home Science

- i. **Season: Kharif, 2019**
- ii. **Title of the OFT: Assessment of packaging practices of V. volvacea**
- iii. **Thematic Area: Income generation**
- iv. **Problem diagnosed: Distress Sale and low income due to short shelf life**
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system:**
- viii. **Technology for Testing:**
- ix. **Existing Practice:**
- x. **Hypothesis:**
- xi. **Objective(s):**
- xii. **Treatments:**

Farmers Practice (FP): No packaging system in paddy straw mushroom

Technology option-I (TO-I): Fresh Mushrooms Buds washed with potassium meta bisulphite (KMS 0.1% and o.1% citric acid) for 10 minutes and allowed to air dry on muslin cloth for 30 min and then packed in perforated polypropylene bags punched with 10 holes (0.5 cm diameter) stored at room temperature

Technology option-II (TO-II): Fresh mushroom buds treated with potassium meta bisulphite (KMS 0.1% and o.1% citric acid,) for 10 minutes and allowed to air dry on muslin cloth for 30 min and then packed in paper bags punched with 10 holes (0.5 cm diameter) stored at room temperature

- xiii. **Critical Inputs:**
- xiv. **Unit Size:**
- xv. **No of Replications: 07**
- xvi. **Unit Cost:**
- xvii. **Total Cost:**
- xviii. **Monitoring Indicator:**
- xxi. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-2

Season: Kharif, 2019

- ii. **Title of the OFT: Assessment of different value added products from green mango.**
- iii. **Thematic Area: Value addition**
- iv. **Problem diagnosed: Immature fruit drop of mango due to Kala Baisakhi leads to less market price**
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system:**
- viii. **Technology for Testing:**

ix. Existing Practice:

x. Hypothesis:

xi. Objective(s):

xii. Treatments:

Farmers Practice (FP): No value addition

Technology option-I (TO-I): Fresh Mushrooms Buds washed with potassium meta bisulphite (KMS 0.1% and 0.1% citric acid) for 10 minutes and allowed to air dry on muslin cloth for 30 min and then packed in perforated polypropylene bags punched with 10 holes (0.5 cm diameter) stored at room temperature

Technology option-II (TO-II): Amchoor powder-Drying of mango in solar dryer by washing and peeling the mango, then cutting into sliced, dipping in 2% salt solution for an hour and dipping in 2000ppm so₂ solution for 2 hour, and then spreading the slice inside sun drying and the grid

xiii. Critical Inputs:

xiv. Unit Size:

xv. No of Replications: 07

xvi. Unit Cost:

xvii. Total Cost:

xviii. Monitoring Indicator:

i. Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):

OFT-1

Agril. Engeneering

i. Season: Kharif 2019

ii. Title of the OFT: Assessment of Wet Land Power Weeder for weeding in Paddy in Kharif season

iii. Thematic Area: Farm Mechanisation

iv. Problem diagnosed: High labour cost and time involved in manual weeding

v. Important Cause:

vi. Production system:

vii. Micro farming system: Rainfed

viii. Technology for Testing: T O₁ - Cono Weeder – Field Capacity – 180sq.m/h, weeding by means of push-pull action. The float of the weeder controls working depth and does not allow rotor assembly to sink in the soil. It is used for weeding in between rows of line transplanted Paddy field

T O₂ - Suitable for weeding in line transplanted paddy crops, 1st weeding: after 12-15 days of transplanting, 2nd: 25-30 days, 3rd: 45-50 days. Weeding capacity: 0.075 ha/h

ix. Existing Practice:

x. Hypothesis:

xi. Objective(s):

xii. Treatments:

Farmers Practice (FP): Manual Weeding

Technology option-I (TO-I): Cono weeder

Technology option-II (TO-II): Wet Land Power Weeder

xiii. Critical Inputs:

xiv. Unit Size:

xv. No of Replications: 07

xvi. Unit Cost:

xvii. Total Cost:

xviii. Monitoring Indicator:

i. Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):

OFT-2

- i. **Season:** Rabi, 2019-20
- ii. **Title of the OFT:** Assessment of water use efficient practices for yield enhancement of Pulse (Greengram) crops in Rice based cropping system in Rabi season
- iii. **Thematic Area:** Farm Mechanisation
- iv. **Problem diagnosed:** High labour cost and time involved in manual weeding
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system:** Rainfed
- viii. **Technology for Testing:** T O1:Cono Weeder – Field Capacity – 180sq.m/h, weeding by means of push-pull action. . The float of the weeder controls working depth and does not allow rotor assembly to sink in the soil. It is used for weeding in between rows of line transplanted Paddy field
T O 2 - Suitable for weeding in line transplanted paddy crops, 1st weeding: after 12-15 days of transplanting, 2nd: 25-30 days, 3rd: 45-50 days. Weeding capacity: 0.075 ha/h
- ix. **Existing Practice:**
- x. **Hypothesis:**
- xi. **Objective(s):**
- xii. **Treatments:**
Farmers Practice (FP): No Irrigation
Technology option-I (TO-I): Sprinkler irrigation once at pre-flowering stage
Technology option-II (TO-II): Sprinkler irrigation at pre-flowering and pod formation stages
- xiii. **Critical Inputs:**
- xiv. **Unit Size:**
- xv. **No of Replications: 07**
- xvi. **Unit Cost:**
- xvii. **Total Cost:**
- xviii. **Monitoring Indicator:**
 - i. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-1

Horticulture

- i. **Season:** Rabi 2019-20
- ii. **Title of the OFT:** Assessment of Brinjal varieties for wilt tolerance
- iii. **Thematic Area:**
- iv. **Problem diagnosed:** High labour cost and time involved in manual weeding
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system:** Irrigated medium land
- viii. **Technology for Testing:** TO₁,Swarna Shyamli:Fruit : Medium size (250 g), round, attractive green colour with white stripes. • Locally preferred for better quality. • Resistant to bacterial wilt. • Time of sowing : July-August and February-March. • Spacing : 60 cm x 50 cm. • Seed rate : 250-300 g/ha. • Maturity : First harvest 35-40 days after planting, Yield- 60-65 t/ha
TO₂,Swarna Pratibha:Fruit: Medium size (250 g), and shiny purple colour. Resistant to bacterial wilt.Time of sowing :July-August.Spacing :60 cm x 50 cm. Seed rate : 250-300 g/ha. Maturity : First harvest 55-60 days after planting, Yield- 45-50 t/ha
TO₃ UtkalaJyoti:Fruit medium small in size, long, cluster and purple in colour. Matures in 90 – 95 days.Moderately resistant to phomopsis fruit rot and tolerant to bacterial wilt.Av. Yield-38t q/ha
- ix. **Existing Practice:**
- x. **Hypothesis:**
- xi. **Objective(s):**

- xii. Treatments:**
 - Farmers Practice (FP):** Use of available local variety
 - Technology option-I (TO-I):** SwarnaShyamal
 - Technology option-II (TO-II):** Swarna Pratibha
- xiii. Critical Inputs:**
- xiv. Unit Size:**
- xv. No of Replications: 07**
- xvi. Unit Cost:**
- xvii. Total Cost:**
- xviii. Monitoring Indicator:**
 - i. Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-2

- i. Season:** Rabi 2019-20
- ii. Title of the OFT:** Assessment of drumstick varieties for higher yield in drumstick
- iii. Thematic Area:**
- iv. Problem diagnosed:** Low yield of local varieties
- v. Important Cause:**
- vi. Production system:**
- vii. Micro farming system:** Irrigated medium land
- viii. Technology for Testing:** Bhagya: Plant Height 2.5 to 3.0 m, Flowering 130 to 140 days, Pod length 65 to 70 Cm, Average no. of seeds /pod 18.8. Pod weight 154.75 g, Yield 300 to 350 pods /year (I year), 800 to 1000 pods /year (Subsequent years), Yield- 42-50 t/ha, Leaves and Pod Rich in Vitamin C, iron.

PKM 1: Fruits are fleshy and tasty coming to flowering within 5-6 months after sowing and comes to harvest in 7-8 months. The pods mature 65 days after flowering. The peak harvest is during March to August. Plant grows to a height of 4-6 m in a year and produce 6-12 primary branches. Pods are 75 cm long and weigh around 150 g with 70 % flesh. Average yield is 220 fruits per tree. Avg yield is 52 t/ha. Ratoon crop can be maintained for 3-4 years.

- ix. Existing Practice:**
- x. Hypothesis:**
- xi. Objective(s):**
- xii. Treatments:**
 - Farmers Practice (FP):** Use of Local variety (desi sajana)
 - Technology option-I (TO-I):** Drumstick variety Bhagya
 - Technology option-II (TO-II):** Drumstick variety PKM 1

- xiii. Critical Inputs:**
- xiv. Unit Size:**
- xv. No of Replications: 07**
- xvi. Unit Cost:**
- xvii. Total Cost:**
- xviii. Monitoring Indicator:**
 - i. Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-1

Soil Science

- i. Season:** Kharif, 2019 (Year-I)
- ii. Title of the OFT:** Assessment of zinc deficiency in lowland rice
- iii. Thematic Area:**
- iv. Problem diagnosed:** Low yield due to Zn deficiency
- v. Important Cause:**

vi. **Production system:**

vii. **Micro farming system:**

viii. **Technology for Testing:** T O₁: Application of only major nutrients based on initial soil test value only meets the demand for bulk requirement the nutrients where as there is deficiency of other trace elements. Zn as a trace element is highly essential for rice which involved in several enzymatic physiological relations. As we are not providing organic manure , we are applying higher dose of Zn in the form of Zn So₄ as basal application.

T O₂: Application of soil test based major nutrients along with organic manure provides some of the trace elements which is not sufficient as per Zn requirement for rice is concerned. So a lower dose of Zn is applied as basal in form of Zn So₄ which will meet the Zn requirement of Rice.

ix. **Existing Practice:**

x. **Hypothesis:**

xi. **Objective(s):**

xii. **Treatments:**

Farmers Practice (FP): Indiscriminate use of fertioliser and No use of Secondary nutrient

Technology option-I (TO-I): Soil Test Based Recommendation (STBR) NPK+ Zn @ 5 kg/ha

Technology option-II (TO-II): STBR NPK + 5t FYM ha⁻¹ + Zn @ 2.5 kg ha⁻¹

xiii. **Critical Inputs:**

xiv. **Unit Size:**

xv. **No of Replications: 07**

xvi. **Unit Cost:**

xvii. **Total Cost:**

xviii. **Monitoring Indicator:**

i. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-2

i. **Season:** Rabi 2019-20

ii. **Title of the OFT:** Assessment of secondary(S) and Micro nutrient(Boron) for curd quality and higher yield in cauliflower

iii. **Thematic Area:**

iv. **Problem diagnosed:** Low curd keeping quality, flavour and yield due to secondary and micro nutrient deficiency

v. **Important Cause:**

vi. **Production system:**

vii. **Micro farming system:**

viii. **Technology for Testing:** TO₁: Sulphur is highly essential for cruciferous crops as it imparts characteristics flavour to the particular crop. So along with major NPK nutrients Sulphur is applied as basal @ 30 kg/ha in the form Gypsum. TO₂: Along with Sulphur , a micronutrient Boron is also essential for high quality curd and more keeping quality of the cauliflower. So along with major nutrients NPK as per soil test Sulphur @30 kg /ha in the form of gypsum and Boron @ 10 kg/ha in the form of borax is applied as basal.

ix. **Existing Practice:**

x. **Hypothesis:**

xi. **Objective(s):**

xii. **Treatments:**

Farmers Practice (FP): Indiscriminate use of fertioliser and No use of Secondary nutrient

Technology option-I (TO-I): STB R(NPK) + Sulphur @ 30 kg ha⁻¹ as basal application

Technology option-II (TO-II): STBR (NPK) + Sulphur @ 30 kg ha⁻¹ + 1 0 kg Boron as basal application

xiii. **Critical Inputs:**

xiv. **Unit Size:**

xv. **No of Replications: 07**

- xvi. **Unit Cost:**
- xvii. **Total Cost:**
- xviii. **Monitoring Indicator:**
 - i. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-1

Crop Production

- i. **Season:** Kharif 2019
- ii. **Title of the OFT:** Assessment of herbicides for weed management in transplanted rice during kharif
- iii. **Thematic Area:**
- iv. **Problem diagnosed:** Lower yield due to high weed infestation and high cost due to manual weeding
- v. **Important Cause:**
- vi. **Production system:**
- vii. **Micro farming system:** Rainfed low land
- viii. **Technology for Testing:** T O₁: Bensulfuron methyl 0.6%+ Pretilachlor 6.0% is a pre emergence herbicides which inhibits important perennial and annual species of grasses, broad leaf and sedges. The mode of action of the herbicide is the ALS inhibitor and germination inhibitor. T O₂: Pendimethalin is a pre emergence herbicide which gives wide spectrum of weed control like grasses, sedges and broadleaf weeds. The mode of action of herbicide is inhibition of root and shoot growth resulting in inhibition of emergence. Bispyribac sodium is a post emergence herbicide which also gives wide spectrum of weed control with ALS inhibitions mode of action restricting production of essential amino acids. T O₃: fenoxaprop-p-ethyl controls major grassy weeds particularly Echinochloa spp. Which inhibits fatty acid synthesis and ethoxy sulfuron inhibits ALS and restrict production of essential amino acids and gives wide spectrum of weed control as post emergence spray in rice.
- ix. **Existing Practice:**
- x. **Hypothesis:**
- xi. **Objective(s):**
- xii. **Treatments:**

Farmers Practice (FP): Manual Weeding at 20-25 of DAT

Technology option-I (TO-I): Pre emergence application of herbicide (Bensulfuron methyl 0.6%+ Pretilachlor 6.0%) @ 10 kg/ha at 4 DAT followed by one hand weeding

Technology option-II (TO-II): Application of pendimethalin @ 750 g/ha as pre-emergence application i.e 0-3 DAT followed by Bispyribac sodium @ 25 g/ha as post-emergence i.e 25 DAT

- xiii. **Critical Inputs:**
- xiv. **Unit Size:**
- xv. **No of Replications: 07**
- xvi. **Unit Cost:**
- xvii. **Total Cost:**
- xviii. **Monitoring Indicator:**
 - i. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

OFT-1

Agril.Extension

- i. **Season:** Kharif 2019
- ii. **Title of the OFT:** Assessment of herbicides for weed management in transplanted rice during kharif
- iii. **Thematic Area:**
- iv. **Problem diagnosed:** Lower yield due to high weed infestation and high cost due to manual weeding
- v. **Important Cause:**
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- viii. **Technology for Testing:** T O₁: Bensulfuron methyl 0.6%+ Pretilachlor 6.0% is a pre emergence herbicides which inhibits important perennial and annual species of grasses, broad leaf and sedges. The mode of action of the herbicide is the ALS inhibitor and germination inhibitor. T O₂: Pendimethalin is a pre emergence herbicide which gives wide spectrum of weed control like grasses, sedges and broadleaf weeds. The mode of action of herbicide is inhibition of root and shoot growth

resulting in inhibition of emergence. Bispyribac sodium is a post emergence herbicide which also gives wide spectrum of weed control with ALS inhibitions mode of action restricting production of essential amino acids. T O₃: fenoxaprop-p-ethyl controls major grassy weeds particularly Echinochloa spp. Which inhibits fatty acid synthesis and ethoxy sulfuron inhibits ALS and restrict production of essential amino acids and gives wide spectrum of weed control as post emergence spray in rice.

ix. **Existing Practice:**

x. **Hypothesis:**

xi. **Objective(s):**

xii. **Treatments:**

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): Planting of seedling 15 days after completion of normal planting period

xiii. **Critical Inputs:**

xiv. **Unit Size:**

xv. **No of Replications: 07**

xvi. **Unit Cost:**

xvii. **Total Cost:**

xviii. **Monitoring Indicator:**

i. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):**

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.	IRRI	32,000
2.	ARYA	5,21,000

11. No. of success stories proposed to be developed:10 nos

12. Scientific Advisory Committee

Date of SAC meeting held during 2018-19	Proposed date during 2019-2020
13.03.2019	25.09.2019

13. 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	125											
Water Samples	30											
Other (Please specify)	-											
Total	155											

14. Fund requirement and expenditure (Rs.)*

Heads	Expenditure (last year) (Rs.) up to 31.03.2019	Expected fund requirement (Rs.)
Pay	90.00	105.0
Recurring Contingency	7.86,979	13.0
TA	0.7	2.0
Non Recurring	-	9.5 (Bolero, Bike)
Repair & Maintenance	-	4.0
Total		133.5 lakh

* Any additional requirement may be suitably justified.

