Proposed Annual Action Plan
(January to December, 2024)

KRISHI VIGYAN KENDRA, IMPHAL EAST (ANDRO)

ESTD.: 2005

STAFF POSITION as on February, 2024 (Filled post = 13 & Vacant Post = 3)

Sl. No.	Name	Designation	Date of Joining	Discipline
1.	**Vacant**	**Sr. Scientist and Head**		
2.	Smt. S. Molibala Devi	Subject Matter Specialist	20.06.2007	Home Science
3.	Mr. M. A. Salam	Subject Matter Specialist	11.06.2008	Fisheries
4.	Smt. Nandini Chongtham	Subject Matter Specialist	25.08.2008	Agronomy
5.	Er. Gunajit Oinam	Subject Matter Specialist	24.05.2012	Agril. Enggineering
6.	Dr. H. Ramananda Singh	Subject Matter Specialist	09.07.2018	Plant Protection
7.	Dr. Priyadarshini Salam	Subject Matter Specialist	09.07.2018	Horticulture
8.	Dr. Th. Sushilkumar Singh	Programme Assistant	04.10.2007	Animal Science
9.	Smt. M. Bharati Devi	Programme Assistant	03.10.2007	Computer Science
10.	**Vacant**	**Farm Manager**		
11.	**Vacant**	**Office Superintendent cum Accountant**		
12.	Mr. O. Singhajit Singh	Jr. Stenographer cum Computer Operator	22.07.2012	Education
13.	Mr. H. Budhi Singh	Driver cum Mechanic	09.10.2007	NA
14.	Mr. Sh. Jiten Singh	Driver cum Mechanic	10.10.2007	NA
15.	Mr. Ch. Bijen Singh	Multi Tasking Staff	10.10.2007	NA
16.	Smt. Ch. Tilotama Chanu	Multi Tasking Staff	03.10.2007	NA

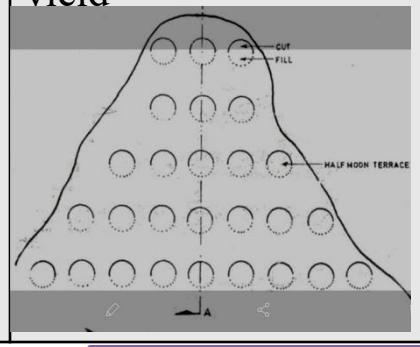
General Recommendations & Action Taken Report

Discipline	Suggestion	Action taken
1. OFT :		
Horticulture	The term pit should be change with proper words on OFT of Organic cultivation of King Chilli	Changed as instructed
Fisheries	In parameter analysis, the growth parameters to be remove on OFT on Performance evaluation of growth and survival in *Wallago attu* (Sareng)	OFT not conducted
Plant Protection	Source of technology should be change and the trials should be properly planned to avoid contamination on OFT on On farm production technology for mass production of *Trichoderma spp.*	OFT not conducted
Ag. Engg.	The trial should be done with drip irrigation. on OFT of Performance evaluation of half-moon terrace in papaya in slope hilly area	Done as instructed
	Title should be change with a suitable one on OFT on Assessment of plastic mulching in king chilli to conserve soil moisture and weed control	Done as instructed
2. FLDs:		
Animal Science	Problem identified and title of the demonstration should be change on FLD of Popularization of improved crossbreed pig/improved breed	Done as instructed
	Title should be change with a suitable one on FLD of Popularization of dual purpose poultry breed-Giriraja	Done as instructed
Home Science	Specific millet crop should be mentioned for FLD on Popularization of nutri rich millet products	Ragi, bajra, sorghum
Plant Protection	Title should be change on FLD of Demonstration on the management of BPH & WBPH in rice	Changed as per instruction

ON FARM TRIAL

Sl. No.	Title of the OFT (12 nos.)
1	Performance evaluation of Half moon terrace with drip irrigation in Papaya in slope hilly area
2	Assessment of Plastic mulching with drip irrigation in King Chilli to conserve soil moisture and weed control
3	Performance evaluation of Growth and Survival in Singhi
4	Breeding and seed production of freshwater Eel (Ngaprum)
5	Preparation of Pomelo Jam
6	Assessment of multi grain millet cookies
7	Management of Purple blotch disease in Onion
8	Organic Cultivation of King Chilli
9	Assessment of Onion variety- *Arka Kirthiman* and *Arka Bheem*
10	Performance of Garden pea variety *Kashi Ageti*
11	Production Performance of Hybrid Cross Breed Duck (White Pekin x Khaki cambel)
12	Performance Production of BV 380, Layer Birds

OFT-1 Performance evaluation of Half moon terrace with drip irrigation in Papaya in slope hilly area — 2nd year

Crop	Prioritized Problem	Details of technology	Source	Observations
Papaya	High Soil erosion, Soil moisture losses and low yield 	➢ Crop: Papaya ➢ Cutting half moon shape to create circular level bed having 1-1.5m diameter with cut and fill method. T1: 1m dia T2: 1.5m dia T3: Farmer's practice (traditional) 	ICAR, Umiam, 2006	Water use efficiency (WUE = Crop yield kg/water consumption m3), Soil loss, Soil infiltration rate, Labour requirement, Yield, BCR

Area	**0.75**
Replications	**3**
Cost per Trial	**Rs. 15000/-**
Total Cost	**Rs. 45000/-**

Scientists
SMS- Ag. Engg. Hort

OFT-2 Assessment of Plastic mulching with drip irrigation in King Chilli to conserve soil moisture and weed control — 2nd year

Crop	Prioritized Problem	Details of technology	Source	Observations
King Chilli	Soil Moisture loss, low yield and high weed infestation.	Crop: King Chilli Spacing:75cm x 75 cm Area: 0.75ha Polythylene mulch 30micron thickness with silver and black coating Drip type : Online Irrigation Scheduling : Soil Moisture Indicator **Farmer's Practice** Surface Irrigation/No Mulching/Traditional	AAU, 2015	1) Water Use Efficiency 2) Soil Moisture content 3)Avg. Fruit/ plant 4) Yield/ha 5) B:C Ratio

Area	**0.75ha**
Replications	**3**
Cost per Trial	**Rs. 20000/-**
Total Cost	**Rs. 60000/-**

Scientists
SMS- Ag. Engg. Hort

OFT-03

Performance evaluation of Growth and Survival in Singhi

1st year

Enterprise	Prioritized Problem	Details of technology	Source	Observations
Fisheries	Huge gap in demand and supply of fish in the state.	Stocking density –80000 fry/ha Feeding rate – 5-6 % body weight Culture period: 3 months **T1**= 2000 fingerling; **T2**= 2500 fingerling; **T3**= 3000 fingerling	Central Institute of Freshwater Aquaculture, Kausalyaganga, Bhubaneswar (2012)	➢ Survival rate after 90 days ➢ Growth after 90 days ➢ BCR

Tank size	**10000 lit**
Replications	**3**
Cost per Trial	**Rs.60000/-**
Total Cost	**Rs. 180000 /-**

OFT-04

Breeding and seed production of freshwater Eel (Ngaprum)

1st year

Enterprise	Prioritized Problem	Details of technology	Source	Observations
Fisheries	Dependence of eel catch from wild.	Hormone dose: 3-4ml/kg wt. Stocking density – 1000-3000 nos/tank Feeding rate – 3-5 % body weight Feeding interval – twice a day Feed :Pellet feed (30-32% Protein) Culture period: 120 days **T1**= 1000 seed/tank; **T2**= 2000 seed/tank; **T3**= 3000 seed/tank	College Of Fisheries, Raha	➢ Hormone Dose ➢ Fertilization rate ➢ Survival rate

Tank size	**2000 lit**
Replications	**6**
Cost per Trial	**Rs. 20000**
Total Cost	**Rs. 120000/-**

Scientists
SMS- Fisheries

OFT-05

Preparation of Pomelo Jam

2nd year

Crop	Prioritized Problem	Details of technology	Source	Observation
Pomelo	Thrown as wastage	**T_1: 100 % of pomelo pulp** **T_2: 50% pomelo pulp** **50 % papaya pulp** **T_3: 50% pomelo pulp** **50 % orange pulp** ➢ Peel & remove white residue ➢ Chop into small pieces & put in a saucepan with sugar (500g/kg) mash & let the liquid steep for 30 mins ➢ Chop up nicely with hand blender & bring to boil ➢ As soon as it starts boiling add 2 g citric acid ➢ After 10 minutes make gelling test & pour into sterilized glass jar	**University of Agricultural Science, Bangalore 2015**	1. Shelf life 2. Nutritional content 3. Acceptability (by Hedonic scale) 4. B:C ratio

Units	**5**
Replications	**5**
Cost per Trial	**Rs. 3000/-**
Total Cost	**Rs. 15000/-**

Scientists
SMS- Home Science, Horticulture

OFT-06

Assessment of Multi Grain Millet Cookies

2nd year

Crop	Prioritized Problem	Details of technology	Source	Observation
Millet	Non availability of diversified value added products	**Technology details:** 1. Beat 50 gm butter and 30 gm sugar powder till fluffy 2. Add 100 gm of millet flour (ragi, sorghum, bajra) till soft dough and add 5 ml vanila essence 3. Spread out dough on butter paper and roll out 4. Cut into shapes and perforate it 5. Bake for 15 minutes at 180°C in pre heated oven **Farmers practice**: New Introduction	**CAR-IIMR, Hyderabad, 2018**	1. Shelf life 2. Nutritional value 3. Acceptability (by Hedonic scale) 4. B:C ratio

Units	**5**
Replications	**5**
Cost per Trial	**Rs. 3000/-**
Total Cost	**Rs. 15000/-**

Scientists
SMS- Home Science, Horticulture

OFT-07

Management of Purple blotch disease in Onion

1st year

Crop	Prioritized Problem	Details of technology	Source	Observation
Onion	Problem of undersized, immature bulbs and reduced yield in terms of quality and quantity.	T1=Application of Difenaconazole 25% EC @ 0.2m/litre of water. (200litre of solution/acre) T2 =Kitazin 48% EC @ 1ml/litre of water. (200litre of solution/acre) T3 = FP	AESA based IPM Package, Dept. of Agri. & Cooperation , Ministry of Agri. GOI.	1. Percent Infestation 2. Yield 3. BC ratio

Area	**0.75**
Replications	3
Cost per Trial	Rs. 3000
Total Cost	Rs. 9000

Scientists
SMS- Plant Protection

OFT-08

Organic Cultivation of King Chilli

3rd Year

Crop	Prioritized Problem	Details of technology	Source	Observation
King Chilli	➢ Low yield under farmers practice ➢ Increased resistance of insect pest towards chemical measure	➢ T1: FYM @ 10 t per ha to be applied at final land preparation @ 1 kg/pit. ➢ T2: Application of enriched compost @ 10 t/ha or 5 t/ha + biofertilizer. ➢ T3: Apply *Azotobacter* @ 5 gm, PSB @ 5 gm within 7 days of transplanting. Sowing: Last week of Feb - 1st week March	Technologies for Organic management of crops in NE India 2019 ICAR- ATARI Umiam	1. Days to germination 2. Plant height 3. No. of branches 4. No. of Fruits/plant 5. Yield/plant 6. BCR

Area	**0.5 ha**
Replications	**3**
Cost/ Trial	**Rs. 15000/-**
Total Cost	**Rs. 45000/-**

Scientists
SMS- Horticulture

OFT-09

Assessment of Onion variety- Arka Kirthiman and Arka Bheem

1st year

Crop	Prioritized Problem	Details of technology	Source	Observation
Onion	Low yield due to non-availability of suitable high yielding variety of onion,	➢ **T1: Onion var. Arka kirthiman** (Potential yield: 45 t/ha, Duration: 125 -130 days) ➢ **T2: Var. Arka bheem :** (Potential yield: 47t/ha, Duration: 130 days, Suitable for both kharif and rabi season) Seed rate: 6 –8 kg/ha; Spacing: 20 x 10 cm; Sowing time: October Nutrient requirement: 80:50:80 kg NPK / ha Disease management: Seed treatment with Trichoderma Pest management: Use of trap strips, Neem oil @ 5% ➢ **T3: Farmers Practice (Nasik red/prema)**	**IIHR 2010**	1. Bulb weight (gm) 2. Bulb diameter (cm) 3. Bulb yield (q/ha) 4. B C ratio

Area	**0.5 ha**
Replications	**3**
Cost per Trial	**Rs. 3000/-**
Total Cost	**Rs. 9000/-**

Scientists

SMS- Horticulture

OFT-10

Performance of Garden Pea variety Kashi Ageti

1st year

Crop	Prioritized Problem	Details of technology	Source	Observation
Garden Pea	➢ Reduction and fluctuation in yield due to prolonged use of locally available seed material ➢ Lack of improved high yielding garden pea variety	➢ Seed rate : 80 kg/ha ➢ Spacing : 60 x 15 cm ➢ Sowing: Last week Oct- Nov	ICAR- IIVR Varanasi 2015	1. Days to 50% flowering 2. No. of pods/plant 3. Days to maturity 4. Pod Yield/plant 5. BCR **Scientists** SMS- Horticulture

Area	**1 ha**
Replications	**3**
Cost/ Trial	**Rs. 25000/-**
Total Cost	**Rs. 75000/-**

OFT-11

Performance of Hybrid Cross Breed Ducks (White Pekin x Khaki Cambel)

Enter prise	Prioritized Problem	Details of technology	Source	Observation
Livestock	➢ Lack of duck meat and egg in the district	▪ Mortality of day old ducklings upto maturity ▪ Growth of ducklings upto maturity ▪ Feeding Pattern : Pre-starter, starter, grower and layer mash ▪ Feeding Rate : Prestarter & Starter – As adlibitum; mature duck – 130 gm/day/duck ▪ Feeding Interval : Duckling – thrice daily and mature duck – twice daily	Central Poultry Development Organization (CPDO), Bangalore, 2021	1. Duckling Mortality 2. Growth performance 3. Maturity time (market duration) 4. Weight (kg) of mature duck 5. Production of egg /egg size

Area	**20 ducklings /farmer**
Replications	**20**
Cost/ Trial	**3000.00**
Total Cost	**60000.00**

OFT-12

Performance Production of BV 380, Layer Bird

Enter prise	Prioritized Problem	Details of technology	Source	Observation
Livestock	➢ Lack of egg production in the district	▪ Egg production/year ▪ Feeding Pattern : Pre-starter, starter, grower and layer mash ▪ Feeding Interval : Pre-starter – 0 day to 7 days ; Starter – 5 days to 56 days; Grower – 57 days to 4 months and Layer Mash – 4 months to maturity ▪ Vaccination : (i) F_1 (ii) IOD plus (iii) F_2	Central Poultry Development Organization (CPDO), Bangalore, 2020	1. Mortality rate upto maturity 2. Egg production per year 3. Size of egg /quality of egg

Area	**20 birds/farmer**
Replications	**20**
Cost/ Trial	**3000.00**
Total Cost	**60000.00**

Scientists

Prog. Asstt. (Animal Science)

FRONT LINE DEMONSTRATION

Sl. No.	Title of the FLD (14 nos.)
1	Popularization of Pedal operated paddy thresher in hilly region
2	Popularization of Tractor drawn potato Digger
3	Popularization of mini sprinkler in onion through treadle pump: A low cost irrigation option for marginal Farmers
4	Promotion of improved crossbreed pig (Hamsphire)
5	Promotion of Backyard Goatary Breed – Beetal
6	Paddy cum Fish Culture (Magur)
7	Intensive Fish Farming (IMC and Air Breathing Fishes)
8	Popularization of nutri rich millet products (Ragi, Pearl Millet & Little Millet)
9	Popularization of hermetic storage system (grain pro's super bags) for increasing quality of grains/seeds
10	Popularization of low cost ripening chamber of banana
11	Popularization on management of late blight of potato var. Kufri jyoti
12	Demonstration on the Management of BPH&WBPH in Rice
13	Popularization of mushroom cultivation and recycling of waste for additional income generation
14	Popularization of garden pea var. Arka Ajit-TF

FLD- 01

Popularization of mini sprinkler in onion through treadle pump: A low cost irrigation option for marginal Farmers

2nd year

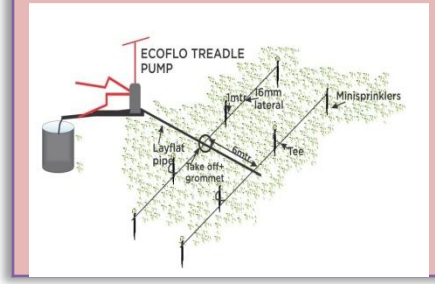
Prioritised Problem: High volume requirement of water with flooding system of irrigation on Onion and high cost of irrigation

Technology details

Crop: Onion
Var.Bhima Super
Spacing:15cm x 10 cm
Area: 0.25 ha
Mini-sprinkler: 110 lts /hr
Pump: Treadle
Recommended overlaping:30%
Irrigation Scheduling: Alternate day

Parameters:

Water use efficiency (WUE = Crop yield kg/water consumption m3), Field Capacity, Labour requirement, Yield, BCR



Source: Kerala Agricultural University, 2015

Details of Demonstration		
No. of Demonstration	Area (ha)/Units	No. of farmers
03	0.75	03

Cost of the demo-Rs. 30000/-

Team members

SMS – Agril. Engg, Horti

FLD-02

Popularization of Tractor drawn potato Digger

3rd year

Prioritised Problem: High Cost of harvesting and more time consumption

Technology Details

- Crop: Potato
- Tractor Power:35HP
- Number of row : 2,
- Row spacing 24-26 inch,
- Weight : 550Kg,
- Separation of potato: vibrating rod chain (Conveyor)

Parameters:

- Field Capacity
- Cost of Harvesting
- Labour Requirement

Farmers' Practice (Manual)

Team members

SMS – Agril. Engg, Hort.

Source- CIAE, 2013

Details of Demonstration		
No. of Demonstration	Area (ha)/Units	No. of farmers
03	1.5	03

Cost of the demo- Rs. 25000/-

FLD-03

Popularization of Pedal operated paddy thresher in hilly region

2nd year

Prioritised Problem: Post harvest losses and labor scarcity

Technology Details

- Crop: Paddy
- Number of manpower: One (Pedal operated)
- Weight : 35Kg,
- Length :1030mm, Wide: 630mm, Height:975mm

Parameters:

- Output Capacity
- Cost of Harvesting
- Labour Requirement

Team members

SMS – Agril. Engg.

Source- VPKAS, Almora, 2008

Details of Demonstration		
No. of Demonstration	Area (ha)/Units	No. of farmers
03	1.5	03

Cost of the demo- Rs. 10000/-

FLD-04

Promotion of improved crossbreed pig (Hamsphire)

2nd year

Prioritised Problem: Unproductivity of local breed

Technology details:

Farrowing capacity (8-12 piglets)
Body weight at maturity (150-180 kg)

Source- Deptt. Of Animal Science, COA, 2018

Details of Demonstration		
No. of Demonstration	Area (ha)/Units	No. of farmers
10	2 Piglets /farmer	10

Cost of the Demo- Rs. 1,30,000/-

Demonstration parameters

- Age of 1st farrowing
- Litter size
- Meat production
- BCR

Team members

Prog. Asstt. (Animal Science)

FLD-05

Promotion of Backyard Goatary – Beetal

6th year

Prioritised Problem: Unavailability of economically viable suitable breed

Technology Details

- Live body wt. : 17-20 kg (M) 13-15 kg(F)
- Kidding performance : Duplicate/triplicate (2-3 kids per kidding)
- Kidding/year : 4-6 nos. annually
- Highly acclimatized in Manipur
- Highly disease resistant

Details of Demonstration

No. of Demonstration	Area (ha)/Units	No. of farmers
10	2 goats/ farmer	10

Cost of theDemo- Rs. ,1,72,000/-

Source-Goat Research Centre, AAU

Parameters of demonstration

- Weight at maturity
- Kidding/year
- Meat production
- BCR

Team members

Programme Asst-Animal Science

FLD-06

Paddy cum Fish Culture (Magur)

1st year

Prioritised Problem: Poor growth and low productivity of Magur

Technology details:

Stocking density-100000 fry/ha
Stocking time- April-May.
Feeding method – Broadcasting
Feed – Pellet feed
Feeding rate : 3-5 % BW

Team members

SMS (Fisheries)

Source: CIFA, Bhubaneswar, 2015

Details of demonstration

No. of demonstration	Area (ha)
3	0.75

Cost of the demo= Rs. 250000/-

FLD- 07

Intensive Fish Farming (IMC and Air Breathing Fishes)

1st year

Prioritised Problem: Poor growth, low productivity of Singhi

Technology details:

Stocking density : IMC-10000 fingerlings/ha; Air breathing – 30000-40000 fry/ha
Stocking time- May-June
Feeding method - Broadcasting
Feeding rate – 3-5% BW
Feed- Pellet feed

Team members
SMS (Fisheries)

Source: CIFA, Bhubaneswar, 2013

Details of demonstration	
No. of demonstration	Area (ha)
3	0.36
Cost of the demo= Rs. 180000/-	

FLD-08

Popularization of nutri rich millet products (Ragi, Pearl Millet & Little Millet)

3rd year

Prioritised Problem: Non usage and limited use of millet as value added products

Technology to be demonstrated

- ✓ Millet based cake, cookies and bakery products
- ✓ Millet based namkeen snacks : spirals, bhujia, cullets

Parameters:

- ➢ Acceptability test by hedonic scale
- ➢ Nutrient supplementation/ 100 g of the product
- ➢ B:C ratio

Team members
SMS – Home Science, Horticulture

Source : Indian Institute of Millet Research, Hyderabad, 2020

Details of Demonstration		
No. of Demonstration	Units	No. of farmers
10	10	5 SHG groups
Cost of the demo- Rs.7000/unit		

FLD-09

Popularization of hermetic storage system (grain pro's super bags) for increasing quality of grains/seeds

6th year

Prioritised Problem: High infestation rate of storage grain/seeds pest under uncontrolled storage condition

Technology details

✓EVOH (ethylene-venyl alcohol) incorporated as a barrier structure with a 7 to 9 layers structures packing and storing material

✓Reusable plastic sealing tapes at 2 (two) levels for each bag making it airtight

Team members

SMS – Home Science, Horticulture

Parameters:

- Relative humidity (before andafter storage)
- Pest infestation (before and after storage)incidence
- Germination percentage

Source-Pest Control of India, 2015

Details of Demonstration

No. of Demonstration	Units	No. of farmers
10	10	10

Cost of the demo- Rs. 7000/-

FLD-10

Popularization of Low Cost Ripening Chamber of Banana

1st year

Prioritised Problem: Long and uneven duration in ripening of banana

Technology Details :

- The ripening chamber is a portable plastic tent with a size of 1 cubic meter supported by frame of PVC pipes. The plastic makes the chamber air tight for making the ripening faster and evenly.
- Add 2ml/1 ethrel + 0.5g of caustic soda in a container and placed inside the chamber and sealed immediately. Open the chamber after 18-24 hrs. of exposure.

Parameters:

- Ripening duration
- Efficiency
- Farmers' reaction

Team members

SMS – Home Science, Horticulture

Source : IIHR, Bangalore, 2018

Details of Demonstration

No. of Demonstration	Units	No. of farmers
05	05	05

Cost of the demo- Rs.13,000

Location : Andro, Sanjenbam

FLD- 11

Popularization on management of late blight of potato var. Kufri jyoti

2nd year

Problem : Main disease in potato production, causing major losses in yield

Technology details:

1. Spray Mancozeb 75% (Indofil M-45) @ 2.5gm/litre at canopy closure (35-45 Days after planting)
2. Spray Cymoxyl 8% + Mancozeb 64% @ 2.5gm/litre at first appearance of disease if the disease appears
3. Spray Mancozeb 75% (Indofil M-45) @ 2.5gm/litre at 10 Days after the second spray

Parameters:

1. Percent infestation
2. Yield
3. BC ratio

Team members
SMS-Plant Protection

Source: Assam Agriculture University (2015)

Details of demonstration	
No. of demonstration	Area (ha)
05	0.5

Cost of the demo = Rs. 70,000/-

FLD-12

Demonstration on the Management of BPH&WBPH in Rice

2nd year

Problem: Outbreak of WBPH damaging the paddy fields extensively in most part of the district and Manipur as a whole

Technology details:

1. Balance use of nitrogeneous fertilizer
2. Need based application of Buprofezin 25% SC @ 800ml/ha or Imidacloprid 30.5SC @ 60-75ml/ha

Team members
SMS-Plant Protection

Parameters:

1. Percent infestation
2. Yield
3. BC ratio

Source: Dept. of Agriculture & Cooperation, Ministry if Agriculture, Govt. of India (2014)

Details of demonstration	
No. of demonstration	Area (ha)
10	05

Cost of the demo = Rs. 30,000/-

Popularization of mushroom cultivation and recycling of waste for additional income generation

FLD -13

Problem: Burning and wastage of paddy straws after the harvest of paddy

2nd year

Technology details:

1. Cultivation of oyster mushroom
2. Utilization of mushroom waste for production of vermicompost

Team members

SMS-Plant Protection

Parameters:

1. Yield of Mushroom
2. Yield of Vermicompost
3. BC ratio

Source: CAU, 2022

Details of demonstration	
No. of demonstration	**Area (ha)**
03	3 units

Cost of the demo = Rs. 30,000/-

FLD-14

Popularization of Garden Pea var. Arka Ajit-TF

1st Year

Prioritised Problem: Unavailability of high yielding, high tolerance to disease (powdery mildew, rust)

Technology details:

Variety: Arka Ajit
Spacing: 30X10 cm
Seed rate: 100-120 kg/ha
Nutrient requirement: 30:60:60 NPK, Kg/ha
Disease management: Seed treatment with Trichoderma
Pest management: Use of trap strips, Neem oil @ 5%
Potential yield: 12 t/ha
Duration: 90 days

Parameters:

1. Plant ht. (cm)
2. No. of pods/plant
3. No. of seeds/pod
4. Pod length (cm)
5. Yield (q/ha)
6. B C ratio

Source-ICAR-IIHR,2010

Details of Demonstration		
No. of Demonstration	**Area (ha)**	**No. of farmers**
03	1	04

Cost of the demo- Rs. 60,000/-

Other Demonstration

1. NARI:

- Demonstration on Nutritional Garden
- Production of mushroom for enhanced nutrients intake
- Exhibition on Nutri Rich foods
- Training Programme on establishment of nutritional garden

2. One Crop One district :

- Hands on practice on plant protection measures and intercultural operations of pineapple
- Training programme on value added pineapple products

No. of Prog : 63
No. of Farmer : 1309

Training Programmes

Discipline	No. of trainings to be proposed											
	Farmer/FW		Rural Youth		Ex. Personnel		Sponsored		Vocational		Total	
	C	P	C	P	C	P	C	P	C	P	C	P
Agril. Engg.	02	50	05	125	-	-	-	-	-	-	07	175
Fisheries	04	100	06	150	-	-	03	60	01	20	14	330
Home Science	02	50	04	100	2	50	-	-	-	-	18	200
Horticulture	04	109	02	45	-	-	-	-	-	-	06	154
Plant Protection	02	50	04	100	-	-	-	-	-	-	06	150
Animal Science	08	200	04	100	-	-					12	300
									Total		**63**	**1309**

Details of Training Programmes

1. Agril. Engineering

Topic	NO. of days	Location	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Importance and scope of water harvesting and micro irrigation	03	OFF	PF	May. 2024	-	-	-	-	-	-	20	5	25	25
Increased production and productivity through Farm mechanization (seed drill, paddy reaper, drum seeder etc.)	04	ON	RY	Jun 2024	20	5	25	-	-	-	-	-	-	25
Construction of Low cost Vermicomposting and Mushroom House	04	OFF	RY	Jul 2024	-	-	-	-	-	-	20	5	25	25
Use of small tools and implements for rabi crop for drudgery reduction with demonstration	04	OFF	RY	Aug 2024	-	-	-	-	-	-	20	5	25	25

1. Agril. Engineering

Topic	NO. of days	Location	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Increased productivity and production through Farm mechanization (seed drill, reaper, drum seeder etc.)	3	ON	PF	Nov.2024	-	-	-	-	-	-	20	5	25	25
Construction of vermicomposting structure with demonstration (pucca and pit method)	3	OFF	RY	Dec,2024	-	-	-	-	-	-	20	5	25	25
Importance and scope of water harvesting and micro irrigation	3	ON	RY	Jan,2024	20	5	25	-	-	-	-	-	-	25

2. Fisheries

Topic	NO. of days	OFF/ON	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Pond preparation and management of fish culture	03	OFF	RY	Apr	-	-	-	-	-	-	20	5	25	25
Composite fish culture	03	OFF	PF	May	-	-	-	-	-	-	20	5	25	25
Bio floc culture system	03	ON	RY	June	20	5	25	-	-	-	-	-	-	25
Nursery and rearing pond management	03	OFF	RY	Jul y	-	-	-	-	-	-	20	5	25	25
Paddy cum fish culture	03	OFF	RY	Aug	-	-	-	-	-	-	20	5	25	25
Pre and post stocking of intensive fish farming	03	ON	PF	Sept	20	5	25	-	-	-	-	-	-	25
Common fish disease management	03	OFF	RY	Oct	-	-	-	-	-	-	20	5	25	25
Common fish disease management	03	ON	PF	Nov	20	5	25	-	-	-	-	-	-	25
Integrated fish farming	03	ON	RY	Jan	-	-	-	20	5	25	-	-	-	25
Integrated fish farming	03	OFF	PF	Feb										

3. Home Science

Topic	No. of days	OFF/ON	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Post harvest management and value addition of fruits and vegetables	4	OFF	RY	May	-	-	-	-	-	-	10	15	25	25
Mushroom cultivation and its value chain management for enhance income generation	3	ON	PF/FW	June	5	20	25	-	-	-	-	-	-	25
Preparation of value added jackfruit products for income generation	3	OFF	RY	July	-	-	-	-	-	-	10	15	25	25
Utilization and value addition of soybean for nutritional and income generation purpose	4	ON	PF/FW	Aug	5	20	25	-	-	-	-	-	-	25
Preparation of value added products of aromatic black rice	3	ON	RY	Sept	-	-	-	-	-	-	-	25	25	25
Extraction of banana fiber and its utilization into value added products	4	ON	RY	Sept	-	10	10	-	-	-	-	15	-	25
Preparation of value added millet products for income generation and nutritional purpose	3	ON	EF	Oct							15	10	25	25
Utilization of crop residue for dry arrangement	2	OFF	RY	Oct							10	15	25	25
Value addition of underutilized fruits and vegetables	3	OFF	RY	Nov	5	20	25							25
Candle making for income generation	2	OFF	RY	Nov							10	15	25	25
Establishment of nutritional gardenfor nutritional security	3	OFF	EF	Dec							10	15	25	25

4. Horticulture

Topic	NO. of days	OFF/ON	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Nursery management & techniques of Horticultural crops	3	ON	PF/FW	July	11	6	17	-	-	-	5	3	8	25
Off season production technology of vegetable crops	3	OFF	PF/FW	Aug	12	4	16	-	-	-	5	4	9	25
Scientific cultivation of high value low volume crops	4	OFF	RY	Aug	8	2	10	-	-	-	6	4	10	20
Cultivation of important horticultural crops under protected condition	4	ON	RY	Sept	16	3	19	-	-	-	6	-	6	25
Income generation through flower cultivation	3	OFF	PF/FW	Oct	3	11	14	-	-	-	2	9	11	25
Production technology of bulbous vegetable crops (onion, garlic, chives)	4	OFF	PF/FW	Nov	15	5	20	-	-	-	5	-	5	25

5. Plant Protection

Topic	NO. of days	OFF/ ON	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Insect pest management in King Chilli	3	ON	F/FW/RY	April	10	15	25							25
Insect Pest & Disease Management in Rice	3	ON	F/FW/RY	May	10	15	25							25
Management of Fall Armyworm in maize	3	OFF	F/FW/RY	June							15	10	25	25
IPM in Rice	3	OFF	F/FW/RY	July							20	5	25	25
Insect pest and disease management in vegetable crops	3	OFF	F/FW/RY	August							10	15	25	25
Insect pests and diseases of Potato and their management	3	OFF	F/FW/RY	Sept							20	5	25	25
Scientific cultivation of Oyster Mushroom	3	OFF	F/FW/RY	Oct							5	20	25	25
Insect pest management in mushroom cultivation	3	OFF	F/FW/RY	Oct							5	20	25	25
Insect pest and disease management in oilseed & pulses	3	OFF	F/FW/RY	Nov							20	5	25	25
Insect pest and disease management in onion	3	OFF	F/FW/RY	Dec							10	15	25	25

6. Animal Science

Topic	NO. of days	OFF/ON	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Scientific rearing of dairy - cow		ON	PF	Jan	20	5	25	-	-	-	-	-	-	25
Duck Farming as a resource of Income		ON	FW	Feb	5	20	25	-	-	-	-	-	-	25
Schemes of National Livestock Mission, NABARD		OFF	RY	March	-	-	-	-	-	-	20	5	25	25
Scientific Rearing of Goat		OFF	FW	April	-	-	-	-	-	-	5	20	25	25
Disease Management of Poultry		ON	RY	May	25	-	25	-	-	-	-	-	-	25
Feeding Management of Dairy Cow		OFF	PF	June	--	-	-	-	-	-	25	-	25	25
Choice of Breed for Backyard poultry and its economics		ON	FW	July	-	25	25	-	-	-	-	-	-	25

6. Animal Science

Topic	NO. of days	OFF/ON	Category	Month	No. of Participants									GT
					SC			ST			Others			
					M	F	T	M	F	T	M	F	T	
Scientific preparation of livestock and poultry feeds		OFF	RY	Aug	-	-	-	-	-	-	13	12	25	25
Scientific rearing of commercial broiler farming		ON	PF	Sept	20	5	25	-	-	-	-	-	-	25
Importance of Dual purpose of birds		OFF	PF	Oct	-	-	-	-	-	-	13	12	25	25
Economic importance of pig breeding		ON	RY	Nov	13	12	-	-	-	-	-	-	-	25
Cultivation of fodder and silage making		ON	PF	Dec	13	12	25	-	-	-	-	-	-	25

Extension Activities (Programmes : 1340 & Beneficiaries : 8840)

Activity/ programme	No. of activity/ prog	Beneficiary (No.)	Activity/ programme	No. of activity/ prog	Beneficiary (No.)
Field trips and Visits			**Publications**		
1. Exposure Visits	06	180	1 Popular Articles	10	
2. Diagnostic Visit	300	400	2. Extension Literature	12	
3. Scientist Visit to Farmer's Field	300	700	**Others**		
Group activities			1. Field Day	09	300
1. Group Meeting	20	400	2. Method demonstration	30	480
2. Ex-Trainee Meeting	10	200	3.Farmer's Seminar	01	50
Mass outreach program			4. Advisory Service	500	500
1. Technology Week	01	100	5. TV Talk	05	
2. Jai Kishan Jai Bharat	01	120	6. Radio Talk	07	
3. Mera Goan Mera Gaurav	06	440	7. Resource Person	15	2150
4. Kishan Gosthi	02	200	8. Proposed farmer's club to be form	10	150
5. Awareness Programme	06	600	9.Celebration of Important Days	08	250
6. Interaction Programme	20	800	10.Newspaper coverage	20	
Camps and Campaigns			11.Film show	10	
1.Swatchata Bharat Campaign	05	160	12.Technology showcasing	06	
2. Soil Health Camp	05	220	13.Mass awareness	04	400
3. Agri Mobile Clinic	05	500			

Other Demonstrations

Materials	Crop	Variety	Quantity
A. Seed materials (q)			
Cereals	Paddy	CAU-R1	100 qt
Oilseeds	Rapeseed Mustard	TS-38; NRCH-101	10 qt; 10 qt
Pulses	Greengram	IPM 2-3	10 qt
	Blackgram	PU-31	20 qt
B. Planting materials (No.)			
Spice	Onion	Bhima Dark Red/ Bhima Shakti	10000
Vegetable	Cauliflower	White Treasure/white Excel	10000
	Cabbage	Rareball	15000
	Tomato	Arka Rakshak	12000
	Peas	Makhyat mubi	80 kg
	Strawberry	Winter dawn	1000
	Coriander		10 kg
Plantation crops/ forest	Tree beans	Local	500
Bio-agents (Kg)	Earthworm	*Eisenea foetida*	10 kg
Bio-fertilizers (kg)	Vermicompost		1000 kg
C. Livestock strains/ fingerlings (No.)			
1.	Fish Spawn	Indian Major carp	1 million
2.	Fish Fry	Indian Major carp	50000
3.	Fish Fingerling	Indian Major carp	10000
4.	Poultry chicks	Giriraja	600 chicks
5.	Piglets	Cross Bred	60 piglets
6.	Weaner kid	Local goat	60 kids
7.	Native Poultry	Kadaknath	50 chicks

Other Demonstrations

Natural Farming proposed for the year 2024

Activity/Items	No. of Programmes/Activity	No. of participants
1. Awareness Programme		
a. Exhibition	1	50
b. Kisan Gosthi	1	50
c. Campaign	1	50
d. Publication (Extension materials, posters, Leaflets etc)	1000 copies	-
2. Training	2	50
3. Demonstration	3 Units (1 unit a KVK Farm)	3

Components required demonstration in Natural Farming Units

1. **Beejamrit:**The process include treatment of seed using cow urine and lime based formulation
2. **Jivamrit**: The process enhances the fertility of soil using cow urine, dung, flour of pulses & jaggery concoction
3. **Whapasha:** The process involves activating earthworms in the soil
4. **Mulching:** The process Creating microclimate using different mulchers to conserve soil moisture
5. **Plant Protection**: Use of Biological concoction for protection against insect pest and diseases.

Soil testing and SHCs

Sample	No. of samples to be tested	No. of SHCs proposed to be supplied to farmers
Soil sample	150	150
Water sample	200	200
Plant sample	-	-
Total	**350**	**350**

Mobile Advisory for 2024

Message type sent	Crop		Livestock		Weather		Marketing		Awareness		Other (Fisheries) Enterprise		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	50	500	55	150	20	500	-	-	50	100	50	500	-	-
Voice only	150	150	80	220	30	100	-	-	100	100	200	200	-	-
Voice and Text both	200	650	135	370	50	600	-	-	150	200	250	700	-	-
Total	**400**	**1300**	**270**	**740**	**100**	**1200**	**-**	**-**	**300**	**400**	**500**	**1400**	**-**	**-**

Functional linkages to be established with different organizations

Sl. No.	Name of organization	Nature of linkage
1.	ATMA	Sponsored programme for conducting research and demonstration on crops, collaborative training programmes
2.	NABARD	Sponsorship, credit linkage of farmer's club and subsidy schemes
3.	NFDB	Providing financial assistance for organizing fisheries training programme for the fish farmers
4	College of Agriculture, Iroisemba, CAU, Imphal	Technology support and other logistics
5	DEE, CAU, Imphal	Sponsored for conducting awareness cum training programme on PPVFRA
6	Dept of Vety. and Animal Husbandry, Govt. of Manipur	Awareness programme and vaccination programme
7	Dept of Fishery, Govt of Manipur	Training, fish seed production
8	Dept of Agriculture, Govt of Manipur	Distribution of seeds and fertilizer
9	Dept of Horticulture and soil conservation , Govt of Manipur	Distribution of seedling and planting materials
10	National Rural Livelihood Mission	Collaborative training programme, fund, SHG linkage


OBSERVATION OF SWACHATA ABHIYAN
2023-24
(UNDER SAP)
Vigyan Kendra, Imphal East
ectorate of Extension Education
cultural University, Imphal, Manipur

Thank You…