Annual Progress Report 2022 (January – December)

KRISHI VIGYAN KENDRA, IMPHAL EAST (ANDRO)
ESTD.: 2005

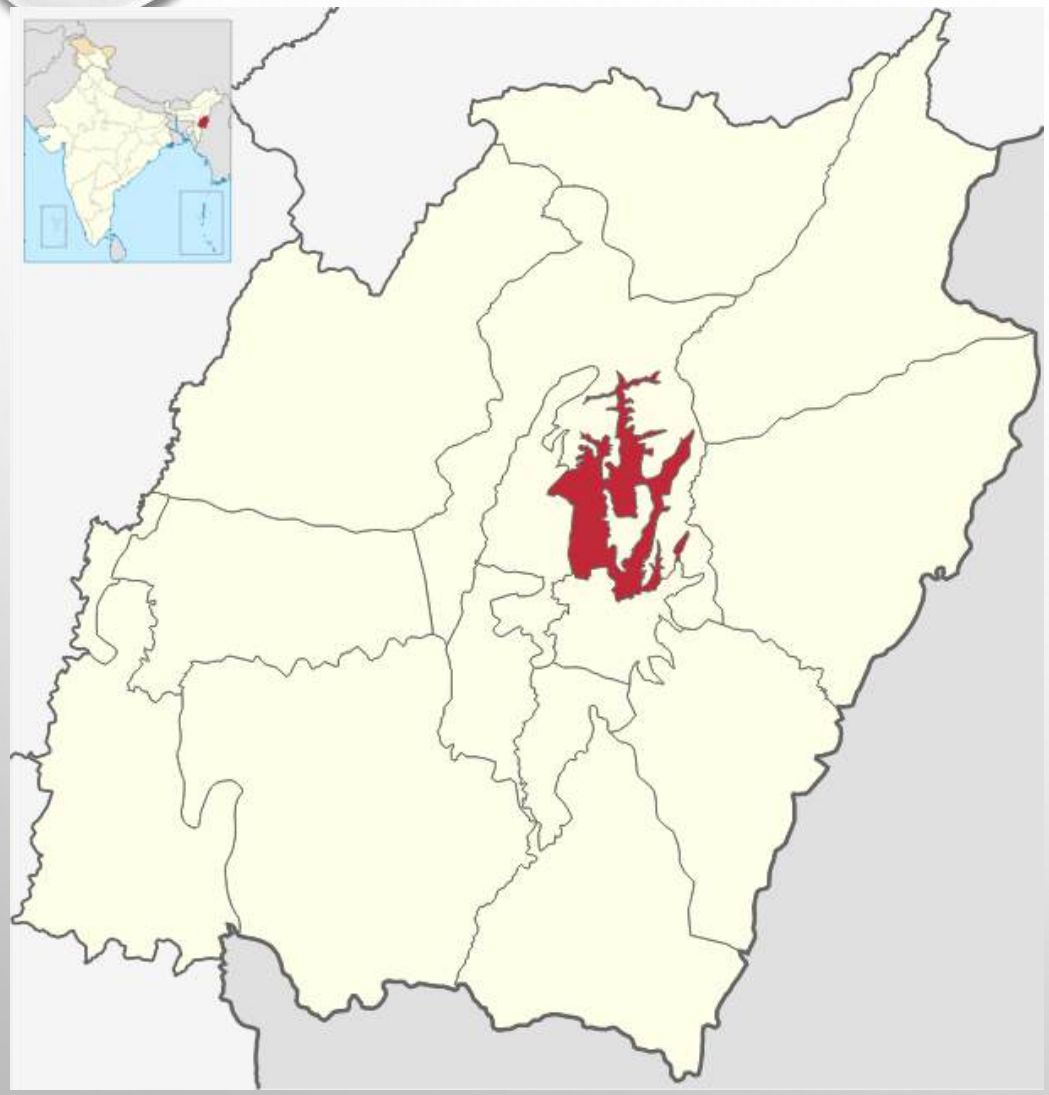
STAFF POSITION as on December, 2022 (Filled post = 13 & Vacant Post = 3)

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

INFRA STRUCTURE FACILITIES/VEHICLES as on December, 2022

Sl. No.	Infra-structure facility	Present Status			Remarks (including quantity and quality at present)
		Existing/ Completed	On-going	New proposal	
1.	Administrative building	Completed	-	-	-
2.	Staff Quarters	-	-	-	-
3.	Farmers' hostel	-	-	-	-
4.	Demonstration Units	Completed			Piggery unit(1), Goatery Unit(1),Poultry Unit(2), Duckery (1), Low Cost Mushroom (1), Low Cost Vermicompost (4), Water reed cum fishery (1) Cattle unit (1)
5.	Fencing/boundary wall	Completed	-	-	-
6.	Vehicle-	Pl. tick (√) on appropriate status			
	a. Four Wheeler	Running /√Condemned / Not available			
	a. Tractor	√ Running /Condemned/ Not available			
	a. Power Tiller	√ Running/ Condemned/ Not available			
i.	Any other (Pl. specify)				Poly house (2), Shade net (1), Automatic Weather Station (1)

DETAILS OF VILLAGES IN THE IMPHAL EAST DISTRICT



Total No of Villages in the District	191
Total no of Villages adopted by KVK till date	09
Total No of Villages covered by KVKs interventions/ activities	187
% of Villages Covered based on Col. ii & iv	97.9

SIGNIFICANT ACHIEVEMENTS

Sl. No.	Award	Awarded to	Awarded by
01	**Certificate of Excellence** in Peer Reviewing in recognition of an outstanding contribution to the quality of the Journal	SMS (Fisheries)	International Knowledge Press, Journal of Global Agriculture and Ecology during 2022.


International Knowledge Press

Journal of Global Agriculture and Ecology

Certificate No: IKP/PR/Cert/11013/DRM

Certificate of Excellence in Peer-Reviewing

awarded to

Dr. M. A. Salam

Central Agricultural University, India

in recognition of an outstanding contribution to the quality of the journal.

Date: 5-Sep-2022

(Mr. P. Mondal)
Managing Editor
International Knowledge Press

List of technologies identified/recommended for large scale adoption during last 2 years

Sl. No.	Details of technologies	Source and year of release	Area coverage (ha)/ extent of adoption (%) in the district
1	Eight Row Paddy Drum Seeder	TNAU, 2010	24 ha
2.	Cultivation of Field Pea var. Aman	IIPR, Kanpur, 2012	90 ha
3.	Cultivation of Blackgram var. PU-31	Recommended by AICRP, CAU, Imphal ,2015	35 ha
4.	Cultivation of maize var. HQPM-1	Anand Agricultural University, Gujarat, 2011	22 ha
5.	Popularization of Guava Cheese	Horticulture Division ICAR Research Complex for NEH Region Umiam, 2014	3 units for commercialization
6.	Value Added products of Mushroom	Directorate of Mushroom Research Solan, HP 2016	Commercialization and expansion upto 5 units

General Recommendations & Action Taken Report

Discipline	Suggestion	Action taken
1. OFT :		
Home Science	Addition of another treatment of blanching for 5 minutes- drenching- drying on OFT of Osmo dehydrated pineapple slices	Recommended parameter included as suggested
	More units should be increased and pineapple fibre extraction machines should be use and record the water retting rate	Incorporated as suggested
Ag. Engg.	Mention the water volume on OFT of mini sprinkler in onion through treadle pump	Incorporated
2. FLDs:		
Fisheries	Highest and lowest growth on Amur Carp should be mentioned	Recorded : Lowest – 560 gm; Highest – 920 gm
Horticulture	Bushy type of soybean variety to be selected for intercropping with ginger	Undertaken : Trial undergoing
Home Science	Locally and abundantly available raw materials should be use instead of millet	Black rice given priority along with millet as popularization for International Year of millet
Animal Science	Black Bengal goat should be replace with new breed	Replaced with other breed Beetal
	Rani pig should be replace with new breed and FLD should be for 3 years only	Replaced with new breed Duroc
	Commonly reared poultry should be given more emphasize instead of rainbow rooster	Emphasized the Poultry breed Giriraja

ON FARM TRIAL (OFTs)

Target : 10 numbers

SUMMARY OF OFTs

Achievement : 8 numbers

Sl. No.	Title of OFTs
1	Performance evaluation of Silver Barb (*Barbonymus gonionotus*) in monoculture system
2	Seed production of *Anabas testudineus* (Ukabi) and *Clarius magur* (Ngakra)
3	Performance of Osmo dehydrated Pineapple Slices
4	Nutri-Rich crop diversification in nutritional garden
5	Assessment of Plastic mulching in king Chilli to conserve soil moisture and weed control
6	Management of Fall Armyworm
7	Organic Cultivation of King Chilli
8	Performance Trial of Onion variety- Pusa Madhavi and Pusa Shobha

OFT – 1

Discipline: Fisheries

(2nd Year)

Title of OFT : Performance evaluation of Silver Barb (*Barbonymus gonionotus*) in monoculture system

Prioritised Problem : Poor growth, low productivity of local Anabas leading to low net return

Details of technology :

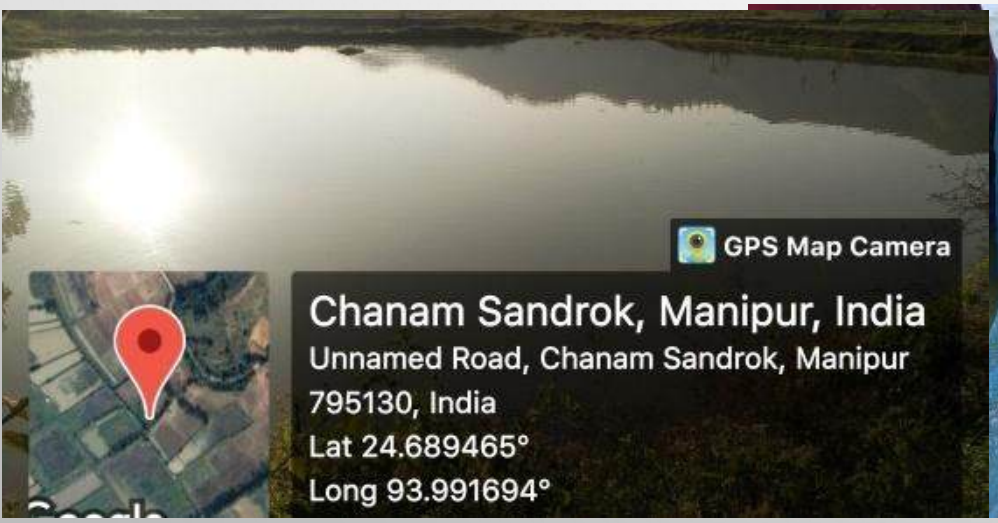
Stocking density – 80000/ha
Feeding rate – 3-5 % body weight
Feeding interval – twice a day
Feed :Pellet floating (30-32% Protein)
Culture period: 120 days
T1= 80000 fingerling/ha; **T2**= 100000 fingerling/ha; **T3**= 120000 fingerling/tank

Parameters on Assessment	Results/ observation
Recommended stocking density	80000
Survival (%)	87
Growth rate	70-80 gm
Net return	2.3 lakh/ha
BCR	3.6

Source: CIFA, 2018

No. of Trials – 03 each

Team members
SMS, Fisheries



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Directorate of Extension Education
Central Agricultural University, Imphal, Manipur

OFT – 2

Discipline: Fisheries

(2nd Year)

Title of OFT :Seed production of *Anabas testudineus* (Ukabi) and *Clarius magur* (Ngakra)

Prioritised Problem : Huge gap in demand and supply of fish in the state

Details of technology :

Attains maturity - 5-6 month
Spawn during - April-August
Brooders size - 40-100 g
WOVA-FH - @ 0.5-1.0 µl/g to female and 0.25-0.5 µl/g body weight to male
Spawning - 7-8 h
Fecundity - 300-400 eggs/g body weight

Parameters on Assessment	Results/ observation
Survival (%)	60-63%
Growth rate of spawn after 3 week	12-16 mm

Source: ICAR, 2019

No. of Trials – 03

Team members
SMS, Fisheries

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Central Agricultural University, Imphal, Manipur

OFT – 3

Discipline: Home Science

(2nd Year)

Title of OFT : Performance of Osmo dehydrated Pineapple Slices

Prioritised Problem- Limited value added pineapple products available in the district. Need for more novel pineapple products as pineapple has been identified as priotized crop of the district

Technology details:	
T_1: Soaking pineapple in normal sugar syrup for overnight T_2: Soaking pineapple slices in sugar syrup (60 degrees brix for 20 hours) T_3: Soaking pineapple slices in sugar syrup (65 degree brix for 20 hours)	No. of trials = 05

Source: IIHR, Bangalore, 2015

Parameters on Assessment	**Results on selected Parameters**	
Technology / methodology	**Technology :**	**Farmer Practice :**
1. Shelf life	9 weeks	4 weeks
2. Acceptability (Hedonic scale)	5 (well accepted)	4 (moderately acceptable)
3. Drying time	Solar dry (1.5-2 days)	Sun dry (3-5 days)
3. B.C Ratio	2.37	

Remark

Product well accepted and attractive products were marketed

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OFT – 4

Discipline: Home Science

(2nd Year)

Title of OFT : Nutri-Rich crop diversification in nutritional garden

Prioritised Problem- Limited nutri rich crops and vegetables in kitchen garden

Technology details:	
➢ Incorporation of Chia in 80-100 sq.m area ➢ Incorporation of Quinoa in 50-80 sq.m ➢ Cultivation of nutri rich seasonal fruits and vegetables	No. of trials = 03

Parameters on Assessment	Results/ observation	
	Yield (acre)	Expected nutrient supplementation/100 g
1. Chia seeds	1.75 q	Protein 24.2 g, Fat 40.2 g, Fibre 30.2 g, Ca 456 mg, P 919 mg ,K 726 mg, Fe 9.18 mg
2. Nutri rich vegetables Leafy vegetable Other vegetables Roots and tubers	 120gm 125gm 28gm	

OFT – 5

Discipline: Agri. Engg.

(1st Year)

Assessment of Plastic mulching in king Chilli to conserve soil moisture and weed control

Prioritised problem- Soil Moisture loss, low yield and high weed infestation.

Details of technology

- Crop: King Chilli
- Spacing:75cm x 75 cm
- Area: 0.75ha
- Polythylene mulch 30micron thickness with silver and black coating
- Irrigation Scheduling : Soil Moisture Indicator

Farmer's Practice

- No Mulching/Traditional

Parameters of Assessment	Results / observation	
	Demo	Farmer Practice (No mulching)
1. Soil Moisture Content (Gravimetric method)	32.5%	17.64%
2. Plant height (cm)	93.36	83.82
3. No. of branches	8.8	5.9
4. No. of fruits/ plant	182.53	133.45
5. Yield / plant (Kg)	1.92	1.23
6. BCR	3.41	2.5

AAU, 2015

Team members

SMS – Agri Engg
SMS-Horticulture

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Central Agricultural University, Imphal, Manipur

OFT – 6

Discipline: Plant Protection

(2nd Year)

Title of OFT : Management of Fall Armyworm

Prioritised Problem- Severe infestation of fall armyworm affecting growth and yield of maize

Technology details:

1. Deep Ploughing
2. Application of sand or ash into plants whorl of affected plants
3. Application of Bacillus thurengiensis @ 2gm/litre

Source : CAU(I)/DEE-Advisory, 2020

Sl. No	Parameters	Results/Observations of parameters			Cost of cultivation per ha	Gross income per ha	Net income per ha	B:C ratio
		Treated	FP	% increased in yield over FP per ha				
1	% Damage	10%	35-50%	31.71	35000	53000	18000	1.51
2	Yield of the crop	54 q/ha	41 q/ha					

Details of Demonstration		
No. of Demonstration	Area (ha)	No. of farmers
3	0.75	3

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OFT – 7

Discipline: Horticulture

(1st Year)

Title of OFT-Organic Cultivation of King Chilli

Prioritised Problem- Low yield under farmers practice (Reliance on ITKs and not adopting scientific method of cultivation) and increased resistance of insect pest towards chemical measure

Details of technology:

Crop : King chilli

T1: FYM @ 10 t per ha to be applied at final land preparation

T2: Application of enriched compost @ 10 t/ha or 5 t/ha + biofertilizer. Apply *Azotobacter* @ 5 gm, PSB @ 5 gm and Biofor Pf @ 100 gm/pit within 7 days of transplanting.

T3: Control

Sowing: Last week of Feb - 1st week March

Parameters of Assessment	Results/ observation on selected parameters		
	T1	T2	T3
1. Days to germination	6.4	6.32	6.75
2. Plant height (cm)	87.77	92.23	84.65
3. No. of branches	7.0	8.2	6.2
4. No. of fruits/plant	145.67	170.35	127.52
5. Yield /plant (kg)	1.52	1.74	1.02
6. BCR	2.32	2.75	1.95

Technologies for Organic management of crops in NE India 2019
ICAR- ATARI Umiam

Team members
SMS-Horticulture
SMS-Plant Potection

OFT – 8

Discipline: Horticulture

(1st Year)

Title of OFT- Performance Trial of Onion variety- Pusa Madhavi and Pusa Shobha

Prioritised Problem- Low yield due to non-availability of suitable high yielding variety of onion

Details of technology:

- **T1: Onion var. Pusa Madhavi** (Potential yield: 35 t/ha, Duration: 130 -140 days)
- **T2: Var. Pusa Shobha :** (Potential yield: 25-30 t/ha, Duration: 130 days)

Seed rate: 6 –8 kg/ha; Spacing: 20X10 cm; Sowing time: October

Disease management: Seed treatment with Trichoderma

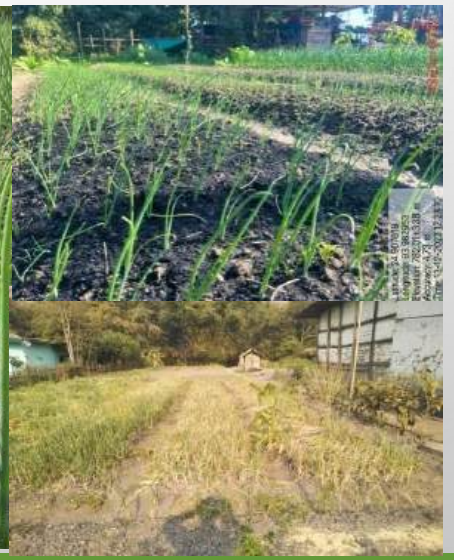
Results/ observation on selected parameters

Parameters	Pusa Madhavi	Pusa Shobha
Days to maturity	134.28	118.35
Bulb weight (g)	75.64	73.21
Bulb yield (t/ha)	28.64	26.41
B:C ratio	1.82	1.35

IIHR, 2010

Team members

SMS-Horticulture,
SMS – Agronomy,
SMS-Plant Protection



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FRONT LINE DEMONSTRATION (FLDs)

Target : 16 numbers

SUMMARY OF FLD

Achievement : 13 numbers

Sl. No.	Title of FLDs
1	Performance evaluation of *Anabas testudineus* (Ukabi) in farm pond
2	Monoculture of Monosex tilapia
3	Popularization of Gravity Fed Drip Irrigation system in increasing Tomato Yield
4	Popularization of Tractor drawn potato Digger
5	Popularization of nutri rich millet products
6	Popularization of Solar Cabinet Dryer
7	Popularization of Integrated Pest Management in rice
8	Popularization on the use of pheromone trap for management of fruit fly in cucurbits
9	Intercropping Of Ginger With Soybean
10	Popularisation of Turmeric variety Megha Turmeric-1
11	Popularization of improved crossbreed pig
12	Popularization of dual purpose poultry – Rainbow Rooster
13	Popularization of improved Backyard Layer Poultry Grammapriya

FLD – 1

Discipline: Fisheries

(2nd Year)

Performance evaluation of *Anabas testudineus* (Ukabi) in farm pond

Source – CIFA, Bhubaneswar, 2018

Technology details:

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

Details of Demonstration		
No. of Demonstration	**Units**	**No. of farmers**
03	03	03

Survival %	Average growth (gm)
63	75-80 gm

Gross Cost (Rs/ha)/	Net Return (Rs/ha)	B:C Ratio
7.0-7.5 L/ha	3.50 L/ha	2.8

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FLD – 2

Discipline: Fisheries

(2nd Year)

Monoculture of Monosex Tilapia

Source – NFDB, 2016

Technology details:

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

Details of Demonstration		
No. of Demonstration	**Units**	**No. of farmers**
03	03	03

Survival %	Average growth (gm)
75	80-90 gm

Gross Cost (Rs/ha)/	Net Return (Rs/ha)	B:C Ratio
8.50-9.0 L/ha	3.50-4.0 L/ha	2.6

FLD – 3

Discipline: Agri. Engg.

(1st Year)

Popularization of Gravity Fed Drip Irrigation system in increasing Tomato Yield

Source: College of Agri. Engg. & PHT, CAU (I), Ranipool, 2012

Technology details:

- Crop: Tomato
var. Arka Rakshak
- Spacing: 45cm x 45 cm
- Area: 300Sqm/unit
- Irrigation Scheduling: Every three days

Farmer's practice

Surface Irrigation

Performance parameters / indicators	Data on parameters in relation to technology demonstrated
Average fruit/plant	54 fruit/plant
Yield	26.7 t/ha
Water use Efficiency (WUE = crop yield kg/water consumption m^3)	12.15 kg/ha-cum
BCR	4.45

Details of Demonstration		
No. of Demo.	Area (ha)	No. of farmers
03	300Sqm/ unit	03

FLD – 4

Discipline: Agri. Engg.

(1st Year)

Popularization of Tractor drawn potato Digger

Source: CIAE 2013

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)

Performance parameters/ indicators	Data on parameters in relation to technology demonstrated		% Change
	Demo	Local	
1. Field Capacity 2. Cost of Harvesting 3. Labour Requirement **Farmers' Practice** (Manual)	1. 0.38 ha/hr 2. Rs.2340/ha 3. 5 manday/ ha	1. 0.02 ha/hr 2. Rs.15456/ha 3. 42 manday/ ha	1, 180% 2. 560% 3. 740%

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

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FLD – 5

Discipline: Home Science

(1st Year)

Popularization of nutri rich millet products

Source : Indian Institute of Millet Research, Hyderabad, 2020

Technology to be demonstrated

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

Details of Demonstration		
No. of Demonstration	Units	No. of farmers
10	10	5 SHG groups

Data on parameters in relation to technology demonstrated			Remarks
	Demo	Local	
Acceptability test by hedonic scale	4.5	5	➢Products needs to popularized for its nutritional value and also on the health index
Nutrient supplementation/ 100 g of the product : Millet Cookies : i) Carbohydrates ii) Energy iii) Protein iv) Fat	 i) 51.79 (g) ii) 535 (Kcal) iii) 8.99 (g) iv) 29.45 (g)	 i) 51.94 (g) ii) 561.42 (Kcal) iii) 10.86 (g) iv) 34.72 (g)	
B:C ratio	2.39	2.42	

FLD – 6

Discipline: Home Science

(4th Year)

Popularization of Cabinet Solar Dryer for drying of perishable, semi perishable and wet food materials

Source : College of Agriculture, CAU, 2014

Technology details:
the dryer with four main component that is flat plate collector, drying trays, exhaust fan and solar PV module
Specification: Dimension: 1500mm x 1000mm x 800 mm, 2 trays of 1400mm x 900mm at bottom and 900mm x 400mm at the centre, double wall black painted GI sheet filled with thermocol in between the wall attached with force convection with a capacity of 10-15 kg/batch with a drying time of 1-2 days

Data on parameters in relation to technology demonstrated		% Change	Remarks
Demo	**Local**		
Chilli (2 days)	4 days in open condition	200	The technology is being well accepted because of the reduce drying time with safe and hygienic characteristic properties
Amla, wood apple (2 days)	4 days	200	
Mushroom (1 day)	3 days	300	
Fermented soybean (2 days)	3 days	150	
Processed fruits – uniform and well dehydrated and refined product obtained	Non uniform products	-	
Fermented soybean – good and well dehydrated and hygienic product free from flies, infestation and contamination obtained	Unhygienic and uncertain products	-	

Details of Demonstration		
No. of Demonstration	**Units**	**No. of farmers**
05	05	05

FLD – 7

Discipline: Plant Protection

(3rd Year)

Popularization of Integrated Pest Management Practice in rice

Source : Pest control of India 2015

Technology details:

1. Remove seedling tips before transplanting to destroy the egg masses of yellow stem borer
2. Avoid excessive use of nitrogenous fertilizers
3. Use of pheromone trap (Scripo Lure @ 10/ha) for monitoring yellow stem borer
4. Need based spray of imidacloprid @ 1ml/3lit of water against plant hoppers

Details of Demonstration		
No. of Demonstration	Area (ha)	No. of farmers
6	2.5	6

Sl. No.	Parameters	Results/Observations of parameters			Cost of cultivation per ha	Gross income per ha	Net income per ha	B:C ratio
		Treated	FP	% increased in yield over FP per ha				
1	% DH	8%	15-20%	18.75	63000	114000	51000	1.81
2	% WEH	3%	5-10%					
3	Yield	5.7 tons	4.8 tons					

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FLD – 8

Discipline: Plant Protection

(3rd Year)

Popularization on use of pheromone trap for management of fruit fly in cucurbits

Source: IARI, 2013

Technology details:
Installation of Cue lure for monitoring and mass trapping of fruit fly to reduce male population

Details of Demonstration		
No. of Demonstration	Area (ha)	No. of farmers
10	01	10

Sl. No	Parameters	Results/Observations of parameters			Cost of cultivation per ha	Gross income per ha	Net income per ha	B:C ratio
		Treated	FP	% increased in yield over FP per ha				
1	**No. of flies per trap**	**50-60**	**-**	**46.67**	**80000**	**288000**	**208000**	**3.60**
2	**%Infested fruits**	**5-7%**	**20-30%**					
3	**Unaffected fruit Yield per hectare**	**22 tons**	**15 tons**					

FLD – 9

Discipline: Horticulture

(2nd Year)

Popularization of Turmeric var. Megha Turmeric 1

Source: ICAR (RC) for NEH Region, Umiam, Meghalaya,2013

Technology details:

Spacing: 30 x 30 cm

Planting time: April- May

FYM: 20 t/ha

NPK: 120:90:90 kg/ha

Details of Demonstration		
No. of Demonstration	Area (ha)	No. of farmers
03	0.5	04

Performance parameters/ indicators	Data on parameters in relation to technology demonstrated		% increased in yield over local	Remarks
	Demo	Local		
Days to maturity	305.21	321.13	20.01	The local cultivar took more days for germination and were prone to diseases as compared to Megha 1
Yield/clump (g)	540.34	470.32		
Yield (q/ha)	238.45	198.68		
B.C ratio	2.28	1.43		

FLD – 10

Discipline: Horticulture

(1st Year)

TITLE OF FLD : Intercropping of Ginger With Soybean t

Source: ICAR, Barapani, 2012

Technology details:

- Ginger var. Nadia (Plantation during April/May)
- Soybean var. MACS, DSP 32
- Spacing : 30cm x 15 cm
- NPK: 100:90:90
- Sowing of soybean in between the rows of ginger in the month of June/July

Parameter	Ginger	Soybean
Average no. of leaves/plant	16.58	21.65
Yield of ginger (t/ha)	14.47	1.53
B:C	1.74	1.12

Details of Demonstration		
No. of Demonstration	Area (ha)	No. of farmers
03	01	04

FLD –11

Discipline: Animal Husbandry

(1st Year)

Popularization of improved crossbreed pig

Source: Deptt. Of Animal Science, COA, 2018

Technology details:

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

Data on parameters in relation to technology demonstrated

Demo	Local	Improved	% Change
1. Age of 1st farrowing	1. Early	1. Late (10-12 mnths)	1. -
2. Litter size: 10-12 piglets/ farrowing	2. 5-8	2. 10-12	2. 66.6
3. Meat production	3. 56-70 kg	3. 120-150 kg	3. 46.6
4. BCR	4. 1.2	4. 1.8	

Details of Demonstration

No. of Demonstration	No. of animal	No. of farmers
05	**10 piglets** 2 piglets/farmer (1M & 1 F)	05

FLD –12

Discipline: Animal Husbandry

(1st Year)

Popularization of dual purpose poultry – Rainbow Rooster

Source: CPDO, Bangalore, 2016

Technology Details

- Feeding:
  Starter: 0-56 days ; Grower: **57-150 days** layer mesh 151 onwards
- Feed supplement: Probiotics, Calcium, Vitamins and Mineral mixture
- Body wt: 2 kg (M), 1.8 kg (F) at maturity
- Egg laying capacity: 150 /year

Details of Demonstration

No. of Demonstration	Area (ha)/Units	No. of farmers
20	20 chicks/ farmer	20

Data on parameters in relation to technology demonstrated

Demo	Local	Improved	% Change
1. Weight of day old chick 2. Growth 3. Weight at maturity 4. Egg production 5. BCR	1. 35 gm 2. Stunted 3. 1.5 kg(F) & 2.5 kg(M) 4. 70-80 eggs/year 5. 1.5	1. 45 gm 2. Faster 3. 3kg (F) & 5 kg (M) 4. 2.1	1. - 2. - 3. 50% 4. 48%

FLD –13

Discipline: Animal Husbandry

(1st Year)

Popularization of improved Backyard Layer Poultry Grammapriya

Source: Project Directorate of Poultry, Hyderabad, 2015

Demonstration parameters

- Body weight at 6 weeks
- Body weight at maturity
- Egg Production (28-72 week)
- Egg production in nos. (160-180)
- BCR

Details of Demonstration		
No. of Demonstration	Area (ha)/Units	No. of farmers
05	20 poultry birds /farmer	05

Data on parameters in relation to technology demonstrated

Demo	Local	Grammapriya	% Change
1. Body weight at 6 weeks 2. Body weight at maturity 3. Egg production in nos (160-180) 4. BCR	1. 230 gm 2. 1.5 kg (F) & 2.5 kg (M) 3. 70-80 eggs/year 4. 1.6	1. 300 gm 2. 1.3kg (F) & 2 kg (M) 3. 200-225 eggs/year 4. 1.8	1. 76% 2. - 3. 35%

TRAINING PROGRAMME

Training Programmes - January to December, 2022

Total no of Training programme – 43 nos

Total Beneficiary– 1477 nos

Category	No. of Training	Farmers benefitted (Nos.)						Grand Total
		SC/ST		Others		Total		
		M	F	M	F	M	F	
1/2 days Farmers and Farm Women	27	66	116	149	620	215	736	951
3-4 days Farmers and Farm Women	03	-	-	-	92	-	92	92
Extension Personnel	05	-	-	-	161	-	161	161
Skill Development Trg. Programme	08	16	94	-	163	16	257	273
Total	**43**	**82**	**210**	**149**	**1036**	**231**	**1246**	**1477**












Sponsored Training Programmes - January to December, 2022

Sl. No.	Title	Duration	Location	No of Participants	Sponsored Agency
1	Harvest and Post-Harvest Fisheries	17th -19th January, 2022	Andro	20	CIFT, Cochin
2	Harvest and Post-Harvest Fisheries	09th -11th February, 2022	Andro	20	CIFT, Cochin
3	Composite Fish Culture	26th -28th March, 2022	Andro	50	NFDB, Hyderabad
4.	Identified Bio- inoculants Technologies and on Farm Mass Production through Model Organic Farm in NE India	21st to 23rd March, 2022	Yairipok	50	ICAR-NBAIR
5.	Identified Bio- inoculants Technologies and on Farm Mass Production through Model Organic Farm in NE India	14th to 16th March, 2022	Chanam Sandrok	50	ICAR-NBAIR










EXTENSION ACTIVITIES

Extension Activities (KVK)

Extension Activity	Activity			Beneficiaries		
	Target (No.)	Achievement (Nos.)	% achievement	Target (Nos.)	Achievement (Nos.)	% achievement
Kishan Gosthi	02	01	50	200	44	62
Exposure Visit	06	04	67	180	275	152
Scientist visit to farmer's field	300	25	8.3	700	118	16.86
Farmer visit to KVK farm	200	79	39.5	500	1878	375
Method demonstration	30	17	56.66	480	280	58.33
Exhibition	05	06	120	300	281	93.66
Group Discussion/Meeting	20	23	115	400	326	81.5
Advisory/helpline	500	1239	247	500	1059	211
Awareness	06	05	120	600	301	50.16
Swachhta Campaign	05	04	80	160	135	84.4
Agri Mobile Clinic	05	02	40	500	65	13
Newspaper coverage	20	05	25			
TV coverage	05	03	60			

Extension Activities (KVK)

Extension Activity	No of Activity	No of Beneficiaries
World Pulse Day	1	44
World Soil Day	1	61
International Women's Day	1	27
World Environment Day	1	30
Celebration of Azadi Ka Amrit Mahotsov on the theme "Farm Mechanization"	1	60
Azadi Ka Amrit Mahotsov Kisan Bhagidari Prathmikta Hamari Campaign Kisan Mela	1	155
International Yoga Day	1	93
Celebration of 94th ICAR Foundation Day & Interaction with Hon'ble Agriculture Minister with DFI farmers	1	53
22nd National Fish Farmer's Day	1	35
National Campaign on "Poshan Abhiyan and Tree Plantation"	1	100
Pooshan Maah 2022 cum training programme on "Nutri Sensitive Agriculture for Nutritional Security for Extension Personnels"	2	69
PM Kishan Samman Sammelan cum Rabi Campaign 2022	1	120
Kissan Samman Diwas 2022	1	48





DIAGNOSTIC/FIELD VISITS





Publications of KVK (January to December, 2022)

Items	Title
Research Paper	**Salam, M. A**., Malik, A., Pokhrel, H., Mudoi, L., Bhagabati, S. K., Datta, R., Singh, H. R. and Oinam, G. (2022). A study on aquatic macrophytes diversity of lake Kharungpat, Manipur, India. *Eco. Env. And Cons*. 28(1): 495-500.
	Irungbam, S., **Salam, M. A**., Bedajit, Y., Chimwar, W., Ngasotter, S., Devi, W. M and Saha, R. K. (2022). Impact of training course on knowledge gain of biofloc technology (BFT) trainees of Manipur, India. *J. Exp. Zool. India*, 25(1): 1255-1258.
	Salam, M. A., Bhagabati, S. K., Datta, R., Singh, H. R. and Oinam, G. (2022). A study on Ichthyofaunal Diversity of Lake Kharungpat, Manipur, India. *Pakistan J. Zool*; pp1-5.
	Salam, M. A., Singh, H. R., Devi, L. S. and Waikhom, D. (2022). Amur Common Carp and Jayanti Rohu Culture in Imphal East, Manipur: an economically viable for enhancing the livelihood of the small and marginal farmers. (*Submitted for publication*)
	Salam, M. A., Singh, H. R. and Chongtham, N. (2022). Perceived constraints of paddy growers in adoption of system of rice intensification (SRI) in Imphal East district, Manipur. International Journal of Agriculture, 14(11)-11831-11833.
	L. S. and Waikhom, D., **Salam, M. A**. (2022). Tilapia parvovirus (TiPV) The first emerging parvovirus in Tilapia. Aquaculture Spectrum. 5 (9): 22-36.
Book Chapter	**Salam, M. A**., Singh, H. R., Oinam, G. and Sharma, Ph. R. (2022). Empowerment of Farmers and Entrepreneurship Development through Water Reed (*Schoenoplectus lactustris* Linn) Integrated with Fish. *Entrepreneurship in Livestock and Fisheries*, 297-307.
Newspaper Article	Wetland as carbon Sinks on 30th March, 2022 in The Sangai Express

Publications of KVK (2022)

Items	Title	Name of Author
Leaflet	*Package and Practices of Organic Cultivation of Turmeric (curcuma longa L.)*	*Dr. Priyadarshini Salam, SMS (Horticulture)*
	Management of Fall Army Worm	*-Dr. H. Ramananda Singh, SMS (Plant Protection)* *- Nandini Chongtham, SMS (Agronomy)*
	-Ready-To-Serve Fish Products for domestic and fast food centres	*-Dr. M.A. Salam, SMS (Fisheries)*
Booklet	*A Guide to Oyster Mushroom Cultivation*	*-Dr. H. Ramananda Singh, SMS (Plant Protection)* *- Nandini Chongtham, SMS (Agronomy)* *- M.A. Salam, SMS (Fisheries)* *-Er. Gunajit Oinam, SMS (Agril. Engg.)*
	Composite Fish Farming	*-Dr. M.A. Salam, SMS (Fisheries)*
Short Video	*1) 14th SAC Meeting of KVK, Imphal East* *2) 3 Day Training Programme on Harvest and Post Harvest Fisheries* *3) Special Swachhta Campaign 2.0 under Azadi ka Amrit Mahotsav* *4) National Campaign on Pooshan Abhiyan and Tree Plantation 2022* *5) Observation of Pooshan Maah 2022* *6) Celebration of Har Ghar Trianga Campaign 2022* *7) Demonstration of Mushroom Cultivation during August 2022* *8) Demonstration on Nursery Raising of Winter Annual Flower* *9) Demonstration of Oyster Mushroom Cultivation during Sept., 2022* *10) Demonstration of Value Added Products of Soybean* *11) 3 day Training Programme on Oyster Mushroom Cultivation and its Value Chain Management* *12) Demonstration on Nursery Media Preparation for Sowing of King Chilli*	

Production of Seed Materials

Item	Crop	Variety	Quantity produced (Qt)
Cereals	Rice	CAU-R1	85 kg
Pulse			

Bio Products Produced

Item	Product Name	Species	Target (kg)	Quantity produced (kg)	Value (Rs.)	Qty supplied and No. of farmers
Vermicompost	Vermicompost	*Eisenia foetida*	-	1 ton		Utilised at KVK Farm
Vermiworm	Vermiworm	*Eisenia foetida*		4650 nos		Distributed to farmers
Total				1 ton & 4650 nos.		

Production of Planting Materials

Item	Crop	Variety	Quantity produced (No)
Spices	Onion	Pusa Madhavi	1200
		Pusa Shobha	1500
Vegetables	Cabbage	Rare Ball	5000
		Green Hero	3000
	Tomato	Arka Rakshak	3500
		Arka Samrat	3500
	Broccoli	Green Magic	2500
	Cauliflower	White Excel	2500
	Coriander		
	Garden Pea	Arkel	
	King Chilli	Local	700
Fruits			

Soil & Water Testing/SHCs during 2022

Sl. No.	Samples tested/ Analysed	Sample (No.)	Farmer beneficiaries	Village covered	Amount realised (Rs.)	SHCs issued to farmers (Nos.)
1.	Soil Sample	75	110			110
2.	Water Sample					

Status of Mobile Advisory January to December, 2022

Message type sent	Crop		Livestock		Weather		Marketing		Awareness		Other 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
Voice only	-	388	-	89	-	73	-	36	-	167	-	870	-	1623
Total	-	**388**	-	**89**	-	**73**	-	**36**	-	**167**	-	**870**	-	**1623**

Revenue(R) generation by KVK from different sources January to November, 2022

Sl. No.	Activity/ Enterprise	Revenue (Rs.)
1	Integrated Farming Components	10,000.00
2	Crop Components	30,000.00
3	Custom Hiring	0.00
4	Institutional charges	72,000.00
5	Interest	1,125.00
	OB for the year 2022-23	1,17,482.00
	TOTAL :	**2,30,607.00**

Rs. 4,00,000/- (Rupees four lakhs) only has been remitted to CAU KVK Revenue Account during March, 2022

Functional Linkages 2022

Sl. No.	Name of the Organization	Nature of Linkages
1	Dept of Vety and Animal Husbandry, Govt. of Manipur	Awareness programme and vaccination programme
2	Dept of Fishery, Govt of Manipur	Training, fish seed production
3	Dept of Agriculture, Govt of Manipur	Distribution of seeds
4	Dept of Forestry, Govt of Manipur	Distribution of seedling and planting materials
5	ATMA, Imphal East	Training, demonstration, field visit, interaction
6.	NFDB, Hyderabad	Providing financial assistance for organizing fisheries training programme for the fish farmers
7.	NABARD, Manipur Centre	Sponsorship, credit linkage of farmer's club and subsidy schemes, training programmes, Cluster based programmes on low cost feed management of livestocks
8.	College of Agriculture, Iroisemba, Imphal	Technology support and other logistics
9.	National Rural Livelihood Mission	Collaborative training programme, fund, SHG linkage

Special Programmes 2022

Sl. No.	Name of the program	Duration and date	No. of Participants	Chief Guest/Special Dinitaries
1.	Jal Shakti Abhiyan (JSA)	17th June and 17th Oct., 2022	152	
2.	Mera Gaon Mera Gaurav			
3.	Rabi Campaign	17th October, 2022	140	
4.	Kharif Campaign			
5.	Micro-Irrigation System			
6.	Technology Week			
7.	Swachh Bharat Abhiyan			
8.	Celebration of Important Day			
	• World Environment Day	05.06.2022	32	
	• World Soil Day	05.12.2022	61	Surbala, Pradhan Waiton Gram Panchayat, Devabarta Singh, Addl. Director, Department of Horticulture and Soil Conservation, GOM, Prof. Ph. Ranjit Sharma, Director of Extension education, CAU, Imphal
	• World Food Day	16.10.2022	140	Prof. Ph. Ranjit Sharma, Director, Directorate of Extension Education, CAU, Lamphelpat, Imphal as Chief Guest &Shri Kh. Jibon Singh, National Secretary BJP Kishan Morcha, Smt. K. Inaocha Devi, Zilla Parishad Tulihal, Imphal East & President, Mahila Morcha BJP, Manipur, Shri Telem Dara Singh, General Secretary, Bhartiya Kishan Sangh, Manipur Prant
	•World Pulses Day	10.02.22	44	Prof. Ph. Ranjit Sharma, Director of Extension Education, CAU, Imphal and Dr. Dipak Nath, Deputy Director of Extension Education, CAU, Imphal
	•International Women's Day	08.03.2022	27	
	National Fish Farmers' Day	11th July, 2022	35	Prof. S. Ayappan, Hon'ble Chancellor, CAU, Imphal and Former DG, ICAR as Chief Guest of the function. Prof. Th. Ranadhir Singh, Director of Extension Education I/C, CAU, Imphal, Dr. K. Mamocha Singh, Registrar, CAU, Imphal and Dr. Dipak Nath, Dy. Director of Extension Education, CAU, Imphal

Special Programmes 2022

Sl. No.	Name of the program	Duration and date	No. of Participants	Chief Guest/Special Dinitaries
10.	Any other (pl. specify) International Yoga Day	21st June, 2022	93	-
11.	94th ICAR Foundation Day	16th July, 2022	53	-
12.	17th Parthenium Awareness Week	26th August, 22	60	-
13.	Har Ghar Trianga Campaign under the aegis on Azadi Ka Amrit Mahotsav	13th to 15th August, 2022	70	-
14.	Pooshan Maah 2022	5th to7th & 10th Sept., 2022	69	-
15.	National Campaign on Pooshan Abhiyan and Tree Plantation 2022	17th Sept., 2022	100	Shri Lairenjam Olen, 6-Laipham Khunou Zilla Parishad, Prof. Ph. Ranjit Sharma, Director of Extension Education, CAU, Imphal, Shri Saiket Das, Field Officer, IFFCO (Manipur & Mizoram), Shri Sagolsem Chandra Meitei, Khullakpa, Andro and Shri L.C. Ruhini Kumar, CDPO, Keirao Bitra, Imphal East
16.	Special Swachhta Campaign	3rd 10th 16th 18th to 22nd 25th and 31st October, 2022	256	-

Natural Farming 2022

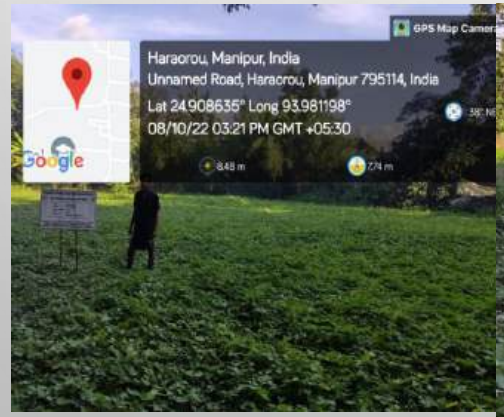
- Total Farm Area (Acre): 0.158
- Area of KVK farm earmarked/ covered under Natural Farming (Acre): 0.158
- Crops Demonstrated : Turmeric var, Megha 1 and Ginger var. Improved Local
- Crop-wise Yield (q/ha):
- Remarks :

Activities under Natural Farming 2022

No. of demonstrations conducted	SC/ST			Others			No. Trainings	SC/ST			Others			No. of Awarenes s Programs	SC/ST			Others		
	M	F	T	M	F	T		M	F	T	M	F	T		M	F	T	M	F	T
2	-	2	2	-	2	2	-	-	-	-	-	-	-	2	7	18	25	23	17	40

CFLD (Pulses)

Crop Enterprise	Variety	Demonstration Yield (Qt/Ha)			Yield of local Check (Qt/ha)	% increase/ change in avg. yield over local (%)	Gross Cost (Rs/ha)/ (Rs./ unit)	Gross Return (Rs/ha) / (Rs./ unit)	Net Return (Rs/ha) / (Rs./ Unit)	B:C Ratio (GR/GC)
		H	L	A						
Blackgram	PU-31	8.85	3.60	7.55	4.85	55	26280	52850	26570	2.01
TOTAL :		**8.85**	**3.60**	**7.55**	**4.85**	**55**	**26280**	**52850**	**26570**	**2.01**



CFLD (Oilseeds)

Crop Enterprise	Variety	Demonstration Yield (Qt/Ha)			Yield of local Check (Qt/ha)	% increase/ change in avg. yield over local (%)	Gross Cost (Rs/ha)/ (Rs./ unit)	Gross Return (Rs/ha) / (Rs./ unit)	Net Return (Rs/ha) / (Rs./ Unit)	B:C Ratio (GR/GC)
		H	L	A						
Rapeseed	RGN-298	9.7	5.2	8.06	6.31	27.73	25800	48360	22560	1.87
TOTAL :		**9.7**	**5.2**	**8.06**	**6.31**	**27.73**	**25800**	**48360**	**22560**	**1.87**

ON-GOING PROJECTS & ACHIEVEMENTS 2022

NUTRI SENSITIVE AGRICULTURE RESOURCE AND INNOVATION (NARI)

Sl no	Activities	No of Programme (nos)	No of Participants (nos)
1.	Training Programme on establishment of nutritional garden for national security	3	84 (52 FW & 32 Extension Functionaries)
2.	Exhibition on Nutri Rich foods	3	375
3.	Demonstration on Nutritional Garden (200 sq. m)	25	25 households
4.	Production of mushroom for enhanced nutrients intake	1 unit	200 kg

DFI

IMPACT

DFI villages	No. of farmers	Success story
Nungbrung	320	110 nos. submitted
Huikap	860	

Sl. No.	Successful Interventions
1.	IFS (vermicomposting, livestock & Fishery, mushroom)
2.	Cultivation of seasonal vegetables
3.	Vegetable cum Fish Based IFS by Using Polythene Lined Water Harvesting Tank
4.	Jalkund
5.	Low cost mushroom unit
6.	Low cost vermicomposting unit
7.	Improved pig sty with wallowing tank
8.	Seed production
9.	Seed storage
10.	Nursery raising techniques

Impact of Various interventions		% increase in income
1.	Double cropping and seed production programmes	85.85- 267 %
2.	Fisheries component	126.8- 503 %
3.	Animal Component (poultry, piggery etc)	132- 357 %
4.	IFS Interventions (Fishery, piggery, mushroom, vermicompost, crops etc)	213.16- 464.2 %

Some Glimpses of DFI Interventions

Seed storage using Hermetic bags

Seed production

Polylined tank

Mixed cropping practices supported By Jalkund

Vermiculture

Pig Sty

Vermicompost production

Mushroom cultivation

Fish production

Digging of pond

FEEDBACK OF FARMERS

PL. PROVIDE FARMERS' PERCEPTION ON NEW VARIETIES AND TECHNOLOGIES (POINT-WISE).

I. **CHIA**: Nutri rich crop like chia gaining popularity amongst the farm women. more area and packets for cultivation are being shown interest

III. **MILLET**: farmers have shown interest in millets cultivation for participatory seed production programme may create more opportunities

IV. **ARKA RAKSHAK**: Advantages on its hardy skin, low disease incidence, good shelf life of produce and less damage % in transportation

V. **TURMERIC MEGA 1**: Easy availability of planting materials, less incidence for disease, intercropping can be done earning additional income

VI. **PADDLE OPERATED TREADLE PUMP**: Suitable for area without electricity, suitable way of irrigation, more farmers ready of adoption of the technology

IMPORTANT PROBLEMS

Sl. No.	Important Problems
1.	Late release of fund under CFLD programme
2.	Timely unavailability of fertilizer (especially urea during kharif season)
3.	Unassured irrigation facility
4.	Price fixation and marketing problem of the farmer's produce
5.	Limited facility (only paddy and cabbage covered under crop insurance) and lack of knowledge of crop insurance

Celebration of Important Days

Pumnamakpu Khurumjari

Krishi Vigyan Kendra, Imphal East
Directorate of Extension Education
Central Agricultural University, Imphal, Manipur