

# KVK-SENAPATI

**Hengbung, Senapati District, Manipur**

**Hbst Institute: Foundation for Environment and Economic Development Services (FEEDS)**

**Estd: 2002**

## Annual Action Plan - 2023



# Staff Position

Sl. No.	Name	Designation	Discipline
1.	Dr. Nongmaithem Jyotsna	Senior Scientist and Head	Agronomy
2.	Khangembam Nodiyachand Singh	Subject Matter Specialist	Horticulture
3.	Dr. David Kamei	Subject Matter Specialist	Plant Protection
4.	Dr. Nongthombam Muhindro Singh	Subject Matter Specialist	Vety & A.H.
5.	Deepak Kumar	Subject Matter Specialist	Agri. Extn.
6.	Dr. Telem Ratan Singh	Subject Matter Specialist	Plant Breeding & Genetics
7.	Dr. Hoilenting	Subject Matter Specialist	Fisheries
8.	Athokpam Brojendro Singh	Programme Assistant	Agro-Forestry
9.	Nemnu Hangshing	Programme Assistant	Home Science
10.	Kangjam Homen Singh	Programme Assistant	Farm Manager
11.	Kshetrimayum Ranjit Singh	Office Assistant	-
12.	Mutum Ronel Singh	Stenographer-cum-computer operator	-
13.	Pheiroijam Tomba Singh	Driver	-
14.	Thanginlal Chongloi	Driver cum Mechanic	-
15.	Chungkholam Chongloi	Supporting staff	-
16.	Kamminlal Kipgen	Supporting staff	-

## Action Taken Report of SAC Meeting held on 9/01/2023

Sl. No	Recommendations	Remarks
1.	To organise training programme on button mushroom cultivation	Included in the current action plan under PP discipline
2.	To popularise grafting in plum fruit instead of air layering under FLD	Will include in Action Plan 2024
3.	To take up intercropping of maize with frenchbean to manage FAW	Included the technology under FLD

# On Farm Testing (Discipline–Wise Summary) for 2023

Discipline	Crop/enterprise	No. of Technology/ Social Concept/ methodology to be		No. of trials proposed	
		Assessed	Refined	Assessment	Refinement
Horticulture	Turmeric	1	-	6	-
	Onion	1	-	6	-
PBG	Soyabean	1	-	6	-
	Field pea	1	-	6	-
Fishery	Magur (Clarius batrachus )	1	-	5	-
	IMC	1	-	5	-
Plant Protection	Citrus	1	-	5	-
	Rice	1	-	5	-
Animal Science	Poultry	1	-	6	-
	Poultry	1	-	6	
Agri. extension	Field pea	1	-	50 respondents	-
Total		<b>11</b>		<b>56 trials &amp; 50 respondents</b>	

# On Farm Testing (OFT)

## Horticulture, OFT 1 (1st yr. trial)

Title: Performance of Turmeric var. RCT-1

### Details of Technology

Crop: Turmeric

#### TO1:

Var.-RCT-1

Dur- 300-315 days

Yield potential- 22-25 t/ha.

#### TO2:

Var. -Lakadong

Dur- 300 days

Yield potential – 20-23t/ha.

#### TO3:

Var.- Local improved

Dur.- 315-330 days

Yield potential – 15-16t/ha.

Problem diagnosis and severity : Low  
yield of local turmeric cultivar. (76%)

### Parameters of assessment

- i. Yield
- ii. Plant height
- iii. BCR

Area : 1 ha.  
No. of trials : 6  
Location : Chawangking

Source: ICAR, Barapani - 2019

# On Farm Testing (OFT)

## Horticulture, OFT-2 (1st yr. trial)

Title : Performance of Onion Vars. Arka Lalima & Arka Kalyan

### Details of Technology

Crop: Onion

#### TO1:

Var. - Arka Lalima  
Dur- 130-140 days  
Yield potential - 47 t/ha.  
Bulb wt. – 120-130 gm.

#### TO2:

Var.- Arka Kalyan  
Dur- 130 days  
Yield potential- 40t/ha.  
Bulb wt. – 100-140 gm

#### TO3:

Var.- Prema  
Dur.- 130-135 days  
Yield potential – 30t/ha.  
Bulb wt. – 75-85 gm

Problem diagnosis and severity : Low yield  
of local Onion cultivar  
( 78 %)

### Parameters of assessment

- i. Yield
- ii. Plant Height
- iii. BCR

Area : 1 ha.  
No. of trials : 6  
Location : Makhan

Source: IIHR 2018

# On Farm Testing (OFT)

## PBG, OFT-1 (2nd yr. trial)

Title : Performance of Soyabean var. MACS 1460

Problem diagnosis and severity: Low  
yield of existing variety  
( 68 %)

### Details of Technology

Crop: Soyabean

#### TO1:

Var. : MACS 1460  
Duration- 100 days,  
Potential yield = 20-25Q/ha

#### TO2:

Var.: DSB-19,  
Duration- 100-110days,  
Potential yield = 19 -20Q/ha

#### TO3:

Var.: JS-335,  
Duration- 95-100 days,  
Potential yield = 15 -20Q/ha

### Parameters of assessment

- i. Plant height  
(cm)
- ii.No. of  
pods/plant
- iii.Yield

Area : 1 ha.  
No. of trials : 6  
Location : Molhoi,  
Leilon

Source: Agharkar Research Institute, Pune-2017

# On Farm Testing (OFT)

## PBG, OFT-2 (1<sup>st</sup> yr. trial)

Title : Performance of Rajhma Var. Sikkim Rajhmash 1

### Details of Technology

Crop: Rajhma

#### TO1:

Var. : Sikkim Rajhmash 1  
Duration- 100 days,  
Potential yield = 12-15 q/ha

#### TO2:

Var. : Tripura Rajhma Sel.1  
Duration- 80-90 days  
Potential yield = 10-15 q/ha

#### TO3:

Var. : Local  
Duration- 90-110 days,  
Potential yield = 8-10q/ha

**Problem diagnosis and severity:** Lack of suitable variety that can ensure higher productivity ( 72 %)

### Parameters of assessment

- i. Plant height (cm)
- ii. No. of pods/plant
- iii. Yield
- iv. B.C ratio

**Area** : 1 ha.  
**No. of trials** : 6  
**Location** :  
Katomei, Chalang

Source: ICAR RC NEH Region, Sikkim Centre, 2011



# On Farm Testing (OFT)

## PP, OFT-1 (1<sup>st</sup> yr. trial)

Title : Management of citrus fruit flies (*Bactrocera* sp.)

**Problem diagnosis and severity:** Fruit flies  
( 75 %)

### Details of Technology

**Crop:** Citrus fruit

#### TO1:

Application of Malathion 20 ml,  
added with 200g jaggery in 20 L  
water

Application of Metarhizium @2ml/l  
of water at fruiting stage

#### TO2:

Using methyl Eugenol traps @ 20  
traps/acre at fruit setting stage

**TO3:** Super killer @1ml/L

### Parameters of assessment

- i. Per cent disease  
incidence
- ii. Per cent yield  
increase
- iii. B:C ratio

**Area** : 1 ha.  
**No. of trials** : 5  
**Location** : Tadubi,  
Sajouba

**Source:** VPKAS, Almora (2019)

# On Farm Testing (OFT)

## PP, OFT-2 (1<sup>st</sup> yr. trial)

Title : Management of blast disease in rice

### Details of Technology

Crop: Paddy

#### TO1:

Application of silica (SiO<sub>2</sub>) @4g/L at 22 DAT or DAE in direct seeding

#### TO2:

Application of Azoxystrobin + Difenoconazole at 0.1% at tillering and boot stage.

#### TO3:

Application of tebuconazole + trifloxystrobin at 0.04% at tillering and boot stage.

Problem diagnosis and severity: 81%

#### Parameters of assessment

- i. Per cent disease incidence,
- ii. Per cent increase yield
- iii. B:C ratio

Area : 1 ha.

No. of trials : 5

Location : Parengba,  
Pudunamai

Source: VPKAS, Almora (2019)

# On Farm Testing (OFT)

## Fisheries, OFT-1 (1<sup>st</sup> yr. trial)

Title : Introduction of grow-out monoculture of Magur (*Clarius batrachus*)

**Problem diagnosis and severity:** Poor diversification of high value fish ( 75 %)

### Details of Technology

Enterprise : Fish (Magur)

#### T01:

**Monoculture of Magur**

Stocking density: 50,000/ ha

Feeding rate: 3-5% body weight

Feed : Pellet feed

Culture period : 10-12 months

#### Parameters of assessment

- i. Survival rate
- ii. Growth rate at different stage
- iii. Yield
- iv. BCR

**Area** : 0.5 ha.  
**No. of trials** : 5  
**Location** : Molhoi, Liyai Kalaphar

Source: ICAR-CIFA, 2016

# On Farm Testing (OFT)

## Fisheries, OFT-2 (2<sup>nd</sup> yr. trial)

Title : Assessment on economic profitability of different stocking and harvesting strategies in composite fish culture

**Problem diagnosis and severity:** Less economic return due to unscientific stocking and harvesting strategy followed by fish farmers in the district (82 %)

### Details of Technology

Enterprise : Fish (IMC)

#### T01:

SSSH (8000 nos. /ha. 1 stocking and 1 harvesting)

Duration: 12 months

#### T02:

SSMH (24000 nos./ha. 1 stocking and 3 harvestings)

Duration: 12 months

#### T03:

MSMH (24000 nos./ha. 3 stocking and 3 harvesting)

Duration: 12 months

### Parameters of assessment

- Average length and weight during each stocking and harvesting
- Farm gate price
- BCR

**Area** : 0.5 ha.

**No. of trials** :5

**Location** :  
Leilon, T. Khullen

Source: ICAR, Tripura Centre, 2015

# On Farm Testing (OFT)

## Animal Science, OFT-1 (2<sup>nd</sup> yr. trial)

Title : Performance of Srinidhi bird for Egg production

**Details of Technology**  
Enterprise : Poultry

**T01:**  
Breed : Srinidhi poultry

**T02:**  
Breed: Vanaraja

**T03:**  
Local/Non descript poultry

**Problem diagnosis and severity:** Poor egg laying capacity of local birds (72 %)

**Parameters of assessment**

i. Nos. Of Egg production

**Unit** : 6  
**No. of trials** : 6  
**Location** :  
Koide and S. Molding

Source: ICAR-DPR, Hyderabad (2014)

# On Farm Testing (OFT)

## Animal Science, OFT-2 (2<sup>nd</sup> yr. trial)

Title : Performance of Kamrupa poultry as a dual purpose bird

**Problem diagnosis and severity:** Low body weight  
and egg production of local bird  
(81%)

**Details of Technology**  
**Enterprise: Poultry**

**TO1:**  
Breed: Kamrupa

**TO2:** - Non descript breed

**Parameters of  
assessment**

- i. Nos. of Egg  
production
- ii. Average  
live.b.wt.

**Unit** : 6  
**No. of Demo.** : 6  
**No. of farmers** : 6  
**Location** :  
Mapao Khullen and  
Haipi Village

**Source:** AAU, Khanapara (Guwahati) (2014)

# **On Farm Testing (OFT)**

## **Agri. extension, OFT-1 (2<sup>nd</sup> yr. trial)**

Title : Impact study of minimum tillage of field pea under CFLD during last 5 years

**Problem diagnosis and severity: High cost of production (70 %)**

**Details of Technology**  
**Crop: Field Pea**

**T01:**  
Survey and interview of respondent farmers

**Parameters of assessment**

- i. Yield /Income
- ii. Problem faced
- iii. Farmers knowledge level
- iv. Cropping intensity

**No. of respondents :50**  
**Location :**  
Makhan, Makuilongdi Village

## FLDs (Discipline–Wise Summary) for 2022

Discipline	Crop/enterprise	No. of Technology	No. of demos proposed	Area (ha) to be covered/ no. of items/ activity	No. of Beneficiaries
PBG	Paddy	1	12	3 ha	12
	Paddy	1	12	3 ha	12
	Field pea	1	12	3 ha	12
Fishery	Grass carp	1	10	1 ha	10
	Tilapia	1	10	1 ha	10
	Pengba	1	10	1 ha	10
Plant protection	Chilli	1	4	1 ha	8
	Papaya	1	4	1 ha	4
	Maize	1	5	2 ha	8
Horticulture	Broadbeans	1	4	1ha	4
	Tomato	1	6	2 ha	6
	Frenchbeans	1	4	1 ha	4
Animal science	Duck	1	10	10units	10
	Piggery	1	10	10units	10
	Piggery	1	10	10 units	20
Agril Extension	Paddy	1	-	50 respondents	
Agro-forestry	Tree bean, citrus, hollock, Pulse crop	1	2	1 ha	2
Home Science	Kiwi	1	10	10 units	10
	Pineapple	1	10	10 units	10
Farm Manager	NF	1	3	3 units	3
<b>Total</b>		<b>20</b>	<b>150</b>	<b>21 ha, 53 units &amp; 50 respondents</b>	<b>165</b>



# **Frontline Demonstration (FLD) Horticulture, FLD-1 (1<sup>st</sup> yr. Demo.)**

**Title : Popularization of Broadbean var. Pusa Udit**

## **Details of Technology**

**Crop: Broadbean**

- ✓ **Var.- Pusa Udit**
- ✓ **Duration – 150 days**
- ✓ **Yield potential- 17.5t/ha**

## **Parameters of observation**

- i. Plant Height
- ii. Yield
- iii. BCR

**Area : 1 ha.**

**No. of Demo. :4**

**No. of farmers :4**

**Location**

**:Chawangkinging,  
Thonglang Akutpa**

# **Frontline Demonstration (FLD) Horticulture, FLD-2 (1<sup>st</sup> yr. Demo.)**

**Title : Popularization of Tomato Var. Arka Abhed**

## **Details of Technology** **Crop: Tomato**

- ✓ **Var.- Arka Abhed**
- ✓ **Duration- 140-150 days**
- ✓ **Yield Potential -70-75t/ha.**
- ✓ **Fruit size - 90-100 gm**

## **Parameters of observation**

- i. Plant height**
- ii. Yield**
- iii. BCR**

**Area : 2 ha.**  
**No. of Demo. :6**  
**No. of farmers :6**  
**Location :**  
**Mayangkhang &  
Molhoi Village**

# **Frontline Demonstration (FLD) Horticulture, FLD-3 (1<sup>st</sup> yr. Demo.)**

**Title : Popularization of Frenchbean var. Arka Anoop**

## **Details of Technology**

**Crop: Frenchbeans**

- ✓ **Var.- Arka Anoop**
- ✓ **Duration 70-75 days**
- ✓ **Yield Potential- 20t/ha.**

## **Parameters of observation**

- i.Yield**
- ii.BC ratio**

**Area : 1 ha.**

**No. of Demo. :4**

**No. of farmers :4**

**Location :**

**Karong, Katomei**

# Frontline Demonstration (FLD) PBG, FLD-1 (2<sup>nd</sup> yr. Demo.)

Title : Popularization of seed production technology of paddy var.  
RC Maniphou 12

## Details of Technology Crop: Paddy

- Var. RC Maniphou 12,
- Seed rate – 60kg/ha,
- Spacing-20x10 cm
- NPK @60:40:30 kg/ha.
- Isolation distance- 3m,
- Roughing as per requirement

### Parameters of observation

1. Plant ht.
- 2.No. of tillers/plant
- 3.No. of spikelets/panicle
- 4.Yield

**Area** : 3 ha.  
**No. of Demo.** : 12  
**No. of farmers** :12  
**Location** :  
Mayangkhang,  
Parengba

# **Frontline Demonstration (FLD)**

## **PBG, FLD-2 (2<sup>nd</sup> yr. Demo.)**

**Title : Popularization of late sown rapeseed var.TS-67 in rice fallow**

### **Details of Technology**

**Crop: Rapeseed**

- Var. TS-67
- Duration – 90 days,
- Potential yield= 7-10q/ha

### **Parameters of observation**

1. Plant height
- 2.No. of pods/plant
- 3.No. of seeds/pod
4. Yield

**Area : 3 ha.**

**No. of Demo. : 12**

**No. of farmers :12**

**Location :  
L. Phaijang, Toribari**

# Frontline Demonstration (FLD) PBG, FLD-3 (1<sup>st</sup>yr. Demo.)

Title : Popularisation of Fieldpea Var. VL Matar 47

## Details of Technology Crop: Fieldpea

- Var. : VL Matar 47
- Duration- 150-155 days,
- Potential yield = 14.17q/ha

## Parameters of observation

1. Plant height
2. No. of pods/plant
3. Yield
4. BC ratio

**Area** : 3 ha.  
**No. of Demo.** : 12  
**No. of farmers** : 12  
**Location** : Molhoi,  
Leilon

# Frontline Demonstration (FLD) PP, FLD-1 (2<sup>nd</sup> yr. Demo.)

Title : Integrated Pest Management of thrips and mite in  
Chilli

## Details of Technology Crop: Chilli

- i. Use of yellow sticky trap@20 traps/acres
- ii. Appln. of beauveria bassiana @2g/L,twice at 10 days interval,
- iii. Appln. of neem oil 0.3%
- iv. Applin. Of imidachlorprid@0.3 ml/L

### Parameters of observation

- i.% pest incidence
- ii. Yield

**Area** : 2 ha.  
**No. of Demo.** : 8  
**No. of farmers** :8  
**Location** :  
Nungan, Parengba

# **Frontline Demonstration (FLD)**

## **PP, FLD-2 (2<sup>nd</sup> yr. Demo.)**

**Title : Management of Fall Armyworm (*Spodoptera fugeperda*) of maize crops**

### **Details of Technology**

**Crop: Maize**

- i. Appln. of sand or ash or soil slury on central whorl
- ii. Intercropping with frenchbean
- iii. Application of *Metarhizium anisopliae* talc @ 5 g/litre on central whorl at 15 days after sowing twice at 10 days interval,
- iv. Appln. of *Lamdacyhalothrin* (9.5%) @ 0.25 ml/L water.

### **Parameters of observation**

- i. Percent pest incidence
- ii. Yield
- iii. BCR

**Area : 2 ha.**  
**No. of Demo. : 4**  
**No. of farmers : 4**  
**Location : Kalaphar, Karong, Khongnem**



# Frontline Demonstration (FLD) PP, FLD-3 (1<sup>st</sup> yr. Demo.)

Title : Integrated pest management of winter vegetables cold crops with special emphasis on DBM, cabbage butterfly and aphids

## Details of Technology

Crop: Winter vegetables

- i. Appln. of *Bacillus thuringiensis* @ 3ml/L
- ii. Spray neem oil based azadirachtin 0.03%
- iii. Yellow sticky insect trap @ 15-20 traps/acre and inter crop with tomato and mustard as trap crops
- iv. Appln of diclorvos 0.05% or calcium hydrochloride 0.05%

## Parameters of observation

- i. Percent pest incidence
- ii. Yield
- iii. BCR

Area : 1 ha.

No. of Demo. : 4

No. of farmers : 4

Location : Khongnem Thana, karong

# Frontline Demonstration (FLD) Fisheries, FLD-1 (1<sup>st</sup> yr. Demo.)

Title : Popularization of low cost happa breeding of  
Amur carp

## Details of Technology

Crop: Fish (Amur carp)

Species: Amur carp

Hormone: Ovaprim/Ovatide/ Ovasis

Dose of hormone -female :0.3ml-  
0.5ml/kg body weight

Male: 0.2-0.3ml/kg body weight

Sex ratio (F:M)-1:2

## Parameters of observation

- i. Hatching  
percentage
- ii. Survival rate

Area : 1 ha.

No. of Demo. : 10

No. of farmers :10

Location: Kalaphar,  
Karong, Maram

# **Frontline Demonstration (FLD) Fisheries, FLD-2 (1<sup>st</sup> yr. Demo.)**

**Title : Popularization of monosex Tilapia under monoculture system**

## **Details of Technology**

**Entreprise: Tilapia**

**Stocking density: 20,000/ ha**

**Feeding rate: 3-5% body weight**

**Feed : Pellet feed**

**Culture period : 6 month**

## **Parameters of observation**

- i. Growth rate at monthly interval**
- ii. Yield**
- iii. BCR**

**Area : 1 ha.**

**No. of Demo. : 10**

**No. of farmers : 10**

**Location :**

**Goungaiphai, Kalaphar,  
Karong**

# **Frontline Demonstration (FLD) Fisheries, FLD-3 (2<sup>nd</sup> yr. Demo.)**

**Title : Popularization of Pengba in composite fish culture**

## **Details of Technology**

**Entreprise: Fish (Pengba, IMC & EC)**

**- Stocking of IMC, Exotic carp & pengba @ 8000 nos./ha,:**

**catla 20%, silver carp 10%, Rohu 30%, Pengba 10%, Mrigal 15%, C. carp 15%**

## **Parameters of observation**

- i. Fish growth at monthly interval**
- ii. Fish yield**

**Area : 1 ha.**

**No. of Demo. : 10**

**No. of farmers : 10**

**Location :  
L.Champhai, L.Phaijang,  
Keithelmanbi**

# Frontline Demonstration (FLD)

## Animal Science, FLD-1

Title : Popularization of Khaki Campbell under backyard rearing system

**Details of Technology**

**Enterprise: Duckery**

**Breed: Khaki Campbell**

**Parameters of observation**

i. Live body weight gain in Kg (monthly)

**Unit : 10**

**No. of Demo. : 10**

**No. of farmers : 10**

**Location :**

**T. Khullen and  
Khengjang villages**

# **Frontline Demonstration (FLD)**

## **Animal Science, FLD-2 (2<sup>nd</sup> . yr. Demo.)**

**Title : Feeding of growing piglets with AAUVETMIN for enhancing farm income**

### **Details of Technology**

**Enterprise: Piggery**

- ✓ **Supplementation of AAUVETMIN @20 gm per pig/day**

### **Parameters of observation**

- i. Percent mortality rate
- ii. Live b. wt. (monthly)

**Unit : 10**

**No. of Demo. : 10**

**No. of farmers :10**

**Location :  
Khunkho and IT camp**

# **Frontline Demonstration (FLD)**

## **Animal Science, FLD-4 (2<sup>nd</sup> . yr. Demo.)**

**Title : Deworming of Piglets for increasing income of farmwomen**

### **Details of Technology**

**Enterprise: Piggery**

Provision of anathematic  
(Albendazole @ 5-10 mg/Kg.b.wt. as oral)

### **Parameters of observation**

- i. Per cent mortality rate (monthly pre-weaning body weight)
- ii. Live body weight (monthly )

**Unit** : 10

**No. of trials** : 10

**Location** :  
Phaibung & Motbung villages

# **Frontline Demonstration (FLD)**

## **Agri. Extension, FLD-1 (1<sup>st</sup>. yr. Demo.)**

Title : Farmer's perception towards natural farming

**Methodology used: Interview  
method (Questionnaire/  
Preference matrix)**

### **Parameters of observation**

- i. Level of preference  
(Low, medium, high)

**No. of respondents : 40**

**No. of Village : 4**

**Name of village:**

Molhoi, Leilon,  
Makuilongdi, T.  
Khullen

**No. of farmers : 40**



# **Frontline Demonstration (FLD)**

## **Agro. Forestry, FLD-1 (2<sup>nd</sup>. yr. Demo.)**

Title : Introduction of MPTS with existing farming system

### **Details of Technology**

**Crop: Treebean, citrus, Terminalia**

- ✓ Tree bean – 8mx8m as main crop
- ✓ Terminalia as Boundary planting
- ✓ Citrus species – Inter Space planting between tree bean

### **Parameters of observation**

- Tree height,
- Girth,
- Crop yield

**Area** : 1 ha.  
**No. of Demo.** : 2  
**No. of farmers** : 2  
**Location** : Besho

# Frontline Demonstration (FLD) Home Science, FLD-1 (1<sup>st</sup> yr. Demo.)

Title :Promotion of osmotic dehydration of Pineapple for preparation of candy

## Details of Technology

Enterprise: Pineapple

- ✓ Washing and grading, peeling of fruit and preparation of fruit pieces
- ✓ Potassium meta bisulphide pre-treatment @1.5gm/kg for 8 hr before osmosis
- ✓ Dipping in sugar syrup (60) degree brix sugar syrup concentration for 24 hrs.
- ✓ Draining and drying (sundry for 2 days)

## Parameters of observation

- Product recovery
- Shelf life (months)
- Acceptability (hedonic scale)

**Unit** : 10  
**No. of Demo.** : 10  
**No. of farmers** : 10  
**Location** :  
Kangchup Geljang,  
Kaithelmanbi

# Frontline Demonstration (FLD)

## Home Science, FLD-2 (2<sup>nd</sup> yr. Demo.)

Title : Promotion of Value addition of Kiwi fruit for the preparation of Candy and Jam

### Details of Technology

Crop: Kiwi fruit

- ✓ **Candy:** Osmotic dehydration using sugar syrup of slice kiwi at 60 degree brix
- ✓ Tray drying of Osmo-dried slices
- ✓ **Jam:** kiwi fruit: citric acid: sugar ( 1:0.08:1)

### Parameters of observation

1. Shelf Life
2. Acceptability (by hedonic scale)
3. BCR

**Unit** : 10.  
**No. of Demo.** : 10  
**No. of farmers** : 10  
**Location** :  
Saikul, Hengbung

# Frontline Demonstration (FLD) Farm Management, FLD-1 (1<sup>st</sup> yr. Demo.)

Title : Promotion of Beejamrit and Jeevamrut in natural farming

## Details of Technology

### Beejamrit :

For 100 kg seed use water 20 liters, Use cow urine 250 ml for one liter of water, Use Cow dung 250 grams for one liter of water, Use Lime 2.5 g per liter of water, Use soil-like dikes or clay bundles, which do not have any stone

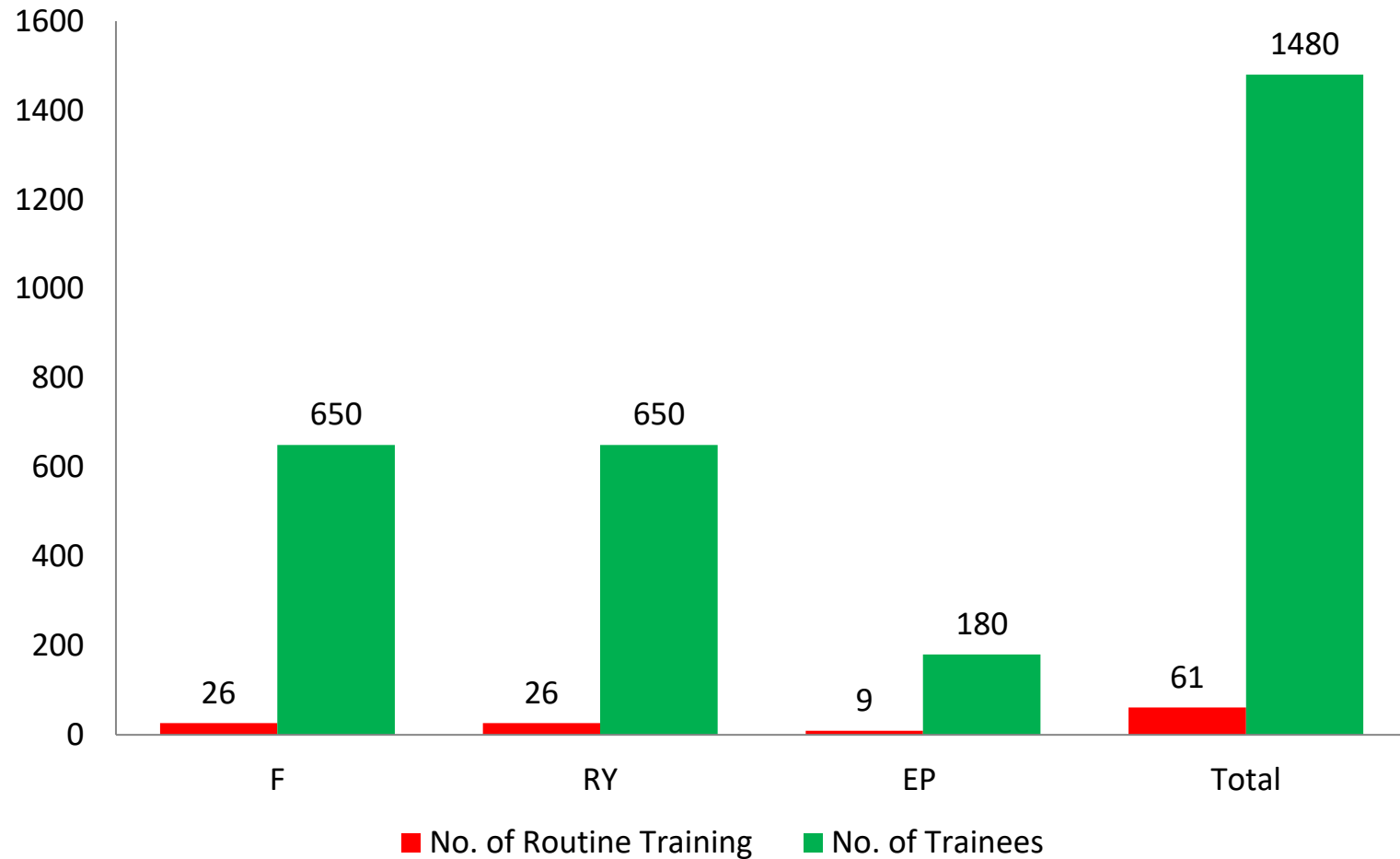
### Jeevamrut:

Water- 200 Litres, Cow Dung - 10 Kilograms, Cow Urine - 10 Litres, Pulse Flour - 2 Kilograms, Jaggery- 2 Kilograms, Soil - A handful

**Parameters  
of  
observation**  
✓ **Disease  
incidence**  
✓ **Yield**

**Unit** : 10  
**No. of Demo.** : 10  
**No. of farmers** : 10  
**Location** : Molhoi,  
T.Khullen, Leilon,  
Makuilongdi

# Details of Training Programme for 2023



## Extension Programmes/Activities for 2023

Sl. No.	Extension Programme/ Activity	Nos. Proposed	Beneficiaries (No.)				Total
			Farmers	Extn. Personnel	Rural Youth	Others	
<b>A.</b>	<b>Field trips and Visits</b>						
1	Diagnostic visit	245	350	-	120	-	470
2	Exposure visit	2	30	-	30	-	60
<b>B.</b>	<b>Group activities</b>						0
1	Celebration of important days	7	700	50	400	50	1207
2	Field day	5	160	5	50	10	230
3	Ex- trainees meet	15	200	-	10	-	225
4	Group meeting /discussion	10	150	-	50	-	210
5	PRA	5	90	-	60	-	155
6	Farmer Clubs' meeting	5	160	-	40	-	205
<b>C.</b>	<b>Mass outreach program</b>						0
1	Method demonstration	20	300	-	150	-	470
2	Film show	10	150	20	50	10	240
3	TV talk	5	-	-	-	-	5
4	Radio talk	10	-	-	-	-	10
5	Field publicity	20	600	20	300	30	970
7	Exhibition/mela	1	250	20	150	30	451
8	Advisory services/ telephone talk	120	-	-	-	-	120

# Extension Programmes/Activities for 2023

Sl. No.	Extension Programme/ Activity	Nos. Proposed	Beneficiaries (No.)				Total
			Farmers	Extn. Personnel	Rural Youth	Others	
D.	<b>Camps and Campaigns</b>						
1	Soil health camp	2	100	10	60	30	202
2	Animal health camp	2	100	10	60	30	202
3	Awareness camp	5	250	-	50	50	355
E.	<b>Publications</b>						0
1	Extension literature (Leaflet/ folders/ Pamphlets)	16	600		350	50	1016
2	Extension / technical bulletin	5	100	50	100	50	305
3	News letter	1	300	50	100	50	501
4	Print media coverage	20	-	-	-	-	20
5	Research publications	2	-	-	-	-	2
6	Success stories/ Case studies	2	-	-	-	-	2
	<b>Total</b>	<b>290</b>	<b>4240</b>	<b>235</b>	<b>2010</b>	<b>390</b>	<b>7165</b>

# Seed Materials

Seed Materials	Crop	Variety	Proposed quantity (ton) to be produced (both at KVK farm and farmers field)	Current Value (Rs.)	To be provided/supplied to (Expected No. of farmers)
Cereals	Rice	CAU-R1 (Tampha phou)	5.00	Rs. 30/kg	95
Oilseeds	Soybean	Dsb 19	1.3	Rs. 40/kg	70
	Groundnut	ICGS-76	3.00	Rs. 80/kg	30
	Rapeseed	TS 38	2.1	Rs. 30/kg	170
Pulses	Blackgram	PU 31	0.3	Rs. 60/kg	15
	Fieldpea	Aman	0.3	Rs. 80/kg	3
Spices	Turmeric	Lakkadong	10	Rs. 15/kg	2
<b>Total</b>			<b>22 ton</b>		<b>385</b>



# Planting Materials

Planting Materials	Crop	Variety	Proposed quantity (Nos.) to be produced (both at KVK farm and farmers field)	Current Value (Rs.)	To be provided/supplied to (Expected No. of farmers)
Fruits	Pomegranate	Bedena	1000	Rs. 10/seedling	15
	Mandarin	Khasi mandarin	1000	Rs. 15/seedling	15
	Kiwifruit	Allison, , Monty, Hayward	1000	Rs. 80/seedling	10
	Lime	Kachai lemon	1000	Rs. 15/seedling	12
	Citrus	Aourintofolia	1000	Rs. 10/seedling	10
	Papaya	Honey dew	1500	Rs. 10/seedling	8
Forest Species	Mimusops elengii	Ornamental	1000	Rs. 10/plant	10
	Terminaliya myriocarpa	MPTS	1000	Rs. 10/plant	10
	Cassia javanica	Ornamental	1000	Rs. 10/plant	10
	Acacia glouca	MPTS	1000	Rs. 5/plant	10
	Citrus reticulata	orange	1000	Rs. 10/plant	10
	Tectona grandis	MPTS	1000	Rs. 10/plant	10
	Perkia roxburghii	MPTS	2000	Rs. 10/plant	20

# Planting Materials (contd.)

Planting Materials	Crop	Variety	Proposed quantity (Nos.) to be produced (both at KVK farm and farmers field)	Current Value (Rs.)	To be provided/supplied to (Expected No. of farmers)
Vegetables	Cabbage	Rareball	5000	Rs.2/plant	15
	Broccoli	Green Magic	5000	Rs.5/plant	10
	Tomato	Arka Rakshak	1000	Rs.2/plant	15
	King Chilli	Local improved	1000	Rs.5/plant	10
	Tree tomato	Local improved	1000	Rs.3/plant	10
Flowers	Statice,petunia, hybrid marigold	-	1000	Rs.10/plant	10
<b>Total</b>			<b>30500</b>		<b>220</b>

# Bio-products

Item	Product Name	Species	Proposed quantity to be produced (both at KVK farm and farmers field)	
			No.	Kg.
Bio-agents	Vermiworm	Eisenia foetida & Eudrillus eugenia	-	20
Bio-fertilizers	Vermicompost	-		3000
Livestock strains/ fingerlings	Fingerlings	Rohu & Grass carp,catla	300000	
	Piglet	Cross bred Hampshire	50	-
Mushroom	Spawn	Oyster		1000
<b>Total</b>			<b>300050</b>	<b>4020</b>

# Soil & Water Sample Analysis / Soil Health Cards (SHCs) for 2023

Sl. No.	Samples	Nos. of samples targeted	Target of Farmer beneficiaries	Village to be covered	Amount to be realised (Rs.)	Expected SHCs to be issued to farmers (Nos.)
1.	Soil sample	300	500	23	-	500
2.	Water sample	100	80	10	-	
	<b>Total</b>	<b>400</b>	<b>580</b>	<b>33</b>	<b>-</b>	<b>500</b>

# Mobile Advisory for 2023

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
Text only	38	375	21	336	8	120	8	175	4	135	4	150	83	1291
Voice only	120	480	30	230	200	50	40	120	10	110	10	70	140	1060
Voice and Text both	-	-	-	-	-	-	-	-	--	-	-	-	-	-
<b>Total</b>	158	855	51	566	208	170	48	295	14	245	14	220	<b>223</b>	<b>2351</b>

# Contingency Planning for 2023

## a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Hailstorm Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered		
			General	SC/ST	Total
Delayed monsoon	DSR	15	-	55	55
Early cessation of monsoon	Introduction of early varieties of winter pulses and oilseeds	10	-	42	55
Drought	Growing of blackgram & ricebean	10	-	35	35
Cold wave ( frost injury)	Irrigation in late evening	10	-	38	38

## b. Livestock based Contingency Planning for 2023

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Number of birds/ animals to be distributed	No. of program mes to be undertak en	No. of camps to be organize d	Proposed number of animals/ birds to be covered through camps	Number of beneficiaries proposed to be covered		
					Gener al	SC/S T	Total
In case of crop failure	500 birds	2	4	5000	-	110	110
	30 piglets	2	2	700	-	350	350

# Functional linkages to be established with different organizations during 2023

Sl. No.	Name of organization	Nature of linkage
1	ICAR, Manipur Centre	Technical input & logistic support & discussion & meeting.
2	Central Agricultural University	Technical input & logistic support, Mela & join awareness camp, discussion & meeting.
3	Ministry of Science & Technology, GoI	Provision of Societal based scheme & projects.
4	IIHR, Bangalore	Technical support & guidance
6	NABARD-Senapati	Training & information sharing, formation of farmer club & awareness programme on financial inclusion.
7	CRIDA, Hyderabad	Agro Metrological advisory & preparation of contingent crop plan.
8	State Line Dept.	Training, demonstration, diagnostic visit & field visit, review of SREP, information sharing & input & financial support, meeting & join soil & animal health campaign/camp.
9	SFAC, Manipur	Sponsored training & information sharing



## Functional linkages to be established with different organizations during 2023 (contd.)

Sl. No.	Name of organization	Nature of linkage
10	DRDA, Senapati	Sponsored training, join discussion & meeting.
12	TD, Dept., Govt. of Manipur	Selection of beneficiaries & information sharing & consultancy.
13	Nehru Yuva Kendra	Join training programme, awareness camp, exposure visit, meeting & information sharing.
14	District Vety Office, Senapati	Participation in meeting and joint animal health care programme
15	NFDB, Hyderabad	Sponsored training, join discussion & meeting
16	DIC	Participation in meeting.
17	RCOF	Joint training & participation in meeting.
18	NGOs	Training & meeting.
19	ATMA, Senapati	Training , exposure visit, meeting & information sharing,

# Natural Farming proposed during 2023

Activity/ Items	No. of programme/ activity	No. of participants
<b>1. Awareness programme</b>		
<b>a. Exhibition</b>	<b>2</b>	<b>200</b>
<b>b. Kisan Goshi</b>	<b>2</b>	<b>50</b>
<b>c. Campaign</b>	<b>3</b>	<b>150</b>
<b>d. Publication (Extension materials, posters, leaflets etc.)</b>	<b>5</b>	<b>300</b>
<b>2. Training</b>	<b>4</b>	<b>160</b>
<b>3. Demonstration</b>	<b>12</b>	<b>12</b>

# Precision farming

## Activities/Intervention to be taken up under natural farming:

- ✓ **At KVK Farm** : Hydroponics techniques and King chilli cultivation through the application of plastic mulching and drip irrigation
- ✓ **At farmers field** : Precision farming of King chilli and Strawberry through the application of plastic mulching and drip irrigation

Functional linkage with concern stakeholders:  
**ICAR Institutes**

Area covered (in acre)

- ✓ At KVK Farm – 0.12
- ✓ At farmers field- 1

**Expected benefits out of precision farming in the district:**  
**Higher productivity through optimum utilization of resources**

***THANK YOU***  
***(THAGATCHARI)***