## KVK, Thoubal

### Department of Agriculture Govt. of Manipur

#### On Farm Trials 2012-13

#### **On Farm Trials (Discipline-Wise Summary)**

Discipline (Minimum 2 OFT per	Crop / Enterprise	Number of technology/ Social Concept		No. of tria	ls	% of achieveme nt	Reasons for shortfall,
SMS)		Assessed	Refined	Target	Achievement		if any
Horticulture	French bean	1		10	10	100	
	Cabbage	1		10	10	100	
	Onion	1		10	10	100	
Plant Protection	Chilli	1	-	10	10	100	
	Rice	1	-	10	10	100	
	Onion	1	-	10	10	100	
Fishery	Fish	3	1	28	22	78.57	
Animal Science	1.Muskovy duck	1		10	10	100	
	2.Rabbit	1		10	10	100	
	3.Pig	1		10	10	100	
	4.Piglet	1		10	10	100	

### **On Farm Trials (Discipline-Wise Summary)**

Discipline (Minimum 2 OFT per	Crop / Enterprise	Number of Social Cond	technology/ cept	No. of tria	ls	% of achieveme nt	Reasons for shortfall,
SMS)		Assessed	Refined	Target	Achievement		if any
PBG	Cucumber	1		5	5	100	Nil
	Hybrid Rice Cultivation (US-312,318)	1		5	5	100	Nil
	Hybrid Rice Cultivation (Prima)	1		5	5	100	Nil
	Late Planting of Pari Phou. And IR-64	1		4	4	100	Nil
Home Sc.	Organic Dye	1	-	5	5	100	
	Recycling of waste	1	-	3	3	100	
	Horticultural Crops	1	-	5	5	100	
	Women friendly tool	1	-	5	5	100	
Total		26		215	159		

#### **On Farm** Trials (Discipline-wise achievements)

Discipline: Agronomy

Crop/ Enterpris e	Problem diagnosed	Technolog y/Social Concept	Title of OFT	No. of trials	Parameters of assessment/ refinement and its data in bracket	Prdn. per unit crop/ enterpris e	Net return (Rs/Ha)	B:C Ratio
Rice	Improper use of herbicide cannot control weeds effectively	Chemical weed control in wet seeded rice using Saathi @	Weed mana geme nt in wet seede d rice	7	Technology: Crop stand/m2-180 Weed count/m2-Nil No.of grains/panicle-120 Yield-5.6t/ha	5.6t/ha	25,200	1.6
	in wet seeded rice.	160gm/ha. 30 DAS using crop alley system applicatio n.	using Saathi		Farmers Practice:  Crop stand/m2-165 Weed count/m2-24 No.of grains/panicle-113 Yield-5.2t/ha	5.2t/ha	19,800	1.5

Discipline: Agronomy

Crop/ Enterprise	Problem diagnosed	Technology / Social Concept	Title of OFT	No. of trial s	Parameters of assessment/refineme nt and its data in bracket	Prdn. per unit crop/e nterpri se	Net return (Rs/Ha)	B:C Rati o
Blackgram	Heavy weed infestation decreases the yield severely. No weedicide is used in blackgram to control weeds in the district.	Chemical weed manageme nt using oxyfluorfen @ 0.01kg ai/ha 1DAS.	Weed manag ement using oxyflu orfen	7	Technology:  Weed density/m2-35 No.of branches/Plant-32 Yield-7.2q/ha  Farmers practice:  Weed density/m2-85 No.of branches/Plant-25 Yield-5.4q/ha	7.2q/ha 5.4q/ha	10,950 8,4000	1.61

#### On Farm Trials (Discipline-wise achievements)

Discipline: Agronomy

Crop/ Enterpris e	Problem diagnosed	Technolog y/ Social Concept	Title of OFT	No. of trials	Parameters of assessment/ refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs/Ha)	B:C Ratio
Maize	Continuous use of chemical fertilizers alone leads to soil fertility degradation and low quality produce. No biofertilizer is used in maize	INM in maize using azospirilliu m @ 250ml/ha with 50 % RD of NPK @ 50:40:30k g/ha	INM in maize	7	Technology:  Cobs/plant-1.7 Grains/cob-308 Yield-22.5q/ha.  Farmers:  Cobs/plant-1.7 Grains/cob-315 Yield-23.00q/ha.	22.5q/ha 23q/ha	9750 9500	1.40
	cultivation in the district.							

## On Farm Trials (Discipline-wise achievements) Discipline: Agronomy

Crop / Enterprise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./Ha)	B:C Ratio
Maize + Blackgra m	Maize is usually grown as pure crop leaving a lot of space in between two rows left unutilized during early period. No intercropping is done maize cultivation in the district	Intercroppi ng of maize with blackgram in 1:2 ratio Spacing of maize- 60x25cm Spacing of blackgram- 30cm	Intercro pping of maize with blackgra m	6	Technology: Maize yield-20.25q/ha Blackgram yield- 4.3q/ha Total yield-24.55q/ha	24.55q/ha	20,575	1.76

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### On Farm Trials (Discipline-wise achievements) Discipline: PBG

Crop / Enterp rise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./Ha)	B:C Ratio
1) Cucu mber	Low yield of locals	Varietal Trial	Assessm ent of local and Hybrid Cucumb er-US- 260	5	Technology 1) Duration:75 days 2) Fruits/Plant-17 3) Fruit wt300 gm. 4)Fruit Length-18cm. 5) Yield:53 Qt./Ha.	Technolo gy 53 Qt./Ha.	Technology 34080	1.6
					Local 1)Duration- 100 days. 2) Fruits /Plant:15 3) Fruit Wt 450 gms. 4) Fruit Length—25 cm 5) Yield—76 Qt/Ha.	<b>Local</b> 76 Qt./Ha	Local 40320	

**Discipline: PBG** 

Crop / Enter prise	Problem diagnos ed	Technology / Social Concept	Title of OFT	No. of trial s	Parameters of assessment/ref its data in brack		t and	Prdn. per unit crop/ enterpris e	Net return (Rs./Ha)	B:C Ratio
2) Rice	Low yield of HYV	Hydrid Rice Production Technology	Evaluati on of Hybrids US- 312,316	5	1)Plant Ht. – 1.09 2)Tiller/Plant- 17 3)Grain/Panicle 115 4) yield/Ha 6 66Qt/ha 5)Duration 1 135 days Farmers praction 1)Plant Ht. – 1 2)Tiller/Plant- 3)Grain/Panicle 4) yield/Ha 12	55Qt./ha 135 day <b>ce</b> 1.02m 18 : 150		US-312: 65 US-316: 66	US-312: 24,000 US-316: 25,000	1.58
3) Rice	Low yield of HYV	Hydrid Rice Production Technology	Evaluati on of Hybrids (Prima)	5	1)Plant height 2)Tiller 3)Grain/Pani cle	Prima 1)1.0 6 m 2)17 3)145 4)140 5)68	PAC- 801 1)1.0 2 m 2)18 3)150 4)125 5)66	68 (Prema) 66 (801)	27000	1.65

## On Farm Trials (Discipline-wise achievements) Discipline: PBG

Crop / Enterp rise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./Ha)	B:C Ratio
4) Rice	Flood and Drought are frequent	Late sown Rice as contingent crop	Late planting of Pari Phou and IR- 64	4	Pari Phou 1)Plant Ht. –90 cm 2)Tiller/Plant11 3) Grain/Panicle120 4) yield/Ha—35 Qt. 5)Duration—110 days	Pari Phou 35 Qt/Ha.	Not calculated.	Not calcul ated
					IR-64  1)Plant height 2)Tiller/Plant10 3)Grain/Panicle Nil 4)Duration Nil 5) Yield Nil	<u>IR-64</u>		

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## On Farm Trials (Discipline-wise achievements) Discipline: Horticulture

Crop / Enterpris e	Problem diagnosed	Technolog y/Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./Ha)	B:C Ratio
French bean	Lack of improved variety	Varietal perform ance (Arka Sharath)	Varietal performan ce of French bean	6	Technology: 1. Plant height (1ft) 2. No. of pods (15- 20/plant) 3. Length of pod (12- 16cm) 4)Yield-70g/ha	70 q/ha	113058	2.2
					Farmers Practice Plant height (1.5ft) 2. No. of pods (15- 18/plant) 3. Length of pod (12- 15cm) 4)60q/ha	60q/ha	83058	1.9
Onion	Lack of knowledge about the Integrated Weed Management among the farmers	IWM of Prema	IWM of onion	5	Technology: 1. Plant height (1.5ft) 2. No. of leaves (4-6/plant) 3. Bulb size (186g) 4)200q/ha Farmers Practice 1. Plant height (1ft) 2. No. of leaves (4-6/plant) 3. Bulb size (150g) 4)175q/ha	200q/ha 175q/ha	217882 146682	2.7

### On Farm Trials (Discipline-wise achievements) Discipline: Horticulture

Crop / Enterpris e	Problem diagnosed	Technolog y/Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./Ha)	B:C Ratio
Cabbag e	Lack of knowledge about Integrated Nutrient Management	INM of cabbage (Rare Ball)	INM of cabbage	5	Technology: 1.Head weight (1.6kg) 2.Maturity-60 days 3.Yield-240q/ha  Farmers Practice 1.Head weight (1.5kg) 2.Maturity-65 days 3.Yield-230q/ha	240q/ha 230q/ha	111790 102790	2.4

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# On Farm Trials (Discipline-wise achievements) Discipline: Plant Protection

Crop/ Enterp rise	Proble m diagnos ed	Technolo gy/Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinem ent and its data in bracket	Prdn. per unit crop/enter prise	Net return (Rs/Ha)	B:C Ratio
Chilli	Dieback ,Anthra cnose Ripe fruit rot	Disease managem ent	Mgmt. of dieback of chilli using <b>Tricyclazole</b>	10	Technology % disease incidence= Dieback-6.27 Anthracnose-15.11 Fruitrot-9.66	Technology 56q/ha (Green)	168200	4:1
					Farmer Practice Defenoconazole % disease incidence Dieback- 7.11 Anthracnose- 16.03 Fruit rot- 8.78	Farmer Practice 53.6q/ha	158600	3.8:1

# On Farm Trials (Discipline-wise achievements) Discipline: Plant Protection

Crop/ Enterp rise	Problem diagnosed	Techn ology/ Social Conce pt	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ente rprise	Net return (Rs/Ha)	B:C Ratio
Rice	Blast & Sheath blight	Diseas e manag ement	Mgmt of blast & sheath blight of rice with Kresoxim	10	Technology % disease incidence = Leaf blast- 11.11 Neck blast- 13.78 Sheath blight- 7.22 Farmers practice	Techno:- 6.25 tons/ha	<u>Tech:-</u> 29108	<u>Tech:-</u> 1.63:1
			metyyl (Ergon)		% disease incidence Tricyclazole 25% @ (225 ai/ha) Leaf blast- 10.00 Neck blast- 13.76 Sheath blight- 25.56	5.78 tons/ha	<u>F.P</u> _24000	<b>F.P</b> 1.53:1

# On Farm Trials (Discipline-wise achievements) Discipline: Plant Protection

Crop/ Enterp rise	Problem diagnosed	Techn ology/ Social Conce pt	Title of OFT	No. of trials	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/enter prise	Net return (Rs/Ha)	B:C Ratio
Onion	Thrips Continuous use of recommen ded synthetic	Trap lure	Mgmt. of onion thrips using maize as intercrop	10	Technology Thrips/plant (60 DAT)= 2nymphs/plant Thrips/plant (75 DAT) = 15 nymph/plant Wt. of 20 bulbs =807 gm	Techno:- 217q/ha	<u>Techn:</u> 370200	<u>Tech:</u> 6.8:1
	pyrithroid develop resistance in thrips.				Farmers practice (without intercrop) Thrips/plant( 60 DAT) =4 nymphs/plant Thrips/plant (75 DAT) =45 nymph/plant Wt of 20 bulbs =718 gm.	<b>F.P</b> 194 q/ha	<b>E.P</b> 324200	<b>E.P</b> 6.1:1

**Discipline: Fishery** 

Crop/ Enterp rise	Problem diagnosed	Technolog y/Social Concept	Title of OFT	No. of trials	Parameters of assessment/refine ment and its data in bracket	Prdn. per unit crop/enterprise	Net return (Rs/Ha)	B:C Rati o
Fish + Euryal e ferox	Low yield and low B:C ratio in single enterprise	Fish cum Euryale ferox Farming	Fish cum Euryale ferox farming	7	1.Yield of fish (1200Kg/ha) 2. Yield of Euryale ferox 35000 fruits of Euryale ferox/ha Farmers practice 1.Yield of fish (900Kg/ha) 2. Yield of Euryale ferox 32000 fruits of Euryale ferox/ha	Yield of fish (1200Kg/ha) Yield of Euryale ferox 35000 fruits of Euryale ferox/ha Farmers practice 1.Yield of fish (900Kg/ha) 2. Yield of Euryale ferox 32000 fruits of Euryale ferox/ha	1,69,525	2.5
Grass carp	Scarcity of quality seeds	Early seed productio n of grass carp	Early seed productio n of grass carp	7	Growth of seed (1.5g/month) 1. Survivability of seed (80%) Farmers practice 1. Growth of seed (2g/month) 2. Survivability of seed (60%)	1.Growth of seed (1.5g/month) 2.Survivability of seed (80%) Farmers practice 1. Growth of seed (2g/month) 2. Survivability of seed (60%)	1000/0.0	1.3

# On Farm Trials (Discipline-wise achievements) Discipline: Fishery

Crop / Enterprise	Problem diagnose d	Technology /Social Concept	Title of OFT	No. of trials	Parameters of assessment/refine ment and its data in bracket	Prdn. per unit crop/enterprise	Net retu rn (Rs/ Ha)	B:C Ratio
Climbing perch	Scarcity of quality seeds	Seed production of climbing perch	Seed productio n of climbing perch	3	1.Growth of seed (1g/month) 2.Survivability of seed (55%) No farmers practice	1.Growth of seed(1g/mnth) 2.Survivabilit y of seed (55%)  No farmers practice	700/ 0.01	1.6
Walking catfish	Non availabilit y of quality seeds	Seed production of climbing perch	Seed productio n of climbing perch	5	1.Growth of seed (1g/month) 2.Survivability of seed (23%) No farmers practice	1.Growth of seed(1g/month) 2.Survivability of seed (23%) No farmers practice	750/ 0.01	1.2

Discipline: Animal Science

Crop/ Enterp rise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trial s	Parameters of assessment/refinement and its data in bracket	Prdn. per unit enterprise (per sow/year)	Net return (Rs/so w)	B:C Ratio
Piglet	i. Mortality rate high in piglets ii. Piglet after farrowing were kept in bamboo basket holding with naked hands leading to non acceptanc e by sow	Provision of bamboo made guard rails in brooder house	Provision of bamboo made guard rails in brooder house	10	Iechnology i Litter size at birth(11.33) ii. Litter size at weaning (10.66) iii. Weekly body weight (g) 0(450g), 1(735.7) 2(1557.1), 3(2078.5) 4(2857.1) 5(3342.8) 6(3885.7) 7(4342.8) 8(4730.3) iv. Mortality at 8 wks(2)  Farmer Practice i. Litter size at birth(10.1) ii. Litter size at weaning(4.2) iii. Mortality at 8 wks(6) iv. Wkly body wt(g) 0(425), 1(528.2) 2(1125.3) 3(1642.7) 4(1828.9) 5(2438.6) 6(3012.2) 7(3782.4) 8(4238.6)	i.Live wt of ii.sow: 80kg iiiLitter size at Weaning- 10.8  Farmers Practice  i.Live wt of iisow: 70kg iii.Litter size at Weaning- 4.1	43000	2.4:1

## On Farm Trials (Discipline-wise achievements) Discipline: Animal Science

Crop/ Enterp rise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trial s	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/enterpris e (per 3 (1:2) rabbit/year)	Net retur n (Rs/3 rabbi t)	B:C Ratio
Rabbit	I. Knowledge of rearing broiler rabbit for meat purpose is very rare ii. Rabbit farming is not popular in our district	Productive and reproductive performance of broiler rabbit	Productive and reproductive performance of broiler rabbit	10	Technology i.Litter size at birth(6.33) ii. Litter size at	Technology i. Total live wt (kg) 6.5 ii. Bunny rabbit no24  Farmers Practice i. Total live wt (kg) 6 ii. Bunny rabbit no12	1650	1.77:1

## On Farm Trials (Discipline-wise achievements) Discipline: Animal Science

Crop/ Enterpr ise	Problem diagnos ed	Technolog y/Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinemen t and its data in bracket	Prdn. per 2 sow	Net return (Rs/2 sow)	B:C Ratio
Pig	Problem in procure ment of good variety boar	Synchroni zation and fixed time inseminati on	Synchr onizati on and fixed time insemi nation	10	Technology i.No. of sow treated(24) ii. % of sow responsive to treatment (87.5) iii. No of sow responsive to treatment(21) iv. Average onset of estrus after treatment (4 <sup>th</sup> day) v. Farrowing rate (no. of sow) (21) vi. Litter size at Birth (10.28) vii. Litter size at weaning (8.66) viii. Survibility %(84.25) Farmer Practice Farmer are not yet practice.	Technology i. Live weight- 150kg ii. No. of piglet at weaning(17).  Farmers Practice Farmer are not yet practice.	56000	2.6:1

Crop / Enterpr ise	Problem diagnos ed	Technolog y/Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinemen t and its data in bracket	Prdn. per duck	Net return (Rs/50 duck)	B:C Ratio
Duck (Musko vy Duck)	Imprope r manage ment leading to increase in mortalit y	Productio n performan ce of muskovy duck using locally available feed	Produc tion perfor mance of muskov y duck using locally availabl e feed	10	Technology i. Weekly body wt(g) 0(50), 4(450), 8(1100),12(1200), 16(1400), 20(1700) ii. Survibility % 4(100), 8(98),12(97), 16(97), 20(96) iii. Egg wt (60g) iv. Dressing% (66.2) v. Hatchability% through Brooding (92) Farmer Practice i. Weekly body wt(g) 0(49), 4(380), 8(950),12(1008), 16(1250), 20(1500) ii. Survibility % 4(96), 8(94),12(91), 16(88), 20(85) iii. Egg wt (58g) iv. Dressing% (64.8) v. Hatchability% through Brooding(89)	i. No.of egg -80 (5 months egg lay) ii. Body wt of duck At first egg lay( 7 months)-2.5kg  Farmers Practice i. No.of egg -72 (5 months egg lay) ii. Body wt of duck At first egg lay ii. Body syt of duck At first egg lay (8 months)-2.2kg	48080	2.12:1

### On Farm Trials (Discipline-wise achievements) Discipline: Home Science

Crop / Enterprise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trial s	Parameters of assessment/refinement and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./go at)	B:C Ratio
Woman friendly tools	Drudgery	Manual double screen cleanere	Use of Manual double screen cleaner for separati on of rice husk	5	Technology: Cleaning efficiency (80-85%) Capacity k.g/hr. 1 50-200 Farmers practice: Separated rice husk manually and involve two people to operate			
Horticultura I crop	Poor nutrition and managem ent	Nutrition gardening	Backyar d nutrition al gardenin g of rural areas	5	Technology: Economic saving- Rs.5950, nutritional benefit-suppliment, vitamin, minerals, protien & calcium Farmer Practice: Buy from market			

### On Farm Trials (Discipline-wise achievements) Discipline: Home Science

Crop / Enterprise	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trials	Parameters of assessment/refinemen t and its data in bracket	Prdn. per unit crop/ enterprise	Net return (Rs./go at)	B:C Ratio
Organic dye	Not aware of locally available mordant	Natural dying	Improvi ng colour fastness of cotton fabric with natural dye	5	Technology:  Colour fastness property, effect of mordanting  Farmer practice: Dye the fabric without mordant			
Recycling of waste material	Thrown as waste material	Recycling of wraping paper	Value added product from waste wraping paper	3	Cost benefit, varities in product Farmer Practice: Thrown as waste material	3000	2000	1:2

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