

On Farm Testing

(OFT) 2016-17

On Farm Testing (Discipline: Agronomy)

1. Improved package and practices of growing blackgram var. Uttara

Crop / Enterprise	Farming Situation	Problem diagnosed	Technology (give details)	Title of OFT	No. of trials	Parameters on Assessment/ Refined	Prdn. per unit	Net return (Rs/ha)	B:C Ratio (GR/GC)
Black-gram	Rainfed	Sub-optimal management of pulse production by ignorant farmers	Variety: Uttara (IPU 94-1), Sowing time : July 15, Seed rate :12 kg/ha, Spacing : 30cm × 10cm NPKS@ 20:40:20: 20 kg/ha	Performance of blackgram var. Uttara with standard package of practices	5	1. Plant Height (48.52 cm) 2. No. of pods/plant (16.2) 3. No. of seeds/pod (5.6) 4. 1000 seed weight (51 g) 5. Seed yield (890 kg/ha)	890 kg/ha	39200	2.22:1
						Farmer Practice			
Variety: Uttara (IPU 94-1), Sowing time : July 15, Seed rate :25 kg/ha, Broadcasting, unbalance use of fertilizers						1. Plant Height (47.88 cm) 2. No. of pods/plant (13.2) 3. No. of seeds/pod (4.9) 4. 1000 seed weight (48 g) 5. Seed yield (580 kg/ha)	580 kg/ha	16400	1.54:1



On Farm Testing Discipline: Agronomy

2. Rice-lentil cropping sequence – resource conservation technology in pulse based cropping system

Crop / Enterprise	Farming Situation	Problem diagnosed	Technology (give details)	Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention)	Prdn. per unit	Net return (Rs/ha)	B:C Ratio (GR/GC)
Rice-lentil	Rainfed+ Live saving irrigation	Land remain fallow during <i>rabi</i> season	Rice-lentil cropping sequence	Rice-lentil cropping sequence – resource conservation technology in pulse based cropping system	5	1. Rice grain yield 2. Lentil seed yield 3. Rice equivalent yield	1. Rice grain yield (4080 kg/ha) 2. Lentil yield (660 kg/ha) 3. REY (6480 kg/ha)	75560	2.12:1
						Farmer Practice			
			Mono cropping of rice			Rice yield only	3800 kg/ha	40000	1.91:1



On Farm Testing

Discipline: Horticulture

1. Varietal Performance of tomato var. Arka Rakshak

Crop / Enterprise	Farming Situation	Problem diagnosed	Technology (give details)	Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention)	Results/ observation on selected parameters	Net return (Rs/ha)	B:C Ratio (GR/GC)
Tomato	Vegetable based farming system	Low yield for Kharif tomato.	Tomato var. Arka Rakshak, Seed rate: 400g/ha. Spacing : 60x45cm, FYM: 500kg/ha, NPK: 120:60:60	Varietal Performance of tomato var. Arka Rakshak	5	Tech. 1.Days to 1 st harvesting:60 DAT 2.Duration:140 days 3.Yield(kg/ha)-32000 4.Gross return(Rs)-1280000 Farmers'prac. (var. Badsha)-1.Days to 1 st harvesting:60 DAT 2.Duration:140 days 3.Yield(kg/ha)-32200	Tech-128788 Far. Prac-159588	Tech-1151212 Far.Prac - 1128412	Tech: 9.93:1 Far.Prac -8.07 : 1



On Farm Testing

Discipline: Horticulture

2. Varietal evaluation of Broccoli var. Sakura and TSX- 0788

Crop / Enterprise	Farming Situation	Problem diagnosed	Technology	Title of OFT	No. of trials	Parameters on Assessment	Results/ observation on selected parameters	Net return (Rs/ha)	B:C Ratio (GR/GC)
Broccoli	Vegetable based farming system	Low yield due to wrong selection of new varieties	Broccoli vars. Sakura & TSX -0788, Seed rate: 400g/ha. Spacing : 45cmx45cm , FYM: 500kg/ha, NPK: 120:60:60	Varietal evaluation of Broccoli var. Sakura and TSX - 0788	5	1. Sakura : Av.plant height : Initiation of 1 st curd : 1 st harvesting : Yield(kg/ha) Gross return(Rs)- 2. TSX-0788: Av.plant height Initiation of 1 st head: 1 st harvesting : Yield(kg/ha): Gross return(Rs) :	1. Sakura : 36 .5 cm/plant At 60 DAT At 75 DAT 158 02 kg Rs 474060 2. TSX- 0788 49.5 cm/ plant 65 DAT 82 DAT 13826 kg Rs 414780	1. Sakura : Rs 397060 2.TSX-0788: Rs 337780	1.Sakura: 5.1 : 1 2.TSX-0788: 4.3 : 1



On Farm Testing Discipline: Fishery

1. Growth Performance of IMC fingerlings feeding with *Ipomea carnea* substratum

Livestock	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trials
1	2	3	4	5
Fishery	Lack of knowledge on providing natural feeds or fish feeding items to enhance the fish production among resource poor rural fish farmers.	Stocking fingerlings of Catla and Rohu – (1: 2) @4000/ha while feeding using <i>Ipomea carnea</i> as periphyton production substratum in 0.2 ha.	Growth Performance of IMC fingerlings feeding with <i>Ipomea carnea</i> substratum	5

Parameters of assessment/ refinement and its data in bracket			Prdn. Cost Per unit crop/enterprise (Rs.)		Net return (Rs/Ha)		B:C Ratio (GR/GC)
6			7		8		9
	Fish yield (kgs /0.2ha)	% increased	1 ha	0.2ha	1 ha	0.2ha	2.60:1
Treated	898	37.31	62,000	12,400	99,640	19,928	
FP: Rice brand + MOC	654		50,000	10,000	67,720	13,544	2.35 : 1

On Farm Testing Discipline: Fishery

2. Growth Performance of Mrigal (*Cirrhinus mrigala*) fry fed with concentrated floating fish feed.

Live-stock	Problem diagnosed	Technology/ Social Concept	Title of OFT	No. of trials
1	2	3	4	5
Fishery	Proper growth is restricted due to following ad-hoc supplementary feeding and ad-hoc feeding regime .	Growth of Mrigal (<i>Cirrhinus mrigala</i>) fry stocked at 70,000/ha for fingerling production using concentrated floating fish feed 2-3%	Growth Performance of Mrigal (<i>Cirrhinus mrigala</i>) fry fed with concentrated floating fish feed	5

Parameters of assessment/refinement and its data in bracket (kgs / 0.2 ha)			Prdn. Cost Per unit crop/enterprise (Rs.)	Net return (Rs/Ha)	B:C Ratio (GR/GC)
	1. Fish yield (kgs /ha)	% increased	0.2ha	0.2ha	2.43:1
Treated	1275	305	94,500	1,35,000	
FP: Rice brand + MOC	315		26,750	29,950	2.11 : 1



Providing Floating fish feed
at Wahengkhuman



On Farm Testing (Discipline-wise achievements)

Discipline: Home Sc.

1. Extraction and application of natural dye obtained from dry onion skin on silk yarn.

Crop/ Livestock /Other enterprise	Problem diagnosed	Technology/ methodology/ Social Concept
1	2	3
Onion	Chemical dyes causes environmental pollution.	Extraction of dye from dry onion skin ,dyeing with 40%Mordanting copper sulphate .

Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention with tick)	Results on selected Parameters	% increase/ Change in parameters (Remark)
4	5	6	7	8
		Technology / methodology	Technology / methodology	
		1. Color	1. Golden brown	
	5	2. Brightness of the color	2. Very good	
		3. Color fastness to light .	3. Good	
		4. Color fastness to washing . 5. Color fastness to rubbing.	4. Good 5. Good	
		Farmer Practice	Farmer Practice	
		Practice only chemical dye.	Nil	

On Farm Testing (Discipline-wise achievements)

Discipline: Home Sc . 2. Performance of Solar cabinet dryer

Crop/ Livestock /Other enterprise	Problem diagnosed	Technology/ methodology/ Social Concept
1	2	3
Solar cabinet dryer	Post harvest losses of seasonal vegetable.	drying of ginger in the solar cabinet dryer.

Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention with tick)	Results on selected Parameters	% increase/ Change in parameters (Remark)
4	5	6	7	8
Performance of solar cabinet dryer.	5	Technology / methodology	Technology / methodology	
		1. Product qualities	No contamination Less shrinkage	
		2 No of days	4 days	
		3.Flavour	Very good .	
		4 Appearance	good	
		Farmer Practice	Farmer Practice	
		1.Open sun drying.	Low quality, laborious ,7days	

Practical Demonstration on solar cabinet dryer.



On Farm Testing

Discipline: (Plant protection)

1. Management of stem borer and leaf folder by application of *chlorantraniliprole* in Rice.

Crop / Enterprise	Farming Situation	Problem diagnosed	Technology/ Social Concept
1	2	3	4
Rice	Rain-fed	Stem-borer& leaf folder	Application of <i>clorantraniliprole</i> 0.4% @40g a.i /ha at 10-15 days interval.

Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention with tick)	Prdn. per unit	Net return (Rs/Ha)	B:C Ratio (GR/GC)
5	6	7	8	9	10
Management of stem borer and leaf folder by application of <i>chlorantraniliprole</i> in Rice.	5	White ear was significantly reduced. 2.0% & 2.3% of leaf folder damages against 5% and 7.5% at 50 &60 DAT.	49qt./ha (treated plot)	72,500	1:1.81
			37qt./ha (Untreated plot)	51,500	1:1.25

OFT on Rice at Bishnupur.



On Farm Testing

Discipline: (Plant protection)


2. Management of *Helicoverpa armigera* by the application of newer insecticides in tomato.

Crop / Enterprise	Farming Situation	Problem diagnosed	Technology/ Social Concept
1	2	3	4
Tomato	Rainfed+Life saving.	<i>Helicoverpa armigera</i>	Application of <i>flubendiamide 480SC</i> @200ml/ha.

Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention with tick)	Prdn. per unit	Net return (Rs/Ha)	B:C Ratio (GR/GC)
5	6	7	8	9	10
Management of <i>Helicoverpa armigera</i> by the application of newer insecticides in tomato.	5	<i>flubendiamide</i> 480SC@ (200ml/h) found to be superior over the untreated check with highest percent larval reduction upto 85%. With almost zero % of fruit damage.	96 qt/ha	1,45,000	3.08:1
			70 qt/ha (untreated)	915,00	1.88:1

Discipline: Home Sc . Preparation of soya paneer

Crop/ Livestock /Other enterprise	Problem diagnosed	Technology/ methodology/ Social Concept
1	2	3
Soya paneer	High cost of cow milk	Soya paneer (tofu) in Coagulation using citric acid is added at the rate of 1.2 -1.5g/litre of soymilk . Filtration of soymilk, pressing, washing and storage.

Title of OFT	No. of trials	Parameters on Assessment/ Refined (Pl. mention with tick)	Results on selected Parameters	% increase/ Change in parameters (Remark)
4	5	6	7	8
Preparation of soya paneer	5	Technology / methodology	Technology / methodology	
		1. Shelf life-	1. 4 days	Satisfied
		2.Appearance	2.Milky white	Satisfied
		3.flavour	3. Good.	Satisfied
		4.1 kg of soybean	4.1.5kg of soya paneer	Satisfied
		Farmer Practice	Farmer Practice	
		NIL	NIL	

❑ Acceptability Test for Soyapaneer – by adding with flavour like chocolate & strawberry.