

**ON FARM TRIAL
2018-19**

On Farm Trials (Discipline-Wise Summary)

Discipline	Crop / Enterprise	Number of technology/ Social Concept		No. of trials		% of achievement	Reasons for shortfall, if any
		A	R	T	A		
Agronomy	Rice	1	-	3	3	100	-
	Maize + chickpea	1	-	3	3	100	-
Horticulture	French Bean	1	-	3	3	100	-
	Okra	1	-	3	3	100	-
Plant Protection	Chilli	1	-	3	3	100	-
	Brinjal	1	-	3	3	100	-
	Tomato	1	-	3	3	100	-
Plant Breeding & Genetics	Rice	1	-	3	3	100	-
	Mustard	1	-	3	3	100	-
Home Sc.	Jackfruit Chip prodn.	1	-	3	3	100	-
	Introdn. of Squash Bori	1	-	3	3	100	-
Animal Sc.	J. Quail	1	-	3	3	100	-
	Total	12		36	36		

DISCIPLINE - AGRONOMY

Title of OFT- 1. Evaluation of Modified SRI in rice crop

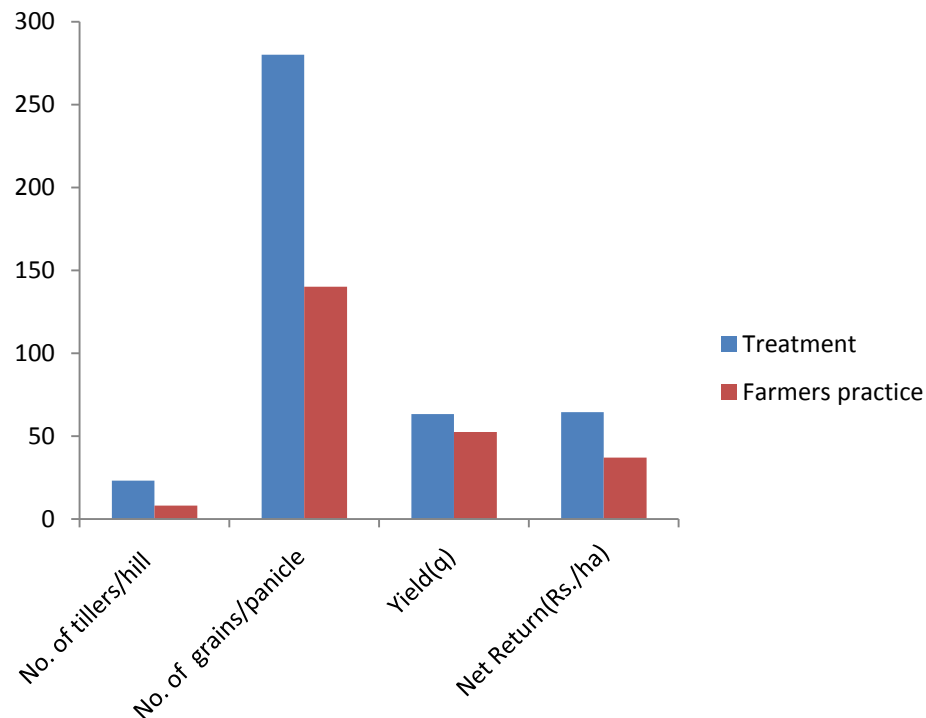
Crop	Major Problem diagnosed	Severity of the problem	Details of technology	Source of technology
Rice Var. Tampha phou	Due to unavailability of adequate quantity of organic manure, true SRI could not be practiced.	60%	i.Seed rate 7 kg/ ha ii.spacing 20 x 20 cm iii. organic manure- 10 tons/ha, iv.no of seedling/ hill -1 v. Age of seedling- 17-20 days, vi.Irrigation – intermittent wetting and drying vii.weed management- cono weeding + HW at 25-30 DAT viii.NPK-50% of recommended dose ie. 30:20:15	Division of Agronomy, ICAR research complex NEH region Umiam Meghalaya , 2010

Area	1.25 ha
No. of trials	3



Parameters of Assessment-Modified SRI

Parameters	Treatment	Farmers practice
No. of tillers/hill	23	8
No. of grains/panicle	280	140
Yield(q)	63.2	52.5
Net Return(Rs./ha)	64,400	37,000
B.C ratio	2.04	1.54



Y – yield(q/ha);- NR – net return (in 1,000);
Tech-technology; FP – Farmers' practice

**Remark for recommendation for FLD :-
Recommended**

Discipline -AGRONOMY

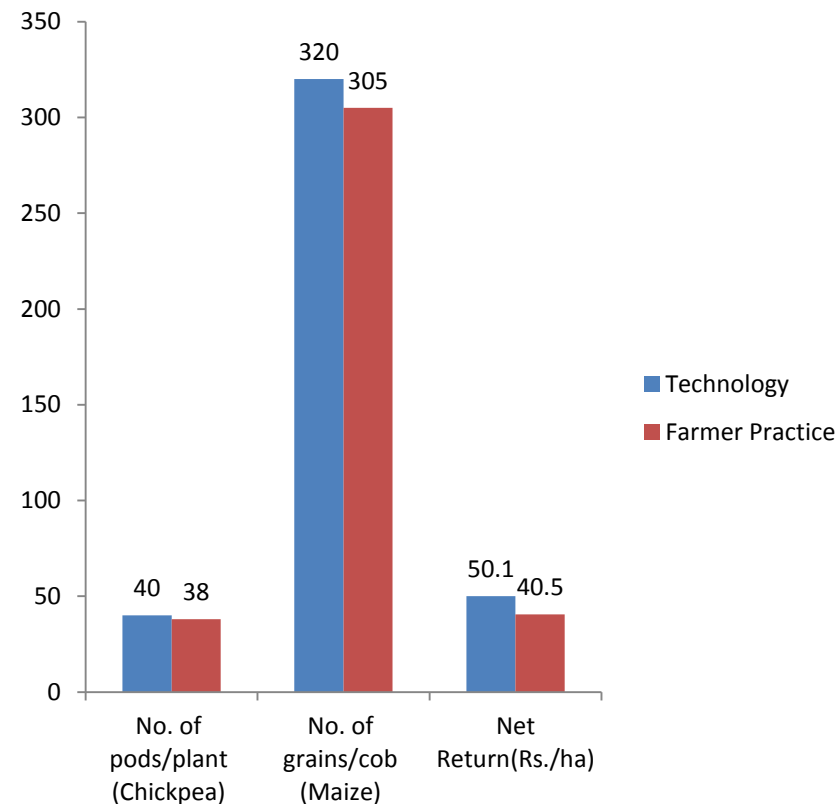
Title of OFT - 2. Performance on Intercropping of Maize with Chickpea

Crop	Major Problem Diagnosed	Severity of Problem %	Details of technology
Maize Var-HQPM-1 Chickpea- JG-16	Farmers usually grow Chickpea as mixed crop which leads to crop competition thereby reducing yield, LER & yield equivalent ratio.	80 %	i. Intercrop ratio- 1:2(Maize:Chickpea) ii. Spacing : Maize-90 cm Chickpea-40 cm iii. NPK: 20:40:20 (chickpea) , 50:40:30 (maize)

No. of trials	3
Source of technology	ICAR ,IIMR,New Delhi,2012
Area	0.35 ha



Parameters	Technology	Farmer Practice
Plant Height (cm)	Maize- 180 Chickpea-45	Maize- 178 Chickpea-45
No. of branch/plant (Chickpea)	7	7
No. of pods/plant (Chickpea)	40	38
No. of grains/cob (Maize)	320	305
Yield(t/ha)	Maize- 2.48 Chickpea- 0.70	Maize- 1.86 Chickpea- 0.54
Net Return(Rs./ha)	50100	40500
B.C ratio	2.15	2.02
LER	1.52	1.00
Equivalent Yield kg/ha	1645	nil



NR – net return (in 10,000)

Remark for recommendation for FLD :-

Need repetition as yield of maize could not be upto the expectation



Discipline – PBG

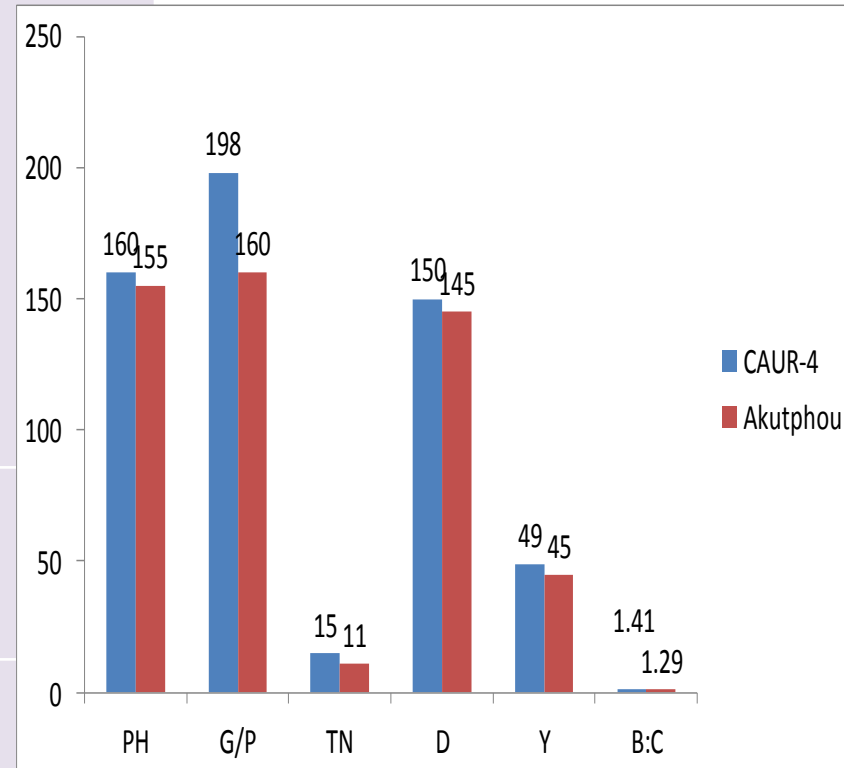
Title of OFT - 1. Performance evaluation of direct seeded wet sown semi deep water Paddy

Crop	Rice Var. CAUR-4		
Major Problem diagnosed	Less preference of existing variety due to its taste		
Severity of the Problem(%) - 60	No. of trials - 3	Source - CoA/CAU 2016	
Details of Technology	i. Seed rate 60kg/ha ii. NPK- 30:40:20 (kg/ha) iii. sowing time –May		

Area – 1.25 ha



Parameters of assessment	New technology (CAUR-4)	Farmer practice (Akutphou/KD 14-7-9)
P.Ht(cm)-	160	155
Grain/Panicle-	198	160
Tiller No.-	15	11
Duration-	150 days	145 days
Husk color-	Reddish brown	Reddish brown
Grain Type –	Medium	Medium Slender
Lodging-	slender	No lodging
	Susceptible	
Production per unit (Q/ha)	49	45
Net return (Rs./ha)	21500	18500
B.C ratio	1.41	1.3
Remark	It is being repeated this year with some modification in fertilizer dose to check lodging in collaboration with SMS(Agronomy).	



PH-Plant height (cm); G/P-grains/panicle; TN-tiller number; D-Duration; Y-Yield (Q); B:C – B.C Ratio

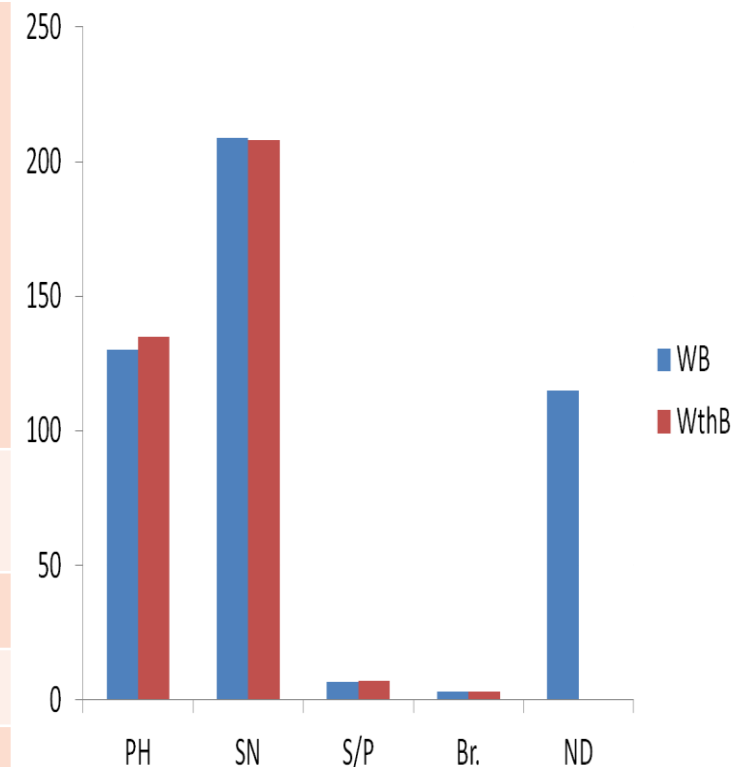
Discipline – PBG

Title of OFT - 2. Performance evaluation of Zero tillage mustard (2nd year)

Crop	Mustard Var. DRMR 150-35	
Major Problem diagnosed	Only a few short duration mustard variety (100 -115 days) are available suited to multiple cropping	
Severity of the problem(%) – 60%	Source - ICAR, DRMR, Bharatpur 2015	
Details of Technology	i. Seed rate -18 kg/ha ii. NPK: :40:30:30 (kg/ha) ; N in two splits (first –before true leave, 2 nd – preflowering	
No. of trials - 3	Area - 1.25 ha	



Parameters of assessment	New technology (Zero tillage without burning paddy straw)	Farmer practice (after burning straw)
PH(cm)	130	135
Siliqua/plant-	208.6	208
Seed/siliqua	6.6	7
No. of branches-	3	3
Duration (days)	115	115
Production per unit (Q/ha)	8.8	8.82
Net return	20710	18500
BC ratio	1.84	1.85
Remark	Recommended for FLD	



- WB -with burng paddy straw ,WthB Without burning ,PH- Plant height
- SN-Siliqua number ,S/P-seed per siliqua ,Br.- branches/plant ,ND-No. of days



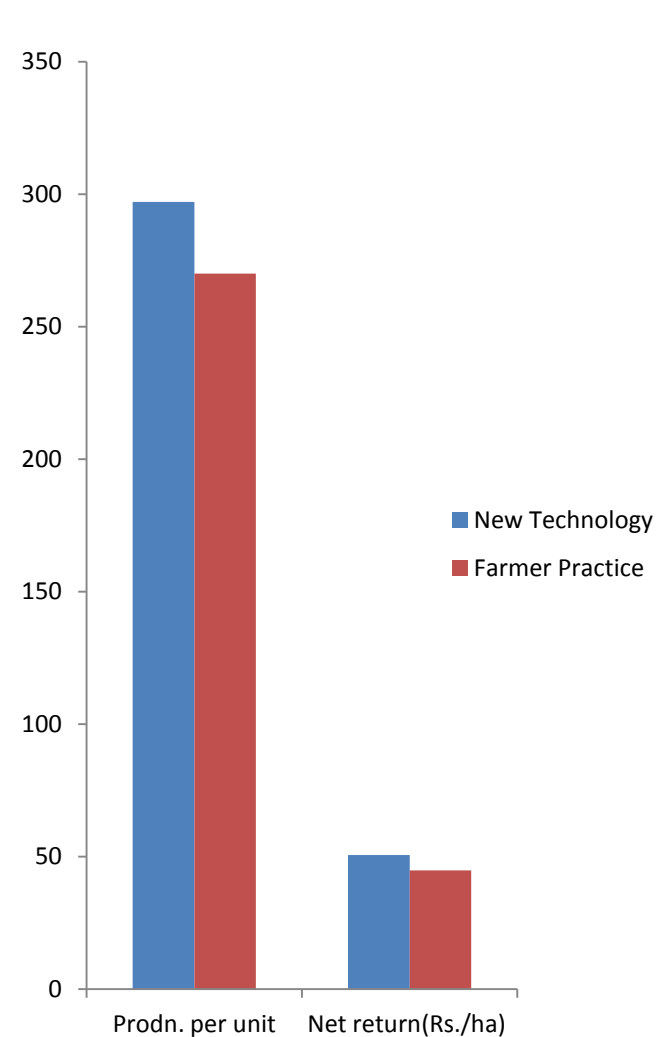
Discipline: Plant Protection

Title of OFT – 1. Mgmt. of *Fusarium* wilt caused by *F.oxysporium* & sp.*Lycopersici*

Crop	Tomato	
Major Problem diagnosed	<i>Fusarium</i> wilt of Tomato	
Severity of problem (%) -	60%	
Details of Technology	Spraying Tebuconazole 250 EC[Folicur] @ 400 ml/ha 1 st spray 15 DAT 2 nd spray 40 DAT	
Source	IIVR,Varanasi,2012	No. of trials - 3
Area –	0.5 ha	



Parameter of assessment (damage %)	New Technology (Tebuconazol 250 EC[Folicur] @ 400 ml/ha)	Farmer Practice Thiophanate methyl (Roko)70%@15g m/15 l water ,400gm/ha
i)% of infected plants before spray-	20.2	9.7
ii) No. of wilted plants 25 DAT	14.3	17.8
50 DAT	16.2	21.9
Prodn. per unit	297	270
Net return(Rs./ha)	506770	448320
BC ratio	6.8	5.89
Remark	Recommended for FLD	



Discipline: Plant Protection

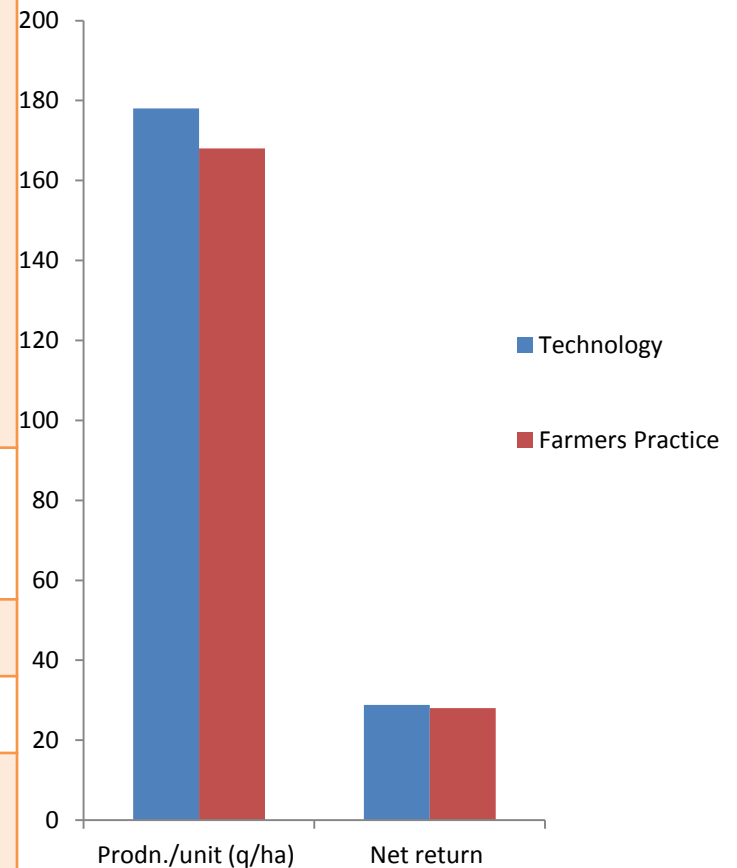
Title of OFT : 2. Double poison baiting with 0.03757% coumatetralyl

Crop	Major Problem diagnosed	Severity of the problem(%)	Details of technology	Source
Brinjal	Rodent infestation	70%	Double poison baiting with 0.03757% coumatetralyl	PAU,2013

No. of trials	3
Area	0.5 ha



Parameters of Assesment	Technology (0.03757% coumatetralyl)	Farmers Practice Bromadiolone cake(Roban)
	Before treatment Damage % -18% By eating – 11% By Roting -7% After treatment Damage% - 4% By eating -2.7% By rotting -1.3	Damage% - 5.66 By eating – 3.48 By rotting- 2.18
Prodn./unit (q/ha)	178	168
Net return	2,88,000	2,80,700
Bc ratio	5.24	4.73
Remark	May be recommended for FLD if coumatetralyl is available	



Discipline: Plant Protection

Title of OFT – 3.Management of Thrips and Fruit borer of chilli

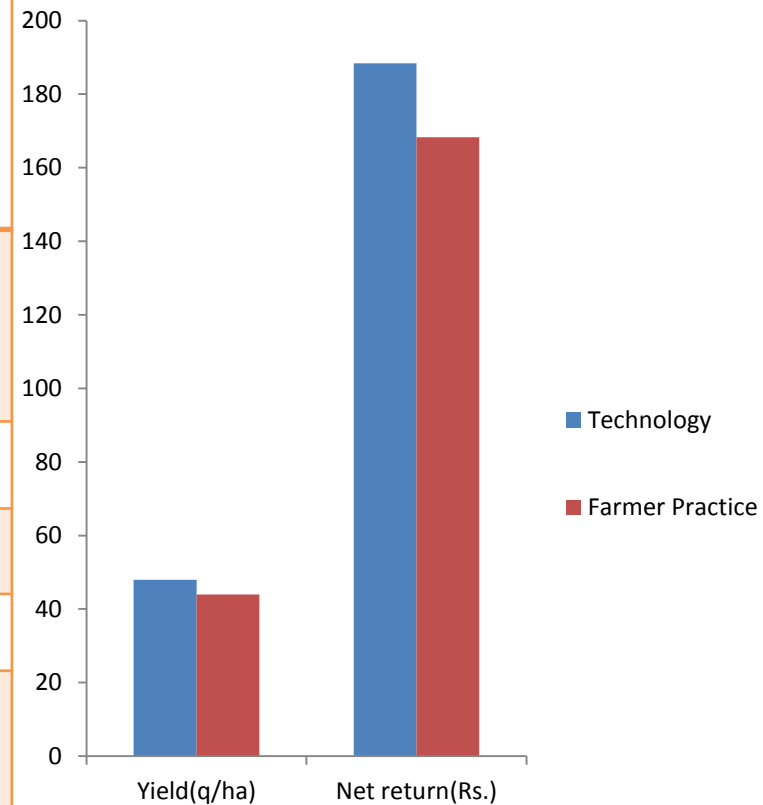
Crop	Major Problem Diagnosed	Severity of the problem(%)	Details of technology	Source
Chilli	Thrips & Fruit borer of Chilli	60%	Spinetoram 11.7 % Sc@ 60 gm ai/ha,three sprays at 15 days interval 20 days after transplanting)	Mahatma Phule Krishi Vidyapith Rahuri,2011
Area – 0.5 ha		No. of trials - 3		

Parameters	Mean population of thrips/leaf	% fruit borer	Yield (q/ha)	Net Return(Rs.)	B.C Ratio
Technology (Spinetoram)	0.2%	0.08	48	188400	4.2:1
Farmers Practice (Dichlorvos 76% @ 10ml/15 l)	12%	6	44	168350	3.85:1

Remark for recommendation for FLD :-
Recommended



Parameters	Technology (Spinetoram)	Farmers Practice (Dichlorvos 76% @ 10ml/15 l)
Mean population of thrips/leaf	0.2%	0.08%
% fruit borer	0.08	6
Yield(q/ha)	48	44
Net return(Rs.)	188400	168350
BC ratio	4.2	3.85



Discipline: Horticulture

OFT: 1. Performance evaluation of French Bean Var.Arka Arjun

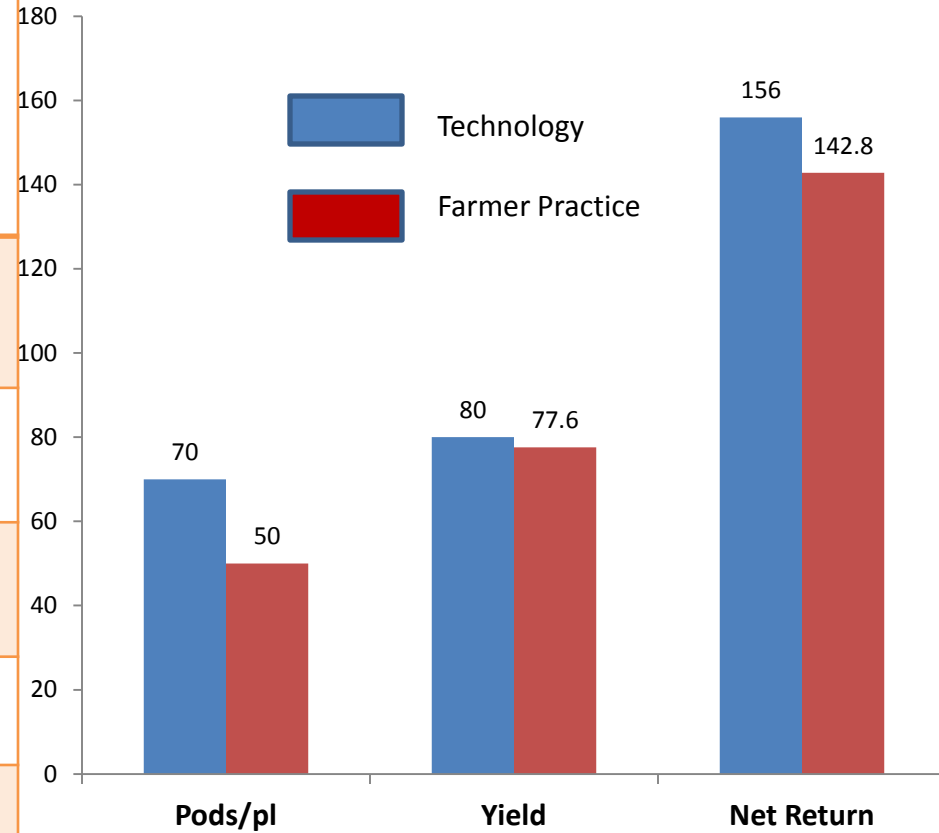
Crop	Major Problem diagnosed	Severity of the problem(%)	Details of technology	Source
French Bean Var.Arka Arjun	Stringless, tolerant to high temperature, bush type, resistant to Mite , type of varieties are not available	50%	i. Spacing-45 X 15 cm ii. NPK- 30:60:50 kg/ha as basal dose	IIHR,2016

Area - 0.5 ha

No. of trials - 3



Parameters	Technology (Arka Arjun)	Farmers Practice (Var.Anapurna)
Plant ht(cm)	45	42
Pods/pl	70	50
Yield (q/ha)	80	77.6
Net return	1,56,000	1,42,800
BC ratio	2.8	2.5



Remark:-Recommended for FLD

Discipline: Horticulture

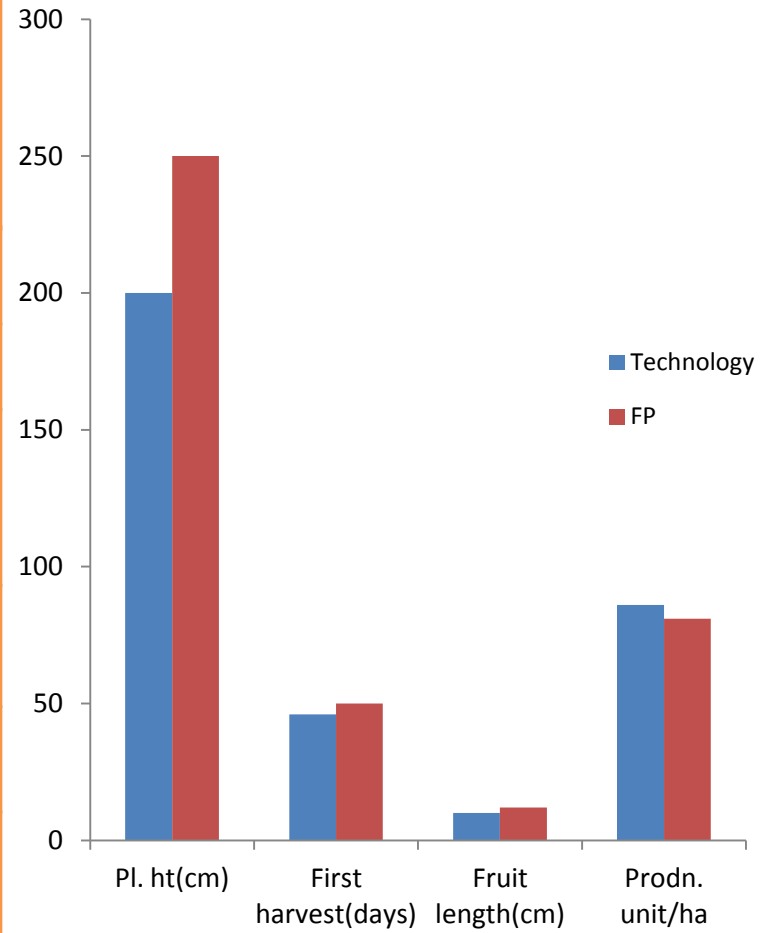
OFT: 2. Performance evaluation of Okra Var. Kashi Kranti

Crop	Major Problem diagnosed	Severity of the problem (%)	Details of technology	Source
Okra Var. Kashi Kranti	Longer duration of existing variety	50%	i. Spacing -45 cm X 30 cm ii. NPK- 100:50:50 kg/ha as basal dose	IIVR, 2014

Area	0.5ha
No. of trials	3



Parameters	Technology (Var. Kashi Kranti)	Farmers Practice (Var.Arka Anamika)
Plant ht (cm)	200	250
Fruit length(cm)	10	12
First harvest(days)	46	48
Prodn (unit/ha)	86	81
Net return	163000	150500
BC ratio	4.1	3.8



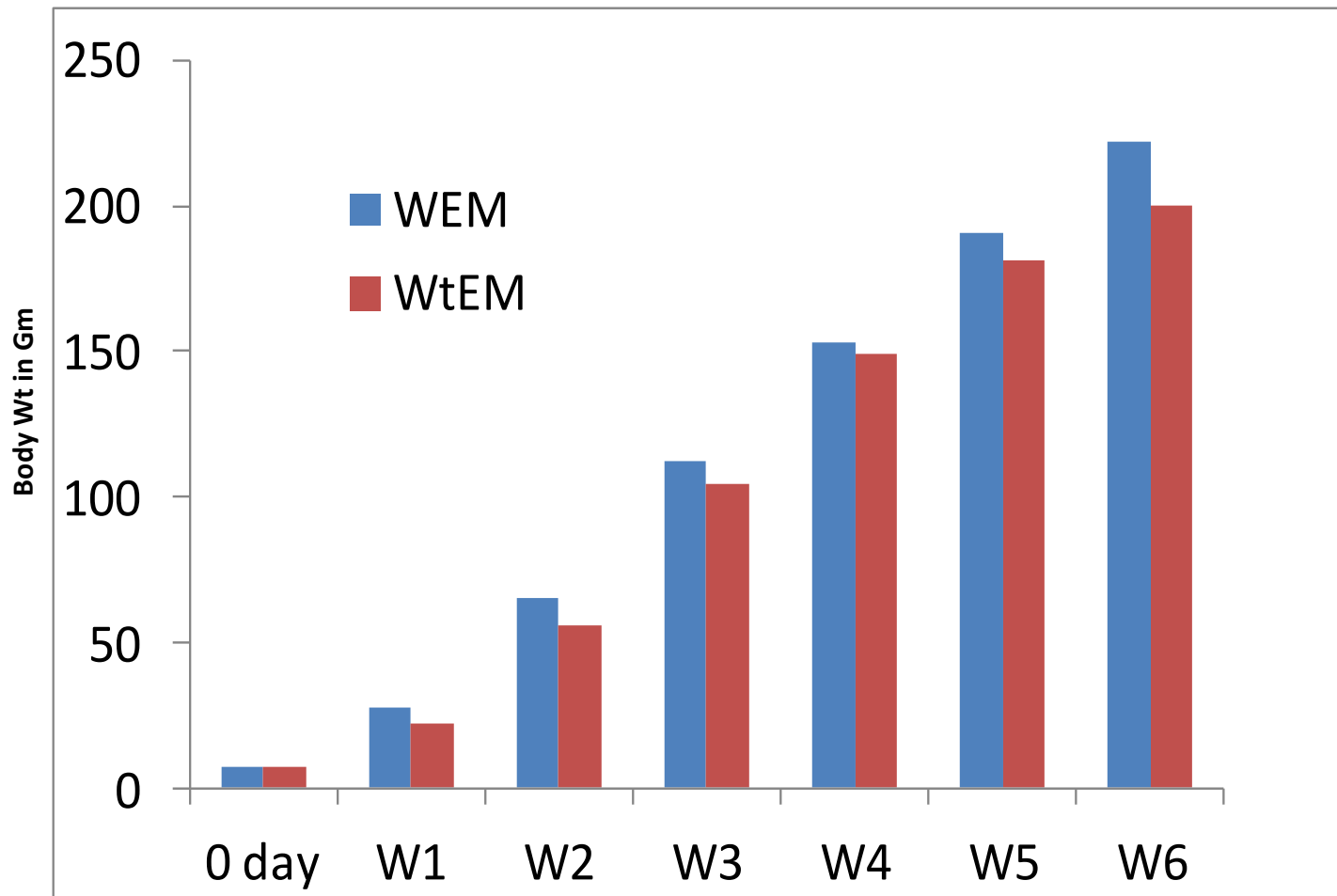
Discipline - Animal Sc.

Title of OFT- Effect of EM on Growth & Egg Production of Japanese Quail

Livestock	Major Problem diagnosed	Details of technology	Source
Japanese Quail	High Mortality % especially during early stage	Amount of EM-10ml/100 birds/day for first 10 day & continue after 20 days break for 10 days again	C.V.Sc AAU, 2016

Severity of the problem (%)	
No of bird/trials	200
No. of trials	3

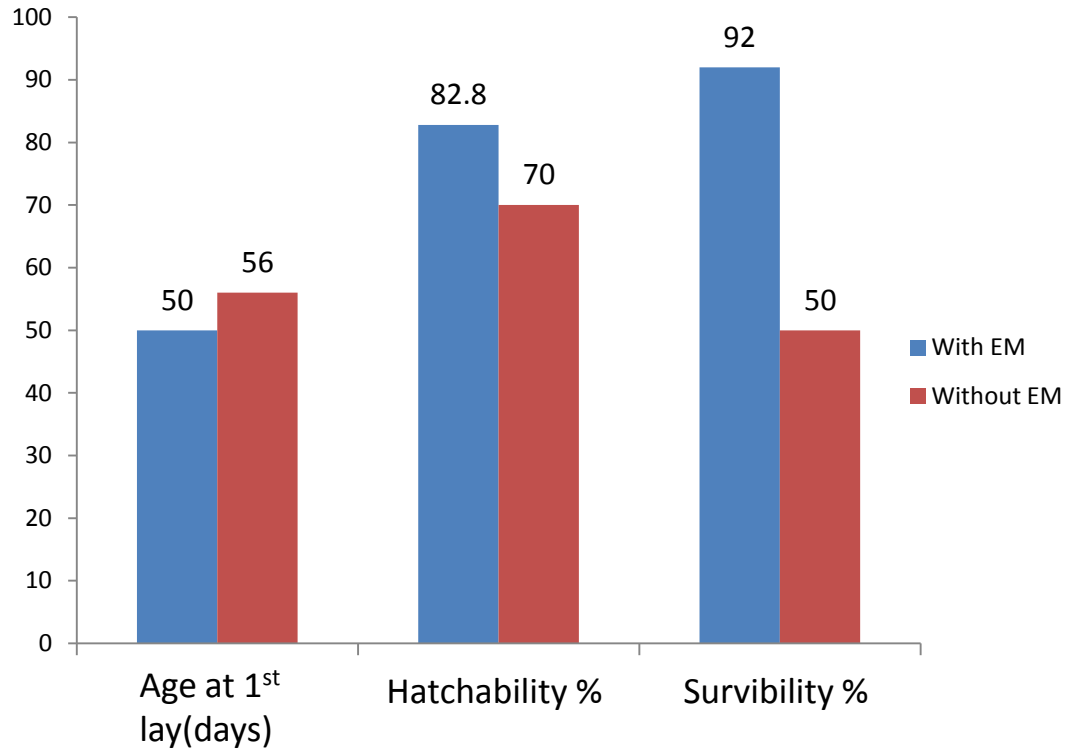




Parameters (Body wt in gm)	0 Day	1 st	2 nd	3 rd	4 th	5 th	6 th
With EM	7.45	27.75	65.63	112.12	153	191	222
Without EM	7.45	22.06	56.13	104.10	149	181	200



Trails at different locations



Parameters	Age at 1 st lay(day)	Hatchability %	Survivability %	Net return	B.C ratio
With EM	50	82.8	92		1.6
Without EM	56	70	50		0.12

Remark:-Recommended for FLD

Discipline - Home Science

Title of OFT :1.Production of Chow Chow Bori

Crop/ Enter prises	Major Problem diagnosed	Severity of the problem (%)	Details of technology	Source	No. of Trials
Chow- Chow Bori	High Cost of Blackgram bori	60%	Development of bori from squash (40 % squash mixed with KMS @ 1.5 g/kg with blackgram paste 60%)	College of Home Science, Tura, Meghalaya, 2014	3

Parameters	Product recover/kg	Cost/kg	Net return/Kg	B.C Ratio	% increased	Remark
Technology	400	60	100	2.6	37.5	Recommended for repetition due to lack of consumer palatability taste
Farmers Practice	250	80	70	1.8		



Enterpris es	Major Problem diagnosed	Severity of the problem (%)	Details of technology	Source
Jackfruit Chips	Keeping of fresh fruits highly perishable	70 %	i. Cutting longitudinally into finger like pieces (4 x 1.5 cm slices) ii. Blanched in warm water with 1% KMS for 1 min iii. Deep fried	University of Agricultural Sciences Bangalore, 2014

Parameters	Gross return	Net return	B.C Ratio	Remark
Technology	7,600/- (50 fruits of 4 kg @ Rs.40)	3840	2.02	Recommend ed for FLD
Farmers Practice	2000/- (50 fruits of 4 kg @ Rs.40)			

