

1 Achievements on technologies assessed and refined

OFT-1

1.	Title of On Farm Trial	Assessment of Integrated Nutrient Management in Sugarcane
2.	Problem diagnosed	Low yield due to improper Nutrient management
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP- Imbalance N: P205:K20/ha (80-40-40) kg/ha TO1- 100% recommended dose of fertilizer (250-100-60 kg NPK / ha) TO2- Soil test based fertilizer application (75%Inorganic+25% Organic)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	TO1- Source :AICRP on Sugarcane 2011 TO2- Source :AICRP on Sugarcane 2015
5.	Production system and thematic area	Irrigated medium land Integrated Nutrient Management
6.	Performance of the Technology with performance indicators	Cane dia(cm), Cane ht(cm), Single cane wt (kg),Net return,B:C ratio
7.	Final recommendation for micro level situation	Soil test based recommendation has given significantly higher yield then 100% RDF
8.	Constraints identified and feedback for research	Organic fertilizer management practices
9.	Process of farmers participation and their reaction	Farmers appreciated the soil test based fertilizer recommendation practices

Thematic area:

Problem definition: Low yield due to improper nutrient management

Technology assessed:

FP- Imbalance N: P205:K20/ha (80-40-40) kg/ha

TO1- 100% recommended dose of fertilizer (250-100-60 kg NPK / ha)

TO2- Soil test based fertilizer application (75%Inorganic+25% Organic)

Table:

Technology option	No. of trials	Yield component			Yield (qtl/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Cane dia(cm),	Cane ht(cm)	Single cane wt (kg)					
FP	7	1.65	187	0.54	815	91280	228200	136920	2.5
TO1	7	2.0	211	0.75	1026	99062	287280	188217	2.9
TO2	7	2.3	214	0.84	1087	98180	304360	206179	3.1

Results: Soil test based recommendation has given highest yield

OFT-2

1.	Title of On Farm Trial	Assessment on Arka microbial consortium (AMC) and seed pro in cauliflower for yield enhancement
2.	Problem diagnosed	Low yield in cauliflower and small curd size and weight due to improper nutrient management
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Assessed
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-IIHR Bangalore
5.	Production system and thematic area	Irrigated Upland and Hort.
6.	Performance of the Technology with performance indicators	Plant ht,No. of leaves/plant, Diameter of cured, wt. of cured, yield , net income, B:C ratio
7.	Final recommendation for micro level situation	AMC is good for enhancement of yield of cauliflower and easy to use
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	Farmers are happy with easy use of AMC

Thematic area: Horticulture

Problem definition: Low yield in cauliflower and small curd size and weight due to improper nutrient management

Technology assessed: **TO1**-Arka Microbial Consortium-A carrier based microbial product containing N fixing, P and Zn solubilising and plant growth promoting microbes. For the main field application of one acre of land, five kg of amc can be mixed with 500kg of FYM and applied near the root zone of standing crop

TO2-Seed Pro- plant growth-promoting seed coating formulation based on combinations of Bacillus subtilis and Hypocrea lixi. For the main field application of one acre of land, Five kg of seed pro can be mixed with 500kg of FYM and applied near the root of stand crop

Table:

Technology option	No. of trials	Yield component		% increase over FP	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Weight of curd / plant (gm)	Yield (q /ha)					
FP	7	366.8	175.50	-	73000	175500	102500	2.4
1	7	573.4	215.42	23.0	80200	215420	135220	2.65
2	7	521.2	203.42	15.9	77800	203420	125620	2.64

Results: Application of AMC increase the yield of cauliflower with yield of 215q/ha

OFT-3

1.	Title of On Farm Trial	Assessment of damping off in onion
2.	Problem diagnosed	Reduction in seedling population in nursey due to damping off disease
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Assessed
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT, AICRP on vegetables
5.	Production system and thematic area	Onion nursey
6.	Performance of the Technology with performance indicators	Percent disease incidence, Yield, Net income, B:C ratio
7.	Final recommendation for micro level situation	Soil application of Trichoderma viride @ 2.5 kg/10kg FYM. Seed treatment with metalaxyl + mancozeb@ 2 g/kg seed. Soil drenching with metalaxyl+ mancozeb@ 2g/lit water
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	Field day

Thematic area:

Problem definition: Reduction in seedling population in nursey due to damping off disease

Technology assessed: **FP:** Spraying mancozeb@2g/l

TO1: Soil application with Trichoderma viride @ 2.5 kg/10kg FYM, Seed treatment with carbedazim+ Thiram @ 2g/kg seed. Soil drenching with COC@3 g/lit water

TO2: Soil application of Trichoderma viride @ 2.5 kg/10kg FYM. Seed treatment with metalaxyl + mancozeb@ 2 g/kg seed. Soil drenching with metalaxyl+ mancozeb@ 2g/lit water

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
TP	7	-	-	-	20.50	195.5 0	1,04000/-	1,95,500/-	91,500/-	1.87
1	7	-	-	-	10.00	220.8 0	1,05000/-	2,20,800/-	1,15,800/-	2.10
2	7	-	-	-	7.5	235.5 0	1,05500/-	2,35,500/-	1,30,000/-	2.23

OFT-4

1.	Title of On Farm Trial	Assessment on improved fodder grasses
2.	Problem diagnosed	Low biomass production
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Assessed
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	IGFRI, Jhansi
5.	Production system and thematic area	Rainfed upland and agroforestry
6.	Performance of the Technology with performance indicators	No of Cuts, Herbage yield, B:C ratio
7.	Final recommendation for micro level situation	Hybrid Napier (CO-3) perform well
8.	Constraints identified and feedback for research	Non availability of the planting materials
9.	Process of farmers participation and their reaction	Farmers are satisfied with the yield of hybrid napier

Thematic area: Forestry

Problem definition: Low biomass production

Technology assessed: TO₁-Napier hybrid (Co-3) at 1 x 1 m

TO₂- Guinea (Bundel Guinea –2) planted at 1 x 1 m

Table:

Technology option	No. of trials	Yield component			Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Plant Height (m)	No of tillers/ clump	No of cuts in weeks interval					
FP	7	15.4		1	400	40000	60000	20000	1.5
1	7	2.18	25	4	1350	96500	202500	106000	2.1
2	7	1.46	80	3	750	63500	112500	49000	1.8

Results: Hybrid napier (CO-3) has given good yield with 1350 qtl/ha

OFT-5

1.	Title of On Farm Trial	Assessment on growth performance of thornless bamboo
2.	Problem diagnosed	Conventional bamboo species Bambusa bambus (hollow bamboo) management is difficult in large scales cultivation as & hence an alternate land use system.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Assessed
4.	Source of Technology (ICAR/AICRP/SAU/other, please specify)	PAU, Ludhiana and FCRI, TNAU, Mettupalayam
5.	Production system and thematic area	Rainfed upland and agroforestry
6.	Performance of the Technology with performance indicators	Height, Diameter, Number of Culms, Internodal Length and B:C ratio
7.	Final recommendation for micro level situation	Continuing.....
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

Thematic area: Forestry

Problem definition: Conventional bamboo species *Bambusa bambus* (hollow bamboo) management is difficult in large scales cultivation as & hence an alternate land use system.

Technology assessed: TO1- *Bambusa balcooa*

TO2- *Bambusa vulgaris*

Table:

Technology option	No. of trials	Yield component				Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Height (m)	Dia (cm)	No. of culms	Internodal Length (cm)					
FP	7	3.46	2.01	5	18.66	Bamboo crop in 1st year stage and yield data will be recorded on 3rd year				
1	7	5.90	3.50	6.46	30.47					
2	7	4.94	2.70	6.44	24.83					

Results: Bamboo crop in 1st year stage and yield data will be recorded on 3rd year

Please provide all the OFTs in same format
