

Achievements on technologies assessed and refined: 2017-2018

OFT-1

1.	Title of On farm Trial	Effect of different doses of plant growth substances on the seed yield of Aman paddy during Kharif season.
2.	Problem diagnose	Low yield of Paddy
3.	Details of technologies selected for assessment/refinement	Farmers practice: Farm Yard Manure 5 ton/ ha Technology Option-I: Spraying of Humus @ 1.5ml/lit, at 15,30,45,DAT Technology Option-II: : Spraying of 3.5% Alfa NAA(sodium Salt) @ 5 ml/lit, 42 DAT
4.	Source of Technology	SAU
5.	Production system and thematic area	Rain fed small production system and Nutrient management
6.	Performance of the Technology with performance indicators	Technology option –II showed best result in relation to the yield, Plant height, , net return and B: C ratio.
7.	Final recommendation for micro level situation	It is may be recommended that the Technology option –II may be accepted for yield increment and income(Yield-46.5q/ha and Net income-28800.00)
8.	Constraints identified and feedback for research	It is may be recommended that the Technology option –II may be accepted for yield increment and income
9.	Process of farmers participation and their reaction	Collaborative, Farmers are happy with the performance of recommended practice

Thematic Area: Nutrient management

Problem definition: Low yield of Paddy due to scarcity of nutrient

Technology assessed: Effect of Growth substances to augment the yield of Aman paddy production

Table-2 Performance of growth substances to enhance the yield of Aman paddy during Kharif season season.

Technology option	No. of trials	Yield component			Disease/ insect pest/weeds incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Av Plant height	No of Tillers	Wt of seed/1000no						
Farmers practice: Farm Yard Manure 5 ton/ha	10	105	14	36	-	37.3	25420.00	45350.00	19930	1.78
Technology Option-I: Spraying of Humus @ 1.5ml/lit, at 15,30,45,DAT	10	108	16	39	-	42.1	26130.00	49800.00	23700	1.90
Technology Option-II: : Spraying of 3.5% Alfa NAA(sodium Salt) @ 5 ml/lit, 42 DAT	10	112	21	42		46.5	28500.00	57300.00	28800	2.01

Result: Technology option-II showed better yield (46.5q/ha) ,Av. height ,No of tillers and wt of seed per plant was increased Net return (Rs.28800.00/ha) and BC ratio (2.01.) was also higher than other treatments.

OFT-2

1.	Title of On farm Trial	Effect of different doses of Sulphur on the seed yield of Sunflower during Rabi season
2.	Problem diagnose	Low Yield of sunflower
3.	Details of technologies selected for assessment/refinement	Farmers practice: Farm Yard Manure 5 ton/ha Technology Option-I: spraying of sulphur 80wp @ 2 gm/lit, at 42 DAS Technology Option-II: spraying of sulphur 80wp @ 3 gm/lit, at 42 DAS
4.	Source of Technology	ICAR research
5.	Production system and thematic area	Rain fed small production system and Nutrient management
6.	Performance of the Technology with performance indicators	Technology option –II showed best result in relation to the yield, Plant height, diameter head , net return and B: C ratio.
7.	Final recommendation for micro level situation	It is may be recommended that the Technology option –II may be accepted for yield increment and income(Yield-19.2q/ha and Net income-38120.00)
8.	Constraints identified and feedback for research	It is may be recommended that the Technology option –II may be accepted for yield increment and income
9.	Process of farmers participation and their reaction	Collaborative, Farmers are happy with the performance of recommended practice

Thematic Area: Nutrient management

Problem definition: Low yield of Sunflower due to scarcity of macronutrient.

Technology assessed: Effect of Sulphur nutrient to augment the yield of sunflower production

Table-2 Performance of Sulphur to enhance the yield of Sunflower during rabi season.

Technology option	No. of trials	Yield component			Disease/ insect pest/weeds incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Av Plant height	Diameter of head	Wt of seed/Head						
Farmers practice: Farm Yard Manure 5 ton/ha	10	120	13	158	-	14.6	27630.00	51100.00	23470.00	1.85
Technology Option-I: spraying of sulphur 80wp @ 2 gm/lit, at 42 DAS	10	119	15	187	-	17.3.	31520.00	62550.00	31430.00	1.98
Technology Option-II: spraying of sulphur 80wp @ 3 gm/lit, at 42 DAS	10	117	19	214		19.2	33200.00	71320.00	38120.00	2.14

Result: Technology option-II showed better yield (19.2q/ha), Av. height, head diameter and wt of seed per plant was increased Net return (Rs.38120.00/ha) and BC ratio (2.14.) was also higher than other treatments.

OFT-3

1.	Title of on-farm trials	Assessment of the effect of different doses of plant growth substances on the fruit yield of bitter gourd during rabi season.
2.	Problem diagnosed	Low yield of bittergourd because of different growth substances deficiency
3.	Details of technologies selected for assessment/refinement	Farmers' Practice: Application of FYM (farm yard manure) @ 5t/ha Technology Option -1: Spraying of tricontanole 0.05% @ 2ml/lt at 40 and 65 DAS. Technology Option -2: Spraying of Alfa-NAA 3.5% (sodium salt) @ 5ml/lt at 40 and 65 DAS.
4.	Source of technology	WBSAU
5.	Production system and Thematic area	Horticulture based production system through nutrient management
6.	Performance of the technology with performance indicators	As the plants were sprayed with different growth substances, there was better vegetative growth with more female flowers in the field thus resulting better yield. Among them Tech. Option-2 proves best.
7.	Constraints identified and feedback for research	No constraints so far.
8.	Process of farmers participation and their reaction	Farmers participated in collaborative mode.

Table: Effect of different doses of plant growth substances on the fruit yield of bitter gourd:

Technology option	No. of trials	Data related to problem addressed			Yield components		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		Disease incidence (%)	*	**	No. of fruits/plant	No. of branches/plant					
Farmers' Practice: Application of FYM (farm yard manure) @ 5t/ha	7	34			39	17	210	138696	420000	281304	2.02
Technology Option -1: Spraying of tricontanole 0.05% @ 2ml/lt at 40 and 65 DAS.		9			61	23	294	177380	588000	410620	2.3
Technology Option -2: Spraying of Alfa-NAA 3.5% (sodium salt) @ 5ml/lt at 40 and 65 DAS.		8			70	25	371	196450	742000	545550	2.7
SEm±		0.8			0.5	0.3	5.4	-	-	-	-
CD(P=0.05)		1.7			1.1	0.8	11.8	-	-	-	-

Thematic Area: Nutrient management

Problem Definition: Inadequate profit from bitter gourd due to low yield

Technology Assessed: Efficacy of different growth substances

KVK took up on farm trial on performance of different growth substances undermaize-vegetable based production system. As the crop was sprayed with growth substance in different interval, the photosynthetic activities of the crop was better with healthy root systems leading better vegetative growth. The growth regulator particularly alfa-NAA induces more female flowers as well thus resulting better yield. Among them **Tech. Option-2 proves best with 29 % increase** in yield over farmers' practice.

OFT-4

1.	Title of on-farm trials	Effect of different doses of plant growth substances on the Fruit yield of Brinjal during Kharif season.
2.	Problem diagnosed	Low yield of Brinjal because of different growth substances deficiency
3.	Details of technologies selected for assessment/refinement	Farmers practice: Farm Yard Manure 5 ton/ ha Technology Option-I: Spraying of Triacontanol0.05% @ 2ml/lit, at 40 &65 DAT Technology Option-II:: Spraying of 3.5% Alfa NAA(sodium Salt) @ 2.5 ml/lit, 40and 65 DAT
4.	Source of technology	WBSAU
5.	Production system and Thematic area	Horticulture based production system through nutrient management
6.	Performance of the technology with performance indicators	As the plants were sprayed with different growth substances, there was better vegetative growth with more female flowers in the field thus resulting better yield. Among them Tech. Option-2 proves best.
7.	Constraints identified and feedback for research	No constraints so far.
8.	Process of farmers participation and their reaction	Farmers participated in collaborative mode.

Table: Effect of different doses of plant growth substances on the Fruit yield of Brinjal:

Technology option	No. of trials	Data related to problem addressed			Yield components		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		Disease incidence (%)	*	**	No. of fruits/plant	No. of Branches/plant					
Farmers' Practice: Application of FYM (farm yard manure) @ 5t/ha	7	35			29	17	261	130723	391500	260777	1.99
Technology Option -1: Spraying of tricontanole 0.05% @ 2ml/lt at 40 and 65 DAS.		10			39	23	295	147354	442500	295146	2.00
Technology Option -2: Spraying of Alfa-NAA 3.5% (sodium salt) @ 5ml/lt at 40 and 65 DAS.		8			43	28	356	156470	534000	377530	2.41
SEm±		0.9			0.7	0.5	4.3	-	-	-	-
CD(P=0.05)		2.1			1.5	1.1	9.4	-	-	-	-

Thematic Area: Nutrient management

Problem Definition: Inadequate profit from brinjal due to low yield

Technology Assessed: Efficacy of different growth substances

KVK took up on farm trial on performance of different growth substances under maize-vegetable based production system. As the crop was sprayed with growth substance in different interval, the photo synthetic activities of the crop was better with healthy root systems leading better vegetative growth. The growth regulator particularly alfa-NAA induces more female flowers as well thus resulting better yield. Among them **Tech. Option-2 proves best with 23 % increase** in yield over farmers' practice.

OFT-5

1.	Title of On farm Trial	Assessment of different methods of fish culture in seasonal pond.
2.	Problem diagnosed	Poor growth & yield of fish in seasonal pond due to Improper species combination
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers Practice = Stocking of IMC & Silver Carp @ 10000 per ha + irregular feeding with oil cake. Technology Option I = Stocking of Mono sex tilapia @ 10000 per ha + regular feeding with fish feed @ 3% of stock. Technology Option II = Stocking of IMC & Silver Carp @ 2500 per ha.+ Mono sex tilapia @ 2500 per ha + regular feeding with fish feed @ 3% of stock
4.	Source of Technology	CIFE
5.	Production system and thematic area	Composite carp culture in seasonal pond, Introduction of new species
6.	Performance of the Technology with performance indicators	Technology option –II showed best result in respect to average weight gain of fish, yield per ha, net return and B:C ratio.
7.	Final recommendation for micro level situation	It may be recommended that poly culture of Mono sex Tilapia with carp in seasonal pond for achieving faster growth, better yield and income.
8.	Constraints identified and feedback for research	Lack of availability of quality fry or fingerlings of mono sex Tilapia in the district as per requirement.Suitable system of short term fish culture needs to be developed with special reference to water scarce condition
9.	Process of farmers participation and their reaction	Farmers participated in collaborative mode. The farmers are satisfied with the performance of the technology and expertise/inputs/cooperation provided by SBKVK.

Assessment of different methods of fish culture in seasonal pond.

Technology option	No. of trials	Yield component			Disease (%)	Cost of Culture (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Av. Body Wt. of Carp (Kgs)	Av. Wt of Tilapia (Kgs)	Yield /kgs ha(in 5 months)					
Farmers Practice = Stocking of IMC & Silver Carp @ 10000 per ha + irregular feeding with oil cake.	10	0.15	0.0	1585	Nil	47000.00	134725.00	87725.00	2.87
Technology Option I = Stocking of Mono sex tilapia @ 10000 per ha + regular feeding with fish feed @ 3% of stock	10	0.0	0.18	1805	Nil	52000.00	180000.00	128000	3.46
Technology Option II = Stocking of IMC & Silver Carp @ 2500 per ha.+ Mono sex tilapia @ 2500 per ha + regular feeding with fish feed @ 3% of stock.	10	0.27	0.17	2220	Nil	54000.00	222000.00	168000.00	4.11
SEM±				22.89					
CD at 5%				48.10					

Results: With respect to total yield/production, **technology Option –II** yielded (**40% increment**) superior results.

Thematic area: New species introduction

Problem definition: Poor growth & yield of fish in seasonal pond

Technology assessed: **Farmers Practice** = Stocking of IMC & Silver Carp @ 10000 per ha + irregular feeding with oil cake.

Technology Option I = Stocking of Mono sex tilapia @ 10000 per ha + regular feeding with fish feed @ 3% of stock.

Technology Option II = Stocking of IMC & Silver Carp @ 2500 per ha.+ Mono sex tilapia @ 2500 per ha + regular feeding with fish feed @ 3% of stock

OFT -6

1	Title of On farm Trial	Performance Testing of Four Row Self Propelled Paddy Transplanter
2	Problem diagnosed	Low profitability of paddy cultivation owing to higher input cost against transplanting and shortage of labour in peak season in Rainfed rice based small production system
3	Details of technologies selected for assessment/refinement	4 row Self propelled Mahendra Rice Transplanters MP461
4	Source of Technology	Mahindra &Mahindra Ltd. Farm Equipment sector,Applitract Department,SAS Nagar,Mohali(Punjab)140307
5	Production system and thematic area	Conventional tillage for puddling and transplanting manually. Mechanical transplanting with improved paddy production machinery
6	Performance of the Technology with performance indicators	The actual field capacity of the self propelled four row transplanter was 0.12 ha/h with a field efficiency of 78% at an average operating speed of 1.2kmph. It took 8 h to transplant 1 ha area and the fuel consumption was 8.0 l/ha or1.0 lit/h.
7.	Final recommendation for micro level situation	The working performance of the self propelled four row paddy transplanter was found to be satisfactory. The labour requirement was found to be 2 man days per hectare compared to 33 man days of labour per hectare in manual transplanting of paddy. Thus, it saved 31 mandays of labour per hectare.
8	Constraints identified and feedback for research	Row to row distance be 25 cm, clay loam soil having stick soil surface with ½ inch standing water
9	Process of farmers participation and their reaction	The machine was found to be farmer friendly and feasible in terms of time, money and labour requirement as compared to manual method transplanting of paddy. The machine be made available on custom and hiring basis to the farmers

Thematic area: *Improved Paddy production agricultural implements and Machinery*

Problem definition: Rice transplanting operation in small production system faces acute shortage of labour in peak period of transplanting, resultant the input cost intends to increase with lessened net return.

Technology assessed: Performance Testing of Four Row Self Propelled Paddy Transplanter

Table Technical Specifications of 4 row self propelled walking behind paddy transplanter

S.No.	Particulars	Machine Specification
1.	Make and Model	MP461
2.	Name	Mahindra Rice trans planter
3.	Type	Walking Behind
4.	Overall Dimension,mm	
A.	Weight,Kg.	175 (dry),180(working)
B.	Length,mm	2300
C.	Width ,mm	1680
D.	Height, mm	905(working),790(storing)
5.	Fuel capacity of tank, litres	3.5
6.	Power	3.8 kw
7.	Diver	1
8.	Transplanting speed,mps	0.4-0.84
9.	Travelling speed,kmph	6.41
10.	No. Of rows	4
11.	Type of nursery	Mat containing artificial culture soil withframe seeding nursery
12.	Row Spacing,cm	30
13.	Hill Spacing,cm	16.18.21
14.	No. Of sapling per hill	3-5
15.	Width of Mat Nursery,cm	28
16.	Length of mat nursery,cm	58
17.	Depth of mat nursery,cm	2.5
18.	Field capacity,sq.metre per hour	1760
19.	Price ,Rs.	275000
20.	Variety of paddy &Date of transplanting	MTU7021 &23.8.2017
21.	Date of harvesting	07.12.2017

Table: 2 Assessment of Performance of Paddy Transplanter on crop production and economic leverage

Technology option	No. of trials	Performance component			Labour Requirement person hrs/ha	Field Capacity (ha/hr)	Cost of transplanting (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	Labour cost Saving Rs/ha
		Panicle length (cm)	Test weight, gm	Grain Yield q /ha						
Farmers' Practice- Manual Transplanting	10	18.5	13.60	38	33	0.030	6600	57000	50400	0
Technological option –I Manual transplanting by SRI marker	10	20.4	14.0	39.5	40	0.048	8000	59250	51250	-1400
Technological option –II Mechanical transplanting by Paddy transplanter	10	17.5	13.52	37.5	2.00	0.120	1800	56250	54450	4800

Results: - The machine was found to be farmer friendly and feasible in terms of time, money and labour requirement as compared to manual method transplanting of paddy. The machine be made available on custom and hiring basis to the farmers. The actual field capacity of the self propelled four row transplanter was 0.12 ha/h with a field efficiency of 78% at an average operating speed of 1.2kmph. It took 8 h to transplant 1 ha area and the fuel consumption was 8.0 l/ha or 1.0 lit/h. Crop yield was found in all three treatments at par with average grain yield.

OFT 7

1	Title of On farm Trial	Assessment of Performance of different diggers for Potato cultivation
2	Problem diagnosed	Low profitability of potato cultivation owing to higher input cost against harvesting and labour intensive in small production system
3	Details of technologies selected for assessment/refinement	Animal drawn Potato Digger
4	Source of Technology	CIAE Bhopal, IIT Kharagpur
5	Production system and thematic area	Conventional potato cultivation in small area and introduction of animal drawn improved implements.
6	Performance of the Technology with performance indicators	Animal drawn potato digger showed the field capacity of 0.048 ha/hr with 205 person hours/ha against the 1120 person hrs per ha under conventional method of cultivation
7.	Final recommendation for micro level situation	Animal drawn potato digger be popularized amongst the small producer for labour saving by 70-80% on digging with reduction of cost of cultivation by 22-30 %
8	Constraints identified and feedback for research	Lack of availability of implements, appropriation of cutting size as per draft power, harnessing
9	Process of farmers participation and their reaction	Mobilization and assurance of participation in collaborative mode and expressed their willingness to adopt

Thematic area: Improved animal drawn agricultural implements

Problem definition: Potato digging operation in small production system calls for more labour, time resultant the input cost intends to increase with lessened net return.

Technology assessed: Assessment of performance of different potato digger

Table: 2 Assessment of Performance of different diggers for Potato cultivation

Technology option	No. of trials	Performance component			Labour Requirement person hrs/ha	Field Capacity (ha/hr)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of effective width (cm)	No. of tubers per plants	Yield q /ha						
Farmers' Practice- digging with help of spade and picking by hand	10	14	8	182.6	1120	0.005	96200.00	186200.00	91000.00	1.93
Technological option –I animal drawn potato digger and conveying in row for picking manually	10	46	11	243.8	205	0,048	113600.00	244200.00	130600.00	2.14
Technological option –II animal drawn local plough	10	31	9	219.7	324	0.015	107200.00	219700.00	112500.00	2.04

Results: Animal drawn potato digger showed the field capacity to the tune of 0.048ha/hr with person requirement of 205 person hour/ha as labor saving by 70-80% on digging with reduction of cost of cultivation by 22-30 %

OFT-8

1.	Title of On farm Trial	Control of Late Blight of Potato by using different control measures.
2.	Problem diagnosed	Low yield of potato due to severe attack of late blight.
3.	Details of technologies selected for assessment/refinement	<p>Farmers practice: Foliar application of (Mancozeb + Carbendizen) 76% WP @ 2gm / lt. water</p> <p>Technology Option-I: Seed Tuber Treatment with (Mancozeb + Carbendizen) 76% WP @ 3gm. + Validamycin 3% L @ 3ml. / lt. water for 15-20 minutes and need base two foliar application of the crop with (Mancozeb + Carbendizen) 76% WP @ 1.5gm. + Validamycin 3% L @ 1.5ml. / lt. water</p> <p>Technology Option-II: Seed Tuber Treatment with <i>Trichoderma viridi</i> 1.15 % wp @ 5 gm. + <i>Pseudomonous fleorescens</i> 0.5 WP @ 3gm. / lt. water for 15-20 minutes and need base two alternate foliar application of the crop with <i>Trichoderma viridi</i> 1.15 % wp @ 3 gm. + <i>Pseudomonous fleorescens</i> 0.5 WP @ 1gm. / lt. water and (Mancozeb + Carbendizen) 76% WP @ 1.5gm. + Validamycin 3% L @ 1.5ml. / lt. water.</p>
4.	Source of Technology	Research Journal
5.	Production system and thematic area	Rice – Potato – Sesame, Disease management.
6.	Performance of the Technology with performance indicators	Technology option –II showed best result in relation to the yield of Potato, efficiency of control the pest and B:C ratio.
7.	Final recommendation for micro level situation	It is may be recommended that the Technology option –II may be control of the disease effectively, enhance fresh yield of potato and give better income to the farmers.
8.	Constraints identified and feedback for research	Lake of knowledge about the appropriate fungicide/antibiotic & its dose, more research needed for refinement
9.	Process of farmers participation and their reaction	Collaborative, Farmers are happy with the performance of recommended practice

Thematic area: Disease management.

Problem definition: **Low yield of potato due to severe attack of late blight.**

Technology assessed:

Farmers practice: Foliar application of (Mancozeb + Carbendizen) 76% WP @ 2gm / lt. water

Technology Option-I: Seed Tuber Treatment with (Mancozeb + Carbendizen) 76% WP @ 3gm. + Validamycin 3% L @ 3ml. / lt. water for 15-20 minutes and need base two foliar application of the crop with (Mancozeb + Carbendizen) 76% WP @ 1.5gm. + Validamycin 3% L @ 1.5ml. / lt. water

Technology Option-II: Seed Tuber Treatment with *Trichoderma viridi* 1.15 % wp @ 5 gm. + *Pseudomonous fleorescens* 0.5 WP @ 3gm. / lt. water for 15-20 minutes and need base two alternate foliar application of the crop with *Trichoderma viridi* 1.15 % wp @ 3 gm. + *Pseudomonous fleorescens* 0.5 WP @ 1gm. / lt. water and (Mancozeb + Carbendizen) 76% WP @ 1.5gm. + Validamycin 3% L @ 1.5ml. / lt. water.

Table: Performance of different assessed technology to Control late blight disease in potato.

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
		% of Disease index	% of Efficacy of Treatments	% of more yield than Farmers Practice					
FP: Foliar application of (Mancozeb + Carbendizen) 76% WP @ 2gm / lt. water	10	62.97	12.96		180.57	102314	126399	24085	1.24
T1: Seed Tuber Treatment with (Mancozeb + Carbendizen) 76% WP @ 3gm. + Validamycin 3% L @ 3ml. / lt. water for 15-20 minutes and need base two foliar application of the crop with (Mancozeb + Carbendizen) 76% WP @ 1.5gm. + Validamycin 3% L @ 1.5ml. / lt. water	10	26.16	43.66	33.29	240.68	116515	168476	51961	1.45
T2: Seed Tuber Treatment with <i>Trichoderma viridi</i> 1.15 % wp @ 5 gm. + <i>Pseudomonous fleorescens</i> 0.5 WP @ 3gm. / lt. water for 15-20 minutes and need base two alternate foliar application of the crop with <i>Trichoderma viridi</i> 1.15 % wp @ 3 gm. + <i>Pseudomonous fleorescens</i> 0.5 WP @ 1gm. / lt. water and (Mancozeb + Carbendizen) 76% WP @ 1.5gm. + Validamycin 3% L @ 1.5ml. / lt. water.	10	16.22	76.15	53.72	277.58	123732	194306	70574	1.57
SEm(±)		3.9	5.1		7.8				
CD (5%)		6.76	8.84		13.53				

Result: The Technology option II showed better result in respect to controlling the disease by 76.15% followed by Technology option I and Farmers Practice i.e. 43.66 % and 12.96 %. The yield and B.C Ratio were also highest in Technology option II in comparison to Technology option I and Farmers Practice.

OFT-9

1.	Title of On farm Trial	Control of Tikka Disease in Groundnut by using different control measures
2.	Problem diagnosed	Poor yield of groundnut due to severe attack of tikka disease
3.	Details of technologies selected for assessment/refinement	Farmers practice: Foliar application of Dithane M - 45 @ 2 gm./ lt. Water Technology Option-I: Seed Treatment with Carbandizem + Mancozeb 76% WP @ 5 gm./Kg. Seed and two foliar application of Propiconazole 10.7 % SC @ 1 ml./ lt. Water at 25 and 35 DAS. Technology Option-II: Seed Treatment with <i>Trichoderma viridi</i> 1.15 % wp @ 10 gm./Kg. Seed and two foliar application of <i>Trichoderma viridi</i> 1.15 % wp @ 3 gm./ lt. Water at 25 and 35 DAS.
4.	Source of Technology	Research Journal
5.	Production system and thematic area	Rice – Potato – Sesame, Disease management.
6.	Performance of the Technology with performance indicators	Technology option –I showed best result in relation to the yield of Groundnut, efficiency of control the pest and B:C ratio.
7.	Final recommendation for micro level situation	It is may be recommended that the Technology option –I may be recommended for control the disease, better yield and income
8.	Constraints identified and feedback for research	Lake of knowledge about the use of appropriate fungicide & its dose, more research needed for refinement
9.	Process of farmers participation and their reaction	Collaborative, Farmers are happy with the performance of recommended practice

Thematic area: Disease management.

Problem definition: **Low yield of Groundnut due to severe attack of Tikka Disease.**

Technology assessed:

Farmers practice: Foliar application of Dithane M - 45 @ 2 gm./ lt. Water

Technology Option-I: Seed Treatment with Carbandizem + Mancozeb 76% WP @ 5 gm./Kg. Seed and two foliar application of Propiconazole 10.7 % SC @ 1 ml./ lt. Water at 25 and 35 DAS.

Technology Option-II: Seed Treatment with *Trichoderma viridi* 1.15 % wp @ 10 gm./Kg. Seed and two foliar application of *Trichoderma viridi* 1.15 % wp @ 3 gm./ lt. Water at 25 and 35 DAS.

Table: Performance of different assessed technology to Control late blight disease in potato.

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
		% of Disease index	% of Efficacy of Treatments	% of more yield than Farmers Practice					
FP: Foliar application of Dithane M - 45 @ 2 gm./ lt. Water	10	63.17	13.62		22.76	56384	91040	34656	1.62
T1: Seed Treatment with Carbandizem + Mancozeb 76% WP @ 5 gm./Kg. Seed and two foliar application of Propiconazole 10.7 % SC @ 1 ml./ lt. Water at 25 and 35 DAS.	10	17.09	85.09	48.42	33.78	67572	135120	67548	2.00
T2: Seed Treatment with <i>Trichoderma viridi</i> 1.15 % wp @ 10 gm./Kg. Seed and two foliar application of <i>Trichoderma viridi</i> 1.15 % wp @ 3 gm./ lt. Water at 25 and 35 DAS.	10	33.29	68.22	21.62	27.68	63465	110720	47255	1.74
SEm(±)		3.7	5.8		.94				
CD (5%)		6.4	10.06		1.63				

Result: The Technology option I showed better result in respect to controlling the disease by. 85.09 % followed by Technology option II and Farmers Practice i.e. 68.22 % and 13.62 %. The yield and B.C Ratio were also highest in Technology option I in comparison to Technology option II and Farmers Practice.