OFT-1

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	**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 *Trichoiderma 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 *Trichoiderma 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.
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 –III 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 –III may be recommended for control of the disease, better fresh yield and income
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 *Trichoiderma 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 *Trichoiderma 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	57.77	16.57		198.49	110118	119094	8976	1.08
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	22.76	50.66	26.14	250.38	133226	150228	17002	1.13
T2: Seed Tuber Treatment with *Trichoiderma 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 *Trichoiderma 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.	10	16.69	74.15	45.14	288.08	136304	172848	36544	1.27
SEm(±)		3.5	4.6		7.3				
CD (5%)		**6.07**	**7.98**		**12.66**				

Result: The Technology option II showed better result in respect to controlling the pest by. 74.15% followed by Technology option I and Farmers Practice i.e. 50.66 % and 16.57 %. The yield and B.C Ratio were also highest in Technology option II in comparison to Technology option I and Farmers Practice.