

OFT -8

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: 8 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	15	7	185.1	1120	0.005	94500.00	185100.00		1.95
Technological option –I animal drawn potato digger and conveying in row for picking manually	10	45	10	243.2	205	0.048	114600.00	243200.00	128600.00	2.12
Technological option –II animal drawn local plough	10	30	8	218.2	324	0.015	106100.00	218200.00	112100.00	2.05

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 %