



Enhancing Productivity and Profitability of *Rabi* Pulses through Farmer Participatory Action Research

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Abstract: Frontline demonstrations in cluster approach were conducted to enhance productivity and profitability of chickpea and lentil using improved crop management technologies by Krishi Vigyan Kendra, S.A.S Nagar, Mohali in two blocks during the rabi season of 2017- 18 and 2018-19 covering an area of 20.0 hectares respectively. Latest crop production and protection technologies including improved high yielding varieties, seed treatment with fungicide and bio-fertilizers, soil test based nutrient management, use of herbicide for weed control and recommended dose of plant protection chemicals based on economic threshold level of pests were demonstrated to farmers to show them productivity potential and profitability. Extension yield gaps varied by 430 and 185 kg ha⁻¹ in chickpea and lentil, respectively and by adopting improved production technology, productivity can be raised by 28.2 and 19.5 % in chickpea, and lentil, respectively. Technology indexes in chickpea (11.36%) and lentil (18.92%) revealed that demonstrated technology under is quite feasible in prevailing farming situations in Punjab, but it strongly emphasizes educating farmers intensively to adopt available technology. Improved technology package has also enhanced profitability and additional returns enhancing incremental benefit–cost ratio (40 and 32%) in chickpea and lentil, respectively. FLD-TTP has great potential to scale up pulse productivity and farmer's livelihoods in Punjab and collateral farming situations in the developing world to enhance agricultural production.

Keywords: Chickpea, Lentil, Frontline demonstrations, Productivity, Profitability
