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Innovating Productivity for Small Farmers: a Case Study from Arid Zone

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Abstract

Almost 50 % of India's total population consists of small farmers and their families, and 85 % of all farms are less than two hectares. Eventually the situation of small farms is of enormous importance to the overall social wellbeing of India but the questions regarding the role of small farm in agricultural growth is still not very clear. Keeping the above facts in view CAZRI KVK made an attempt to access and improve the productivity of small farms in Pali district through their participation in technological development innovations. Under this programme front line demonstrations (FLD) were organised in its selected villages during 2017–20. For accessing the productivity, a total of 600 demonstrations were laid on 200 hectare in 10 villages across five blocks of Pali district. Under this programme, quality seeds of improved varieties of prominent crops of the area were distributed to the identified farmers and a number of trainings on scientific production technology to the identified farmers in the villages were also arranged for technology empowerment of farmers. In order to harness the synergy between technologies and the community participation, special emphasis was given to build farmer's capacity to produce quality produce with enhanced yield. The farmers adopted the concept and undertook the programme in operational area which showed a considerable spread of selected variety in nearby villages with a considerable improvement in yield of all crops. Fine-tuning of the production technology based on the location specific conditions and resources available with the farmers enhanced the adoption rate. The results indicate higher additional returns and effective yield under demonstrations which were due to improved variety, scientific proven technology, non-monetary factors, timely operations of crop cultivation and scientific monitoring. From an initial start of 600 farmers the variety and innovation spread to 140 villages covering 790 hectares of area. Certainly, the greater use of inputs, improved varieties and making more intensive use of land and new technology helps to gain higher productivity in small farms. Above all, future work will require a mult-disciplinary approach that involves not just soil scientists, agronomists, and farmers, but also ecologists, policy-makers, and social scientists.

Keywords: yield gap, arid region, economics, front line demonstrations (FLD), production technology