



Impact of Bio-growth Enhancer Adoption on Input Use and Profitability in Salt-affected Smallholder Farms

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Abstract

The profitability of crop production system in India is being encountered with problems of increasing input cost, diminishing marginal returns and negative impact on ecological balance due to indiscriminate use of toxic plant protection chemicals. To overcome these problems, a cost-effective bio-growth enhancer, CSR-BIO was developed under National Agricultural Innovation Project and intervened in the salt-affected smallholder farms of Uttar Pradesh, India. The current study assessed the impact of CSR-BIO adoption on input use and profitability in salt-affected smallholder farms. Results showed an increase in yield in the adopter farms ranged from 13.64% in banana to 21.88% in red gram. The net profit was also higher in adopter farms compared to non-adopter farms in all the crops. The use of CSR-BIO also reduced number of plant protection chemical sprays in adopter farms. Logistic regression model was used to know the behavior of farmers in the adoption of CSR-BIO. The results indicated that farm size and contact with extension agency were positive and significant. It was observed that non-availability at the time of requirement and not available in adequate quantity were the major constraints faced by the farmers. Study suggested that CSR-BIO can be made available to the farmers through agro-input retailers for wider adoption.

Key words: Alkali soils, Bio-growth enhancer, CSR-BIO technology, Logistic regression