



Influence of biofertilizer application methods and inorganic fertilizers on growth, seed yield and economics cost of okra [*Abelmoschus esculentus* (L.) Moench] under sub-tropical irrigated area of Jammu

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Abstract : The investigation was carried out to find out the effect of biofertilizer application methods and inorganic fertilizers on the growth, seed yield and economics of okra under sub-tropical irrigated area of Jammu at Vegetable Research Farm, FOA, and SKUAST- Jammu, Main Campus Chatha during the spring- summer seasons. The experiment was laid out in split plot design with five levels of inorganic fertilizers *i.e.* 0%, 25%, 50%, 75% and 100% of recommended dose of fertilizers (60:30:30:: N: P: K) and two methods of biofertilizers application *i.e.* seed and soil application with three biofertilizers, *Azospirillum*, *Azotobacter* and Phosphorus solubilizing bacteria. The treatments C₄- 100 % recommended dose 60: 30: 30 kg NPK per ha significantly increased plant height (55.34 cm), stem diameter (5.43 cm), number of branches per plant (5.65), number of fruit (12.29), fruit size, diameter (2.10 cm) and length (20.37cm) and seed yield per quintal (12.01 q /ha.). The economic cost was highest C₃ treatments RDF gross return (Rs. 97840.00), net return (Rs. 66201.00) and B: C ratio (2.09). In biofertilizer application methods T₂ (seed application of *Azospirillum*) significantly recorded highest plant height (55.75 cm), stem diameter (5.29 cm), number of branches per plant (5.90), number of fruit (12.34), fruit size, diameter (2.15 cm) and length (20.46 cm) and seed yield per quintal (11.87 q /ha.) and economic cost was also highest gross return (Rs. 94920.00), net return (Rs. 64355.00) and B: C ratio (2.11) as compared to other treatments. The interaction between fertilizers x biofertilizers was found some significant and non significant growth attributes and seed yield.

Key Words : *Rhizobium*, *Azotobacter*, PSB, Growth, Yield, Economics, Okra

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