Comparison between Organic and Inorganic Nutrition for Tomato

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Abstract:

Environmental pollution and costs of mineral fertilization impelled scientists and farmers to ask for friendly environmental fertilizers. An experiment was conducted to evaluate the effect of different combinations of rabbit manure, rock phosphate, feldspar, and bio-fertilizers [Microbine (Bio-N), Phosphorin (Bio-P) and Potassiumag (Bio-K)] on the growth, yield and quality of tomato (Lycopersicon esculentum Mill.) plants. The mixture of rabbit manure, rock phosphate, and feldspar + Bio-N-P-K increased the tomato fruit yield by 30% compared to the inorganic fertilization. The application of rabbit manure, rock phosphate, and feldspar with the bio-fertilizer (Bio-N-P-K) inoculation increased the concentration of N, P, and K in the leaves of tomato by 34, 35, and 50% compared to the same treatment without the bio-fertilizers. The current study clearly depicted that the natural minerals (rock phosphate and feldspar) and nitrogen, phosphorus, and potassium bio-fertilization may lead to higher yields and better fruit quality than conventional fertilization.

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