GROWTH AND YIELD OF OKRA AS INFLUENCED BY PLANT GROWTH REGULATOR AND ORGANINC MANURES

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Executive Summary

Okra (*Abelmoschus esculentus* (L.) Moench) is a vegetable that belongs to the Malvaceae family and is commonly referred to as "Bhindi." Okra is one of the most important summer and rainy season vegetable crops grown in Bangladesh. It contains protein, vitamins C and A, iron and calcium and dietary fiber. The aim of this study was to determine the performance of okra in response to growth hormone and organic fertilizer at the Horticulture Farm of Sher-e-Bangla Agricultural University, Bangladesh, from October 2016 to March 2017. BARI Dherosh 1 was used in this experiment and consisted of two factors: Factor A: Growth regulators as – G_0: Control (no growth regulators/water), G_1: GA_3 (Gibrellic acid 110 ppm) and G_2: Miraculan 1 mg/L (Triacontanol 0.05%) and Factor B: Organic manure as – O_0: Control (no manure application), O_1: Vermicompost (10 t ha^{-1}) and O_2: Poultry Manure (10 t ha^{-1}). The experiment was laid out in Randomized Complete Block Design (RBD) with three replications. The result of the experiment revealed that almost all of the parameters varied significantly with the application of growth regulators and organic fertilizers. In case of interaction effect of growth hormone and organic fertilizer, the maximum pods/plant (40.50) and highest yield per hectare (20.5 ton) was found from G_1O_2, again the minimum pods/plant (2145) and lowest yield per hectare (10.06 ton) from G_0O_0. The highest benefit cost ratio (2.50) was noted from G_1O_2 and the lowest benefit cost ratio (1.50) was obtained from G_0O_0. It is revealed from the above findings that the combination of G_1O_2 was more profitable than the rest combination. It was evident that poultry manure showed better performance to produce organic okra.

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