

INFLUENCE OF HUMIC ACID AS BIO-STIMULANT ON GROWTH AND QUALITY YIELD OF ONION BY REDUCING NITROGEN FERTILIZER

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Executive Summary

The experiment entitled **Influence of humic acid as bio-stimulant on growth and quality yield of onion by reducing nitrogen fertilizer** was conducted at Horticulture Farm of Sher-e-Bangla Agricultural University, Dhaka 1207. This experiment mainly focuses on the growth and yield of the onion by using humic acid as a biostimulant based on reducing nitrogen fertilizer. The experiment consisted of five treatments such as T_1 = Recommended dose of NPK (Control), T_2 = 90% of the recommended dose of nitrogen fertilizer + 1kg/ha humic acid, T_3 = 80% of the recommended dose of nitrogen fertilizer + 2kg/ha humic acid, T_4 = 70% of the recommended dose of nitrogen fertilizer + 3kg/ha humic acid, T_5 = 60% of the recommended dose of nitrogen fertilizer + 4kg/ha humic acid and was laid out in Randomized Complete Block Design with three replications. This study showed the highest bulb diameter (4.52 cm), bulb length (3.92 cm), the maximum weight of the bulb (46.20g) the maximum yield (16.64 t/ha), Oil content (4.04) and Ash content (3.0) was recorded from T_3 treatment. In this experiment, combining 80% of the recommended nitrogen fertilizer doses with 2 kg of humic acid yielded the best results in many parameters. As a result, the study found that using humic acid improves onion growth and yield.

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