

INFLUENCE OF GREEN LEAF BIOMASS OF IPIL-IPIL ON GROWTH AND YEILD OF BRINJAL

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Executive Summary

In Bangladesh, soil organic matter status is very low and it's declining day by day. To improve soil fertility and crop productivity by restoring soil OM content, it is needed to explore the best organic amendment for better crop production. Hence, a pot experiment was conducted at Agroforestry field laboratory of Sher-e-Bangla Agricultural University during the period from November, 2021 to March, 2022 to evaluate the influence of green leaf biomass (GLB) of Ipil-ipil on the growth and yield of Brinjal. The experiment comprised with six treatments viz., T₁= RFD/Recommended doses of fertilizer (Control-1); T₂= ½ RFD (Control-2); T₃= Ipil-ipil GLB 10 g kg⁻¹ soil; T₄= Ipil-ipil GLB 10 g kg⁻¹ soil + ½ RFD; T₅= Ipil-ipil GLB 5 g kg⁻¹ soil and T₆= Ipil-ipil GLB 5 g kg⁻¹ soil + ½ RFD. The experiment was laid out in a one factor Completely Randomized Design (CRD) with four replications and all the collected data were analyzed statistically. The incorporation of GLB together with ½ RFD had significant influence that considerably increased in treatment T₄ for all the growth and yield traits of Brinjal whereas in control T₁ (RFD) and T₂ (½ RFD) were significantly decreased. The highest fruit yield per plant (2.883 kg) was obtained from T₄, while lowest fruit yield (1.086 kg) produced by T₂ treatment. Assimilation of GLB improved SOC and OM with decreased soil pH. The highest incorporation of SOC (0.99%) and OM (1.72%) were observed in T₄ with lowest bulk density (1.1) whereas T₂ exhibited the lowest (0.65%) SOC, (1.11%) SOM with highest (1.5) bulk density. Lowest soil pH (7.09) recorded in T₄ & highest pH (7.61) in T₂. Soil TN, P, K were maximum in T₄ and minimum in T₂. Moreover, the study needed to be practice in actual field condition under different agroforestry systems especially considering for soil organic matter enrichment

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