

## ABSTRACT

Green beans (*Phaseolus vulgaris* L.) are widely consumed in Indonesia due to their high vegetable protein content and essential vitamins A, B, and C. However, low productivity is often caused by poor soil fertility, lacking nutrients and organic matter. This study aimed to evaluate the effect of manure and liquid organic fertilizer (POC) made from eggshells on the growth and yield of green bean plants. The research was conducted from February to April 2025 in Tambon Tunong Village, Dewantara Subdistrict, North Aceh, and at the Laboratory of the Faculty of Agriculture, Malikussaleh University. A randomized block design (RBD) with two factors and three replications was used. The first factor was manure application: K0 (0 tons/ha), K1 (20 tons/ha), K2 (30 tons/ha), and K3 (40 tons/ha). The second factor was eggshell POC: C0 (0 ml/plant), C1 (100 ml/plant), and C2 (150 ml/plant). The results showed that manure significantly improved plant height, stem diameter, leaf area, flowering time, number of pods, and pod weight. The best result was obtained with K2 (30 tons/ha). Eggshell POC also enhanced growth and yield, particularly at C2 (150 ml/plant). The combination of K1 and C2 yielded the best results in leaf area, fruit weight, and fruit number across multiple harvests. This study suggests that integrating manure and eggshell-based POC can improve soil fertility and green bean productivity.

Keywords: Green beans, Solid Compost Fertilizer, Liquid Organic Fertilizer.