

ABSTRACT

The decline in eggplant yields can be caused by several obstacles, one of which is low soil fertility. Low soil fertility can result from issues such as nutrient availability and low soil organic matter content, which in turn lead to reduced plant growth and production. Efforts to increase the growth and production of eggplant plants can be made by using organic materials to increase fertility and improve the physical, biological, and chemical properties of the soil is by providing fertilizer. The aim of this research was to determine the growth and production as well as interactions between eggplant plants due to giving banana stem liquid organic fertilizer (LOF) and cow manure. This research was conducted in Paloh Lada, Dewantara, North Aceh, was conducted for 3 months from January to April 2024. This research used a Factorial Randomized Block Design (RBD) with three replications. The first factor is the liquid organic fertilizer (LOF) of banana stems which consists of (P0) 0 ml/l, (P1) 350 ml/l, (P2) 700 ml/l. The second factor is cow manure consisting of (K0) 0 kg/plot, (K1) 3 kg/plot, and (K2) 6 kg/plot. The results showed that giving banana stem liquid organic fertilizer it has a significant effect on the variables of plant height, stem diameter, number of leaves, flowering age, and number of fruit per plant, and fruit length. The application of cow manure there is a significant effect on the variables of plant height, stem diameter, number of leaves, chlorophyll content, flowering age, and number of fruits per plant, fruit weight per plant, fruit diameter, fruit length, and (ton/ha) production. There was no interaction between giving banana stem liquid organic fertilizer (LOF) and cow manure on the growth and production of purple eggplant plants.

Keywords: Cow Manure, Eggplant, Liquid Organic Fertilizer