ABSTRACT

Eggplant (*Solanum melongena* L.) is an important horticultural crop whose growth and yield can be improved through organic fertilization. This study aimed to evaluate the effects of Moringa (*Moringa oleifera* L.) leaf liquid organic fertilizer (LOF), cow manure, and their interaction on the growth and yield of eggplant. The experiment was conducted from March to June 2026 at the Agricultural Experimental Garden of Malikussaleh University using a factorial Randomized Complete Block Design (RCBD) with two factors and three replications. The treatments consisted of three concentrations of Moringa leaf LOF (0, 100, and 200 mL/L) and three rates of cow manure (0, 200, and 400 g/ polybag). The results showed that Moringa leaf LOF significantly affected plant height, number of leaves, and fruit diameter, while cow manure significantly affected plant height, number of fruits, and fruit weight. A significant interaction between the two treatments was observed for plant height at 30 days after planting and fruit weight at the first and second harvests. The combination of Moringa leaf LOF and cow manure is a promising organic fertilization strategy for improving eggplant growth and yield.

Keywords: fruit diameter, fruit number, flowering age, harvest yield, vegetative growth.