

ABSTRACT

Purple eggplant (*Solanum melongena* L.) is a horticultural commodity that has nutritional content and health benefits, including maintaining heart health, helping to lower cholesterol and blood sugar levels, and facilitating digestion. Eggplant productivity in Aceh Province has experienced significant fluctuations. Efforts to increase eggplant productivity is through organic fertilization, such as animal manure compost and liquid organic fertilizer from eggshells. This study was conducted to obtain the effect of compost fertilizer and eggshells liquid organik fertilizer on the growth and yield of eggplant. This study used a two-factor Randomized Block Design (RDB) with 3 replicates of the combination treatment. The first factor is compost fertilizer consisting of three levels K0 (0 grams/polybag), K1 (250 grams/polybag), K2 (300 grams/polybag). The second factor is liquid organic fertilizer from eggshells consisting four levels of C0 (0 ml/liter of water), C1 (20 ml/liter of water), C2 (40 ml/liter of water), C3 (60 ml/liter of water). The result showed that the treatment of compost fertilizer affected at plant height at 14-35 day after planting (DAP), diameter of stem (14-35 DAP), the leaves area (14-35 DAP), chlorophyll content of leaves (40 DAP), number of branches (20 and 40 DAP), age of flowering, number of fruits (50 and 60 DAP), diameter of fruits (50 and 60 DAP), length of fruit (50 and 60 DAP), weight of fruits (50 and 60 DAP), and yield of tons/ha. The best compost fertilizer treatment was 300 grams/polybag. Eggshells liquid organic fertilizer treatment affects of plant height (28 and 35 DAP), age of flowering, number of fruits (50 and 60 DAP), diameter of fruits (50 DAP), length of fruit (50 and 60 DAP), weight of fruits (50 and 60 DAP), and yield of tons/ha. The best eggshells liquid organic fertilizer treatment was 60 ml/liter of water. There is an interaction between the treatment of compost fertilizer and eggshells liquid organic fertilizer at number of fruits (50 and 60 DAP), diameter of fruits (50 and 60 DAP), length of fruit (60 DAP), weight of fruits (50 and 60 DAP), and yield of tons/ha. The best interaction treatment at a the use of 300 grams/polybag compost fertilizer and 60 ml/liter of water eggshells liquid organic fertilizer.

Keywords: Compost fertilizer, Eggshells liquid organic fertilizer, Eggplant