

ABSTRACT

EFFECT OF COMBINATION OF GOATWEED COMPOST (*Ageratum conyzoides* L.) DOSAGE AND NPK FERTILIZER DOSAGE ON THE GROWTH AND YIELD OF EGGPLANT (*Solanum melongena* L.)

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Fertilization is one of the efforts to increase plant productivity. In the cultivation of eggplant vegetables, it is generally recommended to use composted organic fertilizer. One of the organic materials that can be used for composting is goatweed. This study aims to determine the effect of combination of goatweed compost rate and NPK fertilizer rate on the growth and yield of eggplant plants. This research method uses a Randomized Block Design (RBD) consisting of 7 treatment levels and repeated 4 times so that there are 28 experimental plots. The treatments that were tried were A: Without Goatweed compost + 350 kg/ha NPK fertilizer; B: Goatweed compost 5 tons/ha + NPK fertilizer 150 kg/ha; C: Goatweed compost 5 tons/ha + NPK fertilizer 200 kg/ha; D: Goatweed compost 5 tons/ha + NPK fertilizer 250 kg/ha; E : Goatweed compost 10 tons/ha + NPK fertilizer 150 kg/ha; F : Goatweed compost 10 tons/ha + NPK fertilizer 200 kg/ha; G : Goatweed compost 10 tons/ha + NPK fertilizer 250 kg/ha. The results showed that the combined treatment of Goatweed compost rate and NPK fertilizer rate had a significant effect on plant height at 9 weeks, but had no significant effect on plant height at 7 weeks and 8 weeks, number of leaves, fruit length, fruit diameter, number of fruits per plant, fruit weight per fruit, fruit weight per plant and fruit weight per plot and conversion to hectare.

Keywords: Compost, eggplant, goatweed and NPK fertilizer