ABSTRACT

GIVING EFFECT OF LEAF COMPOST TYPE AND NPK COMPOUND FERTILIZER (15:15:15) ON THE GROWTH AND PRODUCTION TOMATO PLANTS (*Lycopersicum esculentum* Mill)

BY

ADE PRAVITA NINGRUM

Tomato (*Lycopersicum esculentum* Mill.) is one of the leading agricultural commodities are highly prioritized. To meet increasing market demand would need special treatments to increase the production of tomatoes, one of which is offset by proper fertilization. This study aims to (1) know the difference between growth and production of tomato plants between a given fertilizer and without fertilizer, (2) know the difference between growth and production of tomato plants that were given only compost and chemical fertilizers are a combination of compost and NPK, (3) know the difference between growth and production of tomato plants between a given compost yard waste and compostable bamboo leaf litter.

The research was conducted at Politeknik Lampung, Bandar Lampung. The treatment in this study was prepared using the Perfect Group Randomized design and use a single treatment design consisting of seven treatments and each treatment in repeated three times. Treatment include are P0 (without fertilizer), P1 (yard waste compost 20 tons / ha), P2 (bamboo leaf compost 20 tons / ha), P3 (½

yard waste compost 10 tons / ha of chemical fertilizer + 500 kg / ha) , P4 (½ bamboo leaf compost 10 tons / ha of chemical fertilizer + 500 kg / ha), P5 (yard waste compost 10 tons / ha of bamboo leaves + compost 10 tons / ha), P6 (chemical fertilizer dose of NPK compound recommendations 1000 kg / ha). To know the different treatments used Orthogonal Contrast Test.

The results showed that fertilization on tomato plants were able to show the best results in increasing plant height, stover weight, fruit diameter, number of flowers, number of fruits and production of tomato than plants that are not fertilized. The combination of compost fertilizer and NPK fertilizer to increase plant height, fruit diameter, and number of fruits than any compost or fertilizer NPK alone. Provision of yard waste compost on tomato plants are better at improving tomato production in comparison with bamboo leaf litter compost.

Key words: Tomato, fertilization, and production.