APPLICATION OF GAMAL LEAF PELLET (*Gliricidia sepium*) ON PLANT GROWTH AND YIELD OF TOMATO (*Solanum lycopersicum*) PLANT IN LATOSOL SOIL TEMANGGUNG CENTRAL JAVA

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ABSTRACT

Tomato (Solanum lycopersicum) is an important vegetable commodity and potential to developed in Temanggung district. The purpose of this study was to determine the effect of gamal leaf pellet application on plant growth and yield, as well as to determine the most effective dose of gamal leaf pellet to improve the efficiency of NPK fertilizer for tomato cultivation in latosol field in Maron City, Temanggung Central Java.

This research was carried out using a factor experiment method with a single factor treatment design arranged in a completely randomized design (CRD). The factors were five doses of gamal leaf pellets, namely: A: 10 tons / hectare of gamal leaf pellets, B: 15 tons / hectare of gamal leaf pellets, C: 20 tons / hectare of gamal leaf pellets, D: 25 tons / hectare of gamal leaf pellets , E: 30 tons / hectare of gamal leaf pellets. The observation was plant height, stem diameter, number of leaves, number of fruit, weight of fruit, fresh weight and dry weight of plants.

In the vegetative phase obtained the best treatment at a dose of 20 tons / hectare of gamal leaf pellets with an average plant height of 129.20 cm, a dose of 30 tons / hectare of gamal leaves with an average stem diameter of 1.63 cm and a dose of 10 tons / hectare of gamal leaf pellets with the average number of leaves 275.60 strands. In the generative phase, the best treatment was obtained at a dose of 15 tons / hectare of gamal leaf pellets with a mean value of 44,333 fruits per plant and at 3,368,890 grams per plant.