

RESPONSE OF GROWTH AND YIELD OF TOMATO PLANTS (*Solanum lycopersicum* L.) ON THE TYPE OF MULCH AND FREQUENCY OF SPRAYING LIQUID ORGANIC FERTILIZER SLAM WEED (*Chromolaena odorata* L.).

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ABSTRACT

Tomato (*Solanum lycopersicum* L.) is one of Indonesia's basic needs for food nutrition. This study aims to determine the response of growth and yield of tomato plants to the types of mulch and the frequencies of spraying Slam weed LOF. The method used a field experiment with a randomized complete block design (CRBD). The first factor was the types of mulch treated with Black Silver-Plastic Mulch and Straw Organic Mulch. The second factor is the frequency of spraying slam weed LOF with no spraying, sprayed every 3 days, and sprayed every 6 days. Each combination is repeated 4 times. The data analyzed used a range of 5 % Variance followed by Least Significant Different (LSD) test at 5%. The results showed an interaction between types of mulch and frequency of spraying slam weed LOF. Black Silver-Plastic Mulch and LOF sprayed every 3 days has the best result on the parameters of plant height at 45 DAP, number of bunches, number of fruit by planted, biggest fruit diameter, fruit weight by planted, fruit weight by plots and fruit weight by hectare. This type of silver-black plastic mulch gave good results on 25 DAP and 35 DAP plant height parameters. The frequency of spraying slam weed LOF once every 3 days gave good results on the parameters of plant height 25 DAP and plant height 35 DAP.

Keywords : Tomatoes, Liquid Organic Fertilizer of Slam weed, Silver Black Mulch, Straw Mulch