EVALUATION OF ORGANIC FISH FERTILIZER WITH EGG SHELL AND MOLDED WHITE BREAD ON CHILLI PLANT (*Capsicum annum*) GROWTH PERFORMANCE BY FOLIAR APPLICATION

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ABSTRACT

EVALUATION OF ORGANIC FISH FERTILIZER WITH EGG SHELL AND MOLDED WHITE BREAD ON CHILLI PLANT (*Capsicum annum*) GROWTH PERFORMANCE BY FOLIAR APPLICATION

Agriculture in Malaysia is keep on using chemical fertilizer for their crops. There were an issue arising as the farmers use the agrochemicals that effected an ecological damage such as aquatic biodiversity and food poisoning This study will be focused on producing organic fish fertilizer with egg shell and molded white bread by using foliar application. This organic fish fertilizer was produced by aerobic fermentation of fish with egg shell, molded white bread and molasses within 43 days and by using ratio of 4 fish:4 molasses:1 egg shell:1 molded white bread. The growth performance of chilli plant was observed according to two groups which is organic fish fertilizer as sample group and commercial fertilizer as control group. The effectiveness of organic fish fertilizer was compared to commercial fertilizer based on the height of plants, number and size of leaves in duration of 10 weeks of planting period. The data was collected as the first applications of fertilizer occurs. As a results, chilli plant treated with commercial fertilizer group showed better performance in plant growth parameter as compared to organic fish fertilizer group. The final height for commercial fertilizer plant recorded was higher than organic fish fertilizer with 29.78 ± 2.22 cm and 27.33 ± 3.77 cm respectively. The final average number of leaves for commercial fertilizer plant recorded was higher than organic fish fertilizer with $64.72 \pm 11.70\ n$ and $53.94 \pm 15.32\ n$ respectively and for the average size of leaves, both group showed an equal average which was 22.88 ± 2.46 cm^2 and 22.75 ± 3.03 cm^2 respectively. As a conclusion, organic fish fertilizer has a good potential for plant growth. Further improvement could be done by adding other high nutrient value of by-products in order to increase the efficiency of organic fish fertilizer.