THE RESPONSE OF CUCUMBER (Cucumis sativus L.) TO THE APPLICATION OF VARIOUS DOSES OF FERMENTED ORGANIC FERTILIZER BANANA PEEL AND AZOLLA

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ABSTRACT

Cucumber (*Cucumis sativus* L.) is a vegetable with high economic value and a consumption rate that continues to increase every year, thus it's production must be increased, one of which is through fertilization. Banana peel and *Azolla microphylla* are organic materials that can be used as fermented organic fertilizer because they contain relatively high levels of N, P, and K nutrients, which can enhance plant productivity. This study aims to determine the effect of the interaction between different doses of fermented organic fertilizer banana peel and *Azolla microphylla* on the growth and yield of cucumber plants. The research was conducted at the Experimental Garden of the Faculty of Agriculture, Siliwangi University, from February to May 2025. The experimental method used in this study was a factorial Randomized Complete Block Design (RCBD) consisting of two factors, each with 3 levels. The first factor was the dose of fermented organic fertilizer banana peel, consisting of 3 levels: 0 tons/ha, 4 tons/ha, and 8 tons/ha. The second factor was the dose of fermented organic fertilizer *Azolla microphylla*, also consisting of 3 levels: 0 tons/ha, 3 tons/ha, and 6 tons/ha. The results showed that there was no interaction between the doses of fermented organic fertilizer banana peel and *Azolla microphylla* on the growth and yield of cucumber plants. Independently, the application of fermented organic fertilizer *Azolla microphylla* resulted in better growth and yield of cucumber plants.

Keywords: Fermented organic fertilizer, Banana peel, *Azolla microphylla* and Cucumber