EFFICACY OF THE MIXTURE OF ETHYL PYROZOSULFURON HERBICIDE AND FERMENTED COCONUT WATER ON WEED CONTROL AND BABY CUCUMBER YIELD

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ABSTRACT

The research aims to determine the effect of the application of a mixture of the herbicide ethyl pirazosulfuron and coconut water on weed control and the production of baby cucumbers, as well as to find the best mixture dosage. The study was conducted at the experimental farm of the Agricultural Faculty of UPN Veteran Yogyakarta in Wedomartani, Ngemplak, Sleman, DIY, from April to June 2024. It employed a Complete Randomized Block Design with one factor and nine treatments: ethyl pirazosulfuron at 80 g a.i./ha, ethyl pirazosulfuron at 160 g a.i./ha, fermented coconut water at 100 ml/l of water, fermented coconut water at 200 ml/l of water, ethyl pirazosulfuron at 80 g a.i./ha + fermented coconut water at 100 ml/l of water, ethyl pirazosulfuron at 160 g a.i./ha + fermented coconut water at 100 ml/l of water, ethyl pirazosulfuron at 80 g a.i./ha + fermented coconut water at 200 ml/l of water, ethyl pirazosulfuron at 160 g a.i./ha + fermented coconut water at 200 ml/l of water, and a control treatment. Each treatment was repeated three times. The data were analyzed using Analysis of Variance (ANOVA) at an alpha level of 5% and followed by the Least Significant Difference test at 5%. The results showed that the mixture of herbicide ethyl pirazosulfuron at 80 g/ha with fermented coconut water at 100 ml/l was the most effective in controlling weeds. All mixtures of the herbicide ethyl pirazosulfuron and fermented coconut water caused symptoms of toxicity and negatively affected fruit length, fruit weight per plant, fruit weight per plot, fruit weight per hectare, number of fruits per plant, and number of fruits per plot.

Keywords: Ethyl Pyrozosulfuron, Fermented Coconut Water, Weeds, Cucumber.