

THE EFFECT OF OXYFLUORFEN HERBICIDE DOSE AND WEEDING TIME ON WEED CONTROL AND YIELD OF SOYBEAN (*Glycine max* L. Merr)

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ABSTRACT

This study was conducted to determine the dose of Oxyfluorfen herbicide and weeding time that are effective in controlling weeds and increasing soybean yields. This research was conducted from June – August 2023 at the Experimental Farm of the Faculty of Agriculture, UPN "Veteran" Yogyakarta, located in Wedomartani, Ngemplak District, Sleman Regency. The experiment used a two-factor Randomized Complete Block Design (RCBD) with separated control. The first factor was the dose of Oxyfluorfen herbicide, namely 240 g ha⁻¹, 360 g ha⁻¹, and 480 g ha⁻¹. The second factor was weeding time which was 15 HST, 30 HST, and 15 & 30 HST. The results were analyzed using analysis of variance at 5% level and then continued with DMRT (Duncan Multiple Range Test) at 5% significant level. To determine the difference between the control and the treatment combination, it was continued with the Orthogonal Contrast Test. The results showed that the application of Oxyfluorfen herbicide at a dose of 360 g ha⁻¹ and weeding time of 15 & 30 HST effectively controlled weeds and gave the best results on leaf area, plant dry weight, number of pods per plant, pod weight per plant, pod weight per plot, pod weight per hectare, seed weight per plot and seed weight per hectare.

Keywords : *Soybeans, Weeds, Herbicides, Oxyfluorfen, Weeding.*