

Effectiveness of Oxifluorphen Herbicide and Weeding Time and Its Effect on Weed Suppression and Yield of Mung Beans (*Vigna radiata* L.)

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ABSTRACT

Mung bean is a commodity of legumes that contain lots of nutrients, including: starch, protein, iron, sulfur, calcium, fatty oil, vitamins (B1, A, and E). In the cultivation of mung beans, there are several problems that reduce its productivity, namely weeds. This study is focused on determine the effectiveness of the use of the herbicide oxyfluorfen and weeding time to control weeds on mung bean plants. The research has been conducted from January to March 2023 at the Experimental Garden of the Faculty of Agriculture, National Development University "Veteran" Yogyakarta, Wedomartani Village, Ngemplak District, Sleman Regency, Yogyakarta. The design was used a Completely Randomized Block Design (RAKL) which consisted of 9 treatments and 3 replications, namely P0 = Without Treatment and Weeding (Control), P1 = Oxifluorphen 240 g/ha, P2 = Oxyfluorphen 480 g/ha, P3 = Oxyfluorphen 240 g/ha + weeding 2 wap, P4 = Oxifluorfen 240 g/ha + weeding 4 wap, P5 = Oxifluorfen 240 g/ha + weeding 2 wap and 4 wap, P6 = Oxifluorfen 480 g/ha + weeding 2 wap, P7 = Oxifluorphen 480 g/ha + weeding 4 wap, P8 = Oxifluorfen 480 g/ha + weeding 2 wap and 4 wap. Observational data were analyzed using analysis of variance at the 5% level then the data was further tested with the Least Significant Difference (LSD) at the 5% level. The research of the study did not show that applying herbicides and weeding could suppress weed growth in mung bean plants.

Keywords : Mung Beans, Dosage, Weeding, Oxifluorphen Herbicide