

***The Effect of Imazethapyr and Fenoxaprop-p-ethyl Herbicide on Weed Control
and Yield of Marigold Flowers (Tagetes erecta L.)***

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ABSTRACT

Marigold yield cannot be separated from the presence of plant disrupting organisms, one of which is weeds. The purpose of the study was to determine the best dose of imazethapyr and phenoxaprop-p-ethyl herbicides to control weeds in marigold plants. The research was conducted in August-October 2023 in Kaliurang. The research method used was a one-factor complete group randomized design with 10 treatment levels. The treatment levels were imazethapyr 0.15 kg a.i/ha, imazethapyr 0.20 kg a.i/ha, phenoxaprop-p-ethyl 0.10 kg a.i/ha, phenoxaprop-p-ethyl 0.20 kg a.i/ha, imazethapyr 0.15 kg a.i/ha + phenoxaprop-p-ethyl 0.10 kg a.i/ha, imazethapyr 0.15 kg a. i/ha + phenoxaprop-p-ethyl 0.20 kg a.i/ha, imazethapyr 0.20 kg a.i/ha + phenoxaprop-p-ethyl 0.10 kg a.i/ha, imazethapyr 0.20 kg a.i/ha + phenoxaprop-p-ethyl 0.20 kg a.i/ha, mechanical control, and without control. The data obtained were analyzed using analysis of variance at the 5% level and then continued with the least significant difference test at the 5% level. The results showed that imazetapir 0.20 kg a.i/ha + phenoxaprop-p-ethyl 0.20 kg a.i/ha gave the best results in weed control efficiency of marigold plants and gave the same control results as mechanical treatments.

Keywords : Marigold, Weeds, Imazethapyr, Fenoxaprop-p-ethyl