EFFICACY OF GLYPHOSATE, 2,4-D DIMETHYLAMINE, AND ITS MIXTURES ON WEED CONTROL AND PEANUT CROP YIELD (Arachis hypogaea L.)

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ABSTRACT

The research aimed to determine the dosage and best effect of the use of herbicides with glyphosate, 2,4-D dimethylamine, and their mixtures on weed control and peanut yields. The research was carried out from May to August 2024 in Sindon, Selomartani, Kalasan, Sleman. The design used in the Complete Group Random Design consisted of 9 treatments with 3 replicates, namely control without treatment, glyphosate 240 g/ha, glyphosate 480 g/ha, 2,4-D dimethylamine 649 g/ha, 2,4-D dimethylamine 865 g/ha, glyphosate 240 g/ha + 2,4-D dimethylamine 649 g/ha, glvphosate 240 g/ha + 2,4-D dimethylamine 865 g/ha, glvphosate 480 g/ha + 2,4-D dimethylamine 649 g/ha, glyphosate 480 g/ha + 2,4-D dimethylamine 865 g/ha. Observation parameters included vegetation analysis, phytotoxicity level, plant height, number of pods per plant, pod weight per plant, number of pods per plot, pod weight per plot, weight of 100 seeds, weight of 100 pods. The observation results were analyzed with a 5% variety fingerprint followed by a 5% Scott Knott test. The results showed that the herbicide mixed glyphosate and 2,4-D dimethylamine had an effect on weed control and peanut crop yield. The most effective herbicide dose was the treatment of glyphosate 480 g/ha + 2,4-D dimethylamine 865 g/ha with an effectiveness of 70.48% and the best result of glyphosate treatment of A7 (480 g/ha + 2,4-D dimethylamine 649 g/ha) and the treatment of A8 (glyphosate 480 g/ha + 2,4-D dimethylamine 865 g/ha).

Keywords: peanuts, weeds, dosage, glyphosate, 2,4-D dimethylamine, mixture