ABSTRAK

EFIKASI HERBISIDA P-AMONIUM GLUFOSINAT 150 g/l UNTUK PENGENDALIAN GULMA PADA BUDIDAYA KELAPA SAWIT (*Elaeis guineensis* Jacq.) MENGHASILKAN (TM)

Oleh:

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Pertumbuhan gulma di perkebunan kelapa sawit memberikan dampak yang negatif terhadap tanaman kelapa sawit karena menimbulkan kompetisi antara gulma dan kelapa sawit. Salah satu usaha yang dilakukan pada pengelolaan tanaman budidaya dengan menghentikan persaingan antara tanaman budidaya dengan gulma yaitu pengendalian gulma secara kimiawi. Penelitian ini bertujuan untuk mengetahui dosis herbisida p-ammonium glufosinat yang efektif dalam mengendalikan gulma pada tanaman kelapa sawit TM, perubahan komposisi gulma setelah aplikasi herbisida p-ammonium glufosinat dan fitotoksisitas pada tanaman kelapa sawit TM setelah aplikasi herbisida p-ammonium glufosinat.

Penelitian dilaksanakan di Desa Muara Putih, Kecamatan Natar, Kabupaten Lampung Selatan dan Laboratorium Gulma, Fakultas Pertanian, Universitas Lampung bulan Juli-Agustus 2024. Pelaksanaan penelitian ini menggunakan Rancangan Acak Kelompok (RAK) dengan 6 perlakuan dan 4 ulangan. Perlakuan yang ditetapkan yaitu taraf dosis herbisida p-ammonium glufosinat (225; 300; 375; 450 g/ha), penyiangan secara mekanis, dan kontrol. Homogenitas ragam diuji dengan uji Bartlett, aditivitas diuji dengan uji Tukey, jika asumsi terpenuhi data dianalisis ragam dan perbedaan nilai tengah diuji dengan Uji Beda Nyata Terkecil (BNT) taraf 5%. Hasil penelitian menunjukkan bahwa herbisida p-ammonium glufosinat dosis 225-450 g/ha efektif mengendalikan gulma total, gulma golongan daun lebar, gulma golongan rumput, dan dosis 450 g/ha efektif mengendalikan gulma golongan teki hingga 8 MSA. Herbisida p-ammonium glufosinat dosis 225-450 g/ha efektif mengendalikan gulma *Praxelis climatidea, Asystasia gangetica,Ottochloa nodosa, Axonopus compressus, Paspalum conjugatum*, dan dosis 450 g/ha efektif mengendalikan gulma *Cyperus kyllingia*. Herbisida p-ammonium glufosinat dosis 375 dan 450 g/ha mengakibatkan terjadinya perubahan komposisi pada 8 MSA. Herbisida p-ammonium glufosinat dosis 225-450 g/ha tidak meracuni tanaman kelapa sawit menghasilkan pada 4 dan 8 MSA.

Kata kunci: *herbisida, p-ammonium glufosinat, gulma, kelapa sawit TM*

ABSTRACT

EFFICACY OF HERBICIDE P-AMONIUM GLUFOSINATE 150 g/l FOR WEED CONTROL IN MATURE OIL PALM (*Elaeis guineensis* Jacq.) CULTIVATION

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The growth of weeds in oil palm plantations has a negative impact on oil palm plants because it creates competition between weeds and oil palm. One of the efforts made in managing cultivated plants to stop the competition between cultivated plants and weeds is chemical weed control. This research aims to determine the effective dose of p-ammonium glufosinate herbicide in controlling weeds in mature oil palm (TM), changes in weed composition after application of p-ammonium glufosinate herbicide, and phytotoxicity to mature oil palm plants after application of p-ammonium glufosinate herbicide. The research was conducted in Muara Putih Village, Natar Subdistrict, South Lampung Regency, and the Weed Laboratory, Faculty of Agriculture, University of Lampung in July-August 2024. The implementation of this research used a Randomized Block Design (RBD) with 6 treatments and 4 replications. The treatments applied were different doses of p-ammonium glufosinate herbicide (225; 300; 375; 450 g/ha), mechanical weeding, and a control (without control). Homogeneity of variance was tested with Bartlett's test, additivity was tested with Tukey's test, and if the assumptions were met, the data were analyzed using analysis of variance and the differences between means were tested with the Least Significant Difference (LSD) test at the 5% level. The results showed that p-ammonium glufosinate herbicide at doses of 225-450 g/ha was effective in controlling total weeds, broadleaf weeds, and grass weeds, and a dose of 450 g/ha was effective in controlling sedge weeds up to 8 weeks after application (WAA). P-ammonium glufosinate herbicide at doses of 225-450 g/ha was effective in controlling *Praxelis climatidea, Asystasia gangetica, Ottochloa nodosa, Axonopus compressus, Paspalum conjugatum*, and a dose of 450 g/ha was effective in controlling *Cyperus kyllingia*. P-ammonium glufosinate herbicide at doses of 375 and 450 g/ha resulted in changes in weed composition at 8 WAA. P-ammonium glufosinate herbicide at doses of 225-450 g/ha did not show phytotoxicity to mature oil palm plants at 4 and 8 WAA.

Keywords: *herbicide, p-amonium glufosinate, weeds, mature palm oil*