

ABSTRAK

EFIKASI HERBISIDA CAMPURAN ISOPROFIL AMINA GLIFOSAT 300 g/l + 2,4 D DIMETIL AMINA 100 g/l TERHADAP PENGENDALIAN GULMA PADA BUDIDAYA KELAPA SAWIT (*Elaeis guineensis* Jacq.) TANAMAN BELUM MENGHASILKAN

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Kelapa sawit (*Elaeis guineensis* Jacq.) merupakan tanaman industri penting yang banyak dibudidayakan di Indonesia karena mampu menghasilkan minyak nabati dalam jumlah besar. Pengendalian gulma pada tanaman kelapa sawit belum menghasilkan (TBM) dapat dilakukan secara kimiawi menggunakan herbisida campuran berbahan aktif isopropilamina glifosat + 2,4D dimetil amina. Penelitian bertujuan mengetahui dosis herbisida campuran isopropilamina glifosat + 2,4D dimetil amina yang efektif untuk mengendalikan pertumbuhan gulma pada piringan tanaman kelapa sawit belum menghasilkan (TBM), mengetahui terjadinya perubahan komposisi gulma pada piringan tanaman kelapa sawit belum menghasilkan (TBM), mengetahui pengaruh aplikasi herbisida campuran isopropilamina glifosat + 2,4D dimetil amina terhadap tingkat fitotoksisitas tanaman kelapa sawit belum menghasilkan (TBM). Penelitian dilaksanakan di Muara Putih, Natar, Lampung Selatan dan di Laboratorium Ilmu Gulma Fakultas Pertanian Universitas Lampung, pada bulan Juli hingga Oktober 2025. Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok (RAK) dengan 4 ulangan dan 8 perlakuan, yaitu IPA glifosat 450 g/ha+2,4D dimetil amina 150 g/ha, IPA glifosat 600 g/ha+2,4D dimetil amina 200 g/ha, IPA glifosat 750 g/ha+2,4D dimetil amina 250 g/ha, IPA glifosat 900 g/ha+2,4 D dimetil amina 300 g/ha, IPA glifosat 900 g/ha, 2,4D dimetil amina 300 g/ha, penyiangan secara mekanis, dan kontrol. Homogenitas ragam diuji dengan uji Bartlett, aditivitas data diuji dengan uji Tukey, jika asumsi terpenuhi data dianalisis ragam dan perbedaan nilai tengah perlakuan diuji dengan Uji Beda Nyata Terkecil (BNT) taraf 5%. Hasil penelitian menunjukkan bahwa campuran herbisida dosis IPA glifosat 750 g/ha + 2,4 D dimetil amina 250 g/ha dan IPA glifosat 900 g/ha + 2,4 D dimetil amina 300 g/ha efektif dalam mengendalikan gulma total. IPA glifosat 600 g/ha + 2,4 D dimetil amina 200 g/ha - IPA glifosat 900 g/ha + 2,4 D dimetil amina 300 g/ha efektif dalam mengendalikan gulma berdaun lebar. IPA glifosat 450 g/ha + 2,4 D dimetil amina 150 g/ha - IPA glifosat 900 g/ha + 2,4 D dimetil amina 300 g/ha serta perlakuan

tunggal IPA glifosat 900 g/ha efektif dalam mengendalikan gulma rumput hingga 12 MSA. Herbisida campuran IPA glifosat + 2,4 D dimetil amina semua dosis tidak menyebabkan perubahan komposisi gulma dan fitotoksisitas pada kelapa sawit TBM.

Kata kunci: herbisida, gulma, kelapa sawit TBM

ABSTRACT

EFFICACY OF A MIXED HERBICIDE OF ISOPROPYLAMINE, GLYPHOSATE 300 g/l + 2,4D DIMETHYLAMINE 100 g/l ON WEED CONTROL IN IMMUNITY PALM OIL (*Elaeis guineensis* Jacq.) CULTIVATION

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Oil palm (*Elaeis guineensis* Jacq.) is an important industrial crop widely cultivated in Indonesia due to its ability to produce large amounts of vegetable oil. Weed control in immature oil palm (IPM) can be achieved chemically using a herbicide mixture containing the active ingredients isopropylamine, glyphosate, and 2,4D dimethylamine. The study aimed to determine the effective dose of mixed herbicide isopropylamine glyphosate + 2,4D dimethylamine to control weed growth in immature oil palm (TBM) disks, to determine the changes in weed composition in immature oil palm (TBM) disks, and to determine the effect of the application of mixed herbicide isopropylamine glyphosate + 2,4D dimethylamine on the phytotoxicity level of immature oil palm (TBM). The research was carried out in Muara Putih, Natar, South Lampung and at the Weed Science Laboratory, Faculty of Agriculture, University of Lampung, from July to October 2025. The experimental design used was a Randomized Group Design (RAK) with 4 replications and 8 treatments, namely IPA glyphosate 450 g/ha+2,4D dimethylamine 150 g/ha, IPA glyphosate 600 g/ha+2,4D dimethylamine 200 g/ha, IPA glyphosate 750 g/ha+2,4D dimethylamine 250 g/ha, IPA glyphosate 900 g/ha+2,4D dimethylamine 300 g/ha, IPA glyphosate 900 g/ha, 2,4D dimethylamine 300 g/ha, mechanical weeding, and control. Homogeneity of variance was tested using Bartlett's test, data additivity was tested using Tukey's test, if the assumptions were met, the data were analyzed for variance and the differences in the mean values of the treatments were tested using the Least Significant Difference Test (LSD) at 5% level. The results showed that the herbicide mixture of IPA glyphosate 750 g/ha + 2.4 D dimethylamine 250 g/ha and IPA glyphosate 900 g/ha + 2.4 D dimethylamine 300 g/ha was effective in controlling total weeds. IPA glyphosate 600 g/ha + 2.4 D dimethylamine 200 g/ha - IPA glyphosate 900 g/ha + 2.4 D dimethylamine 300 g/ha was effective in controlling broadleaf weeds. Glyphosate IPA 450 g/ha + 2,4D dimethylamine 150 g/ha - Glyphosate IPA 900 g/ha + 2,4D dimethylamine 300 g/ha, and a single treatment of glyphosate IPA 900 g/ha were effective in controlling grass weeds up to 12 weeks after planting (AAU). The herbicide mixture of glyphosate

IPA + 2,4D dimethylamine at all doses did not cause changes in weed composition or phytotoxicity in TBM oil palms.

Keywords: herbicide, weeds, TBM oil palms