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EFFICACY OF TANK MIXING AMETRYN WITH GLYPHOSATE OR
GLUFOSINATE–AMMONIUM ON GROWTH OF GOOSEGRASS
(*ELEUSINE INDICA* (L.) GAERTN.) AT THE MATURE STAGE

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KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
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GLUFOSINATE–AMMONIUM ON GROWTH OF GOOSEGRASS
(*ELEUSINE INDICA* (L.) GAERTN.) AT THE MATURE STAGE

By

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**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: EFFICACY OF TANK MIXING AMETRYN WITH GLYPHOSATE OR GLUFOSINATE-AMMONIUM ON GROWTH OF GOOSEGRASS (*Eleusine indica* (L.) Gaertn.) AT THE MATURE STAGE oleh Nor Asmah binti Jalil, no. matrik: UK 8576 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains (Sains Biologi) Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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LIST OF ABBREVIATIONS / SYMBOLS

cm	=	Centimeter
g	=	Gram
kg	=	Kilogram
a. i. ha ⁻¹	=	Active ingredient per hectare
a. i. L ⁻¹	=	Active ingredient per Liter

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ABSTRACT

A study was conducted to determine the efficacy of tank mixtures of ametryn plus glyphosate or glufosinate-ammonium on control of goosegrass at the mature stage in the greenhouse. Fresh weight reduction of plants treated with glyphosate plus ametryn mostly were more than predicted value of fresh weight reduction indicating additive responses between these two herbicides. Six of nine tank mixtures were additive while three of them were antagonistic. Shoot fresh weight reduction of plants treated with glufosinate-ammonium plus ametryn were also showed that mostly were additive responses of these combination. Additive response was observed in five tank mixtures while other four tank mixtures gave antagonistic response. Good control of goosegrass applied in the field is in the line with the result obtained in the greenhouse study. The most cost effective control of herbicide combination treatment is to mix 320 g a. i. ha⁻¹ glyphosate with 80 g a. i. ha⁻¹ ametryn.

**KEBERKESANAN KOMBINASI AMETRIN DAN GLIFOSAT ATAU
GLUFOSINAT-AMMONIUM UNTUK KAWALAN RUMPUT SAMBARI
(*Eleusine indica* (L.) Gaertn) PADA PERINGKAT MATANG.**

ABSTRAK

Kajian ini telah dijalankan mengkaji keberkesanan kombinasi glifosat dan ametrin serta kombinasi glufosinat-ammonium dan ametrin untuk kawalan rumput sambari pada peringkat matang di rumah hijau. Pengurangan berat basah bagi semua kombinasi glifosat dan ametrin menunjukkan kebanyakannya adalah lebih tinggi berbanding dengan nilai pengurangan berat basah ramalan, menunjukkan bersifat aditif. Enam daripadanya adalah aditif manakala tiga campuran lagi adalah antagonistik. Pengurangan berat basah bagi rumput sambari yang di uji dengan kombinasi glufosinat-ammonium dan ametrin juga menunjukkan kebanyakan adalah bersifat aditif. Lima daripada sembilan kombinasi adalah aditif manakala empat lagi adalah antagonistik. Kombinasi kawalan yang baik terhadap rumput sambari yang disembur di lapangan juga menunjukkan keputusan yang sama dengan keputusan kombinasi kawalan di rumah hijau. Kombinasi yang paling baik adalah kombinasi 320 g a. i. ha⁻¹ glifosat dan 80 g a. i. ha⁻¹ ametrin.