

**THE EFFICACY OF AMINOPYRALID HERBICIDE, GLYPHOSATE
HERBICIDE, AND ITS COMBINATION TO *Asystasia gangetica*, *Cyperus
kyllingia*, AND *Paspalum conjugatum*.**

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ABSTRACT

Chemical weed control with herbicides is intended to suppress weed growth. Glyphosate is an active ingredient herbicide that effective to control grass weeds, broadleaf weeds, and weeds that have deep roots and systemic. Aminopyralid is a new active ingredient of pyridine compound, highly selective and effective for broadleaf weed control. Use of herbicide mixtures aims to widen the spectrum of control, improve the consistency of control, increasing the selectivity of the plant at low doses, reduce residue problem in the next planting, inhibit the development of resistant weed species. This research was conducted to determine: (1) the effectiveness of aminopyralid herbicide applied singly against weeds; (2) the effectiveness of glyphosate herbicide applied singly against weeds, and (3) whether the combination of aminopyralid and glyphosate were more effective in weed control.

This research was conducted at the greenhouse and Weed Science Laboratory, Faculty of Agriculture, University of Lampung, from November 2009 to February 2010. The treatments were applied to experimental plots in randomize completely block design with 10 treatments (control, aminopyralid premix 7,12 g / ha + glyphosate 192 g / ha, aminopyralid premix 14,24 g / ha + glyphosate 384 g / ha, aminopyralid premix 28,48 + glyphosate 768 g / ha, aminopyralid 16.80 g / ha, aminopyralid 33,60 g / ha, aminopyralid 67, 20 g / ha, glyphosate 240 g / ha, glyphosate 480 g / ha, glyphosate 960 g / ha). This research was conducted to three different experiments with the same treatment applied and the first experiment using the weed *Asystasia gangetica*, a second experiment using *Paspalum conjugatum* and a third experiment using *Cyperus kyllingia*. Each experiment was repeated 6 times. Uniformity mean value among the treatments was tested using Bartlett test and the aditivity data were tested with Tukey test. Data were analyzed with ANOVA and separation of mean value is being

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conducted with Honestly Significant Difference Test (BNJ) at 5% significance level.

The results showed that a single applied with aminopyralid herbicide effective to control *Asystasia gangetica* growth at all dose levels tested (16,80 g / ha, 33,60 g / ha, and 67,20 g / ha) while *Paspalum conjugatum* and *Cyperus kyllingia* can be controlled with herbicides at the level of dose 67,20 g / ha. Glyphosate herbicide is applied singly effectively control *Asystasia gangetica*, *Paspalum conjugatum* and *Cyperus kyllingia* at all dose levels tested (240 g / ha, 480 g / ha, and 960 g / ha). Combination aminopyralid and glyphosate can control *Asystasia gangetica*, *Paspalum conjugatum* and *Cyperus kyllingia* at all dose levels tested.

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