

CONTROL OF *AMARANTHUS PALMERI* RESISTANT TO ALS AND EPSP INHIBITORS WITH PRE AND POSTEMERGENCE HERBICIDES IN INTERCROPPING OF CORN AND MARANDU GRASS. F. S. Ikeda\*<sup>1</sup>, S. D. Cavalieri<sup>1</sup>, F. M. Lima Júnior<sup>2</sup>, L. H. Metz<sup>2</sup>, B. T. Fonseca<sup>2</sup>, F. Poltronieri<sup>2</sup>; <sup>1</sup>Embrapa, Sinop, Brazil, <sup>2</sup>Federal University of Mato Grosso, Sinop, Brazil (169)

### ABSTRACT

The Palmer's amaranth is in eradication process at Mato Grosso, due to its potential risk to national agriculture. The objective of this work was to study management alternatives of this species, with a randomized block design and factorial scheme (2 x 5) with four blocks, two systems ([single and intercropping maize with marandu grass (*Urochloa brizantha* cv. Marandu)]. and three herbicidal treatments (ae g ha<sup>-1</sup>): atrazine (2,500) PRE, atrazine (2,500) PRE / atrazine + tembotrione (1,500 + 50) POST and atrazine + tembotrione (1,500 + 50) POST. The herbicides were applied with CO<sub>2</sub> pressurized sprayer and application volume of 200 L ha<sup>-1</sup>. The control of Palmer's amaranth and marandu grass intoxication were evaluated at 7 and 21 days after application (DAA) with grades from 0 to 100. At 7 and 21 DAA, the applications in POST and PRE + POST showed similar control of the Palmer's amaranth, without influence of the cultivation systems. At 7 and 21 DAA, there was effect of the system in the application only in PRE and non-weeded control, without differing among them, being the greater control in the intercropping (> 80% in the two evaluations). There was no significant difference (p < 0.05) for stand, number of rows / ear and yield (kg ha<sup>-1</sup>), although the height of insertion of the spike and maize and grain / row plants was higher in the intercropping. The application in PRE did not intoxicate the marandu grass, unlike those in POST (approximately 20% at 21 DAA), besides not reducing the density and the dry mass of the marandu grass. It is concluded that the management in the maize associated with marandu grass controls the Palmer's amaranth.