

Perennial sourgrass control in full flowering growth stage

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Perennial sourgrass (*Digitaria insularis*) is a difficult weed to control, because of its vegetative survival characteristics and resistance to glyphosate. The aim of this study was to evaluate the efficacy of ACCase inhibitor herbicides to control the perennial sourgrass in the full flowering growth stage. Two field experiments were conducted, in the first 4 herbicides were tested (haloxyfop at 100 and 130 g a.i. ha⁻¹, clethodim at 192 and 240 g a.i. ha⁻¹, quizalofop-ethyl at 96 and 120 g a.i. ha⁻¹ and fluazifop at 150 and 200 g a.i. ha⁻¹) in a single post emergence application, evaluating percentage of control at 14 and 28 DAA (Days After Application). In the second experiment, 17 treatments with doses of haloxyfop (100; 130; 149; 186 g a.i. ha⁻¹) and clethodim (192; 240; 288; 360 g a.i. ha⁻¹), associated or not with glyphosate, were applied in the first application (application A). The following application (B) occurred 35 days after the first (A) when it was applied clethodim (240 g a.i. ha⁻¹) + glyphosate (1200 g a.e. ha⁻¹). In this experiment, visual control (0-100%) was evaluated at 14, 28 and 35 days after the first and second applications (A and B), as well as dry biomass. In the first experiment, no treatment provided acceptable control with a single application. In the second experiment, results showed no single application treatment provided effective control. However, at 35 days after the application B with clethodim+glyphosate, in the treatments which haloxyfop-methyl and clethodim were used in application A, a significant reduction in weed dry weight was achieved, providing effective perennial sourgrass control. Results showed that only one application of ACCase inhibitor herbicides was not effective to control perennial sourgrass at full flowering stage, requiring a sequential application (A + B) to efficiently provide control (>90%) of this weed at this growth stage.

Palavras-chave: single application, sequential application, clethodim, haloxyfop-methyl, *Digitaria insularis*

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