



Weed complex control using Paxeo™ herbicide as burndown prior soybean crop.

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Burndown weed control became a common and primordial tool on soybean crop production since no-till soil system was implemented. For this weed management, growers usually choose non-selective herbicides glyphosate or paraquat, due to a broad spectrum of controlled species. However, the intensive use of glyphosate has selected for resistant biotypes. Therefore, herbicides with different mode of actions as Paxeo™ (Arylex™ active+Diclosulam), a new auxinic herbicide, developed by Dow AgroSciences, might be an excellent option to control glyphosate-resistant weeds due to a combination of two different mode of action herbicides. This study aimed to evaluate the performance of Paxeo on *Amaranthus viridis*, *Bidens pilosa*, *Commelina benghalensis*, *Euphorbia heterophylla*, *Conyza bonariensis*, *Ipomoea grandifolia* and *Portulaca oleracea* control. It was conducted in 24 trials located at RS, PR, MT, MS, GO, MG and SP States in Brazil, covering different soil types and rainfall patterns. Paxeo at 22, 33, 44 and 55 g a.i. ha⁻¹ were tested and compared to the standards Heat (saflufenacil) at 50 g a.i. ha⁻¹ and paraquat at 300 g a.i. ha⁻¹ sprayed in burndown, 7 days before soybean planting. Weed control at 14, 21 and 28 days after emergence were assessed. The results showed that *A. viridis*, *E. heterophylla*, *P. oleracea* and *I. grandifolia* were very well controlled by the lowest rate of Paxeo (22 g a.i. ha⁻¹) with > 90% being similar to the standards with exception of paraquat on *I. grandifolia* which showed lower efficacy than Paxeo. Moreover, Paxeo provided excellent control on *C. benghalensis* and *B. pilosa* at 44 g a.i. ha⁻¹. In addition, Paxeo rates from 33 g a.i. ha⁻¹ presented excellent *C. bonariensis* control, being superior of both standards. Paxeo showed a broad weed spectrum control and is excellent option to be used as burndown segment to control glyphosate-resistant weeds occurring in Brazilian soybean fields.

Palavras-chave: burndown, glyphosate-resistant weeds, auxinic herbicide.