



Efficacy of Texaro™ herbicide in comparison with Double Knockdown strategies to control different sizes of glyphosate-resistant *Conyza* in Argentina

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Since 2008/09 glyphosate-resistant *Conyza* species have become a growing concern in burndown applications in Argentina. Strategies are being defined to control this weed. Current strategies for chemical control include glyphosate applied in mixture with synthetic auxin plus ALS inhibitor herbicides. Control depends on weed size at application. The most efficient are Double Knockdown programs. Texaro™ herbicide is a wettable dry granule formulation of 580 g ai/kg of Diclosulam and 115 g ai/kg of Arylex™ active. Arylex™ active is a synthetic auxin being developed by Dow AgroSciences LLC. During 2015 to 2016 field trials were conducted near Pergamino, Argentina designed to compare efficacy of single applications of two rates of Texaro™ against two Double Knockdown treatments in glyphosate-resistant *Conyza sumatrensis*. The objective of these studies was to identify the maximum weed height at which Texaro™ is comparable to Double Knockdown strategies. Efficacy of Texaro™ at 30 or 36 g ai/ha + 1200 g ae/ha of glyphosate was compared to glyphosate + 2,4-D (1200 + 720 g ae/ha) followed by 25 g ai/ha of saflufenacil; and glyphosate, 2,4-D, and chlorimuron (1200 g ae + 720 g ae/ha + 25 g ai/ha) followed by 25 g ai/ha of saflufenacil applied to *C. sumatrensis* at 15, 25 and 35 cm height. Visual control assessments were performed 14, 28 and 42 days after herbicide application. There were no differences among treatments 42 days after applications across weed sizes assessed. Treatments applied to weeds at 15 and 25 cm heights provided greater than 90% control. At 35 cm height, Texaro™ treatments provided less than 85% control with a frequency of 50%, on the other hand, Double Knockdown treatments achieved less than 85% control only with a frequency of 8%. Texaro™ provided levels of *C. sumatrensis* control, comparable to Double Knockdown applications, up to a height of 25 cm.

Palavras-chave: *Conyza Sumatrensis*, Double Knockdown, Chemical Control, Glyphosate Resistance, Weed Sizes.