Control of emerged kochia using soybean herbicides

The objective of the study was to evaluate alternative methods for controlling emerged glyphosate-resistant kochia in a spring burndown using soybean herbicides. There was no crop planted in the field. Herbicide treatments were applied June 5 to 0.5- to 4-inch kochia with about 12 plants/ft^2. All treatments were applied with recommended adjuvants to enhance foliar control.

Glyphosate + Zidua provided poor kochia control. Kochia control was greater where Metribuzin was applied at 0.5 lb compared to 0.25 lb/A. Verdict tended to provide slightly better kochia control than Sharpen treatments. Treatments containing Spartan/Authority provided excellent kochia control. Fierce was not as effective as the Spartan/Authority treatments. Cadet provided poor kochia control.

Table. Control of emerged kochia in the spring burndown using soybean herbicides. (1437)

		Kochia control			
Treatment[ab]	Rate	Jun-12	Jun-19	Jul-02	Jul-17
(All treatments applied with glyphosate + AMS)		----------%----------			
Zidua	2.5 oz	65	72	66	50
Zidua + Sharpen + MSO	2.5 oz + 1 oz + 1%	93	92	87	81
Zidua + Verdict + MSO	2.5 oz + 5 oz + 1%	99	97	95	90
Zidua + Metribuzin	2.5 oz + 0.5 lb	82	83	83	83
Metribuzin + Sharpen + MSO	0.5 lb + 1 oz + 1%	97	96	95	91
Metribuzin + Verdict + MSO	0.5 lb + 5 oz + 1%	98	98	98	98
Metribuzin + Zidua + Sharpen + MSO	0.5 lb + 2.5 oz + 1 oz + 1%	97	98	97	97
Zidua + Metribuzin	2.5 oz + 0.25 lb	75	74	69	49
Metribuzin + Sharpen + MSO	0.25 lb + 1 oz + 1%	96	95	90	83
Metribuzin + Verdict + MSO	0.25 lb + 5 oz + 1%	97	95	93	84
Metribuzin + Zidua + Sharpen + MSO	0.25 lb + 2.5 oz + 1 oz + 1%	98	97	95	90
Sharpen + Spartan + MSO	1 oz + 4 oz + 1%	99	99	99	99
Authority MTZ + MSO	12 oz + 1%	98	98	99	99
Fierce + MSO	3 oz + 1%	89	94	91	81
Zidua + Cadet + MSO	1.8 oz + 0.42 oz + 1%	79	78	70	48
Untreated		0	0	0	0
LSD (0.05)		2.8	5.0	6.1	6.8
CV		2.0	3.5	4.4	5.3

[a] *All treatments applied with Glyphosate + AMS (22 oz + 2.5 gal/100 gal); Glyphosate = 4.5 lb ae formulation*

[b] *All treatments applied June 5 to 0.5-4 inch kochia (no crop)*