

# Weed control with Zidua Herbicide in Soybean, Carrington

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The trial was conducted at the NDSU Carrington Research Extension Center in cooperation with BASF to evaluate soybean weed control with PRE Zidua and other soil-applied herbicides. Experimental design was a randomized complete block with three replicates. The field trial was established on a conventionally-tilled Heimdal-Emrick loam soil with 3.2% organic matter and 6.1 pH. ‘DSR0404-2YR’ soybean seed was inoculated and planted at 200,000 seeds/A on May 21 in 15-inch rows. Herbicide treatments were applied with a hand-held boom sprayer delivering 14 gal/A at 35 psi through 8001 flat fan nozzles to the center 6.7 ft of 10- by 25-ft plots. PRE treatments were applied on May 22 with 70°F, 37% RH, and 2 MPH wind. Rainfall totaled 0.4 inches during 12 days following application of PRE herbicides. POST Roundup PowerMax at 22 fl oz/A plus Class Act NG at 2.5% v/v were applied to all plots except the untreated check on June 3 with 72°F, 46% RH, and 4 mph wind to VC-stage soybean.

Lack of timely rain reduced the impact of PRE herbicides. Following POST glyphosate application, foxtail control on June 20 ranged from 88-95% with all treatments except Authority First and MTZ (Table). On July 2, foxtail control at 88% or greater continued with all treatments containing Zidua and Authority Assist. On July 2, common lambsquarters and volunteer flax control ranged from 73 to 89%. Redroot and prostrate pigweed control was good to excellent (83 to 98%) with all treatments except Authority MTZ.

Table.

Herbicide			Weed Control (%) <sup>1</sup>						
Treatment <sup>2</sup>		Rate	June 20			July 2			
No.		fl oz product/A	fota	colq	vofl	fota	colq	vofl	pigw
1	Zidua + Sharpen	2.5 oz wt + 1	89	93	81	88	76	75	92
2	Zidua + Sharpen	2.5 oz wt + 1	90	96	87	88	86	81	94
3	Verdict + Outlook	5 + 8	88	95	76	79	82	74	83
4	Zidua + Verdict	2.5 oz wt + 5	92	96	83	89	89	79	90
5	Zidua + Verdict	2.5 oz wt + 5	95	95	82	92	81	82	89
6	Zidua + Verdict	3 oz wt + 5	91	95	80	90	82	76	93
7	Fierce	3 oz wt	90	93	82	82	79	75	96
8	Authority First	6.45 oz wt	83	96	80	76	82	75	86
9	Authority MTZ	12 oz wt	83	79	95	74	73	80	76
10	Authority Assist	6	90	80	96	88	82	86	98
11	untreated check	x	0	0	0	0	0	0	0
C.V. (%)			4.8	9.7	1.9	4.9	7.8	7.8	8.9
LSD (0.05)			7	12	3	6	9	10	12

<sup>1</sup> fota = green and yellow foxtail; colq = common lambsquarters; vofl = volunteer flax; pigw = redroot and prostrate pigweed.

<sup>2</sup> All treatments except untreated check include June 3 POST Roundup PowerMax at 22 fl oz/A plus Class Act NG at 2.5% v/v.