

## Weed Control with Glyphosate Adjuvants

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Weed control was investigated with glyphosate and selected adjuvants. The trial had a randomized complete block design with three replicates. Roundup Original Max was applied at 4 fl oz/A (2.26 oz ae/A) plus adjuvants with a CO<sub>2</sub> pressurized hand-held plot sprayer delivering 8.5 gal/A at 30 psi through 8001 flat fan nozzles on June 17 with 65 F, 76% RH, 50% clear sky, and 10 mph wind to 1- to 10-inch tall yellow foxtail, 1- to 15-inch tall common lambsquarters, 2- to 10-inch tall redroot and prostrate pigweed, 4- to 15-inch tall tame (volunteer) buckwheat, and rosette- to flowering-stage sheperdspurse.

Yellow foxtail, pigweed species, and sheperdspurse control were similar among treatments (Table). The highest common lambsquarters control (77 to 83%) with glyphosate when evaluated on July 5 was achieved with the adjuvants Class Act NG, Surfate, Bronc Max+R-11, N-Tense and R-11+AMS. Good to excellent tame buckwheat control (81 to 96%) with glyphosate when evaluated on July 19 was achieved with the adjuvants Purity 100, Premier 90, Class Act NG, Alliance+Preference, Bronc Max+R-11, Quest+Preference, Citron+Preference, N-Tense, Herbolyte and R-11+AMS.

Table .									
Adjuvant <sup>1</sup>	Rate	7/5					7/19		
		Yellow foxtail	Common lambs-quarters	Pig-weed spp. <sup>2</sup>	Tame buck-wheat	Shepherds-purse	Common lambs-quarters	Pig-weed spp.	Tame buck-wheat
	% v/v	-----% control -----							
AMS	8.5 lb/100 gal	92	69	76	69	94	72	50	78
R-11	0.5	87	72	83	69	98	65	38	50
Preference	0.5	93	68	70	70	91	68	53	70
Liberate	0.5	91	70	81	71	93	57	60	77
APSA-80	0.5	94	70	73	70	88	75	50	68
Purity 100	0.5	93	69	72	72	80	74	52	89
Wet-Sol	0.5	93	68	93	68	89	60	43	77
Premier 90	0.5	92	67	83	71	96	62	50	90
Class Act NG	2.5	93	79	78	74	99	71	40	91
Surfate	1	92	77	94	67	99	83	53	73
Alliance+Preference	1.25+0.5	93	74	90	70	95	77	63	81
Choice+Liberate	0.5+0.5	92	73	85	78	99	76	40	77
Bronc Max+R-11	0.5+0.5	92	79	92	71	98	70	53	90
Quest+Preference	0.5+0.5	90	71	88	72	99	68	47	93
Citron+Preference	2.2 lb/100 gal+0.5	91	73	78	73	95	69	55	96
N-Tense	0.5	91	77	91	74	96	73	48	82
Herbolyte	1	93	69	87	77	99	78	67	88
R-11+AMS	0.5+8.5 lb/100 gal	90	83	75	72	91	68	33	92
CV (%)		4	6	14	7	8	27	23	13
LSD (0.05)		NS	8	NS	NS	NS	NS	NS	17
<sup>1</sup> Roundup Original Max was used at 4 fl oz/A (2.26 oz ae/A).									
<sup>2</sup> Pigweed spp.=Redroot and prostrate.									