

Nicosulfuron & rimsulfuron with adjuvants. Zollinger, Richard K. and Jerry L. Ries. An experiment was conducted near Leonard, ND, to evaluate weed control in corn using nicosulfuron & rimsulfuron premix with adjuvants. Golden Harvest 'H-6389Bt' was planted on May 15, 2002. POST treatments were applied June 14 at 9:30 am with 70 F air, 76 F soil surface, 42% relative humidity, 0% clouds, 0 mph wind, moist soil surface, wet subsoil, good crop vigor, and no dew present to 4 to 6 inch (3 to 4 collar) corn. Weed species present were: 2 to 3 inch (10 to 100/ft<sup>2</sup>) yellow foxtail; and 1 to 3 inch (5 to 20/yd<sup>2</sup>) common lambsquarters. Treatments were applied to the center 6.67 feet of the 10 by 40 foot plots with a back-type plot sprayer delivering 8.5 gpa at 40 psi through 8001 flat fan nozzles. The experiment had a randomized complete block design with three replicates per treatment.

All treatments controlled common lambsquarters. Yellow foxtail was used as the weed species in this study due to the tolerant nature of the weed to nicosulfuron and rimsulfuron. Generally, adjuvants containing an MSO and/or basic blend type adjuvants were necessary to control yellow foxtail. Those adjuvant which enhanced control greater than 90% were Destiny, Quad 7, and Renegade. Destiny is an MSO adjuvant, Renegade contains MSO and basic blend adjuvants, and Quad 7 is a basic blend adjuvant (nonionic surfactant + fertilizer + buffer). Adding additional fertilizer (AMS) to Quad 7 decreased control. Phase contains an MSO adjuvant + organosilicone surfactant but did not provide the same level of control as other MSO adjuvants. (Dept. of Plant Sciences, North Dakota State University, Fargo).

Table. Nicosulfuron & rimsulfuron with adjuvants (Zollinger and Ries).

Treatment <sup>1</sup>	Rate (lb/A)	June 28	July 12
		SETLU (%)	SETLU (%)
Nicosulfuron&rimsulfuron	0.023&0.01		
Liberate+AMS	0.125% v/v+2lb	62	68
LI-700+AMS	0.25% v/v+2lb	60	57
PO	1% v/v	67	78
PO+AMS	1% v/v+2lb	70	77
Destiny	1% v/v	75	90
Destiny+AMS	1% v/v+2lb	83	93
Quad 7	1% v/v	92	96
Quad 7+AMS	1% v/v+2lb	75	85
Phase	4pt/100gal	73	75
Phase+AMS	4pt/100gal+2lb	85	85
Renegade	1% v/v	88	93
Renegade+AMS	1% v/v+2lb	95	97
LSD (0.05)		5	8

<sup>1</sup>Liberate = surfactant; AMS = ammonium sulfate; LI-700 = surfactant; PO = petroleum oil concentrate = Herbimax; Destiny = methylated seed oil; Quad 7 = basic blend; Phase = methylated seed oil + organosilicone surfactant; Renegade = methylated seed oil basic blend.