

Imazamox + fomesafen with adjuvants. Zollinger, Richard K. and Jerry L. Ries. An experiment was conducted near Christine, ND, to evaluate soybean weed control from imazamox + fomesafen with adjuvants. Asgrow 'AG0801' soybean was planted on May 6, 2002. POST treatments were applied June 12 at 3:30 pm with 72 F air, 84 F soil surface, 37% relative humidity, 90% clouds, 5 to 8 mph SW wind, dry soil surface, moist subsoil, good crop vigor, and no dew present to unifoliolate soybean. Weed species present were: 1 to 3 inch (5 to 50/ft²) redroot pigweed; 1 to 4 inch (1 to 10/yd²) common lambsquarters; 1 to 3 inch (1 to 15/yd²) common mallow; and 1 to 4 inch (10 to 20/yd²) marshelder. Treatments were applied to the center 6.67 feet of the 10 by 40 foot plots with a bicycle-wheel-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.

At June 26 (14 DAT), injury symptoms of fomesafen were slight speckling and burning. At July 10 (28 DAT), all treatments controlled marshelder. Poor redroot pigweed control was due to another flush. Imazamox was used at 25% of the label rate and fomesafen was used at slightly more than 50% of the labeled rate for North Dakota. Adjuvants caused a wide separation in weed control. At July 10, control of redroot pigweed was from 40 to 99%, common lambsquarters from 32 to 97%, kochia from 32 to 95%, and marshelder from 52 to 96%. All treatments that contained an MSO type adjuvant had the greatest weed control. Renegade and Z-64 gave the greatest enhancement in weed control. (Dept. of Plant Sciences, North Dakota State University, Fargo).

Table. Imazamox + fomesafen with adjuvants (Zollinger and Ries).

Treatment ¹	Rate	June 26						July 10			
		Soybean injury	AMARE	CHEAL	KCHSC	MALNE	IVAXA	AMARE	CHEAL	KCHSC	MALNE
	(lb/A)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Imazamox+fomesafen+	0.0078+0.1										
Liberate	0.125% v/v	5	57	52	45	75	90	57	57	45	72
AG 01017	0.5% v/v	10	67	67	63	75	95	57	55	50	63
AG 01034	0.25% v/v	10	70	60	57	70	95	60	50	43	60
Class Act NG	2.5% v/v	5	62	53	53	75	95	43	32	40	62
Basic Blend	1% v/v	5	75	73	70	75	95	78	78	77	80
Prime Oil	1% v/v	0	67	53	50	70	95	60	55	58	63
Hi-Per-Oil	0.5% v/v	0	50	45	32	70	95	40	37	32	60
L-132	0.75pt	20	77	73	73	70	95	72	70	70	75
AG 01023	0.5% v/v	0	62	48	50	65	95	47	33	40	52
AG 02020	0.5% v/v	10	52	42	43	70	95	43	37	40	62
AG 02033	0.5% v/v	10	57	53	47	70	90	43	43	37	53
Scoil	1.5pt	10	87	81	87	90	99	95	88	90	93
Rivet	0.5% v/v	10	75	60	60	75	95	80	67	72	88
Base	1% v/v	10	75	73	70	80	95	88	85	80	88
Renegade	1% v/v	15	88	82	82	90	99	99	97	95	95
Z-64	1% v/v	25	92	88	88	95	99	99	95	95	96
AG 02025	1.5% v/v	20	75	75	73	85	95	88	88	88	92
LSD (0.05)		0	10	13	12	0	0	6	7	13	5

¹Liberate = surfactant; AG 01017 and AG 01034 are surfactant based adjuvants from Agrilience; Class Act NG = surfactant + fertilizer; Basic Blend = Quad 7; Prime Oil, Hi-Per-Oil, L-132 = petroleum oil concentrate; AG 01023, AG 02020, and AG 02033 are petroleum oil based adjuvants from Agrilience; Scoil = methylated seed oil; Rivet = methylated seed oil + organosilicone surfactant; Base, Renegade, and Z-64 = methylated seed oil basic blend; AG 02025 = proprietary adjuvant from Agrilience.