

Study Name: Common milkweed control in barley (Minot, ND)

Study Number: 0537

Objectives:

Results:

A study was initiated in 2003 to determine the short- and long-term impact of herbicides on common milkweed control. Barley was seeded May 20, 2003 north of Minot, ND. The 2-leaf, 5-leaf, and pre-harvest (PRE-H) treatments listed below were applied June 11, June 17, and August 14, 2003 respectively. All milkweed plants in each plot were counted on June 17, 2003 and again on June 21, 2004.

Glyphosate applied pre-harvest in 2003 significantly reduced milkweed densities more than in-crop treatments alone. Pre-harvest glyphosate reduced milkweed densities 91-98% compared to 54-74% and 45-50% for in-crop treatments containing Express and Aim, respectively.

Wheat was planted into the study area in 2004. A blanket treatment of Express (0.33 oz) + MCPE (0.75 pt) + Starane (0.5 pt) + Puma (0.66 pt) was applied June 24, 2004. Glyphosate was applied pre-harvest over the entire plot area September 7, 2004. Milkweed densities were counted again June 13, 2005. By 2005, all treatments, except one, reduced milkweed densities 86-96% compared to initial densities in 2003.

Table. Common milkweed control in barley (Minot, ND)

Herbicide treatment	Rate applied in 2002	Timing in	Common milkweed			Reduction
			Jun 17	Jun 21	Jun 13	2003-
			— plants / plot —			%
Express /	0.167 oz /	2-leaf /	112	45	8	90
Express + MCPA +	0.33 oz + 0.75 pt +	5-leaf	111	42	15	88
Express /	0.167 oz /	2-leaf/	123	6	8	91
Express + MCPA +	0.33 oz + 0.75 pt +	5-leaf/	132	11	6	96
Express + MCPA +	0.33 oz + 0.75 pt +	5-leaf	130	32	8	92
Aim + MCPA	0.5 oz + 0.75 pt	5-leaf	121	60	13	89
Aim + MCPA	1 oz + 0.75 pt	5-leaf	74	35	24	69
Aim + MCPA /	0.5 oz + 0.75 pt /	5-leaf/	97	2	9	91
Aim + MCPA /	1 oz + 0.75 pt /	5-leaf/	128	3	5	95
Aim + MCPA ^c	0.5 oz + 0.75 pt	5-leaf	89	45	10	91
Aim + MCPA +	0.5 oz + 0.75 pt +	5-leaf	107	32	11	90
Aim + MCPA +	0.5 oz + 0.75 pt +	5-leaf/	92	4	12	86
					NS	10
LSD (0.05)			NS	24	NS	10
CV			49	64	75	8

^aGlyphosate applied was Roundup Ultra Max with AMS at 2.5 gal/100 gal.

^bExpress (0.33 oz) + MCPE (0.75 pt) + Starane (0.5 pt) + Puma (0.66 pt) was applied as a blanket treatment in 2004.

^cA post-harvest glyphosate application was planned, but not applied in 2003 due to no weed regrowth.