Wild oat control with Everest and Puma alone and tank-mixed at Crookston, MN - 2003. Durgan, Beverly R., Jim Cameron, and Douglas W. Miller. This experiment was designed to evaluate wild oat control and wheat / barley injury with Everest (flucarbazone) alone and in tank mix combinations with Puma (fenoxaprop & safener). The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the experimental area received 100 lb/A of N and was fall plowed. In the spring the experimental area was disked and harrowed. '2375' hard red spring wheat and 'Lacey' Barley were seeded on April 29 at 1.5 and 1.75 Bu/A respectively. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. The experimental design was a randomized complete block with three replications and plot size was 10 by 16 ft. Application data and environmental conditions are listed below. Crop injury and wild oat control were rated visually. Yields were measured. All data are presented in Tables 1 and 2 for barley and wheat, respectively.

Treatment Date	May 29
Target weed or crop stage	4 leaf Wild Oat
Air Temperature (° F.)	65
Rainfall before Application	
Week 1 (inch)	0.22
Rainfall after Application	
Week 1 (inch)	0.41
Week 2 (inch)	1.42

Table 1. Wild oat control with Everest and Puma alone and tank-mixed in barley at Crookston, MN - 2003 (Durgan, Cameron, and Miller).

Treatment	Rate	Barley Injury 6/5	Barley Injury 6/13	Barley Injury 7/1	AVEFA Control 7/1	Barley Yield
	(lb ai/A)			(%)		(bu/A)
Flucarbazone + NIS[1]	0.0175 + 0.25%	33	22	10	99	106
Flucarbazone + NIS	0.0262 + 0.25%	37	32	13	99	106
Flucarbazone + fenoxaprop & safener + NIS	0.0175 + 0.0234 + 0.25%	15	8	3	99	112
Flucarbazone + fenoxaprop & safener + NIS	0.0175 + 0.0312 + 0.25%	8	7	0	99	114
Flucarbazone + fenoxaprop & safener + NIS	0.0175 + 0.039 + 0.25%	10	7	0	99	115
Flucarbazone + fenoxaprop & safener + NIS	0.0219 + 0.0234 + 0.25%	12	7	0	99	114
Flucarbazone + fenoxaprop & safener + NIS	0.0219 + 0.0312 + 0.25%	10	13	0	99	111
Flucarbazone + fenoxaprop & safener + NIS	0.0219 + 0.039 + 0.25%	10	8	3	99	114
Fenoxaprop & safener + NIS	0.0312 + 0.25%	0	0	0	99	126
Fenoxaprop & safener + NIS	0.05 + 0.25%	2	0	0	99	117
Weedy check		0	0	0	--	130
LSD (P=.05)		9	7	9	ns	ns

[1] NIS = Class Preference nonionic surfactant.

Table 2. Wild oat control with Everest and Puma alone and tank-mixed in spring wheat at Crookston, MN - 2003 (Durgan, Cameron, and Miller).

Treatment	Rate	Wheat Injury 6/5	Wheat Injury 6/13	Wheat Injury 7/1	AVEFA Control 7/1	Wheat Yield
	(lb ai/A)			(%)		(bu/A)
Flucarbazone + NIS[1]	0.0175 + 0.25%	0	0	0	99	72
Flucarbazone + NIS	0.0262 + 0.25%	0	0	0	99	69
Flucarbazone + fenoxaprop & safener + NIS	0.0175 + 0.0234 + 0.25%	2	5	0	99	69
Flucarbazone + fenoxaprop & safener + NIS	0.0175 + 0.0312 + 0.25%	0	0	0	99	70
Flucarbazone + fenoxaprop & safener + NIS	0.0175 + 0.039 + 0.25%	0	0	2	99	70
Flucarbazone + fenoxaprop & safener + NIS	0.0219 + 0.0234 + 0.25%	0	5	0	99	73
Flucarbazone + fenoxaprop & safener + NIS	0.0219 + 0.0312 + 0.25%	0	0	0	99	71
Flucarbazone + fenoxaprop & safener + NIS	0.0219 + 0.039 + 0.25%	0	0	2	99	67
Fenoxaprop & safener + NIS	0.0312 + 0.25%	0	0	0	99	68
Fenoxaprop & safener + NIS	0.05 + 0.25%	0	0	0	99	65
Weedy check		0	0	0	--	65
LSD (P=.05)		ns	ns	ns	ns	ns

[1] NIS = Class Preference nonionic surfactant.