

Wild oat control in hard red spring wheat and barley with F8426 tank mixes at Crookston, MN - 1997. Durgan, Beverly R., Eric Spandl, and Jim Cameron. The objective of the this experiment was to evaluate antagonism of wild oats control with F8426 in combination with several wild oats herbicides. 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. 'Pioneer 2375' hard red spring wheat and 'Robust' barley were seeded on May 15 at rates of 1.5 and 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 date and environmental conditions are listed below. Wioa control was visually rated on June 23, June 30 and July 17. Crop injury was visually rated June 17, June 23, June 30 and July 17. No visual injury was observed on July 17. Crop yield data were collected. All data are presented in Tables 1 and 2 for wheat and barley, respectively.

Treatment Date	June 9
Target weed or	3-4 lf wild oat

Soil Moisture	dry
Sky	clear
Wind	5-10 S
Air Temperature (°F)	74
Rainfall before Application	
Week 1 (inch)	0.60
Rainfall after Application	
Week 1 (inch)	0.56
Week 2 (inch)	0.72
Barley leaf no.	4
Wheat leaf no.	4

Table 1. Wild oat control in hard red spring wheat with F8426 at Crookston, MN - 1997 (Durgan, Spandl, and Cameron).

Treatment	Rate (lb/A)	Wioa Control			Wheat			Yield (Bu/A)
		6/23	6/30	7/14	Injury			
		----- (%) -----			-----			
Postemergence (June 9)								
F8426 & MCPA ¹ + imazamethabenz ² + 28%N ³ + NIS ⁴	0.023 & 0.375 + 0.31 + 2.0% + 0.25%	37	35	75	15	17	5	43
F8426 & MCPA + tralkoxydim + TF8035 COC + 28%N	0.023 & 0.375 + 0.18 + 0.5% + 2.0%	42	22	30	20	23	13	34
F8426 & MCPA + HOE 1133 ⁵ + 28%N	0.023 & 0.375 + 0.104 + 2.0%	43	43	85	15	18	8	45
F8426 & MCPA + difenzoquat + 28%N	0.023 & 0.375 + 1.0 + 2.0%	23	45	80	18	22	12	39
F8426 & MCPA + imazamethabenz + 28%N + NIS	0.031 & 0.5 + 0.31 + 2.0% + 0.25%	23	32	75	10	15	2	42
F8426 & MCPA + tralkoxydim + TF8035 COC + 28%N	0.031 & 0.5 + 0.18 + 0.5% + 2.0%	47	13	32	28	23	15	29
F8426 & MCPA + HOE 1133 + 28%N	0.031 & 0.5 + 0.104 + 2.0%	45	32	75	17	20	8	35
F8426 & MCPA + difenzoquat + 28%N	0.031 & 0.5 + 1.0 + 2.0%	33	48	82	18	18	13	42
Imazamethabenz + NIS + COC ⁶	0.31 + 0.25% + 2.5%	30	40	70	8	18	2	35
HOE 1133	0.104	47	60	95	10	23	7	41
Difenzoquat	1.0	25	45	75	17	28	18	33
Weedy check		--	--	--	0	0	0	25
LSD (0.05)		13	10	14	4	7	4	10

¹ Premix = Affinity MCPA 66DF.

² Assert SG 67SG.

³ 28%N = 28% UAN fertilizer solution.

⁴ NIS = Class Preference nonionic surfactant.

⁵ HOE 1133 = fenoxaprop & safener.

⁶ Class Crop Oil Concentrate.

Table 2. Wild oat control in barley with F8426 at Crookston, MN - 1997 (Durgan, Spandl, and Cameron).

Treatment	Rate (lb/A)	Barley						Yield (Bu/A)
		Wioa Control			Injury			
		6/23	6/30	7/14	6/17	6/23	6/30	
		----- (%) -----			-----			
Postemergence (June 9)								
F8426 & MCPA ¹ + imazamethabenz ² + 28%N ³ + NIS ⁴	0.023 & 0.375 + 0.31 + 2.0% + 0.25%	33	33	77	12	8	8	86
F8426 & MCPA + tralkoxydim + TF8035 COC + 28%N	0.023 & 0.375 + 0.18 + 0.5% + 2.0%	37	20	40	17	15	13	69
F8426 & MCPA + HOE 1133 ⁵ + 28%N	0.023 & 0.375 + 0.104 + 2.0%	40	45	88	13	13	8	83
F8426 & MCPA + difenzoquat + 28%N	0.023 & 0.375 + 1.0 + 2.0%	37	45	93	12	10	10	87
F8426 & MCPA + imazamethabenz + 28%N + NIS	0.031 & 0.5 + 0.31 + 2.0% + 0.25%	22	35	70	5	10	7	85
F8426 & MCPA + tralkoxydim + TF8035 COC + 28%N	0.031 & 0.5 + 0.18 + 0.5% + 2.0%	42	22	40	20	17	12	65
F8426 & MCPA + HOE 1133 + 28%N	0.031 & 0.5 + 0.104 + 2.0%	43	33	78	15	15	12	81
F8426 & MCPA + difenzoquat + 28%N	0.031 & 0.5 + 1.0 + 2.0%	33	45	87	15	15	10	82
Imazamethabenz + NIS + COC ⁶	0.31 + 0.25% + 2.5%	28	38	85	5	7	2	88
HOE 1133	0.104	50	67	97	5	8	5	75
Difenzoquat	1.0	35	42	88	13	13	13	80
Weedy check		--	--	--	0	0	0	63
LSD (0.05)		ns	11	12	3	3	4	ns

¹ Premix = Affinity MCPA 66DF.

² Assert SG 67SG.

³ 28%N = 28% UAN fertilizer solution.

⁴ NIS = Class Preference nonionic surfactant.

⁵ HOE 1133 = fenoxaprop & safener.

⁶ Class Crop Oil Concentrate.