Broadleaf weed control in spring wheat at Rosemount, MN - 2004. Durgan, Beverly R., and Douglas Miller. This experiment was designed to evaluate broadleaf weed control and wheat injury with various broadleaf herbicides. The experiment was conducted at Rosemount, MN on a Waukegon silt loam soil. Following soybeans, the experimental area was fall chisel plowed. In the spring, the area was fertilized with 50 lbs/A N and 70 lbs K. The field was disked once, field cultivated once, and harrowed twice. 'Alsen' hard red spring wheat was seeded on May 11 at 85 lbs/A. The experimental design was a randomized complete block with three replications and plot size was 10 by 24 ft. All herbicide treatments were applied to a 6 ft strip with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat-fan nozzles. Visual weed control ratings, wheat injury ratings, and yields are presented in the table. Environmental conditions and plant sizes are listed below.

Treatment Date	June 17
Target weed stage	2-4 inch weeds
Temperature (degrees F)	
air	70
soil	65
Soil Moisture	dry to 1 inch
Relative Humidity (%)	61
Dewpoint (degrees F)	56
Sky	25% clouds
Rainfall before Application	
Week 1 (inch)	0.47
Rainfall after Application	
Week 1 (inch)	0.00
Week 2 (inch)	0.21

Wheat	
leaf stage	late 6
tillers	3
height (inch)	10-13
Common Lambsquarters (CHEAL)	
height (inch)	2-4 (up to 8)
density (#/ft^2)	2
Common Ragweed (AMBEL)	
height (inch)	2-4 (up to 10)
density (#/ft^2)	1.25
Pennsylvania Smartweed (POLPY)	
height (inch)	2-5 (up to 9)
density (#/ft^2)	47
Powell Amaranth (AMAPO)	
height (inch)	1-3 (up to 6)
density (#/ft^2)	11

Table. Broadleaf weed control in spring wheat at Rosemount, MN - 2004 (Durgan and Miller).

Treatment	Rate	Wheat Injury			Weed Control						Wheat Yield
					AMAPO		AMBEL		POLPY		
		6/22	7/10	8/12	7/10	8/12	7/10	8/12	7/10	8/12	
	(lb ai/A)	%									(bu/A)
Carfentrazone-ethyl[1] + thifensulfuron & tribenuron[2] + NIS[3]	0.008 + 0.0093 & 0.0047 + 0.25%	7	12	10	95	90	90	90	90	90	54
Carfentrazone-ethyl + 2,4-D ester + dicamba[4] + NIS	0.008 + 0.197 + 0.094 + 0.25%	10	20	10	93	90	90	87	90	87	48
Carfentrazone-ethyl + thifensulfuron + NIS	0.008 + 0.014 + 0.25%	12	10	7	90	88	87	83	88	83	51
Carfentrazone-ethyl + MCPA ester + NIS	0.008 + 0.25 + 0.25%	7	10	8	88	87	83	83	85	83	51
Carfentrazone-ethyl + 2,4-D ester + NIS	0.008 + 0.197 + 0.25%	10	10	7	93	92	85	80	82	78	51
Bromoxynil & MCPA[5]	0.375 & 0.375	7	0	0	99	94	99	93	99	95	49
Bromoxynil & MCPA	0.25 & 0.25	0	0	0	99	93	99	92	99	92	52
Bromoxynil & MCPA + fluroxypyr	0.25 & 0.25 + 0.062	3	0	0	99	95	99	93	99	93	54
Bromoxynil & MCPA + fluroxypyr thifensulfuron + NIS	0.25 & 0.25 + 0.062 + 0.0047 + 0.25%	5	0	0	99	95	99	93	99	93	57
Bromoxynil & MCPA + fluroxypyr thifensulfuron + NIS	0.25 & 0.25 + 0.062 + 0.0047 + 0.25%	3	0	0	98	92	99	95	99	95	55
Bromoxynil & MCPA + thifensulfuron & tribenuron + NIS	0.25 & 0.25 + 0.0093 & 0.0047 + 0.25%	0	0	0	99	95	98	95	99	95	54
Bromoxynil & MCPA + tribenuron + NIS	0.25 & 0.25 + 0.0078 + 0.25%	3	0	0	99	95	99	95	99	95	54
Fluroxypyr	0.062	5	0	0	72	67	60	50	60	55	42
Carfentrazone-ethyl + NIS	0.008 + 0.25%	20	10	2	93	92	73	75	78	75	52
Thifensulfuron + 2,4-D ester + NIS	0.0187 + 0.5 + 0.25%	3	0	0	96	88	87	83	85	83	52
Bromoxynil & MCPA + tribenuron + fluroxypyr + NIS	0.25 & 0.25 + 0.0078 + 0.062 + 0.25%	3	0	0	99	95	99	95	99	95	49
Clopyralid & MCPA ester + NIS	0.092 & 0.51 + 0.25%	7	0	0	90	88	99	87	77	80	51
Weedy check		0	0	0	--	--	--	--	--	--	50
Carfentrazone-ethyl & 2,4-D ester[7] + NIS	0.008 & 0.24 + 0.25%	3	13	10	96	88	80	80	80	80	52
Carfentrazone-ethyl & 2,4-D ester[7] + thifensulfuron + NIS	0.008 & 0.24 + 0.014 + 0.25%	3	13	10	95	88	82	82	82	82	51
2,4-D Ester[8]	0.25	3	0	0	85	85	79	75	77	75	53
2,4-D Ester[9]	0.25	5	0	0	90	90	77	73	68	67	54
2,4-D Ester[8]	0.5	2	0	0	90	87	80	77	75	73	51
2,4-D Ester[9]	0.5	2	0	0	83	83	73	70	63	60	52
Carfentrazone-ethyl & 2,4-D ester[7] + thifensulfuron	0.008 & 0.24 + 0.014	2	0	3	97	93	93	92	92	87	52
LSD (P=.05)		9	2	4	7	8	9	11	8	10	5

[1] Aim 2E.
[2] Premix = Harmony Extra 75DF.
[3] NIS = Class Preference nonionic surfactant.
[4] Clarity.
[5] Premix = Bronate Advanced 5E.
[6] Premix =.Curtail M 2.77E
[7] Premix = AGH 02001.
[8] AGH 02007 6E.
[9] 2,4-D LV6.