Rimfire Max and Raze with various adjuvants for wild oat control in spring wheat at Crookston, MN - 2013. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury Rimfire Max and Raze herbicides in combination with several adjuvants. 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 of the following year, the experimental area was disked and harrowed. 'RB07' hard red spring wheat was seeded on May 7 at 1.5 Bu/A. 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 visually rated. Yields were measured. All data are presented in the table below.

Treatment Date	May 28						
Wild oat stage	3 - 4 leaf						
Air temperature (°F) Relative humidity (%) Dewpoint (°F) Soil temperature (°F) Wind Sky	61 78 53 59 W 3.5 mph overcast						
Rainfall before Application Week 1 (inch) Rainfall after Application	2.31						
Week 1 (inch) Week 2 (inch)	2.23 0.22						

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Treatment	Rate	Wild Oat Control					Wheat Injury					Wheat
		6/6	6/21	6/24	7/7	7/17	6/6	6/21	6/24	7/7	7/17	Yield
	(Product/A)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Rimfire Max + Class Act NG	3 oz + 2 pt	17	87	88	91	96	10	0	0	0	0	55
Rimfire Max + Class Act NG + Interlock	3 oz + 2 pt + 4 oz	27	93	90	90	96	13	0	0	0	0	56
Rimfire Max + Affinity Tankmix + Class Act NG	3 oz + 0.6 oz + 2 pt	22	85	83	88	95	12	0	0	0	0	48
Rimfire Max + AGH 8034 + Interlock	3 oz + 0.8 pt + 4 oz	23	80	85	90	97	10	0	0	0	0	57
Rimfire Max + AGH 8034 + AGH 8050	3 oz + 0.8 pt + 6.4 oz	27	85	78	88	99	10	0	0	0	0	57
Rimfire Max + AGH 07043	3 oz + 0.8 pt	27	83	90	92	96	10	0	0	0	0	60
Rimfire Max + AGH 11011	3 oz + 0.8 pt	30	91	92	90	96	13	0	0	0	0	60
Rimfire Max + AGH 13061	3 oz + 0.4 pt	17	80	87	75	98	10	0	0	0	0	51
Rimfire Max + AGH 13063	3 oz + 0.4 pt	23	87	87	82	96	10	0	0	0	0	58
Raze + Class Act NG	7 oz + 2 pt	15	82	85	82	90	3	0	0	0	0	55
Raze + Class Act NG + Interlock	7 oz + 2 pt + 4 oz	10	73	80	72	88	0	0	0	0	0	53
Raze + Affinity Tankmix + Class Act NG	7 oz + 0.6 oz + 2 pt	13	77	85	75	88	3	0	0	0	0	51
Raze + AGH 8034	7 oz + 0.8 pt	23	78	83	75	87	0	0	0	0	0	53
Raze + AGH 8034 + Interlock	7 oz + 0.8 pt + 4 oz	10	73	80	72	90	0	0	0	0	0	47
Raze + AGH 8034 + AGH 8050	7 oz + 0.8 pt + 6.4 oz	10	80	82	80	88	0	0	0	0	0	55
Raze + AGH 07043	7 oz + 0.8 pt	13	88	88	75	92	0	0	0	0	0	49
Raze + AGH 11011	7 oz + 0.8 pt	10	77	83	67	83	0	0	0	0	0	41
Raze + AGH 13061	7 oz + 0.4 pt	10	83	80	68	88	0	0	0	0	0	48
Raze + AGH 13063	7 oz + 0.4 pt	13	72	83	65	83	0	0	0	0	0	44
Axial XL	16.4 oz	33	88	93	93	98	0	0	0	0	0	58
GoldSky + Newtone	1.0 pt + 12.8 oz	37	93	92	90	98	15	0	0	0	0	64
Huskie Complete	13.7 oz	23	78	85	85	88	3	0	0	0	0	55
Weedy Check												2
LSD (0.05)		13	ns	9	14	10	5	ns	ns	ns	ns	12

Rimfire Max 6.67WDG = propoxycarbazone-sodium (4.76%) & mesosulfuron-methyl (1.91%).

Class Act NG = ammonium sulfate and nonionic surfactant blend.

Interlock = drift control agent.

Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).

AG 8034 = experimental adjuvant from Agriliance.

AG 8050 = experimental adjuvant from Agriliance.

AG 07043 = experimental adjuvant from Agriliance.

AG 11011 = experimental adjuvant from Agriliance.

AG 13061 = experimental adjuvant from Agriliance.

AG 13063 = experimental adjuvant from Agriliance.

Raze 2L = flucarbazone-sodium (0.322 lb ai/gal) & fluroxypyr (1.68 lb ae/gal).

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

GoldSky 0.84L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).

 $\label{eq:Newtone} \textbf{Newtone} = \textbf{ammonium salt}, \, \textbf{buffering agent}, \, \textbf{and surfactant blend}.$

Huskie Complete 1.76L = thiencarbazone-methyl (0.042 lb ai/gal) & pyrasulfotole (0.26 lb ai/gal) & bromoxynil phenol equivalent (1.46 lb ai/gal).