

Herbicide performance in corn at Morris, MN – 1998. Jeffrey Gunsolus and George Nelson The study site was in wheat in 1997. Fertilizer was applied at a rate of 140-46-60 and fall chisel plowed under on October 23, 1997. The study was field cultivated on May 8th. Pre-Plant Incorporated treatments were applied as per plot plan on May 14th and the entire study was field cultivated to incorporate the PPI's and prepare a seedbed. Temperature was 70°F and the wind out of the south at 19 mph at spraying, the daily high was 89°F. The study was seeded on May 14, 1998 to Garst 8692LL corn in 30 inch rows at 30,100 seeds per acre. Pre-emergence applications as per plot plan were applied on May 18th. The wind was out of the south at 3-5 mph and temperature at 80°F at spraying, the daily high was 97°F. Plots were shortened to 27.5 feet on May 28th. Post-emergence applications at 2 collar, 3 collar, and 4 collar were applied on June 1st, wind out of the south at 15-22 mph and temperature of 60°F with a daily high of 77°F, June 4th, wind out of the west at 6-10 mph and temperature of 50°F with a daily high of 63°F, and June 8th, wind out of the east at 13-19 mph and temperature of 55°F with a daily high of 65°F, respectively. Treatments, as per plot plan, were row cultivated on June 22nd. The study was harvested with an Almaco plot combine on October 28th, grain moisture and weight were recorded. Harvest area was two 27.5 foot rows.

Table. Herbicide performance in corn at Morris, MN - 1998. (Gunsolus and Nelson).

Treatment	Rate (lb/A)	Weed Control				Corn		
		gr/ye ¹	colq	rrpw	wimu	Injury	SR ²	Yield Bu/A
		----- (%) -----						
(Preplant incorporated) + (Post 4 collar)								
(EPTC & R-29148 & acetochlor ³) + (dicamba ⁴)	(4.2 & 1.05) + (0.5)	98	100	100	100	1	0	217
(CGA 77102 ⁵) + (dicamba)	(1.91) + (0.5)	97	100	100	100	1	0	208
(Acetochlor ⁶) + (dicamba)	(2) + (0.5)	94	100	100	100	2	0	212
(Dimethenamid) + (dicamba)	(1.5) + (0.5)	92	100	100	100	1	0	198
(Preemergence) + (Post 4 collar)								
(CGA 77102) + (dicamba)	(1.91) + (0.5)	95	100	100	99	2	0	207
(Acetochlor) + (dicamba)	(2) + (0.5)	99	100	100	100	1	0	199
(Dimethenamid) + (dicamba)	(1.5) + (0.5)	97	100	100	98	0	1	202
(CGA 77102) + (dicamba) + cultivation	(1.91) + (0.5)	100	100	100	100	1	1	202
(Acetochlor) + (dicamba) + cultivation	(2) + (0.5)	100	100	100	100	5	0	206
(Dimethenamid) + (dicamba) + cultivation	(1.5) + (0.5)	100	100	100	100	2	0	207
(Acetochlor) + (glufosinate + atrazine + AMS ⁷)	(1.2) + (0.26 + 0.45 + 2.5)	100	100	100	100	0	0	209
(CGA 77102) + (F8426 ⁸ + atrazine)	(1.91) + (0.008 + 0.45)	100	100	100	100	0	2	206
(CGA 77102) + (nicosulfuron + flumetsulam & clopyralid ⁹ + COC + 28%)	(1.91) + (0.023 + 0.034 & 0.094 + 1% + 4%)	100	100	100	100	0	0	204
(CGA 77102) + (nicosulfuron & rimsulfuron & flumetsulam & clopyralid ¹⁰ + dicamba + COC + 28%)	(0.64) + (0.012 & 0.01 & 0.034 & 0.094 + 0.125 + 1% + 4%)	100	100	100	100	1	0	204
(BAY FOE 5043 ¹¹) + (glufosinate + atrazine + AMS)	(0.85) + (0.26 + 0.45 + 2.5)	100	100	100	100	1	0	205
(BAY FOE 5043) + (nicosulfuron & rimsulfuron & flumetsulam & clopyralid + COC + 28%)	(0.85) + (0.012 & 0.01 & 0.034 & 0.094 + 1% + 4%)	100	100	100	100	1	0	200
(Acetochlor) + (flumetsulam & clopyralid dicamba + NIS + 28%)	(2) + (0.034 & 0.094 + 0.125 + 0.25% + 2.5%)	98	100	100	100	4	0	204
(CGA 77102) + (primisulfuron & dicamba ¹² COC + 28%)	(1.91) + (0.023 & 0.125 + 1.25% + 2.5%)	100	100	100	100	5	0	206
(CGA 77102 + atrazine) + (primisulfuron & dicamba + COC + 28%)	(1.91 + 0.72) + (0.023 & 0.125 + 1.25% + 2.5%)	100	100	100	100	0	0	202
(BAS85607) + (BAS 226 ¹³ + NIS + 28%)	(0.98) + (0.26 + 0.25% + 1.25%)	99	100	100	100	8	0	206
Preemergence								
RPA 201772 ¹⁴ + acetochlor	0.07 + 1	98	100	100	100	0	1	208
RPA 201772 + atrazine	0.09 + 0.72	99	100	100	100	2	0	198
Acetochlor + flumetsulam & clopyralid	2 + 0.056 & 0.154	99	100	100	100	5	0	202
Postemergence 2 collar								
Rimsulfuron & thifensulfuron ¹⁵ + dicamba + NIS + 28%N + cultivation	0.01 & 0.005 + 0.25 + 0.25% + 4%	100	100	100	100	1	0	202
Postemergence 3 collar								
DPX 79406 & atrazine ¹⁶ + flumetsulam & clopyralid + COC + 28%N + cultivation	0.023 & 0.75 + 0.034 & 0.094 + 1.0% + 1.25%	100	100	100	100	0	3	200
DPX 79406 & atrazine + flumetsulam & clopyralid + COC + 28%N +	0.023 & 0.75 + 0.034 & 0.094 + 1.0% + 1.25%	100	100	100	100	1	0	205
Postemergence 4 collar								
Nicosulfuron + F8426 + atrazine + NIS + cultivation	0.031 + 0.008 + 0.45 + 0.25%	100	100	100	100	0	0	217
Nicosulfuron + dicamba & atrazine ¹⁷ + NIS + 28% + cultivation	0.031 + 0.34 & 0.66 + 0.25% + 5%	100	100	100	100	0	0	200
Nicosulfuron + F8426 + NIS	0.031 + 0.008 + 0.25%	99	100	100	100	1	0	204
Nicosulfuron + dicamba & atrazine + NIS + 28%N	0.031 + 0.34 & 0.66 + 0.25% + 5%	99	100	100	100	6	0	201
Glufosinate + atrazine + AMS	0.26 + 0.45 + 2.5	100	100	100	100	3	0	206
Glufosinate + F8426 + AMS	0.26 + 0.008 + 2.5	90	95	99	96	6	0	203
nicosulfuron & rimsulfuron & flumetsulam & clopyralid + dicamba + COC + 28%	0.012 & 0.01 & 0.034 & 0.094 + 0.125 + 1% + 2.5%	100	100	100	100	6	1	206
nicosulfuron & rimsulfuron & flumetsulam & clopyralid + dicamba + nicosulfuron COC + 28%	0.012 & 0.01 & 0.034 & 0.094 + 0.012 + 0.0625 + 1% + 2.5%	100	100	100	100	4	0	197
Weedy check		--	--	--	--	0	0	183
Weedy check		--	--	--	--	0	0	197
Weedy check		--	--	--	--	0	0	183
Hand weeded check		100	100	100	100	0	0	210
LSD (0.05)	--	3	1	ns	ns	4	ns	ns

¹ Gr/ye = Green and yellow foxtail.

² SR = Stand Reduction.

³ Premix = Doubleplay 7E.

⁴ Clarity 4L.

⁵ Dual II Magnum 7.64E.

⁶ Surpass 6.4E.

⁷ AMS = ammonium sulfate.

⁸ Aim 40DF.

⁹ Premix = Hornet 85.6WG.

¹⁰ Premix = Accent Gold 83.8DF.

¹¹ Axiom 68DF.

¹² Premix = Northstar 47.4WG.

¹³ Distinct 70WG.

¹⁴ Balance 75WG.

¹⁵ Premix = Basis 75DF.

¹⁶ Premix = Basis Gold 89.9DF.

¹⁷ Premix = Marksman 3.2F