

2003 Corn Herbicide Evaluation - Waseca and Lamberton combined across locations

Herbicide	Rate	All grasses (4 sites) Giant foxtail (3 sites) Yellow foxtail (1 site) Common lambsquarters (3 sites) Velvetleaf (2 sites) Common cocklebur (1 site) Tall waterhemp (1 site) Redroot pigweed (1 site) Harvest moisture (4 sites) Yield (4 sites)									Herbicide cost	Income over Herb (6 sites)			
	(product/A)	(% control)									(bu/A)	(\$/A)	(\$/A)		
<u>Preemergence Corn hybrid = Garst 8517LL</u>															
Keystone LA + Hornet WDG	2.2 qt+ 4oz	92	92	91	99	71	98	85	53	98	20.6	129	40.62	177	
Lumax	6 pt	87	88	85	99	91	89	88	85	98	20.8	137	40.66	189	
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8517LL</u>															
Surpass/ Hornet + atrazine + COC + AMS	2.75 pt/ 3 oz + 0.75 lb + 1% + 2.5 lb	96	96	94	99	99	96	99	97	98	20.0	147	48.67	201	
Surpass/ Hornet + Callisto + atrazine + COC + AMS	2.75 pt/ 3 oz + 0.75 oz + 0.28 lb + 1% + 2.5 lb	94	94	93	99	99	96	99	99	98	20.6	141	50.62	187	
Keystone LA/ Hornet + Clarity + NIS + AMS	2.2 qt/3 oz + 4 oz + 0.25 lb + 0.25% + 2.5 lb	95	96	91	99	99	96	99	93	98	19.1	134	46.55	184	
Outlook/ Distinct + atrazine + NIS + AMS	21 oz/ 4 oz + 0.5 lb + 0.25% + 2.5 lb	92	92	92	98	96	81	93	85	98	19.1	131	46.11	179	
Define/ Liberty + atrazine + AMS	12 oz/ 32 oz + 0.5 lb + 3 lb	95	98	88	99	93	87	78	97	98	20.7	141	45.61	192	
Define/ Option + Distinct + MSO + 28%	12 oz/1.5 oz + 4 oz + 1.5 pt + 3 pt	94	96	88	98	98	80	86	70	98	21.3	137	51.82	176	
Cinch/ Accent Gold + Callisto + atrazine + COC + AMS	0.75 pt/ 3.5 oz + 1 oz + 0.5 lb + 1% + 2 lb	91	92	87	99	99	99	98	99	98	20.3	142	51.50	189	
Cinch/ Steadfast + Callisto + atrazine + COC + AMS	0.75 pt/ 0.75 oz + 2 oz + 0.5 lb + 1% + 2 lb	94	96	87	99	97	97	80	96	98	19.8	151	46.62	211	
Dual II Magnum/ Northstar + atrazine + COC + 28%N	2 pt/5 oz + 0.5 lb + 1% + 2.5%	91	93	83	99	98	95	88	97	98	20.0	138	51.39	184	
Dual II Magnum/ Callisto + atrazine + COC + 28%N	1 pt/ 3 oz + 0.28 lb + 1% + 2.5%	74	74	74	99	99	98	90	99	98	21.3	137	39.56	188	
Outlook/ Aim + atrazine + COC	21 oz/ 0.5 oz + 1 lb + 1%	91	91	94	99	82	97	86	97	98	19.5	136	39.56	194	
Outlook/ Aim + atrazine + Clarity + COC	21 oz/ 0.5 oz + 1 lb + 4 oz + 1%	93	93	94	99	99	99	86	99	98	21.2	135	42.51	183	
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8590 RR</u>															
Harness/ Roundup WeatherMax + AMS	1.25 pt/22 oz + 2.5 lb	95	95	94	96	93	90	86	95	98	19.8	145	43.41	203	
Dual II Magnum/ Touchdown IQ + AMS	1 pt/ 32 oz + 2.5 lb	97	98	94	93	94	86	82	94	98	19.6	144	44.80	201	
Outlook/ RoundupWeatherMax + Clarity	12 oz/ 11 oz + 8 oz	96	97	92	97	97	94	95	99	98	19.1	148	44.67	209	
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8590 RR</u>															
Roundup WeatherMax + AMS/ Roundup WeatherMax + AMS	22 oz + 2.5 lb/ 22 oz + 2.5 lb	98	99	97	98	99	99	99	98	98	20	156	42.46	221	
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8517LL</u>															
Liberty + atrazine + AMS / Liberty + AMS	32 oz + 0.5 lb + 2.5 lb/ 28 oz + 2.5 lb	96	97	93	99	98	87	91	99	98	20.9	141	47.61	189	
<u>POST 1(V3 corn) Corn hybrid = Garst 8590IT</u>															
Lightning + Marksman + NIS + AMS	1.28 oz + 2 pt + 0.25% + 2.5 lb	87	88	86	99	97	99	94	86	98	20.8	140	29.93	204	
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>															
Steadfast + Callisto + COC + AMS	0.75 oz + 2 oz + 1% + 2 lb	87	92	71	99	64	96	86	86	98	22.0	138	30.43	196	
Steadfast ATZ + Callisto + COC + AMS	14 oz + 2 oz + 1% + 2 lb	85	88	75	99	99	99	97	99	98	21.5	130	33.87	183	
Accent Gold WDG + Clarity + atrazine + COC + AMS	3.5 oz + 4 oz + 0.5 oz + 1% + 2 lb	83	87	69	99	99	99	99	51	98	21.8	131	35.35	180	
Steadfast + Lumax + NIS + AMS	0.75 oz + 2 pt + 0.25% + 2 lb	87	90	76	99	92	97	86	99	98	22.8	138	33.86	192	
<u>Checks Corn hybrid = Garst 8517LL</u>															
Weedy	-	0	0	0	0	0	0	0	0	0	25.4	28	0.00	45	
Hand-Weeded	-	99	99	99	99	99	99	100	99	100	21.2	155	0.00	258	
	LSD (0.10)	4	5	4	1	5	11	10	15	1	1.0	8		14	

Combined site economic analysis performed by Tom Hoverstad, Scientist, Southern Research and Outreach Center, Waseca, MN

Locations	# of sites	Cooperators	Weed species
Lamberton	1	Jodie Getting	Yellow foxtail, Common lambsquarters, Redroot pigweed
Waseca	3	Tom Hoverstad	Giant foxtail, Common lambsquarters, Common ragweed, Common cocklebur, Tall waterhemp

2003 Corn Herbicide Evaluation - Waseca
Common Ragweed

Herbicide	Rate	Giant Foxtail	Common Ragweed	Common Lambs.	Velvetleaf	H2O	Yield	Cost	Income Over Herb
	(product/A)			(% control)		(%)	(bu/A)	(\$/A)	(\$/A)
<u>Preemergence Corn hybrid = Garst 8517LL</u>									
Keystone LA + Hornet WDG	2.2 qt+ 4oz	98	99	99	99	20.4	172	40.62	250
Lumax	6 pt	75	99	99	99	18.7	155	40.66	228
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8517LL</u>									
Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	97	99	99	99	20.4	173	48.67	242
Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	98	99	99	99	20.0	182	50.62	258
Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	99	99	99	99	18.5	169	46.55	247
Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	96	97	99	97	19.1	175	46.11	256
Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	98	97	99	89	19.4	160	45.61	229
Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	95	98	99	96	21.2	157	51.82	209
Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	95	99	99	99	20.7	162	51.50	221
Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	97	97	99	99	19.9	182	46.62	262
Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	95	99	99	99	19.7	167	51.39	233
Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	75	99	99	99	19.6	169	39.56	249
Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	93	96	99	96	19.0	166	39.56	247
Outlook/ Aim+atrazine+Clarity+COC	21 oz/ 0.5 oz+1 lb+4 oz+1%	92	99	99	98	22.8	183	42.51	254
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8590 RR</u>									
Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	99	96	99	94	20.9	192	43.41	277
Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	98	96	94	89	21.0	190	44.80	273
Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	98	96	99	92	21.3	201	44.67	289
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8590 RR</u>									
Roundup WeatherMax+AMS/ Roundup WeatherMax+AMS	22 oz+2.5 lb/ 22 oz+2.5 lb	99	99	99	99	21.9	210	42.46	304
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8517LL</u>									
Liberty+atrazine+AMS / Liberty+AMS	32 oz+0.5 lb+2.5 lb/ 28 oz + 2.5 lb	98	99	99	99	19.8	179	47.61	257
<u>POST 1(V3 corn) Corn hybrid = Garst 8590IT</u>									
Lightning+Marksman+ NIS+AMS	1.28 oz+2 pt+0.25%+2.5 lb	96	97	99	99	22.9	182	29.93	264
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>									
Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	96	78	99	99	21.2	164	30.43	243
Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	92	99	99	99	19.1	153	33.87	230
Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	89	99	99	99	20.0	180	35.35	270
Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	89	91	99	99	20.5	177	33.86	265
<u>Checks Corn hybrid = Garst 8517LL</u>									
Weedy	-	0	0	0	0	24.9	25	0.00	39
Hand-Weeded	-	100	100	100	100	21.2	189	0.00	315
	LSD (0.10)	4	4	2	7	1.9	16		29

2003 Corn Herbicide Evaluation - Waseca

Tall Waterhemp

Herbicide	Rate	Giant Foxtail	Tall Waterhemp	Common Lambs.	Velvetleaf	H2O	Yield (bu/A)	Cost (\$/A)	Income Over Herb (\$/A)
<u>Preemergence Corn hybrid = Garst 8517LL</u>									
	(product/A)			(% control)		(%)			
Keystone LA + Hornet WDG	2.2 qt+ 4oz	80	53	99	98	20.4	96	40.62	121
Lumax	6 pt	94	85	99	78	19.0	126	40.66	177
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8517LL</u>									
Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	93	97	99	92	19.6	137	48.67	186
Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	87	99	99	92	18.2	127	50.62	172
Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	92	93	99	92	17.9	128	46.55	179
Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	95	85	98	65	17.7	95	46.11	123
Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	97	97	99	84	18.6	144	45.61	205
Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	96	70	98	65	19.3	124	51.82	161
Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	89	99	99	98	17.7	133	51.50	184
Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	94	96	99	96	18.7	154	46.62	219
Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	90	97	99	91	18.0	120	51.39	160
Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	64	99	99	97	17.6	125	39.56	182
Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	83	97	99	97	17.7	133	39.56	195
Outlook/ Aim+atrazine+Clarity+COC	21 oz/ 0.5 oz+1 lb+4 oz+1%	89	99	99	99	17.1	123	42.51	176
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8590 RR</u>									
Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	87	95	91	86	17.0	131	43.41	190
Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	97	94	89	82	15.9	138	44.80	205
Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	94	99	95	96	16.0	129	44.67	190
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8590 RR</u>									
Roundup WeatherMax+AMS/ Roundup WeatherMax+AMS	22 oz+2.5 lb/ 22 oz+2.5 lb	98	98	98	98	16.7	139	42.46	207
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8517LL</u>									
Liberty+atrazine+AMS / Liberty+AMS	32 oz+0.5 lb+2.5 lb/ 28 oz + 2.5 lb	98	99	99	75	19.7	132	47.61	178
<u>POST 1(V3 corn) Corn hybrid = Garst 8590IT</u>									
Lightning+Marksman+ NIS+AMS	1.28 oz+2 pt+0.25%+2.5 lb	75	86	99	99	17.4	130	29.93	200
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>									
Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	92	86	99	93	18.4	135	30.43	206
Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	91	99	99	99	20.4	133	33.87	190
Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	84	51	99	99	18.9	110	35.35	156
Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	89	99	99	94	18.5	142	33.86	214
<u>Checks Corn hybrid = Garst 8517LL</u>									
Weedy	-	0	0	0	0	19.6	63	0.00	109
Hand-Weeded	-	98	98	99	77	19.7	154	0.00	264
	LSD (0.10)	11	15	4	22	1.7	23		39

2003 Corn Herbicide Evaluation - Waseca
Common cocklebur

Herbicide	Rate	Giant Foxtail	Common Cocklebur	Common Ragweed	H2O (%)	Yield (bu/A)	Cost (\$/A)	Income Over Herb (\$/A)
<u>Preemergence Corn hybrid = Garst 8517LL</u>								
	(product/A)		(% control)					
Keystone LA + Hornet WDG	2.2 qt+ 4oz	99	85	44	21.8	112	40.62	143
Lumax	6 pt	95	88	84	22.1	123	40.66	162
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8517LL</u>								
Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	98	99	99	21.5	129	48.67	166
Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	97	99	99	21.0	122	50.62	154
Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	97	99	99	21.4	109	46.55	135
Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	87	93	94	20.5	118	46.11	153
Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	98	78	88	21.9	127	45.61	164
Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	98	86	97	24.6	137	51.82	163
Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	92	98	99	23.0	133	51.50	163
Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	98	80	96	21.6	129	46.62	168
Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	95	88	97	21.5	122	51.39	150
Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	82	90	98	22.6	126	39.56	166
Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	96	86	68	21.4	105	39.56	135
Outlook/ Aim+atrazine+Clarity+COC	21 oz/ 0.5 oz+1 lb+4 oz+1%	99	86	98	23.9	110	42.51	133
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8590 RR</u>								
Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	99	86	91	21.7	122	43.41	157
Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	99	82	93	22.9	109	44.80	132
Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	99	95	99	20.7	120	44.67	156
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8590 RR</u>								
Roundup WeatherMax+AMS/	22 oz+2.5 lb/							
Roundup WeatherMax+AMS	22 oz+2.5 lb	99	99	99	22.2	134	42.46	177
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8517LL</u>								
Liberty+atrazine+AMS / Liberty+AMS	32 oz+0.5 lb+2.5 lb/ 28 oz + 2.5 lb	96	91	97	21.4	122	47.61	154
<u>POST 1(V3 corn) Corn hybrid = Garst 8590IT</u>								
Lightning+Marksman+ NIS+AMS	1.28 oz+2 pt+0.25%+2.5 lb	92	94	96	22.6	122	29.93	169
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>								
Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	88	86	50	23.7	134	30.43	183
Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	82	97	99	22.0	123	33.87	168
Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	89	99	99	25.4	126	35.35	160
Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	93	86	93	24.6	123	33.86	159
<u>Checks Corn hybrid = Garst 8517LL</u>								
Weedy	-	0	0	0	25.0	2	0.00	3
Hand-Weeded	-	100	100	100	23.6	130	0.00	208
	LSD (0.10)	8	10	9	1.4	15		24

2003 Corn Herbicide Evaluation - Waseca
Lamberton

Herbicide	Rate	Green Foxtail	Common Lambs. (% control)	Redroot Pigweed	H2O (%)	Yield (bu/A)	Cost (\$/A)	Income Over Herb (\$/A)
<u>Preemergence Corn hybrid = Garst 8517LL</u>								
Keystone LA + Hornet WDG	(product/A) 2.2 qt+ 4oz	91	98	98	19.8	137.6	40.62	194
Lumax	6 pt	85	98	98	23.5	144	40.66	190
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8517LL</u>								
Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	94	98	98	18.6	148.6	48.67	209
Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	93	98	98	23.2	133.3	50.62	164
Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	91	98	98	18.6	128.4	46.55	177
Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	92	98	98	19.3	134.4	46.11	185
Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	88	98	98	22.8	133.9	45.61	191
Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	88	98	98	19.9	130.2	51.82	170
Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	87	98	98	19.9	140.9	51.50	188
Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	87	98	98	19.0	140.6	46.62	196
Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	83	98	98	20.7	144.9	51.39	192
Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	74	98	98	25.3	125.7	39.56	155
Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	94	98	98	20.0	139.9	39.56	198
Outlook/ Aim+atrazine+Clarity+COC	21 oz/ 0.5 oz+1 lb+4 oz+1%	94	98	98	21.0	125.8	42.51	168
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8590 RR</u>								
Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	94	98	98	19.7	134	43.41	185
Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	94	98	98	18.8	136.7	44.80	192
Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	92	98	98	18.4	140.5	44.67	200
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8590 RR</u>								
Roundup WeatherMax+AMS/ Roundup WeatherMax+AMS	22 oz+2.5 lb/ 22 oz+2.5 lb	97	98	98	21.0	143	42.46	196
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8517LL</u>								
Liberty+atrazine+AMS / Liberty+AMS	32 oz+0.5 lb+2.5 lb/ 28 oz + 2.5 lb	93	98	98	22.6	131.1	47.61	166
<u>POST 1(V3 corn) Corn hybrid = Garst 8590IT</u>								
Lightning+Marksman+ NIS+AMS	1.28 oz+2 pt+0.25%+2.5 lb	86	98	98	20.2	125.7	29.93	183
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>								
Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	71	98	98	24.9	118.7	30.43	155
Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	75	98	98	24.6	113.2	33.87	144
Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	69	98	98	23.0	106	35.35	136
Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	76	98	98	27.5	109.2	33.86	129
<u>Checks Corn hybrid = Garst 8517LL</u>								
Weedy	-	0	0	0	32.3	20.92	0.00	28
Hand-Weeded	-	100	100	100	20.3	145.7	0.00	246
	LSD (0.10)	4	1	1	2.7	12		23

2003 Corn Herbicide Evaluation - Waseca
Potsdam

Herbicide	Rate	Wild Proso	Common Lambs.	Velvetleaf (% control)	Redroot Pigweed	H2O (%)	Yield (bu/A)	Cost (\$/A)	Income Over Herb (\$/A)
<u>Preemergence Corn hybrid = LL</u>									
Keystone LA + Hornet WDG	2.2 qt+ 4oz	79	99	88	99	19.1	158.3	40.62	232
Lumax	6 pt	73	99	99	99	19.6	143	40.66	204
<u>Preemergence/POST II (V4 corn) Corn hybrid = LL</u>									
Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	83	99	99	99	19.5	145.5	48.67	200
Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	82	99	98	99	20.0	153.7	50.62	211
Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	79	99	98	99	18.7	149	46.55	212
Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	91	99	99	99	20.4	148.3	46.11	204
Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	98	99	98	99	18.7	151.5	45.61	217
Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	91	95	96	99	20.8	142.4	51.82	187
Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	89	99	99	99	19.5	149.7	51.50	205
Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	94	99	99	99	20.9	147.4	46.62	200
Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	85	99	98	99	19.0	147.7	51.39	203
Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	85	99	99	99	21.1	145.7	39.56	203
Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	83	99	99	99	19.7	154.9	39.56	225
<u>Checks Corn hybrid = LL</u>									
Weedy	-	0	0	0	0	20.0	90.01	0.00	168
Hand-Weeded	-	100	100	100	100	19.0	151.4	0.00	262
<u>Preemergence/POST II (V4 corn) Corn hybrid = RR</u>									
Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	98	98	99	99	20.2	155.6	43.41	220
Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	97	95	99	99	20.1	162.2	44.80	230
Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	98	97	99	99	20.1	158.8	44.67	224
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = RR</u>									
Roundup WeatherMax+AMS/ Roundup WeatherMax+AMS	22 oz+2.5 lb/ 22 oz+2.5 lb	97	95	97	99	19.3	170	42.46	249
<u>POST II (V4 Corn) Corn hybrid = RR</u>									
Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	94	99	99	98	20.4	160.5	30.43	241
Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	95	99	99	99	20.1	146.2	33.87	214
Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	94	96	99	98	20.1	151.6	35.35	222
Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	95	99	99	99	20.5	154.3	33.86	226
<u>Checks Corn hybrid = RR</u>									
Weedy	-	0	0	0	0	20.7	54.09	0.00	90
Hand-Weeded	-	100	100	100	100	20.1	168.2	0.00	285
	LSD (0.10)	6	2	5	1	1.0	10		19

2003 Corn Herbicide Evaluation - Waseca
Morris

Herbicide	Rate	Powell Amaranth	Common Lambs.	Wild Mustard	H2O (%)	Yield (bu/A)	Cost (\$/A)	Income Over Herb (\$/A)
<u>Preemergence Corn hybrid = LL</u>								
1 Keystone LA + Hornet WDG	(product/A) 2.2 qt+ 4oz	100	100	100	16.1	204.8	40.62	330
2 Lumax	6 pt	98	100	100	16.0	201.5	40.66	324
<u>Preemergence/POST II (V4 corn) Corn hybrid =LL</u>								
3 Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	100	100	100	16.4	204.6	48.67	320
4 Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	100	100	100	16.7	193.7	50.62	296
5 Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	100	100	100	16.7	196.4	46.55	305
6 Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	100	100	100	17.2	189.9	46.11	292
7 Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	100	100	100	16.4	207.5	45.61	328
8 Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	100	100	100	16.8	201.3	51.82	308
9 Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	100	100	100	16.6	197.4	51.50	303
10 Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	100	100	100	17.2	197	46.62	304
11 Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	100	100	100	16.7	200.6	51.39	308
12 Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	100	100	100	16.5	194.3	39.56	310
13 Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	100	100	100	17.0	188.8	39.56	297
<u>Preemergence/POST II (V4 corn) Corn hybrid = RR</u>								
14 Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	99	99	100	16.8	199.5	43.41	313
15 Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	98	100	100	16.8	198.5	44.80	310
16 Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	99	100	100	17.0	189.9	44.67	294
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = RR</u>								
17 Roundup WeatherMax+AMS/ Roundup WeatherMax+AMS	22 oz+2.5 lb/ 22 oz+2.5 lb	92	98	100	17.1	204	42.46	320
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = LL</u>								
18 Liberty+atrazine+AMS / Liberty+AMS	32 oz+0.5 lb+2.5 lb/ 28 oz + 2.5 lb	96	99	100	16.9	197.7	47.61	305
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>								
19 Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	99	100	100	16.8	191.9	30.43	313
20 Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	97	100	100	16.7	207.5	33.87	338
21 Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	97	98	100	16.3	197.1	35.35	319
22 Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	99	99	100	17.0	207.9	33.86	336
<u>Checks Corn hybrid = LL</u>								
23 Weedy	-	0	0	0	17.2	124	0.00	220
24 Hand-Weeded	-	100	100	100	17.2	201.6	0.00	358
	LSD (0.10)	2	1	1	0.8	11		20

2003 Corn Herbicide Evaluation - Waseca and Lamberton combined across locations

Herbicide	Rate	All	Giant	Green	Common	Common	Common	Tall	Redroot	H2O	Yield	Cost	Income	
		grasses	foxtail	foxtail	lambs	Ragweed	Velvetleaf	Cocklebur	waterhemp				pigweed	Over Herb
		4	3	1	3	2	2	1	1	4	4		4	
<u>Preemergence Corn hybrid = Garst 8517LL</u>	(product/A)					(% control)				(%)		(bu/A)	(\$/A)	(\$/A)
Keystone LA + Hornet WDG	2.2 qt+ 4oz	92	92	91	99	71	98	85	53	98	20.6	129	40.62	177
Lumax	6 pt	87	88	85	99	91	89	88	85	98	20.8	137	40.66	189
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8517LL</u>														
Surpass/ Hornet+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 lb+1%+2.5 lb	96	96	94	99	99	96	99	97	98	20.0	147	48.67	201
Surpass/ Hornet+Callisto+atrazine+COC+AMS	2.75 pt/ 3 oz+0.75 oz+0.28 lb+1%+2.5 lb	94	94	93	99	99	96	99	99	98	20.6	141	50.62	187
Keystone LA/ Hornet+Clarity+NIS+AMS	2.2 qt/3 oz+4 oz+0.25 lb+0.25%+2.5 lb	95	96	91	99	99	96	99	93	98	19.1	134	46.55	184
Outlook/ Distinct+atrazine+NIS+AMS	21 oz/ 4 oz+0.5 lb+0.25%+2.5 lb	92	92	92	98	96	81	93	85	98	19.1	131	46.11	179
Define/ Liberty+atrazine+AMS	12 oz/ 32 oz +0.5 lb+3 lb	95	98	88	99	93	87	78	97	98	20.7	141	45.61	192
Define/ Option+Distinct+MSO+28%	12 oz/1.5 oz+4 oz+1.5 pt+3 pt	94	96	88	98	98	80	86	70	98	21.3	137	51.82	176
Cinch/ AccentGold+Callisto+atrazine+COC+AMS	0.75 pt/ 3.5 oz+1 oz+0.5 lb+1%+2 lb	91	92	87	99	99	99	98	99	98	20.3	142	51.50	189
Cinch/ Steadfast+Callisto+atrazine+COC+AMS	0.75 pt/ 0.75 oz+2 oz+0.5 lb+1%+2 lb	94	96	87	99	97	97	80	96	98	19.8	151	46.62	211
Dual II Magnum/ Northstar+atrazine+COC+28%N	2 pt/5 oz+0.5 lb+1%+2.5%	91	93	83	99	98	95	88	97	98	20.0	138	51.39	184
Dual II Magnum/ Callisto+atrazine+COC+28%N	1 pt/ 3 oz+0.28 lb+1%+2.5%	74	74	74	99	99	98	90	99	98	21.3	137	39.56	188
Outlook/ Aim+atrazine+COC	21 oz/ 0.5 oz+1 lb+1%	91	91	94	99	82	97	86	97	98	19.5	136	39.56	194
Outlook/ Aim+atrazine+Clarity+COC	21 oz/ 0.5 oz+1 lb+4 oz+1%	93	93	94	99	99	99	86	99	98	21.2	135	42.51	183
<u>Preemergence/POST II (V4 corn) Corn hybrid = Garst 8590 RR</u>														
Harness/ Roundup WeatherMax+AMS	1.25 pt/22 oz+2.5 lb	95	95	94	96	93	90	86	95	98	19.8	145	43.41	203
Dual II Magnum/ Touchdown IQ+AMS	1 pt/ 32 oz+2.5 lb	97	98	94	93	94	86	82	94	98	19.6	144	44.80	201
Outlook/ RoundupWeatherMax+Clarity	12 oz/ 11 oz + 8 oz	96	97	92	97	97	94	95	99	98	19.1	148	44.67	209
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8590 RR</u>														
Roundup WeatherMax+AMS/	22 oz+2.5 lb/	98	99	97	98	99	99	99	98	98	20	156	42.46	221
Roundup WeatherMax+AMS	22 oz+2.5 lb													
<u>POST I (V3 corn) / POST III (4-inch Regrowth) Corn hybrid = Garst 8517LL</u>														
Liberty+atrazine+AMS / Liberty+AMS	32 oz+0.5 lb+2.5 lb/ 28 oz + 2.5 lb	96	97	93	99	98	87	91	99	98	20.9	141	47.61	189
<u>POST 1(V3 corn) Corn hybrid = Garst 8590IT</u>														
Lightning+Marksman+ NIS+AMS	1.28 oz+2 pt+0.25%+2.5 lb	87	88	86	99	97	99	94	86	98	20.8	140	29.93	204
<u>POST II (V4 Corn) Corn hybrid = Garst 8517LL</u>														
Steadfast+Callisto+COC+AMS	0.75 oz+2 oz+1%+2 lb	87	92	71	99	64	96	86	86	98	22.0	138	30.43	196
Steadfast ATZ+Callisto+COC+AMS	14 oz+2 oz+1%+2 lb	85	88	75	99	99	99	97	99	98	21.5	130	33.87	183
Accent Gold WDG+Clarity+atrazine+COC+AMS	3.5 oz+4 oz+0.5 oz+1%+2 lb	83	87	69	99	99	99	99	51	98	21.8	131	35.35	180
Steadfast+Lumax+NIS+AMS	0.75 oz+2 pt+0.25%+2 lb	87	90	76	99	92	97	86	99	98	22.8	138	33.86	192
<u>Checks Corn hybrid = Garst 8517LL</u>														
Weedy	-	0	0	0	0	0	0	0	0	25.4	28	0.00	45	
Hand-Weeded	-	99	99	99	99	99	99	100	99	100	21.2	155	0.00	258
	LSD (0.10)	4	5	4	1	5	11	10	15	1	1.0	8	14	