

Table 1. Evaluation of two-pass versus single-pass corn herbicide programs for crop phytotoxicity and weed control in corn.

Treatment ^a	Rate	Appl time	Corn ^b stand	Injury 6/17	Setfa 6/17	Abuth 6/17	Amata 6/17	Cheal 6/17	Polpy 6/17
	Product/acre			- (%) -	----- (% weed control ^c) -----				
Untreated	-	-	33	0	0	0	0	0	0
Lumax 3.95 SE	3.0 qt	PRE	34	0	96	99	99	99	99
Dual II Magnum 7.64 EC + (Callisto 4 SC + Atrazine 4 L + COC + 28% UAN)	1.0 qt + (3.0 fl oz + 0.5 qt + 1.0 % + 2.5 %)	PRE + (POST)	34	0	90	7	92	80	38
Bicep Lite II Magnum 6 L + (Callisto 4 SC + Atrazine 4 L + COC + 28% UAN)	2.0 qt + (3.0 fl oz + 0.25 qt + 1.0 % + 2.5 %)	PRE + (POST)	34	0	96	68	98	99	98
Degree 3.8 CS + (Yukon 67.5 WG + COC + 28% UAN)	2.5 qt + (4.0 oz wt + 1.0 % + 2.5 %)	PRE + (POST)	33	0	98	7	99	90	42
Outlook 6 EC + (Marksman 3.2 FL + NIS)	0.656 qt + (1.75 qt + 0.125 %)	PRE + (POST)	34	0	93	8	98	83	38
G-Max Lite 5 SC + (Distinct 70 WG + NIS + 28% UAN)	1.75 qt + (6.0 oz wt + 0.25 % + 2.5 %)	PRE + (POST)	34	0	98	72	99	99	96
Keystone LA 5.5 SE + (Hornet WDG 68.5 WG + NIS + 28% UAN)	2.25 qt + (3.0 oz wt + 0.25 % + 2.5 %)	PRE + (POST)	34	0	96	57	99	99	99
Cinch ATZ Lite 6 L + (Steadfast 75 WG + Clarity 4 SL + COC + 28% UAN)	0.75 qt + (0.75 oz wt + 4.0 fl oz + 1.0 % + 2.5 %)	PRE + (POST)	35	0	93	55	88	86	70
Harness Xtra 6 SE + (Roundup WeatherMAX 4.5 SL + AMS)	1.0 qt + (0.665 qt + 17.0 lb/100 gal)	PRE + (POST)	35	0	95	38	98	91	58
Roundup WeatherMAX 4.5 SL + AMS + (Roundup WeatherMAX 4.5 SL + AMS)	0.665 qt + 17.0 lb/100 gal + (0.5 qt + 17.0 lb/100 gal)	POST + (SPOST)	34	0	0	0	0	0	0
Bicep Lite II Magnum 6 L + Steadfast 75 WG + COC + 28% UAN	1.1 qt + 0.75 oz wt + 1.0 % + 2.5 %	POST	35	0	0	0	0	0	0
Celebrity Plus 70 WG + NIS + 28% UAN	4.7 oz wt + 0.25 % + 2.5 %	POST	35	0	0	0	0	0	0
Steadfast 75 WG + Atrazine 4 L + Callisto 4 SC + COC + 28% UAN	0.75 oz wt + 0.25 qt + 3.0 fl oz + 1.0 % + 2.5 %	POST	33	0	0	0	0	0	0
Steadfast 75 WG + Atrazine 4 L + Clarity 4 SL + COC + 28% UAN	0.75 oz wt + 0.25 qt + 4.0 fl oz + 1.0 % + 2.5 %	POST	34	0	0	0	0	0	0
Option 35 WG + Hornet WDG 68.5 WG + MSO + 28% UAN	1.5 oz wt + 3.0 oz wt + 1.0 % + 2.5 %	POST	34	0	0	0	0	0	0
LSD (P=0.05)			2	0	6	15	4	13	14

^a COC = Herbimax crop oil concentrate from UAP - Loveland industries; 28% UAN = mixture of urea and ammonium sulfate from United Suppliers; NIS = Activator 90 a non-ionic surfactant from UAP - Loveland Industries; Herbimax crop oil concentrate from UAP - Loveland Industries; UAP-Loveland Industries; AMS = ammonium sulfate fertilizer from Agrilience, LLC; MSO - methylated seed oil plus surfactant from UAP - Loveland Industries.

^b Corn stand per 17' 5" row feet on July 29.

^c % weed control = Setfa = giant foxtail, Abuth = velvetleaf, Amata = common waterhemp, Cheal = common lambsquarters, Polpy = Pennsylvania smartweed.

Table 2. Evaluation of two-pass versus single-pass corn herbicide programs for crop phytotoxicity and weed control in corn.

Treatment ^a	Rate	Appl time	Injury 7/3	Setfa 7/3	Abuth 7/3	Amata 7/3	Cheal 7/3	Polpy 7/3
	Product/acre		- (%) -	----- (% weed control ^b) -----				
Untreated	-	-	0	0	0	0	0	0
Lumax 3.95 SE	3.0 qt	PRE	0	95	99	99	99	99
Dual II Magnum 7.64 EC + (Callisto 4 SC + Atrazine 4 L + COC + 28% UAN)	1.0 qt + (3.0 fl oz + 0.5 qt + 1.0 % + 2.5 %)	PRE + (POST)	0	95	99	99	99	99
Bicep Lite II Magnum 6 L + (Callisto 4 SC + Atrazine 4 L + COC + 28% UAN)	2.0 qt + (3.0 fl oz + 0.25 qt + 1.0 % + 2.5 %)	PRE + (POST)	0	96	99	99	99	99
Degree 3.8 CS + (Yukon 67.5 WG + COC + 28% UAN)	2.5 qt + (4.0 oz wt + 1.0 % + 2.5 %)	PRE + (POST)	0	96	98	99	98	98
Outlook 6 EC + (Marksman 3.2 FL + NIS)	0.656 qt + (1.75 qt + 0.125 %)	PRE + (POST)	2	95	99	99	99	99
G-Max Lite 5 SC + (Distinct 70 WG + NIS + 28% UAN)	1.75 qt + (6.0 oz wt + 0.25 % + 2.5 %)	PRE + (POST)	0	98	96	99	99	99
Keystone LA 5.5 SE + (Hornet WDG 68.5 WG + NIS + 28% UAN)	2.25 qt + (3.0 oz wt + 0.25 % + 2.5 %)	PRE + (POST)	0	95	99	99	99	99
Cinch ATZ Lite 6 L + (Steadfast 75 WG + Clarity 4 SL + COC + 28% UAN)	0.75 qt + (0.75 oz wt + 4.0 fl oz + 1.0 % + 2.5 %)	PRE + (POST)	0	99	98	99	99	99
Harness Xtra 6 SE + (Roundup WeatherMAX 4.5 SL + AMS)	1.0 qt + (0.665 qt + 17.0 lb/100 gal)	PRE + (POST)	0	99	99	99	99	96
Roundup WeatherMAX 4.5 SL + AMS + (Roundup WeatherMAX 4.5 SL + AMS)	0.665 qt + 17.0 lb/100 gal + (0.5 qt + 17.0 lb/100 gal)	POST + (SPOST)	0	99	99	99	99	98
Bicep Lite II Magnum 6 L + Steadfast 75 WG + COC + 28% UAN	1.1 qt + 0.75 oz wt + 1.0 % + 2.5 %	POST	3	98	92	99	99	99
Celebrity Plus 70 WG + NIS + 28% UAN	4.7 oz wt + 0.25 % + 2.5 %	POST	0	92	93	92	96	96
Steadfast 75 WG + Atrazine 4 L + Callisto 4 SC + COC + 28% UAN	0.75 oz wt + 0.25 qt + 3.0 fl oz + 1.0 % + 2.5 %	POST	0	98	99	99	99	99
Steadfast 75 WG + Atrazine 4 L + Clarity 4 SL + COC + 28% UAN	0.75 oz wt + 0.25 qt + 4.0 fl oz + 1.0 % + 2.5 %	POST	3	96	95	93	99	96
Option 35 WG + Hornet WDG 68.5 WG + MSO + 28% UAN	1.5 oz wt + 3.0 oz wt + 1.0 % + 2.5 %	POST	2	95	98	78	93	93
LSD (P=0.05)			2	6	3	2	2	2

^a COC = Herbimax crop oil concentrate from UAP - Loveland industries; 28% UAN = mixture of urea and ammonium sulfate from United Suppliers; NIS = Activator 90 a non-ionic surfactant from UAP - Loveland Industries; Herbimax crop oil concentrate from UAP - Loveland Industries; UAP-Loveland Industries; AMS = ammonium sulfate fertilizer from Agrilience, LLC; MSO - methylated seed oil plus surfactant from UAP - Loveland Industries.

^b % weed control = Setfa = giant foxtail, Abuth = velvetleaf, Amata = common waterhemp, Cheal = common lambsquarters, Polpy = Pennsylvania smartweed.

Table 3. Evaluation of two-pass versus single-pass corn herbicide programs for crop phytotoxicity and weed control in corn.

Treatment ^a	Rate Product/acre	Appl time	Setfa	Abuth	Amata	Cheal	Polpy	Yield Bu/A ^c
			7/29	7/29	7/29	7/29	7/29	
			----- (% weed control ^b) -----					
Untreated	-	-	0	0	0	0	0	134
Lumax 3.95 SE	3.0 qt	PRE	90	99	99	99	99	167
Dual II Magnum 7.64 EC + (Callisto 4 SC + Atrazine 4 L + COC + 28% UAN)	1.0 qt + (3.0 fl oz + 0.5 qt + 1.0 % + 2.5 %)	PRE + (POST)	88	99	99	99	99	150
Bicep Lite II Magnum 6 L + (Callisto 4 SC + Atrazine 4 L + COC + 28% UAN)	2.0 qt + (3.0 fl oz + 0.25 qt + 1.0 % + 2.5 %)	PRE + (POST)	93	99	99	99	99	170
Degree 3.8 CS + (Yukon 67.5 WG + COC + 28% UAN)	2.5 qt + (4.0 oz wt + 1.0 % + 2.5 %)	PRE + (POST)	93	99	99	99	98	153
Outlook 6 EC + (Marksman 3.2 FL + NIS)	0.656 qt + (1.75 qt + 0.125 %)	PRE + (POST)	92	96	99	99	98	152
G-Max Lite 5 SC + (Distinct 70 WG + NIS + 28% UAN)	1.75 qt + (6.0 oz wt + 0.25 % + 2.5 %)	PRE + (POST)	96	93	99	99	99	149
Keystone LA 5.5 SE + (Hornet WDG 68.5 WG + NIS + 28% UAN)	2.25 qt + (3.0 oz wt + 0.25 % + 2.5 %)	PRE + (POST)	90	96	99	99	99	159
Cinch ATZ Lite 6 L + (Steadfast 75 WG + Clarity 4 SL + COC + 28% UAN)	0.75 qt + (0.75 oz wt + 4.0 fl oz + 1.0 % + 2.5 %)	PRE + (POST)	98	96	95	99	99	172
Harness Xtra 6 SE + (Roundup WeatherMAX 4.5 SL + AMS)	1.0 qt + (0.665 qt + 17.0 lb/100 gal)	PRE + (POST)	98	95	99	99	99	151
Roundup WeatherMAX 4.5 SL + AMS + (Roundup WeatherMAX 4.5 SL + AMS)	0.665 qt + 17.0 lb/100 gal + (0.5 qt + 17.0 lb/100 gal)	POST + (SPOST)	99	99	99	99	99	171
Bicep Lite II Magnum 6 L + Steadfast 75 WG + COC + 28% UAN	1.1 qt + 0.75 oz wt + 1.0 % + 2.5 %	POST	99	98	96	99	99	170
Celebrity Plus 70 WG + NIS + 28% UAN	4.7 oz wt + 0.25 % + 2.5 %	POST	96	95	96	99	99	154
Steadfast 75 WG + Atrazine 4 L + Callisto 4 SC + COC + 28% UAN	0.75 oz wt + 0.25 qt + 3.0 fl oz + 1.0 % + 2.5 %	POST	96	99	99	99	99	181
Steadfast 75 WG + Atrazine 4 L + Clarity 4 SL + COC + 28% UAN	0.75 oz wt + 0.25 qt + 4.0 fl oz + 1.0 % + 2.5 %	POST	95	93	90	99	99	175
Option 35 WG + Hornet WDG 68.5 WG + MSO + 28% UAN	1.5 oz wt + 3.0 oz wt + 1.0 % + 2.5 %	POST	96	98	68	98	98	161
LSD (P=0.05)			8	4	4	1	2	36

^a COC = Herbimax crop oil concentrate from UAP - Loveland industries; 28% UAN = mixture of urea and ammonium sulfate from United Suppliers; NIS = Activator 90 a non-ionic surfactant from UAP - Loveland Industries; Herbimax crop oil concentrate from UAP - Loveland Industries; UAP-Loveland Industries; AMS = ammonium sulfate fertilizer from Agrilience, LLC; MSO - methylated seed oil plus surfactant from UAP - Loveland Industries.

^b % weed control = Setfa = giant foxtail, Abuth = velvetleaf, Amata = common waterhemp, Cheal = common lambsquarters, Polpy = Pennsylvania smartweed.

^c Bu/A = bushels/Acre.