

2009 Impact in sequential programs (L0918).

A field study was initiated near Lincoln, Nebraska to evaluate postemergence and residual activity of Impact when used in sequential herbicide programs in RR/LL corn. The experimental design was a randomized complete block with four replications. Plots were 10 feet wide by 30 feet long and located on a Sharpesburg silty clay loam soil with an organic matter of 3.1 % and a pH of 6.6. Pioneer '33T57' was planted on May 4. Corn emerged on May 11. Preemergent herbicides were applied on May 5, early post herbicides on May 29, and mid post herbicides on June 4. Herbicides were applied with a tractor mounted sprayer calibrated to deliver 15 gallons per acre at 40 psi with Teejet 110015 AIXR nozzles. The environmental conditions at the time of spraying are given in Table 1. Rainfall received April 26 – June 12 is listed in Table 2.

No crop injury was observed in any plots. Weed pressure was moderate and consisted of velvetleaf (*Abutilon theophrasti*), Palmer amaranth (*Amaranthus palmeri*), sunflower (*Helianthus annuus*), and yellow foxtail (*Setaria glauca*) species at average densities of 3, 1, 10, 1 plants/ft². Weed densities were taken at the time of spraying in the center of the plot, two ft² samples were taken. Plots were evaluated using visual ratings.

Table 1. Environmental conditions at the Time of Herbicide Application.

Date	Air Temperature (F)	Soil Temperature At 4 in (F)	Humidity	Wind Speed & direction (mph)	Time of Day	Application Timing	Weed Height (inches)			
							ABUTH	AMAPA	HELAN	SETGL
May 5	65	63	62	5 SW	9:30 am	PRE	0	0	0	0
May 29	64	73	62	0	9:00 am	EPOST	2	1	3	1.5
June 4	67	74	26	4 WNW	9:30 am	MPOST	4	3	5	3

Table 2. Rainfall received April 26 – June 12.

Date	Amount (in)
April 26	0.56
April 27	0.05
May 6	0.11
May 8	0.08
May 12	0.14
May 13	0.39
May 26	0.12
May 27	0.56
June 1	0.27
June 2	0.21
June 6	1.14
June 7	0.83
June 8	0.07
June 12	0.47

Table 3. Impact in sequential programs

Treatment	Rate	Unit	Application Timing	Velvetlf	Palmr amth	Sunflwr	Yel foxtl	Velvetlf	Palmr amth	Sunflwr	Yel foxtl	YIELD
				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
				%	%	%	%	%	%	%	bu/acre	
Untreated				0	0	0	0	0	0	0	0	104.4
Bicep II Magnum	2.1	pt/a	PRE	32.5	70	32.5	68.8	35	67.5	32.5	70	124.5
Bicep II Magnum	2.1	pt/a	PRE	99	99	99	98	99	99	99	98	144.8
Impact	0.75	oz/a	EPOST									
Atrazine + MSO + UAN	1	pt/a	EPOST									
Bicep II Magnum	2.1	pt/a	PRE	99	99	99	94.5	99	99	99	91	147.2
Laudis	3	oz/a	EPOST									
Atrazine + MSO + UAN	1	pt/a	EPOST									
Dual II Magnum	0.75	pt/a	PRE	99	99	97	98	99	99	95.8	98	145.6
Roundup PowerMAX + AMS	22	oz/a	MPOST									
Dual II Magnum	0.75	pt/a	PRE	99	99	99	95.8	99	99	99	98	145.8
Impact	0.5	oz/a	MPOST									
Roundup PowerMAX	22	oz/a	MPOST									
Atrazine + AMS	1	pt/a	MPOST									
Dual II Magnum	0.75	pt/a	PRE	99	99	97	97	99	99	97	98	144.5
Impact	0.75	oz/a	MPOST									
Roundup PowerMAX + AMS	16	oz/a	MPOST									
Dual II Magnum	0.75	pt/a	PRE	99	99	99	94.8	98	99	99	92.3	145
Impact	0.5	oz/a	MPOST									
Ignite 280	22	oz/a	MPOST									
Atrazine + AMS	1	pt/a	MPOST									
LSD (P=.05)				2.6	4.25	7.63	6.26	3.1	2.6	7.73	6.79	10.22