

**2009 Corn PREand PRE/POST standards (L0919).**

A field study was initiated near Lincoln, Nebraska to evaluate commercial standards for weed control efficacy and crop response. 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 June, mid post herbicides on June 5, and late post herbicides on June 17. 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 22 is listed in Table 2.

No crop injury was observed in any plots. Weed pressure in the study was moderate to light. Velvetleaf (*Abutilon theophrasti*) and sunflower (*Helianthus annuus*) were the dominant weeds. Palmer amaranth (*Amaranthus palmeri*) and yellow foxtail (*Setaria glauca*) was present but at much lower densities. Weed densities were taken at the time of spraying in the center of the plot, two ft<sup>2</sup> samples were taken. Plots were evaluated using visual ratings. Six of the 7 PRE only treatments provided good season long control of velvetleaf, sunflower, Palmer amaranth, and foxtail. Control obtained with Harness Xtra was fair. All of the two pass weed control programs provided excellent control. Prior to the POST application of glyphosate, weed control in the bicep, SureStart, and atrazine treatments was less than in the Luxax or Lexar treatments, even with Lumax and Lexar being applied at reduced rates. Control of yellow foxtail was greater in the Halex GT treatment than in the Capreno+Touchdown treatment.

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	10:30 am	PRE	0	0	0	0
June 4	67	74	26	4 WNW	10:30 am	EPOST	4	3	5	3
June 5	71	75	52	1 N	9:30 am	MPOST	4	3	5	3
June 17	80	79	70	5 N	9:00am	LPOST	2	2	3	2

Table 2. . Rainfall received April 26 – June 22

Date	Amount (in)	Date	Amount (in)
April 26	0.56	June 7	0.83
April 27	0.05	June 8	0.07
May 6	0.11	June 12	0.47
May 8	0.08	June 15	0.35
May 12	0.14	June 19	0.98
May 13	0.39	June 21	0.23
May 26	0.12	June 22	0.73
May 27	0.56		
June 1	0.27		
June 2	0.21		
June 6	1.14		



Table 3. Corn standards.

Treatment	Rate	Unit	Application Timing	Velvetf	Sunflwr	Yel foxtl	Velvetf	Palmr amth	Sunflwr	Yel foxtl	Velvetf	Palmr amth	Sunflwr	Yel foxtl	YIELD bu/acre
				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
				%	%	%	%	%	%	%	%				
				6/4/09	6/4/09	6/4/09	6/17/09	6/17/09	6/17/09	6/17/09	7/1/09	7/1/09	7/1/09	7/1/09	
SureStart	2.5	pt/a	PRE	45	80	87.5	96.8	99	98	99	95.8	99	98	99	152.1
Durango DMA + AMS	24	oz/a	MPOST												
Touchdown Total + AMS	24	oz/a	EPOST	0	0	0	91.3	91.3	99	99	98	99	99	99	148.4
Touchdown Total + AMS	24	oz/a	LPOST												
Capreno	3	fl oz/a	EPOST	0	0	0	92.3	94.5	93.8	91	89.8	95.8	93.8	88.5	142.7
Touchdown Total + AMS	24	oz/a	EPOST												
Aatrex	1.1	lb/a	PRE	27.5	65	67.5	93.8	99	98	98	93.8	99	98	96.8	148.5
Touchdown Total + AMS	24	oz/a	MPOST												
LSD (P=.05)				12.61	16.93	14.02	7.54	3.55	5.61	4.44	8.3	3.15	8	5.87	11.87