

2009 BASF corn products efficacy trial (L0921)

A field study was initiated near Lincoln, Nebraska to evaluate weed control and crop response of BASF corn herbicides. 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 11, 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 May 1- June 15 is listed in Table 2.

Major weeds consisted of velvetleaf (*Abutilon theophrasti*), sunflower (*Helianthus annuus*), and yellow foxtail (*Setaria glauca*) species at average densities of 3, 10, and 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 evaluate using visual ratings. The PRE treatments provided good control of yellow foxtail, but only suppression of velvetleaf and sunflower. Weed control at 28 days after the mid post treatment timing was excellent for all treatments. There was not a difference in weed control between the treatments. No crop injury was observed during this trial.

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 Heights (inches)		
							ABUTH	HELAN	PEGSL
May 11	68	63	42	8 S	2:30 pm	PRE	0.5	0.5	0
May 29	64	73	62	0	10:00 am	EPOST	2	2.5	1
June 4	67	74	26	4 WNW	11:00 am	MPOST	4	4	3

Table 2. Rainfall received 10 May 1 – June 15.

Date	Amount (in)
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	0.89
June 12	0.47
June 15	0.24

Table 3. BASF corn products efficacy trial.

Treatment	Rate	Unit	Application Timing	Velvetf	Sunflwr	Yel foxtl	Velvetf	Sunflwr	Yel foxtl	Velvetf	Sunflwr	Yel foxtl	Velvetf	Sunflwr	Yel foxtl	YIELD		
				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
				%	%	%	%	%	%	%	%	%	%	%	%	%	%	bu/acre
				5/29/09	5/29/09	5/29/09	6/4/09	6/4/09	6/4/09	6/18/09	6/18/09	6/18/09	7/2/09	7/2/09	7/2/09			
Roundup Weathermax AMS	22	oz/a	EPOST	0	0	0	91.3	98	99	93.5	95.8	98	93.5	95.8	98	156.6		
Roundup Weathermax Status + AMS	22	oz/a	EPOST	0	0	0	92.3	95.8	99	93.8	96.8	98	96	96.8	98	156.4		
	2.5	oz/a	EPOST															
Roundup Weathermax Status + AMS	22	oz/a	EPOST	0	0	0	93.5	98	99	98	98	98	95.8	98	98	156.4		
	5	oz/a	EPOST															
Guardsman Max Roundup Weathermax AMS	2.5	pt/a	PRE	35	25	80	35	25	80	98	97	99	99	97	99	158.2		
	22	oz/a	MPOST															
Guardsman Max Roundup Weathermax Status + AMS	2.5	pt/a	PRE	25	30	80	25	30	80	99	98	99	99	98	99	156.2		
	22	oz/a	MPOST															
	2.5	oz/a	MPOST															
untreated				0	0	0	0	0	0	0	0	0	0	0	0	73.9		
LSD (P=.05)				4.49	5.73	0	6.57	5.68	0	3.32	4.24	2.27	4.02	4.24	2.27	8.85		