

## **Kixor (BAS80004H) for Preemergence Weed Control in Corn During the 2008 Growing Season.**

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A field study was initiated near Scottsbluff, Nebraska to compare Kixor for early season weed control in corn. The experimental design was a randomized complete block with four replications. Plots were 11 feet wide by 50 feet long and were located on a loamy sand soil with an organic matter content of 1.3% and pH of 7.8. Corn, DeKalb 'DKC46-60', was planted on May 12. Herbicides were applied preemergence on May 14 and early postemergence on June 16. Herbicides were applied with a tractor mounted sprayer calibrated to deliver 20 gallons of water per acre at 32-psi pressure with Spraying Systems 11002 VS nozzles. The environmental conditions at the time of spraying are given in Table 1.

Corn injury was evaluated on June 4, 11, 23, and 30 (Table 2). Minor corn injury was observed on June 11 in plots treated with BAS78102H at 0.564 lb/acre. Corn injury was not apparent 12 days later on June 23. Corn stand was not influenced by herbicide treatments.

Weed density was severe and consisted of common lambsquarters, redroot pigweed, kochia, and wild buckwheat at densities of 147, 74, 14, and 9 plants/137 sq ft, respectively. Kixor plus Guardsman Max and Lumax provided 91 to 89%, respectively, early season average weed control. By July 8, weed control in the Kixor plus Guardsman Max treated area had declined to 80% while average weed control in Lumax treated areas was 97%. Plots treated with Kixor preemergence and followed postemergence with Roundup Power Max plus Status had excellent early season weed control.

Table 1. Environmental conditions at the time of herbicide application.

Date	Air temperature (F)	Humidity (%)	Wind speed & direction (mph)	Time of day	Corn growth stage	Weed height (inches)			
						Colq	Kocz	Rrpw	Wibw
May 14	51	72	6 NW	9:00 am	----- no growth -----				
June 16	66	58	7SE	11:00 am	V 4	8	6	4	2

Date	Amount (inches)
May 15	0.60
May 22	0.21
May 23	0.31

Date	Amount (inches)
May 26	0.20
June 1	0.19
June 4	0.75

Date	Amount (inches)
June 12	0.60
June 19	0.07
June 20	0.36

Table 2. BAS80004H for Preemergence Weed Control in Corn during the 2008 Growing Season.

Treatment <sup>1</sup>	Rate (lbs/acre)	Time of application <sup>2</sup>	Corn					Percent weed control 6/23					Percent weed control 7/8 <sup>4</sup>					
			Visual Injury <sup>3</sup>				Stand 6/23 (plants/acre)	Colq	Rrpw	Wibw	Kocz	Avg	Colq	Rrpw	Kocz	Wibw	Avg	
			6/4	6/11	6/23	6/30												----- (%) -----
Nontreated	—	—	0	0	0	0	35165	0	0	0	0	0	0	0	0	0	0	0
BAS78102H	0.521	Pre	0	0	2	2	35640	79	79	88	97	86	38	63	71	96	67	
BAS78102H	0.564	Pre	0	5	2	1	34214	72	95	74	95	84	36	60	73	99	67	
BAS80004H + Gaurdsman Max	0.044 + 1.55	Pre	0	2	2	0	35759	94	73	99	99	91	69	60	92	99	80	
Lumax	2.46	Pre	0	2	1	1	35284	94	90	99	74	89	96	98	99	96	97	
BAS78102H Roundup PowerMAX + X77 + AMS	0.434 0.75	Pre 6" weeds	0	1	1	0	36234	85	98	99	84	92	57	71	94	99	80	
BAS80004H + Gaurdsman Max Roundup PowerMAX + X77 + AMS	0.044 + 1.55 0.75	Pre 6" weeds	0	3	3	0	35521	99	99	99	99	99	70	81	99	99	87	
Harness Xtra Roundup PowerMAX + X77 + AMS	1.79 0.75	Pre 6" weeds	0	0	1	0	34571	96	99	99	99	98	51	47	90	99	72	
BAS78102H Roundup PowerMAX + Status + AMS	0.434 0.75 + 0.087	Pre 6" weeds	0	0	0	1	36472	98	99	99	99	99	84	54	96	99	83	
LSD at 5%	—	—	0	3	3	2	NS	21	19	27	27	15	31	35	31	3	13	

<sup>1</sup> Spray additives were combined with the spray solution at the following rate: ammonium sulfate (AMS) at 17lbs/100 gal, and surfactant X77 at 0.25% V/V.

<sup>2</sup> Time of application: preemergence (Pre), and 6 inch weeds.

<sup>3</sup> Visual crop injury evaluated on a scale from 0 to 100 with 0 equal to no injury and 100 equal to death of the plant.

<sup>4</sup> Percent weed control calculated from weed counts taken on June 23 and July 8. Weed abbreviations: common lambsquarters (Colq), redroot pigweed (Rrpw), wild buckwheat (Wibw), and kochia (Kocz).