

2009 Fall applied herbicides in no-till soybeans (L0931).

A field study was initiated near Lincoln, Nebraska to evaluate weed control and crop injury of fall applied herbicides in no till soybeans. The experimental design was a randomized complete block with three replications. Plots were 15 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. Asgrow '2906' was planted on May 6. Soybeans emerged on May 15. Fall herbicides were applied on November 19, and mid post herbicides on June 12. 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 November 9 – November 29 and June 2 – June 22 is listed in Table 2.

Major weeds consisted of henbit (*Lamium amplexicaule*), tansy mustard (*Descurainia pinnata*), marestalk (*Conyza canadensis*), velvetleaf (*Abutilon theophrasti*), and sunflower (*Helianthus annuus*) species at average densities of 80, 10, 5, 10, and 10 plants/m². 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. Weed control after mid post was excellent in all plots.

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)				
							LAMAN	DESSS	CONCA	ABUTH	HELAN
November 19	57	42	38	10 N	1:30 pm	FALL	0.5		0.5		
June 12	67	69	75	9 N	9:30 am	MPOST	6	12	12	6	8

Table 2. Rainfall received November 9 – November 29 and June 2 – June 22.

Date	Amount (in)
November 9	0.11
November 10	0.75
November 11	0.21
June 6	1.14
June 7	0.89
June 13	0.47
June 15	0.24
June 16	0.11
June 19	0.71
June 20	0.27
June 21	0.23
June 22	0.73

Table 3. Fall-applied herbicides for no-till soybean.

Treatment	Rate	Unit	Application Timing	Henbit	T Mustrd	Maretl	Velvetf	Sunflwr	Marestl	Velvetf	Sunflwr	Marestl	Velvetf	Sunflwr	YIELD		
				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
				%	%	%	%	%	%	%	%	%	%	%	%	%	bu/acre
Enlite (2.8 oz)			FALL	99	99	99	81.7	91.3	99	78.3	85	91.7	75	78.3	36.2		
Classic	0.32	oz/a	FALL														
Valor	2	oz/a	FALL														
Harmony SG	0.5	oz/a	FALL														
2,4-D ester + COC	16	fl oz/a	FALL														
Roundup Powermax + AMS	22	fl oz/a	MPOST														
Canopy	5	oz/a	FALL	99	99	99	56.7	66.7	99	56.7	61.7	91.7	55	58.3	39.5		
2,4-D ester + COC	16	fl oz/a	FALL														
Roundup Powermax + AMS	22	fl oz/a	MPOST														
Spartan 4F	3	fl oz/a	FALL	99	99	99	85	85	99	83.3	78.3	91.7	75	70	36.4		
Classic	1.3	oz/a	FALL														
2,4-D ester + COC	16	fl oz/a	FALL														
Roundup Powermax + AMS	22	fl oz/a	MPOST														
Roundup Powermax + AMS	22	fl oz/a	MPOST	0	0	0	0	0	0	0	0	0	0	0	42.9		
LSD (P=.05)				0	4.57	30.12	33.13	39.07	30.27	30.93	35.97	26.86	26.91	30.68	13.12		