

2009 Carfentrazone burndown in corn (L0915).

A field study was initiated near Lincoln, Nebraska to evaluate carfentrazone burndown of winter annuals and residual weed control in 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. Dekalb '6166' was planted on May 8. Corn emerged on May 13. Early preplant herbicides were applied on April 21 and 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 11 – May1 and June 7 – June 27 is listed in Table 2.

Major weeds consisted of henbit (*Lamium amplexicaule*), tansy mustard (*Descurainia pinnata*), marestail (*Conyza canadensis*), velvetleaf (*Abutilon theophrasti*), sunflower (*Helianthus annuus*), and green foxtail (*Setaria viridis*) species at average densities of 50, 5, 5, 10, 5, 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.

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	SETVI
April 21	63	56	39	6	2:30 pm	EPP	3	5	3	NA	NA	NA
June 17	86	79	54	8	1:00 pm	POST	NA	NA	8	10	10	6

Table 2. Rainfall received April 11 – May1 and June 7 – June 27.

Date	Amount (in)
April 12	0.13
April 13	0.09
April 18	0.34
April 26	0.61
June 12	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. Carfentrazone burndown in corn.

Treatment	Rate	Unit	Application timing	Henbit	T Mustard	Velvetf	Gr foxtl	Marestail	Velvetf	Sunflwr	Gr foxtl	Marestail	Velvetf	Sunflwr	Gr foxtl	YIELD
				Control	Control	Control	Contol	Contol	Control	Control	Control	Control	Control	Control	Control	Control
				%	%	%	%	%	%	%	%	%	%	%	%	
				5/22/09	5/22/09	5/22/09	5/22/09	5/22/09	6/17/09	6/17/09	6/17/09	6/17/09	7/1/09	7/1/09	7/1/09	
Rage D-tech	0.5	pt/a	EPP	93.3	97	20	62.5	87.5	20	70	42.5	85	99	99	99	143.9
Atrazine + COC	1	lb ai/a	EPP													
Roundup Powermax + AMS	22	oz/a	POST													
untreated				0	0	0	0	0	0	0	0	0	0	0	0	117.7
LSD (P=.05)				9.36	2.62	7.05	24.35	9.11	9.39	20.9	23.66	13.23	0	0	0	3.01