

2009 Liberty Link vs Roundup Ready Soybean Yield (L0937).

A field study was initiated near Lincoln, Nebraska to compare the yield potential between two LL soybean varieties and one RR2Y soybean variety adapted for SE Nebraska. The experimental design was a randomized complete block with six replications. Plots were 20 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. 'S080135 LL', 'AG3139 RR', and 'S070141 LL' varieties were planted on May 18. Soybeans emerged on May 29. Preemergent herbicides were applied on May 21, early herbicides on June 24, and late post herbicides on July 6. 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 11 – May 31 and June 15 – July 16 is listed in Table 2.

Major weeds consisted of velvetleaf (*Abutilon theophrasti*), sunflower (*Helianthus annuus*), palmer amaranth (*Amaranthus palmeri*), and yellow foxtail (*Setaria glauca*) species at average densities of 10, 2, 5, and 2 plants/ft². 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. No crop injury was observed on any treatment. The experiment was planted into very cloddy soil, and there was some variability in emergence, but most plots had very good stands. The variability in emergence contributed to some differences in plant size early in the season, but it was not generally consistent within a variety across replications. As desired, weed control was excellent in the study following the postemergence herbicide applications.

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	AMAPA	SETGL
May 21	73	74	43	8 SW	10:30 am	PRE	NA	NA	NA	NA
June 24	78	84	65	4 SSE	9:00 am	EPOST	3	4	2	1
July 6	71	76	72	3 WSW	9:30 am	LPOST	3		2	2

Table 2. Rainfall received May 11 – May 31 and June 15 – July 16.

Date	Amount (in)	Date	Amount (in)
May 12	0.14	July 14	0.11
May 13	0.39	July 16	0.3
May 26	0.12		
May 27	0.56		
June 15	0.24		
June 16	0.11		
June 19	0.71		
June 20	0.27		
June 21	0.23		
June 22	0.73		
July 3	0.88		
July 6	0.13		

