

Laudis tank-mixed with oil adjuvants (S0920)

A field study was initiated near Clay Center, Nebraska to evaluate the response of Laudis with different oil adjuvants. The experimental design was a randomized complete block with four replications. Plots were 10 feet wide and 30 feet long and were located on a silt loam soil with an organic matter content of 2.5% and ph of 6.5. Corn, Pioneer '34F97' RR2/LL was planted 29,600 seeds per acre on May 6 and emerged on May 18. Herbicides were applied MPOST on June 5. Herbicides were applied with a tractor-mounted sprayer calibrated to deliver 15 gallons of water per acre at 30 PSI using AIXR 110015 flat spray nozzles. The environmental conditions at the time of herbicide application are given in Table 1. Rainfall received 10 days before and 10 days after herbicide applications is listed in Table 2. Plots received 13.97 inches of rain and 8.25 inches of irrigation water applied by sprinkler during growing season.

Primary weeds consisted of giant foxtail (SETFA), common waterhemp (AMATA), velvetleaf (ABUTH) and common lambsquarters (CHEAL) at average densities of 22, 26, 2, and 21 plants per 5.5 square feet.

There were no significant differences in control of broadleaf species, velvetleaf, common waterhemp, or common lambsquarters as affected by methylated seed oil rate or formulation. There did appear to be a trend for giant foxtail control, that increasing the rate of MSO increased control (highest control at 1.2 pt/A = 1% V/V).

MSO formulation did not have a significant or consistent effect on crop response.

Corn yield across treatments averaged 251.5 bu/A. Corn yield in the untreated plots averaged 162.4 bu/A. There was no statistical difference in corn yield between treatments (Table 3).

Table 1. Environmental conditions at the Time of Herbicide Application.

Appl Date	Air Temperature (F)	Humidity (%)	Wind Speed & direction (mph)	Time of day	Application Timing	Weed and Corn heights (inches)				
						SETFA	AMATA	ABUTH	CHEAL	CORN
June 5	74	39	3 SSE	11:00 am	MPOST	5.0	7.0	5.0	6.0	19.4

Table 2. Rainfall received 10 days before and after herbicide application.

Date (June 3)	Amount (in)
May 26	0.17
June 1	0.62
June 5	0.16
June 6	0.52
June 9	0.16
June 10	0.06
June 12	0.30
June 14	0.11
June 15	2.41

Table 3. Laudis tank-mixed with adjuvants

Trt No.	Treatment Name	Rate	Rate Unit	Appl. Timing	SETFA	ABUTH	AMATA	CHEAL	SETFA	ABUTH	AMATA	CHEAL	ZEAMX
					6/24/2009	6/24/2009	6/24/2009	6/24/2009	7/14/2009	7/14/2009	7/14/2009	7/14/2009	11/11/2009
					CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	YIELD
					%	%	%	%	%	%	%	%	bu/A
7	LAUDIS	3	OZ/A	MPOST	78	99	98	99	74	100	100	100	260.3
7	Atrazine	8.9	OZ/A	MPOST									
7	SUCCEED	1	% V/V	MPOST									
7	AMS	8.5	LB A/100 GAL	MPOST									
8	LAUDIS	3	OZ/A	MPOST	89	99	99	100	91	100	100	100	258.6
8	Atrazine	8.9	OZ/A	MPOST									
8	MSO	1.2	PT/A	MPOST									
8	AMS	8.5	LB A/100 GAL	MPOST									
9	LAUDIS	3	OZ/A	MPOST	87	100	99	100	86	99	100	100	251.2
9	Atrazine	8.9	OZ/A	MPOST									
9	MSO	1	PT/A	MPOST									
9	AMS	8.5	LB A/100 GAL	MPOST									
10	LAUDIS	3	OZ/A	MPOST	85	98	99	100	86	100	100	100	259.8
10	Atrazine	8.9	OZ/A	MPOST									
10	MSO	0.8	PT/A	MPOST									
10	AMS	8.5	LB A/100 GAL	MPOST									
11	UNTREATED				0	0	0	0	0	0	0	0	162.4
LSD (P=.05)					16.7	3.1	2.7	1.4	23.4	1.4	1.6	0	22.08