

MSU Weed Science Research Program

Evaluation of adjuvants for use with glyphosate tank-mixtures

Trial ID: SB08-09BB Study Dir.: Sprague, Powell
Conducted: Bean & Beet Investigator: Christy Sprague

Date Planted: 4/16/2009 Row Spacing: 30 IN
Variety: Hilleshog 9042RR No. of Reps: 4
Population: 4 1/8" spacing % OM: 2.4
Soil Type: Silty Clay Loam pH: 7.9
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall moldboard plow, spring field cultivation (2X)
Fertilizer: Broadcast 125 lb N

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Row 1: CHEAL, LAMBSQUARTERS, COMMON, CHENOPODIUM ALBUM L. Row 2: BETVU, BEET, SUGAR

Application Description

A
Application Timing: 4" weeds
Date Treated: 6/3/2009
Time Treated: 3:30PM
% Cloud Cover: 50
Air Temp., Unit: 79 F
% Relative Humidity: 30
Wind Speed/Unit/Dir: 5 mph NW
Soil Temp., Unit: 68 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 5

Crop Stage at Each Application

A
Crop Name: BETVU
Height (In.): 2-4
Stage (L): 8

Weed Stage at Each Application

A
Weed 1 Name: CHEAL
Height (In.): 2-4
Stage (L): 8-many

Weed Density (plants/sq. ft.)

1
Date: 7/9/2009
Weed Name: CHEAL
Density: 3

Application Equipment

Table with 11 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Row A: Cub, 3.8, AirMix, 11003, 24", 20", 100", 19, water, 28

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	# Subsamples, Dec.	BETVU injury percent	CHEAL control percent	CHEAL control percent	BETVU count # / 100'	BETVU % sugar	BETVU yield ton/acre	
							6/11/2009	6/22/2009	7/9/2009	9/14/2009	9/15/2009	9/15/2009	
							8 DA-A	19 DA-A	36 DA-A	103 DA-A	104 DA-A	104 DA-A	
							0	0	0	0	1	1	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Stg	Appl Code						
1	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	0	97	99	212	18.6	24.2
1	Stinger	3	L	4	fl oz/a	4" weeds	A						
1	Class Act NG		L	2.5	% v/v	4" weeds	A						
2	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	0	98	99	206	18.8	24.3
2	Stinger	3	L	4	fl oz/a	4" weeds	A						
2	Class Act NG		L	2.5	% v/v	4" weeds	A						
2	InterLock		L	4	fl oz/a	4" weeds	A						
3	Untreated							0	0	0	209	18.9	22.6
4	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	2	99	99	216	18.8	27.4
4	UpBeet	50	DF	0.5	oz/a	4" weeds	A						
4	Class Act NG		L	2.5	% v/v	4" weeds	A						
5	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	4	99	99	202	18.6	24.1
5	UpBeet	50	DF	0.5	oz/a	4" weeds	A						
5	Class Act NG		L	2.5	% v/v	4" weeds	A						
5	InterLock		L	4	fl oz/a	4" weeds	A						
6	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	10	99	99	198	18.4	26.9
6	UpBeet	50	DF	0.5	oz/a	4" weeds	A						
6	Superb HC		L	0.5	% v/v	4" weeds	A						
6	Class Act NG		L	2.5	% v/v	4" weeds	A						
7	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	8	98	99	218	18.3	28.6
7	UpBeet	50	DF	0.5	oz/a	4" weeds	A						
7	Destiny HC		L	0.5	% v/v	4" weeds	A						
7	Class Act NG		L	2.5	% v/v	4" weeds	A						
8	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	8	98	99	234	18.9	29.0
8	UpBeet	50	DF	0.5	oz/a	4" weeds	A						
8	Destiny HC		L	0.5	% v/v	4" weeds	A						
8	Class Act NG		L	2.5	% v/v	4" weeds	A						
8	InterLock		L	4	fl oz/a	4" weeds	A						
LSD (P=.05)							3.3	3.0	0.5	39.4	0.95	4.25	
Standard Deviation							2.2	2.1	0.4	26.8	0.65	2.89	
CV							57.36	2.4	0.41	12.66	3.47	11.16	

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code

Crop Code	BETVU	BETVU
Rating Data Type	RWST	RWSA
Rating Unit	# / ton	# / acre
Rating Date	9/15/2009	9/15/2009
Trt-Eval Interval	104 DA-A	104 DA-A
# Subsamples, Dec.	1	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	273.5	6614
1	Stinger	3	L	4	fl oz/a	4" weeds	A		
1	Class Act NG		L	2.5	% v/v	4" weeds	A		
2	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	274.2	6649
2	Stinger	3	L	4	fl oz/a	4" weeds	A		
2	Class Act NG		L	2.5	% v/v	4" weeds	A		
2	InterLock		L	4	fl oz/a	4" weeds	A		
3	Untreated							277.0	6254
4	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	274.4	7509
4	UpBeet	50	DF	0.5	oz/a	4" weeds	A		
4	Class Act NG		L	2.5	% v/v	4" weeds	A		
5	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	271.7	6531
5	UpBeet	50	DF	0.5	oz/a	4" weeds	A		
5	Class Act NG		L	2.5	% v/v	4" weeds	A		
5	InterLock		L	4	fl oz/a	4" weeds	A		
6	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	271.1	7283
6	UpBeet	50	DF	0.5	oz/a	4" weeds	A		
6	Superb HC		L	0.5	% v/v	4" weeds	A		
6	Class Act NG		L	2.5	% v/v	4" weeds	A		
7	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	265.9	7589
7	UpBeet	50	DF	0.5	oz/a	4" weeds	A		
7	Destiny HC		L	0.5	% v/v	4" weeds	A		
7	Class Act NG		L	2.5	% v/v	4" weeds	A		
8	Roundup PowerMax	4.5	L	22	fl oz/a	4" weeds	A	275.8	7996
8	UpBeet	50	DF	0.5	oz/a	4" weeds	A		
8	Destiny HC		L	0.5	% v/v	4" weeds	A		
8	Class Act NG		L	2.5	% v/v	4" weeds	A		
8	InterLock		L	4	fl oz/a	4" weeds	A		
LSD (P=.05)								16.68	1160.7
Standard Deviation								11.34	789.1
CV								4.16	11.19

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.