

Evaluation of various POST ethofumesate rates in sugarbeet

Trial ID: SB03-17 Study Dir.: Sprague, Powell, Stiles
 Conducted: SVREC Investigator: Christy Sprague

Planting Date: Apr-18-2017 **Row Spacing:** 30 IN
Variety: ACH G515RR **No. of Reps:** 3
Population: 4.12 " spacing **% OM:** 2.4
Soil Type: SCL sandy clay loam **pH:** 7.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Conventional tillage
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	CHEAL	lambsquarters, common	Chenopodium album
Crop	Code	Common Name	
1	BETVU	Sugarbeet	

Application Description

	A	B
Application Timing:	E.POST	POST
Date Treated:	May-24-2017	Jun-8-2017
Time Treated:	2:45 PM	10:30 AM
% Cloud Cover:	90	0
Air Temp., Unit:	63 F	69 F
% Relative Humidity:	67	51
Wind Speed/Unit/Dir:	11 mph N	2 mph S
Soil Temp, Unit:	59 F	67 F
Leaf Moist/Dew Presence (Y/N):	5	5
Soil Moist:	3	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	BETVU	BETVU
Height:	1-2 " (1.5)	4-6 " (5)
Stage:	4L	6L

Weed Stage at Each Application

	A	B
Weed 1 Name:	CHEAL	CHEAL
Height:	2-4 " (3)	2-6 " (4)
Stage:	Many	Many

Weed Density

	1
Date:	May-24-2017
Weed Name:	CHEAL
Density:	3 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	Cub	3.8 MPH	AIXR	11003	22 "	20 "	100 "	19 GPA	WATER	30 PSI
B	Cub	3.8 MPH	AIXR	11003	26 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments:

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Pest Code	CHEAL		CHEAL		BETVU
Crop Code	BETVU		BETVU		BETVU
Rating Date	May-30-2017	May-30-2017	Jun-8-2017	Jun-8-2017	Jun-21-2017
Rating Type	injury	control	injury	control	injury
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	6 DA-A	6 DA-A	15 DA-A	15 DA-A	13 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
1	Roundup PowerMax	4	SL	32 fl oz/a		A	0	83	0	96	0
1	AMS		WG	17 lb/100 gal		A					
1	Roundup PowerMax	4	SL	32 fl oz/a		B					
1	AMS		WG	17 lb/100 gal		B					
2	Ethofumesate	4	L	6 fl oz/a		A	8	23	4	3	0
2	Destiny HC		L	1.5 pt/a		A					
2	Ethofumesate	4	L	6 fl oz/a		B					
2	Destiny HC		L	1.5 pt/a		B					
3	Ethofumesate	4	L	12 fl oz/a		A	7	18	6	13	0
3	Destiny HC		L	1.5 pt/a		A					
3	Ethofumesate	4	L	12 fl oz/a		B					
3	Destiny HC		L	1.5 pt/a		B					
4	Ethofumesate	4	L	18 fl oz/a		A	4	15	2	28	0
4	Destiny HC		L	1.5 pt/a		A					
4	Ethofumesate	4	L	18 fl oz/a		B					
4	Destiny HC		L	1.5 pt/a		B					
5	Ethofumesate	4	L	24 fl oz/a		A	5	22	4	25	0
5	Destiny HC		L	1.5 pt/a		A					
5	Ethofumesate	4	L	24 fl oz/a		B					
5	Destiny HC		L	1.5 pt/a		B					
6	Ethofumesate	4	L	32 fl oz/a		A	5	15	4	25	0
6	Destiny HC		L	1.5 pt/a		A					
6	Ethofumesate	4	L	32 fl oz/a		B					
6	Destiny HC		L	1.5 pt/a		B					
7	Untreated						0	0	0	0	0
8	Ethofumesate	4	L	6 fl oz/a		A	3	97	2	99	0
8	Roundup PowerMax	4	SL	32 fl oz/a		A					
8	Destiny HC		L	1.5 pt/a		A					
8	AMS		WG	17 lb/100 gal		A					
8	Ethofumesate	4	L	6 fl oz/a		B					
8	Roundup PowerMax	4	SL	32 fl oz/a		B					
8	Destiny HC		L	1.5 pt/a		B					
8	AMS		WG	17 lb/100 gal		B					

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Pest Code		CHEAL		CHEAL	
Crop Code		BETVU		BETVU	BETVU
Rating Date		May-30-2017	May-30-2017	Jun-8-2017	Jun-8-2017
Rating Type		injury	control	injury	control
Rating Unit		percent	percent	percent	percent
Trt-Eval Interval		6 DA-A	6 DA-A	15 DA-A	15 DA-A
Number of Decimals		0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
9	Ethofumesate	4	L	12	fl oz/a	A	6	97	4	98	0
9	Roundup PowerMax	4	SL	32	fl oz/a	A					
9	Destiny HC		L	1.5	pt/a	A					
9	AMS		WG	17	lb/100 gal	A					
9	Ethofumesate	4	L	12	fl oz/a	B					
9	Roundup PowerMax	4	SL	32	fl oz/a	B					
9	Destiny HC		L	1.5	pt/a	B					
9	AMS		WG	17	lb/100 gal	B					
10	Ethofumesate	4	L	18	fl oz/a	A	5	95	3	95	0
10	Roundup PowerMax	4	SL	32	fl oz/a	A					
10	Destiny HC		L	1.5	pt/a	A					
10	AMS		WG	17	lb/100 gal	A					
10	Ethofumesate	4	L	18	fl oz/a	B					
10	Roundup PowerMax	4	SL	32	fl oz/a	B					
10	Destiny HC		L	1.5	pt/a	B					
10	AMS		WG	17	lb/100 gal	B					
11	Ethofumesate	4	L	24	fl oz/a	A	5	95	3	97	0
11	Roundup PowerMax	4	SL	32	fl oz/a	A					
11	Destiny HC		L	1.5	pt/a	A					
11	AMS		WG	17	lb/100 gal	A					
11	Ethofumesate	4	L	24	fl oz/a	B					
11	Roundup PowerMax	4	SL	32	fl oz/a	B					
11	Destiny HC		L	1.5	pt/a	B					
11	AMS		WG	17	lb/100 gal	B					
12	Ethofumesate	4	L	32	fl oz/a	A	4	95	8	95	0
12	Roundup PowerMax	4	SL	32	fl oz/a	A					
12	Destiny HC		L	1.5	pt/a	A					
12	AMS		WG	17	lb/100 gal	A					
12	Ethofumesate	4	L	32	fl oz/a	B					
12	Roundup PowerMax	4	SL	32	fl oz/a	B					
12	Destiny HC		L	1.5	pt/a	B					
12	AMS		WG	17	lb/100 gal	B					
LSD P=.05							3.8	5.5	5.6	10.5	.
Standard Deviation							2.2	3.2	3.3	6.2	0.0
CV							50.1	5.55	100.88	11.03	0.0

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Pest Code	CHEAL	BETVU	CHEAL	BETVU	BETVU	BETVU
Crop Code	Jun-21-2017	Jul-6-2017	Jul-6-2017	Sep-19-2017	Sep-20-2017	Sep-20-2017
Rating Date	control	injury	control	beets 100'	% sugar	yield
Rating Type	percent	percent	percent	row		ton/acre
Rating Unit	13 DA-B	28 DA-B	28 DA-B	118 DA-A	104 DA-B	119 DA-A
Trt-Eval Interval	0	0	0	0	1	1
Number of Decimals						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*
1	Roundup PowerMax	4 SL		32 fl oz/a		A	99	0	99	259	19.0	22.6
1	AMS	WG		17 lb/100 gal		A						
1	Roundup PowerMax	4 SL		32 fl oz/a		B						
1	AMS	WG		17 lb/100 gal		B						
2	Ethofumesate	4 L		6 fl oz/a		A	20	0	18	156	18.7	13.6
2	Destiny HC	L		1.5 pt/a		A						
2	Ethofumesate	4 L		6 fl oz/a		B						
2	Destiny HC	L		1.5 pt/a		B						
3	Ethofumesate	4 L		12 fl oz/a		A	37	0	25	102	17.3	8.9
3	Destiny HC	L		1.5 pt/a		A						
3	Ethofumesate	4 L		12 fl oz/a		B						
3	Destiny HC	L		1.5 pt/a		B						
4	Ethofumesate	4 L		18 fl oz/a		A	42	0	33	173	19.4	15.1
4	Destiny HC	L		1.5 pt/a		A						
4	Ethofumesate	4 L		18 fl oz/a		B						
4	Destiny HC	L		1.5 pt/a		B						
5	Ethofumesate	4 L		24 fl oz/a		A	50	0	40	190	18.7	16.6
5	Destiny HC	L		1.5 pt/a		A						
5	Ethofumesate	4 L		24 fl oz/a		B						
5	Destiny HC	L		1.5 pt/a		B						
6	Ethofumesate	4 L		32 fl oz/a		A	57	0	47	196	19.6	17.1
6	Destiny HC	L		1.5 pt/a		A						
6	Ethofumesate	4 L		32 fl oz/a		B						
6	Destiny HC	L		1.5 pt/a		B						
7	Untreated						0	0	0	144	18.4	12.6
8	Ethofumesate	4 L		6 fl oz/a		A	100	0	100	300	18.6	26.1
8	Roundup PowerMax	4 SL		32 fl oz/a		A						
8	Destiny HC	L		1.5 pt/a		A						
8	AMS	WG		17 lb/100 gal		A						
8	Ethofumesate	4 L		6 fl oz/a		B						
8	Roundup PowerMax	4 SL		32 fl oz/a		B						
8	Destiny HC	L		1.5 pt/a		B						
8	AMS	WG		17 lb/100 gal		B						

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Crop Code	Jun-21-2017	Jul-6-2017	Jul-6-2017	Sep-19-2017	Sep-20-2017	Sep-20-2017
Rating Date	control	injury	control	beets 100'	% sugar	yield
Rating Type	percent	percent	percent	row		ton/acre
Rating Unit	13 DA-B	28 DA-B	28 DA-B	118 DA-A	104 DA-B	119 DA-A
Trt-Eval Interval	0	0	0	0	1	1
Number of Decimals						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*
9	Ethofumesate	4 L		12 fl oz/a		A	100	0	100	279	18.4	24.4
9	Roundup PowerMax	4 SL		32 fl oz/a		A						
9	Destiny HC	L		1.5 pt/a		A						
9	AMS	WG		17 lb/100 gal		A						
9	Ethofumesate	4 L		12 fl oz/a		B						
9	Roundup PowerMax	4 SL		32 fl oz/a		B						
9	Destiny HC	L		1.5 pt/a		B						
9	AMS	WG		17 lb/100 gal		B						
10	Ethofumesate	4 L		18 fl oz/a		A	100	0	100	275	19.0	24.0
10	Roundup PowerMax	4 SL		32 fl oz/a		A						
10	Destiny HC	L		1.5 pt/a		A						
10	AMS	WG		17 lb/100 gal		A						
10	Ethofumesate	4 L		18 fl oz/a		B						
10	Roundup PowerMax	4 SL		32 fl oz/a		B						
10	Destiny HC	L		1.5 pt/a		B						
10	AMS	WG		17 lb/100 gal		B						
11	Ethofumesate	4 L		24 fl oz/a		A	99	0	100	290	18.9	25.3
11	Roundup PowerMax	4 SL		32 fl oz/a		A						
11	Destiny HC	L		1.5 pt/a		A						
11	AMS	WG		17 lb/100 gal		A						
11	Ethofumesate	4 L		24 fl oz/a		B						
11	Roundup PowerMax	4 SL		32 fl oz/a		B						
11	Destiny HC	L		1.5 pt/a		B						
11	AMS	WG		17 lb/100 gal		B						
12	Ethofumesate	4 L		32 fl oz/a		A	99	0	100	313	19.0	27.3
12	Roundup PowerMax	4 SL		32 fl oz/a		A						
12	Destiny HC	L		1.5 pt/a		A						
12	AMS	WG		17 lb/100 gal		A						
12	Ethofumesate	4 L		32 fl oz/a		B						
12	Roundup PowerMax	4 SL		32 fl oz/a		B						
12	Destiny HC	L		1.5 pt/a		B						
12	AMS	WG		17 lb/100 gal		B						
LSD P=.05							6.9	.	9.4	73.9	1.38	6.45
Standard Deviation							4.1	0.0	5.6	43.4	0.81	3.79
CV							6.11	0.0	8.75	19.09	4.32	19.09

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Pest Code		
Crop Code	BETVU	BETVU
Rating Date	Sep-20-2017	Sep-20-2017
Rating Type	RWST	RWSA
Rating Unit	#/ton	#/acre
Trt-Eval Interval	104 DA-B	104 DA-B
Number of Decimals	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*
1	Roundup PowerMax	4	SL	32 fl oz/a		A	290	6581
1	AMS		WG	17 lb/100 gal		A		
1	Roundup PowerMax	4	SL	32 fl oz/a		B		
1	AMS		WG	17 lb/100 gal		B		
2	Ethofumesate	4	L	6 fl oz/a		A	284	3852
2	Destiny HC		L	1.5 pt/a		A		
2	Ethofumesate	4	L	6 fl oz/a		B		
2	Destiny HC		L	1.5 pt/a		B		
3	Ethofumesate	4	L	12 fl oz/a		A	261	2463
3	Destiny HC		L	1.5 pt/a		A		
3	Ethofumesate	4	L	12 fl oz/a		B		
3	Destiny HC		L	1.5 pt/a		B		
4	Ethofumesate	4	L	18 fl oz/a		A	297	4494
4	Destiny HC		L	1.5 pt/a		A		
4	Ethofumesate	4	L	18 fl oz/a		B		
4	Destiny HC		L	1.5 pt/a		B		
5	Ethofumesate	4	L	24 fl oz/a		A	283	4705
5	Destiny HC		L	1.5 pt/a		A		
5	Ethofumesate	4	L	24 fl oz/a		B		
5	Destiny HC		L	1.5 pt/a		B		
6	Ethofumesate	4	L	32 fl oz/a		A	299	5106
6	Destiny HC		L	1.5 pt/a		A		
6	Ethofumesate	4	L	32 fl oz/a		B		
6	Destiny HC		L	1.5 pt/a		B		
7	Untreated						280	3558
8	Ethofumesate	4	L	6 fl oz/a		A	281	7334
8	Roundup PowerMax	4	SL	32 fl oz/a		A		
8	Destiny HC		L	1.5 pt/a		A		
8	AMS		WG	17 lb/100 gal		A		
8	Ethofumesate	4	L	6 fl oz/a		B		
8	Roundup PowerMax	4	SL	32 fl oz/a		B		
8	Destiny HC		L	1.5 pt/a		B		
8	AMS		WG	17 lb/100 gal		B		

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Pest Code			
Crop Code	BETVU	BETVU	
Rating Date	Sep-20-2017	Sep-20-2017	
Rating Type	RWST	RWSA	
Rating Unit	#/ton	#/acre	
Trt-Eval Interval	104 DA-B	104 DA-B	
Number of Decimals	0	0	

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*
9	Ethofumesate	4	L	12	fl oz/a	A	278	6799
9	Roundup PowerMax	4	SL	32	fl oz/a	A		
9	Destiny HC		L	1.5	pt/a	A		
9	AMS		WG	17	lb/100 gal	A		
9	Ethofumesate	4	L	12	fl oz/a	B		
9	Roundup PowerMax	4	SL	32	fl oz/a	B		
9	Destiny HC		L	1.5	pt/a	B		
9	AMS		WG	17	lb/100 gal	B		
10	Ethofumesate	4	L	18	fl oz/a	A	288	6907
10	Roundup PowerMax	4	SL	32	fl oz/a	A		
10	Destiny HC		L	1.5	pt/a	A		
10	AMS		WG	17	lb/100 gal	A		
10	Ethofumesate	4	L	18	fl oz/a	B		
10	Roundup PowerMax	4	SL	32	fl oz/a	B		
10	Destiny HC		L	1.5	pt/a	B		
10	AMS		WG	17	lb/100 gal	B		
11	Ethofumesate	4	L	24	fl oz/a	A	287	7279
11	Roundup PowerMax	4	SL	32	fl oz/a	A		
11	Destiny HC		L	1.5	pt/a	A		
11	AMS		WG	17	lb/100 gal	A		
11	Ethofumesate	4	L	24	fl oz/a	B		
11	Roundup PowerMax	4	SL	32	fl oz/a	B		
11	Destiny HC		L	1.5	pt/a	B		
11	AMS		WG	17	lb/100 gal	B		
12	Ethofumesate	4	L	32	fl oz/a	A	287	7797
12	Roundup PowerMax	4	SL	32	fl oz/a	A		
12	Destiny HC		L	1.5	pt/a	A		
12	AMS		WG	17	lb/100 gal	A		
12	Ethofumesate	4	L	32	fl oz/a	B		
12	Roundup PowerMax	4	SL	32	fl oz/a	B		
12	Destiny HC		L	1.5	pt/a	B		
12	AMS		WG	17	lb/100 gal	B		
LSD	P=.05						23.8	1959.9
Standard Deviation							13.9	1150.7
CV							4.89	20.22

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