

LSU Northeast Research Station

EVANGELINE AND BEAUREGARD TOLERANCE TO SWEET POTATO HERBICIDES

GENERAL TRIAL INFORMATION

Investigator: Donnie Miller
TRIAL LOCATION: CHASE, LA
Crop 1: IPOBA POTATO, SWEET
Variety: EVANGELINE & BEAUGREGARD
Planting Date: 17/Jun/2008

SITE AND DESIGN

Plot Width, Unit: 7 FT
Plot Length, Unit: 25 FT
Reps: 4
Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A	B	C
Application Date:	17/Jun/2008	17/Jun/2008	14/Jul/2008
Time of Day:	3:00 PM	3:30 PM	2:25 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRETRA	POSTTR	POSTTR
Applic. Placement:	BROSOI	BROSOI	BROFOL
Air Temp., Unit:	93 F	93 F	90 F
% Relative Humidity:	44	44	44
Wind Velocity, Unit:	5.6 MPH	5.6 MPH	4.2 MPH
Dew Presence (Y/N):	N	N	N
Water Hardness:	N	N	N
Soil Temp., Unit:	85 F	85 F	85 F
Soil Moisture:	MOIST	MOIST	MOIST
% Cloud Cover:	80	80	30

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	IPOBA N/A	IPOBA AT PLANT	IPOBA

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 BCPCK	CO2 BCPCK	CO2 BCPCK
Operating Pressure:	34 psi	34 psi	34 psi
Nozzle Type:	DG	DG	DG
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	2	2	2
Ground Speed, Unit:	3.2 MPH	3.2 MPH	3.2 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

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Weed Code	IPOHG	PHYAN	DIGSA	ECHCG	MOLVE	CYPES	CYPRO	IPOHG	PHYAN	DIGSA				
Crop Code	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA				
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	CONTROL	CONTROL				
Rating Unit	%	%	%	%	%	%	%	%	%	%				
Rating Date	1/Jul/2008	1/Jul/2008	1/Jul/2008	1/Jul/2008	1/Jul/2008	1/Jul/2008	1/Jul/2008	1/Jul/2008	15/Jul/2008	15/Jul/2008	15/Jul/2008			
Trt-Eval Interval	14DA-A&B	14DA-A&B	14DA-A&B	14DA-A&B	14DA-A&B	14DA-A&B	14DA-A&B	14DA-A&B	28DA-A&B	28DA-A&B	28DA-A&B			
ARM Action Codes														
Trt Treatment														
No. Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7	8	9	10	11
1 COMMAND	1.3	pt/a	B	81.25 a	86.25 bc	100.00 a	98.75 a	92.50 b	72.50 a	72.50 a	0.00 a	86.25 a	53.75 bc	98.75 ab
2 COMMAND	2.0	pt/a	B	88.75 a	81.25 c	100.00 a	100.00 a	91.25 bc	73.75 a	73.75 a	0.00 a	93.75 a	37.50 c	100.00 a
3 COMMAND	2.5	pt/a	B	92.50 a	78.75 c	100.00 a	100.00 a	88.75 bc	76.25 a	76.25 a	0.00 a	96.25 a	35.00 c	100.00 a
4 COMMAND	3.0	pt/a	B	98.75 a	77.50 c	100.00 a	100.00 a	86.25 c	71.25 a	71.25 a	0.00 a	97.50 a	38.75 c	100.00 a
5 VALOR	2.0	oz/a	A	95.00 a	98.75 a	98.75 a	97.50 a	100.00 a	78.75 a	78.75 a	0.00 a	96.25 a	91.25 a	96.25 c
6 VALOR	2.5	oz/a	A	98.75 a	100.00 a	100.00 a	98.75 a	100.00 a	68.75 a	68.75 a	0.00 a	98.75 a	92.50 a	97.50 bc
7 DUAL MAGNUM	1.0	pt/a	B	92.50 a	100.00 a	100.00 a	100.00 a	100.00 a	83.75 a	83.75 a	0.00 a	98.75 a	81.25 ab	100.00 a
8 VALOR	2	oz/a	A	95.00 a	100.00 a	100.00 a	100.00 a	100.00 a	76.25 a	76.25 a	0.00 a	97.50 a	93.75 a	100.00 a
COMMAND	2	pt/a	B											
9 VALOR	2	oz/a	A	95.00 a	97.50 ab	100.00 a	100.00 a	100.00 a	67.50 a	67.50 a	0.00 a	96.25 a	90.00 a	100.00 a
COMMAND	2.5	pt/a	B											
10 VALOR	2	oz/a	A	95.00 a	100.00 a	100.00 a	100.00 a	100.00 a	76.25 a	76.25 a	0.00 a	95.00 a	96.25 a	98.75 ab
DUAL MAGNUM	1	pt/a	B											
11 VALOR	2	oz/a	A	92.50 a	100.00 a	100.00 a	100.00 a	100.00 a	70.00 a	70.00 a	0.00 a	97.50 a	93.75 a	100.00 a
COMMAND	2	pt/a	B											
PERMIT	0.6	oz/a	C											
NIS	0.25	% v/v	C											
12 WEED FREE														
LSD (P=.05)				13.121	12.486	1.088	1.843	5.435	15.008	15.008	0.000	10.500	28.290	2.065
Standard Deviation				9.087	8.647	0.754	1.276	3.764	10.394	10.394	0.000	7.272	19.592	1.430
CV				9.75	9.33	0.75	1.28	3.91	14.03	14.03	0.0	7.59	26.81	1.44
Grand Mean				93.18	92.73	99.89	99.55	96.25	74.09	74.09	0.0	95.8	73.07	99.2
Bartlett's X2				17.47	10.777	0.0	0.083	3.792	7.67	7.67	0.0	21.924	26.249	0.094
P(Bartlett's X2)				0.065	0.056	.	0.959	0.285	0.661	0.661	.	0.015*	0.003*	0.993
Replicate F				0.495	1.479	1.000	2.791	0.147	2.034	2.034	0.000	0.441	1.012	3.241
Replicate Prob(F)				0.6882	0.2401	0.4064	0.0575	0.9308	0.1303	0.1303	1.0000	0.7257	0.4011	0.0358
Treatment F				1.156	4.945	1.000	1.744	8.294	0.846	0.846	0.000	0.928	7.002	3.222
Treatment Prob(F)				0.3569	0.0003	0.4654	0.1162	0.0001	0.5904	0.5904	1.0000	0.5216	0.0001	0.0063

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	ECHCG	ELEIN	MOLVE	CYPES	CYPRO	IPOHG	PHYAN	DIGSA	ECHCG	EL				
Crop Code	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPC				
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTR				
Rating Unit	%	%	%	%	%	%	%	%	%					
Rating Date	15/Jul/2008	15/Jul/2008	15/Jul/2008	15/Jul/2008	15/Jul/2008	15/Jul/2008	28/Jul/2008	28/Jul/2008	28/Jul/2008	28/Jul/2008				
Trt-Eval Interval	28DA-A&B	28DA-A&B	28DA-A&B	28DA-A&B	28DA-A&B	28DA-A&B	14 DA-C	14 DA-C	14 DA-C	14 DA-C				
ARM Action Codes														
Trt Treatment	Rate	Unit	Appl Code	12	13	14	15	16	17	18	19	20	21	22
1 COMMAND	1.3	pt/a	B	97.50 a	100.00 a	80.00 b	51.25 a	51.25 a	0.00 a					
2 COMMAND	2.0	pt/a	B	100.00 a	100.00 a	80.00 b	55.00 a	55.00 a	0.00 a					
3 COMMAND	2.5	pt/a	B	100.00 a	100.00 a	81.25 b	60.00 a	60.00 a	0.00 a					
4 COMMAND	3.0	pt/a	B	100.00 a	100.00 a	76.25 b	55.00 a	55.00 a	0.00 a					
5 VALOR	2.0	oz/a	A	78.75 b	90.00 b	100.00 a	58.75 a	58.75 a	0.00 a					
6 VALOR	2.5	oz/a	A	72.50 b	83.75 b	97.50 a	36.25 a	36.25 a	0.00 a					
7 DUAL MAGNUM	1.0	pt/a	B	96.25 a	100.00 a	86.25 b	67.50 a	67.50 a	0.00 a					
8 VALOR	2	oz/a	A	98.75 a	98.75 a	98.75 a	51.25 a	51.25 a	0.00 a					
COMMAND	2	pt/a	B											
9 VALOR	2	oz/a	A	100.00 a	100.00 a	100.00 a	40.00 a	40.00 a	0.00 a					
COMMAND	2.5	pt/a	B											
10 VALOR	2	oz/a	A	96.25 a	98.75 a	100.00 a	51.25 a	51.25 a	0.00 a					
DUAL MAGNUM	1	pt/a	B											
11 VALOR	2	oz/a	A	97.50 a	100.00 a	98.75 a	42.50 a	42.50 a	0.00 a	98.75	91.25	100.00	98.75	98.75
COMMAND	2	pt/a	B											
PERMIT	0.6	oz/a	C											
NIS	0.25	% v/v	C											
12 WEED FREE														
LSD (P=.05)	11.374			6.721	10.451	21.907	21.907	0.000	.	.	.	.	.	.
Standard Deviation	7.877			4.655	7.238	15.172	15.172	0.000	.	.	.	.	.	.
CV	8.35			4.78	7.97	29.34	29.34	0.0	.	.	.	.	.	.
Grand Mean	94.32			97.39	90.8	51.7	51.7	0.0	98.75	91.25	100.0	98.75	98.75	98.75
Bartlett's X2	16.486			9.957	17.17	6.187	6.187	0.0	.	.	.	.	.	.
P(Bartlett's X2)	0.011*			0.019*	0.016*	0.799	0.799	.	.	.	.	.	.	.
Replicate F	3.431			1.635	0.936	1.793	1.793	0.000						
Replicate Prob(F)	0.0294			0.2022	0.4353	0.1698	0.1698	1.0000						
Treatment F	5.769			5.392	7.499	1.479	1.479	0.000						
Treatment Prob(F)	0.0001			0.0002	0.0001	0.1959	0.1959	1.0000						

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Weed Code	MOLVE	CYPES	CYPRO	IPOHG	PHYAN	DIGSA	ECHCG	ELEIN	MOLVE
Crop Code	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA
Rating Data Type	CONTROL	CONTROL	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%	%	%
Rating Date	28/Jul/2008	28/Jul/2008	28/Jul/2008	28/Jul/2008	11/Aug/2008	11/Aug/2008	11/Aug/2008	11/Aug/2008	11/Aug/2008
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C

ARM Action Codes

Trt Treatment	Rate	Unit	Appl Code	23	24	25	26	27	28	29	30	31	32
1 COMMAND	1.3	pt/a	B										
2 COMMAND	2.0	pt/a	B										
3 COMMAND	2.5	pt/a	B										
4 COMMAND	3.0	pt/a	B										
5 VALOR	2.0	oz/a	A										
6 VALOR	2.5	oz/a	A										
7 DUAL MAGNUM	1.0	pt/a	B										
8 VALOR	2	oz/a	A										
COMMAND	2	pt/a	B										
9 VALOR	2	oz/a	A										
COMMAND	2.5	pt/a	B										
10 VALOR	2	oz/a	A										
DUAL MAGNUM	1	pt/a	B										
11 VALOR	2	oz/a	A	96.25	73.75	73.75	10.00	92.50	63.75	100.00	92.50	95.00	92.50
COMMAND	2	pt/a	B										
PERMIT	0.6	oz/a	C										
NIS	0.25	% v/v	C										
12 WEED FREE													

LSD (P=.05)	.	.	.	.	.	.	.	.	.	.	.	.	.
Standard Deviation	.	.	.	.	.	.	.	.	.	.	.	.	.
CV	.	.	.	.	.	.	.	.	.	.	.	.	.
Grand Mean	96.25	73.75	73.75	10.0	92.5	63.75	100.0	92.5	95.0	92.5			
Bartlett's X2	.	.	.	.	.	.	.	.	.	.	.	.	.
P(Bartlett's X2)	.	.	.	.	.	.	.	.	.	.	.	.	.

Replicate F
 Replicate Prob(F)
 Treatment F
 Treatment Prob(F)

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.

LSU Northeast Research Station

Weed Code	CYPES	CYPRO							
Crop Code	IPOBA	IPOBA	IPOBA						
Rating Data Type	CONTROL	CONTROL	INJURY						
Rating Unit	%	%	%						
Rating Date	11/Aug/2008	11/Aug/2008	11/Aug/2008						
Trt-Eval Interval	28 DA-C	28 DA-C	28 DA-C						

ARM Action Codes				T1							
Trt	Treatment	Rate	Appl								
No.	Name	Rate	Unit	Code	33	34	35	36	37	38	39
1	COMMAND	1.3	pt/a	B							
2	COMMAND	2.0	pt/a	B							
3	COMMAND	2.5	pt/a	B							
4	COMMAND	3.0	pt/a	B							
5	VALOR	2.0	oz/a	A							
6	VALOR	2.5	oz/a	A							
7	DUAL MAGNUM	1.0	pt/a	B							
8	VALOR	2	oz/a	A							
	COMMAND	2	pt/a	B							
9	VALOR	2	oz/a	A							
	COMMAND	2.5	pt/a	B							
10	VALOR	2	oz/a	A							
	DUAL MAGNUM	1	pt/a	B							
11	VALOR	2	oz/a	A	66.25	66.25	2.50				
	COMMAND	2	pt/a	B							
	PERMIT	0.6	oz/a	C							
	NIS	0.25	% v/v	C							
12	WEED FREE										

LSD (P=.05)	.	.	.	.	.	.	.	.	.	.	.
Standard Deviation	.	.	.	.	.	.	.	.	.	.	.
CV	.	.	.	.	.	.	.	.	.	.	.
Grand Mean	66.25	66.25	2.5	.	.	.	.	.	.	.	.
Bartlett's X2	.	.	.	.	.	.	.	.	.	.	.
P(Bartlett's X2)	.	.	.	.	.	.	.	.	.	.	.

Replicate F
 Replicate Prob(F)
 Treatment F
 Treatment Prob(F)

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.
 Column 39: T1 = ([36]+[37])