

LSU Northeast Research Station

EVALUATION OF WEED CONTROL AND SWEET POTATO TOLERANCE WITH POST DIRECTED HERBICIDE APPLICATIONS

Trial ID: Study Dir.:
 Location: Investigator: Donnie Miller

CROP AND WEED DESCRIPTION

Crop 1: IPOBA POTATO, SWEET Variety: BEAUREGARD
 Planting Date: 28/Jun/2007

SITE AND DESIGN

Plot Width, Unit: 7 FT Plot Length, Unit: 20 FT Reps: 4
 Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A	B	C
Application Date:	28/Jun/2007	11/Jul/2007	25/Jul/2007
Time of Day:	4:50 PM	2:20 PM	2:00 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	ATPLAN	POSTTR	POSTTR
Applic. Placement:	BROSOI	BRODIR	BRODIR
Air Temp., Unit:	78 F	88 F	88 F
% Relative Humidity:	95	90	62
Wind Velocity, Unit:	9.5 MPH	4.8 MPH	7.2 MPH
Dew Presence (Y/N):	N	N	N
Water Hardness:	N	N	N
Soil Temp., Unit:	83 F	81 F	80 F
Soil Moisture:	MOIST	MOIST	MOIST
% Cloud Cover:	100	90	0

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	IPOBA	IPOBA 8-12"	IPOBA 12-24"
Stage Scale:			
Height, Unit:			

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 BCPCCK	CO2 BCPCCK	CO2 BCPCCK
Operating Pressure:	32 psi	24 PSI	24 PSI
Nozzle Type:	DG	TK	TK
Nozzle Size:	11002	2.5	2.5
Nozzle Spacing, Unit:	20 IN	40	40
Nozzles/Row:	2	1	1
Band Width, Unit:			
Boom Length, Unit:			
Boom Height, Unit:			
Ground Speed, Unit:	3.2 MPH	3.2 MPH	3.2 MPH
Incorporation Equip.:			
Hours to Incorp.:			
Incorp. Depth, Unit:			
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA
Spray pH:			
Propellant:			
Tank Mix (Y/N):			

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Weed Code			CYPIR	PHYAN	CYPRO	AMASP	MOLVE				
Crop Code	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA				
Rating Data Type	INJURY	INJURY	INJURY	CONTROL	CONTROL	CONTROL	CONTROL				
Rating Unit	%	%	%	%	%	%	%				
Rating Date	25/Jul/2007	8/Aug/2007	22/Aug/2007	30/Aug/2007	30/Aug/2007	30/Aug/2007	30/Aug/2007				
Crop Stage											
Trt-Eval Interval	14 DA-B	28 DA-B	28 DA-C	36 DA-C	36 DA-C	36 DA-C	36 DA-C				
ARM Action Codes		14 DA-C									
# Subsamples, Dec.											
Trt Treatment											
No. Name	Rate	Rate	Appl	1	2	3	4	5	6	7	8
	Unit	Unit	Code								
1 ROUNDUP WEATHERMAX	22 oz/a		B	2.50 bc	0.00 b	5.00 c	77.50 b	82.50 ab	91.25 a	86.25 a	62.50 d
2 STAPLE LX	2.6 oz/a		B	8.75 a	1.25 b	1.25 c	97.50 a	26.25 d	93.75 a	76.25 ab	91.25 ab
NIS	0.25 % v/v		B								
3 ENVOKE	0.15 oz/a		B	8.75 a	0.00 b	1.25 c	100.00 a	58.75 bc	100.00 a	73.75 ab	96.25 a
NIS	0.25 % v/v		B								
4 CLASSIC	0.323 oz ai/a		B	6.25 ab	0.00 b	8.75 bc	100.00 a	83.75 a	100.00 a	75.00 ab	62.50 d
HARMONY GT	0.104 oz ai/a		B								
NIS	0.25 % v/v		B								
5 COMMAND	1.3 pt/a		A		10.00 ab	17.50 ab	73.75 b	73.75 ab	93.75 a	76.25 ab	86.25 ab
ROUNDUP WEATHERMAX	22 oz/a		C								
6 COMMAND	1.3 pt/a		A		13.75 ab	5.00 c	87.50 ab	46.25 cd	96.25 a	86.25 a	100.00 a
STAPLE LX	2.6 oz/a		C								
NIS	0.25 % v/v		C								
7 COMMAND	1.3 pt/a		A		18.75 a	7.50 bc	100.00 a	32.50 d	98.75 a	62.50 b	100.00 a
ENVOKE	0.15 oz/a		C								
NIS	0.25 % v/v		C								
8 COMMAND	1.3 pt/a		A		22.50 a	8.75 bc	100.00 a	80.00 ab	91.25 a	81.25 ab	70.00 cd
CLASSIC	0.323 oz ai/a		C								
HARMONY GT	0.104 oz ai/a		C								
NIS	0.25 % v/v		C								
9 ROUNDUP WEATHERMAX	22 oz/a		B	2.50 bc	17.50 a	27.50 a	98.75 a	85.00 a	100.00 a	92.50 a	78.75 bc
ROUNDUP WEATHERMAX	22 oz/a		C								
10 WEED FREE				0.00 c	0.00 b	0.00 c	0.00 c	0.00 e	0.00 b	0.00 c	0.00 e
LSD (P=.05)				5.070	14.030	12.323	15.212	23.755	9.744	21.381	14.914
Standard Deviation				3.364	9.669	8.493	10.484	16.372	6.715	14.735	10.279
CV				70.21	115.45	102.94	12.56	28.79	7.76	20.75	13.75
Grand Mean				4.79	8.38	8.25	83.5	56.88	86.5	71.0	74.75
Bartlett's X2				4.332	9.435	25.681	12.655	13.996	9.387	15.801	9.607
P(Bartlett's X2)				0.363	0.093	0.001*	0.013*	0.082	0.095	0.045*	0.142
Replicate F				1.074	0.114	1.167	0.288	2.620	1.811	0.998	3.542
Replicate Prob(F)				0.3900	0.9514	0.3406	0.8336	0.0712	0.1689	0.4089	0.0278
Treatment F				4.730	3.581	3.970	34.926	13.054	83.033	12.741	33.941
Treatment Prob(F)				0.0086	0.0048	0.0025	0.0001	0.0001	0.0001	0.0001	0.0001

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			IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	IPOBA	
Crop Code			YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	
Rating Data Type			LB	BU/A	LB	BU/A	LB	BU/A	LB	BU/A	
Rating Unit			18/Oct/2007	18/Oct/2007	18/Oct/2007	18/Oct/2007	18/Oct/2007	18/Oct/2007	18/Oct/2007	18/Oct/2007	
Rating Date			ONES	ONES	CANNER	CANNER	JUMBO	JUMBO	TOTAL	TOTAL	
Crop Stage											
Trt-Eval Interval											
ARM Action Codes				TY2		TY3		TY4	T1	TY5	
# Subsamples, Dec.				1		1		1		1	
Trt Treatment											
No. Name	Rate	Rate Unit	Appl Code	9	10	11	12	13	14	15	16
1 ROUNDUP WEATHERMAX	22 oz/a	B		44.24 a	275.3 a	31.90 a	198.5 a	7.30 a	45.4 a	83.44 a	519.2 a
2 STAPLE LX	2.6 oz/a	B		16.18 a	100.7 a	20.38 a	126.8 a	1.50 a	9.3 a	38.05 a	236.8 a
NIS	0.25 % v/v	B									
3 ENVOKE	0.15 oz/a	B		38.25 a	238.0 a	35.68 a	222.0 a	5.50 a	34.2 a	79.43 a	494.3 a
NIS	0.25 % v/v	B									
4 CLASSIC	0.323 oz ai/a	B		41.55 a	258.6 a	32.10 a	199.8 a	7.13 a	44.3 a	80.78 a	502.7 a
HARMONY GT	0.104 oz ai/a	B									
NIS	0.25 % v/v	B									
5 COMMAND	1.3 pt/a	A		23.73 a	147.6 a	18.25 a	113.6 a	0.38 a	2.3 a	42.35 a	263.5 a
ROUNDUP WEATHERMAX	22 oz/a	C									
6 COMMAND	1.3 pt/a	A		21.18 a	131.8 a	19.55 a	121.7 a	1.63 a	10.1 a	42.35 a	263.5 a
STAPLE LX	2.6 oz/a	C									
NIS	0.25 % v/v	C									
7 COMMAND	1.3 pt/a	A		16.60 a	103.3 a	18.73 a	116.5 a	2.38 a	14.8 a	37.70 a	234.6 a
ENVOKE	0.15 oz/a	C									
NIS	0.25 % v/v	C									
8 COMMAND	1.3 pt/a	A		39.60 a	246.4 a	30.70 a	191.0 a	5.25 a	32.7 a	75.55 a	470.1 a
CLASSIC	0.323 oz ai/a	C									
HARMONY GT	0.104 oz ai/a	C									
NIS	0.25 % v/v	C									
9 ROUNDUP WEATHERMAX	22 oz/a	B		34.80 a	216.6 a	24.43 a	152.0 a	6.05 a	37.6 a	65.28 a	406.2 a
ROUNDUP WEATHERMAX	22 oz/a	C									
10 WEED FREE				39.85 a	248.0 a	30.80 a	191.7 a	9.68 a	60.2 a	80.33 a	499.9 a
LSD (P=.05)				22.108	137.57	16.448	102.35	7.343	45.70	40.562	252.41
Standard Deviation				15.236	94.81	11.336	70.54	5.061	31.49	27.955	173.96
CV				48.22	48.22	43.18	43.18	108.2	108.2	44.71	44.71
Grand Mean				31.6	196.62	26.25	163.35	4.68	29.11	62.52	389.08
Bartlett's X2				5.726	5.726	7.984	7.984	17.219	17.219	8.392	8.392
P(Bartlett's X2)				0.767	0.767	0.536	0.536	0.045*	0.045*	0.495	0.495
Replicate F				3.974	3.974	0.639	0.639	2.637	2.637	2.562	2.562
Replicate Prob(F)				0.0181	0.0181	0.5962	0.5962	0.0699	0.0699	0.0757	0.0757
Treatment F				2.065	2.065	1.379	1.379	1.457	1.457	2.036	2.036
Treatment Prob(F)				0.0703	0.0703	0.2457	0.2457	0.2141	0.2141	0.0742	0.0742

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

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Column 10: TY2 = 6.222857*[9]

Column 12: TY3 = 6.222857*[11]

Column 14: TY4 = 6.222857*[13]

Column 15: T1 = ([C9]+[C11]+[C13])

Column 16: TY5 = 6.222857*[15]