

# University of GA Coop Ext Service

## Liquid Fastburn Glyphosate Formulation Efficacy Evaluation

Trial ID: Turf44-03

Study Dir.: Jay Ferrell

Location: Bledsoe Farm

Investigator: Tim R Murphy

### GENERAL TRIAL INFORMATION

Investigator: Tim R Murphy

Title: Weed Scientist

Affiliation: UGA-CAES

Study Director: Jay Ferrell

Title: Res. Scientist

Affiliation: UGA-CAES

### TRIAL LOCATION

City: Williamson (Bledsoe Farm)

Trial Status: ONE-YEAR/FINAL

State/Prov.: GA

Initiation Date: 7-7-2003

Planned Completion Date: 10-22-2003

### COOPERATOR/LANDOWNER

Cooperator: Jim Quick

Org: UGA-CAES

Address 1: Bledsoe Farm

City: Williamson

State/Prov: GA

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

### CROP AND WEED DESCRIPTION

Weed	Code	Scientific Name	Common Name
1.	CYNDA	Cynodon dactylon	Bermudagrass, common
2.	PLALA	Plantago lanceolata	Plantain, buckhorn
3.	PASDI	Paspalum dilatatum	Dallisgrass

### SITE AND DESIGN

Plot Width, Unit: 6 FT Plot Length, Unit: 15 FT Reps: 4

Site Type: Home Lawn

Study Design: RANDOMIZED COMPLETE BLOCK

### MAINTENANCE

Field Prep./Maintenance: Non-irrigated site. Mowed at 3.0 inches.

### APPLICATION DESCRIPTION

	A
Application Date:	7-7-2003
Time of Day:	3:00 pm.
Application Method:	Spray
Application Timing:	POSPOS
Applic. Placement:	FOLIAR
Air Temp., Unit:	87 F
% Relative Humidity:	74
Wind Velocity, Unit:	1 MPH
Dew Presence (Y/N):	N
Soil Temp., Unit:	86 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	50

**University of GA Coop Ext Service**

**WEED STAGE AT EACH APPLICATION**

	<b>A</b>
Weed 1 Code, Stage:	CYNDA
Stage Scale:	ESTAB
Density, Unit:	70 %
Weed 2 Code, Stage:	PLALA
Stage Scale:	ESTAB
Density, Unit:	10 %
Weed 3 Code, Stage:	PASDI
Stage Scale:	ESTAB
Density, Unit:	10 %

**APPLICATION EQUIPMENT**

	<b>A</b>
Appl. Equipment:	Backpack
Operating Pressure:	30 psi
Nozzle Type:	Flat fan
Nozzle Size:	8008
Nozzle Spacing, Unit:	20 inch
Boom Length, Unit:	5 feet
Boom Height, Unit:	25 inch
Ground Speed, Unit:	3 mph
Carrier:	Water
Spray Volume, Unit:	100 gpa
Propellant:	CO2
Tank Mix (Y/N):	N

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Weed Code						CYNDA	CYNDA	CYNDA	CYNDA	CYNDA	CYNDA		
Part Rated						Fol	Fol	Fol	Fol	Fol	Fol		
Rating Data Type						Brownout	Brownout	Brownout	Brownout	Brownout	Brownout		
Rating Unit						0-100	0-100	01-100	0-100	0-100	0-100		
Rating Date						7-8-2003	7-10-2003	7-11-2003	7-14-2003	7-23-2003	8-12-2003		
Trt-Eval Interval						1 DA-A	3 DA-A	4 DA-A	7 DA-A	16 DA-A	36 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code						
1	Untreated							0 e	0 h	0 h	0 e	0 e	0 d
2	MON 79141	1.7	SL	6 lb ai/a	Active	A		71 ab	94 ab	97 abc	98 a	98 ab	88 b
3	MON 79141	1.7	SL	7 lb ai/a	Active	A		74 ab	95 ab	98 a	95 ab	98 ab	88 b
4	MON 79141	1.7	SL	8 lb ai/a	Active	A		76 a	97 a	99 a	98 a	99 a	91 ab
5	MON 78908	1.7	SL	6 lb ai/a	Active	A		66 abc	93 abc	94 abc	96 ab	97 abc	91 ab
6	MON 78908	1.7	SL	7 lb ai/a	Active	A		75 ab	94 ab	95 abc	97 a	98 ab	90 ab
7	MON 78908	1.7	SL	8 lb ai/a	Active	A		69 ab	97 a	97 ab	97 a	97 ab	95 ab
8	QuikPRO	68.1	WG	6 lb ai/a	Active	A		58 bcd	88 bcd	89 bcd	91 bc	91 d	88 b
9	QuikPRO	68.1	WG	7 lb ai/a	Active	A		75 ab	91 abc	93 abc	95 ab	96 a-d	90 ab
10	QuikPRO	68.1	WG	8 lb ai/a	Active	A		79 a	91 abc	92 abc	95 ab	95 a-d	91 ab
11	MON 78567	1.77	SL	6 lb ai/a	Active	A		43 d	76 e	79 e	91 bc	91 cd	97 ab
12	MON 78567	1.77	SL	7 lb ai/a	Active	A		46 d	81 de	82 de	94 abc	93 bcd	97 ab
13	MON 78567	1.77	SL	8 lb ai/a	Active	A		51 cd	85 cd	89 cd	94 ab	95 a-d	97 ab
14	Roundup Pro	3	SL	4.5 lb ae/a	Active	A		0 e	33 g	36 g	82 d	97 abc	98 a
15	Roundup Pro	3	SL	5.25 lb ae/a	Active	A		0 e	26 g	34 g	82 d	99 a	98 a
16	Roundup Pro	3	SL	6 lb ae/a	Active	A		0 e	29 g	34 g	89 c	99 a	98 a
17	Finale	1	SL	1.5 lb ai/a	Active	A		1 e	53 f	60 f	96 ab	93 bcd	60 c
LSD (P=.05)								16.0	7.2	7.1	4.8	4.9	8.3
Standard Deviation								11.2	5.0	5.0	3.3	3.5	5.8
CV								24.28	7.01	6.65	3.79	3.83	6.78
Grand Mean								46.11	71.84	74.6	87.6	90.24	85.66
Replicate F								0.834	0.654	1.175	0.992	0.141	0.860
Replicate Prob(F)								0.4821	0.5845	0.3290	0.4048	0.9349	0.4685
Treatment F								33.188	152.705	149.077	193.123	183.255	67.299
Treatment Prob(F)								0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

## University of GA Coop Ext Service

Weed Code							CYNDA	CYNDA	PASDI	PASDI	PASDI	PASDI	
Part Rated							Fol	Fol	Fol	Fol	Fol	Fol	
Rating Data Type							Control	Control	Brownout	Brownout	Brownout	Brownout	
Rating Unit							0-100	0-100	01-100	01-100	01-100	01-100	
Rating Date							9-2-2003	10-22-2003	7-8-2003	7-10-2003	7-11-2003	7-14-2003	
Trt-Eval Interval							57 DA-A	107 DA-A	1 DA-A	3 DA-A	4 DA-A	7 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code						
1	Untreated							0 f	0 e	0 f	0 g	0 g	0 c
2	MON 79141	1.7	SL	6 lb ai/a	Active	A		33 cd	8 de	73 abc	83 abc	91 a	93 a
3	MON 79141	1.7	SL	7 lb ai/a	Active	A		28 de	0 e	78 a	88 a	93 a	94 a
4	MON 79141	1.7	SL	8 lb ai/a	Active	A		45 cd	15 cde	78 a	83 abc	91 a	95 a
5	MON 78908	1.7	SL	6 lb ai/a	Active	A		40 cd	21 cd	63 bcd	83 abc	88 abc	92 a
6	MON 78908	1.7	SL	7 lb ai/a	Active	A		38 cd	8 de	70 abc	88 a	93 a	94 a
7	MON 78908	1.7	SL	8 lb ai/a	Active	A		50 c	15 cde	68 abc	88 a	93 a	93 a
8	QuikPRO	68.1	WG	6 lb ai/a	Active	A		40 cd	20 cd	75 ab	85 ab	89 ab	88 ab
9	QuikPRO	68.1	WG	7 lb ai/a	Active	A		44 cd	23 cd	68 a-d	85 ab	87 abc	83 ab
10	QuikPRO	68.1	WG	8 lb ai/a	Active	A		50 c	29 c	60 cd	75 cd	78 d	85 ab
11	MON 78567	1.77	SL	6 lb ai/a	Active	A		73 b	59 b	30 e	75 cd	80 cd	93 a
12	MON 78567	1.77	SL	7 lb ai/a	Active	A		73 b	66 b	40 e	68 d	77 d	90 a
13	MON 78567	1.77	SL	8 lb ai/a	Active	A		73 b	60 b	55 d	78 bc	82 bcd	90 a
14	Roundup Pro	3	SL	4.5 lb ae/a	Active	A		94 a	90 a	0 f	10 f	18 f	75 b
15	Roundup Pro	3	SL	5.25 lb ae/a	Active	A		95 a	90 a	0 f	15 f	20 f	87 ab
16	Roundup Pro	3	SL	6 lb ae/a	Active	A		95 a	94 a				
17	Finale	1	SL	1.5 lb ai/a	Active	A		13 ef	0 e	0 f	38 e	44 e	75 b
LSD (P=.05)							17.3	16.8	12.0	7.7	7.7	11.7	
Standard Deviation							12.1	11.7	8.2	5.2	5.3	8.0	
CV							23.43	33.45	17.29	8.07	7.5	9.65	
Grand Mean							51.76	35.07	47.34	65.0	70.05	82.81	
Replicate F							0.347	3.543	0.879	1.145	0.316	0.347	
Replicate Prob(F)							0.7917	0.0213	0.4672	0.3530	0.8135	0.7913	
Treatment F							21.365	33.178	57.392	137.632	140.932	33.037	
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

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## University of GA Coop Ext Service

Weed Code							PASDI	PASDI	PASDI	PASDI	PLALA	PLALA	
Part Rated							Fol	Fol	Fol	Fol	Fol	Fol	
Rating Data Type							Brownout	Brownout	Control	Control	Brownout	Brownout	
Rating Unit							01-100	01-100	0-100	0-100	01-100	01-100	
Rating Date							7-23-2003	8-12-2003	9-2-2003	10-22-2003	7-8-2003	7-10-2003	
Trt-Eval Interval							16 DA-A	36 DA-A	57 DA-A	107 DA-A	1 DA-A	3 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code						
1	Untreated							0 e	0 c	0 b	0 b	0 e	0 e
2	MON 79141	1.7	SL	6 lb ai/a	Active	A		99 ab	100 a	100 a	100 a	94 ab	95 ab
3	MON 79141	1.7	SL	7 lb ai/a	Active	A		99 ab	100 a	100 a	100 a	94 ab	96 ab
4	MON 79141	1.7	SL	8 lb ai/a	Active	A		100 a	100 a	100 a	100 a	100 a	99 a
5	MON 78908	1.7	SL	6 lb ai/a	Active	A		100 a	100 a	100 a	100 a	94 ab	96 ab
6	MON 78908	1.7	SL	7 lb ai/a	Active	A		98 abc	95 b	100 a	100 a	94 ab	99 a
7	MON 78908	1.7	SL	8 lb ai/a	Active	A		97 bc	100 a	100 a	100 a	94 ab	99 a
8	QuikPRO	68.1	WG	6 lb ai/a	Active	A		95 c	100 a	100 a	100 a	85 bc	95 ab
9	QuikPRO	68.1	WG	7 lb ai/a	Active	A		88 d	100 a	100 a	100 a	85 bc	97 ab
10	QuikPRO	68.1	WG	8 lb ai/a	Active	A		85 d	95 b	100 a	100 a	79 c	96 ab
11	MON 78567	1.77	SL	6 lb ai/a	Active	A		100 a	100 a	100 a	100 a	45 d	70 c
12	MON 78567	1.77	SL	7 lb ai/a	Active	A		100 a	98 ab	100 a	100 a	53 d	84 b
13	MON 78567	1.77	SL	8 lb ai/a	Active	A		100 a	100 a	100 a	100 a	49 d	85 ab
14	Roundup Pro	3	SL	4.5 lb ae/a	Active	A		100 a	100 a	100 a	100 a	0 e	14 d
15	Roundup Pro	3	SL	5.25 lb ae/a	Active	A		100 a	100 a	100 a	100 a	0 e	14 d
16	Roundup Pro	3	SL	6 lb ae/a	Active	A						0 e	8 de
17	Finale	1	SL	1.5 lb ai/a	Active	A		100 ab	98 ab	95 a	95 a	0 e	61 c
LSD (P=.05)							2.8	3.5	5.1	5.1	11.3	12.4	
Standard Deviation							1.9	2.4	3.5	3.5	7.9	8.7	
CV							2.1	2.57	3.74	3.74	13.89	12.19	
Grand Mean							91.22	92.81	93.44	93.44	56.69	71.03	
Replicate F							1.709	0.413	0.511	0.511	1.777	0.892	
Replicate Prob(F)							0.1943	0.7451	0.6786	0.6786	0.1641	0.4520	
Treatment F							669.390	434.181	203.593	203.593	109.359	73.868	
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code							PLALA	PLALA	PLALA	PLALA	PLALA	PLALA
Part Rated							Fol	Fol	Fol	Fol	Fol	Fol
Rating Data Type							Brownout	Brownout	Brownout	Brownout	Control	Control
Rating Unit							01-100	01-100	01-100	01-100	0-100	0-100
Rating Date							7-11-2003	7-14-2003	7-23-2003	8-12-2003	9-2-2003	10-22-2003
Trt-Eval Interval							4 DA-A	7 DA-A	16 DA-A	36 DA-A	57 DA-A	107 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code					
1	Untreated							0 f	0 c	0 b	0 b	0 c
2	MON 79141	1.7	SL	6 lb ai/a	Active	A		98 ab	100 a	98 a	93 a	80 b
3	MON 79141	1.7	SL	7 lb ai/a	Active	A		99 ab	100 a	100 a	98 a	100 a
4	MON 79141	1.7	SL	8 lb ai/a	Active	A		100 a	100 a	100 a	100 a	100 a
5	MON 78908	1.7	SL	6 lb ai/a	Active	A		99 ab	100 a	99 a	94 a	100 a
6	MON 78908	1.7	SL	7 lb ai/a	Active	A		98 ab	100 a	100 a	98 a	100 a
7	MON 78908	1.7	SL	8 lb ai/a	Active	A		99 ab	100 a	100 a	100 a	100 a
8	QuikPRO	68.1	WG	6 lb ai/a	Active	A		97 ab	100 a	100 a	98 a	100 a
9	QuikPRO	68.1	WG	7 lb ai/a	Active	A		97 ab	98 a	100 a	100 a	95 a
10	QuikPRO	68.1	WG	8 lb ai/a	Active	A		99 ab	100 a	100 a	95 a	90 ab
11	MON 78567	1.77	SL	6 lb ai/a	Active	A		75 c	92 a	99 a	100 a	100 a
12	MON 78567	1.77	SL	7 lb ai/a	Active	A		88 b	96 a	100 a	100 a	100 a
13	MON 78567	1.77	SL	8 lb ai/a	Active	A		88 b	99 a	100 a	100 a	100 a
14	Roundup Pro	3	SL	4.5 lb ae/a	Active	A		18 e	36 b	100 a	100 a	100 a
15	Roundup Pro	3	SL	5.25 lb ae/a	Active	A		18 e	46 b	100 a	100 a	100 a
16	Roundup Pro	3	SL	6 lb ae/a	Active	A		11 e	45 b	100 a	100 a	100 a
17	Finale	1	SL	1.5 lb ai/a	Active	A		61 d	89 a	100 a	100 a	100 a
LSD (P=.05)							9.2	14.8	1.5	6.9	10.8	16.7
Standard Deviation							6.5	10.3	1.1	4.8	7.6	11.7
CV							8.85	12.53	1.14	5.23	8.23	12.93
Grand Mean							73.04	82.41	93.84	92.57	92.06	90.15
Replicate F							0.737	2.558	0.735	2.068	2.017	5.428
Replicate Prob(F)							0.5350	0.0660	0.5362	0.1169	0.1240	0.0027
Treatment F							128.641	35.001	2052.276	98.277	41.205	17.064
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)