

University of GA Coop Ext Service

Evaluation of Overdrive for Weed Management on Grass Roadsides

Trial ID: Road1-03

Study Dir.: Bill Nutt

Location: Lamar County - H41

Investigator: Tim R Murphy

GENERAL TRIAL INFORMATION

Study Director: Bill Nutt

Title: ARCI

Affiliation: UGA CAES

Investigator: Tim R Murphy

Title: Weed Scientist

Affiliation: UGA CAES

TRIAL LOCATION

City: Lamar Co., Hwy. 41

Trial Status:

ONE-YEAR/FINAL

State/Prov.: GA

COOPERATOR/LANDOWNER

Cooperators: Brian Johnston, David Dixon

Org:

GA Dept. of Transportation

CROP AND WEED DESCRIPTION

Weed	Code	Scientific Name	Common Name
1.	LACSE	<i>Lactuca serriola</i>	Lettuce, prickly
2.	OXAST	<i>Oxalis stricta</i>	Common yellow wood sorrel
3.	GERCA	<i>Geranium carolinianum</i>	Geranium, Carolina
4.	ERIBO	<i>Erigeron bonariensis</i>	Fleabane, hairy
5.	TRFSS	<i>Trifolium sp.</i>	Clover
6.	RUMHA	<i>Rumex hastatulus</i>	Sorrel, heartwing
7.	VICSS	<i>Vicia sp.</i>	Vetch
8.	SONOL	<i>Sonchus oleraceus</i>	Common milk thistle
9.	GALSS	<i>Galium sp.</i>	Bedstraw
10.	ERICA	<i>Erigeron canadensis</i>	Fleabane, Canadian

Crop 1: CYNDA Bermudagrass/*Cynodon Dactylon* Variety: Common Perennial Age: 20 YEAR

SITE AND DESIGN

Plot Width, Unit: 6 FT Plot Length, Unit: 60 FT Reps: 3

Site Type: Highway median

Study Design: RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments: Sprayed 6 ft. wide plot on 10 ft. centers.

Running untreated check located between each plot.

MAINTENANCE

Field Prep./Maintenance: Site mowed in early November 2002 to height of 4 inches.

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CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	CYNDA Green	CYNDA Dormant
Stage Scale:	20%	
Height, Unit:	4 inch	4 inch
Crop 2 Code, Stage:	FESAR	FESAR
Stage Scale:	Green	Green
Height, Unit:	4 inch	5 inch

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	LACSE	LACSE
Stage Scale:	2-4"Hght	2-4"Hght
Weed 2 Code, Stage:	OXAST	OXAST
Stage Scale:	2-4"Hght	2-4" Hght
Weed 3 Code, Stage:	GERCA	GERCA
Stage Scale:	1-3"Hght	4-5"Hght
Weed 4 Code, Stage:	ERIBO	ERIBO
Stage Scale:	1-2"Hght	2-3"Hght
Weed 5 Code, Stage:	TRFSS	TRFSS
Stage Scale:	1-2"Hght	2-3"Hght

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APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	Backpack	Backpack
Operating Pressure:	20 psi	20 psi
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8004VS	8004VS
Nozzle Spacing, Unit:	19 inch	19 inch
Boom Length, Unit:	6.5 ft	6.5 ft
Boom Height, Unit:	19 in	19 in
Ground Speed, Unit:	3 mph	3 mph
Carrier:	water	water
Spray Volume, Unit:	25 gpa	25 gpa
Propellant:	CO2	CO2
Tank Mix (Y/N):	n	n

Trt No	Treatment Application Comment
A	4 nozzle boom, need 455 ml/30 seconds for 25 gpa.

Trial Comments

3-10-03:

No Bermudagrass, CYNDA, greenup yet.

5-7-03:

Both Marshweed bedstraw, GALT1 *Galium tinctorium*, and Bedstraw, *Galium pedemontanum*, located on site. Yellow woodsorrel, OXAST, was not rated on this date.

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Study Dir.: Bill Nutt

Location: Lamar County - H41

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Weed Code								CYNDA	CYNDA	CYNDA	LACSE	LACSE
Crop Code								Foliag	Foliag	Foliag	Control	Control
Part Rated								Greenup	Greenup	Greenup	0-100	0-100
Rating Data Type								0-100	0-100	0-100	0-100	0-100
Rating Unit								3-28-2003	5-7-2003	6-9-2003	1-15-2003	2-18-2003
Rating Date								116 DA-A	156 DA-A	189 DA-A	44 DA-A	78 DA-A
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5
1	Untreated Check					Dec. 1	A	25 ab	27 ab	60 a	0 b	0 b
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	17 abc	37 a	58 a	100 a	100 a
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	27 a	40 a	62 a	100 a	100 a
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	25 ab	40 a	62 a	100 a	100 a
5	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0 0.25	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	22 abc	40 a	63 a	100 a	100 a
6	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8 0.25	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	27 a	40 a	58 a	100 a	100 a
7	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0 0.25	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	17 abc	40 a	62 a	100 a	100 a
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0 0.25	fl oz/a fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1 Dec. 1	A A A A	17 abc	40 a	60 a	100 a	100 a
9	Untreated Check					Feb. 1	B	25 ab	13 b	60 a	0 b	0 b
10	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25 0.25	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B	13 bc	38 a	62 a		
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B	15 abc	38 a	65 a		

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Weed Code								CYNDA	CYNDA	CYNDA	LACSE	LACSE
Crop Code								CYNDA	CYNDA	CYNDA		
Part Rated								Foliag	Foliag	Foliag		
Rating Data Type								Greenup	Greenup	Greenup	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								3-28-2003	5-7-2003	6-9-2003	1-15-2003	2-18-2003
Trt-Eval Interval								116 DA-A	156 DA-A	189 DA-A	44 DA-A	78 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 fl oz/a 6.0 oz wt/a 0.25 % v/v	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B	18 abc	40 a	58 a		
13	Roundup Pro + Clarity Nonionic surfactant	4	SC SC	8.0 fl oz/a 4.0 fl oz/a 0.25 % v/v	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B	22 abc	38 a	60 a		
14	Roundup Pro + Vanquish Nonionic surfactant	4	SC SC	8.0 fl oz/a 8 fl oz/a 0.25 % v/v	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B	22 abc	38 a	62 a		
15	Roundup Pro + Garlon Nonionic surfactant	4	SC SC	8.0 fl oz/a 16.0 fl oz/a 0.25 % v/v	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B	18 abc	38 a	57 a		
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC SC WG	8.0 fl oz/a 16.0 fl oz/a 4.0 oz wt/a 0.25 % v/v	fl oz/a fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1 Feb. 1	B B B B	12 c	40 a	62 a		
LSD (P=.05)								11.0	13.7	8.1	0.0	0.0
Standard Deviation								6.6	8.2	4.9	0.0	0.0
CV								33.11	22.35	8.03	0.0	0.0

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

Weed Code								LACSE	LACSE	LACSE	LACSE	OXAST
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								3-10-2003	3-28-2003	5-7-2003	6-9-2003	1-15-2003
Trt-Eval Interval								98 DA-A	116 DA-A	156 DA-A	189 DA-A	44 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 c	0 c	0 c	0 c	0 b
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a	Dec. 1	A	100 a	100 a	97 a	80 a	100 a
				0.25	% v/v	Dec. 1	A					
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a	Dec. 1	A	100 a	98 a	93 a	95 a	100 a
				0.25	% v/v	Dec. 1	A					
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a	Dec. 1	A	100 a	99 a	97 a	95 a	100 a
				0.25	% v/v	Dec. 1	A					
5	Roundup Pro + Clarity Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	98 a	100 a	98 a	98 a	100 a
		4	SC	4.0	fl oz/a	Dec. 1	A					
				0.25	% v/v	Dec. 1	A					
6	Roundup Pro + Vanquish Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	100 a	100 a	80 a	100 a	100 a
		4	SC	8	fl oz/a	Dec. 1	A					
				0.25	% v/v	Dec. 1	A					
7	Roundup Pro + Garlon Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	100 a	100 a	97 a	100 a	100 a
		3	SC	16.0	fl oz/a	Dec. 1	A					
				0.25	% v/v	Dec. 1	A					
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	100 a	100 a	100 a	100 a	100 a
		3	SC	16.0	fl oz/a	Dec. 1	A					
			WG	4.0	oz wt/a	Dec. 1	A					
				0.25	% v/v	Dec. 1	A					
9	Untreated Check					Feb. 1	B	0 c	0 c	0 c	0 c	0 b
10	Roundup Pro + Oust + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	47 b	82 b	48 b	47 b	
		75	DF	0.25	oz wt/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	47 b	100 a	100 a	100 a	
			WG	4.0	oz wt/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	47 b	100 a	100 a	100 a	
			WG	6.0	oz wt/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
13	Roundup Pro + Clarity Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	47 b	100 a	93 a	92 a	
		4	SC	4.0	fl oz/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
14	Roundup Pro + Vanquish Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	50 b	100 a	92 a	87 a	
		4	SC	8	fl oz/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
15	Roundup Pro + Garlon Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	50 b	100 a	93 a	92 a	
		3	SC	16.0	fl oz/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	50 b	100 a	100 a	97 a	
		3	SC	16.0	fl oz/a	Feb. 1	B					
			WG	4.0	oz wt/a	Feb. 1	B					
				0.25	% v/v	Feb. 1	B					
LSD (P=.05)								4.6	11.6	22.8	21.5	0.0
Standard Deviation								2.7	7.0	13.7	12.9	0.0
CV								4.22	8.07	16.96	16.07	0.0

Weed Code								OXAST	OXAST	GERCA	GERCA	GERCA
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								2-18-2003	3-10-2003	1-15-2003	2-18-2003	3-10-2003
Trt-Eval Interval								78 DA-A	98 DA-A	44 DA-A	78 DA-A	98 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 b	0 c	0 b	0 c	0 g
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	100 a	99 a	85 abc
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	100 a	95 b	75 cd
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	98 a	100 a	99 a	93 ab
5	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0 0.25	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	100 a	96 ab	60 ef
6	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8 0.25	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	100 a	99 a	77 cd
7	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0 0.25	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	100 a	97 ab	82 bc
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0 0.25	fl oz/a fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1 Dec. 1	A A A A	100 a	100 a	100 a	100 a	98 a
9	Untreated Check					Feb. 1	B	0 b	0 c	0 b	0 c	0 g
10	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25 0.25	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		47 b			47 f
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		47 b			50 ef
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		47 b			57 ef
13	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0 0.25	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		47 b			47 f
14	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8 0.25	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		50 b			50 ef
15	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0 0.25	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		50 b			50 ef
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0 0.25	fl oz/a fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1 Feb. 1	B B B B		50 b			63 de
LSD (P=.05)								0.0	4.6	0.0	3.4	13.3
Standard Deviation								0.0	2.7	0.0	2.0	8.0
CV								0.0	4.22	0.0	2.6	13.69

Weed Code								GERCA	GERCA	ERIBO	ERIBO	ERIBO
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								3-28-2003	5-7-2003	1-15-2003	2-18-2003	3-10-2003
Trt-Eval Interval								116 DA-A	156 DA-A	44 DA-A	78 DA-A	98 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 f	0 h	0 b	0 b	0 d
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a	Dec. 1	A	80 bcd	50 ef	100 a	100 a	100 a
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a	Dec. 1	A	62 de	65 cde	100 a	100 a	100 a
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a	Dec. 1	A	78 cde	68 b-e	100 a	100 a	100 a
5	Roundup Pro + Clarity Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	60 e	50 ef	100 a	100 a	100 a
6	Roundup Pro + Vanquish Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	62 de	63 def	100 a	100 a	100 a
7	Roundup Pro + Garlon Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	73 cde	58 def	100 a	100 a	100 a
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Dec. 1	A	86 abc	88 ab	100 a	100 a	100 a
9	Untreated Check					Feb. 1	B	0 f	0 h	0 b	0 b	0 d
10	Roundup Pro + Oust + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	90 abc	40 fg			47 c
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	98 ab	80 a-d			47 c
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	88 abc	87 abc			47 c
13	Roundup Pro + Clarity Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	72 cde	27 g			47 c
14	Roundup Pro + Vanquish Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	80 bcd	27 g			50 bc
15	Roundup Pro + Garlon Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	90 abc	60 def			50 bc
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC	8.0	fl oz/a	Feb. 1	B	100 a	100 a			53 b
LSD (P=.05)								16.5	20.9	0.0	0.0	4.8
Standard Deviation								9.9	12.5	0.0	0.0	2.9
CV								14.12	23.24	0.0	0.0	4.4

Weed Code								ERIBO	ERIBO	ERIBO	ERIBO	TRFSS
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								3-28-2003	5-7-2003	6-9-2003	7-8-2003	1-15-2003
Trt-Eval Interval								116 DA-A	156 DA-A	189 DA-A	218 DA-A	44 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 d	0 d	0 c	0 d	0 b
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1	A A A	60 c	37 c	17 c	23 cd	100 a
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Dec. 1	A A A	83 abc	50 bc	33 bc	30 cd	100 a
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Dec. 1	A A A	87 abc	58 bc	50 abc	50 bc	100 a
5	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Dec. 1	A A A	67 bc	40 bc	20 c	13 cd	100 a
6	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Dec. 1	A A A	87 abc	40 bc	17 c	15 cd	100 a
7	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Dec. 1	A A A	90 ab	33 c	13 c	10 cd	100 a
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Dec. 1	A A A A	100 a	40 bc	50 abc	33 cd	100 a
9	Untreated Check					Feb. 1	B	0 d	0 d	0 c	0 d	0 b
10	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1	B B B	98 a	53 bc	46 abc	42 cd	
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	98 a	
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	97 a	
13	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Feb. 1	B B B	100 a	100 a	87 a	97 a	
14	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	100 a	
15	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Feb. 1	B B B	100 a	70 b	83 ab	87 ab	
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Feb. 1	B B B B	100 a	100 a	100 a	100 a	
LSD (P=.05)								25.1	26.6	46.8	40.8	0.0
Standard Deviation								15.1	15.9	28.0	24.5	0.0
CV								18.96	27.65	54.99	49.25	0.0

Weed Code								TRFSS	TRFSS	TRFSS	TRFSS	RUMHA
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								2-18-2003	3-10-2003	3-28-2003	5-7-2003	1-15-2003
Trt-Eval Interval								78 DA-A	98 DA-A	116 DA-A	156 DA-A	44 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 b	0 d	0 b	0 b	0 b
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a	Dec. 1	A	100 a	100 a	100 a	93 a	98 a
				0.25	% v/v	Dec. 1	A					
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a	Dec. 1	A	100 a	100 a	100 a	90 a	98 a
				0.25	% v/v	Dec. 1	A					
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a	Dec. 1	A	100 a	100 a	100 a	100 a	98 a
				0.25	% v/v	Dec. 1	A					
5	Roundup Pro + Clarity Nonionic surfactant	4	SC SC	8.0 4.0	fl oz/a fl oz/a	Dec. 1	A	100 a	100 a	100 a	100 a	92 a
				0.25	% v/v	Dec. 1	A					
6	Roundup Pro + Vanquish Nonionic surfactant	4	SC SC	8.0 8	fl oz/a fl oz/a	Dec. 1	A	100 a	100 a	100 a	98 a	93 a
				0.25	% v/v	Dec. 1	A					
7	Roundup Pro + Garlon Nonionic surfactant	4	SC SC	8.0 16.0	fl oz/a fl oz/a	Dec. 1	A	100 a	100 a	100 a	100 a	93 a
				0.25	% v/v	Dec. 1	A					
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a	Dec. 1	A	100 a	100 a	100 a	100 a	100 a
				0.25	% v/v	Dec. 1	A					
9	Untreated Check					Feb. 1	B	0 b	0 d	0 b	0 b	0 b
10	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a	Feb. 1	B		57 c	100 a	93 a	
				0.25	% v/v	Feb. 1	B					
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a	Feb. 1	B		70 bc	100 a	100 a	
				0.25	% v/v	Feb. 1	B					
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a	Feb. 1	B		70 bc	100 a	100 a	
				0.25	% v/v	Feb. 1	B					
13	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a	Feb. 1	B		77 b	100 a	97 a	
				0.25	% v/v	Feb. 1	B					
14	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a	Feb. 1	B		67 bc	100 a	100 a	
				0.25	% v/v	Feb. 1	B					
15	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a	Feb. 1	B		70 bc	100 a	97 a	
				0.25	% v/v	Feb. 1	B					
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a	Feb. 1	B		77 b	100 a	100 a	
				0.25	% v/v	Feb. 1	B					
LSD (P=.05)								0.0	16.5	0.0	9.7	9.1
Standard Deviation								0.0	9.9	0.0	5.8	5.3
CV								0.0	13.37	0.0	6.8	7.03

Weed Code								RUMHA	RUMHA	RUMHA	RUMHA	VICSS
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								2-18-2003	3-10-2003	3-28-2003	5-7-2003	3-10-2003
Trt-Eval Interval								78 DA-A	98 DA-A	116 DA-A	156 DA-A	98 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 b	0 e	0 d	0 c	0 e
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	95 a	100 a	72 b	97 a
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	93 a	100 a	97 a	98 a
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	100 a	98 a	100 a
5	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	98 ab	97 a	100 a
6	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	95 abc	95 a	100 a
7	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Dec. 1 Dec. 1 Dec. 1	A A A	100 a	100 a	92 bc	68 b	92 ab
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Dec. 1 Dec. 1 Dec. 1 Dec. 1	A A A A	100 a	100 a	100 a	100 a	100 a
9	Untreated Check					Feb. 1	B	0 b	0 e	0 d	0 c	0 e
10	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		47 d	93 abc	63 b	67 d
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		53 cd	100 a	100 a	82 c
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		53 cd	100 a	100 a	80 c
13	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		53 cd	100 a	100 a	85 bc
14	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		50 cd	100 a	100 a	77 c
15	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Feb. 1 Feb. 1 Feb. 1	B B B		60 bc	90 c	72 b	80 c
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Feb. 1 Feb. 1 Feb. 1 Feb. 1	B B B B		70 b	100 a	100 a	83 bc
LSD (P=.05)								0.0	10.9	6.9	20.0	9.0
Standard Deviation								0.0	6.5	4.2	12.0	5.4
CV								0.0	9.75	4.86	15.22	6.94

Weed Code								VICSS	VICSS	SONOL	SONOL	GALSS
Rating Data Type								Control	Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100	0-100
Rating Date								3-28-2003	5-7-2003	3-28-2003	5-7-2003	3-28-2003
Trt-Eval Interval								116 DA-A	156 DA-A	116 DA-A	156 DA-A	116 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code					
1	Untreated Check					Dec. 1	A	0 c	0 c	0 f	0 d	0 e
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1	A A A	100 a	100 a	30 e	13 d	98 a
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Dec. 1	A A A	100 a	100 a	62 d	48 c	100 a
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Dec. 1	A A A	100 a	100 a	80 bc	40 c	100 a
5	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Dec. 1	A A A	100 a	100 a	68 cd	55 bc	93 ab
6	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Dec. 1	A A A	97 a	100 a	68 cd	43 c	97 a
7	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Dec. 1	A A A	75 b	40 b	77 cd	73 ab	100 a
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Dec. 1	A A A A	100 a	100 a	83 abc	53 bc	100 a
9	Untreated Check					Feb. 1	B	0 c	0 c	0 f	0 d	0 e
10	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1	B B B	100 a	80 a	95 ab	77 ab	33 d
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	93 a	80 abc
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	93 a	90 ab
13	Roundup Pro + Clarity Nonionic surfactant	4 4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	93 a	62 c
14	Roundup Pro + Vanquish Nonionic surfactant	4 4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Feb. 1	B B B	100 a	100 a	100 a	93 a	70 bc
15	Roundup Pro + Garlon Nonionic surfactant	4 3	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Feb. 1	B B B	95 a	87 a	100 a	93 a	90 ab
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4 3	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Feb. 1	B B B B	100 a	100 a	100 a	93 a	100 a
LSD (P=.05)								9.8	19.3	15.0	22.6	23.2
Standard Deviation								5.9	11.5	9.0	13.6	13.9
CV								6.88	14.14	12.38	22.56	18.36

Weed Code								GALSS	GALSS	ERICA	ERICA
Rating Data Type								Control	Control	Control	Control
Rating Unit								0-100	0-100	0-100	0-100
Rating Date								5-7-2003	6-9-2003	5-7-2003	6-9-2003
Trt-Eval Interval								156 DA-A	189 DA-A	156 DA-A	189 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code				
1	Untreated Check					Dec. 1	A	0 g	0 c	0 d	0 c
2	Roundup Pro + Oust + Nonionic surfactant	4 75	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Dec. 1	A A A	48 cde	30 bc	47 bc	43 bc
3	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Dec. 1	A A A	58 bcd	57 ab	53 bc	33 bc
4	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Dec. 1	A A A	80 ab	67 ab	58 bc	50 abc
5	Roundup Pro + Clarity Nonionic surfactant	4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Dec. 1	A A A	67 abc	30 bc	40 bc	20 c
6	Roundup Pro + Vanquish Nonionic surfactant	4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Dec. 1	A A A	47 c-f	52 ab	40 bc	17 c
7	Roundup Pro + Garlon Nonionic surfactant	4	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Dec. 1	A A A	88 a	65 ab	33 c	13 c
8	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Dec. 1	A A A A	95 a	88 a	40 bc	50 abc
9	Untreated Check					Feb. 1	B	0 g	0 c	0 d	0 c
10	Roundup Pro + Oust + Nonionic surfactant	4	SC DF	8.0 0.25	fl oz/a oz wt/a % v/v	Feb. 1	B B B	20 efg	23 bc	67 b	46 abc
11	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 4.0	fl oz/a oz wt/a % v/v	Feb. 1	B B B	30 d-g	60 ab	100 a	100 a
12	Roundup Pro + Overdrive + Nonionic surfactant	4	SC WG	8.0 6.0	fl oz/a oz wt/a % v/v	Feb. 1	B B B	43 c-f	95 a	100 a	100 a
13	Roundup Pro + Clarity Nonionic surfactant	4	SC SC	8.0 4.0	fl oz/a fl oz/a % v/v	Feb. 1	B B B	23 efg	23 bc	100 a	87 ab
14	Roundup Pro + Vanquish Nonionic surfactant	4	SC SC	8.0 8	fl oz/a fl oz/a % v/v	Feb. 1	B B B	17 fg	63 ab	100 a	100 a
15	Roundup Pro + Garlon Nonionic surfactant	4	SC SC	8.0 16.0	fl oz/a fl oz/a % v/v	Feb. 1	B B B	40 c-f	40 bc	70 b	83 ab
16	Roundup Pro + Garlon + Overdrive + Nonionic surfactant	4	SC SC WG	8.0 16.0 4.0	fl oz/a fl oz/a oz wt/a % v/v	Feb. 1	B B B B	97 a	97 a	100 a	100 a
LSD (P=.05)								27.2	39.9	26.6	47.5
Standard Deviation								16.3	23.9	15.9	28.5
CV								34.61	48.45	26.9	54.05