



# North Carolina State University

## EFFICACY OF SINGLE VS SPLIT APPLICATIONS FOR PRE SMOOTH CRABGRASS CONTROL IN TALL FESCUE

Trial ID: 03-T9

Study Dir.: L.S. WARREN

Location: WESLEYAN COLLEGE

Investigator: Leon Warren

### CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	FESAR MOWED	FESAR MOWED
Stage Scale:	NA	NA
Height, Unit:	2.5 IN	3.5 IN

### WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	DIGIS PRE	DIGIS 2 LEAF
Stage Scale:	NA	0.25 INCH
Density, Unit:	0 FT2	1-10 FT2

### APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	BACSPR	BACSPR
Operating Pressure:	35 PSI	35 PSI
Nozzle Type:	FLAT FAN	FLAT FAN
Nozzle Size:	XR 8002VS	XR 8002VS
Nozzle Spacing, Unit:	10 IN	10 IN
Band Width, Unit:	40 IN	40 IN
Boom Length, Unit:	40 IN	40 IN
Boom Height, Unit:	10 IN	10 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	32.5 GPA	32.5 GPA
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	N	N

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Weed Code										OXAST	DIGIS	DIGIS	
Rating Data Type										CONTROL	CONTROL	CONTROL	
Rating Unit										PERCENT	PERCENT	PERCENT	
Rating Date										5-9-03	6-5-03	7-1-03	
Assessed By										L.S. WARREN	L.S. WARREN	L.S. WARREN	
Trt-Eval Interval										59 DA-A	86 DA-A	112 DA-A	
ARM Action Codes										P	P	P	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code	Spray Volume			
1	BARRICADE	65	WG	0.75	lb ai/a			MAR 11	A		47.0 bc	100.0 a	100.0 a
2	BARRICADE	65	WG	0.375	lb ai/a			MAR 11	A		0.0 d	100.0 a	100.0 a
	BARRICADE	65	WG	0.375	lb ai/a			MAY 9	B				
3	BARRICADE	65	WG	0.5	lb ai/a			MAR 11	A		0.0 d	99.8 a	99.5 ab
	BARRICADE	65	WG	0.25	lb ai/a			MAY 9	B				
4	BARRICADE	4.0	F	0.75	lb ai/a			MAR 11	A		22.5 cd	98.8 a	100.0 a
5	BARRICADE	4.0	F	0.375	lb ai/a			MAR 11	A		45.0 bc	99.8 a	100.0 a
	BARRICADE	4.0	F	0.375	lb ai/a			MAY 9	B				
6	BARRICADE	4.0	F	0.5	lb ai/a			MAR 11	A		45.0 bc	99.8 a	100.0 a
	BARRICADE	4.0	F	0.25	lb ai/a			MAY 9	B				
7	DIMENSION	1.0	EC	0.5	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
8	DIMENSION	1.0	EC	0.25	lb ai/a			MAR 11	A		98.8 a	100.0 a	99.5 ab
	DIMENSION	1.0	EC	0.25	lb ai/a			MAY 9	B				
9	DIMENSION ULTRA	40	WP	0.5	lb ai/a			MAR 11	A		98.8 a	99.8 a	100.0 a
10	DIMENSION ULTRA	40	WP	0.25	lb ai/a			MAR 11	A		98.8 a	100.0 a	100.0 a
	DIMENSION ULTRA	40	WP	0.25	lb ai/a			MAY 9	B				
11	PRE-M	60	DG	3.0	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
12	PRE-M	60	DG	1.5	lb ai/a			MAR 11	A		98.8 a	100.0 a	100.0 a
	PRE-M	60	DG	1.5	lb ai/a			MAY 9	B				
13	PENDULUM	3.3	EC	3.0	lb ai/a			MAR 11	A		100.0 a	97.5 a	97.5 c
14	PENDULUM	3.3	EC	1.5	lb ai/a			MAR 11	A		99.5 a	100.0 a	100.0 a
	PENDULUM	3.3	EC	1.5	lb ai/a			MAY 9	B				
15	PENDULUM AQUACAP	3.8	CS	3.0	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
16	PENDULUM AQUACAP	3.8	CS	1.5	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
	PENDULUM AQUACAP	3.8	CS	1.5	lb ai/a			MAY 9	B				
17	PENDULUM	2.0	G	3.0	lb ai/a			MAR 11	A		62.5 abc	100.0 a	100.0 a
18	PENDULUM	2.0	G	1.5	lb ai/a			MAR 11	A		0.0 d	99.5 a	100.0 a
	PENDULUM	2.0	G	1.5	lb ai/a			MAY 9	B				
19	REGALSTAR		G	200	lb/a			MAR 11	A		47.5 bc	100.0 a	100.0 a
20	REGALSTAR II	1.2	G	200	lb/a			MAR 11	A		71.3 ab	97.5 a	98.8 abc
21	RONSTAR	50	WP	2.5	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
22	RONSTAR	50	WP	3.0	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
23	RONSTAR	2.0	G	2.5	lb ai/a			MAR 11	A		0.0 d	100.0 a	100.0 a
24	RONSTAR	2.0	G	3.0	lb ai/a			MAR 11	A		23.8 cd	100.0 a	98.3 bc
25	SURFLAN	4.0	F	3.0	lb ai/a			MAR 11	A		23.8 cd	92.5 b	98.3 bc
26	SURFLAN	4.0	F	1.5	lb ai/a			MAR 11	A		25.0 cd	100.0 a	100.0 a
	SURFLAN	4.0	F	1.5	lb ai/a			MAY 9	B				
27	TEAM PRO	0.86	G	3.0	lb ai/a			MAR 11	A		100.0 a	100.0 a	100.0 a
28	TEAM PRO	0.86	G	1.5	lb ai/a			MAR 11	A		98.8 a	100.0 a	100.0 a
	TEAM PRO	0.86	G	1.5	lb ai/a			MAY 9	B				
29	TEAM PRO	0.86	G	2.0	lb ai/a			MAR 11	A		98.8 a	100.0 a	100.0 a
	SURFLAN	4.0	F	1.5	lb ai/a			MAY 9	B				
30	CHECK										0.0 d	0.0 c	0.0 d
LSD (P=.05)											40.69	4.37	1.73
Standard Deviation											28.77	3.09	1.22
CV											45.3	3.21	1.27
Grand Mean											63.51	96.16	96.39
Bartlett's X2											98.125	69.642	10.337
P(Bartlett's X2)											0.001*	0.001*	0.066
Replicate F											0.667	0.906	1.139
Replicate Prob(F)											0.5743	0.4419	0.3380
Treatment F											7.860	138.975	890.762
Treatment Prob(F)											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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Location: WESLEYAN COLLEGE

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										DIGIS CONTROL PERCENT 8-4-03 L.S. WARREN 146 DA-A P	DIGIS CONTROL PERCENT 9-2-03 L.S. WARREN 175 DA-A P	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code	Spray Volume		
1	BARRICADE	65	WG	0.75	lb ai/a			MAR 11	A		93.3 a-d	79.7 a-d
2	BARRICADE	65	WG	0.375	lb ai/a			MAR 11	A		99.0 a	98.0 a
	BARRICADE	65	WG	0.375	lb ai/a			MAY 9	B			
3	BARRICADE	65	WG	0.5	lb ai/a			MAR 11	A		96.3 abc	92.3 a-d
	BARRICADE	65	WG	0.25	lb ai/a			MAY 9	B			
4	BARRICADE	4.0	F	0.75	lb ai/a			MAR 11	A		96.3 abc	88.5 a-d
5	BARRICADE	4.0	F	0.375	lb ai/a			MAR 11	A		97.8 a	95.8 ab
	BARRICADE	4.0	F	0.375	lb ai/a			MAY 9	B			
6	BARRICADE	4.0	F	0.5	lb ai/a			MAR 11	A		95.0 abc	89.8 a-d
	BARRICADE	4.0	F	0.25	lb ai/a			MAY 9	B			
7	DIMENSION	1.0	EC	0.5	lb ai/a			MAR 11	A		75.8 def	38.8 f
8	DIMENSION	1.0	EC	0.25	lb ai/a			MAR 11	A		92.0 a-d	71.0 a-e
	DIMENSION	1.0	EC	0.25	lb ai/a			MAY 9	B			
9	DIMENSION ULTRA	40	WP	0.5	lb ai/a			MAR 11	A		73.8 ef	38.8 f
10	DIMENSION ULTRA	40	WP	0.25	lb ai/a			MAR 11	A		92.5 a-d	86.0 a-d
	DIMENSION ULTRA	40	WP	0.25	lb ai/a			MAY 9	B			
11	PRE-M	60	DG	3.0	lb ai/a			MAR 11	A		89.5 a-e	84.8 a-d
12	PRE-M	60	DG	1.5	lb ai/a			MAR 11	A		98.3 a	83.3 a-d
	PRE-M	60	DG	1.5	lb ai/a			MAY 9	B			
13	PENDULUM	3.3	EC	3.0	lb ai/a			MAR 11	A		70.8 fg	35.0 f
14	PENDULUM	3.3	EC	1.5	lb ai/a			MAR 11	A		94.0 abc	80.0 a-d
	PENDULUM	3.3	EC	1.5	lb ai/a			MAY 9	B			
15	PENDULUM AQUACAP	3.8	CS	3.0	lb ai/a			MAR 11	A		92.8 a-d	66.3 b-f
16	PENDULUM AQUACAP	3.8	CS	1.5	lb ai/a			MAR 11	A		99.5 a	94.8 abc
	PENDULUM AQUACAP	3.8	CS	1.5	lb ai/a			MAY 9	B			
17	PENDULUM	2.0	G	3.0	lb ai/a			MAR 11	A		97.0 ab	90.8 a-d
18	PENDULUM	2.0	G	1.5	lb ai/a			MAR 11	A		97.5 ab	96.8 ab
	PENDULUM	2.0	G	1.5	lb ai/a			MAY 9	B			
19	REGALSTAR		G	200	lb/a			MAR 11	A		79.5 b-f	77.3 a-d
20	REGALSTAR II	1.2	G	200	lb/a			MAR 11	A		82.5 a-f	76.3 a-d
21	RONSTAR	50	WP	2.5	lb ai/a			MAR 11	A		78.8 c-f	62.5 def
22	RONSTAR	50	WP	3.0	lb ai/a			MAR 11	A		90.0 a-e	77.0 a-d
23	RONSTAR	2.0	G	2.5	lb ai/a			MAR 11	A		85.0 a-f	80.0 a-d
24	RONSTAR	2.0	G	3.0	lb ai/a			MAR 11	A		88.3 a-f	75.0 a-d
25	SURFLAN	4.0	F	3.0	lb ai/a			MAR 11	A		55.0 g	40.0 ef
26	SURFLAN	4.0	F	1.5	lb ai/a			MAR 11	A		93.8 a-d	66.3 b-f
	SURFLAN	4.0	F	1.5	lb ai/a			MAY 9	B			
27	TEAM PRO	0.86	G	3.0	lb ai/a			MAR 11	A		88.3 a-f	63.8 c-f
28	TEAM PRO	0.86	G	1.5	lb ai/a			MAR 11	A		95.8 abc	93.5 a-d
	TEAM PRO	0.86	G	1.5	lb ai/a			MAY 9	B			
29	TEAM PRO	0.86	G	2.0	lb ai/a			MAR 11	A		97.3 ab	86.3 a-d
	SURFLAN	4.0	F	1.5	lb ai/a			MAY 9	B			
30	CHECK										0.0 h	0.0 g
LSD (P=.05)											18.14	31.31
Standard Deviation											12.83	22.14
CV											14.89	30.08
Grand Mean											86.16	73.59
Bartlett's X2											107.612	74.803
P(Bartlett's X2)											0.001*	0.001*
Replicate F											0.548	0.591
Replicate Prob(F)											0.6511	0.6225
Treatment F											8.967	4.243
Treatment Prob(F)											0.0001	0.0001

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

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TALL FESCUE

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## Trial Comments

03-11-03: GRANULAR HERBICIDES APPLIED WITH SHAKER JARS

04-11-03: DIGIS IN OPEN AREAS BEGINNING TO GERMINATE AND IN THE VERY EARLY 1 LEAF STAGE AT 0.25 INCHES

05-09-03: GRANULAR HERBICIDES APPLIED WITH SHAKER JARS

DIGIS WAS TOO SMALL AND HARD TO SEE DUE TO THE TALL FESCUE CANOPY TO ACCURATELY RATE AT THIS TIME