

North Carolina State University

Tolerance of 'El Toro' Zoysiagrass to MON44951

Trial ID: 03-D35
Location: Sandhills Station

Study Dir.: Travis Gannon
Investigator: Fred Yelverton

Crop Code										ZOYJA	ZOYJA	ZOYJA	ZOYJA	ZOYJA	ZOYJA	
Rating Data Type										PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	
Rating Unit										%	%	%	%	%	%	
Rating Date										6-3-03	6-11-03	6-18-03	6-23-03	7-9-03	7-16-03	
Trt-Eval Interval										6 DA-A	14 DA-A	21 DA-A	26 DA-A	42 DA-A	49 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume						
1	MON 44951 X-77	75 L	WG	2	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
2	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		0.0 a	1.3 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
3	MON 44951 X-77	75 L	WG	4	oz/a			MAY 28	A		0.0 a	2.5 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
4	MON 44951 X-77	75 L	WG	1.33	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
	MON 44951 X-77	75 L	WG	1.33	oz/a			JULY 9	B							
			L	0.25	% v/v			JULY 9	B							
5	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		0.0 a	1.3 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
	MON 44951 X-77	75 L	WG	2.66	oz/a			JULY 9	B							
			L	0.25	% v/v			JULY 9	B							
6	Nontreated										0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
LSD (P=.05)											0.00	2.63	0.00	0.00	0.00	0.00
Standard Deviation											0.00	1.75	0.00	0.00	0.00	0.00
CV											0.0	209.76	0.0	0.0	0.0	0.0
Grand Mean											0.0	0.83	0.0	0.0	0.0	0.0
Bartlett's X2											0.0	0.081	0.0	0.0	0.0	0.0
P(Bartlett's X2)											.	0.96	.	.	.	.
Replicate F											0.000	1.818	0.000	0.000	0.000	0.000
Replicate Prob(F)											1.0000	0.1871	1.0000	1.0000	1.0000	1.0000
Treatment F											0.000	1.364	0.000	0.000	0.000	0.000
Treatment Prob(F)											1.0000	0.2924	1.0000	1.0000	1.0000	1.0000

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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Crop Code										ZOYJA	ZOYJA	ZOYJA	ZOYJA	ZOYJA	ZOYJA	
Rating Data Type										PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	
Rating Unit										%	%	%	%	%	%	
Rating Date										7-24-03	7-29-03	8-6-03	8-12-03	8-19-03	8-25-03	
Trt-Eval Interval										57 DA-A	62 DA-A	70 DA-A	76 DA-A	83 DA-A	89 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume						
1	MON 44951 X-77	75 L	WG	2	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
2	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
3	MON 44951 X-77	75 L	WG	4	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
4	MON 44951 X-77	75 L	WG	1.33	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
	MON 44951 X-77	75 L	WG	1.33	oz/a			JULY 9	B							
			L	0.25	% v/v			JULY 9	B							
5	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
			L	0.25	% v/v			MAY 28	A							
	MON 44951 X-77	75 L	WG	2.66	oz/a			JULY 9	B							
			L	0.25	% v/v			JULY 9	B							
6	Nontreated										0.0 a	0.0 a	0.0 a	0.0 a	0.0 a	0.0 a
LSD (P=.05)											0.00	0.00	0.00	0.00	0.00	0.00
Standard Deviation											0.00	0.00	0.00	0.00	0.00	0.00
CV											0.0	0.0	0.0	0.0	0.0	0.0
Grand Mean											0.0	0.0	0.0	0.0	0.0	0.0
Bartlett's X2											0.0	0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)											.	.	.	.	.	.
Replicate F											0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F											0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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Trial ID: 03-D35
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Crop Code										TURF	TURF	TURF	TURF	TURF	
Rating Data Type										QUALITY	QUALITY	QUALITY	QUALITY	QUALITY	
Rating Unit										1-9	1-9	1-9	1-9	1-9	
Rating Date										6-3-03	6-11-03	6-18-03	6-23-03	7-9-03	
Trt-Eval Interval										6 DA-A	14 DA-A	21 DA-A	26 DA-A	42 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume					
1	MON 44951 X-77	75 L	WG	2	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
2	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
3	MON 44951 X-77	75 L	WG	4	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
4	MON 44951 X-77	75 L	WG	1.33	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
	MON 44951 X-77	75 L	WG	1.33	oz/a			JULY 9	B						
			L	0.25	% v/v			JULY 9	B						
5	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
	MON 44951 X-77	75 L	WG	2.66	oz/a			JULY 9	B						
			L	0.25	% v/v			JULY 9	B						
6	Nontreated										7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
LSD (P=.05)											0.00	0.00	0.00	0.00	0.00
Standard Deviation											0.00	0.00	0.00	0.00	0.00
CV											0.0	0.0	0.0	0.0	0.0
Grand Mean											7.0	7.0	7.0	7.0	7.0
Bartlett's X2											0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)											.	.	.	.	.
Replicate F											0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F											0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000

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Crop Code										TURF	TURF	TURF	TURF	TURF	
Rating Data Type										QUALITY	QUALITY	QUALITY	QUALITY	QUALITY	
Rating Unit										1-9	1-9	1-9	1-9	1-9	
Rating Date										7-16-03	7-24-03	7-29-03	8-6-03	8-12-03	
Trt-Eval Interval										49 DA-A	57 DA-A	62 DA-A	70 DA-A	76 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume					
1	MON 44951 X-77	75 L	WG	2	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
2	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
3	MON 44951 X-77	75 L	WG	4	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
4	MON 44951 X-77	75 L	WG	1.33	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
	MON 44951 X-77	75 L	WG	1.33	oz/a			JULY 9	B						
			L	0.25	% v/v			JULY 9	B						
5	MON 44951 X-77	75 L	WG	2.66	oz/a			MAY 28	A		7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
			L	0.25	% v/v			MAY 28	A						
	MON 44951 X-77	75 L	WG	2.66	oz/a			JULY 9	B						
			L	0.25	% v/v			JULY 9	B						
6	Nontreated										7.0 a	7.0 a	7.0 a	7.0 a	7.0 a
LSD (P=.05)											0.00	0.00	0.00	0.00	0.00
Standard Deviation											0.00	0.00	0.00	0.00	0.00
CV											0.0	0.0	0.0	0.0	0.0
Grand Mean											7.0	7.0	7.0	7.0	7.0
Bartlett's X2											0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)											.	.	.	.	.
Replicate F											0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F											0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000

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Crop Code										TURF	TURF	
Rating Data Type										QUALITY	QUALITY	
Rating Unit										1-9	1-9	
Rating Date										8-19-03	8-25-03	
Trt-Eval Interval										83 DA-A	89 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume		
1	MON 44951 X-77	75 L	WG	2	oz/a % v/v			MAY 28	A		7.0 a	7.0 a
2	MON 44951 X-77	75 L	WG	2.66	oz/a % v/v			MAY 28	A		7.0 a	7.0 a
3	MON 44951 X-77	75 L	WG	4	oz/a % v/v			MAY 28	A		7.0 a	7.0 a
4	MON 44951 X-77	75 L	WG	1.33	oz/a % v/v			MAY 28	A		7.0 a	7.0 a
	MON 44951 X-77	75 L	WG	1.33	oz/a % v/v			JULY 9	B			
5	MON 44951 X-77	75 L	WG	2.66	oz/a % v/v			MAY 28	A		7.0 a	7.0 a
	MON 44951 X-77	75 L	WG	2.66	oz/a % v/v			JULY 9	B			
	MON 44951 X-77	75 L	WG	0.25	% v/v			JULY 9	B			
6	Nontreated										7.0 a	7.0 a
LSD (P=.05)											0.00	0.00
Standard Deviation											0.00	0.00
CV											0.0	0.0
Grand Mean											7.0	7.0
Bartlett's X2											0.0	0.0
P(Bartlett's X2)											.	.
Replicate F											0.000	0.000
Replicate Prob(F)											1.0000	1.0000
Treatment F											0.000	0.000
Treatment Prob(F)											1.0000	1.0000

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Trial Comments

5-28-03 - Trial initiated, zoysiagrass fully greened up. Zoysiagrass displaying symptoms of zoysia patch.

6-3-03 - Trial evaluated for zoysiagrass phytotoxicity and turf quality.

6-11-03 - Trial evaluated for zoysiagrass phytotoxicity and turf quality, minimal phytotoxicity present.

6-18-03 - Trial evaluated for zoysiagrass phytotoxicity and turf quality, minimal phytotoxicity present.

6-23-03 - Trial evaluated for zoysiagrass phytotoxicity and turf quality, minimal phytotoxicity present.

7-9-03 - Trial evaluated for zoysiagrass phytotoxicity and turf quality, no zoysiagrass injury persists. Sequential applications were applied.

7-16-03 - Trial was evaluated zoysiagrass phytotoxicity and turf quality.

7-24-03 - Trial was evaluated for zoysiagrass phytotoxicity and turf quality.

7-29-03 - Trial was evaluated for zoysiagrass phytotoxicity and turf quality.

8-6-03 - Trial was evaluated for zoysiagrass phytotoxicity and turf quality.

8-12-03 - Trial was evaluated for zoysiagrass phytotoxicity and turf quality.

8-19-03 - Trial was evaluated for zoysiagrass phytotoxicity and turf quality.

8-25-03 - Trial was evaluated for zoysiagrass phytotoxicity and turf quality.