

University of GA Coop Ext Service

Determining Nitrogen Threshold Levels for PolyGraph on Golf Course Fairway Turfgrasses:

Bermudagrass

Trial ID: Bermuda2

Study Director: Jonathan Bohn

Location: Griffin

Investigator: Clint Waltz

General Trial Information

Study Director: Jonathan Bohn

Title: Technician

Affiliation: UGA -CAES

Investigator: Clint Waltz

Title: Asst. Professor

Affiliation: UGA-CAES

Trial Location

City: Griffin

Trial Status:

Archived

State/Prov.: GA

Crop Description

Crop 1: CYNDA *Cynodon dactylon* Bermudagrass Variety: Tifway

Site and Design

Plot Width, Unit: 6 FT

Plot Length, Unit: 6 FT

Replications: 4

Study Design: Randomized Complete Block

Application Description

	A
Application Date:	7-11-2003
Time of Day:	6:00 pm
Application Method:	ShakerJar
Application Timing:	Post
Application Placement:	Surface
Applied By:	JB
Air Temperature, Unit:	85.7 F
% Relative Humidity:	50
Wind Velocity, Unit:	5.8 mph
Dew Presence (Y/N):	N
Water Hardness:	-
Soil Temperature, Unit:	84.5 F
Soil Moisture:	Good
% Cloud Cover:	50

University of GA Coop Ext Service

Determining Nitrogen Threshold Levels for PolyGraph on Golf Course Fairway

Turfgrasses: Bermudagrass

Trial ID: Bermuda2

Study Director: Jonathan Bohn

Location: Griffin

Investigator: Clint Waltz

							CYNDA	CYNDA	CYNDA	
							Tifway	Tifway	Tifway	
							7-24-2003	8-1-2003	8-8-2003	
							COLOR	COLOR	COLOR	
							1-9	1-9	1-9	
							1	1	1	
							JB	JB	JB	
							13	21	28	
							13 DA-A	21 DA-A	28 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				6.1 c	7.0 bc	7.1 ab
2	Ammonium nitrate 33-0-0	33.5	GR		1.5	lb ai/1000 ft2	A	6.8 ab	7.4 ab	7.0 b
3	Polygon 43 Regular	43	GR		1.5	lb ai/1000 ft2	A	6.8 ab	7.5 a	7.4 ab
4	Polygon 43 Mini	43	GR		2.0	lb ai/1000 ft2	A	7.0 a	7.6 a	7.1 ab
5	Polygon 41 Regular	41	GR		1.5	lb ai/1000 ft2	A	6.1 c	6.8 c	7.1 ab
6	Polygon 41 Mini	41	GR		2.0	lb ai/1000 ft2	A	6.5 b	7.5 a	7.5 a
7	Calcium Nitrate	16	GR		1.5	lb ai/1000 ft2	A	6.6 b	7.4 ab	7.3 ab
8	Ammonium Sulfate	21	GR		1.5	lb ai/1000 ft2	A	7.0 a	7.3 ab	7.1 ab
LSD (P=.05)								0.25	0.44	0.35
Standard Deviation								0.17	0.30	0.24
CV								2.56	4.07	3.27

							CYNDA	CYNDA	CYNDA	
							Tifway	Tifway	Tifway	
							8-15-2003	8-22-2003	8-29-2003	
							COLOR	COLOR	COLOR	
							1-9	1-9	1-9	
							1	1	1	
							JB	JB	JB	
							35	42	49	
							35 DA-A	42 DA-A	49 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				7.5 ab	7.1 b	7.1 c
2	Ammonium nitrate 33-0-0	33.5	GR		1.5	lb ai/1000 ft2	A	7.3 b	7.4 ab	7.1 c
3	Polygon 43 Regular	43	GR		1.5	lb ai/1000 ft2	A	7.8 ab	7.6 a	8.0 a
4	Polygon 43 Mini	43	GR		2.0	lb ai/1000 ft2	A	7.4 b	7.4 ab	7.5 abc
5	Polygon 41 Regular	41	GR		1.5	lb ai/1000 ft2	A	7.5 ab	7.4 ab	7.4 bc
6	Polygon 41 Mini	41	GR		2.0	lb ai/1000 ft2	A	8.0 a	7.8 a	7.9 ab
7	Calcium Nitrate	16	GR		1.5	lb ai/1000 ft2	A	7.5 ab	7.4 ab	7.5 abc
8	Ammonium Sulfate	21	GR		1.5	lb ai/1000 ft2	A	7.5 ab	7.4 ab	7.8 ab
LSD (P=.05)								0.51	0.38	0.55
Standard Deviation								0.35	0.26	0.37
CV								4.61	3.5	4.94

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

University of GA Coop Ext Service

							CYNDA	CYNDA	CYNDA		
							Tifway	Tifway	Tifway		
							9-12-2003	9-30-2003	10-22-2003		
							COLOR	COLOR	COLOR		
							1-9	1-9	1-9		
							1	1	1		
							JB	FCW	JB		
							63	81	103		
							63 DA-A	81 DA-A	103 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code				
1	Untreated Check			not treated				7.1 a	6.9 ab	7.0 a	
2	Ammonium nitrate 33-0-0	33.5	GR		1.5	lb ai/1000 ft2	A	7.3 a	6.8 b	7.3 a	
3	Polygon 43 Regular	43	GR		1.5	lb ai/1000 ft2	A	7.4 a	7.3 ab	7.1 a	
4	Polygon 43 Mini	43	GR		2.0	lb ai/1000 ft2	A	7.5 a	7.1 ab	7.0 a	
5	Polygon 41 Regular	41	GR		1.5	lb ai/1000 ft2	A	7.3 a	7.1 ab	7.3 a	
6	Polygon 41 Mini	41	GR		2.0	lb ai/1000 ft2	A	7.5 a	7.5 a	7.1 a	
7	Calcium Nitrate	16	GR		1.5	lb ai/1000 ft2	A	7.4 a	6.9 ab	7.3 a	
8	Ammonium Sulfate	21	GR		1.5	lb ai/1000 ft2	A	7.4 a	6.9 ab	7.1 a	
LSD (P=.05)									0.35	0.58	0.24
Standard Deviation									0.24	0.40	0.16
CV									3.28	5.62	2.24

							CYNDA	CYNDA	CYNDA		
							Tifway	Tifway	Tifway		
							7-25-2003	8-1-2003	8-8-2003		
							COLOR	COLOR	COLOR		
							1-9	1-9	1-9		
							3	3	3		
							Color Meter	Color Meter	Color Meter		
							14	21	28		
							14 DA-A	21 DA-A	28 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code				
1	Untreated Check			not treated				6.9 a	8.5 abc	8.2 ab	
2	Ammonium nitrate 33-0-0	33.5	GR		1.5	lb ai/1000 ft2	A	7.8 a	8.2 bc	7.9 b	
3	Polygon 43 Regular	43	GR		1.5	lb ai/1000 ft2	A	7.2 a	8.1 c	8.0 ab	
4	Polygon 43 Mini	43	GR		2.0	lb ai/1000 ft2	A	7.5 a	8.5 abc	8.1 ab	
5	Polygon 41 Regular	41	GR		1.5	lb ai/1000 ft2	A	7.3 a	8.5 abc	8.3 a	
6	Polygon 41 Mini	41	GR		2.0	lb ai/1000 ft2	A	7.2 a	8.6 a	8.1 ab	
7	Calcium Nitrate	16	GR		1.5	lb ai/1000 ft2	A	7.4 a	8.6 ab	8.1 ab	
8	Ammonium Sulfate	21	GR		1.5	lb ai/1000 ft2	A	6.9 a	8.2 c	8.0 ab	
LSD (P=.05)									0.93	0.35	0.37
Standard Deviation									0.63	0.24	0.25
CV									8.68	2.8	3.15

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

University of GA Coop Ext Service

Crop Code							CYNDA	CYNDA	CYNDA		
Crop Variety							Tifway	Tifway	Tifway		
Rating Date							8-15-2003	8-22-2003	8-29-2003		
Rating Data Type							COLOR	COLOR	COLOR		
Rating Unit							1-9	1-9	1-9		
Number of Subsamples							3	3	3		
Assessed By							Color Meter	Color Meter	Color Meter		
Days After Last Applic.							35	42	49		
Trt-Eval Interval							35 DA-A	42 DA-A	49 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code				
1	Untreated Check			not treated				8.0 b	7.9 b	8.0 a	
2	Ammonium nitrate 33-0-0	33.5	GR		1.5	lb ai/1000 ft2	A	8.0 b	8.4 ab	8.0 a	
3	Polygon 43 Regular	43	GR		1.5	lb ai/1000 ft2	A	8.3 ab	8.4 ab	7.8 a	
4	Polygon 43 Mini	43	GR		2.0	lb ai/1000 ft2	A	8.6 ab	8.4 ab	7.7 a	
5	Polygon 41 Regular	41	GR		1.5	lb ai/1000 ft2	A	8.5 ab	8.6 a	7.8 a	
6	Polygon 41 Mini	41	GR		2.0	lb ai/1000 ft2	A	8.6 a	8.4 ab	8.3 a	
7	Calcium Nitrate	16	GR		1.5	lb ai/1000 ft2	A	8.4 ab	8.3 ab	8.0 a	
8	Ammonium Sulfate	21	GR		1.5	lb ai/1000 ft2	A	8.4 ab	8.0 b	7.8 a	
LSD (P=.05)									0.52	0.48	0.73
Standard Deviation									0.35	0.33	0.50
CV									4.18	3.93	6.3

Crop Code							CYNDA	CYNDA	CYNDA		
Crop Variety							Tifway	Tifway	Tifway		
Rating Date							9-12-2003	9-17-2003	10-22-2003		
Rating Data Type							COLOR	COLOR	COLOR		
Rating Unit							1-9	1-9	1-9		
Number of Subsamples							3	3	3		
Assessed By							Color Meter	Color Meter	Color Meter		
Days After Last Applic.							63	68	103		
Trt-Eval Interval							63 DA-A	68 DA-A	103 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code				
1	Untreated Check			not treated				8.0 a	7.7 b	6.9 ab	
2	Ammonium nitrate 33-0-0	33.5	GR		1.5	lb ai/1000 ft2	A	8.0 a	7.9 ab	6.9 b	
3	Polygon 43 Regular	43	GR		1.5	lb ai/1000 ft2	A	8.4 a	8.3 ab	7.3 a	
4	Polygon 43 Mini	43	GR		2.0	lb ai/1000 ft2	A	8.2 a	8.2 ab	6.9 b	
5	Polygon 41 Regular	41	GR		1.5	lb ai/1000 ft2	A	7.8 a	8.2 ab	7.1 ab	
6	Polygon 41 Mini	41	GR		2.0	lb ai/1000 ft2	A	8.0 a	7.9 ab	7.2 ab	
7	Calcium Nitrate	16	GR		1.5	lb ai/1000 ft2	A	8.1 a	8.4 a	7.1 ab	
8	Ammonium Sulfate	21	GR		1.5	lb ai/1000 ft2	A	8.0 a	8.2 ab	7.1 ab	
LSD (P=.05)									0.50	0.56	0.33
Standard Deviation									0.34	0.38	0.23
CV									4.21	4.71	3.2

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