

# University of GA Coop Ext Service

## Bentgrass Tolerance to Summer Applications of Eagle Fungicide

Trial ID: Eagle1

Study Director: Jonathan Bohn

Location: Griffin CC

Investigator: Clint Waltz

### General Trial Information

**Study Director:** Jonathan Bohn**Title:** Technician**Affiliation:** UGA - C&SS**Investigator:** Clint Waltz**Title:** Asst. Professor**Affiliation:** UGA - C&SS**E-mail:** CWaltz@UGA.edu

### Trial Location

**City:** Griffin**Trial Status:** ONE-YEAR/FINAL**State/Prov.:** GA**Trial Reliability:** Excellent**Initiation Date:** 6-18-2003**Planned Completion Date:** 8-1-2003

### Objectives:

Compare Eagle 20EW with Eagle 40WP for safety on bentgrass during summer months.

### Cooperator/Landowner

**Cooperator:** Tim Rutledge**Organization:** Griffin Country Club**City:** Griffin**State/Prov:** GA

### Crop Description

**Crop 1:** AGSST *Agrostis stolonifera*

Bentgrass, creeping

### Site and Design

**Plot Width, Unit:** 5 FT **Plot Length, Unit:** 6 FT **Replications:** 4**Site Type:** Golf Course Putting Green **Study Design:** Randomized Complete Block

### Field Prep./Maintenance:

Maintained by golf course staff as a golf course putting green.

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#### Application Description

	A	B	C
Application Date:	6-19-2003	7-2-2003	7-15-2003
Time of Day:	2:30 pm	5:00 pm	3:30 pm
Application Method:	Sprayer	Sprayer	Sprayer
Application Timing:	Post	Post	Post
Application Placement:	Topical	Topical	Topical
Applied By:	JB	JB	JB
Air Temperature, Unit:	84.1 F	81.3 F	92.7 F
% Relative Humidity:	60	60.3	43.8
Wind Velocity, Unit:	2.7 mph	7.9 mph	1.1 mph
Dew Presence (Y/N):	N	N	N
Water Hardness:	-	-	-
Soil Temperature, Unit:	82.2 F	80.1 F	88.5 F
Soil Moisture:	Good	Good	Good
% Cloud Cover:	50	75	60

#### Application Equipment

	A	B	C
Appl. Equipment:	Spray	Spray	Spray
Operating Pressure:	12 psi	12 psi	12 psi
Pressure Unit:	21 psi	21 psi	21 psi
Nozzle Type:	Flat Fan	Flat Fan	Flat Fan
Nozzle Size:	8008	8008	8008
Nozzle Spacing, Unit:	20 cm	20 cm	20 cm
Nozzles/Row:	3	3	3
Boom Length, Unit:	5 ft	5 ft	5 ft
Boom Height, Unit:	18 in	18 in	18 in
Ground Speed, Unit:	3 mph	3 mph	3 mph
Carrier:	H2O	H2O	H2O
Spray Volume:	40	40	40
Volume Unit:	GAL/AC	GAL/AC	GAL/AC
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	N	N	N

#### Trial Comments

Date	By	Notes
6-23-2003	FCW	Injury: Very slight yellowing of leaf tips.
7-3-2003	FCW	Very slight darker green color on treated plots compared to the untreated (rate less than 1/2 point on 1-9 colored scale)
7-10-2003	FCW	1st signs this season of heat stress, in general the untreated better than the treated plots
7-31-2003	FCW	Plots were thinning and showing signs of heat stress

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Trial ID: Eagle1

Study Director: Jonathan Bohn

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Crop Code	AGSST	AGSST	AGSST							
Rating Date	6-23-2003	6-27-2003	7-3-2003							
Rating Data Type	Injury	Injury	Injury							
Rating Unit	%	%	%							
Assessed By	FCW	FCW	FCW							
Days After Last Applic.	4	8	1							
Trt-Eval Interval	4 DA-A	8 DA-A	14 DA-A							
Trt No.	Treatment Name	Form Conc	Form Type	Other Description	Other Rate	Other Unit	Appl Code			
1	Untreated Check			not treated				0 a	0 b	0 a
2	Eagle (myclobutanol)	1.67	EW		1.3	lb ai/a	A	3 a	5 a	0 a
	Eagle (myclobutanol)	1.67	EW		1.3	lb ai/a	B			
	Eagle (myclobutanol)	1.67	EW		1.3	lb ai/a	C			
3	Eagle (myclobutanol)	1.67	EW		2.6	lb ai/a	A	4 a	5 a	0 a
	Eagle (myclobutanol)	1.67	EW		2.6	lb ai/a	B			
	Eagle (myclobutanol)	1.67	EW		2.6	lb ai/a	C			
4	Eagle (myclobutanol)	40	SP		1.3	lb ai/a	A	1 a	4 a	0 a
	Eagle (myclobutanol)	40	SP		1.3	lb ai/a	B			
	Eagle (myclobutanol)	40	SP		1.3	lb ai/a	C			
5	Eagle (myclobutanol)	40	SP		2.6	lb ai/a	A	3 a	5 a	0 a
	Eagle (myclobutanol)	40	SP		2.6	lb ai/a	B			
	Eagle (myclobutanol)	40	SP		2.6	lb ai/a	C			
6	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	A	3 a	4 a	0 a
	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	B			
	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	C			
LSD (P=.05)								4.0	1.9	0.0
Standard Deviation								2.7	1.3	0.0
CV								129.0	34.43	0.0

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

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							AGSST	AGSST	AGSST	
							7-10-2003	7-16-2003	7-24-2003	
							Injury	Injury	Injury	
							%	%	%	
							FCW	FCW	JB	
							8	1	9	
							21 DA-A	27 DA-A	35 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				0 a	0 a	0 b
2	Eagle (myclobutanol)	1.67	EW		1.3 lb ai/a		A	0 a	0 a	1 ab
	Eagle (myclobutanol)	1.67	EW		1.3 lb ai/a		B			
	Eagle (myclobutanol)	1.67	EW		1.3 lb ai/a		C			
3	Eagle (myclobutanol)	1.67	EW		2.6 lb ai/a		A	0 a	0 a	1 ab
	Eagle (myclobutanol)	1.67	EW		2.6 lb ai/a		B			
	Eagle (myclobutanol)	1.67	EW		2.6 lb ai/a		C			
4	Eagle (myclobutanol)	40	SP		1.3 lb ai/a		A	0 a	0 a	3 ab
	Eagle (myclobutanol)	40	SP		1.3 lb ai/a		B			
	Eagle (myclobutanol)	40	SP		1.3 lb ai/a		C			
5	Eagle (myclobutanol)	40	SP		2.6 lb ai/a		A	0 a	0 a	3 ab
	Eagle (myclobutanol)	40	SP		2.6 lb ai/a		B			
	Eagle (myclobutanol)	40	SP		2.6 lb ai/a		C			
6	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		A	0 a	0 a	4 a
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		B			
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		C			
LSD (P=.05)							0.0	0.0	3.3	
Standard Deviation							0.0	0.0	2.2	
CV							0.0	0.0	115.04	

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

Crop Code							AGSST	AGSST	AGSST	
Rating Date							6-23-2003	6-27-2003	7-3-2003	
Rating Data Type							Density	Density	Density	
Rating Unit							%	%	%	
Days After Last Applic.							4	8	1	
Trt-Eval Interval							4 DA-A	8 DA-A	14 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				100 a	95 a	99 a
2	Eagle (myclobutanil)	1.67	EW		1.3 lb ai/a		A	100 a	95 a	100 a
	Eagle (myclobutanil)	1.67	EW		1.3 lb ai/a		B			
	Eagle (myclobutanil)	1.67	EW		1.3 lb ai/a		C			
3	Eagle (myclobutanil)	1.67	EW		2.6 lb ai/a		A	100 a	94 a	100 a
	Eagle (myclobutanil)	1.67	EW		2.6 lb ai/a		B			
	Eagle (myclobutanil)	1.67	EW		2.6 lb ai/a		C			
4	Eagle (myclobutanil)	40	SP		1.3 lb ai/a		A	100 a	94 a	100 a
	Eagle (myclobutanil)	40	SP		1.3 lb ai/a		B			
	Eagle (myclobutanil)	40	SP		1.3 lb ai/a		C			
5	Eagle (myclobutanil)	40	SP		2.6 lb ai/a		A	100 a	94 a	99 a
	Eagle (myclobutanil)	40	SP		2.6 lb ai/a		B			
	Eagle (myclobutanil)	40	SP		2.6 lb ai/a		C			
6	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		A	100 a	93 a	99 a
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		B			
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		C			
LSD (P=.05)							0.0	4.8	2.6	
Standard Deviation							0.0	3.2	1.7	
CV							0.0	3.4	1.74	

Crop Code							AGSST	AGSST	AGSST	
Rating Date							7-10-2003	7-16-2003	7-24-2003	
Rating Data Type							Density	Density	Density	
Rating Unit							%	%	%	
Days After Last Applic.							8	1	9	
Trt-Eval Interval							21 DA-A	27 DA-A	35 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				96 a	99 a	96 a
2	Eagle (myclobutanil)	1.67	EW		1.3 lb ai/a		A	94 ab	96 ab	95 a
	Eagle (myclobutanil)	1.67	EW		1.3 lb ai/a		B			
	Eagle (myclobutanil)	1.67	EW		1.3 lb ai/a		C			
3	Eagle (myclobutanil)	1.67	EW		2.6 lb ai/a		A	94 ab	98 ab	96 a
	Eagle (myclobutanil)	1.67	EW		2.6 lb ai/a		B			
	Eagle (myclobutanil)	1.67	EW		2.6 lb ai/a		C			
4	Eagle (myclobutanil)	40	SP		1.3 lb ai/a		A	94 ab	98 ab	94 a
	Eagle (myclobutanil)	40	SP		1.3 lb ai/a		B			
	Eagle (myclobutanil)	40	SP		1.3 lb ai/a		C			
5	Eagle (myclobutanil)	40	SP		2.6 lb ai/a		A	90 c	94 b	96 a
	Eagle (myclobutanil)	40	SP		2.6 lb ai/a		B			
	Eagle (myclobutanil)	40	SP		2.6 lb ai/a		C			
6	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		A	93 bc	95 ab	94 a
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		B			
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		C			
LSD (P=.05)							3.4	4.4	5.0	
Standard Deviation							2.2	2.9	3.3	
CV							2.4	3.03	3.49	

							AGSST	AGSST	AGSST	
							7-31-2003	6-23-2003	6-27-2003	
							Density	TQ	TQ	
							%	1-9	1-9	
							16	4	8	
							42 DA-A	4 DA-A	8 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				86 a	8.6 a	7.4 a
2	Eagle (myclobutanil)	1.67	EW		1.3	lb ai/a	A	83 a	8.6 a	7.4 a
	Eagle (myclobutanil)	1.67	EW		1.3	lb ai/a	B			
	Eagle (myclobutanil)	1.67	EW		1.3	lb ai/a	C			
3	Eagle (myclobutanil)	1.67	EW		2.6	lb ai/a	A	86 a	8.5 a	7.3 a
	Eagle (myclobutanil)	1.67	EW		2.6	lb ai/a	B			
	Eagle (myclobutanil)	1.67	EW		2.6	lb ai/a	C			
4	Eagle (myclobutanil)	40	SP		1.3	lb ai/a	A	81 a	8.5 a	7.5 a
	Eagle (myclobutanil)	40	SP		1.3	lb ai/a	B			
	Eagle (myclobutanil)	40	SP		1.3	lb ai/a	C			
5	Eagle (myclobutanil)	40	SP		2.6	lb ai/a	A	83 a	8.4 a	7.1 a
	Eagle (myclobutanil)	40	SP		2.6	lb ai/a	B			
	Eagle (myclobutanil)	40	SP		2.6	lb ai/a	C			
6	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	A	84 a	8.4 a	7.4 a
	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	B			
	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	C			
LSD (P=.05)								5.6	0.25	0.75
Standard Deviation								3.7	0.17	0.50
CV								4.41	1.96	6.82

							AGSST	AGSST	AGSST	
							7-3-2003	7-10-2003	7-16-2003	
							TQ	TQ	TQ	
							1-9	1-9	1-9	
							1	8	1	
							14 DA-A	21 DA-A	27 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code			
1	Untreated Check			not treated				8.5 a	7.5 a	8.4 a
2	Eagle (myclobutanil)	1.67	EW		1.3	lb ai/a	A	8.5 a	6.9 b	8.3 ab
	Eagle (myclobutanil)	1.67	EW		1.3	lb ai/a	B			
	Eagle (myclobutanil)	1.67	EW		1.3	lb ai/a	C			
3	Eagle (myclobutanil)	1.67	EW		2.6	lb ai/a	A	8.5 a	6.9 b	8.3 ab
	Eagle (myclobutanil)	1.67	EW		2.6	lb ai/a	B			
	Eagle (myclobutanil)	1.67	EW		2.6	lb ai/a	C			
4	Eagle (myclobutanil)	40	SP		1.3	lb ai/a	A	8.5 a	6.9 b	8.4 a
	Eagle (myclobutanil)	40	SP		1.3	lb ai/a	B			
	Eagle (myclobutanil)	40	SP		1.3	lb ai/a	C			
5	Eagle (myclobutanil)	40	SP		2.6	lb ai/a	A	8.4 a	6.5 b	8.1 ab
	Eagle (myclobutanil)	40	SP		2.6	lb ai/a	B			
	Eagle (myclobutanil)	40	SP		2.6	lb ai/a	C			
6	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	A	8.4 a	6.6 b	8.0 b
	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	B			
	Banner Maxx (propiconazole)	1.3	EC		0.885	lb ai/a	C			
LSD (P=.05)								0.19	0.43	0.33
Standard Deviation								0.13	0.28	0.22
CV								1.53	4.13	2.62

						AGSST	AGSST
						7-24-2003	7-31-2003
						TQ	TQ
						1-9	1-9
						9	16
						35 DA-A	42 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Description	Other Rate	Other Rate Unit	Appl Code
1	Untreated Check			not treated			
							8.3 a
							5.9 a
2	Eagle (myclobutanol)	1.67	EW		1.3 lb ai/a		A
	Eagle (myclobutanol)	1.67	EW		1.3 lb ai/a		B
	Eagle (myclobutanol)	1.67	EW		1.3 lb ai/a		C
3	Eagle (myclobutanol)	1.67	EW		2.6 lb ai/a		A
	Eagle (myclobutanol)	1.67	EW		2.6 lb ai/a		B
	Eagle (myclobutanol)	1.67	EW		2.6 lb ai/a		C
4	Eagle (myclobutanol)	40	SP		1.3 lb ai/a		A
	Eagle (myclobutanol)	40	SP		1.3 lb ai/a		B
	Eagle (myclobutanol)	40	SP		1.3 lb ai/a		C
5	Eagle (myclobutanol)	40	SP		2.6 lb ai/a		A
	Eagle (myclobutanol)	40	SP		2.6 lb ai/a		B
	Eagle (myclobutanol)	40	SP		2.6 lb ai/a		C
6	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		A
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		B
	Banner Maxx (propiconazole)	1.3	EC		0.885 lb ai/a		C
LSD (P=.05)						0.57	0.45
Standard Deviation						0.38	0.30
CV						4.7	5.42

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