Wisconsin and Minnesota Snow Mold Field Days 2005

Plant Pathology
at the University of Wisconsin - Madison

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2004-2005 Snow Mold Control Evaluation - Sentryworld Golf Course, Stevens Point, WI.

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INTRODUCTION

To evaluate fungicides for the control of Typhula blight (caused by *Typhula ishikariensis* and *T. incarnata*) and pink snow mold (caused by *Microdochium nivale*).

EXPERIMENTAL METHODS

This evaluation was conducted at Sentryworld Golf Course in Stevens Point, WI on a Penneagle creeping bentgrass (*Agrostis stolonifera*) fairway nursery maintained at 0.5-inch cutting height. Individual plots measured 3 ft x 10 ft (30 ft^2), and were arranged in a randomized complete block design with three replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO_2 pressurized boom sprayer equipped with two XR Teejet 8005 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000ft^2. Granular applications were applied using a shaker jar. Early applications were applied on October 14, 2004, and late applications were applied on November 11, 2004. The experimental plot area was not inoculated. There was continuous snow cover on the plots from January 1, 2005 to March 25, 2005 (84 days). Percent Typhula blight and Phytotoxicity ratings were recorded on April 6, 2005. Data obtained was subjected to an analysis of variance to determine significant differences between treatments. The mean percent Typhula blight and mean phytotoxicity for each individual treatment are located in the table below.

DISCUSSION

Disease pressure at the site was low to moderate at this site this year with untreated checks averaging 18% disease. The dominant pathogens causing damage were *Typhula ishikariensis,* and to a lesser degree, *Typhula incarnata*. Multiple treatments listed in the table provided 100% control of the Typhula blight. There were very noticeable differences in the color of treated plots. Because of this, phytotoxicity of each treatment was recorded as well.

Snow Mold and Phytotoxicity Ratings Recorded on April 6, 2005 at Stevens Point, WI

	Treatment	Rate	Timing[a]	% Typhula Blight[b]	Phytotoxicity[c]
1	Untreated Control			18.3 abc	6.0 a-e
2	CL-EXP-2	4.00 FL OZ/M	Late	7.7 c-h	5.7 b-f
3	CL-EXP-2	4.00 FL OZ/M	Late	1.0 gh	6.3 a-d
	Daconil Ultrex	5.00 OZ/M	Late		
4	CL-EXP-2	4.00 FL OZ/M	Late	6.7 c-h	6.3 a-d
	Daconil Ultrex	5.00 OZ/M	Late		
	Magnum	3.50 FL OZ/M	Late		
5	CL-EXP-2	4.00 FL OZ/M	Late	11.3 a-h	6.0 a-e
	Spotrete	8.00 OZ/M	Late		
6	CL-EXP-2	4.00 FL OZ/M	Late	7.7 c-h	5.7 b-f
	Spotrete	8.00 OZ/M	Late		
	Magnum	3.50 FL OZ/M	Late		
7	Endorse	4.00 OZ/M	Late	6.7 c-h	6.3 a-d
	Spectro	5.75 OZ/M	Late		
8	Endorse	4.00 OZ/M	Late	6.0 d-h	5.0 d-g
	Spotrete	8.00 OZ/M	Late		
9	Spectro	4.00 OZ/M	Early	5.0 d-h	6.3 a-d
	Endorse	4.00 OZ/M	Late		
	Spectro	4.00 OZ/M	Late		
10	CL-EXP-4	1.00 OZ/M	Late	0.0 h	6.0 a-e
11	CL-EXP-4	1.00 OZ/M	Late	1.0 gh	6.3 a-d
	Spectro	5.75 OZ/M	Late		
12	CL-EXP-4	1.00 OZ/M	Late	0.3 h	6.0 a-e
	Spotrete	8.00 OZ/M	Late		
13	Spectro	4.00 OZ/M	Early	0.0 h	6.0 a-e
	CL-EXP-4	1.00 OZ/M	Late		
	Spectro	4.00 OZ/M	Late		
14	Daconil Weather Stik	5.50 FL OZ/M	Late	10.0 a-h	5.7 b-f
15	Spotrete	8.00 OZ/M	Late	5.7 d-h	6.0 a-e
16	Endorse	4.00 OZ/M	Late	11.7 a-h	6.0 a-e
17	Spectro	5.75 OZ/M	Late	4.0 e-h	6.0 a-e
18	Spectro	4.00 OZ/M	Late	5.0 d-h	6.0 a-e
19	Magnum	3.50 FL OZ/M	Late	16.7 a-d	6.0 a-e
20	AND3224	6.36 LB/M	Late	3.0 e-h	7.3 a
21	AND4333	9.00 LB/M	Late	0.0 h	5.3 c-f
22	AND4334	9.00 LB/M	Late	0.0 h	5.3 c-f
23	AND4335	9.00 LB/M	Late	6.7 c-h	5.3 c-f
24	A14036	4.70 FL OZ/M	Late	0.0 h	5.7 b-f
25	A14036	9.20 FL OZ/M	Late	0.0 h	5.3 c-f
26	A14036	18.60 FL OZ/M	Late	0.0 h	4.7 e-h
27	Medallion	0.14 OZ/M	Late	5.0 d-h	6.0 a-e
	Daconil WeatherStik	2.40 FL OZ/M	Late		
	Banner MAXX	1.70 FL OZ/M	Late		

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

[a]Early and late fungicide treatments were applied on Oct. 14, 2004 and Nov. 11, 2004, repectively

[b]Mean percent diseased area

[c]Phytotoxicity was rated on a scale of 1-9 where 1 = straw colored, 6 = acceptable, 9 = dark green

Snow Mold and Phytotoxicity Ratings Recorded on April 6, 2005 at Stevens Point, WI

	Treatment	Rate	Timing[a]	% Typhula Blight[b]	Phytotoxicity[c]
28	Signature	4.00 OZ/M	Early/Late	3.3 e-h	6.3 a-d
	Chipco 26GT	4.00 FL OZ/M	Early/Late		
	Daconil WeatherStik	5.50 FL OZ/M	Early/Late		
29	Signature	4.00 OZ/M	Early/Late	0.0 h	6.3 a-d
	Armada	1.50 OZ/M	Early/Late		
30	Armada	1.50 OZ/M	Early/Late	0.0 h	4.3 fgh
	Turfcide 400	6.00 FL OZ/M	Early/Late		
31	Armada	1.50 OZ/M	Early/Late	0.7 h	4.3 fgh
32	Signature	4.00 OZ/M	Early/Late	9.0 b-h	6.7 abc
33	Chipco 26GT	4.00 FL OZ/M	Early/Late	8.3 b-h	5.7 b-f
34	Daconil WeatherStik	5.50 FL OZ/M	Early/Late	2.3 fgh	5.3 c-f
35	Turfcide 400	6.00 FL OZ/M	Early/Late	0.0 h	4.7 e-h
36	LESCO 18 Plus	4.00 FL OZ/M	Early	0.0 h	4.3 fgh
	LESCO Manicure Ultrex	5.00 OZ/M	Early		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
37	LESCO 18 Plus	4.00 FL OZ/M	Late	0.0 h	5.3 c-f
	LESCO Manicure Ultrex	5.00 OZ/M	Late		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
38	LESCO Spectator	1.25 FL OZ/M	Early	0.0 h	4.3 fgh
	LESCO Revere 4000	8.00 FL OZ/M	Late		
39	LESCO Spectator	1.25 FL OZ/M	Late	0.0 h	5.3 c-f
	Medallion	0.50 OZ/M	Late		
40	LESCO Revere 4000	12.00 FL OZ/M	Late	0.0 h	2.3 j
41	Insignia	0.70 OZ/M	Early	4.3 d-h	6.3 a-d
	LESCO 18 Plus	4.00 FL OZ/M	Late		
	LESCO Manicure Ultrex	5.00 OZ/M	Late		
42	LESCO Spectator	1.00 FL OZ/M	Early	0.3 h	5.7 b-f
	Insignia	0.70 OZ/M	Late		
	LESCO Manicure Ultrex	5.00 OZ/M	Late		
43	Insignia	0.70 OZ/M	Early	0.0 h	3.7 ghi
	LESCO Manicure Ultrex	5.00 OZ/M	Early		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
44	Compass	0.50 OZ/M	Late	0.3 h	5.0 d-g
	LESCO Revere 4000	8.00 FL OZ/M	Late		
45	Insignia	0.90 OZ/M	Late	0.0 h	3.7 ghi
	Iprodione Pro	4.00 FL OZ/M	Late		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
46	Insignia	0.90 OZ/M	Late	0.7 h	5.0 d-g
	Iprodione Pro	4.00 FL OZ/M	Late		
	LESCO Manicure Ultrex	3.20 OZ/M	Late		
47	LESCO 18 Plus	4.00 FL OZ/M	Late	20.0 ab	5.7 b-f
48	LESCO Manicure Ultrex	5.00 OZ/M	Late	13.3 a-g	6.3 a-d
49	LESCO Revere 4000	8.00 FL OZ/M	Late	4.3 d-h	3.3 hij

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

[a]Early and late fungicide treatments were applied on Oct. 14, 2004 and Nov. 11, 2004, repectively

[b]Mean percent diseased area

[c]Phytotoxicity was rated on a scale of 1-9 where 1 = straw colored, 6 = acceptable, 9 = dark green

Snow Mold and Phytotoxicity Ratings Recorded on April 6, 2005 at Stevens Point, WI

Treatment	Rate	Timing[a]	% Typhula Blight[b]	Phytotoxicity[c]
50 LESCO Spectator	1.25 FL OZ/M	Late	0.0 h	5.0 d-g
51 LESCO Spectator	1.00 FL OZ/M	Early	4.7 d-h	6.3 a-d
52 Insignia	0.70 OZ/M	Late	21.7 a	6.0 a-e
53 Compass	0.50 OZ/M	Late	2.7 e-h	5.7 b-f
54 Iprodione Pro	4.00 FL OZ/M	Late	15.0 a-e	6.0 a-e
55 EXP01	0.47 FL OZ/M	Early/Late	5.0 d-h	6.3 a-d
56 EXP01	0.63 FL OZ/M	Early/Late	5.0 d-h	6.0 a-e
57 EXP01	0.79 FL OZ/M	Early/Late	1.0 gh	6.0 a-e
58 EXP02	0.55 OZ/M	Early/Late	11.7 a-h	6.3 a-d
59 EXP02	0.83 OZ/M	Early/Late	3.3 e-h	5.7 b-f
60 EXP02	1.10 OZ/M	Early/Late	4.3 d-h	5.7 b-f
61 Chipco 26GT	4.00 FL OZ/M	Late	1.7 fgh	3.0 ij
Daconil Ultrex	5.00 OZ/M	Late		
LESCO Revere 4000	8.00 FL OZ/M	Late		
62 Chipco 26GT	4.00 FL OZ/M	Late	15.0 a-e	5.3 c-f
63 Daconil Ultrex	5.00 OZ/M	Late	6.7 c-h	6.0 a-e
64 Chipco 26GT	4.00 FL OZ/M	Late	0.0 h	3.3 hij
Bayleton	1.00 OZ/M	Late		
Turfcide 400	6.00 FL OZ/M	Late		
65 Bayleton	2.00 OZ/M	Late	0.0 h	4.3 fgh
Turfcide 400	6.00 FL OZ/M	Late		
66 Bayleton	1.00 OZ/M	Late	1.7 fgh	6.0 a-e
67 Bayleton	2.00 OZ/M	Late	0.3 h	5.0 d-g
68 Turfcide 400	6.00 FL OZ/M	Late	2.3 fgh	5.0 d-g
69 Banner MAXX	3.00 FL OZ/M	Late	1.7 fgh	4.7 e-h
Medallion	0.50 OZ/M	Late		
70 Banner MAXX	4.00 FL OZ/M	Late	0.7 h	6.3 a-d
Medallion	0.50 OZ/M	Late		
71 Banner MAXX	3.00 FL OZ/M	Late	2.7 e-h	5.0 d-g
72 Banner MAXX	4.00 FL OZ/M	Late	3.3 e-h	5.0 d-g
73 Medallion	0.50 OZ/M	Late	10.0 a-h	5.7 b-f
74 Daconil Weather Stik	5.50 FL OZ/M	Late	5.7 d-h	6.0 a-e
Medallion	0.50 OZ/M	Late		
75 Prostar	4.50 OZ/M	Late	0.0 h	5.0 d-g
Turfcide 400	6.00 FL OZ/M	Late		
76 Prostar	3.00 OZ/M	Late	0.0 h	4.7 e-h
Turfcide 400	6.00 FL OZ/M	Late		
77 Prostar	4.50 OZ/M	Late	0.0 h	6.0 a-e
78 Prostar	3.00 OZ/M	Late	0.7 h	6.3 a-d
79 Heritage	0.70 OZ/M	Late	0.7 h	5.7 b-f
Turfcide 400	6.00 FL OZ/M	Late		
80 Heritage	0.70 OZ/M	Late	20.0 ab	5.3 c-f
81 Ecoguard	20.00 FL OZ/M	Late	13.7 a-f	7.0 ab

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

[a]Early and late fungicide treatments were applied on Oct. 14, 2004 and Nov. 11, 2004, repectively

[b]Mean percent diseased area

[c]Phytotoxicity was rated on a scale of 1-9 where 1 = straw colored, 6 = acceptable, 9 = dark green

GCSAA and WGCSA Study of the Sensitivity of Snow Molds to Labeled and Experimental Fungicides

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OBJECTIVES

The objectives of the proposal are to 1) determine the sensitivity of snow molds to both labeled and experimental fungicides, and 2) encourage chemical companies to change labeling based on any discrepancies that might be found.

MATERIALS AND METHODS

Two field trials are being conducted, one at Sentryworld Golf Course in Stevens Point, WI and a second study at Gateway Golf Club, Land O' Lakes, WI.

2003-2004 Sentryworld and Gateway Field Trials. Plots were established in the summer of 2003 and will be in the summer of 2004 as creeping bentgrass fairway (Gateway) and tee (Sentryworld) maintained at 0.5" and 0.375" respectively. Prior to establishment the area was stripped of pre-existing turf and fumigated with dazomet (Basimid®) to eliminate snow mold populations that may be present at the site. The plots were seeded at 1#/1000 sq ft with 'Penncross' creeping bentgrass and starter fertilizer (1:2:1) was used at the time of seeding to supply approximately 1 lb P_2O_5 per 1000 ft^2. A soluble form of nitrogen was applied bi-weekly at a rate of 0.5# of N/M until satisfactory ground cover was achieved. The experimental design will be a split plot, randomized complete block with four replicates. Treatments were arranged in a factorial to determine sensitivity of the snow molds (*T. incarnata, T. ishikariensis, T. phacorrhiza,* and *M. nivale*) to labeled and experimental fungicides. The fungicides were the main plot with the snow molds being the sub-plot. The main plot will be 117 sq ft and individual sub-plots will be 9 sq ft.

In the fall the plots were inoculated with sterilized oat grain infested with 12 different snow mold isolates of snow mold (2x*T. incarnata, 2xT. ishikariensis* var. *ishikariensis, 2xT. ishikariensis* var. *canadensis , 2xT. ishikariensis* var. *idahoensis, 2xT. phacorrhiza,* and 2x*M. nivale*) and one plot was left un-inoculated. This past year, Sentryworld was inoculated on November 6 and Gateway was inoculated on November 11. Several weeks following inoculation, fungicides (see Table 1) were applied based on labeled or suggested rates. Sentryworld applications were made on November 11, 2003 and Gateway applications were made on November 17, 2003. At snowmelt individual plots were rated to determine percent damage caused by each pathogen.

2004-2005 Sentryworld and Gateway Field Trials. Plots at Sentryworld Golf Course were established in the summer of 2004 as Penncross creeping bentgrass tee maintained at 0.375 inch. Prior to establishment the area fumigated with dazomet (Basimid®) to eliminate snow mold populations that may be present at the site. The plots were seeded at 1#/1000 sq ft with 'Penncross' creeping bentgrass. The plots at Gateway Golf Course were established on an existing annual bluegrass fairway. The experimental design is a split plot, randomized complete block with four replications. Treatments were arranged in a factorial to determine sensitivity of the snow molds (*T. incarnata, T. ishikariensis, T. phacorrhiza,* and *M. nivale*) to labeled and experimental fungicides. The fungicides were the main plot with the snow molds being the sub-plot. Individual plots were 2 ft X 2 ft. The plots were inoculated with 12 different isolates of snow mold (2x*T. incarnata, 2xT. ishikariensis* var. *ishikariensis, 2xT. ishikariensis* var. *canadensis , 2xT. ishikariensis* var. *idahoensis, 2xT. phacorrhiza,* and 2x*M. nivale*) at both locations on October 27, 2004. The inoculum consisted of sterilized Kentucky bluegrass seed which served as a medium for growth of each snow mold fungus. One plot was left un-inoculated to serve as an untreated control. Fungicides were applied on November 3rd at Gateway Golf Club, and on November 11, 2004, at Sentryworld Golf Course. At snowmelt individual plots were rated to determine percent damage caused by each pathogen.

Table 1. Fungicides evaluated for efficacy of snow mold control

Chemical	Trade Name	Chemical	Trade Name
Azoxystrobin	Heritage	PCNB	Turfcide 400
Chloroneb	Terraneb	Propiconazole	Banner MAXX
Chlorothalonil	Daconil WeatherStik	Thiophanate-methyl	Cleary's 3336
Fenarimol	Rubigan	Thiram	Thiram
Flutalonil	ProStar	Triadimefon	Bayleton
Iprodione	Chipco 26GT	Trifloxystrobin	Compass
Mancozeb	Fore	Vinclozolin	Curalan
Myclobutanil	Eagle	Pyraclostrobin	Insignia
Fludioxonil	Medallion		

DISCUSSION

Significant differences of fungicides efficacy between snow mold species was observed at both sites. In addition, there were significant differences between the two *Microdochium nivale* isolates tested at both sites. Interestingly, significant interaction between snow mold isolates and efficacy of fungicides was detected at Sentryworld in 2004, but not in 2005. Gateway plots did not show a significant interaction in either year. It is speculated that the Gateway estimation of disease damage was confounded by natural inoculum (*T. ishikariensis* in 2004, *M. nivale* in 2005), which was present in plots not inoculated with these fungi. The gateway site in 2004 was extensively damaged by native *M. nivale*. Therefore, the fungicide plots were rated collectively for the percent of damage from this native pathogen and do not reflect damage from the artificial inoculum. Plots where the artificial inoculation seemed to cause disease in addition to the natural inoculum were noted. Most of these plots were determined to be isolates of

T. ishikariensis. The identification of *Typhula* species was visually confirmed by sclerotial color and morphology. PCNB and chloroneb consistently performed very well at both locations, however, several other chemicals did not statistically differ.

Table 2. Percent Snow Mold Damage Means by Fungicide

	Fungicide	Rate	Sentryworld 4/1/2004	Gateway 4/18/2004	Sentryworld 4/6/2005	Gateway[a] 4/12/2005
1	Azoxystrobin	0.4 OZ/M	0.87	10.75	5.10	58.75
2	PCNB	12.0 FL OZ/M	0.00	1.40	0.00	15.00
3	Chloroneb	9.0 OZ/M	0.29	1.97	0.20	45.00
4	Propiconazole	2.0 FL OZ/M	0.48	3.54	0.10	47.50
5	Chlorothalonil	5.5 FL OZ/M	0.10	5.66	1.10	73.75
6	Thiophanate-methyl	2.0 FL OZ/M	4.13	15.99	9.10	52.50
7	Fenarimol	8.0 FL OZ/M	0.29	5.52	2.80	70.00
8	Thiram	8.0 OZ/M	2.02	9.13	5.90	75.00
9	Flutalonil	4.5 OZ/M	2.60	10.26	4.20	87.50
10	Triadimefon	1.0 OZ/M	0.58	10.99	1.70	77.50
11	Iprodione	4.0 FL OZ/M	2.21	15.17	5.50	62.50
12	Trifloxystrobin	0.3 OZ/M	0.38	4.30	1.50	21.25
13	Mancozeb	8.0 OZ/M	2.74	12.38	1.20	57.50
14	Vinclozolin	1.0 OZ/M	3.27	19.75	5.30	78.75
15	Myclobutanil	1.2 OZ/M	1.25	9.20	0.20	66.25
16	Pyraclostrobin	0.9 OZ/M	1.44	6.35	1.70	58.75
17	Fludioxonil	0.5 OZ/M	3.08	10.51	1.40	17.50
18	Check		4.52	24.81	8.00	83.75
		LSD (P=0.05)	**1.47**	**3.96**	**3.4**	

[a]Damage caused by uninoculated *M. nivale* pathogen. Fungicide plots rated collectively.

Table 3. Percent Snow Mold Damage Means by Snow Mold Species

	Snow Mold Isolate		Sentryworld 4/1/2004	Gateway 4/18/2004	Sentryworld 4/6/2005
1	SW 5.4.5	*T. incarnata*	3.8	19.5	1.2
2	NE 108.8.3	*T. incarnata*	2.3	10.1	1.4
3	SW 2.13.2	*T. phacorrhiza*	0.3	9.0	0.5
4	NW 3.2.3	*T. phacorrhiza*	0.4	6.5	0.3
5	NW 3.16.2	*T. ishikariensis var. ishikariensis*	2.5	11.9	0.4
6	NW 69.8.5	*T. ishikariensis var. ishikariensis*	3.8	11.7	0.5
7	NW 39.3.3	*T. ishikariensis var. canadensis*	0.6	10.4	13.5
8	NW 10.6.5	*T. ishikariensis var. canadensis*	0.4	7.6	7.0
9	SW 63.2.4	*T. ishikariensis var. idahoensis*	0.1	6.2	3.1
10	NW 39.5.5	*T. ishikariensis var. idahoensis*	0.6	7.0	10.6
11	NW 48.7.1	*Microdochium nivale*	6.6	14.8	0.2
12	NE 90.11.1	*Microdochium nivale*	0.2	6.4	0.8
13	Check		0.3	7.3	0.3
		LSD (P=0.05)	**1.25**	**3.36**	**2.9**

2004-05 Snow Mold Control Evaluation - Gateway Golf Club, Land O' Lakes, WI.

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INTRODUCTION

To evaluate fungicides for the control of Typhula blight (caused by *Typhula ishikariensis* and *Typhula incarnata*) and Pink Snow Mold (caused by *Microdochium nivale*).

EXPERIMENTAL METHODS

This evaluation was conducted at Gateway Golf Club in Land O' Lakes, WI on a creeping bentgrass (*Agrostis stolonifera*) fairway nursery managed at a height of 0.5 inch. Individual plots measured 3 ft x 10 ft (30 ft^2), and were arranged in a randomized complete block design with three replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO_2 pressurized boom sprayer equipped with two XR Teejet 8005 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000ft^2. Granular applications were applied using a shaker jar. Early treatments were applied on October 12, 2004, and late applications were applied on November 3, 2004. There was continuous snow cover on the plots from November 27, 2005 to April 7, 2005 (132 days). Percent Typhula blight ratings were recorded on April 12, 2005. Data obtained were subjected to an analysis of variance to determine significant differences between treatment means. The mean percent Typhula blight and mean phytotoxicity for each individual treatment are located in the table below.

DISCUSSION

Disease pressure from *Typhula ishikariensis* and to a lesser extent, *Microdochium nivale* was extremely high this season, with untreated control plots averaging 98% disease damage. None of the treatments tested completely controlled disease symptoms; however, eight treatments had 5% or less damage in this severe year. These treatments are all mixtures of two or more fungicides, and include treatment numbers 25, 26, 30, 37, 61, 64, 65, and 70. Plot images taken on April 21, 2005 of the first repetition of this study are included after the tables of snow mold means. Due to abnormally warm temperatures, considerable recovery of the plots was observed between the time the plots were rated and the time the images were taken.

Snow Mold Ratings Recorded on April 12, 2005 at Land O' Lakes, WI

	Treatment	Rate	Timing[a]	% Snow Mold[b]
1	Untreated Control			98.3 ab
2	CL-EXP-2	4.00 FL OZ/M	Late	88.3 a-d
3	CL-EXP-2	4.00 FL OZ/M	Late	63.3 c-i
	Daconil Ultrex	5.00 OZ/M	Late	
4	CL-EXP-2	4.00 FL OZ/M	Late	68.3 a-g
	Daconil Ultrex	5.00 OZ/M	Late	
	Magnum	3.50 FL OZ/M	Late	
5	CL-EXP-2	4.00 FL OZ/M	Late	70.0 a-g
	Spotrete	8.00 OZ/M	Late	
6	CL-EXP-2	4.00 FL OZ/M	Late	73.3 a-e
	Spotrete	8.00 OZ/M	Late	
	Magnum	3.50 FL OZ/M	Late	
7	Endorse	4.00 OZ/M	Late	71.7 a-f
	Spectro	5.75 OZ/M	Late	
8	Endorse	4.00 OZ/M	Late	80.0 a-d
	Spotrete	8.00 OZ/M	Late	
9	Spectro	4.00 OZ/M	Early	58.3 d-j
	Endorse	4.00 OZ/M	Late	
	Spectro	4.00 OZ/M	Late	
10	CL-EXP-4	1.00 OZ/M	Late	86.7 a-d
11	CL-EXP-4	1.00 OZ/M	Late	7.3 m-p
	Spectro	5.75 OZ/M	Late	
12	CL-EXP-4	1.00 OZ/M	Late	66.7 a-h
	Spotrete	8.00 OZ/M	Late	
13	Spectro	4.00 OZ/M	Early	6.0 nop
	CL-EXP-4	1.00 OZ/M	Late	
	Spectro	4.00 OZ/M	Late	
14	Daconil Weather Stik	5.50 FL OZ/M	Late	71.7 a-f
15	Spotrete	8.00 OZ/M	Late	88.3 a-d
16	Endorse	4.00 OZ/M	Late	91.7 a-d
17	Spectro	5.75 OZ/M	Late	75.0 a-e
18	Spectro	4.00 OZ/M	Late	76.7 a-e
19	Magnum	3.50 FL OZ/M	Late	100.0 a
20	AND3224	6.36 LB/M	Late	73.3 a-e
21	AND4333	9.00 LB/M	Late	26.7 j-p
22	AND4334	9.00 LB/M	Late	15.0 k-p
23	AND4335	9.00 LB/M	Late	12.0 m-p
24	A14036	4.70 FL OZ/M	Late	21.7 k-p
25	A14036	9.20 FL OZ/M	Late	4.0 op
26	A14036	18.60 FL OZ/M	Late	1.7 p
27	Medallion	0.14 OZ/M	Late	38.3 g-n
	Daconil WeatherStik	2.40 FL OZ/M	Late	
	Banner MAXX	1.70 FL OZ/M	Late	

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

[a]Early and late fungicide treatments were applied on Oct. 12, 2004, and Nov. 3, 2004, respectively

[b]Mean percent diseased area

Snow Mold Ratings Recorded on April 12, 2005 at Land O' Lakes, WI

	Treatment	Rate	Timing[a]	% Snow Mold[b]
28	Signature	4.00 OZ/M	Early/Late	13.3 l-p
	Chipco 26GT	4.00 FL OZ/M	Early/Late	
	Daconil WeatherStik	5.50 FL OZ/M	Early/Late	
29	Signature	4.00 OZ/M	Early/Late	19.0 k-p
	Armada	1.50 OZ/M	Early/Late	
30	Armada	1.50 OZ/M	Early/Late	4.0 op
	Turfcide 400	6.00 FL OZ/M	Early/Late	
31	Armada	1.50 OZ/M	Early/Late	45.0 e-l
32	Signature	4.00 OZ/M	Early/Late	91.7 a-d
33	Chipco 26GT	4.00 FL OZ/M	Early/Late	88.3 a-d
34	Daconil WeatherStik	5.50 FL OZ/M	Early/Late	71.7 a-f
35	Turfcide 400	6.00 FL OZ/M	Early/Late	85.0 a-d
36	LESCO 18 Plus	4.00 FL OZ/M	Early	33.3 i-p
	LESCO Manicure Ultrex	5.00 OZ/M	Early	
	LESCO Revere 4000	8.00 FL OZ/M	Late	
37	LESCO 18 Plus	4.00 FL OZ/M	Late	3.0 op
	LESCO Manicure Ultrex	5.00 OZ/M	Late	
	LESCO Revere 4000	8.00 FL OZ/M	Late	
38	LESCO Spectator	1.25 FL OZ/M	Early	40.0 f-m
	LESCO Revere 4000	8.00 FL OZ/M	Late	
39	LESCO Spectator	1.25 FL OZ/M	Late	7.0 m-p
	Medallion	0.50 OZ/M	Late	
40	LESCO Revere 4000	12.00 FL OZ/M	Late	76.7 a-e
41	Insignia	0.70 OZ/M	Early	28.3 j-p
	LESCO 18 Plus	4.00 FL OZ/M	Late	
	LESCO Manicure Ultrex	5.00 OZ/M	Late	
42	LESCO Spectator	1.00 FL OZ/M	Early	18.7 k-p
	Insignia	0.70 OZ/M	Late	
	LESCO Manicure Ultrex	5.00 OZ/M	Late	
43	Insignia	0.70 OZ/M	Early	10.0 m-p
	LESCO Manicure Ultrex	5.00 OZ/M	Early	
	LESCO Revere 4000	8.00 FL OZ/M	Late	
44	Compass	0.50 OZ/M	Late	16.7 k-p
	LESCO Revere 4000	8.00 FL OZ/M	Late	
45	Insignia	0.90 OZ/M	Late	16.7 k-p
	Iprodione Pro	4.00 FL OZ/M	Late	
	LESCO Revere 4000	8.00 FL OZ/M	Late	
46	Insignia	0.90 OZ/M	Late	12.3 m-p
	Iprodione Pro	4.00 FL OZ/M	Late	
	LESCO Manicure Ultrex	3.20 OZ/M	Late	
47	LESCO 18 Plus	4.00 FL OZ/M	Late	86.7 a-d
48	LESCO Manicure Ultrex	5.00 OZ/M	Late	76.7 a-e
49	LESCO Revere 4000	8.00 FL OZ/M	Late	81.7 a-d

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

[a]Early and late fungicide treatments were applied on Oct. 12, 2004, and Nov. 3, 2004, respectively

[b]Mean percent diseased area

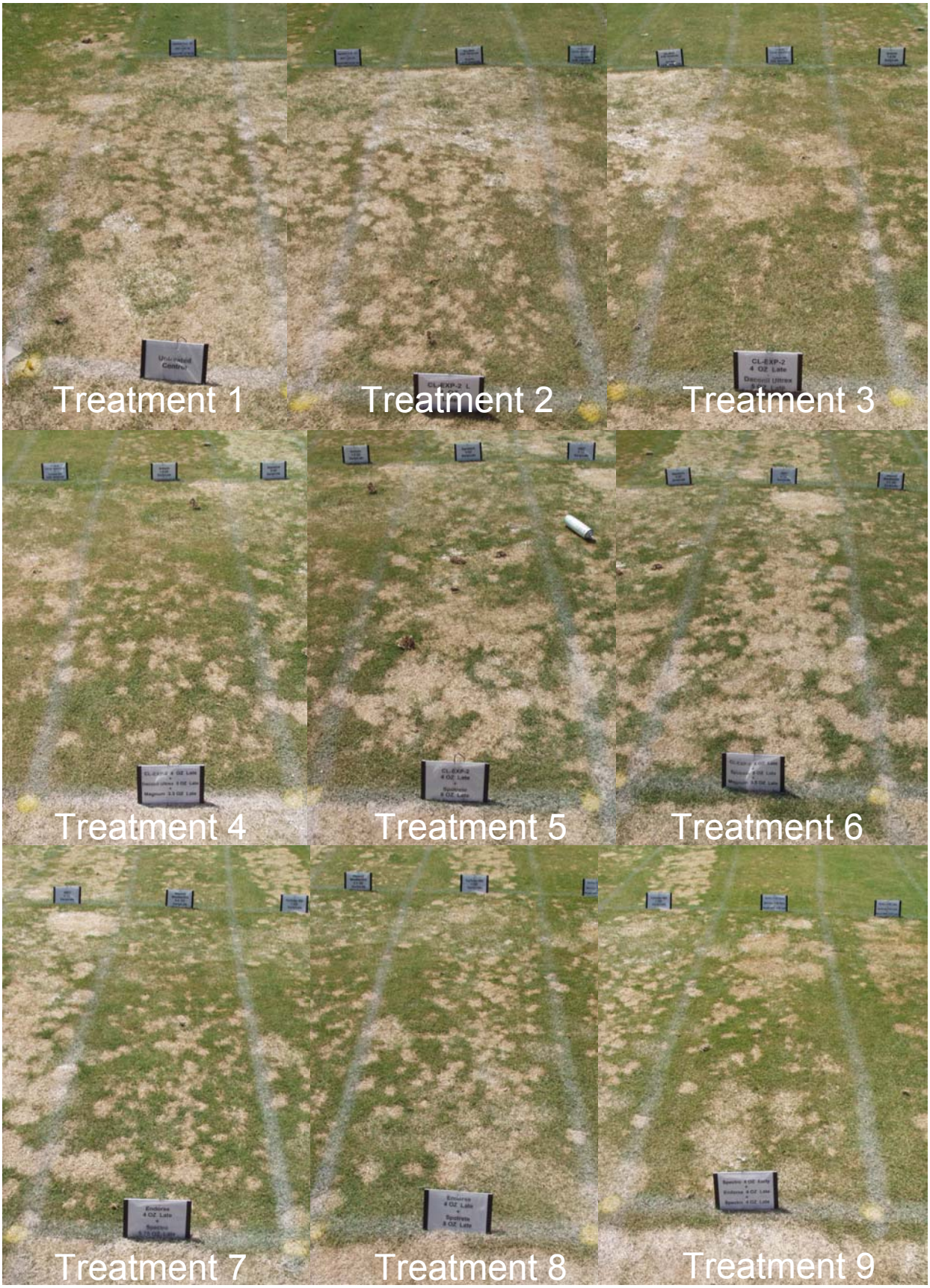
Snow Mold Ratings Recorded on April 12, 2005 at Land O' Lakes, WI

Treatment	Rate	Timing[a]	% Snow Mold[b]
50 LESCO Spectator	1.25 FL OZ/M	Late	10.0 m-p
51 LESCO Spectator	1.00 FL OZ/M	Early	62.0 c-i
52 Insignia	0.70 OZ/M	Late	93.3 abc
53 Compass	0.50 OZ/M	Late	88.3 a-d
54 Iprodione Pro	4.00 FL OZ/M	Late	90.0 a-d
55 EXP01	0.47 FL OZ/M	Early/Late	58.3 d-j
56 EXP01	0.63 FL OZ/M	Early/Late	65.0 b-i
57 EXP01	0.79 FL OZ/M	Early/Late	61.7 c-i
58 EXP02	0.55 OZ/M	Early/Late	81.7 a-d
59 EXP02	0.83 OZ/M	Early/Late	71.7 a-f
60 EXP02	1.10 OZ/M	Early/Late	70.0 a-g
61 Chipco 26GT	4.00 FL OZ/M	Late	5.0 nop
Daconil Ultrex	5.00 OZ/M	Late	
LESCO Revere 4000	8.00 FL OZ/M	Late	
62 Chipco 26GT	4.00 FL OZ/M	Late	91.7 a-d
63 Daconil Ultrex	5.00 OZ/M	Late	91.7 a-d
64 Chipco 26GT	4.00 FL OZ/M	Late	4.0 op
Bayleton	1.00 OZ/M	Late	
Turfcide 400	6.00 FL OZ/M	Late	
65 Bayleton	2.00 OZ/M	Late	5.0 nop
Turfcide 400	6.00 FL OZ/M	Late	
66 Bayleton	1.00 OZ/M	Late	81.7 a-d
67 Bayleton	2.00 OZ/M	Late	73.3 a-e
68 Turfcide 400	6.00 FL OZ/M	Late	85.0 a-d
69 Banner MAXX	3.00 FL OZ/M	Late	6.7 nop
Medallion	0.50 OZ/M	Late	
70 Banner MAXX	4.00 FL OZ/M	Late	1.7 p
Medallion	0.50 OZ/M	Late	
71 Banner MAXX	3.00 FL OZ/M	Late	45.0 e-l
72 Banner MAXX	4.00 FL OZ/M	Late	26.7 j-p
73 Medallion	0.50 OZ/M	Late	73.3 a-e
74 Daconil Weather Stik	5.50 FL OZ/M	Late	11.7 m-p
Medallion	0.50 OZ/M	Late	
75 Prostar	4.50 OZ/M	Late	35.7 h-o
Turfcide 400	6.00 FL OZ/M	Late	
76 Prostar	3.00 OZ/M	Late	7.0 m-p
Turfcide 400	6.00 FL OZ/M	Late	
77 Prostar	4.50 OZ/M	Late	83.3 a-d
78 Prostar	3.00 OZ/M	Late	86.7 a-d
79 Heritage	0.70 OZ/M	Late	46.7 e-k
Turfcide 400	6.00 FL OZ/M	Late	
80 Heritage	0.70 OZ/M	Late	93.3 abc
81 Ecoguard	20.00 FL OZ/M	Late	100.0 a

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

[a]Early and late fungicide treatments were applied on Oct. 12, 2004, and Nov. 3, 2004, respectively

[b]Mean percent diseased area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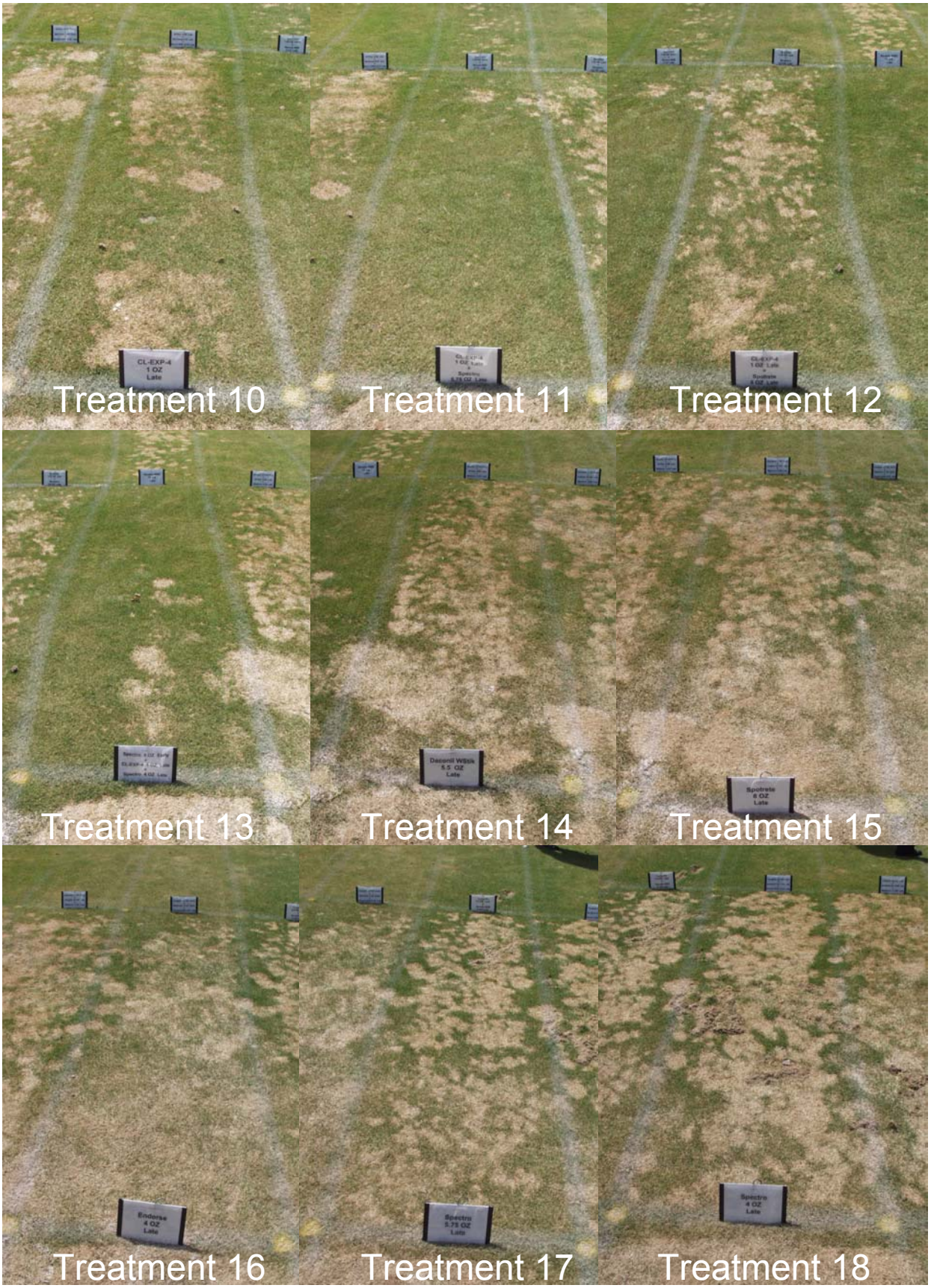
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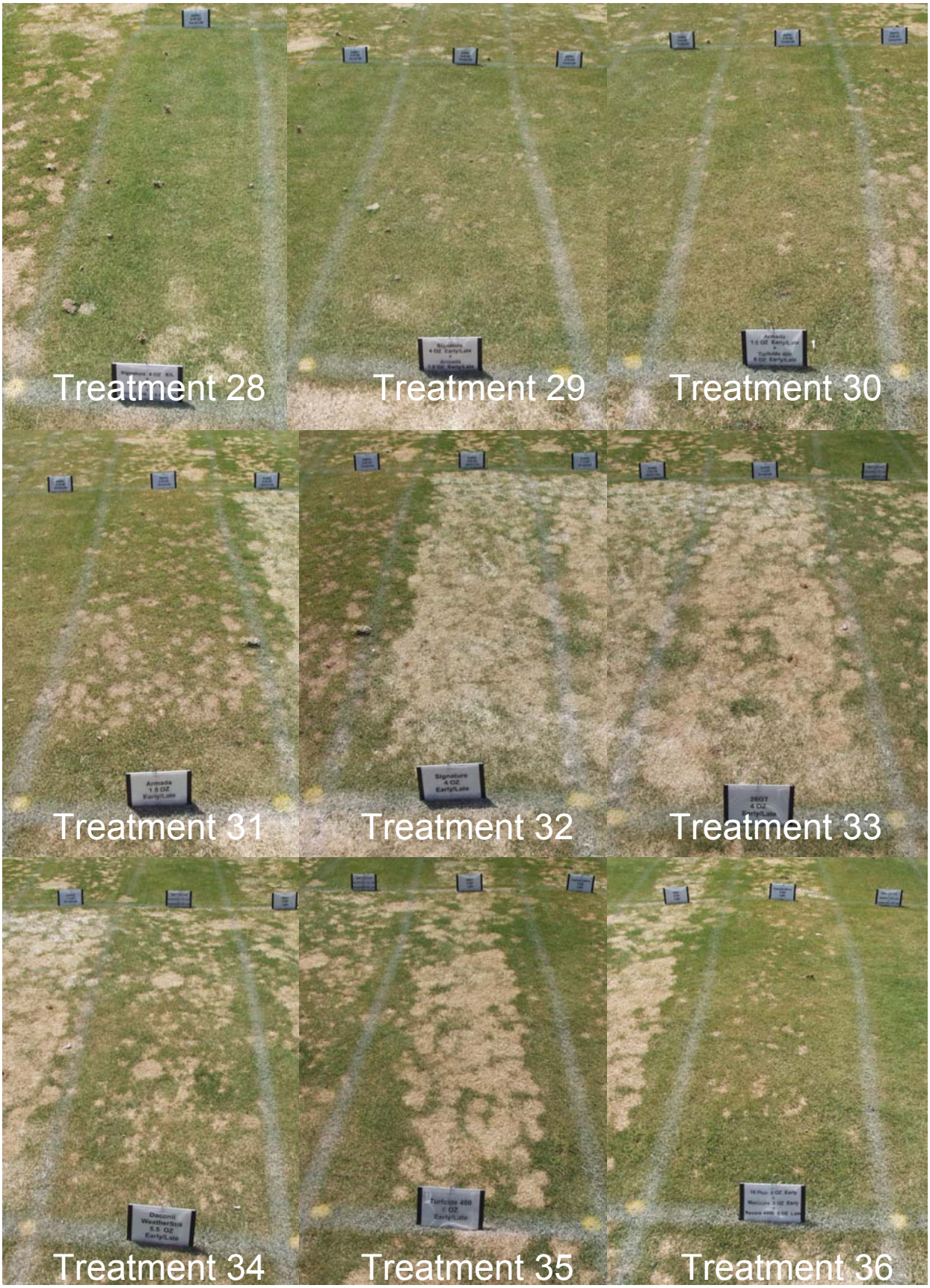
Treatment 25

Treatment 26


Treatment 27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Early/Late
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Signature
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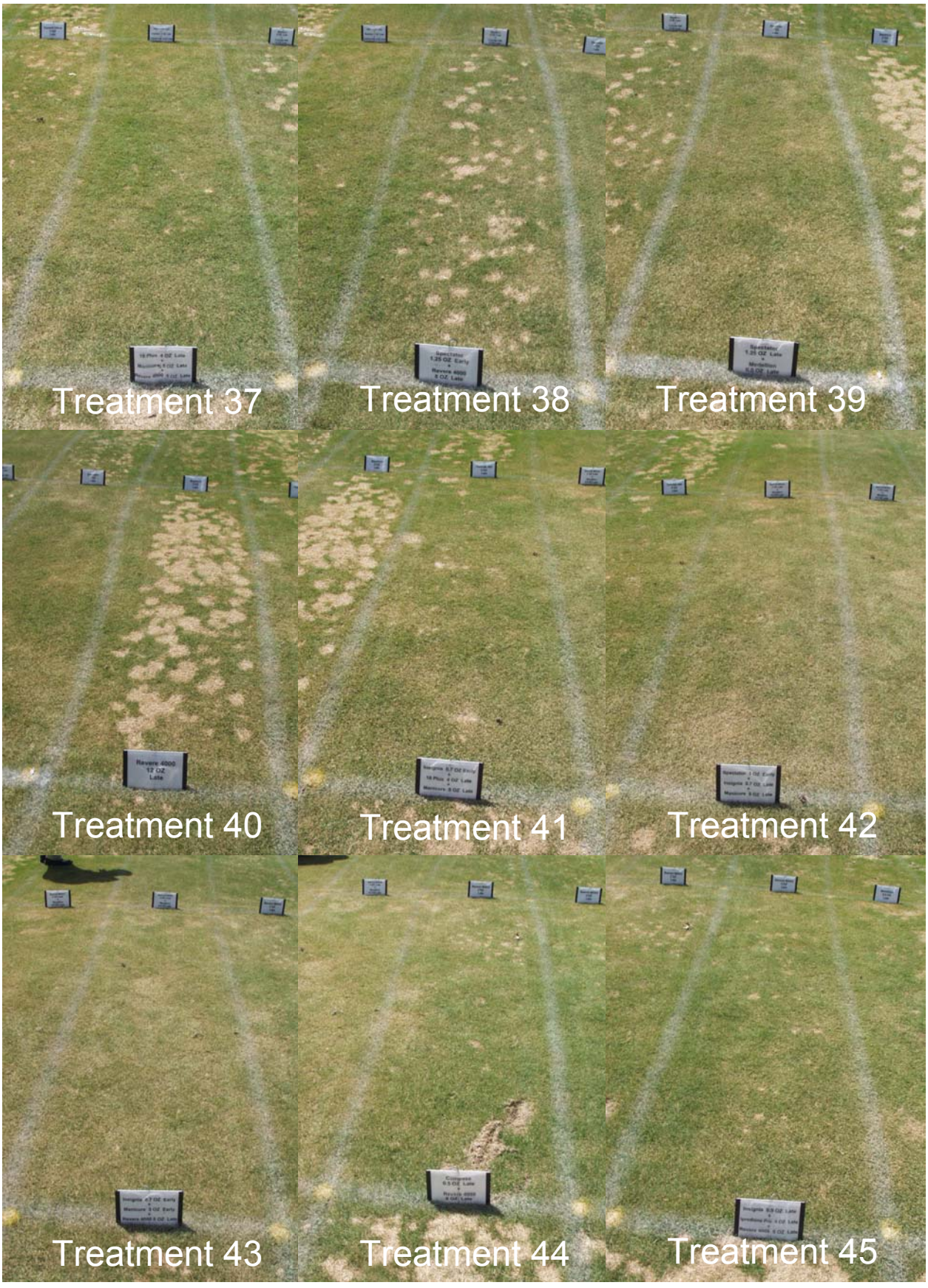
Early/Late
Treatment 32
Treatment 33
Treatment 34
Turfcide 400
2 OZ
Early/Late
Treatment 35
Treatment 36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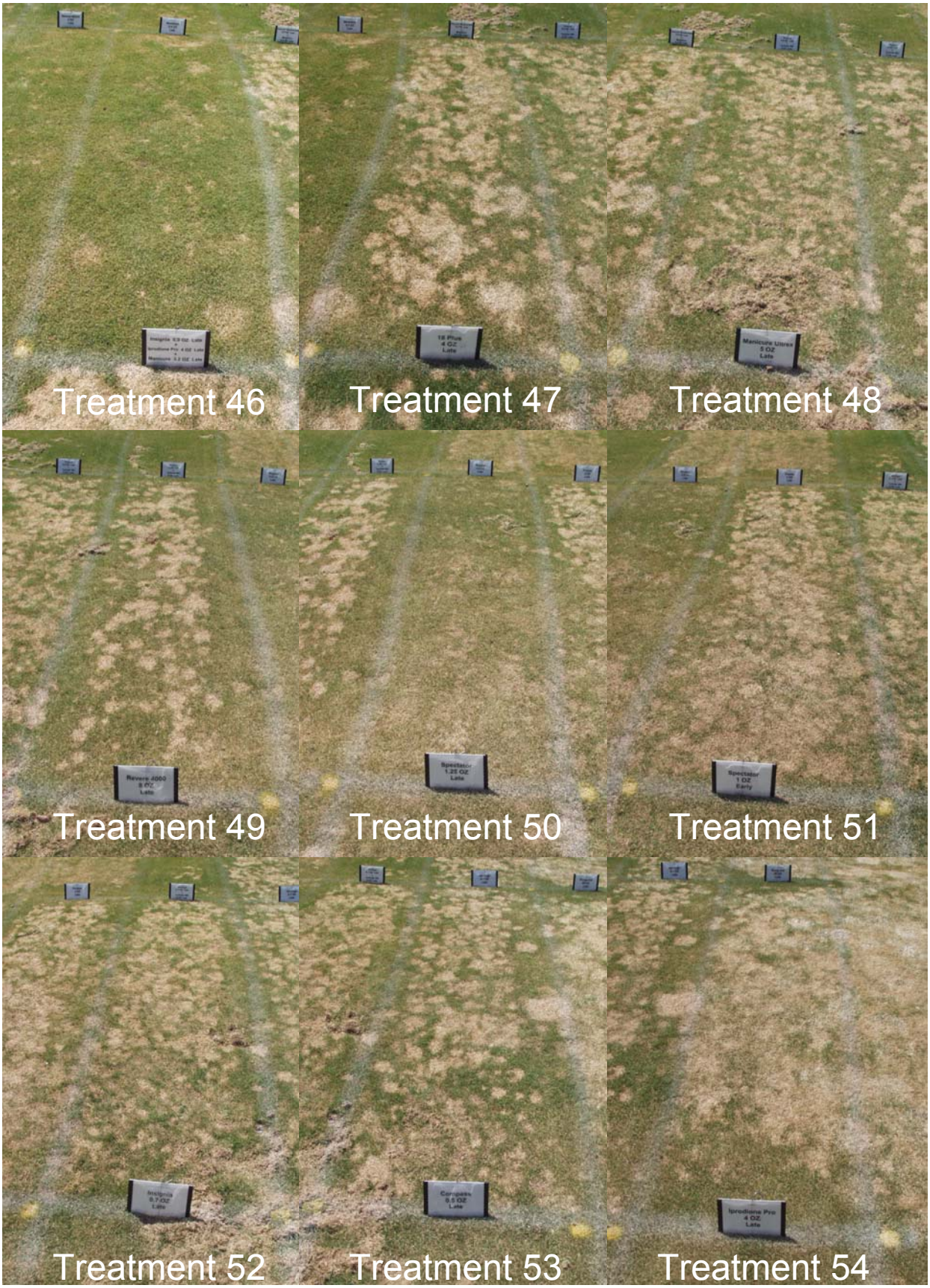
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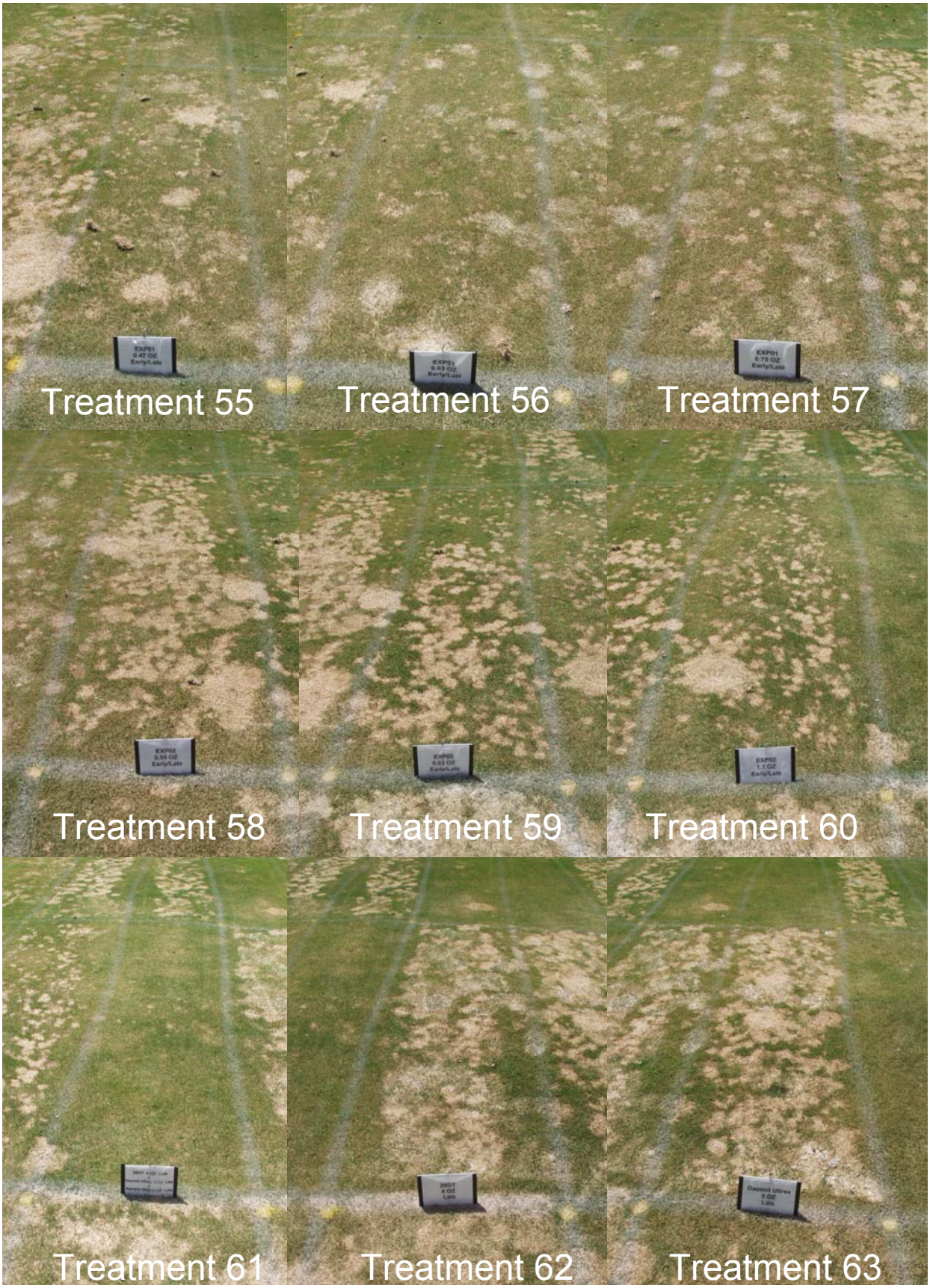
Treatment 50
Treatment 51
Treatment 52
Treatment 53
Treatment 54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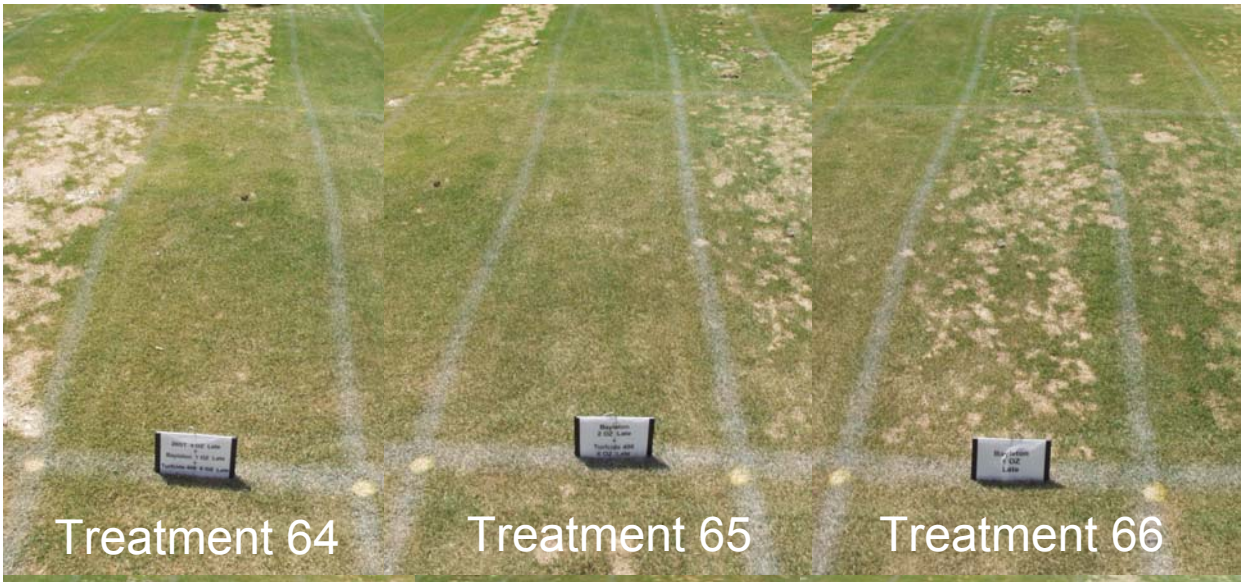
Treatment 61
Treatment 62
Treatment 63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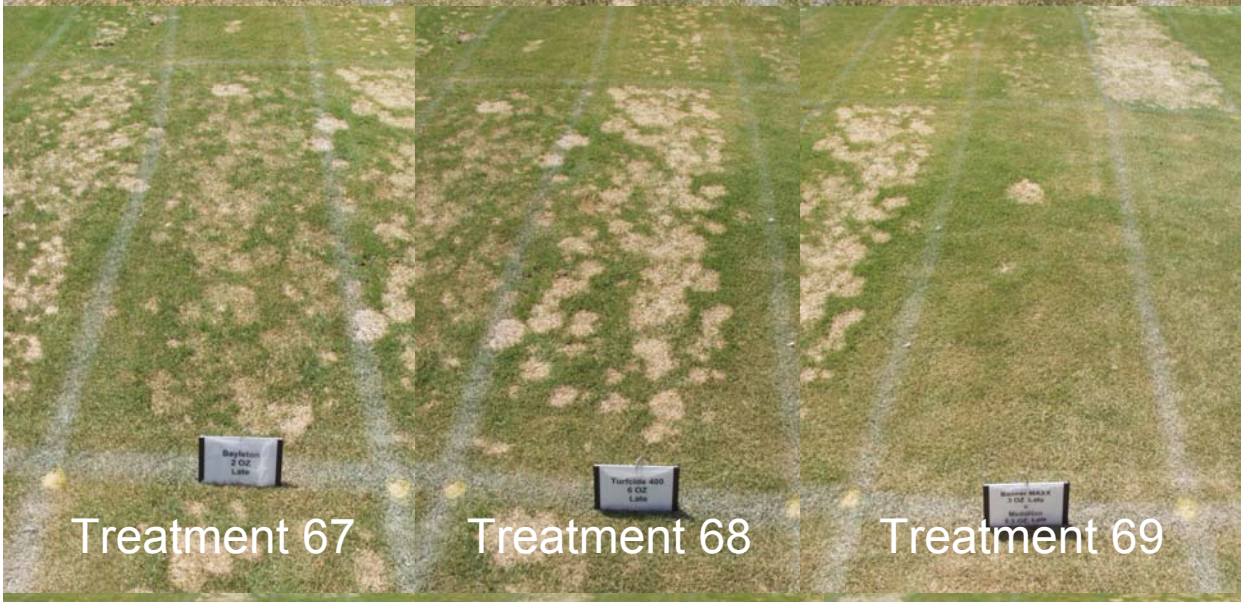
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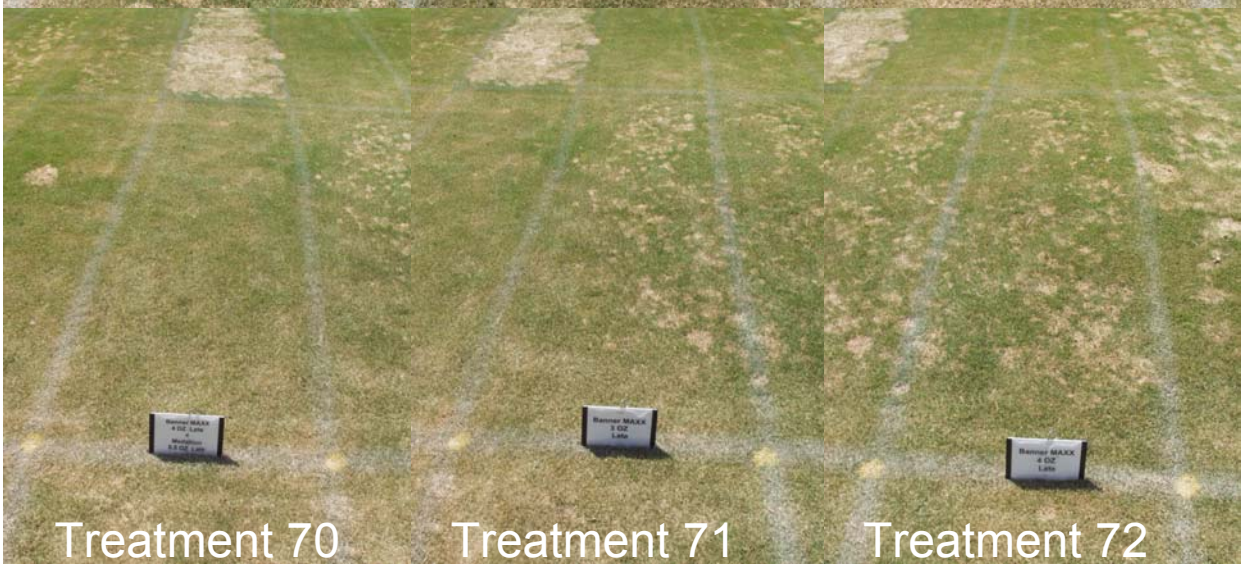
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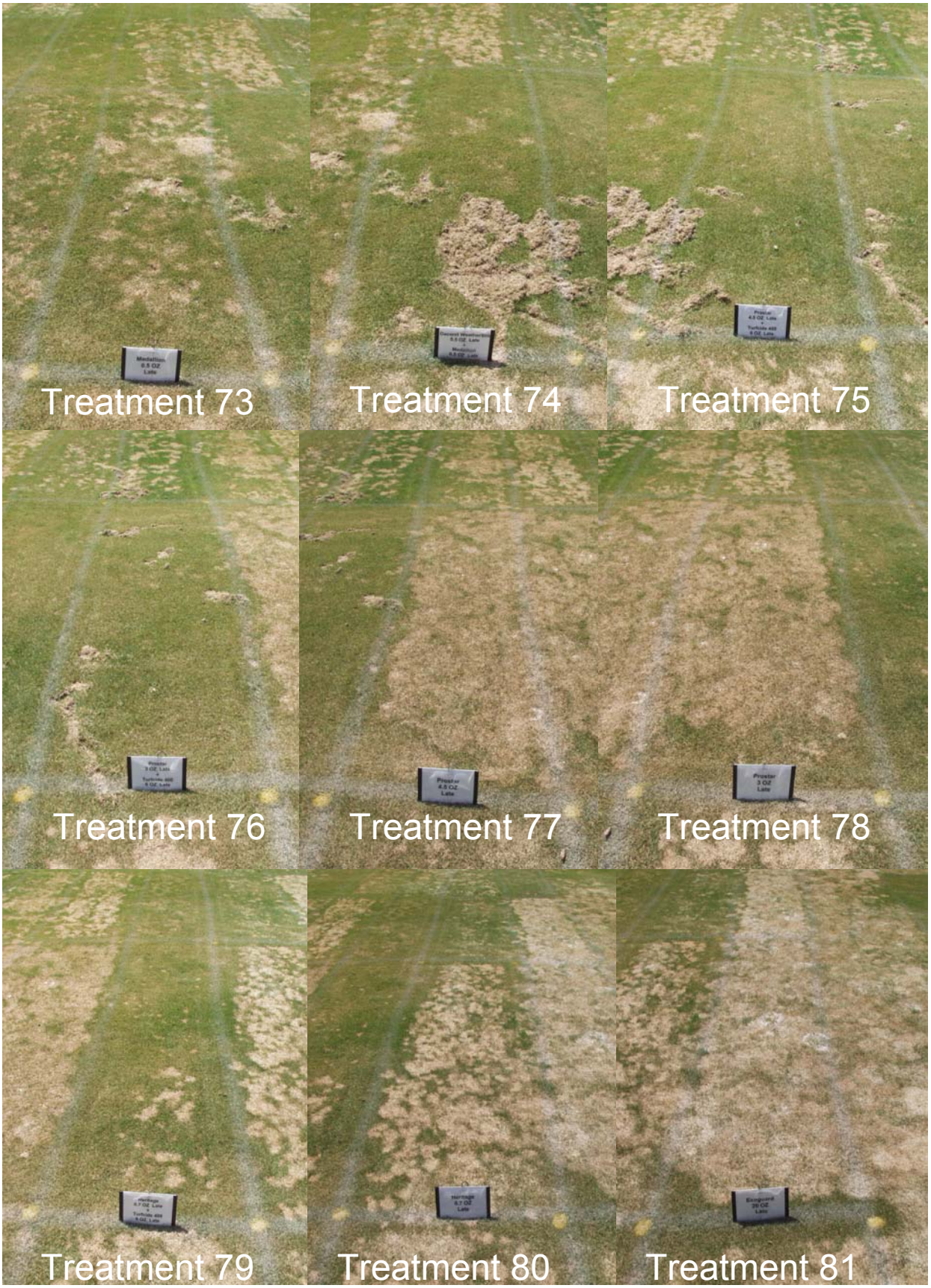
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Treatment 75
Treatment 76
Treatment 77
Treatment 78
Treatment 79
Treatment 80
Treatment 81

2004-2005 Snow Mold Control Evaluation - The Legend at Giants Ridge, Biwabik, MN.

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INTRODUCTION

To evaluate fungicides for the control of Typhula blight (caused by *Typhula ishikariensis* and *Typhula incarnata*) and Pink Snow Mold (caused by *Microdochium nivale*).

EXPERIMENTAL METHODS

This evaluation was conducted at Giants Ridge Golf Resort, Biwabik, MN on creeping bentgrass (*Agrostis stolonifera*) golf course fairway maintained at a height of 0.5 inch. Individual plots measured 3 ft x 10 ft (30 ft^2), and were arranged in a randomized complete block design with three replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO_2 pressurized boom sprayer equipped with two XR Teejet 8005 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000ft^2. Granular applications were applied using a shaker jar. Early treatments were applied on October 11, 2004, and late treatments were applied on November 4, 2004. There was continuous snow cover on the plots from November 27, 2005 to April 3, 2005 (128 days). Percent snow mold ratings were recorded on April 11, 2005. Data obtained were subjected to an analysis of variance to determine significant differences between treatment means. The mean percent snow mold damage for each individual treatment is located in the table below.

DISCUSSION

The disease pressure at the experimental site was near 100% this year. The predominant snow mold species that caused damage was *Typhula ishikariensis*, however, *Microdochium nivale* was also present in moderate levels. Localized symptoms of Microdochium patch were also noticed at the time of late fungicide application treatments. This early disease pressure was noticed mostly in the third replication of the plots and may confound the statistical interpretation somewhat. Five treatments had an average of 10% disease or less in this severe season. All of these treatments are mixtures of two or more fungicides and include treatments 6, 21, 49, 54, and 55. Plot images taken on April 22, 2005 of the first repetition of this study are included after the tables of mean. Some recovery of damage from the time of rating was noticed at this time.

Snow Mold Ratings Recorded April 11, 2005 at Biwabik, MN

	Treatment	Rate	Timing[a]	% Snow Mold[b]	
1	Untreated Control			96.3	ab
2	Endorse	4.00 OZ/M	Late	60.0	a-k
	Spectro	5.75 OZ/M	Late		
3	Spectro	4.00 OZ/M	Early	60.0	a-k
	Endorse	4.00 OZ/M	Late		
	Spectro	4.00 OZ/M	Late		
4	CL-EXP-4	1.00 OZ/M	Late	38.3	g-q
5	CL-EXP-4	1.00 OZ/M	Late	24.0	j-q
	Spectro	5.75 OZ/M	Late		
6	Spectro	4.00 OZ/M	Early	7.0	opq
	CL-EXP-4	1.00 OZ/M	Late		
	Spectro	4.00 OZ/M	Late		
7	Daconil Weather Stik	5.50 FL OZ/M	Late	86.7	a-f
8	Spectro	5.75 OZ/M	Late	90.7	a-e
9	Spectro	4.00 OZ/M	Late	50.0	c-o
10	Endorse	4.00 OZ/M	Late	65.0	a-j
11	AND3224	6.36 LB/M	Late	66.7	a-j
12	AND4333	9.00 LB/M	Late	48.3	c-p
13	AND4334	9.00 LB/M	Late	76.7	a-i
14	AND4335	9.00 LB/M	Late	36.7	g-q
15	A14036	4.70 FL OZ/M	Late	35.0	h-q
16	A14036	9.20 FL OZ/M	Late	25.0	j-q
17	A14036	18.60 FL OZ/M	Late	16.7	k-q
18	Medallion	0.14 OZ/M	Late	41.7	f-q
	Daconil WeatherStik	2.40 FL OZ/M	Late		
	Banner MAXX	1.70 FL OZ/M	Late		
19	Signature	4.00 OZ/M	Early/Late	45.0	e-q
	Chipco 26GT	4.00 FL OZ/M	Early/Late		
	Daconil WeatherStik	5.50 FL OZ/M	Early/Late		
20	Signature	4.00 OZ/M	Early/Late	10.3	n-q
	Armada	1.50 OZ/M	Early/Late		
21	Armada	1.50 OZ/M	Early/Late	1.0	q
	Turfcide 400	6.00 FL OZ/M	Early/Late		
22	Armada	1.50 OZ/M	Early/Late	17.7	k-q
23	Signature	4.00 OZ/M	Early/Late	96.7	ab
24	Chipco 26GT	4.00 FL OZ/M	Early/Late	80.0	a-h
25	Daconil WeatherStik	5.50 FL OZ/M	Early/Late	73.3	a-i
26	Turfcide 400	6.00 FL OZ/M	Early/Late	53.3	a-n
27	LESCO 18 Plus	4.00 FL OZ/M	Early	40.7	g-q
	LESCO Manicure Ultrex	5.00 OZ/M	Early		
	LESCO Revere 4000	8.00 FL OZ/M	Late		

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

[a]Early and late fungicide treatments were applied Oct. 11, 2004 and Nov. 4, 2004, respectively

[b]Mean percent diseased area

Snow Mold Ratings Recorded April 11, 2005 at Biwabik, MN

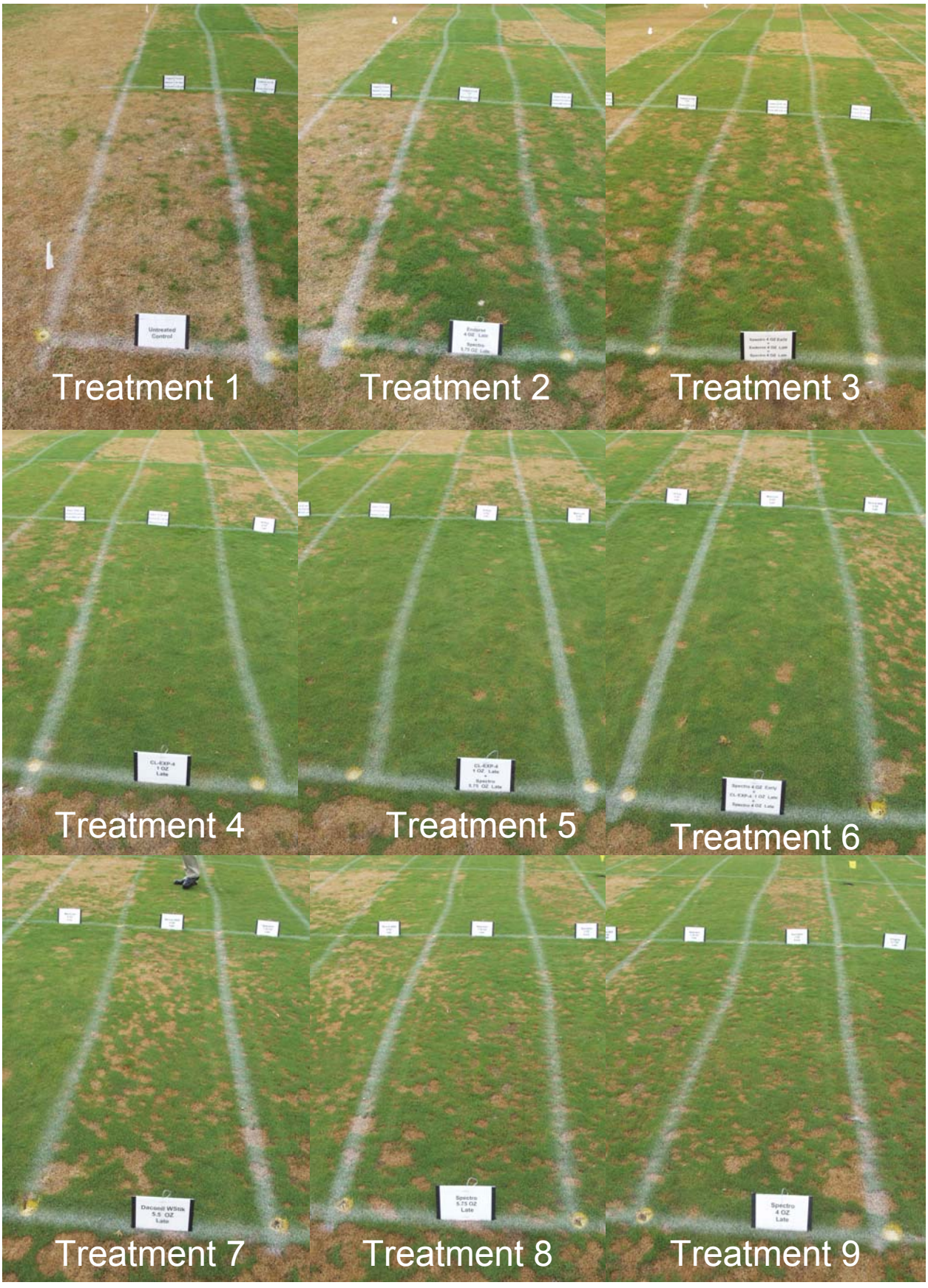
	Treatment	Rate	Timing[a]	% Snow Mold[b]	
28	LESCO 18 Plus	4.00 FL OZ/M	Late	19.0	k-q
	LESCO Manicure Ultrex	5.00 OZ/M	Late		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
29	LESCO Spectator	1.25 FL OZ/M	Early	40.0	g-q
	LESCO Revere 4000	8.00 FL OZ/M	Late		
30	LESCO Spectator	1.25 FL OZ/M	Late	13.3	l-q
	Medallion	0.50 OZ/M	Late		
31	LESCO Revere 4000	12.00 FL OZ/M	Late	51.7	b-o
32	Insignia	0.70 OZ/M	Early	40.0	g-q
	LESCO 18 Plus	4.00 FL OZ/M	Late		
	LESCO Manicure Ultrex	5.00 OZ/M	Late		
33	LESCO Spectator	1.00 FL OZ/M	Early	55.0	a-n
	Insignia	0.70 OZ/M	Late		
	LESCO Manicure Ultrex	5.00 OZ/M	Late		
34	Insignia	0.70 OZ/M	Early	45.0	e-q
	LESCO Manicure Ultrex	5.00 OZ/M	Early		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
35	Compass	0.50 OZ/M	Late	24.3	j-q
	LESCO Revere 4000	8.00 FL OZ/M	Late		
36	Insignia	0.90 OZ/M	Late	23.3	j-q
	Iprodione Pro	4.00 FL OZ/M	Late		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
37	Insignia	0.90 OZ/M	Late	32.3	i-q
	Iprodione Pro	4.00 FL OZ/M	Late		
	LESCO Manicure Ultrex	3.20 OZ/M	Late		
38	LESCO 18 Plus	4.00 FL OZ/M	Late	68.3	a-j
39	LESCO Manicure Ultrex	5.00 OZ/M	Late	97.7	a
40	LESCO Revere 4000	8.00 FL OZ/M	Late	60.0	a-k
41	LESCO Spectator	1.25 FL OZ/M	Late	56.7	a-m
42	LESCO Spectator	1.00 FL OZ/M	Early	91.7	a-d
43	Insignia	0.70 OZ/M	Late	87.3	a-f
44	Compass	0.50 OZ/M	Late	65.0	a-j
45	Iprodione Pro	4.00 FL OZ/M	Late	75.0	a-i
46	Chipco 26GT	4.00 FL OZ/M	Late	16.3	k-q
	Daconil Ultrex	5.00 OZ/M	Late		
	LESCO Revere 4000	8.00 FL OZ/M	Late		
47	Chipco 26GT	4.00 FL OZ/M	Late	87.7	a-e
48	Daconil Ultrex	5.00 OZ/M	Late	93.3	abc
49	Chipco 26GT	4.00 FL OZ/M	Late	3.7	pq
	Bayleton	1.00 OZ/M	Late		
	Turfcide 400	6.00 FL OZ/M	Late		
50	Bayleton	2.00 OZ/M	Late	13.3	l-q
	Turfcide 400	6.00 FL OZ/M	Late		

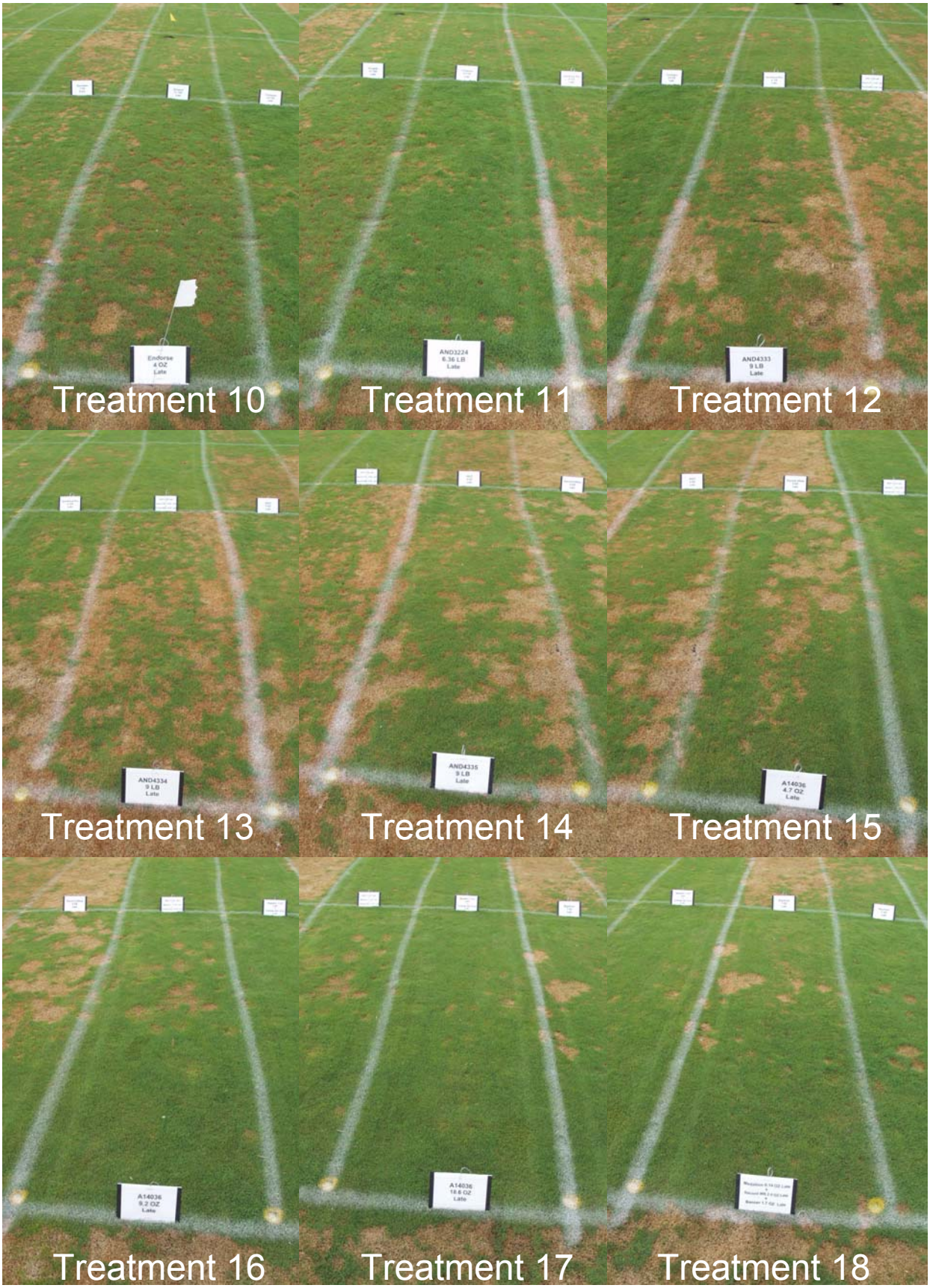
Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
[a]Early and late treatments were applied Oct. 11, 2004 and Nov. 4, 2004, respectively
[b]Mean percent diseased area

Snow Mold Ratings Recorded April 11, 2005 at Biwabik, MN

Treatment	Rate	Timing[a]	% Snow Mold[b]
51 Bayleton	1.00 OZ/M	Late	81.3 a-g
52 Bayleton	2.00 OZ/M	Late	81.7 a-g
53 Turfcide 400	6.00 FL OZ/M	Late	51.7 b-o
54 Banner MAXX	3.00 FL OZ/M	Late	7.3 opq
Medallion	0.50 OZ/M	Late	
55 Banner MAXX	4.00 FL OZ/M	Late	10.0 n-q
Medallion	0.50 OZ/M	Late	
56 Banner MAXX	3.00 FL OZ/M	Late	58.3 a-l
57 Banner MAXX	4.00 FL OZ/M	Late	46.7 d-q
58 Medallion	0.50 OZ/M	Late	16.7 k-q
59 Daconil Weather Stik	5.50 FL OZ/M	Late	36.0 g-q
Medallion	0.50 OZ/M	Late	
60 Prostar	4.50 OZ/M	Late	12.0 m-q
Turfcide 400	6.00 FL OZ/M	Late	
61 Prostar	3.00 OZ/M	Late	12.3 m-q
Turfcide 400	6.00 FL OZ/M	Late	
62 Prostar	4.50 OZ/M	Late	55.0 a-n
63 Prostar	3.00 OZ/M	Late	68.0 a-j
64 Heritage	0.70 OZ/M	Late	31.0 i-q
Turfcide 400	6.00 FL OZ/M	Late	
65 Heritage	0.70 OZ/M	Late	86.7 a-f
66 Ecoguard	20.00 FL OZ/M	Late	93.0 abc

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
[a]Early and late treatments were applied Oct. 12, 2004 and Nov. 4, 2004, respectively
[b]Mean percent diseased area


Treatment 1
Treatment 2
Treatment 3
Treatment 4
Treatment 5
Treatment 6
Treatment 7
Treatment 8
Treatment 9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Late
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Late
Treatment 11
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Late
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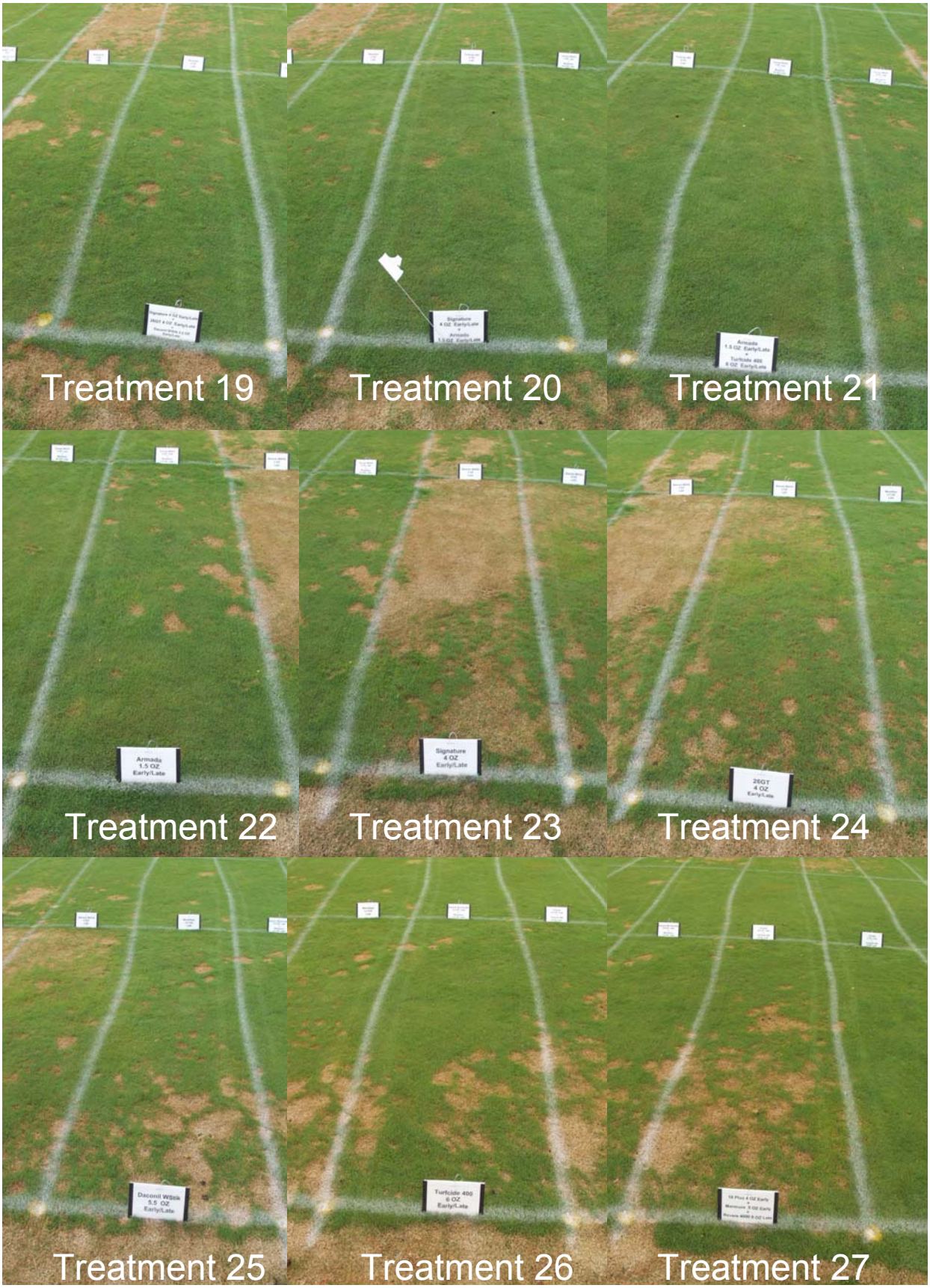
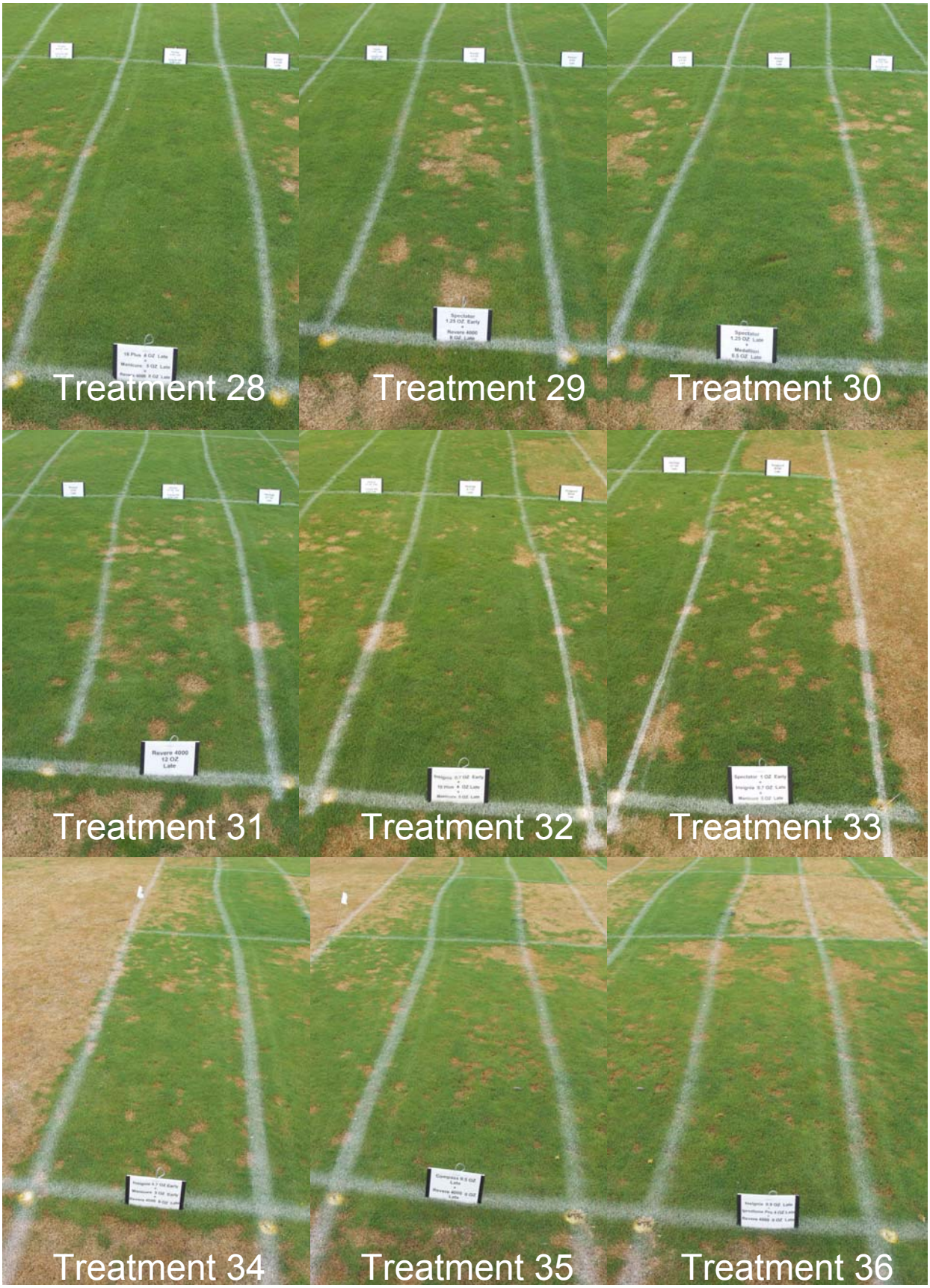
Late
Treatment 13
AND4335
9 LB
Late
Treatment 14
A14036
4.7 OZ
Late
Treatment 15
A14036
9.2 OZ
Late
Treatment 16
A14036
18.8 OZ
Late
Treatment 17
Treatment 18


Treatment 19
Treatment 20
Treatment 21
Armada 1.5 OZ Early/Late
Treatment 22
Signature 4 OZ Early/Late
Treatment 23
26GT 4 OZ Early/Late
Treatment 24
Daconil WSka 5.5 OZ Early/Late
Treatment 25
Turfcide 400 6 OZ Early/Late
Treatment 26
Treatment 27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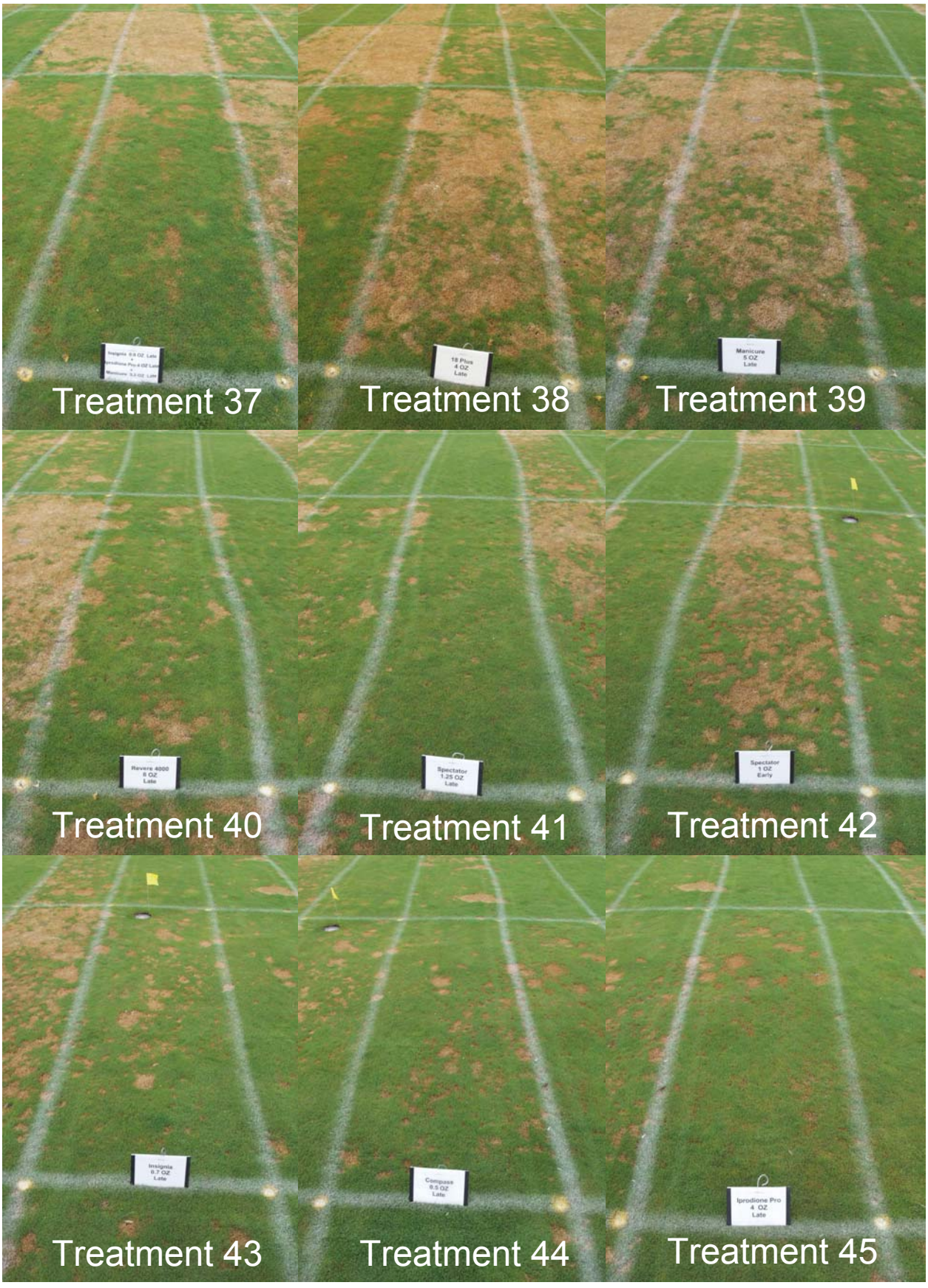
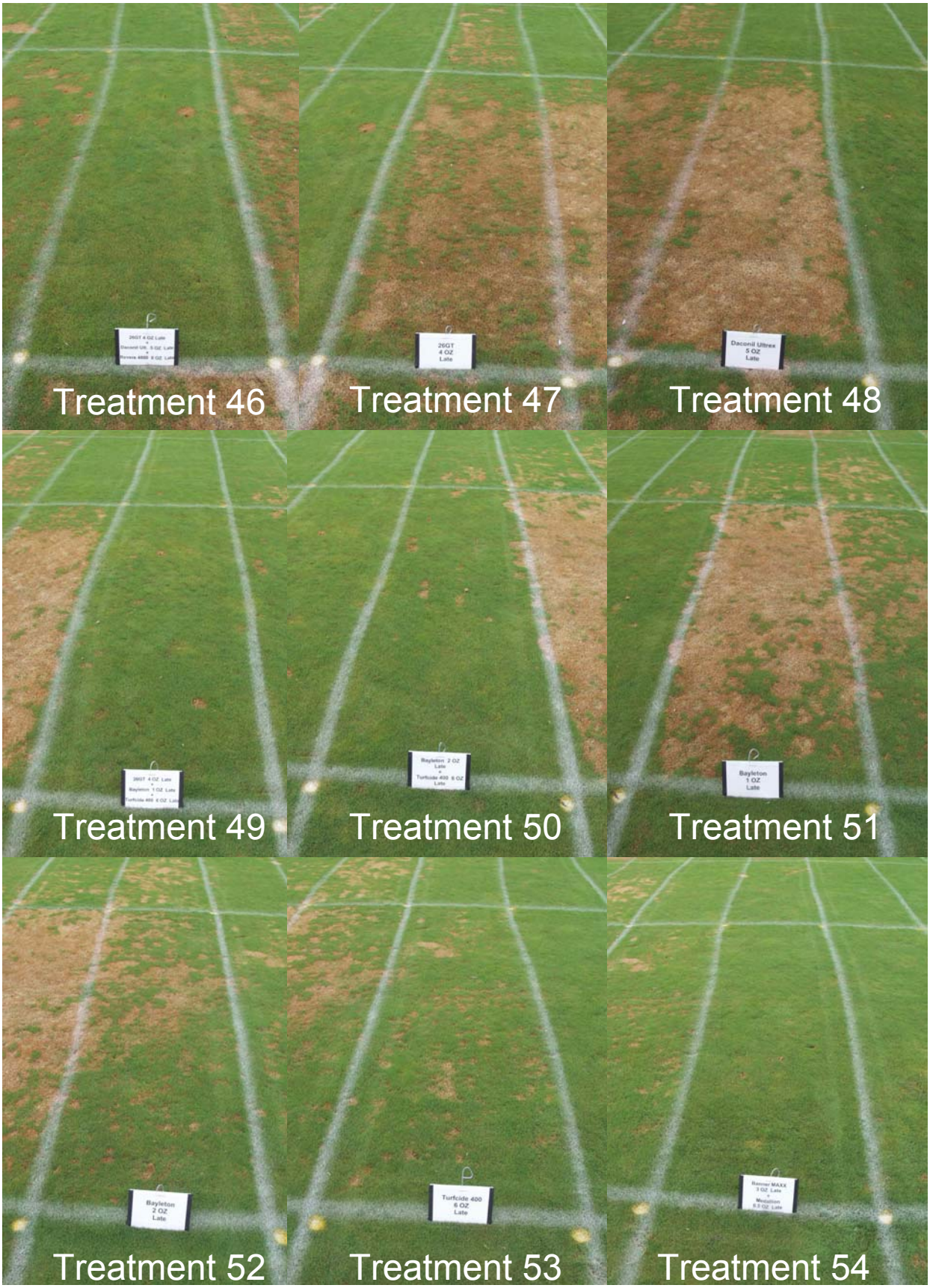
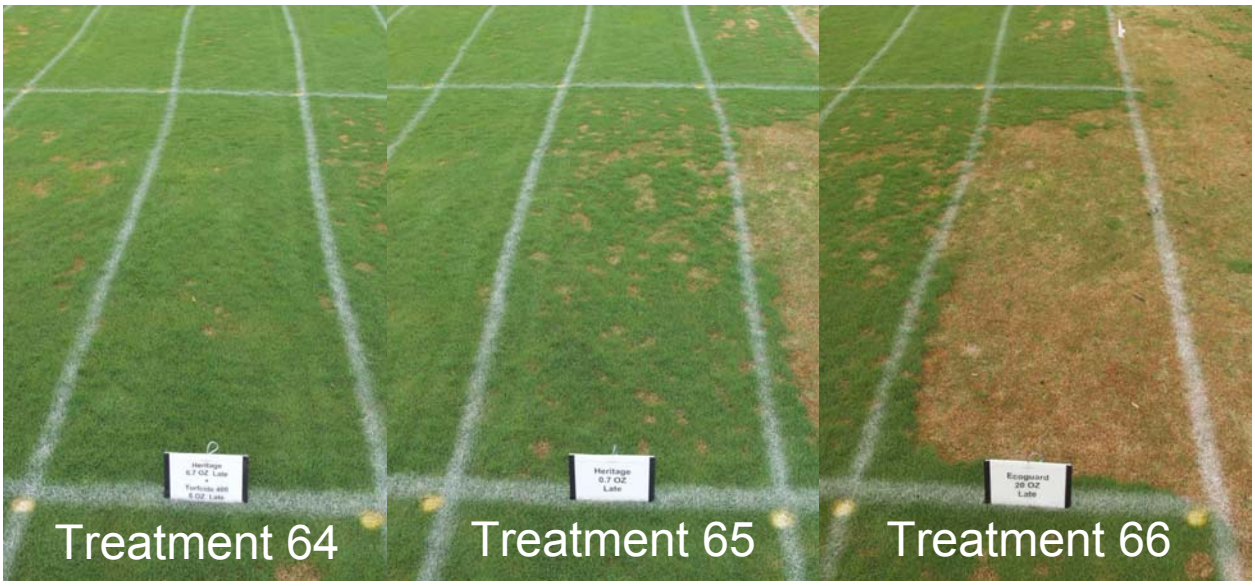
Treatment 29
Treatment 30
Treatment 31
Treatment 32
Treatment 33
Treatment 34
Treatment 35
Treatment 36


Treatment 37
Treatment 38
18 Plus
4 OZ
Late
Treatment 39
Manicure
5 OZ
Late
Treatment 40
Revere 4000
8 OZ
Late
Treatment 41
Spectator
1.25 OZ
Late
Treatment 42
Spectator
1 OZ
Early
Treatment 43
Insignia
0.7 OZ
Late
Treatment 44
Compass
0.5 OZ
Late
Treatment 45
Iprodione Pro
4 OZ
Late


Treatment 46
Treatment 47
Treatment 48
Treatment 49
Treatment 50
Treatment 51
Treatment 52
Treatment 53
Treatment 54


Treatment 64
Treatment 65
Treatment 66

2004-2005 Snow Mold Control Evaluation - Auxillary Syngenta Trials

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University of Wisconsin-Madison

INTRODUCTION

To evaluate fungicides for the control of Typhula blight (caused by *Typhula ishikariensis* and *Typhula incarnata*) and Pink Snow Mold (caused by *Microdochium nivale*).

EXPERIMENTAL METHODS

Treatments included in this trial were received for evaluation after the initial treatments had been applied for the main fungicide study. Because of this, a separate, smaller study was established at four sites in Wisconsin on turfgrasses maintained at fairway height. Individual plots measured 3 ft x 10 ft (30 ft^2), and were arranged in a randomized complete block design with three replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO_2 pressurized boom sprayer equipped with two XR Teejet 8005 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000ft^2. The location, host plant, and application dates for the four locations are listed in table 1. Percent snow mold data were subjected to analysis of variance to determine significant differences between treatment. The mean percent snow mold for each individual treatment is located in the table 2.

Table 1. Auxillary Syngenta Trials

Location		Turfgrass	Application Date
Gateway DR	Land O' Lakes, WI	"Penncross" creeping bentgrass	November 8, 2004
Gateway #7	Land O' Lakes, WI	annual bluegrass	November 8, 2004
Sentryworld	Stevens Point, WI	"Penneagle" creeping bentgrass	November 8, 2004
OJ Noer Facility	Verona, WI	"Penneagle" creeping bentgrass	November 22, 2004

DISCUSSION

Efficacy of disease control varied from the site to site based on whether *Microdochium* or *Typhula* was the predominant pathogen. The O.J. Noer Facility site did not have any snow mold disease this year. Plot pictures taken on April 21, 2005 of the first repetition of the trials located in Land O' Lakes are included after the table of means. Some recovery of damage from the time of rating was noticed at this time.

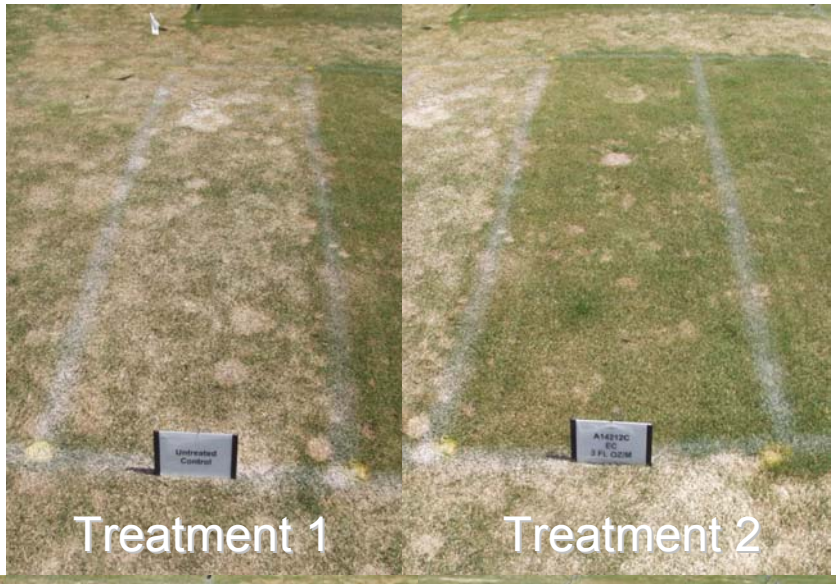
Table 2. Percent Snow Mold Ratings Recorded From Three WI Locations in April, 2005

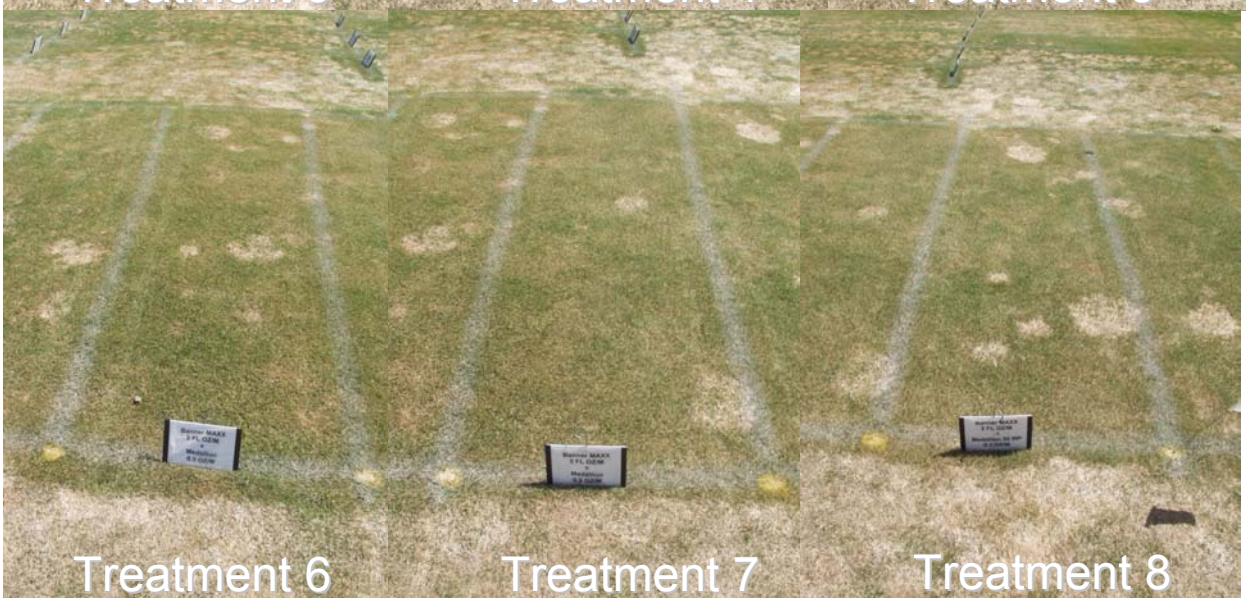
Treatment	Rate	Sentryworld % Typhula[a] 4/6/2005	Gateway DR % Snow Mold[a] 4/12/2005	Gateway #7 % Microdochium[a] 4/12/2005
1 Untreated Control		25 a	99.3 a	91.7 a
2 A14212C	3 FL OZ/M	0 b	25 c	58.3 cd
3 A14212C	5.25 FL OZ/M	0 b	15 c	48.3 de
4 Banner MAXX Daconil WeatherStik	3 FL OZ/M 5.5 FL OZ/M	1.7 b	60 b	71.7 bc
5 Banner MAXX Daconil WeatherStik	4 FL OZ/M 5.5 FL OZ/M	0 b	50 b	78.3 ab
6 Banner MAXX Medallion	2 FL OZ/M 0.5 OZ/M	0 b	16.7 c	23.3 f
7 Banner MAXX Medallion	3 FL OZ/M 0.3 OZ/M	0 b	8.7 c	35 ef
8 Banner MAXX Medallion	2 FL OZ/M 0.3 OZ/M	0.3 b	18.3 c	35 ef

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
[a] Mean percent diseased area

Gateway GC

Typhula Blight
Creeping Bentgrass
Driving Range





Gateway GC

Microdochium Patch
Annual Bluegrass
Fairway #7