



2013-2014 Snow Mold Control Evaluation Marquette CC – Marquette, MI

Paul Koch, Ph.D; P. J. Liesch; Sam Soper; and Bruce Schweiger
Department of Plant Pathology
University of Wisconsin-Madison

OBJECTIVE

To evaluate fungicide efficacy for the control of Typhula blight (caused by *Typhula ishikariensis* and *Typhula incarnata*), and Microdochium patch (caused by *Microdochium nivale*).

MATERIALS AND METHODS

This evaluation was conducted at Marquette Country Club in Marquette, MI on a creeping bentgrass (*Agrostis stolonifera*) and annual bluegrass (*Poa annua*) golf course fairway maintained at a height of 0.5 inch. Individual plots measured 3 ft x 10 ft (30 ft²), and were arranged in a randomized complete block design with four replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO₂ pressurized boom sprayer equipped with two XR Teejet 8004 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000 ft², with the exception of treatments 101 and 102 (granular) and treatment 87-92 (applied in 2.5 gallons of water per 1000 ft²). Early applications were made on October 2nd, 2013 and late applications were applied on November 5th, 2013. The experimental plot area was not inoculated. There was consistent snow cover on the experimental area from early-November until mid-April, a total of approximately 165 days. Disease severity, turf quality, and color were recorded on April 23rd, 2014. Disease severity was visually rated as percent area affected, turfgrass quality was visually rated on a 1-9 scale with 6 being acceptable, and Normalized Difference Vegetative Index (turfgrass color) was rated using a HCS 100 GreenSeeker® from Trimble Navigation Ltd (Sunnyvale, CA). Treatment means were analyzed using the Waller Duncan method and are presented in Table 1. In addition, surface temperature on the research plot was recorded using a Spectrum Watchdog® datalogger and is presented in Figure 1.

RESULTS AND DISCUSSION

Disease pressure was extremely high at Marquette GC in 2013-2014, with non-treated controls averaging 95% disease. Speckled snow mold was the primary disease observed in the experimental area (75%), though gray (10%) and pink snow mold (15%) were also observed. Despite this intense pressure, 35 of the 102 treatments provided significant disease suppression (<20%) with 6 of those treatments providing excellent suppression under harsh conditions (<5%). Nearly all of these treatments contained at least three active ingredients, with some treatments containing four or even five active ingredients. Turf quality closely mirrored disease severity, though only 8 treatments provided a mean quality rating of 6 or higher. No differences in turf color were observed using the NDVI meter amongst products providing adequate disease suppression.

Table 1: Mean snow mold severity, turf quality, and turf color assessed on April 23rd, 2014 at Marquette CC in Marquette, MI.

Treatment	Rate	Application Timing ^a	Disease Severity ^b	Turf Quality ^c	Turf Color ^d	
1	Non-treated control		95.0a	1.0r	0.265G-J	
2	Interface Mirage	6.0 fl oz/1000 ft2 1.5 fl oz/1000 ft2	Late Late	11.3E-H	5.3b-h	0.552a-f
3	Interface Mirage	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	18.8z-H	4.8d-j	0.560a-f
4	SP28296 Mirage	5.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	15.0B-H	5.8a-f	0.545a-g
5	SP28296 Mirage	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	38.8q-D	4.0g-m	0.480e-q
6	SP28296 Mirage	8.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	20.5y-H	5.8a-f	0.487d-p
7	SP28297 Mirage	3.816 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	47.5l-y	3.8h-n	0.430i-w
8	SP28297 Mirage	4.77 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	53.8i-u	4..3f-l	0.405n-B
9	SP28297 Mirage	5.724 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	65.0d-q	3.0k-q	0.395p-C
10	Tartan Mirage	2.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	Late Late	8.8FGH	5.8a-f	0.567a-e
11	Tartan Mirage Chipco 26GT	1.0 fl oz/1000 ft2 1.0 fl oz/1000 ft2 3.0 fl oz/1000 ft2	Late Late Late	28.8t-H	4.3f-l	0.482d-q
12	Tartan Mirage Chipco26GT	1.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 3.0 fl oz/1000 ft2	Late Late Late	23.8w-H	4.5e-k	0.515a-j
13	Interface Triton FLO	6.0 fl oz/1000 ft2 0.85 fl oz/1000 ft2	Late Late	9.3E-H	5.5b-g	0.542a-g
14	Lexicon Intrinsic Trinity Daconil Ultrex Chipco 26GT Green Lawnger	0.46 fl oz/1000 ft2 1.0 fl oz/1000 ft2 3.7 oz/1000 ft2 4.0 fl oz/1000 ft2 16.0 fl oz/1000 ft2	Late Late Late Late Late	15.0B-H	5.0c-i	0.535a-g
15	Honor Intrinsic Trinity Daconil Ultrex Chipco 26GT Green Lawnger	1.1 oz/1000 ft2 1.0 fl oz/1000 ft2 3.7 oz/1000 ft2 4.0 fl oz/1000 ft2 16.0 fl oz/1000 ft2	Late Late Late Late Late	8.0FGH	6.0a-e	0.527a-h
16	Insignia Intrinsic Trinity Daconil Ultrex Chipco 26GT Green Lawnger	0.70 fl oz/1000 ft2 1.0 fl oz/1000 ft2 3.7 oz/1000 ft2 4.0 fl oz/1000 ft2 16.0 fl oz/1000 ft2	Late Late Late Late Late	3.8H	7.3a	0.557a-f
17	Interface Triton FLO Droplex	3.0 fl oz/1000 ft2 0.55 fl oz/1000 ft2 10.0 fl oz/1000 ft2	Late Late Late	72.5a-l	3.5i-o	0.365t-F

^aEarly fungicide treatments were applied on Oct. 2nd, 2013 and late treatments were applied on Nov. 5th, 2013.

^bMean percent diseased area assessed on April 23rd, 2014.

^cQuality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

^dColor was assessed using an HCS 100 NDVI GreenSeeker from Trimble Navigation Ltd®.

Table 1 (cont): Mean snow mold severity, turf quality, and turf color assessed on April 23rd, 2014 at Marquette CC in Marquette, MI.

Treatment	Rate	Application Timing ^a	Disease Severity ^b	Turf Quality ^c	Turf Color ^d	
18	Instrata Droplex	5.5 fl oz/1000 ft2 10.0 fl oz/a	Late Late	60.0f-r	3.3j-p	0.390q-D
19	Banner MAXX II Civitas Harmonizer Droplex	1.0 fl oz/1000 ft2 8.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2 10.0 fl oz/a	Late Late Late Late	81.3a-h	2.3n-r	0.370t-E
20	Turfcide 400	8.0 fl oz/1000 ft2	Late	93.8ab	1.0r	0.292E-J
21	Turfcide 400	12.0 fl oz/1000 ft2	Late	88.8a-d	1.5qr	0.275F-J
22	Turfcide 400	16.0 fl oz/1000 ft2	Late	76.3a-j	2.3n-r	0.360u-F
23	AMV4820	8.0 fl oz/1000 ft2	Late	87.5a-e	1.8pqr	0.320z-J
24	AMV4820	12.0 fl oz/1000 ft2	Late	85.0a-f	2.0o-r	0.342v-H
25	AMV4820	16.0 fl oz/1000 ft2	Late	78.8a-i	2.3n-r	0.337wl
26	Turfcide 400 Foursome	8.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late	77.5a-i	2.5m-r	0.330x-J
27	Turfcide 400 Foursome	12.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late	67.5b-o	3.0k-q	0.382s-E
28	Turfcide 400 Foursome	16.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late	83.8a-f	1.8pqr	0.307C-J
29	Turfcide 400 PAR	16.0 fl oz/1000 ft2 0.37 fl oz/1000 ft2	Late Late	58.8f-s	3.3j-p	0.410m-A
30	AMV4820 Foursome	8 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late	73.8a-l	2.5m-r	0.415k-y
31	AMV4820 Foursome	12.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late	60.0f-r	3.3j-p	0.407m-B
32	AMV4820 Foursome	16.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late	85.0a-f	1.8pqr	0.335x-J
33	AMV4820 PAR	16.0 fl oz/1000 ft2 0.37 fl oz/1000 ft2	Late Late	85.0a-f	1.8pqr	0.372t-E
34	Banner MAXX II	2.0 fl oz/1000 ft2	Late	88.8a-d	1.5qr	0.300D-J
35	Banner MAXX II Turfcide 400 Foursome	2.0 fl oz/1000 ft2 8.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late Late	18.8z-H	5.0c-i	0.505a-l
36	Banner MAXX II Turfcide 400 Foursome	2.0 fl oz/1000 ft2 12.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late Late	17.5A-H	5.0c-i	0.500b-m
37	Banner MAXX II Turfcide 400 Foursome	2.0 fl oz/1000 ft2 16.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	Late Late Late	9.3E-H	5.8a-f	0.540a-g

^aEarly fungicide treatments were applied on Oct. 2nd, 2013 and late treatments were applied on Nov. 5th, 2013.

^bMean percent diseased area assessed on April 23rd, 2014.

^cQuality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

^dColor was assessed using an HCS 100 NDVI GreenSeeker from Trimble Navigation Ltd®.

Table 1 (cont): Mean snow mold severity, turf quality, and turf color assessed on April 23rd, 2014 at Marquette CC in Marquette, MI.

Treatment		Rate	Application Timing ^a	Disease Severity ^b	Turf Quality ^c	Turf Color ^d
38	Torque	0.9 fl oz/1000 ft ²	Late	61.3e-r	3.0k-q	0.417k-x
39	Torque	0.9 fl oz/1000 ft ²	Late	4.3H	6.5abc	0.565a-f
	Turfcide 400	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
40	Torque	0.9 fl oz/1000 ft ²	Late	32.5s-G	4.0g-m	0.480e-q
	AMV4820	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
41	Torque	0.9 fl oz/1000 ft ²	Late	12.5D-H	5.0c-i	0.590ab
	26/36	4.0 fl oz/1000 ft ²	Late			
42	26/36	4.0 fl oz/1000 ft ²	Late	92.5abc	1.0r	0.250HIJ
43	Concert II	8.5 fl oz/1000 ft ²	Late	52.5i-v	3.5i-o	0.432i-v
	Banner MAXX II	1.0 fl oz/1000 ft ²	Late			
44	Concert II	8.5 fl oz/1000 ft ²	Late	3.5H	6.5abc	0.550a-g
	Turfcide 400	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
45	Concert II	8.5 fl oz/1000 ft ²	Late	3.0H	6.8ab	0.557a-f
	AMV4820	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
46	Interface	3.0 fl oz/1000 ft ²	Late	87.5a-e	1.5qr	0.322y-J
47	Interface	6.0 fl oz/1000 ft ²	Late	81.3a-h	2.3n-r	0.362u-F
48	Interface	3.0 fl oz/1000 ft ²	Late	70.0a-n	3.0k-q	0.355u-G
	Turfcide 400	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
49	Interface	3.0 fl oz/1000 ft ²	Late	66.3c-p	3.0k-q	0.385r-E
	AMV4820	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
50	Interface	3.0 fl oz/1000 ft ²	Late	35.0r-F	4.3f-l	0.475e-s
	Triton FLO	0.75 fl oz/1000 ft ²	Late			
51	Triton FLO	0.75 fl oz/1000 ft ²	Late	88.8a-d	1.5qr	0.265G-J
52	Insignia SC	0.7 fl oz/1000 ft ²	Late	76.3a-j	2.5m-r	0.365t-F
53	Insignia SC	0.7 fl oz/1000 ft ²	Late	20.0z-H	4.8d-j	0.507a-k
	Turfcide 400	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
54	Insignia SC	0.7 fl oz/1000 ft ²	Late	50.0j-w	3.5i-o	0.405n-B
	AMV4820	8.0 fl oz/1000 ft ²	Late			
	Foursome	0.5 fl oz/1000 ft ²	Late			
55	Insignia SC	0.7 fl oz/1000 ft ²	Late	26.8u-H	5.0c-i	0.492c-o
	Trinity	1.0 fl oz/1000 ft ²	Late			
56	Trinity	1.0 fl oz/1000 ft ²	Late	90.0a-d	1.5qr	0.305C-J

^aEarly fungicide treatments were applied on Oct. 2nd, 2013 and late treatments were applied on Nov. 5th, 2013.

^bMean percent diseased area assessed on April 23rd, 2014.

^cQuality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

^dColor was assessed using an HCS 100 NDVI GreenSeeker from Trimble Navigation Ltd®.

Table 1 (cont): Mean snow mold severity, turf quality, and turf color assessed on April 23rd, 2014 at Marquette CC in Marquette, MI.

Treatment	Rate	Application Timing ^a	Disease Severity ^b	Turf Quality ^c	Turf Color ^d
57 Instrata	11.0 fl oz/1000 ft2	Late	36.3r-E	4.3f-l	0.477e-r
58 Instrata PAR	9.4 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late	43.8n-A	6.8h-n	0.422j-x
59 Instrata PAR	7.0 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late	36.3r-E	4.3f-l	0.457g-t
60 Instrata PAR	5.0 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late	52.5i-v	3.3j-p	0.402o-B
61 Instrata Secure PAR	7.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	35.0r-F	4.0g-m	0.457g-t
62 Instrata Secure PAR	5.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	66.3c-p	2.8l-q	0.362u-F
63 Concert II Banner MAXX II PAR	8.5 fl oz/1000 ft2 1.0 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	45.0m-z	3.8h-n	0.412l-z
64 Concert II Secure PAR	8.5 fl oz/1000 ft2 0.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	52.5i-v	3.5i-o	0.395p-C
65 Concert II Daconil Weatherstik PAR	4.5 fl oz/1000 ft2 2.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	67.5b-o	3.0k-q	0.360u-F
66 Daconil Action Secure PAR	5.4 fl oz/1000 ft2 0.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	41.3o-B	3.8h-n	0.437h-u
67 Daconil Action	5.4 fl oz/1000 ft2	Late	85.0a-f	2.0o-r	0.247l-J
68 A20744 Daconil Weatherstik PAR	0.3 oz/1000 ft2 5.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	76.3a-j	2.3n-r	0.315B-J
69 A20744 Banner MAXX II PAR	0.3 oz/1000 ft2 2.0 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	75.0a-k	2.3o-r	0.317A-J
70 A20744 Secure PAR	0.3 oz/1000 ft2 0.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	67.5b-o	2.5m-r	0.337w-l
71 A13705W PAR	2.6 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late	48.8k-x	3.5i-o	0.412l-z
72 A13705W PAR	4.0 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late	55.0h-t	3.5i-o	0.437h-u
73 A13705W Secure PAR	2.6 fl oz/1000 ft2 0.5 fl oz/1000 ft2 0.36 fl oz/1000 ft2	Late Late Late	38.8q-D	4.0g-m	0.492c-o

^aEarly fungicide treatments were applied on Oct. 2nd, 2013 and late treatments were applied on Nov. 5th, 2013.

^bMean percent diseased area assessed on April 23rd, 2014.

^cQuality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

^dColor was assessed using an HCS 100 NDVI GreenSeeker from Trimble Navigation Ltd®.

Table 1 (cont): Mean snow mold severity, turf quality, and turf color assessed on April 23rd, 2014 at Marquette CC in Marquette, MI.

Treatment	Rate	Application Timing ^a	Disease Severity ^b	Turf Quality ^c	Turf Color ^d
74	A13705W Secure PAR	4.0 fl oz/1000 ft2 Late 0.5 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	21.8x-H	5.3b-h	0.522a-i
75	A13705W Daconil Weatherstik PAR	2.6 fl oz/1000 ft2 Late 5.5 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	16.3B-H	4.8d-j	0.550a-g
76	A13705W Daconil Weatherstik PAR	4.0 fl oz/1000 ft2 Late 5.5 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	26.3v-H	4.8d-j	0.535a-g
77	A13705W Concert II PAR	2.6 fl oz/1000 ft2 Late 4.5 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	18.8z-H	5.0c-i	0.545a-g
78	A20744 Heritage TL PAR	0.3 oz/1000 ft2 Late 2.0 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	71.3a-m	2.5m-r	0.342v-H
79	A15457 A17856 A7087 PAR	0.236 fl oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 0.5 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	4.8H	6.3a-d	0.582abc
80	A15457 A17856 Heritage TL PAR	0.236 fl oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 1.01 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	20.0z-H	5.0c-i	0.550a-g
81	A15457 A17856 Banner MAXX II PAR	0.236 fl oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 2.0 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	15.0B-H	5.5b-g	0.517a-i
82	A19188 A17856 PAR	1.0 fl oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	36.3r-E	4.0g-m	0.500b-m
83	A20744 A17856 A7087 PAR	0.5 oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 0.5 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	22.5x-H	4.8d-j	0.532a-g
84	A20744 A17856 Heritage TL PAR	0.5 oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 1.01 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	60.0f-r	3.3j-p	0.385r-E
85	A20744 A17856 Banner MAXX II PAR	0.5 oz/1000 ft2 Late 1.09 fl oz/1000 ft2 Late 2.0 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	13.8C-H	5.0c-i	0.550a-g
86	A20581 PAR	0.47 fl oz/1000 ft2 Late 0.36 fl oz/1000 ft2 Late	56.3g-s	3.0k-q	0.395p-C
87	1786-A	12.0 fl oz/1000 ft2 Early/Late	95.0a	1.0r	0.247IJ

^aEarly fungicide treatments were applied on Oct. 2nd, 2013 and late treatments were applied on Nov. 5th, 2013.

^bMean percent diseased area assessed on April 23rd, 2014.

^cQuality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

^dColor was assessed using an HCS 100 NDVI GreenSeeker from Trimble Navigation Ltd®.

Table 1 (cont): Mean snow mold severity, turf quality, and turf color assessed on April 23rd, 2014 at Marquette CC in Marquette, MI.

Treatment	Rate	Application Timing ^a	Disease Severity ^b	Turf Quality ^c	Turf Color ^d	
88	1786-B	12.0 fl oz/1000 ft2	Early/Late	93.8ab	1.0r	0.255HIJ
89	1786-C	12.0 fl oz/1000 ft2	Early/Late	95.0a	1.0r	0.245IJ
90	1786-D	12.0 fl oz/1000 ft2	Early/Late	95.0a	1.0r	0.247IJ
91	1786-E	12.0 fl oz/1000 ft2	Early/Late	72.5a-l	2.3n-r	0.300D-J
92	1786-F	12.0 fl oz/1000 ft2	Early/Late	91.3a-d	1.0r	0.262G-J
93	QP TM/C	6.0 oz/1000 ft2	Late	32.5s-G	4.5e-k	0.480e-q
	QP Iprodione	4.0 fl oz/1000 ft2	Late			
	QP Propiconazole	2.0 fl oz/1000 ft2	Late			
	Foursome	0.5 fl oz/1000 ft2	Late			
94	QP TM/C	6.0 oz/1000 ft2	Late	4.3H	6.3a-d	0.575a-d
	QP Iprodione	4.0 oz/1000 ft2	Late			
	QP Tebuconazole	0.6 fl oz/1000 ft2	Late			
	Foursome	0.5 fl oz/1000 ft2	Late			
95	QP Iprodione	4.0 fl oz/1000 ft2	Late	38.8q-D	4.0g-m	0.472f-s
	QP Tebuconazole	1.1 fl oz/1000 ft2	Late			
	Foursome	0.5 fl oz/1000 ft2	Late			
96	QP Enclave	8.0 fl oz/1000 ft2	Late	10.0E-H	5.3b-h	0.557a-f
	Foursome	0.5 fl oz/1000 ft2	Late			
97	Torque	0.75 fl oz/1000 ft2	Late	40.0p-C	4.0g-m	0.497b-n
	26/36	4.0 fl oz/1000 ft2	Late			
98	Torque	0.75 fl oz/1000 ft2	Late	6.3GH	5.8a-f	0.595a
	26/36	4.0 fl oz/1000 ft2	Late			
	Legend	5.0 fl oz/1000 ft2	Late			
99	Torque	0.6 fl oz/1000 ft2	Late	20.0z-H	4.8d-j	0.557a-f
	26/36	4.0 fl oz/1000 ft2	Late			
	Heritage TL	1.0 fl oz/1000 ft2	Late			
100	Chipco 26GT	4.0 fl oz/1000 ft2	Late	82.5a-g	2.3n-r	0.322y-J
	Daconil Weatherstik	5.5 fl oz/1000 ft2	Late			
101	Duration SIFI (35-0-10)		Early	96.3a	1.0r	0.242J
102	Urea (46-0-0)		Early	88.8a-d	1.5qr	0.272F-J

^aEarly fungicide treatments were applied on Oct. 2nd, 2013 and late treatments were applied on Nov. 5th, 2013.

^bMean percent diseased area assessed on April 23rd, 2014.

^cQuality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

^dColor was assessed using an HCS 100 NDVI GreenSeeker from Trimble Navigation Ltd®.

Marquette, MI Surface Temperature 2013-2014

