

Stop 7. Golf Course Fairway Rolling Programs to Decrease Pesticide Inputs and Enhance Playing Quality

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The cost of chemical pesticides continues to escalate, and the eminent banishment of chemical pesticides causes turfgrass managers to clamor for effective, environmentally safe means for controlling turfgrass diseases. Dollar spot (*Sclerotinia homoeocarpa*) is a foliar disease of turfgrass that causes significant injury annually. This disease is particularly severe on Michigan golf course fairways, mainly due to environmental conditions and turfgrass cultural regimes that favor disease outbreak. However, the most commonly used fungicide in the turf industry (Chlorothalonil) has been under scrutiny from the EPA, and its banishment from the market place is likely to occur. An alternative method for dollar spot control should be identified to replace Chlorothalonil and the like. Possible alternatives involves lightweight rolling and sand topdressing of golf course fairways; two cultural practices that have proven to enhance turfgrass health and vigor on putting greens. Therefore, these methods have the potential to improve fairway turfgrass quality despite fungicide reductions. The objectives are to evaluate three methods by which to reduce dollar spot and improve turf quality: lightweight rolling frequency, different initiation timings for lightweight rolling regimes, and the effect lightweight rolling frequency has upon increasing pesticide application intervals.

Stop 8. Summer Stress on a *Poa*/Bent Fairway and Foliar Anthracnose on a *Poa annua* fairway

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Summer Stress Syndrome has been associated with thinning and dying of turf during the warm summer months when turf goes under stress. It is especially problematic on low cut turf growing in poor environments. This includes greens growing in shaded areas or where there is limited air movement. Fungicides applied alone and in combination with other products on a preventive basis have been shown to prevent this decline from occurring. These products not only manage disease problems, but also create a more dense turfgrass appearance and better turf color.

2012 Summer stress treatments

Trt No.	Treatment Name	Rate	Rate Unit	Application Interval
1	Untreated Control			
2	QP Enclave	3	fl oz/1000 ft ²	14 days
2	Foursome	0.4	fl oz/1000 ft ²	14 days
3	QP Enclave	4	fl oz/1000 ft ²	21 days
3	Foursome	0.4	fl oz/1000 ft ²	21 days
4	QP Enclave	3	fl oz/1000 ft ²	14 days
4	QP Fosetyl-Al	4	oz/1000 ft ²	14 days
4	Foursome	0.4	fl oz/1000 ft ²	14 days
5	QP Enclave	4	fl oz/1000 ft ²	21 days
5	QP Fosetyl-Al	4	oz/1000 ft ²	21 days
5	Foursome	0.4	fl oz/1000 ft ²	21 days
11	SA-0010233	5	fl oz/1000 ft ²	14 days
12	Echo DYAD ETQ	5	fl oz/1000 ft ²	14 days
13	SA-0010222	2.6	fl oz/1000 ft ²	14 days
14	Clearscape ETQ	0.6	fl oz/1000 ft ²	14 days
15	SA-0010221	4	fl oz/1000 ft ²	14 days
16	Echo 6F ETQ	3.6	fl oz/1000 ft ²	14 days +
16	SA-0010234	10	fl oz/1000 ft ²	14 days
17	SA-0010228	5	fl oz/1000 ft ²	14 days
18	SA-0010231	5.25	fl oz/1000 ft ²	14 days
19	Echo 6F ETQ	3.6	fl oz/1000 ft ²	14 days
20A	SA-0010221	4	fl oz/1000 ft ²	14 days FB
20B	SA-0010222	2.6	fl oz/1000 ft ²	14 days FB
20C	Echo DYAD ETQ	4.9	fl oz/1000 ft ²	14 days FB
20D	Echo DYAD ETQ	4.9	fl oz/1000 ft ²	14 days FB
20E	Echo DYAD ETQ	4.9	fl oz/1000 ft ²	14 days FB
20F	SA-0010221	4	fl oz/1000 ft ²	14 days FB
20G	Clearscape ETQ	0.6	fl oz/1000 ft ²	14 days FB
20H	SA-0010221	4	fl oz/1000 ft ²	14 days FB
21	Signature	4	oz/1000 ft ²	14 days +
21	Chipco 26GT	4	fl oz/1000 ft ²	14 days
22	Signature	4	oz/1000 ft ²	14 days +
22	Daconil Ultrex	3.2	oz/1000 ft ²	14 days

Note: Treatments not listed in the program booklet are proprietary.

2012 Summer stress on a mixed annual bluegrass/creeping bentgrass fairway

NORTH							
	A	B	C	D	E	F	G
1	x	16	17	21	x	20	x
2	1	15	18			7	x
3	2	14	19	16	6	22	
4	3	13	x	23	11		x
5	4	12	20	4	18	13	
6	x	11	21	17	9	1	x
7	5	10	22	19	x	x	12
8	6	9	23	3	15	14	8
9	7	8		16	5	x	2
10	13	20	8	12	10	9	x
11	22	15	17	19	x	13	x
12	5		4	2	20	18	x
13	14	11	6	23	5	14	x
14	19	23	2	10	7	1	x
15	21	1	9	15	x	6	
16	10	7	16	11	3	22	8
17	12	18	3	4	21	17	x

2012 Foliar Anthracnose Study

Anthracnose, caused by *Colletotrichum cereale*, is a devastating disease that attacks annual bluegrass, and occasionally bentgrass. It can be a problem on golf course greens, tees, and fairways. Low fertility, low mowing heights, and droughty conditions that lead to stressed turf can be a precursor for this disease. Excess moisture, such as from heavy irrigation or heavy rainfall, followed by a period of hot weather can also contribute to this problem. When infection occurs on fairways, it usually affects the foliage of the plants causing the turf to look brown and wilted. Upon close examination of infected tissue, one might be able to identify tiny, dark fungal structures called acervuli, which can be diagnostic for this disease.

Foliar Anthracnose Study – 2012

Trt #	Treatment Name	Rate	Rate Unit	Application Interval
1	Untreated Control			
2	Trilogy	1.1	fl oz/1000 ft2	21 days
3	Trilogy	1.57	fl oz/1000 ft2	21 days
4	Trilogy	2.04	fl oz/1000 ft2	21 days
5	Daconil Ultrex	3.77	oz/1000 ft2	21 days
5	Banner Maxx	0.94	fl oz/1000 ft2	21 days
6	Triton SC	0.41	fl oz/1000 ft2	28 days
6	Compass	0.08	oz/1000 ft2	28 days
7	Triton SC	0.82	fl oz/1000 ft2	21 days
7	Compass	0.16	oz/1000 ft2	21 days
8	Triton SC	0.82	fl oz/1000 ft2	28 days
8	Compass	0.16	oz/1000 ft2	28 days
9	Banner Maxx	1.57	fl oz/1000 ft2	28 days
9	Daconil Ultrex	3.77	oz/1000 ft2	28 days
10	Banner Maxx	2	fl oz/1000 ft2	21 days
11	Trinity	1	fl oz/1000 ft2	21 days
12	Torque	0.6	fl oz/1000 ft2	21 days

Foliar Anthracnose Study - 2012

NORTH
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	A	B	C	D	E	F
1	1	10	11	4	6	
2	2	9	12	2		3
3		8	10	8		11
4	3	7	5	12	1	
5	4				9	7
6	5	6	3	6	4	10
7	10	1	8	11	2	6
8		11	9	7		
9	12	7	2	1	8	5
10		4	5	9	3	12