

Stop #2: Evaluation of Fungicides for Control of Anthracnose on Annual Bluegrass Putting Greens

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Objectives

Thirteen fungicide treatments were evaluated for their ability to control anthracnose disease preventatively on an annual bluegrass green.

Materials and Methods

Inoculation was achieved through core aeration and dragging in order to spread the existing inoculum. The plot was originally established in 2007 from seed with 'Peterson's Creeping' annual bluegrass. The study was completely randomized with eight replications. Fungicide treatments were initiated on 7 June 2016 before disease symptoms were present. Treatments were sprayed every 14 days. The plot receives 0.125 lb N/1000ft² every 14 days and was topdressed on 24 August 2016. The most recent rating date before publication was 29 August 2016.

Soil: Hanford fine sandy loam amended with sand

Plot Size: 4' X 6'

Application Information: CO₂ Backpack sprayer with TeeJet 8004VS nozzles
Output: 2 gal/M

Mowing Regime: 0.125 inches 3 days/wk

Results and Conclusions:

Overall, anthracnose disease pressure and distribution were moderate to heavy, with disease present in every replication by mid-June. All of the fungicide treatments, except treatment 8, significantly reduced disease pressure when compared to the control. No significant differences have been seen when comparing different treatments (Table 1). However, three treatments (Heritage Action + Daconil Action; Syngenta GreenCast Program Poa Greens- CA; and Lexicon) have resulted in consistently high turf quality and the lowest percentage of anthracnose disease cover.

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Table 1. Effect of fungicides and fungicide programs on anthracnose cover (0-100%) and turf quality (1-9, 9 = best). Riverside, CA. 2016.

Trt	Treatment Name	Rate/ 1000 ft ²	Application Code	Anthracnose [%] 08/15/16	Anthracnose [%] 08/29/16	Turf quality 1-9 08/15/16	Turf quality 1-9 08/29/16
1	Heritage Action Daconil Action Primo Maxx	0.2 oz 3.5 oz 0.1 oz	ABCDEFGH ABCDEFGH ABCDEFGH	30.3 bc	34.6 bcd	5.8 abc	5.8 abc
2	Heritage Action Daconil Action Appear	0.2 oz 3.5 oz 6.0 oz	ABCDEFGH ABCDEFGH ABCDEFGH	30.9 bc	30.6 bcd	5.3 abc	5.0 abc
3	Heritage Daconil WS Signature Xtra	0.2 oz 3.6 oz 4.0 oz	ABCDEFGH ABCDEFGH ABCDEFGH	12.6 c	16.3 bcd	6.3 ab	5.9 ab
4	Velista Daconil Action Primo Maxx	0.5 oz 3.5 oz 0.1 oz	ABCDEFGH ABCDEFGH ABCDEFGH	32.5 bc	41.9 abc	5.0 bc	4.3 cd
5	Velista Daconil Action Primo Maxx	0.5 oz 3.5 oz 0.1 oz	ABCDEFGH ABCDEFGH ABCDEFGH	23.3 bc	19.9 bcd	6.0 abc	5.9 ab
6	Heritage Action Daconil Action	0.2 oz 3.5 oz	ABCDEFGH ABCDEFGH	19.0 bc	15.6 bcd	6.0 abc	6.3 a
7	Syngenta GreenCast Program Poa Greens- CA Daconil Action Velista Appear Primo Maxx Heritage Action Briskway	 3.5 oz 0.5 oz 6.0 oz 0.1 oz 0.2 oz 0.5 oz	 ACDEGH ADFH ABCEFGH ABCDEFGH BEG C	6.3 c	13.8 cd	6.9 a	6.3 a
8	Bayer Program Signature Xtra Daconil Weatherstik Mirage Insignia	 4.0 oz 3.2 oz 1.0 oz 0.7 oz	 ACDEFGH ADFH BEG CE	43.4 ab	43.8 ab	4.4 cd	4.6 bc
9	Bayer Program Signature Xtra Daconil Weatherstik Mirage Insignia	 4.0 oz 3.2 oz 1.5 oz 0.7 oz	 ACDEFGH ADFH BEG CE	19.3 bc	25.1 bcd	5.5 abc	5.8 abc
10	Bayer Program Signature Xtra Daconil Weatherstik Mirage Insignia Medallion	 4.0 oz 3.2 oz 1.0 oz 0.7 oz 0.5 oz	 ACDEFGH ADH BEG CE F	30.8 bc	34.3 bcd	5.4 abc	5.1 abc

11	BASF Program Lexicon Encartis Trinity	0.47 oz 4.0 oz 1.0 oz	ACEG BDFH BDFH	25.3 bc	31.0 bcd	5.5 abc	5.0 abc
12	Encartis	4.0 oz	ABCDEFGH	21.4 bc	26.8 bcd	5.8 abc	5.3 ab
13	Lexicon	0.47 oz	ABCDEFGH	9.0 c	8.6 d	6.4 ab	6.1 ab
14	Check			61.8 a	66.1 a	3.1 d	3.0 d

Application code:

A – 06.07.16 E – 08.02.16
 B – 06.21.16 F – 08.16.16
 C – 07.05.16 G – 08.30.16
 D – 07.19.16 H – 09.13.16

Table 2. Anthracnose fungicide trial plot plan. Riverside, CA. 2016.

9	2	8	13	9	7	6	14	5	10	9	12	13	5		12
3	7	1	8	3	2	11	5	8	2	7	7	10	11	3	7
5	2	4	2	10	5	9	3				9	8	10	8	
9	4	14	8	10	5	13	13	1	3	6	1	14	11	1	
13	1	4	11	6	6		10								
8	6	1	2	13	14	4	9	4	8						
5	11	12	7	12	7	7	12	11							
10	13	14	9	4	11	10	2	6	5	13	6	14	4		
11	3	14	3	12	1	12	3	4	1	12	14	2	6		