## 2014 Anthracnose and Turf Quality Trial

## Synopsis

Field trial aimed at evaluating CIVITAS TURF DEFENSE Pre-M1xed as part of an IPM program for control of anthracnose and turf quality improvements. Applications were made at ~14 day intervals throughout trial. CIVITAS TURF DEFENSE Pre-M1xed programs controlled anthracnose and improved turf quality.

Trial conducted with Turfgrass Disease Solutions in Pennsylvania on a 50/50 Mix of creeping bentgrass/annual bluegrass maintained at greens height (0.125")

Program#	Product	Rate/1000 sq. ft.	Date
	CIVITAS ONE	17 fl oz	May 5
	Boscalid	0.13 oz wt	May 5
	CIVITAS ONE	17 fl oz	May 21
	CIVITAS ONE	17 fl oz	June 5
	Chlorothalonil + thiophanate methyl	3 oz wt	June 5
	CIVITAS ONE	17 fl oz	June 24
	CIVITAS ONE	17 fl oz	July 10
	Azoxystrobin	1 fl oz	July 10
	Pyraclostrobin	0.4 fl oz	July 10
1	CIVITAS ONE	17 fl oz	July 28
	CIVITAS ONE	17 fl oz	August 11
	Aluminum tris O-ethyl phosphonate	4 oz wt	August 11
	Chlorothalonil	1.8 oz wt	August 11
	CIVITAS ONE	17 fl oz	August 25
	CIVITAS ONE	17 fl oz	September 9
	Iprodione	3 fl oz	September 9
	CIVITAS ONE	17 fl oz	September 23
	CIVITAS ONE	17 fl oz	October 10
	Boscalid	0.13 oz wt	October 10
	CIVITAS ONE	8.5 fl oz	October 21

Program#	Product	Rate/1000 sq. ft.	Date
	CIVITAS ONE	8.5 fl oz	May 5
	Boscalid	0.13 oz wt	May 5
	CIVITAS ONE	8.5 fl oz	May 21
	CIVITAS ONE	8.5 fl oz	June 5
	Chlorothalonil + thiophanate methyl	3 oz wt	June 5
	CIVITAS ONE	8.5 fl oz	June 24
	CIVITAS ONE	8.5 fl oz	July 10
	Azoxystrobin	1 fl oz	July 10
2	Pyraclostrobin	0.4 fl oz	July 10
	CIVITAS ONE	8.5 fl oz	July 28
2	CIVITAS ONE	8.5 fl oz	August 11
	Aluminum tris O-ethyl phosphonate	4 oz wt	August 11
	Chlorothalonil	1.8 oz wt	August 11
	CIVITAS ONE	8.5 fl oz	August 25
	CIVITAS ONE	8.5 fl oz	September 9
	Iprodione	3 fl oz	September 9
	CIVITAS ONE	8.5 fl oz	September 23
	CIVITAS ONE	8.5 fl oz	October 10
	Boscalid	0.13 oz wt	October 10
	CIVITAS ONE	8.5 fl oz	October 21

Program #	Product	Rate/1000 sq. ft.	Date
	Boscalid	0.13 oz wt	May 5
	Metconazole	0.37 oz wt	May 21
	Chlorothalonil + thiophanate methyl	3 oz wt	June 5
	Iprodione + trifloxystrobin	3 fl oz	June 24
	Azoxystrobin	1 fl oz	July 10
	Pyraclostrobin	0.4 fl oz	July 10
	Tebuconazole	0.6 fl oz	July 28
2	Iprodione	4 fl oz	July 28
3	Aluminum tris O-ethyl phosphonate	4 oz wt	August 11
	Chlorothalonil	1.8 oz wt	August 11
	Pyraclostrobin	0.7 fl oz	August 25
	Iprodione	3 fl oz	September 9
	Aluminum tris O-ethyl phosphonate	4 oz wt	September 23
	Chlorothalonil	1.8 oz wt	September 23
	Boscalid	0.13 oz wt	October 10
	Metconazole	0.37 oz wt	October 21
4	Non-treated	-	-

Treatment <sup>1</sup>	Percent Disease <sup>2</sup>		
rreatment <sup>2</sup>	June 24³	July 28	August 25
Program 1 (Pre-M1xed high rate)	0.0 b	0.0 b	0.0 b
Program 2 (Pre-M1xed low rate)	0.0 b	0.0 b	0.0 b
Program 3 (no Pre-M1xed)	0.0 b	0.0 b	2.5 b
Non-treated	10.5 a	16.5 a	26.8 a

<sup>&</sup>lt;sup>1</sup>Treatments were applied in a carrier volume of 2 gallons/1000 sq ft.

<sup>&</sup>lt;sup>3</sup>Means within columns followed by a letter in common are not significantly different (p=0.05, Tukey's HSD)

Treatment <sup>1</sup>	Turf Quality <sup>2</sup>		
rreatment*	June 24 <sup>3</sup>	July 28	August 25
Program 1 (Pre-M1xed high rate)	8.00 a	8.63 a	9.00 a
Program 2 (Pre-M1xed low rate)	8.00 a	8.30 a	9.00 a
Program 3 (no Pre-M1xed)	7.63 b	7.35 b	8.20 b
Non-treated	7.00 c	7.00 b	5.25 c

<sup>&</sup>lt;sup>1</sup>Treatments were applied in a carrier volume of 2 gallons/1000 sq ft.

<sup>&</sup>lt;sup>2</sup>Percent plot area blighted by basal stem anthracnose, where 0 = no disease and 100 = entire plot affected.

<sup>&</sup>lt;sup>2</sup>Turfgrass quality was assessed on a 1-9 scale where 7= minimal acceptable quality for a putting green and 9= optimal.

<sup>&</sup>lt;sup>3</sup>Means within columns followed by a letter in common are not significantly different (p=0.05, Tukey's HSD)