

Table 5. Pythium Blight Fungicide Study - 1997.  
Hancock Turfgrass Research Center, E. Lansing, MI.

Rating scale: Percent area infected.

Rating date: July 29, 1997.

Treatment	Rate	Interval	I	II	III	IV	Avg. (LSD <sup>a</sup> )
Banol +Heritage	1 fl oz + 0.2 oz	21 days	0	0	0.5	0	0.1 A
Subdue	2 fl oz	14 days	5	0	5	1	2.8 AB
Banol	2 fl oz	21 days	7	5	1	5	4.5 A-C
Aliette	6 oz	14 days	5	5	5	5	5 A-C
Control	---	----	10	25	15	10	15 D

<sup>a</sup> Means followed by the same letter are not significantly different from each other based on the least significant difference test (LSD) at the 5% level.

#### Biological Control of Dollar Spot on Annual Bluegrass - 1997

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The 1997 biocontrol dollar spot study was conducted on annual bluegrass plots at the Hancock Turfgrass Research Center on the MSU campus in E. Lansing, MI. The turf was maintained at about ½ inch height of cut. Fertility was applied as needed to maintain acceptable turf quality. Treatments were applied to four replications of 2 x 3 ft plots which were arranged in a randomized complete block design. All treatments were applied using a back pack sprayer with CO<sub>2</sub>, except the Tx-1 bacterial treatments which used N<sub>2</sub> in order to avoid killing the bacteria. Treatments were sprayed using a flat-fan (8002E) nozzle and sprayer pressure of 42 PSI. Spray volumes of 1, 2 or 3 gallons per 1000 ft<sup>2</sup> were used as indicated in the tables that follow. Treatments were initiated at several different times as some products were late additions to the study (see footnotes on each table.) All treatments were applied through September 22, 1997. Data were collected by visually estimating the percent area infected with dollar spot in each plot. Plots were rated on August 8, prior to most treatment applications since some dollar spot had moved in to the study area, and on September 26 (see table 6) Proprietary treatments and data have been omitted from all data tables.

The standard Daconil Ultrex treatment (3.8 oz, 14 day interval) and those treatments containing the Tx-1 bacteria either alone, boiled, or in combination with a single Daconil Ultrex application all provided excellent dollar spot control throughout the season.

Table 6. Biocontrol Dollar Spot Study - 1997.  
Hancock Turfgrass Research Center, E. Lansing, MI.

Rating scale: Percent area infected with dollar spot.

Rating date: September 26, 1997.

Treatment	Rate/1000ft <sup>2</sup>	Interval	I	II	III	IV	Avg.(LSD <sup>a</sup> )
Daconil Ultrex <sup>§</sup>	3.8 oz	14 days	0	0	0	0	0.0 F
Tx-1 <sup>§</sup> (boiled)	10 <sup>7</sup> CFU/cm <sup>2</sup>	Daily	7	3	1	2	3.3 F
Tx-1 <sup>§</sup>	10 <sup>7</sup> CFU/cm <sup>2</sup>	Daily	7	5	1	3	4.0 F
Tx-1 <sup>§</sup> +	10 <sup>7</sup> CFU/cm <sup>2</sup> +Daily		5	5	7	1	4.5 F
Daconil Ultrex <sup>§</sup>	3.8 oz	1 appl.					

Table 6. cont.

Treatment	Rate/1000ft <sup>2</sup>	Interval	I	II	III	IV	Avg.(LSD <sup>a</sup> )
RD 100 <sup>f</sup>	9.6 fl oz <sup>b</sup>	Variable <sup>c</sup>	50	10	20	10	22.5 E
RD 100 alt. RD 101 <sup>f</sup>	3.2 fl oz <sup>b</sup>	Variable <sup>d</sup>	30	20	25	20	23.8 DE
Heritage <sup>h</sup>	0.4 oz	30 days	20	30	20		23.8 DE
RD 100 alt. RD 101 <sup>f</sup>	9.6 fl oz <sup>b</sup>	Variable <sup>d</sup>	35	30	15	20	25.0 C-E
RD 101 <sup>f</sup>	3.2 fl oz <sup>b</sup>	Variable <sup>c</sup>	40	30	20	15	26.3 B-E
Biotrek Sprayable <sup>h</sup> + R-11 Surfactant <sup>h</sup>	12 fl oz <sup>e</sup> + 0.25 fl oz <sup>e</sup>	10 days 10 days	40	20	25	20	26.3 B-E
Daconil Ultrex <sup>g</sup>	3.8 oz	1 appl.	15	30	25	40	27.5 A-E
RD 100 <sup>f</sup>	3.2 fl oz <sup>b</sup>	Variable <sup>c</sup>	30	35	20	25	27.5 A-E
RD-200 <sup>f</sup>	4% v/v	Variable <sup>c</sup>	40	20	35	30	31.3 A-E
Control	-----	-----	35	25	40	25	31.3 A-E
RD 100 <sup>f</sup>	6.4 fl oz <sup>b</sup>	Variable <sup>c</sup>	40	25	30	40	33.8 A-D
RD 101 <sup>f</sup>	6.4 fl oz <sup>b</sup>	Variable <sup>c</sup>	50	35	20	30	33.8 A-D
RD 101 <sup>f</sup>	9.6 fl oz <sup>b</sup>	Variable <sup>c</sup>	40	20	40	40	35.0 A-C
Heritage <sup>h</sup> + Biotrek sprayable <sup>h</sup> + R-11 Surfactant <sup>h</sup>	0.4 oz + 12 fl oz <sup>e</sup> + 0.25 fl oz <sup>e</sup>	30 days 10 days 10 days	40	30	35	40	36.3 AB
RD 100 alt. RD 101 <sup>f</sup>	6.4 fl oz <sup>b</sup>	Variable <sup>d</sup>	50	20	45	35	37.5 A

<sup>a</sup> Treatment means followed by the same letter are not significantly different from each other based on the least significant different test (LSD) at the 5% level.

<sup>b</sup> Treatments applied in 3x spray volume (3 gal/ 1000 ft<sup>2</sup>) using 4% RD 200 in distilled water.

<sup>c</sup> Treatments applied during weeks 1, 2, 4, 5, 7, and 8.

<sup>d</sup> Treatment RD 100 applied during weeks 1, 4, and 7, and treatment RD 101 applied during weeks 2, 5, and 8.

<sup>e</sup> Treatments applied in 2x spray volume (2 gal/ 1000 ft<sup>2</sup>) using 4% RD 200 in distilled water.

<sup>f</sup> First application applied on August 21, 1997.

<sup>g</sup> First application applied on August 4, 1997.

<sup>h</sup> First application applied on August 8, 1997.

#### Bentgrass Decline Field Trial - 1997

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A summer decline study was conducted on an irrigated bentgrass (*Agrostis palustris*) putting green at the Hancock Turfgrass Research Center on the MSU campus in E. Lansing, MI. The height of cut was maintained at 1/8 inch, and the area was fertilized as needed to maintain acceptable quality turf. Treatments were applied to 4 replicate 2' x 4.5' plots in a randomized complete block design. Treatments were applied using a CO<sub>2</sub> backpack sprayer with a 8002E flat fan nozzle at a spray volume of 48 GPA and pressure