

Evaluation of Fungicides for Control of Brown Patch in Creeping Bentgrass, 2005

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Trials were conducted at the WOI greens of Veenker Memorial Golf Course in Ames, Iowa. Creeping bentgrass (cv. Washington) was maintained at 0.16-inch cutting height. Fungicides selected for activity against brown patch were applied using a backpack sprayer at 30 psi and a dilution rate of 5 gal per 1000 sq ft. The experimental design was a randomized complete block with four replications. All plots measured 4 ft x 5 ft. Spray applications were initiated on 4 Jun, except for curative treatments, which were initiated on 1 Jul. These were followed by re-applications at recommended intervals until 13 Aug. Visual estimates of disease severity were made at approximately 10-day intervals starting on 15 Jul with a qualitative scale of 0-5 for brown patch, where 0 = no disease; 1 = 1-5%; 2 = 6-10%; 3 = 11-25%; 4 = 26-50%; 5 = >50% plot symptomatic. Data were analyzed using the GLM procedure in SAS and mean separations were determined using Fisher's protected LSD at $P \leq 0.05$.

Disease pressure was low to moderate for brown patch. Most of the tested products suppressed brown patch significantly ($P \leq 0.05$) in comparison to the unsprayed check. No phytotoxicity symptoms were observed during the trial.

Products and rates per 1000 sq ft	Interval (days)	Brown patch (0-5 scale)				AUDPC ^y
		5 Jul	15 Jul	27 Jul	20 Aug	
Unsprayed check.....	---	0.75 ab	1.25 a-c	3.75 a	1.50 a	106.8 a
Insignia 0.5 oz.....	14 d	0.00 b	0.00 c	1.25 c-f	0.00 c	21.9 d-f
Insignia 0.9 oz.....	28 d	0.00 b	0.00 c	1.50 c-f	0.00 c	26.0 c-f
Emerald 70WDG 0.13 oz.....	14 d	0.00 b	0.00 c	1.50 c-f	0.25 bc	32.8 c-f
Emerald 70WDG 0.18 oz.....	21 d	0.25 ab	0.75 a-c	1.00 d-f	0.00 c	25.6 c-f
Emerald 70WDG 0.18 oz.....	28 d	0.75 ab	1.75 ab	2.50 a-c	1.00 ab	76.6 ab
Insignia 0.9 oz + Curalan 1 oz.....	21 d	0.00 b	0.00 c	1.50 c-f	0.00 c	28.5 c-f
Curalan 1 oz.....	21 d	0.00 b	1.00 a-c	1.75 b-e	1.00 ab	48.9 b-d
Lynx 45 WP 0.3 oz.....	21 d	0.25 ab	0.50 bc	1.25 c-f	0.00 c	28.4 c-f
Lynx 45 WP 0.6 oz.....	21 d	0.00 b	0.00 c	0.75 ef	1.00 ab	28.1 c-f
Lynx 45 WP 1.2 oz ^x	21 d	0.25 ab	1.25 a-c	2.25 b-d	0.00 c	60.3 bc
Lynx SC 0.5 fl oz.....	21 d	0.00 b	0.00 c	0.50 ef	0.00 c	8.3 ef
Lynx SC 1 fl oz.....	21 d	0.00 b	0.25 bc	0.75 ef	0.00 c	17.5 d-f
Lynx SC 2 fl oz ^x	21 d	1.00 a	2.25 a	3.00 ab	0.00 c	78.1 ab
Tartan SC 1 fl oz.....	21 d	0.00 b	0.00 c	0.50 ef	0.00 c	8.3 ef
Tartan SC 2 fl oz.....	21 d	0.00 b	0.00 c	1.50 c-f	0.00 c	27.3 c-f
Chipco 26GT SC 4 fl oz.....	14 d	0.00 b	0.50 bc	0.25 f	0.00 c	6.9 f
Bayleton 50 WP 0.5 oz.....	21 d	0.00 b	0.00 c	1.25 c-f	0.00 c	23.1 c-f
Bayleton 50 WP 1 oz.....	21 d	0.00 b	0.75 bc	1.00 d-f	0.50 bc	30.4 c-f
Bayleton SC 0.5 fl oz.....	21 d	0.00 b	0.50 bc	1.25 c-f	0.75 a-c	38.6 c-f
Bayleton SC 1 fl oz.....	21 d	0.00 b	1.25 a-c	1.75 b-e	0.00 c	44.5 b-e
Bayleton SC 2 fl oz.....	21 d	0.00 b	1.00 a-c	1.50 c-f	0.00 c	31.5 c-f
LSD (0.05) ^x	---	0.81	1.57	1.40	0.88	37.5

^yPercent plot symptomatic.

^yAUDPC= area under disease progress curve. This value is calculated from all disease estimates and represents disease development over the entire season.

^xCurative applications were initiated on 1 Jul.

^wMeans followed by the same letter are not significantly different according to Fisher's protected LSD at $P \leq 0.05$.