

Summer Stress Syndrome in Bentgrass

This trial was conducted on a Pennncross creeping bentgrass green at the Hancock Turfgrass Research Center, E. Lansing, MI. The plot area was mowed at 0.130". Fertility was maintained at $\frac{1}{8}$ lbs. N/1000 ft²/ month (using urea) with 1/8# N/1000 ft² applications being made on 6/10, 6/24, 7/8, 7/22, and 8/5. The Gary's Green combinations and the MacroSorb combination received adjusted amounts of urea to offset the nitrogen contained in the products. The total nitrogen they received was equivalent to all of the other treatments. The study was set up in a randomized complete block design with four replications of each treatment. Plots measured 2' x 4.5' with 1' alleys. Treatments were applied at 36 PSI in a 48 GPA spray volume using a CO₂ backpack sprayer and a single 8002E Tee-Jet flat fan nozzle unless otherwise noted in Table 9. Initial application of all treatments was made on May 28. Re-applications of treatments on a 14 day schedule were made on 6/13, 6/24, 7/8, and 8/5 or as listed in Table 9. The 21 day treatment was reapplied on 6/17, 7/8, and 7/29. In addition, a Daconil Ultrex treatment was applied on 7/1, 7/8, 7/22, and 8/5. Quality ratings were visually estimated using a 1 to 10 scale, where 1 = poor, 10 = excellent, and 7 = acceptable. Data were analyzed using ANOVA and means separated by LSD (p= 0.05).

This growing season was quite mild in terms of stress on our bentgrass green study. Many of the treatments tested provided superior turf quality compared to the control which received only fertilizer. Treatments such as various Signature combinations and alternations, Gary's Green combinations, and MacroSorb, in combination, provided good turf quality throughout the study. No phytotoxicity was observed during the study, however, the Gary's Green + PK Plus + UltraPlex combination did turn the turf very dark after applications were made.

Table 9. Mean Quality Ratings of Summer Stress in Creeping Bentgrass**Location: Hancock Turf Research Center, E. Lansing, MI.****Rating Scale: 1-10 scale, where 10 = excellent and 7 = acceptable.**

Treatment and Rate/1000 sq ft	Interval (Days)	24-Jun		17-Jul		8-Aug	
		Mean ^a		Mean ^a		Mean ^a	
Signature 4 oz + Daconil Ultrex 3.2 oz	14	8.0	b	8.3	a	8.3	bc
Ch. Signature 80WDG 4 oz + Daconil Ultrex 3.2 oz alt with Ch. Signature 80WDG 4 oz + Heritage 0.2 oz	14	8.5	a	8.3	a	8.0	b-d
Gary's Green 6 fl oz + PK Plus 6 fl oz + Ultra Plex 3 fl oz ^b	14	7.8	bc	8.0	a	8.5	ab
Gary's Green 6 fl oz + Ultra Plex 3 fl oz ^b	14	7.5	c	7.8	ab	9.0	a
MacroSorb Foliar 2 fl oz + Quelant Minors 1.5 fl oz ^b	14	7.0	d	7.3	bc	7.8	c-e
Ch Signature 80WDG 4 oz + Compass 50WP 0.15 oz +	28-May	8.0	b	7.0	cd	7.5	d-f
Ch Signature 80WDG 4 oz + Chipco 26GT 4 fl oz +	10-Jun						
Ch Signature 80WDG 4 oz + Bayleton 1 fl oz +	24-Jun						
Ch Signature 80WDG 4 oz + Chipco 26GT 4 fl oz +	8-Jul						
Ch Signature 80WDG 4 oz + Compass 50WP 0.15 oz +	22-Jul						
Ch Signature 80WDG 4 oz + Chipco 26GT 4 fl oz	5-Aug						
Spectro 4 oz + Alude 5.5 fl oz	14	7.0	d	7.0	cd	7.3	ef
Daconil Ultrex 3.2 oz	--- ^c	n/a		7.0	cd	7.3	ef
Signature 4 oz + Chipco 26GT 4 fl oz	14	7.0	d	7.0	cd	7.0	fg
Endorse 4 oz + Alude 5.5 fl oz	14	7.0	d	7.0	cd	6.5	gh
CJB EXP 0220 2 fl oz	21	7.0	d	6.8	cd	6.3	h
Protect 8 oz + Alude 5.5 fl oz	14	7.0	d	6.8	cd	5.5	i
Control	---	7.0	d	6.5	d	6.0	hi

^a Mean of 4 replications; means followed by the same letter do not significantly differ (LSD, p=0.05).

^b Treatments received Daconil Ultrex at 3.2 oz/1000 ft² on 7/1 for dollar spot control.

^c Daconil Ultrex (3.2 oz) treatment applied on 7/1, 7/8, 7/22, and 8/5.