

Summer Stress Syndrome in Annual Bluegrass

This trial was conducted on a *Poa annua* fairway at the Hancock Turfgrass Research Center, E. Lansing, MI. The plot area was mowed at 0.5". Fertility was maintained at about $\frac{1}{2}$ # N/1000 ft²/ month (using urea) with $\frac{1}{2}$ #N/1000 ft² application being made on 6/10 and a $\frac{1}{8}$ # N/1000 ft² applications being made on 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 TeeJet flat fan nozzle. 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 order to prevent a significant dollar spot outbreak in the control plots, on July 1, a Daconil Ultrex (3.2 oz) treatment was added to provide a dollar spot-free control. This treatment was reapplied on 7/8, 7/22, and 8/5. Turfgrass quality was 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).

As can be seen in Table 10, many treatments provided significantly better turf quality than the control. The Signature combination treatments provided very good turf quality throughout the study as did Spectro + Alude, Daconil Ultrex, and Gary's Green + UltraPlex. Since the weather was so mild this season, the Daconil Ultrex treatment provided good turf quality that was not significantly different from any of the top-performing treatments.

Table 10. Mean quality ratings for summer decline in annual bluegrass

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		6-Aug	
		Mean ^a		Mean ^a		Mean ^a	
Ch. Signature 80WDG 4 oz + Daconil Ultrex 3.2 oz alt with Ch. Signature 80WDG 4 oz + Heritage 0.2 oz	14	8	ab	8	a	8	a
Ch Signature 80WDG 4 oz + Compass 50WP 0.15 oz +	28-May	7.5	ab	8	a	8	a
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	bc	7.8	a	7.8	a
Signature 4 oz + Daconil Ultrex 3.2 oz	14	7.3	bc	7.8	a	7.5	ab
Signature 4 oz + Chipco 26GT 4 fl oz	14	7.3	bc	7.5	ab	7.5	ab
Daconil Ultrex 3.2 oz	--- ^c	n/a		7.3	a-c	7.5	ab
Gary's Green 6 fl oz + Ultra Plex 3 fl oz ^b	14	7	bc	7.3	a-c	7.5	ab
Gary's Green 6 fl oz + PK Plus 6 fl oz + Ultra Plex 3 fl oz ^b	14	6.8	cd	6.8	bc	7	bc
Protect 8 oz + Alude 5.5 fl oz	14	7	bc	6.8	bc	6.8	c

MacroSorb Foliar 2 fl oz + Quelant Minors 1.5 fl oz ^b	14	6.8	cd	6.8	bc	6.8	c
CJB EXP 0220 2 fl oz	21	7	bc	6.5	cd	6.5	cd
Endorse 4 oz + Alude 5.5 fl oz	14	7.3	bc	6.8	bc	6	de
Control	---	6.3	d	5.8	d	5.8	e

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

Brown Patch (*Rhizoctonia solani*)

Two preventive studies were conducted this year, one on a ryegrass plot area and a second on a bentgrass green at the Hancock Turfgrass Research Center, E. Lansing, MI. Both studies were randomized complete block designs with 4 replicates of each treatment. Plots measured 2' x 4.5' with 1' alleys. Treatments were applied using a CO₂ backpack sprayer at 36 PSI and 48 GPA, unless otherwise noted in Table 11, using a single 8002E Tee Jet flat fan nozzle. The ryegrass study area was inoculated (on 7/25) with *Rhizoctonia solani* growing on a sand/cornmeal mixture using a drop spreader. Plots were fertilized at a rate of 0.75# N/1000 ft²/month on both studies. Treatments were applied beginning on June 20 unless otherwise noted in Table 11. Subsequent applications of the 14-day treatments were made on 7/3, 7/18, 7/30, and 8/14 unless noted otherwise in Table 11. Plots were rated for percent area blighted by brown patch (see Table 11.) Data were analyzed using ANOVA and means separated with LSD (p=0.05).

Disease conditions were mild this year for brown patch, but we did have an average of 21% of the plot area diseased in our control plots (Table 11.) Most treatments provided good brown patch control this season including Compass + Bayleton combinations, Compass, two program style treatments, Spectro, Prostar, Daconil Ultrex, Echo, Heritage, Echo + Propimax, Chipco 26GT, and some experimental Compass products. Several treatments provided good turf quality such as Spectro, Echo + Propimax, and Compass + Bayleton combinations. No phytotoxicity was observed in the study.