Table 5: Mean Melting Out Ratings

Location: Hancock Turfgrass Research Center, E. Lansing, MI							
Rating Scale: 0-10 where 0= best, 10= worst, 2= acceptable. Rating Date: June 21, 2002.							
Treatment	Rate/1000ft^2	I	II	III	IV	Mean	LSD[a]
Endorse	4 oz	1	1	1	1	1.0	A
Chipco 26GT	4 fl oz	1	2	1	2	1.5	AB
Control	--	4	2	3	2	2.8	B

[a] Means followed by the same letter do not significantly differ (LSD, p=0.05).

Summer Stress Syndrome in Bentgrass

This trial was conducted on a Penncross creeping bentgrass green at the Hancock Turfgrass Research Center, E. Lansing, MI. The plot area was mowed at 0.130". Fertility was maintained at ¼# N/1000 ft^2/ month using 18-3-12 on all treatments, except those listed in Table 6, with 1/8# N/1000 ft^2 applications being made on 5/23, 6/7, 6/21, 7/2, 7/16, 7/31, and 8/14. 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 34 PSI in a 48 GPA spray volume using a CO_2 backpack sprayer and a single 8002E Tee-Jet flat fan nozzle unless otherwise noted in Table 6. Initial application of treatments was made on 7 June unless otherwise indicated in Table 6. Re-applications of treatments were made as listed below. Due to the varied fungicide combinations tested in this study, no additional chemical applications were made to control dollar spot or other diseases. 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).

Several treatments provided good turf quality, even under the lean, dry conditions that occurred in this study. The Chipco Signature + Daconil Ultrex combination was the only treatment in the study that provided significantly better turf quality than the control on every rating date. Chipco Signature in combination with both Chipco 26GT and Triton as well as the Signature 3-combination treatments also provided better turf quality when compared to the control and many other treatments. Spectro + Alliance performed fairly consistently during the study, exhibiting improved quality as the study progressed. The Syngenta Program treatment, initiated on June 7 (see Table 6), exhibited phytotoxicity early on in the study. This was expressed as a burn followed by a stunting and darkening of the turf.

Table 6. 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)	Mean[b] 18 JUN	Mean 27 JUN	Mean 15 JUL	Mean 5 AUG	Mean 19 AUG	Mean 28 AUG
Chipco Signature 4 oz + Triton 0.5 fl oz	14[d]	6.8 BC[c]	6.5 B-D	6.3 C-E	8.0 AB	8.3 A	8.0 A-C
Chipco Signature 4 oz + Daconil Ultrex 3.2 oz	14	8.0 A	8.0 A	7.5 A	8.5 A	8.3 A	8.5 A
Program treatment:							
Chipco Signature 4 oz + Triton 1 fl oz , then	14 (2 apps)	7.0 B	7.0 BC	6.8 BC	7.5 BC	8.0 A	8.3 AB
Chipco Signature 4 oz + Chipco 26GT 3 fl oz, then	14 (2 apps)						
Chipco Signature 4 oz + Daconil Ultrex 3.8 oz	14 (2 apps)						
Chipco Signature 8 oz +	19 Apr +	6.8 BC	7.3 AB	7.0 AB	7.5 BC	7.5 AB	7.5 B-D
Chipco Signature 4 oz + Chipco 26GT 3 fl oz	14						
Spectro 4 oz + Alliance 3 fl oz	14	6.3 C-E	6.8 BC	6.8 BC	7.0 CD	7.0 BC	7.8 A-C
Daconil Ultrex 3.2 oz.	14	7.0 B	7.0 BC	7.0 BC	7.3 BC	7.0 BC	7.3 C-E
Program Treatment::							
Chipco Signature 4 oz +	28[e]	6.3 C-E	6.3 C-E	6.8 BC	6.8 CD	6.8 B-D	6.8 D-F
Chipco 26GT 3 fl oz	14						
Syngenta Program Treatment::							
Primo Maxx 0.25 fl oz + Banner Maxx 1.0 fl oz + Daconil Ultrex 1.8 oz[f]	7-Jun	6.0 DE	5.5 E	6.5 C-E	6.8 CD	6.8 B-D	6.3 F-H
Primo Maxx 0.25 fl oz + Subdue Maxx 0.5 fl oz + Daconil Ultrex 1.8 oz[f]	1-Jul						
Primo Maxx 0.25 fl oz + Banner Maxx 1.0 fl oz + Heritage 0.2 oz + Subdue Maxx 0.5 fl oz[f]	21-Jul						
Primo Maxx 0.25 fl oz + Banner Maxx 1.0 fl oz + Heritage 0.2 oz + Subdue Maxx 0.5 oz[f]	14-Aug						
Primo Maxx 0.25 fl oz + Banner Maxx 1.0 fl oz + Daconil Ultrex 1.8 oz[f]	7-Sep						
Banner Maxx 0.5 fl oz + Heritage 0.2 oz + Primo Maxx 0.25 fl oz[f]	14	5.8 E	5.8 DE	5.8[i] E	6.8 CD	6.5 C-E	6.5 E-G
Endorse 4 oz + Alliance 3 fl oz	14	6.0 DE	6.8 BC	6.3 C-E	6.0 DE	6.0 D-F	5.8 G-I
0.5 gal Vital Reaction "A" + 0.5 gal Vital Reaction "B"[a, g]	6 weeks[h]	6.8 BC	7.0 BC	6.3 C-E	5.3 E	5.8 EF	5.5 HI
Banner Maxx 0.5 fl oz + Heritage 0.2 oz + Primo Maxx 0.25 fl oz[e]	21[j]	6.0 DE	5.8 DE	5.8 E	6.0 DE	5.5 F	5.5 HI
Control	--	6.0 DE	6.5 B-D	6.3 C-E	5.5 E	5.5 F	5.5 HI
1 quart Vital Reaction "A" + 1 quart Vital Reaction "B"[a, g]	6 weeks[h]	6.3 C-E	6.3 C-E	6.0 DE	5.5 E	5.5 F	5.0 I
1 pint Vital Reaction "A" + 1 pint Vital Reaction "B"[a, g]	6 weeks[h]	6.5 B-D	6.3 C-E	5.8 E	5.5 E	5.5 F	5.0 I
24 fl oz Vital Reaction "A" + 24 fl oz Vital Reaction "B"[a, g]	6 weeks[h]	6.8 BC	6.5 B-D	6.0 DE	5.5 E	5.3 F	5.5 HI

[a] Treatment applied in 4 gal /1000 ft^2 spray volume.
[b] Mean of 4 replicate plots.
[c] Treatments means followed by the same letter do not significantly differ (LSD, p=0.05).

[d] 14-day interval treatments applied on 6/7, 6/18, 7/3, 7/16 (7/19 for treatment 4B), 7/30, and 8/15.
[e] 28-day interval treatments were applied on 6/7, 7/3, and 7/30.
[f] Ammonium sulfate fertilizer applied at 0.25#N/1000 ft^2 with each treatment application.
[g] Treatment did not receive supplemental fertility.
[h] Treatment applied on 6/10 and 7/23.
[i] Mid-July application on 7/16 was omitted.
[j] Applied on 6/7 and 8/15 only.

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". 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 34 PSI in a 48 GPA spray volume using a CO_2 backpack sprayer and a single 8002E TeeJet flat fan nozzle. Initial treatment applications were made on 7 June unless otherwise indicated in Table 7. Re-applications were made on intervals as indicated below with subsequent applications for 14 day intervals on 6/18, 7/3, 7/16, 7/30, and 8/15, for 21 day intervals on 8/16, for 28 day intervals on 7/3 and 7/30 , and for 6 week intervals on 7/23. Fertility was maintained at ¼# actual N/1000 ft^2/ month using 18-3-12 on all treatments, except those listed in Table 7, with 1/8# N/1000 ft^2 applications being made on 5/23, 6/5, 6/19, 7/3, 7/31, and 8/15. Due to varied fungicide combinations tested in this study, no additional chemical applications were made to control dollar spot. Quality ratings were visually estimated using a 1 to 10 scale, where 10 = excellent, and 7 = acceptable. Data were analyzed using ANOVA and means separated by LSD (p=0.05).

Turf quality varied during this trial for many treatments where good quality was observed on one rating, a decline in quality on the next, and then recovery following that. As the study progressed, dollar spot became severe on many treatments, hence, an overall decline in turf quality for many treatments can be seen as noted by the poorer quality ratings in mid August. The Signature (April 19 application) with Signature + Chipco 26GT treatment provided good turf quality that was statistically significant compared to the control for the entire duration of the study. All of the Signature combination treatments performed well in August with some reaching peak performance in July. The Syngenta Program treatment exhibited phytotoxicity early on in the study, and the turf was slow to recover.