



DECLARATION
CREEPING BENTGRASS
For Fairways, greens, & tees



Declaration Creeping Bentgrass The New Standard!

Declaration Creeping bentgrass is a new, cutting edge creeping bentgrass developed by LebanonTurf. Declaration exhibits top rated overall turf quality and dollar spot resistance. In the 2004-2007 Final NTEP Greens trial, Declaration tied for #1 overall for turf quality, and ranked #1 for dollar spot resistance.

Reducing dollar spot through genetics could have a tremendous impact on how superintendents manage their turf, with potentially large savings for maintenance and reduced environmental concerns. In an article in the June 2004

TurfNet monthly, Dr. William Meyer from Rutgers talks about how important breeding for disease resistance is in bentgrass, and says "over 70% of the fungicides used on golf courses goes to control dollar spot on bentgrass. That's big money, and a huge incentive to breed for improved dollar spot resistance." Dr. Stacy Bonos – bentgrass breeder from Rutgers also states "compared to traditional varieties that require fungicide treatments every 7-10 days during peak (dollar spot) pressure, Declaration would require only one or two sprays per year to remain acceptably clean"

Establishment

- New Seeding Rate: 1.0 lb./1000sq. ft
- Interseeding Rate: 0.25-0.5 lb./1000 sq. ft.

Mowing Heights

- 0.1 to 0.15 in. height on greens
- Ideal for fairways or tees at higher levels

Declaration Creeping bentgrass

- *Top ranked for overall turf quality*
- *Top ranked for dollar spot resistance*
- *Top ranked for mowing quality*
- *Top ranked for summer density*
- *Excellent resistance to Brown patch*
- *Top ranked for fine leaf texture*
- *Ideal for fairways, greens, and tees*





2003 NTEP Greens Height trial - 25 locations

- Tied for #1 for overall turf quality
- Excellent under reduced fungicides
- #1 overall at 1/8 in. or lower mowing height
- Top rated for fall color
- #1 for Dollar Spot
- Ranked #4 overall for Spring greenup

2003 NTEP Fairway trial - 23 locations

- #2 for dollar spot
- Tied for #1 for mowing quality
- Ranked #1 for summer density
- Medium fine leaf texture
- Excellent resistance to Brown Patch
- Excellent spring density
- Very good resistance to Poa annua invasion

NTEP Greens Trial 2004-2007 Final Data

Summary of Turfgrass Quality Ratings for Bentgrass cultivars in the 2003 National bentgrass (putting green) trial.

Appendix table

Turfgrass quality ratings 1-9
9 = ideal turf

Shark	6.4
Declaration	6.4
007 (DSB)	6.4
Tyce	6.4
CY-2	6.4
Authority	6.4
Memorial	6.3
Mackenzie	6.3
LS-44	6.3
Cobra 2	6.2
13-M	6.2
Independence	6.2
Penn A-1	6.1
Benchmark DSR	6.1
T-1	6.1
Kingpin	6.1
Alpha	6.0
Bengal	6.0
Pennlinks II	5.6
Villa (Velvet)	5.3
Legendary (Velvet)	5.2
Greenwich (Velvet)	5.2
Venus (Velvet)	5.0
Penncross	5.1
Vesper (Velvet)	5.0
SR 7200 (Velvet)	4.9
LSD Value	0.2

NTEP Greens Trial 2004-2007 Final Data

Summary of Turfgrass Quality Ratings for Bentgrass cultivars in the 2003 National bentgrass (putting green) trial.

Table 22A

Dollar Spot Rating 1-9
9 = no disease

Declaration	8.1
Memorial	7.9
Villa (Velvet)	7.7
Benchmark OSR	7.6
SR 7200 (Velvet)	7.6
13-M	7.5
Legendary (Velvet)	7.4
Greenwich (Velvet)	7.4
Venus (Velvet)	7.4
Kingpin	7.3
CY-2	7.3
Pennlinks II	7.2
Vesper (Velvet)	7.1
Cobra 2	6.9
007	6.9
Penn A-1	6.9
Penncross	6.5
Authority	6.4
Mackenzie	6.3
LS-44	6.2
Tyce	5.5
Alpha	5.4
Shark	5.3
T-1	5.0
Bengal	4.9
Independence	4.2
LSD Value	0.9

NTEP Fairway Trial 2004-2007 Final Data

Summary of Turfgrass Quality Ratings for Bentgrass cultivars grown on a fairway or tee.

Appendix table

Turfgrass quality ratings 1-9
9 = ideal turf

Crystal BlueLinks	6.5
13-M	6.4
T-1	6.4
LS-44	6.4
Penneagle II	6.3
Kingpin	6.3
Shark	6.3
Declaration	6.2
Authority	6.2
Alpha	6.2
L-93	6.2
Mackenzie	6.1
SR 1150	6.1
Pennlinks II	6.0
SR 1119	6.0
Bengal	6.0
Independence	6.0
Princeville	5.7
Penncross	5.5
Tiger II (Colonial)	5.4
Bardot (Colonial)	5.4
SR 7150 (Colonial)	5.3
Seaside	4.4
LSD value	0.2

(selected varieties including highest and lowest)

Management Overview

Due to its excellent dollar spot resistance, Declaration does not thin out in the summer like many other bent varieties. Combined with its aggressive growth habit, Declaration is able to deliver a top-notch playing surface through the challenging summer months. To some degree, all creeping bentgrasses go through a June/July "puff up" or reproductive period, especially under high fertility. Declaration's aggressive upright growth habit and excellent disease resistance during this time period requires two to three verticuttings and possibly topdressing to avoid scalping. Growth regulators may also prove to be a valuable tool. Declaration requires consistent mowing at regular intervals. Frequent rolling and lower fertilization levels also help reduce scalping potential during this period, and help deliver the ultimate playing surface.

Site	Mowing height	Verticut Schedule	Topdressing	Rolling	Fertilization*
Greens	0.1-0.12 (in.)	June-July 2-3 weeks intervals Other months - as needed	After each verticutting or as needed at 1-6 cu. ft./1000 per app Total 20-40 cu. ft./1000	As needed to maintain high quality putting surface	N - 1-4 lbs P - 0-3 lbs K - 4-10 lbs
Tees	0.15 - 0.25 (in.)	June-July 2-3 weeks intervals Other months - as needed	After each verticutting or as needed at 1-6 cu. ft./1000 per app Total 20-40 cu. ft./1000	NA	N - 1-4 lbs P - 0-3 lbs K - 4-10 lbs
Fairways	0.25-0.5 (in.)	As needed	Helpful at similar rates if budget allows.	NA	N - 1-4 lbs P - 0-3 lbs K - 4-10 lbs

* The market boasts so many different fertilization products and strategies that we will not attempt to give specific guidelines regarding rates and timing. Different soil types, soil textures, and organic matter levels, as well as greens sand mixtures also play a role in specific fertilizer recommendations. Declaration has an aggressive growth habit and will generally require less NPK overall to deliver high quality turf. Each superintendent will find the proper fertilization level based on product choice, climatic conditions, irrigation regime, and desired level of turf quality at different points in their season. Consult your LebanonTurf distributor about all the superior quality Lebanon Turf granular fertilization products like Country Club, Par Ex, NX-Pro, or IsoTek as well as NutriFoliar liquids. Superior results come from superior products.

Summary of Management Considerations for Declaration Creeping Bentgrass:

- Declaration is an aggressive variety; during the June/July "puff up" or reproductive period it requires verticutting. Topdressing during this period may also be highly beneficial.
- The more often Declaration greens are rolled, the better it performs
- Even though it is an aggressive variety, Declaration Creeping Bentgrass needs to be fertilized at the lower end of the rate spectrum, especially during the "puff up" period.
- Because Declaration is an aggressive, vigorously growing variety, regular, consistent mowing is a must.
- Declaration has superior dollar spot resistance. It requires lower fungicide inputs.
- Declaration Creeping Bentgrass is an excellent choice for interseeding or overseeding or slitseeding into existing greens because of its excellent seedling vigor, aggressive growth habit, excellent spreading capabilities, and superior disease resistance. Of course total renovation and conversion to a solid Declaration stand is the preferred method.

Declaration Creeping Bentgrass

It's simply the best



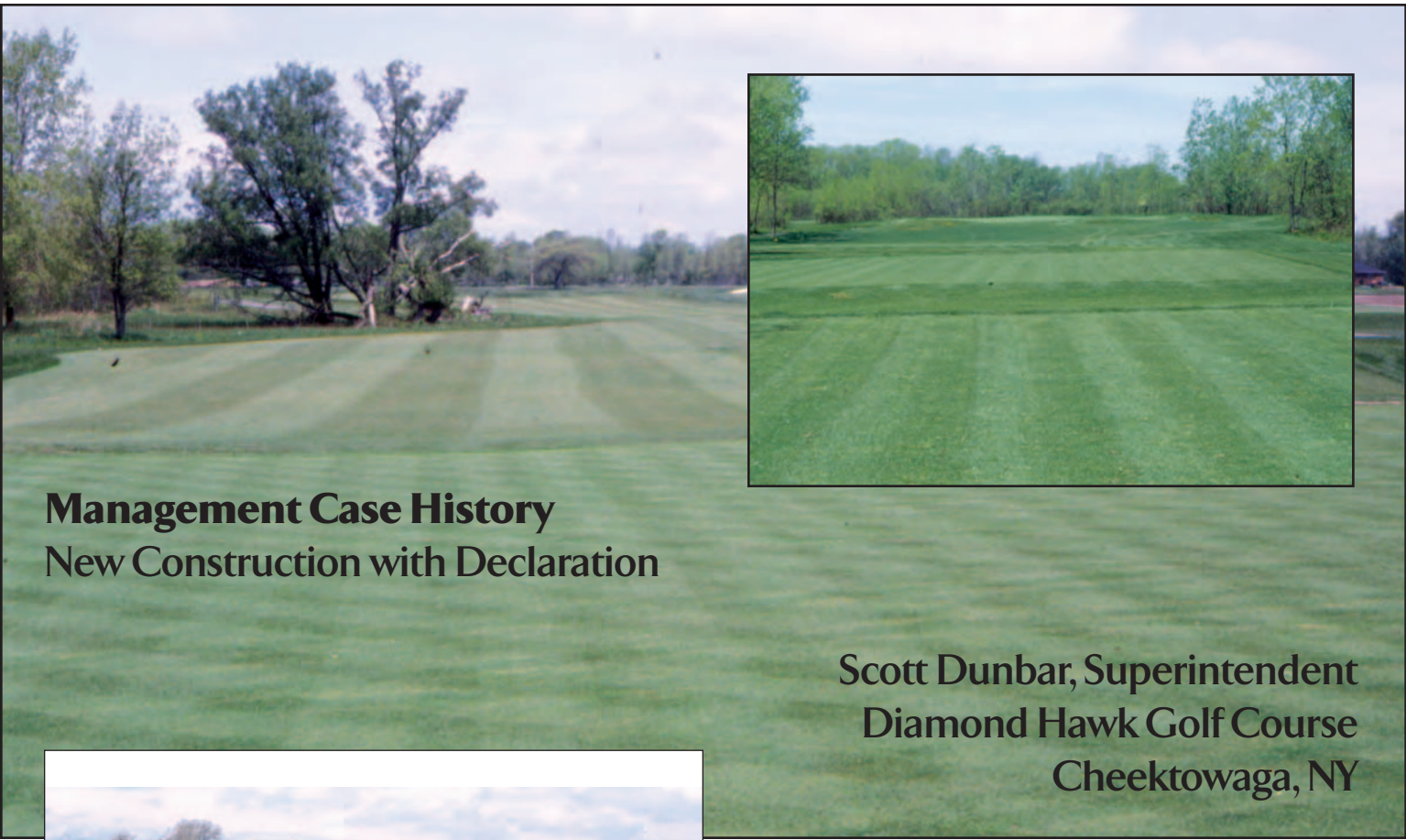
Declaration creeping bentgrass is a new cutting edge bentgrass from the innovators at LebanonTurf. It is an aggressively growing, highly disease resistant bentgrass that was bred to reduce fungicide costs and benefit the environment, while delivering top playing conditions. In the 2006 NTEP fairway height trials, it ranked number one for overall turf quality, number one for dollar spot

resistance, number one for brown patch resistance, and number two for pink snow mold ratings.

Declaration also ranked number one for overall turf quality in the 2006 NTEP greens height trial.



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**Management Case History
New Construction with Declaration**

**Scott Dunbar, Superintendent
Diamond Hawk Golf Course
Cheektowaga, NY**



Large picture above, looking back on the tenth hole over the Declaration Creeping Bentgrass green and fairway. Inset, the par three 13th hole at Diamond Hawk plays into the prevailing winds and will offer some devilish pin positions when put into play.

Dick Snyder, right, president and owner of Professional Turf Services in Buffalo, is pleased with the rooting depth of the new Declaration putting green as Scott Dunbar, center, Diamond Hawk Superintendent, and Murray Wingate, left, Seed Marketing Manager of LebanonTurf look on.

Diamond Hawk Golf Club is a Hurdzan/Fry design that is located near Buffalo, New York. The course was built by Wadsworth Construction and seeding began in the summer and fall of 2005 and was essentially finished by mid-May, 2006. Greens, tees, and fairways were seeded to Declaration Creeping Bentgrass. Conditions in the spring of 2006 had been cool and quite dry through mid-May, allowing for the seeding to go as scheduled.

In mid May, the new Declaration greens were being mowed at .350. They were lowered to .200 (late June) and went down to .128 or lower at the course opening in late July- mid August. Scott plans to maintain the height at .110. Turf density was very good on greens that had been seeded in the fall with only isolated spots that were going to require additional seeding.

Scott noticed aggressive lateral growth on greens, tees, and fairways and used a pull behind greens groomer brush to stand up stolon growth prior to mowing, with good results. Bare areas filled in quickly.

The first fairway mowings were completed at 3-4 weeks after seeding. The fairways were mowed at .500 the first season, but will be between .425 and .500 going forward. Greens, tees, and fairways received .10 lbs of N/week using the fertigation system, with supplemental granular applications of 0.5 -1.0 lbs. N/M as needed.

Scott has applied very few fungicide applications to the Declaration fairways, greens and tees since the course opened and is very happy with the savings and turf quality.



**Management Case History
Fairway renovation with Declaration**

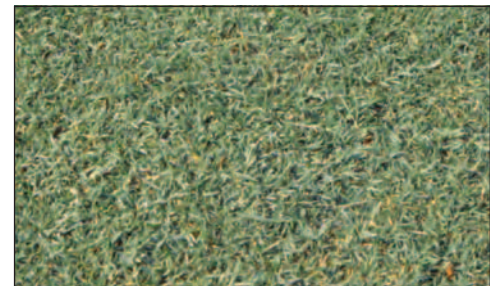
**Mike Evans, Superintendent
The Country Club at Woodmore
Mitchellville, MD**

Mike had extreme damage to several ryegrass fairways during the summer of 2000 due to gray leaf spot. That September, three fairways were seeded with a 50:50 blend of L-93 and SR III9 to complement four existing bentgrass fairways. The other eleven fairways remained in ryegrass. Due to the continuing challenges of maintaining two distinct species of fairway turf, the club decided to complete the conversion to bentgrass fairways and closed the course in August 2005. The conversion was done using Basamid granular soil fumigant and the eleven fairways were seeded in August with a Verti-seeder in two directions; the total seeding rate was one pound/M. Despite a very dry late summer/fall (.07" rainfall in September) establishment was good, although hand watering was required. The course reopened in March 2006.

Initial cutting height was .425" and later lowered to .375". Initial mowing height couldn't go below .375 due to soil conditions. Stan Zontek of the USGA Greens Section visited that spring and highly recom-

mended sand topdressing the fairways. The club is considering the recommendation and will likely begin this process the next spring. As of spring 2006, the new Declaration fairways showed significant lateral growth, so Mike began using a drag mat to stand up stolon growth before mowing, with good results. The fairways were being mowed with triplexes and clippings collected.

As of June 1st, Mike had seen no dollar spot on the Declaration, but had some on the L-93/SR III9 fairways. He had not applied any fungicide to the Declaration fairways and was planning to hold off a while longer. Three growth regulator applications had been made at four-week intervals beginning in early April, and have worked very well. Fertility is projected to be about 1.752 pounds of nitrogen/M per year with strong emphasis on foliar nutrition during the golf season.



Above left, Murray Wingate, Seed Marketing Manager for LebanonTurf, and Mike Evans, Superintendent of The Country Club at Woodmore examine the difference in dollar spot infestation on the 18th fairway. Declaration is in the background (the boundary line is very close to knee level in the photo) and the current fairway bentgrass mix of L93 and SR III9 is in the foreground. Above center is a close-up of one of the more severe infestations of dollar spot in the L93/SR III9 as of June 1, 2006. Above right is a close-up of the Declaration bentgrass portion of the 18th fairway, also on June 1. Although the L93/SR III9 bentgrass had been recently treated for dollar spot, neither section had any preventative treatments prior to the date of these photographs.