

2004 NTEP Perennial Ryegrass Test – 2008 Results

Glenn Hardebeck and Cale Bigelow

Objective

To evaluate 120 commercial and experimental varieties of perennial ryegrass under low mowing height, high maintenance conditions in central Indiana.

Rationale

Perennial ryegrass is used for golf course tees and fairways and some highly maintained athletic fields because it can tolerate relatively short mowing heights and traffic. Use of perennial ryegrass has been problematic due to such problems as disease susceptibility. This experiment was conducted to evaluate the performance of perennial ryegrass varieties to aid in cultivar selection.

How It Was Done

One hundred twenty varieties of perennial ryegrass were seeded on 10 Sep 2004 at the William H. Daniel Turfgrass Research and Diagnostic Center on a silt loam soil. Seeding rate was 6.0 lbs per 1000 ft² and seed was spread using a hand shaker jar. After seeding the experiment was lightly raked and a starter fertilizer (6-24-24) was applied at the rate of 1.0 lbs P₂O₅ per 1000 ft². The area was covered with a germination blanket following seeding to prevent washing of seed and mixing of varieties.

Plots were maintained under a typical fairway maintenance regime. The mowing height was 0.5 inches, mowed 3x per week. The annual fertilization was 3.0 lbs. N per 1000 ft² with 1 lb applied in mid-May, 1 lb in mid-September, and 1.0 lb. in early November. Irrigation was applied to prevent any sign of stress.

Data collected in 2008 included genetic color, spring green-up, and visual quality ratings from April to October. All data taken were visual observations of turf characteristics and performance. Visual color and greenup ratings were taken using a scale of 1 to 9 with 1 = light green or dormant and 9 = dark green turf. Visual quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf.

Results to Date

- There are no statistical differences in mean visual quality among the top 4 cultivars (Table 1). Cultivars are listed by decreasing mean quality for 2008.
- When making cultivar selections, it is best to consult the NTEP web page at www.ntep.org for complete performance data from around the country on cultivars, placing special emphasis on how cultivars perform in IN, IL, KY, MI and/or OH (depending if you are located in northern, central, or southern IN) under the specific maintenance regime you intend for that grass.

Table 1. Visual quality, color and spring greenup of 120 perennial ryegrass cultivars growing under high maintenance in 2008.

| Cultivar | Visual quality ^a | | | | | | | | Genetic Color ^b | Spring greenup ^c |
|---------------------|-----------------------------|-----|------|------|-----|-----|-----|------|----------------------------|-----------------------------|
| | Apr | May | June | July | Aug | Sep | Oct | Mean | | |
| Paragon GLR | 7.0 | 8.0 | 8.3 | 8.3 | 8.0 | 8.3 | 8.0 | 8.0 | 6.7 | 6.3 |
| Kokomo II | 7.0 | 8.0 | 8.3 | 8.0 | 7.3 | 8.0 | 7.7 | 7.8 | 6.7 | 6.7 |
| ASP6004 | 7.0 | 7.7 | 8.0 | 7.7 | 7.7 | 8.0 | 8.0 | 7.7 | 6.3 | 6.0 |
| Mach I | 7.0 | 8.0 | 7.7 | 7.7 | 7.3 | 8.0 | 8.3 | 7.7 | 6.3 | 6.7 |
| VB99 | 7.7 | 8.0 | 7.3 | 7.0 | 7.0 | 7.7 | 8.0 | 7.5 | 7.3 | 5.3 |
| Nexus XR | 7.7 | 8.0 | 7.7 | 7.0 | 7.0 | 7.7 | 7.7 | 7.5 | 6.7 | 6.3 |
| Phenom | 7.0 | 7.7 | 7.7 | 7.3 | 7.0 | 8.0 | 7.7 | 7.5 | 6.7 | 6.7 |
| Cutter II | 7.0 | 8.3 | 7.7 | 7.3 | 7.0 | 7.0 | 8.0 | 7.5 | 6.7 | 6.0 |
| Zoom | 7.3 | 8.0 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.4 | 8.3 | 6.3 |
| GL-2 | 7.3 | 7.7 | 7.7 | 7.0 | 7.0 | 7.3 | 8.0 | 7.4 | 6.7 | 6.7 |
| Line Drive GLS | 7.3 | 7.7 | 7.7 | 7.0 | 7.0 | 7.3 | 8.0 | 7.4 | 7.0 | 5.7 |
| MMW | 7.3 | 7.7 | 7.0 | 7.0 | 7.3 | 7.0 | 8.3 | 7.4 | 6.3 | 6.0 |
| Grand Slam 2 | 7.3 | 8.0 | 7.0 | 7.0 | 6.7 | 7.3 | 8.3 | 7.4 | 6.3 | 6.0 |
| Pinnacle II | 7.0 | 7.7 | 7.7 | 7.0 | 7.0 | 7.7 | 7.7 | 7.4 | 6.7 | 6.0 |
| D04-11T | 7.3 | 7.7 | 7.7 | 7.0 | 7.0 | 7.3 | 7.7 | 7.4 | 7.7 | 6.7 |
| ASP6006 | 7.0 | 7.7 | 7.0 | 7.0 | 7.0 | 7.7 | 8.0 | 7.3 | 7.0 | 6.3 |
| Palmer IV | 7.0 | 8.0 | 7.3 | 7.0 | 7.0 | 7.0 | 8.0 | 7.3 | 6.7 | 6.3 |
| APR 1648 | 7.0 | 7.7 | 7.0 | 7.0 | 7.0 | 7.7 | 8.0 | 7.3 | 7.0 | 6.0 |
| Fiesta 4 | 7.0 | 7.7 | 7.3 | 7.0 | 6.7 | 7.3 | 8.0 | 7.3 | 6.7 | 7.0 |
| TR47 | 7.3 | 7.3 | 7.0 | 7.0 | 7.0 | 7.0 | 8.0 | 7.2 | 7.0 | 5.7 |
| VB77 | 7.3 | 8.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.3 | 7.2 | 6.7 | 6.3 |
| Homerun | 7.3 | 7.7 | 6.7 | 6.7 | 6.3 | 8.0 | 8.0 | 7.2 | 6.7 | 6.0 |
| Exacta II GLSR | 6.7 | 7.0 | 6.7 | 6.3 | 7.3 | 8.0 | 8.3 | 7.2 | 6.7 | 6.7 |
| Nexus XD | 7.0 | 7.3 | 7.7 | 6.7 | 7.0 | 7.3 | 7.3 | 7.2 | 7.0 | 6.0 |
| Attribute | 7.7 | 7.7 | 7.0 | 7.0 | 6.3 | 7.0 | 7.7 | 7.2 | 6.3 | 6.7 |
| Fusion | 7.0 | 7.7 | 7.3 | 6.7 | 6.7 | 7.3 | 7.7 | 7.2 | 6.3 | 6.3 |
| Charismatic II GLSR | 7.0 | 7.3 | 7.0 | 6.7 | 7.0 | 7.7 | 7.7 | 7.2 | 5.7 | 6.0 |
| RNS | 7.0 | 7.3 | 7.0 | 6.7 | 7.0 | 7.7 | 7.7 | 7.2 | 6.7 | 6.3 |
| ASP6002 | 6.7 | 7.0 | 6.7 | 7.3 | 7.0 | 7.7 | 7.7 | 7.1 | 6.3 | 6.0 |
| Revenge GLX | 7.0 | 8.0 | 7.0 | 7.0 | 6.3 | 7.3 | 7.3 | 7.1 | 7.0 | 6.7 |
| Palace | 7.0 | 7.7 | 7.0 | 6.7 | 6.7 | 7.3 | 7.7 | 7.1 | 6.7 | 6.7 |

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|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Primary | 7.0 | 7.3 | 7.0 | 7.3 | 6.3 | 7.3 | 7.7 | 7.1 | 6.7 | 6.3 |
| DCM | 7.0 | 7.7 | 7.0 | 7.0 | 6.3 | 7.0 | 8.0 | 7.1 | 6.3 | 6.0 |
| Silver Dollar | 6.7 | 7.3 | 7.3 | 7.3 | 6.7 | 7.0 | 7.7 | 7.1 | 5.7 | 6.3 |
| BAR Lp 4317 | 6.7 | 7.3 | 7.3 | 7.0 | 6.7 | 7.3 | 7.7 | 7.1 | 5.7 | 6.0 |
| Top Gun II | 7.3 | 7.7 | 6.7 | 7.0 | 6.7 | 6.7 | 7.7 | 7.1 | 6.3 | 5.7 |
| Regal 5 | 7.3 | 7.7 | 7.0 | 6.7 | 6.0 | 7.0 | 8.0 | 7.1 | 7.7 | 6.3 |
| Apple GL | 6.3 | 6.7 | 7.0 | 7.3 | 6.7 | 7.7 | 8.0 | 7.1 | 6.7 | 6.0 |
| ASP6003 | 7.0 | 7.3 | 6.7 | 6.7 | 7.0 | 7.0 | 7.7 | 7.0 | 7.0 | 6.3 |
| GPR | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.3 | 7.0 | 6.7 | 5.7 |
| AF | 6.7 | 7.0 | 7.0 | 7.3 | 6.7 | 7.0 | 7.3 | 7.0 | 6.7 | 6.0 |
| ES45 | 7.0 | 7.3 | 7.0 | 6.3 | 6.7 | 7.0 | 7.3 | 7.0 | 7.0 | 6.0 |
| 1G Squared | 7.0 | 7.7 | 7.0 | 6.3 | 6.3 | 7.0 | 7.3 | 7.0 | 6.0 | 7.0 |
| D04-1667 | 6.7 | 7.3 | 7.0 | 6.7 | 6.3 | 7.0 | 7.7 | 7.0 | 6.3 | 6.0 |
| Wind Dance 2 | 6.3 | 6.7 | 7.3 | 7.0 | 6.3 | 7.3 | 7.3 | 6.9 | 6.3 | 6.0 |
| Dasher 3 | 7.0 | 7.7 | 7.0 | 6.7 | 6.0 | 6.7 | 7.3 | 6.9 | 7.0 | 7.0 |
| All*Star 3 | 6.7 | 7.3 | 7.0 | 6.7 | 6.3 | 6.7 | 7.7 | 6.9 | 6.7 | 6.7 |
| Dart | 6.3 | 7.3 | 7.0 | 6.7 | 6.3 | 7.0 | 7.7 | 6.9 | 6.3 | 6.0 |
| Keystone 2 | 6.3 | 7.0 | 7.0 | 6.7 | 6.3 | 7.0 | 7.7 | 6.9 | 7.0 | 6.0 |
| Cabo II | 7.0 | 6.7 | 7.0 | 6.7 | 6.0 | 7.0 | 7.7 | 6.9 | 7.0 | 6.7 |
| PST-2AG4 | 7.0 | 8.0 | 7.0 | 6.7 | 6.0 | 6.3 | 7.0 | 6.9 | 6.7 | 6.0 |
| D04-UP | 6.0 | 7.0 | 7.0 | 6.7 | 6.7 | 7.3 | 7.3 | 6.9 | 6.0 | 6.3 |
| Amazing GS | 6.7 | 7.0 | 7.3 | 6.3 | 6.0 | 7.0 | 7.3 | 6.8 | 7.0 | 6.0 |
| 04-BEN | 6.3 | 7.3 | 6.7 | 6.3 | 6.7 | 7.0 | 7.3 | 6.8 | 6.7 | 6.0 |
| Harrier | 6.7 | 7.0 | 7.0 | 6.0 | 6.3 | 7.0 | 7.7 | 6.8 | 7.0 | 6.0 |
| Calypso 3 | 7.0 | 7.3 | 7.0 | 6.7 | 6.0 | 6.7 | 7.0 | 6.8 | 7.0 | 6.3 |
| Edge II | 7.0 | 7.3 | 7.0 | 6.7 | 6.0 | 6.7 | 7.0 | 6.8 | 7.0 | 6.0 |
| Protégé GLR | 6.7 | 7.0 | 6.7 | 6.0 | 7.0 | 7.0 | 7.0 | 6.8 | 6.7 | 5.7 |
| Buena Vista | 6.3 | 7.0 | 7.0 | 6.7 | 6.0 | 7.0 | 7.3 | 6.8 | 7.0 | 6.3 |
| Secretariat II GLSR | 6.3 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.3 | 6.8 | 6.3 | 6.7 |
| DP 17-9499 | 6.7 | 6.7 | 7.0 | 6.7 | 6.0 | 7.0 | 7.3 | 6.8 | 6.3 | 6.0 |
| ASP6005 | 7.0 | 7.0 | 6.3 | 6.0 | 6.7 | 6.7 | 7.3 | 6.7 | 6.7 | 6.0 |
| Delaware XL | 6.3 | 7.0 | 6.7 | 6.3 | 6.3 | 7.0 | 7.3 | 6.7 | 6.7 | 6.3 |
| BAR Lp 4420 | 6.3 | 7.0 | 7.3 | 7.0 | 6.0 | 6.7 | 6.7 | 6.7 | 6.3 | 5.7 |
| APR 1670 | 6.3 | 7.0 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 6.7 | 6.0 | 5.7 |
| Stellar GL | 6.3 | 6.7 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 6.7 | 6.7 | 6.3 |
| PST-2MNG | 7.3 | 7.0 | 7.0 | 6.7 | 6.3 | 6.0 | 6.3 | 6.7 | 6.0 | 6.7 |
| PST-2LAN | 6.7 | 6.7 | 6.7 | 6.3 | 6.3 | 7.0 | 7.0 | 6.7 | 6.3 | 5.7 |

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| Firebolt | 6.0 | 7.0 | 7.3 | 6.7 | 6.0 | 6.7 | 7.0 | 6.7 | 6.7 | 6.3 |
| Citation Fore | 7.0 | 7.0 | 6.3 | 6.0 | 6.7 | 6.7 | 7.0 | 6.7 | 6.3 | 6.3 |
| E-99 | 6.0 | 7.0 | 7.0 | 7.0 | 6.3 | 6.3 | 7.0 | 6.7 | 6.0 | 6.0 |
| Inspire | 6.3 | 6.7 | 7.0 | 6.3 | 6.3 | 6.7 | 7.3 | 6.7 | 6.3 | 5.3 |
| Presidio | 6.3 | 6.7 | 6.3 | 6.3 | 6.3 | 7.0 | 7.3 | 6.6 | 6.7 | 5.3 |
| Halo | 6.7 | 6.7 | 6.7 | 6.3 | 6.3 | 6.7 | 7.0 | 6.6 | 7.3 | 5.7 |
| Derby Xtreme | 6.7 | 6.3 | 7.0 | 6.7 | 6.0 | 6.7 | 7.0 | 6.6 | 7.0 | 6.7 |
| Overdrive | 6.7 | 6.3 | 7.0 | 6.7 | 6.0 | 6.3 | 7.3 | 6.6 | 6.7 | 6.3 |
| PST-217 | 6.0 | 7.0 | 6.7 | 6.7 | 6.3 | 6.7 | 7.0 | 6.6 | 5.7 | 5.0 |
| Premier II | 6.0 | 7.0 | 7.0 | 6.7 | 6.0 | 6.7 | 7.0 | 6.6 | 6.3 | 5.0 |
| Headstart 2 | 6.3 | 7.0 | 7.0 | 6.7 | 6.0 | 6.3 | 7.0 | 6.6 | 6.3 | 6.0 |
| Quicksilver | 6.3 | 7.0 | 6.7 | 6.3 | 6.0 | 6.7 | 7.0 | 6.6 | 6.7 | 5.0 |
| Repell GLS | 6.7 | 6.7 | 7.0 | 6.0 | 6.0 | 6.7 | 7.0 | 6.6 | 6.3 | 6.7 |
| Panther GLS | 6.0 | 7.0 | 7.0 | 6.3 | 6.3 | 6.3 | 7.0 | 6.6 | 6.3 | 6.0 |
| Pleasure Supreme | 6.3 | 6.7 | 7.0 | 6.3 | 6.0 | 6.7 | 7.0 | 6.6 | 7.0 | 6.0 |
| Goalkeeper II | 6.3 | 6.7 | 6.7 | 6.3 | 6.0 | 6.7 | 7.0 | 6.5 | 6.3 | 5.7 |
| Manhattan 5 GLR | 6.3 | 6.7 | 7.0 | 6.3 | 6.0 | 6.7 | 6.7 | 6.5 | 6.0 | 6.0 |
| PS-2 | 6.0 | 7.0 | 7.0 | 6.0 | 6.0 | 6.7 | 7.0 | 6.5 | 6.7 | 5.7 |
| SR 4600 | 6.0 | 7.0 | 6.7 | 6.3 | 6.3 | 6.7 | 6.7 | 6.5 | 6.7 | 6.0 |
| DP 17-9788 | 6.0 | 7.0 | 7.0 | 7.0 | 6.3 | 6.0 | 6.3 | 6.5 | 6.0 | 6.0 |
| Pizzazz | 6.3 | 6.0 | 6.7 | 6.7 | 6.0 | 6.7 | 7.0 | 6.5 | 6.3 | 6.7 |
| 04-BRE | 6.0 | 6.7 | 6.3 | 6.7 | 6.3 | 6.3 | 7.0 | 6.5 | 6.7 | 5.7 |
| SRX 4682 | 6.7 | 7.0 | 6.3 | 6.0 | 6.0 | 6.3 | 7.0 | 6.5 | 5.7 | 4.7 |
| SRX 4692 | 6.3 | 6.7 | 6.7 | 6.7 | 6.3 | 6.0 | 6.7 | 6.5 | 7.0 | 6.3 |
| Pentium | 5.7 | 6.7 | 6.3 | 7.0 | 6.3 | 6.3 | 7.0 | 6.5 | 6.0 | 5.7 |
| DP1 | 7.0 | 7.3 | 6.3 | 5.7 | 6.0 | 6.0 | 6.7 | 6.4 | 6.7 | 6.3 |
| Gray Star | 6.0 | 7.0 | 7.0 | 6.0 | 5.7 | 6.3 | 7.0 | 6.4 | 6.3 | 4.7 |
| Galatti | 6.3 | 6.7 | 7.0 | 6.3 | 6.0 | 6.0 | 6.7 | 6.4 | 6.0 | 6.3 |
| Pianist | 6.7 | 6.7 | 6.7 | 6.0 | 5.7 | 6.3 | 7.0 | 6.4 | 6.7 | 6.0 |
| L44 | 6.3 | 7.0 | 6.7 | 6.0 | 5.7 | 6.0 | 7.0 | 6.4 | 6.7 | 5.3 |
| Caddieshack II | 6.0 | 6.3 | 7.0 | 6.3 | 5.7 | 6.3 | 7.0 | 6.4 | 6.0 | 5.7 |
| Sunshine 2 | 6.3 | 7.0 | 6.7 | 6.3 | 5.7 | 6.0 | 6.7 | 6.4 | 6.0 | 5.3 |
| ASP6001 | 7.0 | 7.0 | 6.0 | 5.7 | 5.7 | 6.3 | 6.7 | 6.3 | 7.3 | 5.7 |
| Accent II | 6.0 | 7.0 | 6.7 | 6.0 | 6.0 | 6.0 | 6.7 | 6.3 | 5.7 | 5.7 |
| D04-LP05 | 6.3 | 7.3 | 6.7 | 6.0 | 5.7 | 6.0 | 6.3 | 6.3 | 6.7 | 5.3 |
| Monterey 3 | 6.0 | 6.7 | 6.7 | 5.7 | 6.0 | 6.0 | 7.0 | 6.3 | 6.3 | 5.0 |
| La Quinta | 6.3 | 6.3 | 6.7 | 6.3 | 5.3 | 6.3 | 6.3 | 6.2 | 6.7 | 6.0 |

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|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Brightstar SLT | 6.0 | 7.0 | 6.7 | 5.7 | 5.7 | 6.3 | 6.3 | 6.2 | 6.3 | 5.0 |
| PST-2BLK | 5.7 | 6.7 | 6.3 | 6.0 | 5.7 | 6.3 | 6.7 | 6.2 | 6.0 | 4.3 |
| Pick 02-R | 6.0 | 6.7 | 6.0 | 5.3 | 5.7 | 6.0 | 7.0 | 6.1 | 7.0 | 5.0 |
| RAD-PR8 | 6.3 | 7.0 | 6.3 | 6.0 | 5.0 | 5.7 | 6.0 | 6.0 | 6.3 | 5.7 |
| Barlennium | 6.0 | 6.3 | 6.0 | 6.0 | 5.7 | 5.7 | 6.7 | 6.0 | 5.7 | 6.0 |
| BAR Lp 4920 | 5.3 | 6.0 | 6.0 | 5.7 | 6.0 | 6.0 | 7.0 | 6.0 | 5.3 | 6.3 |
| PM 102 | 6.0 | 6.0 | 6.0 | 5.7 | 5.0 | 5.7 | 6.3 | 5.8 | 6.7 | 6.0 |
| Palmer III | 5.3 | 5.7 | 6.0 | 5.7 | 5.7 | 6.0 | 6.0 | 5.8 | 5.3 | 5.7 |
| Panther | 5.0 | 5.3 | 5.3 | 5.7 | 5.7 | 6.0 | 6.0 | 5.6 | 4.7 | 5.3 |
| Premier | 5.3 | 5.7 | 5.7 | 5.7 | 5.0 | 4.7 | 5.0 | 5.3 | 4.0 | 5.0 |
| LPR 02203 | 4.7 | 5.3 | 5.3 | 5.7 | 5.3 | 5.0 | 5.3 | 5.2 | 4.7 | 4.7 |
| Affinity | 5.0 | 4.3 | 4.7 | 4.0 | 4.7 | 4.7 | 5.0 | 4.6 | 4.0 | 5.0 |
| Pinnacle | 4.7 | 5.0 | 4.7 | 4.3 | 4.3 | 4.0 | 4.3 | 4.5 | 4.0 | 4.7 |
| Linn | 2.3 | 2.7 | 2.0 | 2.0 | 2.3 | 2.0 | 2.3 | 2.2 | 2.7 | 5.3 |
| LSD (0.05) | 0.7 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.7 | 0.3 | 1.0 | 0.7 |

^a Visual quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf.

^b Color was rated on a scale of 1 to 9 were 1 = light green and 9 = dark green.

^c Spring greenup was rated on a scale of 1 to 9 were 1 = dormant and 9 = dark green.