

## 2003 NTEP Bentgrass (Fairway/Tee) Test – 2005 Results

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### Objective

To evaluate commercial and experimental varieties of creeping and colonial bentgrasses under fairway/tee maintenance conditions in central Indiana.

### Rationale

Creeping bentgrass is widely used on golf course fairways and tees that are maintained under 0.5 inch. With new cultivars in the experimental stage and becoming commercially available, the need for regional testing becomes apparent. By determining the performance of the 28 varieties, we will be able to offer sound information on which varieties of bentgrass have potential for Indiana.

### How It Was Done

Twenty-one varieties of creeping bentgrass and 7 varieties of colonial bentgrass were seeded on 12 Sep 2003 at the William H. Daniel Research and Diagnostic Center on a silt loam soil. Seeding rate was 1.0 lbs per 1000 ft<sup>2</sup> and seed was spread using a hand shaker jar. After seeding the experiment was lightly raked and a starter fertilizer (8-22-16) was applied at the rate of 1.5 lbs P<sub>2</sub>O<sub>5</sub> per 1000 ft<sup>2</sup>. The area was covered with a germination blanket following seeding to prevent washing of seed and mixing of varieties.

Plots are maintained under a typical fairway maintenance regime. The mowing height is 0.5 inch, mowed 3x per week. The annual fertilization is 3.0 lbs. N per 1000 ft<sup>2</sup> with 1 lb applied in mid-May, 1 lb in mid-September, and 1.0 lb. in early November. Irrigation is applied to prevent any sign of stress.

Data collected in 2005 included genetic color, spring green-up, dollar spot and pythium resistance, *Poa annua* invasion and visual quality ratings from April to November. All data taken were visual observations of turf characteristics and performance. Visual quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf. Color was rated on a scale of 1 to 9 where 1 = light green and 9 = dark green. Spring greenup was rated on a scale of 1 to 9 where 1 = dormant turf and 9 = dark green. Dollar spot and pythium resistance were rated visually on a scale of 1 to 9 where 1 = susceptible and 9 = resistant. *Poa annua* infestation was rated visually on a scale of 1 to 9 where 1 = maximum and 9 = none.

### Results to Date

- There are no statistical differences in average visual quality among the top 13 cultivars (Table 1).
- When making cultivar selections, it is best to consult the NTEP web page at [www.ntep.org](http://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.

### Acknowledgments

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**Table 1.** Visual quality, genetic color, green-up and dollar spot resistance of 28 bentgrass cultivars growing under fairway/tee maintenance in 2005.

Cultivar	Visual quality <sup>a</sup>									Genetic Color <sup>b</sup>	Spring green-up <sup>c</sup>	Dollar Spot resistance <sup>d</sup>	Pythium resistance <sup>e</sup>	<i>Poa annua</i> <sup>f</sup>
	April	May	June	July	Aug	Sep	Oct	Nov	Avg					
LS-44	7.3	6.7	6.3	6.0	6.0	6.3	7.3	7.7	6.7	7.0	6.0	7.3	8.0	7.7
L-93	7.0	6.0	7.0	5.7	5.3	6.3	6.7	7.7	6.5	6.7	6.3	8.3	9.0	8.7
PST-OEB	6.3	7.0	7.0	4.3	5.0	5.7	7.0	8.3	6.3	6.3	5.0	7.7	8.7	8.7
13-M	7.3	6.7	7.0	6.0	4.0	5.0	6.3	7.3	6.2	6.7	5.3	8.3	9.0	9.0
Princeville	6.0	5.0	5.3	3.3	7.0	6.7	7.7	8.0	6.1	6.0	6.7	6.7	9.0	8.0
T-1	7.0	6.7	5.7	4.3	4.7	5.3	7.0	8.0	6.1	6.7	5.7	6.7	9.0	9.0
Penneagle II	6.7	7.0	6.0	4.7	4.3	5.0	6.7	8.3	6.1	6.7	5.7	7.7	9.0	9.0
Shark	6.0	6.3	6.7	5.7	4.3	5.3	6.3	7.0	6.0	6.3	4.3	7.7	9.0	8.7
Penncross	6.3	6.0	6.3	4.3	5.3	5.3	6.7	7.3	6.0	7.0	7.3	7.7	9.0	7.7
Alpha	7.0	6.7	6.3	3.7	4.7	4.7	6.7	8.0	6.0	7.3	6.3	7.7	8.7	8.7
Bengal	6.3	5.7	6.0	4.7	4.0	5.0	6.7	8.0	5.8	7.3	6.3	8.0	8.3	8.0
235050	5.7	6.7	6.3	6.0	3.7	4.7	6.0	7.0	5.8	6.0	4.0	8.7	9.0	8.7
SR 1150	6.0	6.7	6.3	5.0	4.0	5.0	6.3	6.7	5.8	6.0	5.3	7.7	8.7	9.0
Declaration	5.3	7.0	7.3	5.3	3.3	4.3	6.0	7.0	5.7	5.7	4.0	9.0	8.3	7.3
Kingpin	7.0	6.0	6.0	5.7	3.3	4.3	5.7	7.0	5.6	6.7	5.0	8.7	9.0	8.0
Mackinzie	6.0	6.3	4.7	5.3	3.3	4.3	6.3	8.0	5.5	6.0	5.0	8.3	9.0	8.3
SR 1119	6.3	5.3	5.0	4.0	4.7	4.7	6.3	7.3	5.5	6.3	5.3	6.7	9.0	8.0
Pennlinks II	5.7	4.0	6.0	4.0	4.7	5.0	6.7	7.7	5.5	6.7	5.0	8.0	9.0	8.0
Independence	5.3	6.7	5.3	5.0	4.0	4.3	5.7	6.7	5.4	6.0	4.0	6.7	9.0	9.0
IS-AP 14	5.7	6.3	5.3	4.3	3.3	4.0	5.7	7.0	5.2	6.3	5.7	6.3	8.7	9.0
IS-AT 7	3.7	4.0	4.3	4.0	5.0	5.3	6.3	7.0	5.0	6.7	6.7	8.3	8.3	4.7
EWTR	4.0	4.0	5.0	5.3	4.3	4.7	5.7	6.3	4.9	5.7	5.7	8.3	8.7	5.3
Bardot	4.0	4.3	4.0	4.0	4.0	4.3	5.7	6.0	4.5	6.0	7.3	8.0	8.7	4.7
SR 7150	4.0	4.0	4.3	3.3	4.0	4.7	5.3	6.3	4.5	6.0	7.0	7.7	8.0	3.0
Tiger II	3.7	3.7	4.0	3.7	4.7	4.7	5.3	6.0	4.5	5.7	7.0	7.3	7.3	4.0
PST-9NBC	3.7	3.7	4.7	3.3	4.3	4.3	5.3	5.7	4.4	6.0	7.3	8.3	8.3	3.0
PST-9VN	3.7	4.0	4.7	3.7	4.7	4.7	4.7	4.3	4.3	6.7	7.0	8.3	7.3	2.0
Seaside	3.0	2.3	4.0	3.3	4.3	4.3	4.3	4.3	3.8	6.0	6.3	8.7	8.7	2.7
LSD (0.05)	1.4	1.0	1.6	1.7	1.4	1.3	1.4	1.7	0.8	2.9	1.8	1.4	2.0	2.2

<sup>a</sup> Visual quality ratings were taken using a scale of 1 to 9 with 1 = no living turf, 5 = acceptable turf, and 9 = ideal turf.<sup>b</sup> Color was rated on a scale of 1 to 9 where 1 = light green and 9 = dark green.<sup>c</sup> Spring greenup was rated on a scale of 1 to 9 where 1 = dormant turf and 9 = dark green.<sup>d,e</sup> Dollar spot and pythium resistance were rated visually on a scale of 1 to 9 where 1 = susceptible and 9 = resistant.<sup>f</sup> *Poa annua* infestation was rated visually on a scale of 1 to 9 where 1 = maximum and 9 = none