



Bentgrass Variety Trial to Determine Best Traits Near Lake Michigan

Researchers: Chicago District Golf Assoc. - Derek Settle, Tim Sibicky, Nick DeVries with Tim Davis, Shoreacres and Ty McClellan, USGA

Goal: Determine bentgrass varieties with best spring traits near Lake Michigan.

Location: Shoreacres nursery green – Lake Bluff, Illinois

Background: Lake Michigan moderates air temperatures. Given cool lake winds, the spring season can be cold for surrounding areas. Golf courses located near the lake need turfgrass varieties with good green-up following winter dormancy. Anecdotal evidence of older bentgrass varieties injured following frost events indicates some are not well adapted to cold temperature shifts. While spring green-up of creeping bentgrass is a concern near the lake, this trait is important for all golf courses. Early growth allows regular maintenance practices of golf greens sooner. It's also advantageous because it can speed recovery from winter injury.

Brief Material and Methods: This new bentgrass variety trial was seeded on 10 August 2009. Plots were 5 ft by 10 ft with 3 replications. Twenty four creeping and one velvet bentgrass variety were seeded at 1 lb/1000 ft² except LS-44, Shark, and G-2 (due to availability). The rootzone is a native soil with 2 inches of sand top-dressing. Mowing height is 0.160 inch. Ratings of establishment were taken fall, 2009. Spring green-up will be evaluated visually and by Normalized Difference Vegetative Index (NDVI). Visual quality ratings and disease incidence will be recorded monthly.

Results:

- 2010 Green-up. Legendary velvet out-performed all others. (Fig. 1)
- 2010 Quality. Necessary is good color, density, texture, smoothness, and uniformity. Newer creeping bentgrasses (e.g., DLF experimental) tended to have best quality, whereas Legendary velvet had poor density. (Fig. 2)

Table 1. Twenty seven bentgrass varieties were established on a nursery green during summer 2009 to determine best genetic traits when near Lake Michigan, Shoreacres in Lake Bluff, IL.

| Bentgrass varieties to be evaluated at Shoreacres | | | |
|---|-------------------------|-------------------|-------------------------|
| Variety | Supplier | Variety | Supplier |
| Declaration | Lebanon | Tyee | Seed Research of Oregan |
| Independence | Lebanon | MacKenzie | Seed Research of Oregan |
| Legendary (Velvet) | Lebanon | SR1150 | Seed Research of Oregan |
| Kingpin | Proseeds | Experimental B | Seed Research of Oregan |
| PinUp | Proseeds | Memorial | Scotts |
| L-93 | Jacklin | Crystal Bluelinks | Tee-2-Green |
| Alpha | Jacklin | G-2 | Tee-2-Green |
| T-1 | Jacklin | A-1 | Tee-2-Green |
| CY-2 | DLF | A-4 | Tee-2-Green |
| Cobra 2 | DLF | LS-44 | Links Seed |
| Experimental A | DLF | Shark | Mountain View Seeds |
| Benchmark DSR | Turf Merchants | Pennlinks II | Tee-2-Green |
| 007 | Seed Research of Oregan | | |

Figure 1. Spring green-up with best NDVI color trend by a velvet bentgrass variety and newer creeping bentgrasses like LS44 also performed well, Shoreacres, Lake Bluff, IL in 2010.

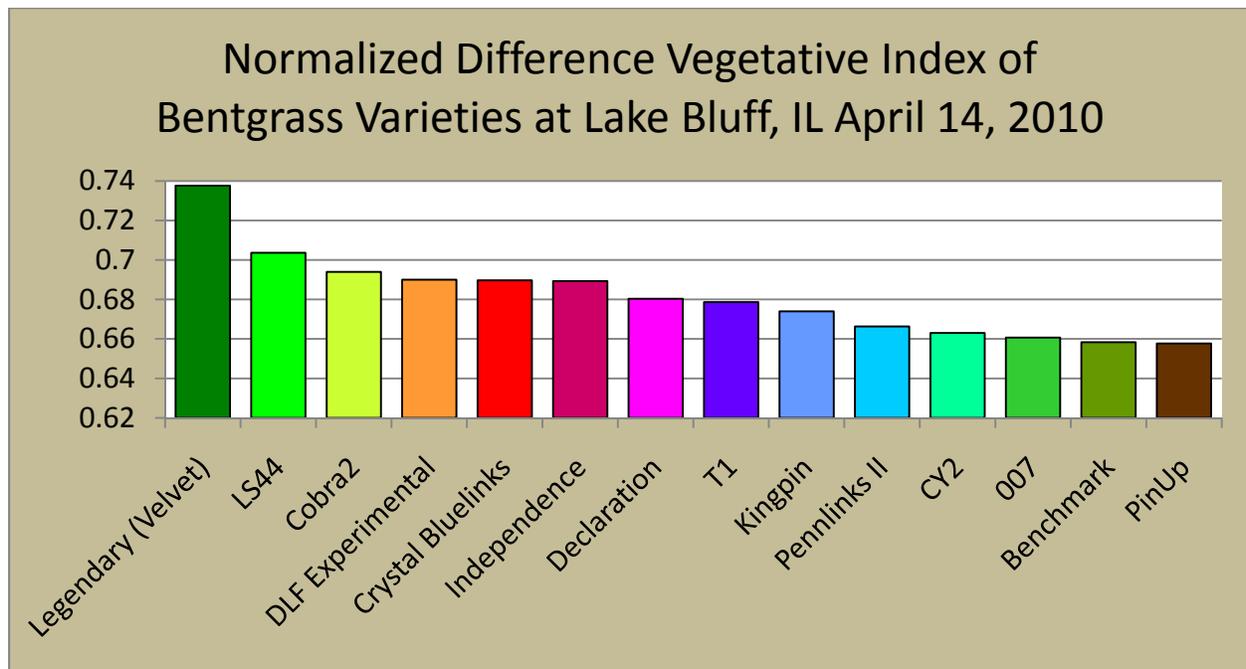


Figure 2. Visual quality of bentgrass a month after initial green-up and experimental varieties showed better quality given a cool environment at Shoreacres, Lake Bluff, IL in 2010.

