

# Creeping Bentgrass Fairway Cultivar Trial

## RFR-A2020

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### Introduction

This is the initial establishment data of creeping bentgrass (*Agrostis stolonifera* L.) growing under fairway height of cut conditions. This is a standard National Turfgrass Evaluation Program (NTEP) trial, and is being conducted at eight other locations besides Iowa State University. It contains 19 seeded cultivars, 11 of which are new experimental cultivars (Table 1). Data collection will continue through 2025.

### Materials and Methods

This trial was established at the Iowa State University Horticulture Research Station, Ames, Iowa. The ground was cleared of all vegetative cover with a nonselective herbicide (glyphosate) before planting. The site was then fraze mowed one month before planting to remove all vegetative tissue and thatch that was present.

The trial was planted September 24, 2020. Plots were 5 ft by 5 ft in size, and all cultivars were replicated three times. Automatic overhead irrigation was applied to provide proper turfgrass establishment conditions. Starter fertilizer was applied at seeding at 1.0 lb P/1,000 ft<sup>2</sup>, followed by 0.5 lb N/1,000 ft<sup>2</sup> October 27. The trial was not mowed this year. A growth blanket was applied December 9 to help protect the trial from the winter conditions.

Digital images were taken monthly to determine percent green cover. Digital images were captured with the use of a light box to ensure a consistent lighting. Images were scanned using Turf Analyzer. Color (1 = light green color and 9 = dark green color), density (1 = no turf and 9 = full turf stand), and turfgrass quality (1 = poor, 6 = acceptable quality, and 9 = ideal) were rated visually. Color results will not be presented.

### Results and Discussion

Significant differences existed between cultivars for percent cover and density during fall establishment. One month after planting, all cultivars had between 14 and 50 percent green cover (Table 2). The November rating date resulted in half the cultivars above 25 percent with two above 40 percent green cover. The late planting date slowed the speed at which these cultivars filled in. Turfgrass density also was rated twice in the fall, with only Chinook having above a 6.0 density rating in October. All cultivars had lower turfgrass density ratings on the November rating as compared with the October rating (data not shown).

Turfgrass color, while not presented, did improve from the October rating to the November rating as the turfgrass became more established.

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**Table 1. List of cultivars in the 2020 creeping bentgrass fairway National Turfgrass Evaluation Program, Ames, Iowa.**

Cultivar Name	Species	Sponsor
Penncross	Creeping	Standard
Chinook (H10G-OP)	Creeping	Standard
007XK	Creeping	DLF PickSeed
S1	Creeping	SiteOne Landscape
TourPro	Creeping	Columbia Seeds
Piranha	Creeping	Standard
Barracuda	Creeping	Mountain View
Musket	Creeping	Standard
Shark	Creeping	Mountain View
Match Play	Creeping	Landmark Turf
DLF-AP-3084	Creeping	DLF PickSeed
PVF-PV-1	Creeping	Lebanon Turf
PVF-PV-2	Creeping	SiteOne Landscape
LNS 19	Creeping	Landmark Turf
PPG-AP-MTV1	Creeping	Mountain View
PPG-AP-MTV2	Creeping	Mountain View
PST-0MRN	Creeping	Pure-Seed Testing
PST-0R20	Creeping	Pure-Seed Testing
PST-RODS	Creeping	Pure-Seed Testing

**Table 2. Percent green cover and turfgrass density ratings for the National Turfgrass Evaluation Program creeping bentgrass fairway cultivar trial, Ames, Iowa.**

Cultivar	Percent green cover <sup>a</sup>		Density <sup>b</sup>
	October	November	October
Penncross	38.7	45.0	5.7
Chinook (H10G-OP)	50.3	57.3	7.7
007XK	18.3	27.7	4.7
S1	28.3	33.3	5.0
TourPro	30.0	33.3	5.0
Piranha	14.0	11.3	4.3
Barracuda	18.3	20.0	4.3
Musket	19.0	17.7	4.0
Shark	21.0	20.3	4.3
Match Play	31.6	44.7	5.0
DLF-AP-3084	22.0	25.3	4.7
PVF-PV-1	15.7	21.7	4.3
PVF-PV-2	11.3	12.7	4.0
LNS 19	27.0	32.3	6.0
PPG-AP-MTV1	25.0	24.0	4.0
PPG-AP-MTV2	26.3	31.0	5.3
PST-0MRN	26.6	25.3	5.0
PST-0R20	18.7	24.7	5.0
PST-RODS	20.3	22.7	4.0
<b>LSD 0.05</b>	16.4	20.0	1.9

<sup>a</sup>Percent green cover was determined by digital image analysis (0-100%).

<sup>b</sup>Turfgrass density ratings were made visually (1 = no turf and 9 = full turf stand).