

## NATIONAL TURFGRASS EVALUATION PROGRAM

The National Turfgrass Evaluation Program (NTEP) is designed to develop and coordinate uniform evaluation trials of turfgrass varieties and promising selections in the United States and Canada. Test results can be used by national companies and plant breeders to determine the broad picture of the adaptation of a cultivar. Results can also be used to determine if a cultivar is well adapted to a local area or level of turf maintenance.

Briefly, the NTEP is a self-supporting, non-profit program, sponsored by the Beltsville Agricultural Research Center and the National Turfgrass Federation, Inc. Program policy is made by a policy committee consisting of one member from each of the four (4) Regional Turfgrass Research Committees in the United States, one member from the Lawn Seed Division of the American Seed Trade Association, one member from the United States Golf Association (USGA) Green Section, one member from the Golf Course Superintendents Assoc. of America (GCSAA), one member for the Turfgrass Producers International (TPI), one member from the Turfgrass Breeders Association, one member from the Sports Turf Managers Association of America (STMA), and an executive director. The program does not make variety recommendations. However, the data from tests can be used by extension specialists and others for making recommendations.

The policy committee is responsible for determining program policy including, (1) requirements for submission of entries, (2) scheduling tests, (3) evaluation methods, (4) selecting standard or control test entries, (5) setting entry fees, (6) coordinating tests in their respective regions, (7) establishing guidelines for publication and data distribution and (8) scheduling committee meetings.

Executive Director - Kevin N. Morris, National Turfgrass Evaluation Program, Inc.

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## A Guide to NTEP Turfgrass Ratings

### Introduction

The quality and scientific merit of NTEP data is extremely important. However, the evaluation of turfgrass species and cultivars is a difficult and complex issue. Furthermore, turfgrass evaluation is generally a subjective process based on visual estimates of factors, like genetic color, stand density, leaf texture, uniformity and quality. These factors can not be measured in the same way as other agricultural crops. Turfgrass quality is not a measure of yield or nutritive value. Turfgrass quality is a measure of aesthetics (i.e. density, uniformity, texture, smoothness, growth habit and color), and functional use. The most common way of assessing turfgrass quality is a visual rating system that is based on the turfgrass evaluator's judgement.

### General Considerations

Most visual ratings collected on NTEP trials are based on a 1 to 9 rating scale. One is the poorest or lowest and 9 is the best or highest rating. However, a few characteristics, such as winter kill or percent living ground cover, are rated on a percentage basis, again by using the evaluator's judgement. Most disease ratings found in NTEP reports will use the 1-9 scale, 9=no disease except where the evaluator made a judgement of the percentage of disease in each plot. Percent disease data will be found in separate tables and will normally not be included with disease data using the 1-9 scale.

### Turfgrass Quality

Turfgrass Quality is based on 9 being outstanding or ideal turf and 1 being poorest or dead. A rating of 6 or above is generally considered acceptable. A quality rating value of 9 is reserved for a perfect or ideal grass, but it also can reflect an absolutely outstanding treatment plot. The NTEP requires quality ratings on a monthly basis. Quality ratings take into account the aesthetic and functional aspects of the turf. Quality ratings are not based on color alone, but on a combination of color, density, uniformity, texture, and disease or environmental stress.

Turfgrass quality ratings are grouped and presented by region, management level, a particular stress (shade, traffic, etc.) and in some cases, by individual location (starting with 2001 data, data from each location will be posted separately as well on the NTEP web site, <http://www.ntep.org>). Also available now is a summary table (Appendix) in the back of this report. This summary table includes various statistical measures not previously compiled for NTEP reports. For an explanation of this table and these changes, please go to the NTEP web site at <http://www.ntep.org/pdf/grandmean.mem.pdf>.

### Other Ratings

More detailed information on the ratings of specific characteristics can be found on the NTEP web site at <http://www.ntep.org/reports/ratings.htm>.

2020 NATIONAL BENTGRASS TEST  
(Fairway/Tee)

LOCATIONS SUBMITTING DATA FOR 2021

State	Location	Code
Colorado	Fort Collins (Saline Irrigation)	CO1
Illinois	Urbana	IL1
Indiana	West Lafayette	IN1
Iowa	Ames	IA1
Maryland	College Park	MD1
Michigan	East Lansing	MI1
Missouri	Columbia	MO1
New Jersey	North Brunswick	NJ1
Quebec	Quebec City	QE1
Virginia	Blacksburg	VA2
Wisconsin	Madison	WI1

## 2020 NTEP National Bentgrass (Fairway/Tee) Test Entries and Sponsors

Entry #	Name	Species	Sponsor	*
*1	Penncross	Creeping	Standard	
*2	Chinook (H10G-OP)	Creeping	Standard	
*3	007XL	Creeping	DLF Pickseed USA	
*4	S1	Creeping	SiteOne Landscape Supply	
*5	TourPro	Creeping	Columbia Seeds	
*6	Piranha	Creeping	Standard	
*7	Barracuda	Creeping	Mountain View Seeds	
*8	Musket	Colonial	Standard	
*9	Shark	Creeping	Mountain View Seeds	
*10	Match Play	Creeping	Landmark Turf & Native Seed	
11	DLF-AP-3084	Creeping	DLF Pickseed USA	
12	PVF-PV-1	Creeping	Lebanon Turf	
13	PVF-PV-2	Creeping	SiteOne Landscape	
*14	Spectrum (LNS 19)	Creeping	Landmark Turf & Native Seed	
*15	Oakley (PPG-AP-MTV1)	Creeping	Mountain View Seeds	
*16	Piper (PPG-AP-MTV2)	Creeping	Mountain View Seeds	
17	PST-0MRN	Creeping	Pure-Seed Testing Inc.	
18	PST-0R2O	Creeping	Pure-Seed Testing Inc.	
19	PST-R0DS	Creeping	Pure-Seed Testing Inc.	

\*Commercially Available in the US or any Other Country in 2022

TABLE A.

2021 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN  
THE 2020 NATIONAL BENTGRASS (FAIRWAY/TEE) TEST

LOCATION	SOIL TEXTURE	SOIL PH	SOIL PHOSPHOROUS (LBS/ACRE)	SOIL POTASSIUM (LBS/ACRE)	NITROGEN (LBS/1000 SQ FT)	SUN OR SHADE	MOWING HEIGHT (IN)	IRRIGATION PRACTICED
CO1	SANDY CLAY LOAM	7.1-7.5	-	-	-	FULL SUN	0.6-1.0	-
IA1	SANDY LOAM	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
IL1	-	-	-	-	-	FULL SUN	0.0-0.5	TO PREVENT STRESS
IN1	SILT LOAM AND SILT	7.1-7.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
MD1	SILT LOAM AND SILT	6.1-6.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
NJ1	SANDY LOAM	-	-	-	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
QE1	-	-	-	-	-	-	-	-
VA1	SILTY CLAY LOAM	5.6-6.0	61-150	151-240	3.1-4.0	FULL SUN	0.6-1.0	TO PREVENT STRESS
WI1	SILT LOAM AND SILT	7.1-7.5	-	-	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY

TABLE B.

## LOCATIONS AND DATA COLLECTED IN 2021

LOCATION	JANUARY QUALITY RATING	FEBRUARY QUALITY RATING	MARCH QUALITY RATING	APRIL QUALITY RATING	MAY QUALITY RATING	JUNE QUALITY RATING	JULY QUALITY RATING	AUGUST QUALITY RATING	SEPTEMBER QUALITY RATING	OCTOBER QUALITY RATING	NOVEMBER QUALITY RATING	DECEMBER QUALITY RATING	GENETIC COLOR	SPRING GREENUP	LEAF TEXTURE	SEEDLING VIGOR
CO1			X	X	X	X	X						X	X	X	
IA1				X	X	X	X	X	X	X			X	X		
IL1					X	X	X	X	X					X		
IN1				X	X	X	X	X	X	X					X	
MD1					X	X	X	X	X	X	X	X				
NJ1			X	X	X	X	X	X	X	X			X		X	X
QE1							X		X	X			X			
VA1				X	X	X	X	X	X	X						
WI1					X	X	X	X	X	X			X			X

TABLE B. (CONT'D)

## LOCATIONS AND DATA COLLECTED IN 2021

LOCATION	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	DOLLAR SPOT	BROWN PATCH WARM TEMP.	FALL COLOR SEPTEMBER	FALL COLOR OCTOBER	FALL COLOR NOVEMBER	MOWING QUALITY	CANOPY PUFFINESS	QUALITY 2020	DOLLAR SPOT JUL	DOLLAR SPOT AUG
CO1		X			X						X	X				
IA1	X	X	X	X	X	X			X	X	X					
IL1	X															
IN1		X					X	X					X			
MD1							X									
NJ1			X			X	X	X								
QE1		X			X											
VA1							X							X	X	X
WI1	X													X		



TABLE 1.

MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/  
A FAIRWAY OR TEE GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 1 \*\*/  
2021 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/							
	# ENTRY	NJ1	MD1	VA1	IN1	IL1	WI1	MEAN
* OAKLEY (PPG-AP-MTV1)	15	8.0	7.3	6.9	6.9	7.9	6.4	7.2
* SPECTRUM (LNS 19)	14	7.8	7.3	6.6	6.8	8.2	6.2	7.1
* 007XL	3	7.5	7.1	6.9	6.8	7.8	6.4	7.1
* PIPER (PPG-AP-MTV2)	16	7.5	7.1	6.7	6.7	7.8	6.3	7.0
* MATCH PLAY	10	7.3	6.9	6.7	6.8	7.9	6.4	7.0
PVF-PV-1	12	7.3	7.0	6.7	6.6	7.6	6.1	6.9
PVF-PV-2	13	7.3	6.9	6.3	6.6	8.0	6.1	6.9
* TOURPRO	5	6.7	6.6	6.4	6.7	8.0	6.3	6.8
* S1	4	6.1	6.7	6.7	6.7	7.9	6.2	6.7
DLF-AP-3084	11	7.2	6.6	6.1	6.5	7.7	6.2	6.7
* PIRANHA	6	6.1	6.7	6.4	6.6	8.2	6.1	6.7
PST-OMRN	17	6.9	5.9	5.3	6.7	8.0	6.7	6.6
* CHINOOK (H10G-OP)	2	6.0	6.5	6.2	6.5	8.0	6.1	6.6
* SHARK	9	5.9	6.2	6.1	6.6	7.8	6.3	6.5
* BARRACUDA	7	5.8	6.4	6.5	6.5	7.7	6.0	6.5
PST-OR20	18	6.4	6.1	5.8	6.5	7.7	6.2	6.5
* MUSKET	8	5.9	6.8	7.2	5.9	6.6	5.2	6.3
PST-R0DS	19	5.2	6.0	5.9	6.4	8.0	6.0	6.2
* PENNCROSS	1	3.0	3.8	5.4	5.6	5.3	5.8	4.8
LSD VALUE		0.6	0.6	0.6	0.6	0.6	0.6	0.6
C.V. (%)		5.5	5.5	5.6	5.5	4.7	5.8	5.4

\*/ COMMERCIALLY AVAILABLE IN THE USA OR ANY OTHER COUNTRY

\*\*/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS LPI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE A LPI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON LPI, GO TO [WWW.NTEP.ORG/LPI\\_Q&A.PDF](http://WWW.NTEP.ORG/LPI_Q&A.PDF)

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 2.

MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/  
A FAIRWAY OR TEE GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 2 \*/  
2021 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	# ENTRY	IA1	QE1	MEAN
* PENNCROSS	1	7.1	7.6	7.4
* MATCH PLAY	10	6.7	7.8	7.2
* S1	4	6.8	7.6	7.2
* 007XL	3	6.6	7.8	7.2
* OAKLEY (PPG-AP-MTV1)	15	6.5	7.8	7.1
* SHARK	9	6.9	7.4	7.1
PST-0MRN	17	7.0	7.2	7.1
* TOURPRO	5	6.7	7.5	7.1
* PIPER (PPG-AP-MTV2)	16	6.4	7.6	7.0
* BARRACUDA	7	6.6	7.4	7.0
PVF-PV-1	12	6.3	7.6	6.9
* PIRANHA	6	6.6	7.2	6.9
PST-0R20	18	6.6	7.2	6.9
* CHINOOK (H10G-OP)	2	6.6	7.2	6.9
* SPECTRUM (LNS 19)	14	6.3	7.4	6.8
PST-R0DS	19	6.7	7.0	6.8
DLF-AP-3084	11	6.3	7.2	6.8
PVF-PV-2	13	6.3	7.2	6.8
* MUSKET	8	5.7	7.5	6.6
LSD VALUE		0.6	0.6	0.6
C.V. (%)		5.5	4.8	5.1

\*/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS LPI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE A LPI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON LPI, GO TO [WWW.NTEP.ORG/LPI\\_Q&A.PDF](http://WWW.NTEP.ORG/LPI_Q&A.PDF)

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 3.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A FAIRWAY OR TEE AT FORT COLLINS (SALINE IRRIGATION), CO 1/  
2021 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	GENETIC COLOR	SPRING GREENUP	LEAF TEXTURE	SUMMER DENSITY	%GROUND COVER SUMMER	WINTER COLOR	COLOR NOVEMBER	MOW QUALITY	MAR	QUALITY RATINGS					MEAN
										APR	MAY	JUN	JUL		
OAKLEY (PPG-AP-MTV1)	6.0	4.7	7.0	7.7	70.7	2.0	6.0	7.3	2.0	2.3	3.0	6.0	7.0	4.1	
PST-0MRN	6.7	3.3	6.7	7.3	69.0	2.0	5.3	7.3	2.0	2.0	3.0	5.7	7.7	4.1	
S1	4.7	5.0	6.3	7.7	77.0	2.3	5.7	7.3	2.0	2.3	3.0	6.7	6.3	4.1	
SHARK	5.0	5.0	7.0	7.0	62.7	2.3	5.3	7.3	2.3	2.3	3.0	5.7	6.7	4.0	
007XL	5.3	4.0	7.0	6.7	74.0	1.3	5.0	7.0	2.0	2.0	2.7	6.0	6.7	3.9	
BARRACUDA	5.0	3.7	6.3	6.7	72.0	2.0	4.7	6.7	2.0	2.0	3.0	5.7	6.7	3.9	
CHINOOK (H10G-OP)	5.7	3.7	6.0	7.0	74.3	1.7	6.0	7.3	1.7	2.0	3.0	6.7	6.3	3.9	
MATCH PLAY	5.7	4.3	6.3	6.0	71.0	2.0	5.7	6.7	2.0	2.0	3.0	5.7	6.7	3.9	
PVF-PV-2	4.7	4.0	7.0	6.7	75.3	2.3	5.0	7.3	2.3	2.0	3.0	5.3	6.7	3.9	
TOURPRO	5.0	4.0	6.3	6.3	78.7	1.7	5.7	7.0	2.0	1.7	3.0	5.7	7.3	3.9	
PST-0R20	6.0	3.3	7.0	7.3	72.0	1.7	5.3	7.3	1.7	1.7	2.7	5.7	7.3	3.8	
PST-R0DS	5.3	3.7	7.3	7.0	64.7	2.0	5.0	7.7	2.0	2.3	2.7	5.0	7.0	3.8	
LNS 19	5.0	3.0	7.0	6.7	65.7	1.7	5.7	7.7	1.7	1.7	3.0	5.3	7.0	3.7	
MUSKET	5.0	4.0	7.0	6.3	57.7	2.0	5.3	7.0	2.0	2.0	3.0	5.7	6.0	3.7	
PIPER (PPG-AP-MTV2)	5.0	3.3	6.0	6.0	81.7	1.7	4.7	7.0	1.7	2.0	3.0	5.0	7.0	3.7	
PVF-PV-1	5.7	3.3	7.0	7.0	68.3	1.7	5.3	7.3	1.7	2.0	2.7	5.3	6.7	3.7	
PENNCROSS	4.3	3.3	6.3	6.3	69.0	1.7	5.3	6.3	1.7	1.7	2.7	5.3	6.7	3.6	
PIRANHA	5.3	3.0	6.3	6.0	72.3	2.0	5.3	7.7	1.7	2.0	2.7	5.3	6.3	3.6	
DLF-AP-3084	5.3	3.0	6.0	6.7	72.3	1.7	5.3	7.0	1.7	2.0	2.7	4.3	6.7	3.5	
LSD VALUE	3.3	2.8	1.7	2.1	36.1	1.4	1.8	1.4	1.1	1.5	1.0	2.8	3.1	1.1	
C.V. (%)	19.8	26.8	9.8	11.6	15.8	25.5	11.9	7.5	20.0	23.2	11.0	16.8	13.4	9.0	

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 4.

GENETIC COLOR RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 2/

NAME	IA1	NJ1	QE1	WI1	MEAN
PST-0MRN	7.7	6.3	6	8.0	7.0
PIRANHA	6.0	7.0	6	7.3	6.6
PIPER (PPG-AP-MTV2)	5.7	7.7	6	6.7	6.5
OAKLEY (PPG-AP-MTV1)	4.7	8.3	6	7.0	6.5
PST-0R20	6.3	6.3	6	7.3	6.5
SPECTRUM (LNS 19)	4.7	8.0	6	7.0	6.4
007XL	5.0	7.0	6	7.0	6.3
DLF-AP-3084	5.0	7.3	6	6.7	6.3
PVF-PV-1	5.3	6.7	6	7.0	6.3
CHINOOK (H10G-OP)	5.7	6.0	6	7.0	6.2
PST-R0DS	6.7	5.3	6	6.7	6.2
TOURPRO	4.7	6.7	6	7.3	6.2
BARRACUDA	5.7	6.0	6	6.7	6.1
PVF-PV-2	4.3	6.3	6	7.3	6.0
MATCH PLAY	4.7	5.3	6	7.7	5.9
S1	5.3	4.7	6	7.7	5.9
SHARK	5.3	5.3	6	7.0	5.9
PENNCROSS	6.7	3.0	6	7.3	5.8
MUSKET	3.3	2.3	4	5.7	3.8
LSD VALUE	1.4	2.2	0	0.9	0.7
C.V. (%)	16.1	22.4	0	7.9	14.0

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 5.

SPRING GREENUP RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A FAIRWAY OR TEE  
 2021 DATA

SPRING GREENUP RATINGS 1-9; 9=COMPLETELY GREEN 2/

NAME	IA1	IL1	MEAN
PST-R0DS	9.0	6.3	7.7
007XL	8.0	7.0	7.5
CHINOOK (H10G-OP)	8.3	6.7	7.5
MATCH PLAY	8.7	6.3	7.5
OAKLEY (PPG-AP-MTV1)	8.0	7.0	7.5
PIPER (PPG-AP-MTV2)	8.7	6.3	7.5
PST-OMRN	8.3	6.7	7.5
PST-OR20	8.0	7.0	7.5
SPECTRUM (LNS 19)	8.7	6.3	7.5
TOURPRO	8.7	6.3	7.5
S1	8.3	6.3	7.3
SHARK	8.3	6.3	7.3
DLF-AP-3084	8.7	6.0	7.3
BARRACUDA	8.0	6.3	7.2
PVF-PV-1	8.0	6.3	7.2
PVF-PV-2	8.0	6.3	7.2
MUSKET	8.0	6.0	7.0
PIRANHA	8.0	6.0	7.0
PENNCROSS	8.3	4.3	6.3
LSD VALUE	0.9	0.9	0.6
C.V. (%)	6.4	9.1	7.6

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 6.

LEAF TEXTURE RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/

NAME	IN1	NJ1	MEAN
SPECTRUM (LNS 19)	7.3	8.3	7.8
OAKLEY (PPG-AP-MTV1)	6.7	8.3	7.5
PIPER (PPG-AP-MTV2)	7.7	7.3	7.5
PST-OMRN	7.7	7.0	7.3
TOURPRO	6.7	8.0	7.3
PST-OR20	7.3	7.3	7.3
007XL	6.7	7.7	7.2
PST-RODS	7.3	7.0	7.2
MATCH PLAY	7.0	6.7	6.8
PVF-PV-1	6.7	6.7	6.7
DLF-AP-3084	7.0	6.3	6.7
PVF-PV-2	6.7	6.3	6.5
MUSKET	6.0	6.7	6.3
PIRANHA	7.0	5.7	6.3
CHINOOK (H10G-OP)	6.3	6.0	6.2
SHARK	6.7	5.3	6.0
BARRACUDA	6.0	5.7	5.8
S1	6.0	5.3	5.7
PENNCROSS	4.3	1.0	2.7
LSD VALUE	1.3	1.8	1.1
C.V. (%)	12.1	16.9	14.6

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 7.

SEEDLING VIGOR RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

SEEDLING VIGOR RATINGS 1-9; 9=MAXIMUM VIGOR 2/

NAME	NJ1	WI1	MEAN
PENNCROSS	6.7	7.0	6.8
MATCH PLAY	7.3	6.3	6.8
S1	6.7	6.0	6.3
SHARK	6.3	6.3	6.3
OAKLEY (PPG-AP-MTV1)	6.7	5.3	6.0
TOURPRO	6.0	5.7	5.8
007XL	5.7	5.7	5.7
PIPER (PPG-AP-MTV2)	5.7	5.7	5.7
MUSKET	6.0	5.3	5.7
SPECTRUM (LNS 19)	6.0	5.3	5.7
PST-0MRN	5.3	5.7	5.5
BARRACUDA	5.0	5.7	5.3
CHINOOK (H10G-OP)	5.0	5.3	5.2
PIRANHA	5.3	5.0	5.2
PST-0R20	5.3	4.7	5.0
PVF-PV-1	4.7	5.3	5.0
DLF-AP-3084	4.7	5.0	4.8
PST-RODS	4.3	4.7	4.5
PVF-PV-2	4.0	5.0	4.5
LSD VALUE	1.7	1.0	1.0
C.V. (%)	18.9	11.5	15.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 8.

SPRING DENSITY RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	IA1	IL1	WI1	MEAN
CHINOOK (H10G-OP)	7.7	9.0	4.3	7.0
MATCH PLAY	5.0	8.7	5.7	6.4
PST-OMRN	5.0	9.0	5.3	6.4
PIPER (PPG-AP-MTV2)	5.3	8.7	5.0	6.3
S1	5.0	8.7	5.3	6.3
007XL	4.7	9.0	5.0	6.2
MUSKET	4.0	9.0	5.7	6.2
SPECTRUM (LNS 19)	6.0	8.3	4.3	6.2
PST-OR2O	5.0	8.7	5.0	6.2
TOURPRO	5.0	8.7	5.0	6.2
DLF-AP-3084	4.7	9.0	4.7	6.1
BARRACUDA	4.3	9.0	5.0	6.1
SHARK	4.3	8.7	5.3	6.1
PVF-PV-1	4.3	8.7	5.0	6.0
PIRANHA	4.3	8.3	5.0	5.9
PST-R0DS	4.0	9.0	4.7	5.9
OAKLEY (PPG-AP-MTV1)	4.0	8.7	4.7	5.8
PVF-PV-2	4.0	8.7	4.7	5.8
PENNCROSS	5.7	6.7	4.7	5.7
LSD VALUE	1.9	0.8	0.7	0.7
C.V. (%)	24.1	5.9	9.2	12.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.



TABLE 9.

SUMMER DENSITY RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	IA1	IN1	QE1	MEAN
OAKLEY (PPG-AP-MTV1)	6.0	7.7	8.0	7.2
PVF-PV-2	5.3	8.3	8.0	7.2
PIPER (PPG-AP-MTV2)	5.7	8.0	7.7	7.1
007XL	5.3	7.7	8.0	7.0
DLF-AP-3084	4.7	8.3	8.0	7.0
MATCH PLAY	5.3	7.7	8.0	7.0
TOURPRO	5.7	7.3	8.0	7.0
PST-0R20	5.7	7.3	7.7	6.9
SPECTRUM (LNS 19)	4.3	8.3	8.0	6.9
BARRACUDA	6.3	6.3	8.0	6.9
CHINOOK (H10G-OP)	5.3	7.3	8.0	6.9
S1	5.3	7.3	8.0	6.9
PIRANHA	5.7	7.0	7.7	6.8
MUSKET	6.7	5.3	8.0	6.7
PVF-PV-1	5.3	6.7	8.0	6.7
PST-0MRN	4.3	7.7	7.7	6.6
SHARK	5.0	7.0	7.7	6.6
PST-R0DS	5.3	7.3	7.0	6.6
PENNCROSS	7.0	4.7	7.7	6.4
LSD VALUE	2.0	1.3	0.5	0.8
C.V. (%)	23.0	11.6	4.1	13.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 10.

FALL DENSITY RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	IA1	NJ1	MEAN
PST-OMRN	6.7	7.7	7.2
OAKLEY (PPG-AP-MTV1)	4.3	8.7	6.5
SPECTRUM (LNS 19)	4.0	8.7	6.3
PIPER (PPG-AP-MTV2)	4.0	8.3	6.2
PST-OR20	5.0	7.0	6.0
DLF-AP-3084	4.0	7.7	5.8
PVF-PV-2	4.3	7.3	5.8
TOURPRO	4.3	7.3	5.8
007XL	4.0	7.3	5.7
MATCH PLAY	5.0	6.3	5.7
PIRANHA	5.3	6.0	5.7
PST-RODS	5.3	6.0	5.7
PVF-PV-1	4.3	7.0	5.7
SHARK	5.0	5.7	5.3
MUSKET	5.3	5.0	5.2
CHINOOK (H10G-OP)	4.3	5.7	5.0
S1	4.3	5.3	4.8
BARRACUDA	4.7	4.7	4.7
PENNCROSS	7.3	1.0	4.2
LSD VALUE	1.2	1.8	1.1
C.V. (%)	15.8	17.5	17.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 11. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	IA1
007XL	99.0
CHINOOK (H10G-OP)	99.0
MATCH PLAY	99.0
PENNCROSS	99.0
SHARK	99.0
SPECTRUM (LNS 19)	99.0
TOURPRO	99.0
DLF-AP-3084	98.7
OAKLEY (PPG-AP-MTV1)	98.7
PST-0R20	98.7
PST-0MRN	98.3
S1	98.3
BARRACUDA	98.0
PIRANHA	97.7
PST-RODS	97.7
MUSKET	96.7
PVF-PV-1	96.7
PVF-PV-2	96.3
PIPER (PPG-AP-MTV2)	96.0
LSD VALUE	2.9
C.V. (%)	1.8

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 12. PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	IA1	QE1	MEAN
MATCH PLAY	99.0	91.7	95.3
OAKLEY (PPG-AP-MTV1)	99.0	91.7	95.3
MUSKET	99.0	90.0	94.5
007XL	99.0	88.3	93.7
PST-0MRN	99.0	88.3	93.7
S1	99.0	88.3	93.7
PIPER (PPG-AP-MTV2)	98.7	88.3	93.5
DLF-AP-3084	99.0	86.7	92.8
PENNCROSS	99.0	86.7	92.8
PVF-PV-2	99.0	86.7	92.8
PST-0R20	99.0	85.0	92.0
PVF-PV-1	99.0	85.0	92.0
SPECTRUM (LNS 19)	99.0	85.0	92.0
TOURPRO	99.0	85.0	92.0
BARRACUDA	99.0	83.3	91.2
PIRANHA	99.0	83.3	91.2
CHINOOK (H10G-OP)	99.0	81.7	90.3
PST-RODS	99.0	81.7	90.3
SHARK	99.0	81.7	90.3
LSD VALUE	0.2	9.2	4.6
C.V. (%)	0.1	6.6	4.4

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 13. PERCENT LIVING GROUND COVER (FALL) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	IA1	NJ1	MEAN
MUSKET	99.0	99.0	99.0
007XL	99.0	97.7	98.3
OAKLEY (PPG-AP-MTV1)	99.0	97.7	98.3
MATCH PLAY	98.7	97.7	98.2
PIPER (PPG-AP-MTV2)	99.0	96.3	97.7
PVF-PV-1	99.0	96.3	97.7
TOURPRO	99.0	96.3	97.7
BARRACUDA	98.7	96.3	97.5
DLF-AP-3084	99.0	96.0	97.5
SPECTRUM (LNS 19)	99.0	96.0	97.5
PIRANHA	98.3	96.3	97.3
PST-OR20	98.3	94.7	96.5
CHINOOK (H10G-OP)	99.0	93.3	96.2
S1	99.0	93.0	96.0
PST-RODS	97.0	94.7	95.8
PVF-PV-2	99.0	91.3	95.2
SHARK	99.0	91.3	95.2
PENNCROSS	94.7	94.7	94.7
PST-OMRN	95.3	93.0	94.2
LSD VALUE	2.1	6.6	3.5
C.V. (%)	1.3	4.3	3.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 14.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	IN1	MD1	NJ1	VA1	MEAN
MUSKET	6.0	7.7	7.7	7.3	7.2
SPECTRUM (LNS 19)	7.0	6.3	7.3	6.3	6.8
PVF-PV-2	6.7	6.7	5.7	6.0	6.3
DLF-AP-3084	6.7	5.7	6.0	6.3	6.2
PVF-PV-1	7.0	5.3	5.3	6.7	6.1
007XL	7.0	5.0	5.0	7.0	6.0
OAKLEY (PPG-AP-MTV1)	5.3	5.0	6.3	6.7	5.8
PIPER (PPG-AP-MTV2)	6.0	4.7	5.7	6.3	5.7
TOURPRO	5.7	5.0	5.0	6.0	5.4
CHINOOK (H10G-OP)	5.7	5.3	4.7	5.7	5.3
MATCH PLAY	5.7	5.3	5.0	5.3	5.3
BARRACUDA	5.7	5.3	4.3	5.3	5.2
PST-R0DS	5.7	4.7	5.0	5.0	5.1
S1	6.0	4.0	3.7	6.3	5.0
PIRANHA	5.0	4.3	4.0	5.7	4.8
SHARK	4.7	4.3	3.0	4.0	4.0
PST-0R20	4.7	2.0	3.0	4.0	3.4
PENNCROSS	3.3	.	3.7	3.0	3.3
PST-0MRN	4.3	2.3	3.0	3.7	3.3
LSD VALUE	1.0	1.6	1.6	1.6	0.7
C.V. (%)	10.7	19.8	20.5	17.3	17.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 15. BROWN PATCH (WARM TEMPERATURE) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	IN1	NJ1	MEAN
PST-OMRN	9.0	8.7	8.8
PVF-PV-2	8.3	8.7	8.5
PVF-PV-1	7.7	9.0	8.3
007XL	8.0	8.3	8.2
TOURPRO	9.0	7.3	8.2
DLF-AP-3084	8.7	7.3	8.0
PIPER (PPG-AP-MTV2)	7.7	8.0	7.8
CHINOOK (H10G-OP)	7.0	8.3	7.7
S1	6.7	8.3	7.5
OAKLEY (PPG-AP-MTV1)	7.3	7.3	7.3
PIRANHA	7.3	6.7	7.0
SPECTRUM (LNS 19)	7.7	6.3	7.0
BARRACUDA	6.3	7.0	6.7
PST-OR20	6.0	6.7	6.3
SHARK	5.7	7.0	6.3
MATCH PLAY	6.3	6.0	6.2
PST-RODS	6.7	5.3	6.0
PENNCROSS	6.7	4.3	5.5
MUSKET	3.0	3.0	3.0
LSD VALUE	3.2	2.9	2.1
C.V. (%)	27.8	25.5	26.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 16.

FALL COLOR (SEPTEMBER) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A FAIRWAY OR TEE  
 2021 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	IA1
PENNCROSS	8.3
PST-0MRN	7.7
CHINOOK (H10G-OP)	7.0
PIRANHA	7.0
BARRACUDA	6.7
DLF-AP-3084	6.7
PST-R0DS	6.7
PST-0R20	6.3
S1	6.3
SHARK	6.3
MATCH PLAY	6.0
PVF-PV-2	6.0
TOURPRO	6.0
007XL	5.7
PVF-PV-1	5.7
SPECTRUM (LNS 19)	5.7
OAKLEY (PPG-AP-MTV1)	5.3
PIPER (PPG-AP-MTV2)	5.3
MUSKET	3.3
LSD VALUE	1.0
C.V. (%)	10.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.



TABLE 17.

FALL COLOR (OCTOBER) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A FAIRWAY OR TEE  
 2021 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	IA1
PST-0MRN	7.7
PENNCROSS	7.3
PST-R0DS	6.7
PIRANHA	6.3
PST-0R20	6.3
BARRACUDA	5.7
MATCH PLAY	5.7
SHARK	5.7
CHINOOK (H10G-OP)	5.3
TOURPRO	5.3
007XL	5.0
PVF-PV-1	5.0
S1	5.0
DLF-AP-3084	4.7
OAKLEY (PPG-AP-MTV1)	4.7
PVF-PV-2	4.7
SPECTRUM (LNS 19)	4.7
PIPER (PPG-AP-MTV2)	4.3
MUSKET	3.0
LSD VALUE	1.0
C.V. (%)	12.0

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 18.

FALL COLOR (NOVEMBER) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A FAIRWAY OR TEE  
 2021 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	IA1
PENNCROSS	8.3
SHARK	6.7
PST-0MRN	6.0
PST-R0DS	6.0
BARRACUDA	5.3
PIRANHA	5.3
PST-0R20	5.3
MATCH PLAY	4.7
PVF-PV-1	4.7
007XL	4.3
CHINOOK (H10G-OP)	4.3
DLF-AP-3084	4.3
OAKLEY (PPG-AP-MTV1)	4.3
S1	4.3
PIPER (PPG-AP-MTV2)	4.0
PVF-PV-2	4.0
SPECTRUM (LNS 19)	4.0
TOURPRO	4.0
MUSKET	3.3
LSD VALUE	1.1
C.V. (%)	14.3

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 19. CANOPY PUFFINESS (SUMMER) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A FAIRWAY OR TEE  
 2021 DATA

CANOPY PUFFINESS RATINGS 1-9; 9=NONE 2/

NAME	IN1
OAKLEY (PPG-AP-MTV1)	5.7
PIPER (PPG-AP-MTV2)	5.7
007XL	5.3
PVF-PV-2	5.3
DLF-AP-3084	5.0
SPECTRUM (LNS 19)	5.0
BARRACUDA	4.7
CHINOOK (H10G-OP)	4.7
PST-0MRN	4.0
PST-R0DS	4.0
TOURPRO	4.0
PIRANHA	3.7
PST-0R20	3.7
S1	3.7
MATCH PLAY	3.3
PVF-PV-1	3.3
SHARK	3.3
PENNCROSS	2.3
MUSKET	1.3
LSD VALUE	1.8
C.V. (%)	27.8

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 20. TURFGRASS QUALITY (NOVEMBER IN 2020) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	WI1
BARRACUDA	4.7
MUSKET	4.7
S1	4.7
SHARK	4.7
TOURPRO	4.7
007XL	4.3
MATCH PLAY	4.3
PENNCROSS	4.3
PIPER (PPG-AP-MTV2)	4.3
PIRANHA	4.3
PST-R0DS	4.3
PST-0MRN	4.0
PVF-PV-1	4.0
SPECTRUM (LNS 19)	4.0
CHINOOK (H10G-OP)	3.7
PST-0R20	3.7
DLF-AP-3084	3.3
OAKLEY (PPG-AP-MTV1)	3.3
PVF-PV-2	3.3
LSD VALUE	1.1
C.V. (%)	16.0

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 21. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A FAIRWAY OR TEE AT BLACKSBURG, VA 1/  
2020 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=BEST 2/

NAME	QUALITY RATINGS		MEAN
	3 WEEKS AFTER ESTABLISHMENT	6 WEEKS	
MATCH PLAY	7.3	7.7	7.5
PIPER (PPG-AP-MTV2)	7.7	7.3	7.5
CHINOOK (H10G-OP)	7.3	7.0	7.2
MUSKET	6.3	7.0	6.7
S1	6.3	7.0	6.7
PIRANHA	6.0	7.0	6.5
TOURPRO	6.0	7.0	6.5
OAKLEY (PPG-AP-MTV1)	6.3	6.3	6.3
007XL	6.0	6.3	6.2
DLF-AP-3084	5.7	6.7	6.2
PENNCROSS	6.0	6.3	6.2
SPECTRUM (LNS 19)	6.0	6.3	6.2
PST-OR20	5.7	6.3	6.0
SHARK	5.3	6.7	6.0
BARRACUDA	5.3	6.0	5.7
PST-OMRN	5.3	5.7	5.5
PST-R0DS	4.7	6.0	5.3
PVF-PV-1	4.0	6.0	5.0
PVF-PV-2	4.0	5.7	4.8
LSD VALUE	4.3	3.6	3.8
C.V. (%)	26.9	17.0	20.9

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 22.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A FAIRWAY OR TEE AT BLACKSBURG, VA 1/  
2021 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	DOLLAR SPOT		MEAN
	JULY	AUGUST	
MUSKET	7.3	8.0	7.7
007XL	7.0	7.0	7.0
OAKLEY (PPG-AP-MTV1)	6.7	6.7	6.7
PIPER (PPG-AP-MTV2)	6.3	7.0	6.7
PVF-PV-2	6.0	7.0	6.5
PVF-PV-1	6.7	6.0	6.3
SPECTRUM (LNS 19)	6.3	6.3	6.3
DLF-AP-3084	6.3	6.0	6.2
MATCH PLAY	5.3	6.7	6.0
S1	6.3	5.7	6.0
CHINOOK (H10G-OP)	5.7	6.0	5.8
TOURPRO	6.0	5.7	5.8
PIRANHA	5.7	5.7	5.7
BARRACUDA	5.3	5.7	5.5
PST-RODS	5.0	5.7	5.3
PST-OR20	4.0	6.3	5.2
SHARK	4.0	4.3	4.2
PST-OMRN	3.7	4.3	4.0
PENNCROSS	3.0	3.3	3.2
LSD VALUE	1.6	1.2	1.1
C.V. (%)	16.6	12.3	12.3

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

APPENDIX TABLE. SUMMARY OF TURFGRASS QUALITY RATINGS FOR BENTGRASS CULTIVARS  
GROWN ON A FAIRWAY OR TEE  
2021 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	QUALITY	MAXIMUM
	MEAN 1/	IN TOP 25% 2/
007XL	6.7	37.5
BARRACUDA	6.3	0.0
CHINOOK (H10G-OF)	6.3	12.5
DLF-AP-3084	6.3	0.0
MATCH PLAY	6.7	37.5
MUSKET	6.1	12.5
OAKLEY (PPG-AP-MTV1)	6.9	62.5
PENNCROSS	5.2	12.5
PIPER (PPG-AP-MTV2)	6.6	25.0
PIRANHA	6.4	12.5
PST-OMRN	6.4	37.5
PST-OR20	6.2	0.0
PST-R0DS	6.0	25.0
PVF-PV-1	6.6	12.5
PVF-PV-2	6.5	12.5
S1	6.5	12.5
SHARK	6.3	25.0
SPECTRUM (LNS 19)	6.7	37.5
TOURPRO	6.5	25.0
LSD VALUE	0.2	
C.V. (%)	5.3	

\*/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD VALUE 0.05).

\*\*/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

1/ MEAN AN AVERAGE OF ALL THE TURFGRASS QUALITY RATINGS FROM ALL LOCATIONS.

2/ MAXIMUM IN TOP 25%: THE PERCENTAGE OF LOCATIONS WHERE THAT ENTRY FINISHED IN THE TOP 25% OF ALL ENTRIES.