

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.

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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
(Putting Green)

LOCATIONS SUBMITTING DATA FOR 2022

State	Location	Code
Indiana	Auburn	AL1
Connecticut	Storrs	CT1
Illinois	Olympia Fields (Olympia Fields, CC)	IL5
Indiana	West Lafayette	IN1
Indiana	West Lafayette (Low Fungicide)	IN2
Kansas	Olathe (Shadow Glen, GC)	KS1
Massachusetts	Amherst	MA1
Minnesota	St. Paul	MN1
New Jersey	North Brunswick	NJ1
North Carolina	Raleigh	NC1
Oklahoma	Stillwater (Karsten Creek CC)	OK1
Oregon	McKenzie Bridge (Tokatee GC)	OR1
Utah	Logan	UT1
Virginia	Blacksburg	VA1
Wisconsin	Madison	WI1

**2020 NATIONAL BENTGRASS TEST
(Putting Green)**

Entries and Sponsors

Entry No	Name	Species	Sponsor
*1	Penncross	Creeping	Standard
*2	Penn A-1	Creeping	Standard
*3	007XL	Creeping	DLF USA
4	CY-4	Creeping	Snow Brand Seed Co., Ltd.
*5	S1	Creeping	SiteOne Landscape Supply
*6	Piranha	Creeping	Standard
*7	Barracuda	Creeping	Mountain View Seeds
8	PSU-CBG1	Creeping	Penn State University
9	PSU-CBG2	Creeping	Penn State University
10	PSU-CBG3	Creeping	Penn State University
11	DLFPS-AP-3084	Creeping	DLF USA
12	PVF-PV-1	Creeping	Lebanon Turf
13	PVF-PV-2	Creeping	SiteOne Landscape
*14	Declaration	Creeping	Standard
*15	Spectrum (LNS 19)	Creeping	Landmark Turf & Native Seeds
*16	Oakley (PPG-AP-TV1)	Creeping	Mountain View Seeds
*17	Piper (PPG-AP-MTV2)	Creeping	Mountain View Seeds
18	PST-0DSF	Creeping	Pure-Seed Testing
19	PST-0HR	Creeping	Pure-Seed Testing
*20	L-93 XD	Creeping	Standard

* Commercially Available in the USA in 2023 or any Other Country

TABLE A.

2022 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN THE 2020 NATIONAL BENTGRASS (GREEN) 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
AL1	SAND	6.1-6.5	0-60	0-150	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
CT1	SANDY LOAM	5.6-6.0	0-60	151-240	1.1-2.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
IL5	-	-	-	-	-	-	-	-
IN1	SAND	7.6-8.5	0-60	151-240	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
IN2	SAND	7.6-8.5	0-60	151-240	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
KS1	SAND	-	0-60	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MA1	SAND	5.6-6.0	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MN1	SAND	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
NC1	SILTY CLAY LOAM	6.1-6.5	61-150	0-150	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
NJ1	SAND	6.1-6.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
OK1	SAND	7.1-7.5	61-150	151-240	3.1-4.0	LIGHT SHADE	0.0-0.5	TO PREVENT STRESS
OR1	SILTY CLAY LOAM	6.1-6.5	0-60	0-150	2.1-3.0	PARTIAL SHADE	0.0-0.5	TO PREVENT STRESS
UT1	SAND	6.6-7.0	-	-	-	FULL SUN	0.0-0.5	TO PREVENT STRESS
VA1	SAND	5.6-6.0	0-60	0-150	4.1-5.0	FULL SUN	0.0-0.5	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 2022

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
AL1			X	X	X	X	X	X	X	X	X	X	X		X
CT1					X	X	X	X	X	X	X		X		
IL5				X	X	X	X	X		X					
IN1					X	X	X	X	X	X	X			X	X
IN2					X	X	X	X	X	X	X			X	X
KS1			X		X		X	X	X		X		X	X	
MA1				X	X	X	X	X	X	X	X				
MN1					X	X	X	X	X	X			X	X	
NC1	X	X	X	X	X	X	X	X	X	X	X		X		X
NJ1				X	X	X	X	X	X	X			X	X	X
OK1	X	X	X	X	X	X	X	X	X	X	X		X	X	
OR1			X		X	X	X	X	X				X	X	
UT1				X	X	X	X	X	X	X			X	X	
VA1				X	X	X	X	X	X	X			X		
WI1				X	X	X	X	X	X	X	X		X	X	

TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2022

LOCATION	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	WINTER COLOR	THATCH	DOLLAR SPOT	ANTHRACNOSE RATINGS	PYTHIUM ROOT ROT
AL1		X									
CT1	X	X	X					X			
IL5											
IN1		X	X								
IN2		X	X								
KS1	X	X	X						X		
MA1											
MN1		X									
NC1	X		X	X	X	X	X			X	X
NJ1			X								
OK1	X	X	X			X	X		X		
OR1											
UT1											
VA1							X		X		
WI1	X	X	X								

TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2022

LOCATION	FALL COLOR	FALL COLOR	POA ANNUA	MOWING QUALITY	PERCENT POA ANNUA	TRUFIRM READINGS	PERCENT ESTABLISHMENTS			WEAR TOLERANCE			ALGAE RATINGS					DOLLAR SPOT RATINGS			AERIFICATION RECOVERY	
	OCTOBER	NOVEMBER					MAR	APR	MAY	MAY	JUL	OCT	MAY	JUN	JUL	AUG	SEP	AUG	SEP	OCT		
AL1							X	X	X													
CT1		X		X																		
IL5					X																	
IN1																					X	
*IN2																						
KS1																						
MA1										X	X	X										
MN1																						
NC1														X	X	X	X	X				
NJ1																						
OK1																						
OR1						X																
UT1																						
VA1		X																		X	X	X
WI1	X	X			X																	

MORE DATA FOR IN2 IN TABLE 4.

TABLE 1.

MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/
A GREEN AT THREE LOCATIONS IN THE U.S. FOR LPI GROUP 1 **/
2022 DATA

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

NAME	# ENTRY	CT1	AL1	IN1	MN1	UT1	MEAN
PST-OHR	19	7.2	7.0	8.2	7.8	7.4	7.5
PVF-PV-1	12	7.5	7.1	7.5	7.1	6.8	7.2
* SPECTRUM (LNS 19)	15	7.8	7.1	7.3	6.9	6.7	7.2
* OAKLEY (PPG-AP-MTV1)	16	7.4	7.1	7.5	7.1	6.9	7.2
* PIPER (PPG-AP-MTV2)	17	6.7	6.8	7.3	6.9	6.9	6.9
* 007XL	3	7.5	6.9	6.9	6.5	6.3	6.8
PVF-PV-2	13	6.8	6.9	7.1	6.6	6.6	6.8
PSU-CBG3	10	7.6	6.5	7.2	6.6	6.1	6.8
PSU-CBG1	8	6.6	6.6	7.2	6.7	6.4	6.7
DLFPS-AP-3084	11	6.4	6.6	6.9	6.4	6.2	6.5
PSU-CBG2	9	5.4	6.2	7.1	6.8	6.6	6.4
* L-93 XD	20	6.2	6.3	6.8	6.2	5.9	6.3
* S1	5	6.3	6.4	6.5	5.9	5.6	6.1
* PIRANHA	6	5.8	6.3	6.6	6.0	5.8	6.1
PST-ODSF	18	3.8	5.8	6.9	6.4	6.3	5.8
* BARRACUDA	7	4.4	5.7	6.3	5.8	5.7	5.6
CY-4	4	5.4	5.9	5.6	5.0	5.0	5.4
* PENN A-1	2	4.8	5.4	5.6	4.9	4.5	5.0
* DECLARATION	14	4.0	5.1	5.3	4.6	4.4	4.7
* PENNCROSS	1	2.4	4.0	4.2	3.5	3.3	3.5
LSD VALUE		0.8	0.8	0.8	0.8	0.8	0.8
C.V. (%)		8.2	7.8	7.4	8.0	8.3	7.9

* COMMERCIALY AVAILABLE IN THE USA IN 2023.

**/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS AMMI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE AN AMMI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON AMMI, GO TO WWW.NTEP.OR/AMMI_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 GREEN AT THREE LOCATIONS IN THE U.S. FOR LPI GROUP 2 */
2022 DATA

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

NAME	# ENTRY	NJ1	VA1	NC1	WI1	MEAN
PVF-PV-2	13	7.6	6.7	8.2	6.9	7.4
OAKLEY (PPG-AP-MTV1)	16	7.5	6.7	8.0	6.9	7.3
SPECTRUM (LNS 19)	15	7.8	6.6	7.8	6.8	7.3
PIPER (PPG-AP-MTV2)	17	7.9	6.5	7.9	6.7	7.3
PVF-PV-1	12	7.1	6.7	7.9	6.9	7.1
007XL	3	7.2	6.6	7.8	6.7	7.1
DLFPS-AP-3084	11	6.1	6.5	7.9	6.7	6.8
PST-0HR	19	6.4	6.4	7.5	6.8	6.8
PSU-CBG1	8	6.1	6.3	7.6	6.6	6.6
PIRANHA	6	5.4	6.4	7.9	6.7	6.6
CY-4	4	5.9	6.2	7.9	6.3	6.6
S1	5	5.1	6.5	7.9	6.7	6.5
PSU-CBG2	9	6.2	5.8	7.4	6.2	6.4
L-93 XD	20	5.2	6.2	7.5	6.5	6.3
PSU-CBG3	10	5.3	6.1	6.9	6.4	6.2
BARRACUDA	7	4.9	5.8	7.6	6.2	6.1
PST-0DSF	18	4.5	5.8	7.6	6.3	6.0
PENN A-1	2	3.1	5.8	7.3	6.0	5.5
DECLARATION	14	3.1	5.5	7.2	5.8	5.4
PENNCROSS	1	1.8	4.5	6.4	4.8	4.4
LSD VALUE		0.8	0.8	0.8	0.8	0.8
C.V. (%)		8.6	8.0	6.5	7.6	7.6

*/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS AMMI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE AN AMMI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON AMMI, GO TO WWW.NTEP.OR/AMMI_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 GREEN UNDER TRAFFIC STRESS AT AMHERST, MA 1/
2022 DATA

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

NAME	WEAR TOLERANCE RATINGS			QUALITY RATINGS								MEAN
	MAY	JULY	OCTOBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
OAKLEY (PPG-AP-MTV1)	6.3	5.7	6.0	5.7	6.3	6.3	7.0	6.0	6.7	6.7	6.3	6.4
DLFPS-AP-3084	6.3	6.3	6.3	6.0	6.3	6.3	6.3	5.7	6.7	6.3	6.3	6.3
PST-0HR	6.7	5.7	6.0	6.0	6.0	7.0	6.7	6.3	5.7	6.0	5.7	6.2
PVF-PV-2	6.0	5.7	6.0	5.3	6.0	6.0	6.7	5.7	7.0	6.7	6.0	6.2
SPECTRUM (LNS 19)	5.3	5.7	5.3	6.0	6.3	7.0	6.0	6.0	6.3	6.3	5.7	6.2
PIPER (PPG-AP-MTV2)	5.3	5.0	5.7	6.3	6.0	6.7	6.0	5.3	6.0	6.0	5.7	6.0
PSU-CBG2	6.3	5.7	6.0	6.0	6.3	6.3	6.0	7.0	5.7	6.0	4.7	6.0
007XL	5.7	5.3	5.3	5.7	5.7	5.7	6.0	5.0	6.3	6.3	6.3	5.9
PSU-CBG1	6.3	5.0	5.7	6.3	6.0	6.0	6.0	6.0	6.0	5.7	5.3	5.9
PVF-PV-1	6.0	5.7	5.7	5.7	6.0	5.7	6.3	5.3	6.3	5.3	6.3	5.9
PIRANHA	5.3	4.3	5.3	5.7	5.7	5.7	6.0	6.0	5.7	5.7	6.0	5.8
BARRACUDA	5.7	5.3	5.0	5.3	5.7	5.7	6.0	5.7	6.0	5.3	6.0	5.7
PSU-CBG3	5.7	6.0	5.7	6.0	6.3	6.0	5.3	5.3	5.7	5.7	5.0	5.7
CY-4	6.3	6.3	5.7	5.0	5.0	5.0	5.7	5.3	6.0	6.7	6.0	5.6
L-93 XD	6.0	6.0	6.0	5.3	5.3	5.3	6.0	5.3	6.0	5.7	6.0	5.6
S1	5.0	5.0	5.0	5.0	5.0	6.0	5.0	5.3	6.7	6.0	6.0	5.6
DECLARATION	4.7	4.7	4.7	5.0	5.3	5.0	5.7	5.0	5.7	5.7	5.7	5.4
PST-0DSF	5.3	4.7	6.0	5.0	5.3	5.3	6.0	5.3	5.3	6.0	4.7	5.4
PENN A-1	4.3	4.7	4.7	5.0	5.3	5.0	5.3	5.3	5.3	5.3	5.3	5.3
PENNCROSS	3.7	3.7	3.7	4.0	4.0	4.3	4.7	4.3	4.7	4.3	5.0	4.4
LSD VALUE	0.8	0.8	0.8	0.7	0.8	0.6	0.5	0.7	0.9	1.1	0.7	0.4
C.V. (%)	9.0	9.5	8.9	7.8	8.2	6.7	5.8	7.4	8.2	9.9	7.6	4.5

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.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN UNDER LOW FUNGICIDE AT WEST LAFAYETTE, IN 1/
2022 DATA

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

NAME	SPRING GREENUP	LEAF TEXTURE	SUMMER DENSITY	FALL DENSITY	BROWN PATCH WEAR TOLERANCE	MAY	JUN	JUL	QUALITY RATINGS				MEAN
									AUG	SEP	OCT	NOV	
DLFPS-AP-3084	5.7	6.3	7.3	7.0	9.0	7.0	7.0	7.0	7.3	7.0	6.3	7.0	7.0
OAKLEY (PPG-AP-MTV1)	4.7	7.3	7.7	7.7	8.3	7.7	7.3	7.3	6.7	6.7	6.3	6.7	7.0
SPECTRUM (LNS 19)	5.7	7.3	8.0	8.0	9.0	7.3	7.3	6.7	7.3	7.0	6.7	6.7	7.0
007XL	5.0	7.3	7.7	7.0	9.0	7.3	7.3	7.0	7.0	7.0	6.0	6.3	6.9
PVF-PV-1	5.7	6.7	7.7	7.7	9.0	7.3	7.0	7.3	6.7	6.0	6.3	6.7	6.8
PVF-PV-2	6.0	6.0	7.0	8.0	9.0	7.0	7.0	6.7	7.3	6.3	6.3	6.7	6.8
PIPER (PPG-AP-MTV2)	5.3	7.7	8.3	8.0	9.0	7.0	7.0	7.3	7.0	5.3	6.0	6.7	6.6
PST-0DSF	4.7	6.3	7.0	7.3	9.0	7.3	8.0	7.7	6.7	5.3	6.0	5.3	6.6
PIRANHA	5.7	5.7	6.7	7.0	9.0	6.3	6.7	6.7	7.0	5.3	6.7	6.0	6.4
L-93 XD	5.3	5.7	7.0	7.0	9.0	7.0	7.0	6.7	7.0	6.0	5.7	5.0	6.3
CY-4	4.0	6.3	7.7	7.3	9.0	6.0	6.7	6.0	6.7	6.3	5.7	6.0	6.2
PSU-CBG2	3.7	7.7	8.0	9.0	9.0	7.7	8.3	8.3	5.7	4.7	4.7	4.3	6.2
PSU-CBG1	4.0	8.3	8.3	8.7	9.0	7.7	7.7	7.7	5.7	5.0	4.0	4.0	6.0
S1	5.0	6.0	6.3	5.7	9.0	6.7	6.3	6.0	6.0	5.3	6.0	5.7	6.0
BARRACUDA	5.0	5.3	5.7	5.0	8.7	6.3	6.7	6.0	6.0	5.3	5.3	5.7	5.9
PST-0HR	4.0	8.3	9.0	9.0	9.0	8.0	7.3	8.3	5.7	4.3	3.7	4.0	5.9
PSU-CBG3	4.0	7.0	7.7	8.3	9.0	7.7	7.3	7.7	5.7	4.7	4.0	4.0	5.9
DECLARATION	5.0	4.7	5.3	4.7	9.0	5.0	6.3	5.0	5.7	5.3	5.7	5.7	5.5
PENN A-1	4.3	5.0	5.0	5.0	8.7	5.7	6.3	5.7	5.0	5.0	5.3	4.7	5.4
PENNCROSS	4.0	3.0	3.3	3.3	9.0	4.3	4.7	4.3	4.3	3.3	3.7	3.3	4.0
LSD VALUE	2.7	1.5	1.1	1.1	1.0	1.1	1.0	0.7	1.1	1.1	1.3	0.7	0.4
C.V. (%)	21.8	14.7	10.4	10.5	3.5	9.6	8.4	6.4	10.3	12.2	14.1	8.6	4.7

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 4.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN UNDER LOW FUNGICIDE AT WEST LAFAYETTE, IN 1/
2022 DATA

NAME	TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/							PERCENT DOLLAR SPOT
	DOLLAR SPOT	7/19	DOLLAR SPOT 7/27	CENTERS 8/6	JULY-SEPTEMBER 8/13	8/21	9/1	
DLFPS-AP-3084	8.7	0.0	0.0	0.0	0.7	2.0	8.0	0.0
OAKLEY (PPG-AP-MTV1)	9.0	0.3	0.3	0.0	1.0	0.3	5.0	0.0
SPECTRUM (LNS 19)	9.0	0.0	0.0	0.0	1.3	0.7	5.3	0.0
007XL	8.3	0.0	0.0	0.3	0.7	1.0	5.3	0.0
PVF-PV-1	8.7	0.0	0.0	0.0	0.3	3.0	6.3	0.3
PVF-PV-2	8.7	0.0	0.0	0.3	0.7	2.0	3.7	0.0
PIPER (PPG-AP-MTV2)	8.3	0.0	1.0	1.7	1.0	2.7	9.3	0.3
PST-ODSF	7.0	0.3	1.0	2.0	4.7	6.7	16.0	1.3
PIRANHA	7.7	1.0	0.7	1.3	3.0	5.7	12.0	0.7
L-93 XD	7.7	0.0	1.0	2.0	2.7	2.7	9.3	1.0
CY-4	8.3	0.3	0.3	0.0	0.7	1.3	4.7	0.3
PSU-CBG2	5.7	4.7	7.7	13.3	24.7	29.3	39.3	3.7
PSU-CBG1	6.0	3.3	6.7	11.7	17.0	17.3	28.0	3.0
S1	7.7	0.0	0.0	1.7	3.3	6.0	14.0	0.7
BARRACUDA	7.7	0.7	0.3	1.3	2.3	6.0	10.0	0.3
PST-OHR	4.3	7.0	10.3	17.0	19.7	29.0	40.7	4.0
PSU-CBG3	5.0	4.3	6.7	12.7	20.7	25.3	37.3	5.0
DECLARATION	7.3	0.0	2.0	2.3	3.7	5.0	10.7	1.3
PENN A-1	5.7	0.7	2.0	2.3	5.7	14.0	18.0	3.0
PENNCROSS	4.0	8.7	17.7	15.3	30.7	43.3	52.0	9.7
LSD VALUE	1.2	3.8	6.3	7.2	11.0	14.8	18.7	2.9
C.V. (%)	10.9	141.9	130.3	103.1	93.9	88.9	67.1	102.9

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 5.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT OLYMPIA (OLYMPIA FIELDS CC), IL 1/
2022 DATA

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

NAME	PERCENT POA ANNUA	QUALITY RATINGS						MEAN
		APR	MAY	JUN	JUL	AUG	OCT	
PST-0HR	4.7	7.3	7.7	8.7	7.7	8.0	8.7	8.0
PSU-CBG1	6.3	6.7	7.3	8.3	8.3	8.0	8.0	7.8
PSU-CBG2	3.7	7.3	7.0	8.3	8.0	8.0	8.0	7.8
SPECTRUM (LNS 19)	3.3	7.0	7.7	8.3	8.0	7.7	8.0	7.8
OAKLEY (PPG-AP-MTV1)	2.0	7.3	8.0	7.7	8.0	7.0	7.7	7.6
PSU-CBG3	6.7	6.3	7.7	7.7	8.7	8.0	7.3	7.6
PIPER (PPG-AP-MTV2)	1.3	7.3	7.7	8.3	7.0	7.0	7.3	7.4
PVF-PV-2	4.0	6.7	8.3	7.3	7.7	7.0	7.0	7.3
PVF-PV-1	2.3	6.3	7.3	7.7	7.7	6.7	7.7	7.2
DLFPS-AP-3084	5.7	5.7	7.3	8.0	7.3	7.3	6.0	6.9
007XL	5.3	5.7	6.7	7.0	7.0	7.7	6.7	6.8
S1	5.0	6.3	6.3	7.7	7.0	6.7	6.3	6.7
L-93 XD	4.3	6.0	6.7	7.0	6.7	6.0	7.0	6.6
PIRANHA	3.0	5.0	7.3	7.7	7.0	6.0	6.7	6.6
BARRACUDA	6.3	5.0	6.0	7.0	6.0	6.7	6.7	6.2
CY-4	6.3	4.7	5.3	6.7	6.3	6.0	6.0	5.8
PST-ODSF	15.7	4.7	5.3	5.7	6.7	6.3	6.0	5.8
PENN A-1	8.3	4.7	5.3	6.0	5.3	5.0	5.0	5.2
DECLARATION	14.3	3.3	4.0	5.3	4.7	4.0	4.7	4.3
PENNCROSS	12.7	2.7	3.0	5.0	4.3	4.0	3.7	3.8
LSD VALUE	6.8	1.2	1.2	0.8	1.2	0.8	1.1	0.5
C.V. (%)	62.0	13.3	11.7	7.2	10.7	8.3	10.1	4.8

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 6.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT OLATHE (SHADOW GLEN G.C.), KS 1/
2022 DATA

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

NAME	GENETIC COLOR	SPRING GREENUP	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	DOLLAR SPOT	MAR	MAY	JUL	QUALITY RATINGS			MEAN
										AUG	SEP	NOV	
007XL	6.7	7.3	7.0	7.0	6.3	9.0	7.3	7.0	7.0	7.0	6.7	6.7	6.9
PIPER (PPG-AP-MTV2)	6.3	6.7	6.0	7.0	7.3	9.0	6.7	7.0	7.0	7.0	7.0	7.0	6.9
OAKLEY (PPG-AP-MTV1)	6.7	7.0	6.7	7.0	7.0	9.0	7.0	7.0	7.0	7.0	6.7	6.0	6.8
BARRACUDA	6.7	7.0	7.0	6.7	7.0	9.0	7.0	6.7	7.0	6.7	6.7	6.0	6.7
DLFPS-AP-3084	5.0	6.7	6.3	7.0	7.3	8.7	7.0	6.7	7.0	7.0	7.0	5.3	6.7
PVF-PV-1	6.3	7.0	5.7	7.0	7.0	9.0	6.3	6.3	7.0	7.0	7.0	6.3	6.7
S1	6.3	6.3	6.3	7.0	6.3	9.0	6.7	6.7	7.0	6.7	6.7	6.7	6.7
SPECTRUM (LNS 19)	6.3	6.0	6.0	7.0	6.7	8.7	6.3	6.7	7.0	7.0	7.0	6.0	6.7
PIRANHA	6.7	6.3	6.7	7.0	7.0	9.0	6.0	6.3	7.0	7.0	6.3	7.0	6.6
PST-0HR	6.0	7.3	6.3	7.0	7.0	8.3	7.0	6.7	7.0	6.7	6.3	5.7	6.6
PVF-PV-2	6.7	6.7	6.3	6.7	7.0	8.3	6.7	6.7	7.0	6.7	6.3	6.3	6.6
L-93 XD	6.3	6.3	5.7	7.0	7.0	8.7	6.0	6.7	7.0	7.0	6.7	5.7	6.5
PSU-CBG1	7.0	6.7	6.3	6.7	7.0	8.7	6.7	6.7	6.7	6.7	6.3	6.0	6.5
DECLARATION	7.0	6.0	6.0	6.7	6.3	9.0	5.3	7.0	7.0	6.3	6.7	6.3	6.4
PENN A-1	7.0	7.0	6.7	6.7	7.0	8.7	6.3	6.3	7.0	7.0	6.0	5.7	6.4
CY-4	6.7	5.3	5.3	7.0	6.0	9.0	4.7	6.3	7.0	6.0	7.0	6.7	6.3
PSU-CBG2	6.7	5.7	5.3	6.7	7.0	8.7	5.7	7.0	7.0	6.0	6.0	6.0	6.3
PSU-CBG3	6.0	6.7	6.3	6.7	7.0	8.3	6.0	6.7	7.0	6.0	5.7	5.3	6.1
PENNCROSS	7.0	5.7	5.3	6.7	6.3	7.7	5.3	6.0	7.0	5.3	6.0	5.7	5.9
PST-0DSF	7.0	6.0	4.7	7.0	6.3	7.7	5.3	5.7	6.3	5.7	6.7	5.3	5.8
LSD VALUE	1.5	2.7	1.7	1.3	2.1	2.3	1.1	1.9	0.4	0.8	1.0	1.5	0.4
C.V. (%)	9.7	14.5	12.7	5.4	10.0	8.6	10.3	9.6	2.6	7.1	7.4	11.1	3.8

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 7.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT STILLWATER (KARSTEN CREEK C.C), OK 1/
2022 DATA

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

NAME	GENETIC COLOR	SPRING GREENUP	SPRING DENSITY	SUMMER DENSITY	% GROUND COVER FALL	WINTER COLOR	QUALITY RATINGS												MEAN
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV		
PSU-CBG2	6.0	6.0	6.3	5.3	84.7	3.3	5.3	4.3	6.7	8.0	7.7	7.7	6.7	5.3	6.0	7.0	9.0	6.6	
PSU-CBG1	5.7	5.7	6.3	6.3	92.7	2.3	5.3	3.7	6.7	7.3	7.7	7.7	7.0	5.7	7.0	7.0	7.5	6.5	
PST-0HR	5.3	6.3	7.0	6.0	73.3	2.3	5.3	3.3	6.3	7.0	7.7	8.3	6.7	5.0	6.3	7.3	7.5	6.4	
PSU-CBG3	5.7	6.0	8.3	7.3	88.0	2.3	4.7	3.7	5.7	7.3	7.3	7.7	7.3	5.7	6.3	7.3	8.0	6.4	
PIPER (PPG-AP-MTV2)	5.3	5.7	7.0	6.3	89.7	2.3	5.0	3.7	6.3	6.0	7.0	6.7	6.0	5.0	6.3	7.7	7.0	6.0	
PVF-PV-2	5.7	5.7	7.0	6.3	83.3	2.3	5.0	3.3	6.0	6.3	7.0	7.0	5.7	5.0	5.3	7.3	7.5	5.9	
PVF-PV-1	4.7	5.3	7.3	7.7	76.7	2.3	4.3	3.3	6.7	6.0	7.0	7.3	5.7	4.7	4.7	6.0	7.0	5.6	
OAKLEY (PPG-AP-MTV1)	5.3	6.0	6.3	6.0	69.7	2.3	5.7	3.3	6.0	6.0	6.7	6.7	5.3	4.3	5.3	5.7	6.0	5.5	
DLFPS-AP-3084	4.0	5.7	7.7	6.0	73.3	1.3	5.0	3.0	6.0	6.3	6.0	5.7	4.7	4.0	4.3	5.0	7.0	5.1	
L-93 XD	6.0	5.7	5.3	3.3	65.0	1.7	4.0	3.0	6.0	6.0	6.3	5.3	5.3	4.3	4.3	5.0	7.0	5.1	
BARRACUDA	6.3	6.3	6.7	6.7	50.0	3.0	4.7	3.0	5.7	6.0	6.7	6.3	4.3	3.3	4.0	4.3	5.5	4.8	
PIRANHA	6.3	5.7	7.0	6.7	48.3	2.7	5.0	2.7	6.3	6.0	6.3	5.7	4.7	3.3	3.7	4.0	5.5	4.8	
007XL	4.3	5.7	7.0	6.7	35.0	2.7	4.3	2.7	6.7	6.0	7.3	6.0	4.7	2.7	3.3	3.0	4.5	4.6	
S1	6.0	5.0	7.0	6.0	38.3	2.7	4.7	2.7	6.3	6.0	6.7	6.0	4.7	2.7	3.3	3.0	5.5	4.6	
SPECTRUM (LNS 19)	4.7	5.3	7.0	5.7	50.0	1.3	4.0	2.3	5.3	6.0	7.0	6.0	4.7	3.0	3.3	3.7	5.0	4.5	
CY-4	6.3	4.3	6.0	4.7	28.3	3.0	5.3	4.0	5.0	4.0	6.7	6.0	4.7	2.3	2.3	3.0	4.0	4.3	
PENN A-1	7.7	7.0	7.0	5.3	38.3	2.3	3.7	2.0	4.7	5.7	6.7	5.7	4.7	3.0	3.3	3.7	5.0	4.3	
DECLARATION	7.0	6.7	7.0	5.7	45.0	2.0	4.0	2.0	5.3	5.7	6.0	5.3	3.7	2.7	3.3	3.3	5.0	4.2	
PST-ODSF	7.0	7.7	8.0	7.0	0.0	2.7	4.7	3.0	6.3	8.3	7.7	6.7	1.0	1.0	1.0	1.0	1.0	3.9	
PENNCROSS	5.3	5.3	7.3	6.3	0.0	1.3	2.0	1.0	3.7	4.3	4.7	3.3	1.0	1.0	1.0	1.0	1.5	2.3	
LSD VALUE	0.9	1.2	3.1	2.6	32.5	3.0	1.2	2.3	1.6	0.7	1.0	1.0	1.3	1.3	1.5	1.8	1.9	0.7	
C.V. (%)	10.3	11.5	15.8	19.4	35.3	42.5	15.4	33.5	14.2	7.9	8.8	9.9	17.0	22.3	22.4	23.9	16.6	8.9	

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 8.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT MCKENZIE BRIDGE (TOKATEE G.C.), OR 1/
2022 DATA

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

NAME	GENETIC COLOR	SPRING GREENUP	TRU FIRM READINGS	QUALITY RATINGS							MEAN
				MAR	MAY	JUN	JUL	AUG	SEP		
PIRANHA	5.3	7.3	580.7	7.0	6.3	6.7	7.0	7.0	6.7	6.8	
PIPER (PPG-AP-MTV2)	5.0	6.0	603.0	7.0	7.0	6.3	7.0	6.0	5.7	6.5	
PST-0HR	6.0	7.0	606.3	7.0	6.7	7.3	7.3	5.7	5.0	6.5	
007XL	4.3	6.3	576.0	6.3	6.7	7.0	6.3	6.0	6.0	6.4	
PENN A-1	7.0	6.7	538.3	7.0	6.0	6.3	6.7	5.7	7.0	6.4	
BARRACUDA	5.3	6.7	578.3	6.3	6.0	6.7	7.0	6.0	5.7	6.3	
L-93 XD	5.0	6.7	556.7	7.0	6.0	6.7	6.0	5.7	5.7	6.2	
DLFPS-AP-3084	4.3	6.3	594.0	6.3	5.7	6.7	6.3	5.7	5.7	6.1	
SPECTRUM (LNS 19)	4.3	6.3	541.0	6.0	5.7	6.3	6.0	6.0	6.3	6.1	
CY-4	6.0	6.7	553.3	6.3	5.3	5.7	6.0	5.3	6.0	5.8	
PSU-CBG1	6.3	6.7	611.0	6.0	5.3	7.0	6.3	5.0	5.0	5.8	
OAKLEY (PPG-AP-MTV1)	5.0	6.0	573.3	5.7	5.7	6.3	5.7	5.3	5.7	5.7	
DECLARATION	6.0	7.0	567.3	6.3	5.0	6.0	5.7	5.0	5.7	5.6	
PSU-CBG2	6.0	7.0	613.0	5.7	5.0	6.3	6.7	5.3	4.3	5.6	
PVF-PV-1	5.0	6.3	567.7	5.3	5.0	5.7	6.0	5.7	5.7	5.6	
PST-0DSF	6.7	4.3	524.0	5.7	5.0	6.0	5.7	5.0	5.7	5.5	
PENNCROSS	6.7	8.0	509.3	6.0	5.7	5.3	5.0	5.3	5.3	5.4	
S1	4.7	5.7	549.0	5.3	4.7	5.7	5.7	5.3	5.0	5.3	
PSU-CBG3	6.3	6.7	577.7	5.3	4.7	6.3	5.7	4.3	4.3	5.1	
PVF-PV-2	5.0	6.0	543.0	4.3	4.0	5.3	5.3	5.3	5.3	4.9	
LSD VALUE	0.9	1.1	102.4	2.4	3.3	2.0	1.9	1.6	1.8	1.5	
C.V. (%)	10.4	10.1	7.2	16.1	21.5	12.6	13.4	12.5	14.7	11.3	

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 9.

GENETIC COLOR RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	AL1	CT1	MN1	NC1	NJ1	UT1	VA1	WI1	MEAN
PST-0HR	7.3	7.7	7.3	8.3	7.7	6.7	6.3	7.7	7.4
PST-0DSF	8.3	9.0	6.0	8.7	2.0	8.3	8.0	7.7	7.3
PSU-CBG1	7.3	5.0	7.0	8.7	6.7	6.3	6.7	7.7	6.9
PSU-CBG2	7.3	6.7	6.0	8.7	4.7	7.0	6.0	8.0	6.8
PVF-PV-2	7.0	5.7	6.0	8.0	7.7	6.7	5.7	7.7	6.8
PSU-CBG3	7.0	7.0	6.3	9.0	4.0	7.0	6.0	7.7	6.8
OAKLEY (PPG-AP-MTV1)	5.7	6.7	5.0	8.0	8.0	6.7	5.7	7.7	6.7
PVF-PV-1	6.3	5.3	6.3	8.0	7.7	6.0	5.7	7.7	6.6
PIRANHA	7.0	6.3	4.7	8.0	5.7	6.3	6.3	8.0	6.5
SPECTRUM (LNS 19)	6.0	5.3	6.0	8.3	7.0	5.3	6.3	7.3	6.5
PENN A-1	7.3	8.0	3.7	8.7	2.0	8.3	6.3	7.0	6.4
007XL	5.7	5.7	5.3	8.3	7.3	5.0	6.0	7.0	6.3
S1	5.7	5.7	5.0	7.7	5.3	6.7	6.3	7.0	6.2
L-93 XD	6.3	5.3	5.3	8.0	5.0	6.7	6.0	6.7	6.2
DLFPS-AP-3084	6.0	4.3	6.0	7.3	6.7	5.7	5.3	7.3	6.1
PIPER (PPG-AP-MTV2)	4.7	3.7	5.7	7.7	8.0	5.7	4.7	7.7	6.0
DECLARATION	5.3	6.3	3.7	8.0	3.3	5.7	6.7	6.7	5.7
BARRACUDA	4.7	3.0	4.3	7.7	5.0	6.7	6.0	7.0	5.5
CY-4	3.7	2.3	4.0	7.0	8.3	3.7	5.0	7.0	5.1
PENNCROSS	2.0	6.7	1.7	7.7	1.0	7.0	6.7	6.3	4.9
LSD VALUE	1.1	2.0	2.0	0.7	1.7	1.3	1.2	0.9	0.5
C.V. (%)	10.9	21.2	23.9	5.5	18.4	13.1	11.8	7.7	14.1

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.

SPRING GREENUP RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	IN1	MN1	NJ1	UT1	WI1	MEAN
SPECTRUM (LNS 19)	6.0	8.0	7.7	7.7	4.0	6.7
PVF-PV-2	6.0	7.3	7.3	8.0	4.3	6.6
DLFPS-AP-3084	6.3	7.3	6.7	7.3	4.7	6.5
007XL	6.3	7.3	7.0	6.7	4.3	6.3
PIPER (PPG-AP-MTV2)	6.0	7.0	7.0	7.3	4.3	6.3
PVF-PV-1	6.3	7.0	6.7	7.3	4.3	6.3
OAKLEY (PPG-AP-MTV1)	5.7	7.0	6.7	7.7	4.3	6.3
CY-4	5.0	6.7	5.7	7.0	5.3	5.9
PIRANHA	6.3	6.3	5.0	5.3	4.7	5.5
PST-0HR	4.3	7.0	5.7	6.0	4.3	5.5
S1	6.3	5.7	5.0	6.7	3.0	5.3
BARRACUDA	6.3	6.3	4.7	6.3	3.0	5.3
L-93 XD	6.0	6.0	4.7	6.0	3.7	5.3
DECLARATION	6.7	5.3	4.0	6.7	3.3	5.2
PSU-CBG2	3.7	5.3	6.7	5.7	3.3	4.9
PSU-CBG3	4.3	5.0	6.0	4.7	4.0	4.8
PSU-CBG1	4.7	5.0	5.7	5.0	3.0	4.7
PST-0DSF	5.3	5.3	1.7	5.0	3.3	4.1
PENN A-1	5.3	4.7	3.0	5.0	2.3	4.1
PENNCROSS	4.3	4.0	2.0	5.0	3.0	3.7
LSD VALUE	2.1	0.9	1.8	1.5	1.1	0.7
C.V. (%)	23.4	9.3	21.0	15.0	17.2	17.7

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 11.

LEAF TEXTURE RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	AL1	IN1	NC1	NJ1	MEAN
PST-0HR	7.3	8.3	8.7	8.7	8.3
PSU-CBG3	7.3	8.0	9.0	7.0	7.8
PSU-CBG2	7.3	7.7	9.0	7.0	7.8
PSU-CBG1	5.7	7.7	9.0	8.0	7.6
PVF-PV-2	7.0	6.7	8.7	7.7	7.5
SPECTRUM (LNS 19)	7.0	7.0	8.7	7.0	7.4
OAKLEY (PPG-AP-MTV1)	5.3	7.0	8.3	7.3	7.0
007XL	5.0	6.7	8.7	7.3	6.9
PVF-PV-1	4.0	7.3	8.7	7.7	6.9
PIPER (PPG-AP-MTV2)	5.7	6.7	8.3	6.7	6.8
DLFPS-AP-3084	6.0	6.7	9.0	4.7	6.6
CY-4	5.3	6.3	8.3	6.0	6.5
PST-0DSF	6.3	7.0	9.0	3.3	6.4
BARRACUDA	5.7	6.0	8.3	5.0	6.3
S1	5.3	6.0	8.7	4.7	6.2
L-93 XD	6.3	6.0	8.0	4.3	6.2
PIRANHA	3.3	6.3	8.3	5.0	5.8
PENN A-1	4.3	5.0	8.3	2.7	5.1
DECLARATION	3.3	5.3	8.3	2.7	4.9
PENNCROSS	1.0	3.0	7.0	2.0	3.3
LSD VALUE	1.0	0.9	0.7	1.9	0.6
C.V. (%)	11.4	8.1	5.5	20.3	11.4

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 12.

SPRING DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	CT1	NC1	WI1	MEAN
PST-0HR	6.7	9.0	6.7	7.4
PSU-CBG1	6.7	9.0	6.3	7.3
PSU-CBG2	6.3	9.0	6.7	7.3
PSU-CBG3	6.3	9.0	6.7	7.3
PIPER (PPG-AP-MTV2)	6.7	8.3	6.7	7.2
PVF-PV-2	6.3	8.7	6.3	7.1
SPECTRUM (LNS 19)	6.3	8.7	6.3	7.1
007XL	6.0	8.7	6.3	7.0
DLFPS-AP-3084	6.3	8.0	6.7	7.0
OAKLEY (PPG-AP-MTV1)	6.7	8.0	6.3	7.0
PVF-PV-1	5.7	8.3	6.3	6.8
PIRANHA	5.3	8.3	6.3	6.7
PST-0DSF	5.0	8.7	6.3	6.7
S1	4.7	8.0	6.0	6.2
CY-4	4.7	7.7	6.0	6.1
L-93 XD	5.0	8.0	5.3	6.1
BARRACUDA	4.7	8.0	4.3	5.7
DECLARATION	3.3	7.0	4.7	5.0
PENN A-1	3.0	7.3	4.7	5.0
PENNCROSS	1.7	6.0	4.3	4.0
LSD VALUE	1.0	0.6	1.1	0.5
C.V. (%)	11.3	4.7	11.2	8.7

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 13.

SUMMER DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	AL1	CT1	IN1	MN1	WI1	MEAN
PST-0HR	8.7	8.7	9.0	7.0	9.0	8.5
PSU-CBG1	8.3	8.3	8.3	7.3	8.7	8.2
PSU-CBG3	7.0	8.3	8.0	7.0	8.3	7.7
PVF-PV-1	8.0	7.3	7.7	7.3	8.0	7.7
PSU-CBG2	8.0	7.0	8.0	7.0	8.0	7.6
SPECTRUM (LNS 19)	8.3	7.0	7.7	7.0	8.0	7.6
PIPER (PPG-AP-MTV2)	7.3	7.7	7.7	7.0	8.0	7.5
007XL	8.0	7.3	7.3	7.0	7.7	7.5
OAKLEY (PPG-AP-MTV1)	8.0	7.7	6.7	7.0	7.7	7.4
PVF-PV-2	7.7	6.3	7.0	8.3	7.7	7.4
DLFPS-AP-3084	8.3	6.3	6.7	6.7	7.7	7.1
PST-ODSF	7.0	5.7	8.0	6.3	8.0	7.0
L-93 XD	7.0	6.3	6.3	7.3	7.7	6.9
CY-4	6.7	5.0	7.0	6.3	7.7	6.5
S1	6.7	6.3	6.0	5.7	7.0	6.3
PIRANHA	6.3	5.0	6.7	5.3	8.0	6.3
BARRACUDA	6.3	4.3	6.0	6.0	7.7	6.1
PENN A-1	6.0	4.7	5.3	4.0	7.0	5.4
DECLARATION	5.3	4.3	5.0	4.7	6.7	5.2
PENNCROSS	4.3	2.3	3.0	3.0	5.7	3.7
LSD VALUE	1.4	1.2	1.2	1.4	1.0	0.6
C.V. (%)	12.5	11.4	10.5	13.8	8.0	11.2

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 14.

FALL DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	CT1	IN1	NC1	NJ1	WI1	MEAN
PST-0HR	8.0	8.7	9.0	7.3	8.3	8.3
PSU-CBG3	7.7	9.0	9.0	7.0	8.3	8.2
007XL	7.7	7.7	9.0	8.0	7.7	8.0
PSU-CBG1	7.3	8.3	9.0	7.0	8.0	7.9
PVF-PV-1	8.0	7.3	9.0	7.7	7.7	7.9
SPECTRUM (LNS 19)	8.0	7.7	8.3	7.3	8.0	7.9
PIPER (PPG-AP-MTV2)	7.3	8.0	8.0	7.7	8.0	7.8
OAKLEY (PPG-AP-MTV1)	8.3	7.0	8.3	7.0	8.0	7.7
PVF-PV-2	7.7	7.0	8.7	7.0	7.3	7.5
PSU-CBG2	4.7	8.7	9.0	6.3	8.0	7.3
DLFPS-AP-3084	7.0	7.0	8.0	5.7	7.3	7.0
CY-4	6.3	6.7	7.7	6.0	8.0	6.9
PIRANHA	7.0	6.7	8.0	5.3	7.7	6.9
S1	6.7	6.0	8.3	5.3	7.7	6.8
L-93 XD	7.0	6.3	8.0	5.0	7.3	6.7
BARRACUDA	6.0	5.3	8.0	4.0	7.0	6.1
PST-ODSF	3.7	6.7	8.7	3.3	7.7	6.0
PENN A-1	5.3	5.3	8.0	2.0	6.3	5.4
DECLARATION	5.0	4.7	7.0	2.3	6.7	5.1
PENNCROSS	4.3	3.0	6.0	1.0	6.0	4.1
LSD VALUE	1.6	1.2	0.5	1.5	0.9	0.5
C.V. (%)	15.0	10.5	3.8	16.1	7.3	10.6

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 15.

PERCENT LIVING GROUND COVER (SPRING) RATINGS OF BENTGRASS CULTIVARS 1/
 GROWN ON A GREEN
 2022 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	NC1
007XL	99.0
BARRACUDA	99.0
CY-4	99.0
DECLARATION	99.0
DLFPS-AP-3084	99.0
L-93 XD	99.0
OAKLEY (PPG-AP-MTV1)	99.0
PENN A-1	99.0
PIPER (PPG-AP-MTV2)	99.0
PIRANHA	99.0
PST-0DSF	99.0
PST-0HR	99.0
PSU-CBG1	99.0
PSU-CBG2	99.0
PSU-CBG3	99.0
PVF-PV-1	99.0
PVF-PV-2	99.0
S1	99.0
SPECTRUM (LNS 19)	99.0
PENNCROSS	96.3
LSD VALUE	0.4
C.V. (%)	0.3

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 16.

PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	MN1	NC1	MEAN
PSU-CBG1	98.7	99.0	98.8
PIPER (PPG-AP-MTV2)	97.7	99.0	98.3
DLFPS-AP-3084	97.0	99.0	98.0
PSU-CBG2	98.3	97.7	98.0
SPECTRUM (LNS 19)	97.0	99.0	98.0
PVF-PV-1	96.7	99.0	97.8
PVF-PV-2	96.7	99.0	97.8
L-93 XD	96.0	99.0	97.5
OAKLEY (PPG-AP-MTV1)	95.7	99.0	97.3
PST-0DSF	95.7	99.0	97.3
BARRACUDA	95.3	99.0	97.2
PST-OHR	97.7	96.3	97.0
007XL	96.0	97.7	96.8
S1	94.7	99.0	96.8
PIRANHA	94.3	99.0	96.7
CY-4	93.7	99.0	96.3
PSU-CBG3	98.0	92.7	95.3
DECLARATION	89.3	99.0	94.2
PENN A-1	88.3	99.0	93.7
PENNCROSS	79.7	97.0	88.3
LSD VALUE	3.3	4.2	2.7
C.V. (%)	2.2	2.7	2.4

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 17.

PERCENT LIVING GROUND COVER (FALL) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	NC1
007XL	99.0
BARRACUDA	99.0
CY-4	99.0
DECLARATION	99.0
DLFPS-AP-3084	99.0
L-93 XD	99.0
OAKLEY (PPG-AP-MTV1)	99.0
PENN A-1	99.0
PENNCROSS	99.0
PIPER (PPG-AP-MTV2)	99.0
PIRANHA	99.0
PST-0DSF	99.0
PST-0HR	99.0
PSU-CBG1	99.0
PVF-PV-1	99.0
PVF-PV-2	99.0
S1	99.0
SPECTRUM (LNS 19)	99.0
PSU-CBG2	98.3
PSU-CBG3	96.0
LSD VALUE	1.9
C.V. (%)	1.2

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 18.

WINTER COLOR RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	NC1	VA1	MEAN
OAKLEY (PPG-AP-MTV1)	7.3	5.0	6.2
007XL	7.0	5.0	6.0
L-93 XD	7.0	4.0	5.5
PVF-PV-2	6.3	4.7	5.5
BARRACUDA	6.7	4.0	5.3
DECLARATION	6.0	4.7	5.3
S1	6.0	4.7	5.3
PIRANHA	7.0	3.3	5.2
PSU-CBG3	7.0	3.3	5.2
SPECTRUM (LNS 19)	6.7	3.7	5.2
PVF-PV-1	6.3	4.0	5.2
CY-4	5.7	4.3	5.0
PIPER (PPG-AP-MTV2)	6.7	3.3	5.0
PST-OHR	6.3	3.7	5.0
PSU-CBG1	7.0	3.0	5.0
PSU-CBG2	7.0	3.0	5.0
PENN A-1	6.3	3.3	4.8
DLFPS-AP-3084	6.0	3.0	4.5
PST-0DSF	5.7	2.7	4.2
PENNCROSS	5.0	3.0	4.0
LSD VALUE	1.0	1.4	0.9
C.V. (%)	10.0	22.6	14.8

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 19.

THATCH MEASUREMENTS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

THATCH MEASUREMENTS IN MILLIMETERS 2/

NAME	CT1
PVF-PV-2	11.3
007XL	11.0
SPECTRUM (LNS 19)	10.3
CY-4	10.0
OAKLEY (PPG-AP-MTV1)	10.0
PSU-CBG3	10.0
PVF-PV-1	10.0
DLFPS-AP-3084	9.3
PENN A-1	9.3
PSU-CBG1	9.3
S1	9.3
PST-0DSF	9.0
PST-0HR	9.0
L-93 XD	8.7
PIPER (PPG-AP-MTV2)	8.7
PSU-CBG2	8.7
DECLARATION	8.0
PIRANHA	8.0
BARRACUDA	7.7
PENNCROSS	6.0
LSD VALUE	1.5
C.V. (%)	10.1

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 20.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	NJ1	VA1	MEAN
SPECTRUM (LNS 19)	8.7	8.3	8.5
PVF-PV-2	8.3	8.0	8.2
DLFPS-AP-3084	8.3	7.7	8.0
OAKLEY (PPG-AP-MTV1)	7.7	8.0	7.8
PIPER (PPG-AP-MTV2)	7.7	8.0	7.8
CY-4	8.3	7.0	7.7
DECLARATION	8.0	7.3	7.7
PVF-PV-1	8.0	7.3	7.7
007XL	7.7	7.3	7.5
BARRACUDA	7.3	7.7	7.5
PIRANHA	7.3	7.7	7.5
PST-ODSF	7.3	7.7	7.5
L-93 XD	7.3	7.3	7.3
S1	7.3	7.3	7.3
PENN A-1	6.7	6.7	6.7
PENNCROSS	7.7	5.3	6.5
PSU-CBG2	5.3	6.0	5.7
PSU-CBG1	4.3	5.7	5.0
PSU-CBG3	3.3	6.3	4.8
PST-OHR	3.0	6.0	4.5
LSD VALUE	1.2	1.1	0.8
C.V. (%)	10.5	9.7	10.1

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 21.

ANTHRACNOSE RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

ANTHRACNOSE RATINGS 1-9; 9=NO DISEASE 2/

NAME	NC1
BARRACUDA	9.0
CY-4	9.0
DECLARATION	9.0
DLFPS-AP-3084	9.0
L-93 XD	9.0
PENN A-1	9.0
PENNCROSS	9.0
PIPER (PPG-AP-MTV2)	9.0
PIRANHA	9.0
PST-0DSF	9.0
PST-0HR	9.0
PSU-CBG1	9.0
PVF-PV-1	9.0
PVF-PV-2	9.0
S1	9.0
007XL	8.7
SPECTRUM (LNS 19)	8.7
OAKLEY (PPG-AP-MTV1)	8.3
PSU-CBG2	8.3
PSU-CBG3	8.0
LSD VALUE	0.5
C.V. (%)	3.9

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.

PYTHIUM ROOT ROT RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

PYTHIUM ROOT ROT RATINGS 1-9; 9=NO DISEASE 2/

NAME	NC1
PVF-PV-1	9.0
OAKLEY (PPG-AP-MTV1)	8.7
PIPER (PPG-AP-MTV2)	8.7
PST-0HR	8.3
PSU-CBG1	8.3
PSU-CBG2	8.3
PVF-PV-2	8.3
SPECTRUM (LNS 19)	8.3
DLFPS-AP-3084	8.0
PSU-CBG3	8.0
CY-4	7.7
S1	7.3
PIRANHA	7.0
L-93 XD	6.7
007XL	5.7
DECLARATION	5.7
PENNCROSS	4.7
BARRACUDA	4.3
PENN A-1	3.7
PST-0DSF	3.3
LSD VALUE	1.4
C.V. (%)	12.5

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 23.

FALL COLOR (OCTOBER) RATINGS OF BENTGRASS CULTIVARS 1/
 GROWN ON A GREEN
 2022 DATA

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

NAME	W11
PENN A-1	8.0
PST-0DSF	8.0
PST-0HR	8.0
PSU-CBG3	8.0
DECLARATION	7.7
DLFPS-AP-3084	7.7
PIRANHA	7.7
S1	7.7
BARRACUDA	7.3
L-93 XD	7.3
OAKLEY (PPG-AP-MTV1)	7.3
PENNCROSS	7.3
PSU-CBG1	7.3
PVF-PV-1	7.3
007XL	7.0
CY-4	7.0
PIPER (PPG-AP-MTV2)	7.0
PSU-CBG2	7.0
PVF-PV-2	7.0
SPECTRUM (LNS 19)	6.7
LSD VALUE	0.7
C.V. (%)	5.8

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 24.

FALL COLOR (NOVEMBER) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

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

NAME	CT1	UT1	WI1	MEAN
PVF-PV-1	7.3	5.3	7.0	6.6
SPECTRUM (LNS 19)	7.0	5.7	6.7	6.4
007XL	8.0	5.0	5.7	6.2
DLFPS-AP-3084	5.7	5.3	7.7	6.2
S1	5.7	5.3	7.3	6.1
PST-OHR	4.7	6.3	7.0	6.0
CY-4	4.0	6.7	7.0	5.9
PIRANHA	5.3	5.3	7.0	5.9
PVF-PV-2	5.3	5.3	7.0	5.9
L-93 XD	6.3	4.7	6.3	5.8
OAKLEY (PPG-AP-MTV1)	6.3	5.0	6.0	5.8
PIPER (PPG-AP-MTV2)	5.0	5.7	6.3	5.7
PSU-CBG3	5.0	4.0	6.3	5.1
PSU-CBG1	4.7	4.7	5.0	4.8
BARRACUDA	3.3	4.7	5.7	4.6
DECLARATION	3.3	4.0	6.3	4.6
PSU-CBG2	3.7	4.3	5.3	4.4
PENN A-1	3.7	3.3	5.0	4.0
PENNCROSS	2.3	2.7	5.3	3.4
PST-ODSF	1.3	3.0	3.7	2.7
LSD VALUE	2.0	1.3	1.7	1.0
C.V. (%)	25.8	16.7	17.3	20.1

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 25.

POA ANNUA RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

POA ANNUA RATINGS 1-9; 9=NONE 2/

NAME	W11
007XL	9.0
L-93 XD	9.0
PIPER (PPG-AP-MTV2)	9.0
PIRANHA	9.0
PST-0HR	9.0
PSU-CBG2	9.0
PVF-PV-1	9.0
PVF-PV-2	9.0
CY-4	8.7
DLFPS-AP-3084	8.7
OAKLEY (PPG-AP-MTV1)	8.7
PSU-CBG1	8.7
PSU-CBG3	8.7
S1	8.7
SPECTRUM (LNS 19)	8.7
PENN A-1	8.3
BARRACUDA	8.0
DECLARATION	8.0
PST-0DSF	8.0
PENNCROSS	7.3
LSD VALUE	1.0
C.V. (%)	6.9

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 26.

MOWING QUALITY RATINGS OF BENTGRASS CULTIVARS 1/
 GROWN ON A GREEN
 2022 DATA

MOWING QUALITY RATINGS 1-9; 9=CLEANEST CUT 2/

NAME	CT1
OAKLEY (PPG-AP-MTV1)	7.0
PVF-PV-1	6.7
PST-0HR	6.3
SPECTRUM (LNS 19)	6.3
007XL	6.0
PSU-CBG3	6.0
PIPER (PPG-AP-MTV2)	5.7
PSU-CBG1	5.7
PVF-PV-2	5.7
DLFPS-AP-3084	5.0
S1	5.0
PSU-CBG2	4.7
CY-4	4.3
L-93 XD	4.3
PIRANHA	4.0
PST-0DSF	3.7
BARRACUDA	3.3
PENN A-1	3.3
DECLARATION	2.7
PENNCROSS	1.7
LSD VALUE	1.6
C.V. (%)	19.9

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 27.

TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS 2/
GROWN ON A GREEN AT AUBURN, AL 2/
2022 DATA

NAME	PERCENT ESTABLISHMENT			MEAN
	MARCH	APRIL	MAY	
DECLARATION	66.7	80.0	99.0	81.9
PIRANHA	60.0	80.0	99.0	79.7
SPECTRUM (LNS 19)	60.0	80.0	99.0	79.7
OAKLEY (PPG-AP-MTV1)	63.3	76.7	96.0	78.7
PVF-PV-1	56.7	76.7	93.0	75.4
007XL	53.3	70.0	93.0	72.1
PENN A-1	56.7	66.7	93.0	72.1
L-93 XD	56.7	66.7	90.0	71.1
PST-0HR	53.3	70.0	89.7	71.0
PENNCROSS	53.3	66.7	90.0	70.0
S1	56.7	63.3	89.7	69.9
BARRACUDA	56.7	66.3	86.3	69.8
PVF-PV-2	46.7	66.7	93.0	68.8
PSU-CBG1	53.3	66.3	86.3	68.7
CY-4	50.0	63.3	83.3	65.6
DLFPS-AP-3084	50.0	60.0	83.3	64.4
PST-0DSF	46.7	56.7	86.3	63.2
PSU-CBG2	40.0	56.7	92.7	63.1
PSU-CBG3	43.3	56.7	86.3	62.1
PIPER (PPG-AP-MTV2)	43.3	53.3	83.3	60.0
LSD VALUE	31.4	37.2	12.0	25.4
C.V. (%)	21.0	19.8	6.5	13.6

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 28.

ALGAE RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT RALEIGH, NC 1/
2022 DATA

ALGAE RATINGS 1-9; 9=BEST 2/

NAME	MAY	JUNE	JULY	AUGUST	SEPTEMBER	MEAN
DLFPS-AP-3084	9.0	9.0	9.0	9.0	9.0	9.0
OAKLEY (PPG-AP-MTV1)	9.0	9.0	9.0	9.0	9.0	9.0
PIPER (PPG-AP-MTV2)	9.0	9.0	9.0	9.0	9.0	9.0
PST-OHR	9.0	9.0	9.0	9.0	9.0	9.0
PSU-CBG1	9.0	9.0	9.0	9.0	9.0	9.0
PSU-CBG2	9.0	9.0	9.0	9.0	9.0	9.0
PSU-CBG3	9.0	9.0	9.0	9.0	9.0	9.0
SPECTRUM (LNS 19)	9.0	9.0	9.0	9.0	9.0	9.0
007XL	9.0	9.0	9.0	8.7	8.7	8.9
PVF-PV-1	9.0	9.0	9.0	8.7	9.0	8.9
PVF-PV-2	9.0	9.0	8.7	9.0	9.0	8.9
S1	9.0	9.0	9.0	8.7	8.7	8.9
CY-4	9.0	9.0	9.0	8.3	8.7	8.8
L-93 XD	9.0	8.7	9.0	8.7	8.7	8.8
BARRACUDA	9.0	8.7	8.7	7.3	7.7	8.3
DECLARATION	9.0	8.7	9.0	7.0	7.7	8.3
PIRANHA	9.0	8.7	8.7	7.0	8.3	8.3
PST-ODSF	9.0	8.3	9.0	6.0	7.0	7.9
PENN A-1	8.7	8.3	8.3	6.3	7.3	7.8
PENNCROSS	5.7	6.0	6.7	5.0	5.3	5.7
LSD VALUE	0.3	0.5	0.5	0.9	0.6	0.3
C.V. (%)	2.0	3.6	3.3	7.4	4.7	2.1

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 29. DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT BLACKSBURG, VA 1/
2022 DATA

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

NAME	JULY	AUGUST	SEPTEMBER	OCTOBER	MEAN
DLFPS-AP-3084	7.7	8.3	9.0	8.7	8.4
OAKLEY (PPG-AP-MTV1)	8.0	8.7	8.0	8.0	8.2
PIPER (PPG-AP-MTV2)	8.0	8.3	8.0	8.3	8.2
PVF-PV-2	8.0	8.7	8.0	8.0	8.2
SPECTRUM (LNS 19)	8.3	8.3	8.0	8.0	8.2
CY-4	7.0	7.7	8.0	8.3	7.8
PVF-PV-1	7.3	8.7	8.0	7.0	7.8
007XL	7.3	8.7	7.7	7.0	7.7
BARRACUDA	7.7	7.7	7.7	7.0	7.5
DECLARATION	7.3	7.3	7.7	7.3	7.4
PIRANHA	7.7	7.7	7.0	7.3	7.4
PST-ODSF	7.7	7.7	7.0	7.0	7.3
S1	7.3	7.7	7.3	7.0	7.3
L-93 XD	7.3	7.7	6.7	7.0	7.2
PENN A-1	6.7	7.0	6.0	7.0	6.7
PSU-CBG1	5.7	6.7	5.3	5.0	5.7
PSU-CBG3	6.3	6.3	4.7	5.3	5.7
PENNCROSS	5.3	5.0	5.7	6.3	5.6
PST-0HR	6.0	6.0	5.0	5.3	5.6
PSU-CBG2	6.0	5.7	5.0	5.3	5.5
LSD VALUE	1.0	1.3	0.8	0.9	0.6
C.V. (%)	8.6	10.3	7.8	8.5	5.3

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 30. AERIFICATION RECOVERY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2022 DATA

AERIFICATION RECOVERY RATINGS 1-9; 9=COMPLETE RECOVERY 2/

NAME	IN1
DECLARATION	7.7
PENNCROSS	7.7
PENN A-1	7.3
CY-4	6.7
PSU-CBG1	6.3
L-93 XD	6.0
PSU-CBG3	5.7
007XL	5.3
BARRACUDA	5.3
PST-0DSF	5.3
PSU-CBG2	5.3
S1	5.3
PVF-PV-2	5.0
DLFPS-AP-3084	4.7
OAKLEY (PPG-AP-MTV1)	4.7
PIRANHA	4.7
SPECTRUM (LNS 19)	4.7
PIPER (PPG-AP-MTV2)	4.3
PVF-PV-1	4.3
PST-0HR	4.0
LSD VALUE	2.0
C.V. (%)	22.4

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.

APPENDIX TABLE.

SUMMARY OF TURFGRASS QUALITY RATINGS FOR BENTGRASS CULTIVARS
GROWN ON A GREEN
2022 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	QUALITY	
	MEAN 1/	MAXIMUM IN TOP 25% 2/
007XL	6.9	33.3
BARRACUDA	5.8	0.0
CY-4	5.9	0.0
DECLARATION	5.0	0.0
DLFPS-AP-3084	6.6	22.2
L-93 XD	6.3	0.0
OAKLEY (PPG-AP-MTV1)	7.2	77.8
PENN A-1	5.3	0.0
PENNCROSS	3.9	0.0
PIPER (PPG-AP-MTV2)	7.1	55.6
PIRANHA	6.3	11.1
PST-ODSF	5.9	0.0
PST-OHR	7.2	55.6
PSU-CBG1	6.7	22.2
PSU-CBG2	6.4	11.1
PSU-CBG3	6.5	22.2
PVF-PV-1	7.2	66.7
PVF-PV-2	7.1	55.6
S1	6.3	11.1
SPECTRUM (LNS 19)	7.2	55.6
LSD VALUE	0.3	
C.V. (%)	7.8	

*/ 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).

**/ 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.