

## **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 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.

### **CURRENT POLICY COMMITTEE MEMBERS:**

Mr. Aaron Kuenzi, Mountain View Seeds  
Mr. Ryan Jeffries, Columbia Seeds, Inc.  
Dr. Mike Kenna, USGA Green Section  
Dr. Charles Fontanier, Oklahoma State University  
Dr. Alec Kowalewski, Oregon State University  
Mr. Mike Selman, Buena Vista Turf Farm  
Mr. Mark Johnson, Golf Course Superintendents Assoc. of America  
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CONTENTS

2014 National Bentgrass (Putting Green) Test - 2018 data

LOCATIONS SUBMITTING DATA FOR 2018.....1

NATIONAL BENTGRASS (PUTTING GREEN) TEST, 2014  
    Entries and Sponsors.....2

Table A - 2018 Locations, Site Descriptions and Management Practices  
          in the 2014 National Bentgrass (Putting Green) Test.....3

Table B - Locations and Data Collected in 2018.....4

Table 1 - Mean Turfgrass Quality Ratings of Bentgrass Cultivars  
          Grown on a Green at Five Locations in the USA for  
          Location Performance Index (LPI) Group 1.....6

Table 2 - Mean Turfgrass Quality Ratings of Bentgrass Cultivars  
          Grown on a Green at Four Locations in the USA for  
          Location Performance Index (LPI) Group 2.....7

Table 3 - Mean Turfgrass Quality Ratings of Bentgrass Cultivars  
          Grown on a Green at Three Locations in the USA for  
          Location Performance Index (LPI) Group 3.....8

Table 4 - Mean Turfgrass Quality and Other Ratings of Bentgrass  
          Cultivars Grown on a Green  
          under Traffic Stress at Amherst, MA.....9

Table 5 - Mean Turfgrass Quality and Other Ratings of Bentgrass  
          Cultivars Grown on a Green  
          under Drought Stress at Logan, UT.....10

Table 6 - Mean Turfgrass Quality and Other Ratings of Bentgrass  
          Cultivars Grown on a Green  
          at San Francisco (California Golf Club Of San Francisco), CA...11

Table 7 - Genetic Color Ratings of Bentgrass Cultivars Grown  
          on a Green.....12

Table 8 - Spring Greenup Ratings of Bentgrass Cultivars Grown  
          on a Green.....13

Table 9 - Leaf Texture Ratings of Bentgrass Cultivars Grown  
          on a Green.....14

Table 10 - Spring Density Ratings of Bentgrass Cultivars Grown  
          on a Green.....15

Table 11 - Summer Density Ratings of Bentgrass Cultivars Grown  
          on a Green.....16

Table 12 - Fall Density Ratings of Bentgrass Cultivars Grown  
          on a Green.....17

CONTENTS (Continued)

Table 13 - Percent Living Ground Cover (Spring) Ratings of Bentgrass Cultivars Grown on a Green.....	18
Table 14 - Percent Living Ground Cover (Summer) Ratings of Bentgrass Cultivars Grown on a Green.....	19
Table 15 - Percent Living Ground Cover (Fall) Ratings of Bentgrass Cultivars Grown on a Green.....	20
Table 16 - Winter Color Ratings of Bentgrass Cultivars Grown on a Green.....	21
Table 17 - Dollar Spot Ratings of Bentgrass Cultivars Grown on a Green.....	22
Table 18 - Brown Patch (Warm Temperature) Ratings of Bentgrass Cultivars Grown on a Green.....	23
Table 19 - Anthracnose Ratings of Bentgrass Cultivars Grown on a Green.....	24
Table 20 - Brown Patch (Cool Temperature) Ratings of Bentgrass Cultivars Grown on a Green.....	25
Table 21 - Fall Color (September) Ratings of Bentgrass Cultivars Grown on a Green.....	26
Table 22 - Fall Color (October) Ratings of Bentgrass Cultivars Grown on a Green.....	27
Table 23 - Fall Color (November) Ratings of Bentgrass Cultivars Grown on a Green.....	28
Table 24 - Fall Color (December) Ratings of Bentgrass Cultivars Grown on a Green.....	29
Table 25 - POA Annu Ratings of Bentgrass Cultivars Grown on a Green.....	30
Table 26 - Dollar Spot Ratings of Bentgrass Cultivars Grown on a Green at West Lafayette, IN.....	31
Table 27 - Dollar Spot Ratings of Bentgrass Cultivars Grown on a Green at St. Paul, MN.....	32
Appendix Table- Summary of Turfgrass Quality Ratings of Bentgrass Cultivars Grown on a Green.....	33

## **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>.

2014 NATIONAL BENTGRASS TEST  
(Putting Green)

LOCATIONS SUBMITTING DATA FOR 2018

State	Location	Code
California	Los Angeles (Los Angeles C.C.)	CA6
Georgia	Athens	GA3
Indiana	West Lafayette	IN1
Iowa	Ames	IA1
Kansas	Manhattan	KS1
Kentucky	Lexington	KY1
Massachusetts	Amherst (Traffic Study)	MA1
Michigan	East Lansing	MI1
Minnesota	St. Paul	MN1
Missouri	Columbia	MO1
New Jersey	North Brunswick	NJ1
North Carolina	Raleigh	NC1
Oklahoma	Stillwater	OK1
Utah	Logan	UT1
Utah	Logan (Drought Study)	UT2
Virginia	Blacksburg	VA1

2014 NATIONAL BENTGRASS TEST  
(Putting Green)

Entries and Sponsors

Entry No	Name	Species	Sponsor
*1	Luminary	Creeping	Standard
*2	777 (DLFPS-AP/3054)	Creeping	Seed Research of Oregon
3	DLFPS-AP/3018	Creeping	DLF Pickseed USA
4	DLFPS-AP/3056	Creeping	DLF Pickseed USA
5	DLFPS-AP/3058	Creeping	SiteOne Landscape Supply
6	DLFPS-AP/3059	Creeping	DLF Pickseed USA
*7	Pure Select	Creeping	Tee-2-Green Corp.
*8	Penn A-1	Creeping	Standard
*9	Penncross	Creeping	Standard
*10	L-93 XD	Creeping	Jacklin Seed by Simplot®
*11	Armor	Creeping	Jacklin Seed by Simplot®
*12	Kingdom	Creeping	Jacklin Seed by Simplot®
*13	Nightlife	Creeping	Jacklin Seed by Simplot®
*14	V-8	Creeping	Standard
*15	Tour Pro (GDE)	Creeping	Semillas Fito
*16	Piranha (DC-1)	Creeping	Mountain View Seeds & Toyo Green Co. Ltd.
*17	Pure Eclipse (PST-ROPS)	Creeping	Pure Seed Testing, Inc
*18	Shark	Creeping	Mountain View Seeds
*19	Barracuda	Creeping	Mountain View Seeds
*20	Declaration	Creeping	Standard

\* Commercially Available in the USA in 2019 or any other Country

TABLE A.

2018 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN  
THE 2014 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
CA6	SAND	7.1-7.5	0-60	151-240	2.1-3.0	LIGHT SHADE	0.0-0.5	TO PREVENT STRESS
GA3	-	-	-	-	-	-	-	-
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
IN1	SAND	7.6-8.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
KS1	-	-	-	-	-	-	-	-
KY1	SAND	7.6-8.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MA1	SAND	5.6-6.0	0-60	241-375	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MI1	-	-	-	-	-	-	-	-
MN1	SAND	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MO1	-	-	-	-	-	-	-	-
NC1	SILTY CLAY LOAM	6.1-6.5	61-150	0-150	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
NJ1	SAND	6.1-6.5	0-60	0-150	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
OK1	SAND	7.1-7.5	0-60	241-375	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
UT1	SAND	6.6-7.0	-	-	-	FULL SUN	0.0-0.5	TO PREVENT STRESS
UT2	SAND	6.6-7.0	-	-	-	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
VA1	SILTY CLAY LOAM	6.1-6.5	61-150	151-240	3.1-4.0	FULL SUN	0.6-1.0	TO PREVENT DORMANCY

TABLE B.

## LOCATIONS AND DATA COLLECTED IN 2018

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
CA6	X	X	X	X	X	X	X	X					X		
GA3	X	X	X	X	X	X	X	X	X	X	X	X	X		
IA1					X	X	X	X	X	X			X		
IN1					X	X	X	X	X	X	X		X		X
KS1				X	X	X	X	X					X		
KY1				X	X	X	X	X	X	X	X				
MA1				X	X	X	X	X	X	X	X	X			
MI1					X	X	X	X	X	X			X	X	
MN1					X	X	X	X	X	X			X	X	
MO1				X	X	X	X	X	X	X					
NC1		X		X	X	X	X	X	X	X	X		X	X	X
NJ1				X	X	X	X	X	X	X			X		X
OK1			X	X	X	X	X	X	X	X	X	X	X		X
UT1				X	X	X	X	X	X	X			X	X	
UT2				X	X	X	X	X	X	X			X	X	
VA1					X	X	X	X	X	X	X				

TABLE B. (CONT'D)

## LOCATIONS AND DATA COLLECTED IN 2018

LOCATION	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	WINTER COLOR	DOLLAR SPOT	BROWN PATCH WARM TEMP.	ANTHRACNOSE RATINGS	BROWN PATCH COOL TEMP.
CA6	X	X									
GA3	X	X	X				X	X	X		X
IA1								X			
IN1	X	X						X			
KS1								X			
KY1											
MA1									X		
MI1								X			
MN1								X			
MO1								X			
NC1	X	X		X	X					X	
NJ1			X								
OK1		X	X	X	X	X	X				
UT1											
UT2											
VA1								X			



TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2018

LOCATION	FALL	FALL	FALL	FALL	POA	DOLLAR SPOT RATING				WEAR TOLERANCE RATINGS		
	COLOR	COLOR	COLOR	COLOR		ANNUA	JUNE	JULY	AUGUST	SEPTEMBER	MAY	JULY
CA6												
GA3	X	X	X	X								
IA1												
IN1							X	X		X		
KS1												
KY1												
MA1										X	X	X
MI1	X	X										
MN1								X				
MO1												
NC1												
NJ1												
OK1	X	X	X			X						
UT1												
UT2												
VA1												

TABLE 1. MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/  
 A GREEN AT FIVE LOCATIONS IN THE U.S. FOR LPI GROUP 1 \*\*/  
 2018 DATA

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

NAME	# ENTRY	OK1
* PENNCROSS	9	7.2
DLFPS-AP/3059	6	6.9
DLFPS-AP/3058	5	6.8
* ARMOR	11	6.8
* TOUR PRO (GDE)	15	6.8
* NIGHTLIFE	13	6.7
* PENN A-1	8	6.7
* KINGDOM	12	6.6
* SHARK	18	6.3
* BARRACUDA	19	6.2
* LUMINARY	1	6.2
DLFPS-AP/3018	3	6.2
* V-8	14	6.0
* PURE SELECT	7	5.8
* 777 (DLFPS-AP/3054)	2	5.8
* DECLARATION	20	4.9
* PIRANHA (DC-1)	16	4.6
DLFPS-AP/3056	4	4.4
* L-93 XD	10	4.0
* PURE ECLIPSE (PST-ROPS)	17	4.0
LSD VALUE		1.1
C.V. (%)		11.1

\* COMMERCIALY AVAILABLE IN THE USA IN 2019.

\*\*/ 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](http://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 FOUR LOCATIONS IN THE U.S. FOR LPI GROUP 2 \*/  
2018 DATA

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

NAME	# ENTRY	GA3	VA1	KS1	IA1	MEAN
DLFPS-AP/3058	5	7.4	7.5	7.1	7.1	7.3
TOUR PRO (GDE)	15	7.3	7.3	6.9	7.0	7.1
DLFPS-AP/3018	3	7.2	7.3	6.9	7.0	7.1
DLFPS-AP/3059	6	7.1	7.1	6.7	6.7	6.9
KINGDOM	12	7.1	7.1	6.7	6.8	6.9
NIGHTLIFE	13	7.1	7.1	6.7	6.7	6.9
PIRANHA (DC-1)	16	6.9	7.0	6.7	7.0	6.9
BARRACUDA	19	7.0	7.1	6.7	6.8	6.9
777 (DLFPS-AP/3054)	2	7.0	7.0	6.7	6.8	6.9
LUMINARY	1	6.9	7.0	6.6	6.7	6.8
SHARK	18	6.8	6.9	6.5	6.5	6.7
V-8	14	6.8	6.9	6.5	6.6	6.7
PURE SELECT	7	6.8	6.8	6.5	6.6	6.7
L-93 XD	10	6.6	6.6	6.4	6.7	6.6
PENN A-1	8	6.8	6.8	6.4	6.4	6.6
ARMOR	11	6.7	6.8	6.3	6.3	6.5
DLFPS-AP/3056	4	6.5	6.5	6.3	6.5	6.4
DECLARATION	20	6.4	6.5	6.2	6.3	6.4
PURE ECLIPSE (PST-ROPS)	17	6.2	6.3	6.1	6.3	6.2
PENNCROSS	9	6.0	6.0	5.5	5.3	5.7
LSD VALUE		1.1	1.1	1.1	1.1	1.1
C.V. (%)		9.6	9.6	10.1	10.0	9.8

\*/ 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](http://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 RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/  
 A GREEN AT THREE LOCATIONS IN THE U.S. FOR LPI GROUP 3 \*/  
 2017 DATA

NAME	# ENTRY	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/								MEAN
		KY1	IN1	NC1	MN1	MI1	MO1	UT1	NJ1	
PIRANHA (DC-1)	16	7.2	7.3	7.6	5.5	7.5	6.5	7.2	7.1	7.0
L-93 XD	10	6.9	7.1	7.3	5.3	7.3	6.4	7.0	7.0	6.8
DLFPS-AP/3018	3	7.1	7.2	7.4	5.2	7.1	6.1	6.7	6.1	6.6
DLFPS-AP/3058	5	7.1	7.2	7.4	5.1	7.1	6.0	6.6	5.8	6.6
777 (DLFPS-AP/3054)	2	6.9	7.0	7.2	5.0	6.9	5.9	6.5	6.0	6.4
DLFPS-AP/3056	4	6.6	6.8	7.0	4.9	6.9	5.9	6.6	6.3	6.4
TOUR PRO (GDE)	15	7.0	7.1	7.2	4.9	6.9	5.8	6.4	5.6	6.4
PURE ECLIPSE (PST-ROPS)	17	6.5	6.6	6.9	4.8	6.8	5.8	6.5	6.3	6.3
BARRACUDA	19	6.8	6.9	7.1	4.8	6.8	5.7	6.4	5.6	6.3
LUMINARY	1	6.7	6.8	7.0	4.8	6.7	5.7	6.3	5.6	6.2
KINGDOM	12	6.7	6.9	7.0	4.7	6.7	5.6	6.2	5.4	6.1
PURE SELECT	7	6.6	6.7	6.9	4.7	6.7	5.6	6.3	5.6	6.1
DECLARATION	20	6.4	6.6	6.8	4.7	6.6	5.6	6.2	5.8	6.1
V-8	14	6.6	6.7	6.9	4.7	6.6	5.6	6.2	5.5	6.1
NIGHTLIFE	13	6.7	6.8	6.9	4.7	6.6	5.5	6.1	5.3	6.1
DLFPS-AP/3059	6	6.7	6.8	6.9	4.6	6.5	5.5	6.1	5.2	6.0
SHARK	18	6.5	6.7	6.8	4.5	6.5	5.4	6.0	5.2	6.0
PENN A-1	8	6.3	6.4	6.5	4.2	6.1	5.0	5.7	4.7	5.6
ARMOR	11	6.3	6.3	6.4	4.1	6.0	5.0	5.6	4.5	5.5
PENNCROSS	9	5.1	5.2	5.2	2.7	4.6	3.5	4.1	2.6	4.1
LSD VALUE		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
C.V. (%)		9.9	9.7	9.5	14.0	9.9	11.7	10.6	11.9	10.7

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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 IN THE  
2014 NATIONAL BENTGRASS (GREENS) TEST GROWN UNDER TRAFFIC STRESS AT AMHERST, MA 1/  
2018 DATA

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

	BROWN PATCH	WEAR TOLERANCE RATINGS			QUALITY RATINGS									MEAN
	WARM TEMP	MAY	JULY	OCTOBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
PURE ECLIPSE (PST-ROPS)	6.0	5.3	5.0	6.0	6.3	6.7	6.7	7.0	5.3	5.7	6.7	6.3	6.0	6.3
DLFPS-AP/3018	7.0	4.7	4.7	5.3	6.3	6.0	6.7	6.3	6.3	5.0	6.0	6.3	6.0	6.1
PIRANHA (DC-1)	6.0	5.3	5.0	6.0	6.0	6.7	6.7	6.3	6.0	5.7	6.3	6.0	5.3	6.1
777 (DLFPS-AP/3054)	5.7	4.7	5.3	6.3	5.3	5.7	6.0	6.3	6.3	6.3	6.0	5.3	5.7	5.9
TOUR PRO (GDE)	6.3	4.0	3.7	5.0	5.3	6.3	6.0	5.7	5.3	5.7	6.0	6.0	5.7	5.8
L-93 XD	4.0	4.0	4.0	5.0	6.0	6.0	6.0	5.7	5.3	5.3	5.7	5.7	5.3	5.7
LUMINARY	4.3	4.0	5.0	5.3	5.3	6.0	5.7	5.7	5.3	5.7	6.3	5.3	6.0	5.7
PURE SELECT	7.0	3.0	3.7	4.7	5.7	6.3	6.7	6.0	5.0	5.3	5.7	5.7	5.3	5.7
SHARK	5.7	3.3	4.0	5.7	4.7	5.3	6.7	6.7	5.3	5.7	6.3	5.7	5.3	5.7
BARRACUDA	5.7	4.3	4.7	5.7	5.3	6.0	5.3	5.7	4.7	5.0	6.0	5.7	6.0	5.5
DLFPS-AP/3058	4.3	4.0	4.0	4.7	5.3	6.0	5.7	5.7	5.3	5.3	5.7	5.7	5.0	5.5
DLFPS-AP/3056	4.7	5.0	4.7	4.7	5.7	6.3	5.7	5.3	4.7	5.7	5.7	5.0	5.0	5.4
V-8	6.7	3.7	4.0	4.3	4.7	6.0	6.0	5.7	5.0	5.3	5.3	5.3	4.7	5.3
ARMOR	6.0	4.7	4.3	5.0	4.0	5.0	6.0	6.0	5.3	5.0	5.7	5.0	4.7	5.2
DLFPS-AP/3059	6.0	4.3	4.0	4.7	4.7	5.7	5.0	5.3	4.7	5.3	5.7	5.7	5.0	5.2
NIGHTLIFE	5.3	4.7	4.7	4.7	3.7	6.0	5.7	5.3	5.3	5.0	5.3	5.3	5.0	5.2
KINGDOM	6.0	5.3	5.0	4.7	4.3	5.7	6.0	5.3	5.3	5.0	5.0	5.0	4.7	5.1
DECLARATION	5.7	3.7	3.3	4.3	4.3	5.0	5.0	5.0	5.0	5.0	5.0	4.7	5.0	4.9
PENN A-1	5.0	4.0	3.3	4.3	4.0	5.0	5.3	5.0	5.0	4.0	5.0	4.7	4.7	4.7
PENNCROSS	4.3	2.7	3.7	4.0	2.7	4.3	3.7	4.0	3.3	4.7	5.0	4.3	4.7	4.1
LSD VALUE	1.8	1.0	1.0	0.8	0.8	0.8	0.7	0.9	0.8	0.6	0.7	0.9	0.7	0.4
C.V. (%)	16.7	14.6	13.3	9.3	10.2	8.3	7.6	9.2	9.4	7.3	7.5	9.4	7.6	4.3

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 5. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS IN THE  
2014 NATIONAL BENTGRASS (GREENS) TEST AT LOGAN, UT 1/  
2018 DATA

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

NAME	GENETIC	SPRING	QUALITY RATINGS							MEAN
	COLOR	GREENUP	APR	MAY	JUN	JUL	AUG	SEP	OCT	
L-93 XD	5.3	6.7	6.7	6.7	6.7	7.3	7.7	8.0	6.7	7.1
777 (DLFPS-AP/3054)	6.3	6.3	6.0	7.3	7.0	6.7	8.0	7.7	5.7	6.9
DLFPS-AP/3058	5.3	7.3	6.7	7.0	6.3	7.3	7.0	6.7	7.0	6.9
PURE ECLIPSE (PST-ROPS)	6.0	4.7	7.3	7.0	7.3	6.7	6.7	7.3	6.0	6.9
DLFPS-AP/3018	4.7	6.7	6.0	7.0	7.0	6.7	7.3	7.3	6.3	6.8
NIGHTLIFE	9.0	6.0	6.3	7.0	7.0	6.7	7.3	7.0	6.3	6.8
KINGDOM	8.7	5.7	6.0	6.3	7.3	7.0	7.3	7.0	6.0	6.7
PIRANHA (DC-1)	6.0	6.7	7.0	6.7	7.0	6.7	6.7	6.7	5.7	6.6
PURE SELECT	5.3	4.3	6.0	7.3	6.7	6.7	7.3	6.0	6.0	6.6
V-8	5.3	5.3	6.3	6.7	7.0	7.0	6.7	6.3	6.0	6.6
ARMOR	8.0	4.7	5.0	7.0	6.7	7.3	7.0	6.7	5.7	6.5
TOUR PRO (GDE)	5.0	7.0	6.3	7.0	6.7	6.3	6.7	6.0	5.7	6.4
DLFPS-AP/3056	5.7	4.7	6.7	6.3	6.0	6.7	6.7	6.3	5.7	6.3
BARRACUDA	5.0	6.7	5.3	6.7	6.0	6.7	6.0	6.3	6.3	6.2
SHARK	5.3	5.0	5.3	6.7	6.0	7.0	6.7	6.0	5.7	6.2
PENN A-1	7.3	4.0	5.3	6.3	5.7	6.0	5.7	6.0	5.7	5.8
DLFPS-AP/3059	5.7	5.7	5.0	5.7	5.3	6.3	5.3	5.7	5.7	5.6
LUMINARY	5.0	5.3	5.0	5.3	5.7	5.3	5.7	5.3	5.7	5.4
DECLARATION	5.3	6.3	4.7	5.0	5.7	5.3	5.3	5.3	6.0	5.3
PENNCROSS	5.0	2.7	2.0	3.0	3.0	3.0	3.3	3.3	4.0	3.1
LSD VALUE	1.1	1.5	1.5	1.1	1.1	1.1	1.3	1.2	2.0	0.7
C.V. (%)	11.7	15.8	15.5	10.8	11.2	10.5	12.3	11.9	13.9	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 6.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS IN THE  
2014 NATIONAL BENTGRASS (GREENS) TEST AT LOS ANGELES (LOS ANGELES COUNTRY CLUB), CA 1/  
2018 DATA

NAME	GENETIC COLOR	SPRING DENSITY	SUMMER DENSITY	TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/								
				JAN	FEB	MAR	QUALITY RATINGS			JUN	JUL	AUG
				APR	MAY							
PIRANHA (DC-1)	7.3	6.7	7.0	6.0	6.3	6.3	7.0	7.0	7.3	7.3	7.0	6.8
SHARK	7.0	6.3	7.0	6.0	7.0	6.0	7.0	7.0	7.0	7.0	7.0	6.8
DLFPS-AP/3056	7.0	6.3	7.0	6.0	6.0	6.0	6.7	6.7	6.7	7.0	7.0	6.5
PURE ECLIPSE (PST-ROPS)	7.7	6.3	6.7	5.7	5.7	6.3	6.7	6.7	7.0	7.0	7.0	6.5
LUMINARY	7.0	6.3	7.0	6.0	6.7	5.3	6.7	6.7	7.0	6.3	6.3	6.4
L-93 XD	6.7	6.7	7.0	5.7	6.0	6.0	6.7	7.0	6.7	6.7	6.0	6.3
TOUR PRO (GDE)	7.0	6.0	6.7	6.0	5.7	6.0	6.7	6.7	7.0	6.3	6.3	6.3
DLFPS-AP/3018	6.7	6.3	7.0	5.3	5.7	5.3	7.0	7.0	7.3	6.0	5.7	6.2
NIGHTLIFE	8.0	6.3	6.3	5.0	5.0	5.0	6.7	6.7	6.7	6.3	6.3	6.0
PENN A-1	8.0	6.0	6.0	6.0	6.7	6.0	6.0	6.0	5.7	5.7	5.7	6.0
BARRACUDA	7.0	6.0	6.0	5.7	5.7	5.7	6.0	6.0	6.3	6.0	6.0	5.9
DECLARATION	6.0	6.3	6.0	5.7	6.3	6.0	5.7	6.0	6.0	6.0	5.7	5.9
V-8	7.3	6.7	6.3	5.7	6.0	6.0	6.0	6.0	5.3	5.3	5.3	5.7
PURE SELECT	7.0	6.3	6.0	5.7	5.7	6.0	5.3	5.3	5.7	5.7	5.3	5.6
777 (DLFPS-AP/3054)	7.0	6.3	6.0	5.3	5.7	5.0	6.0	6.0	5.3	5.7	5.3	5.5
ARMOR	8.0	6.0	6.0	5.0	5.0	5.3	6.0	6.0	5.7	5.7	5.3	5.5
DLFPS-AP/3058	7.0	6.0	6.7	5.0	5.0	5.0	6.3	6.3	5.3	5.0	5.0	5.4
DLFPS-AP/3059	6.7	6.0	6.0	5.0	5.0	5.0	5.7	5.7	5.3	5.3	5.3	5.3
KINGDOM	7.7	6.0	6.0	5.0	5.0	5.0	5.3	5.3	6.0	5.7	5.3	5.3
PENNCROSS	6.0	5.0	5.0	4.0	3.3	3.7	3.7	3.7	4.0	3.7	3.7	3.7
LS D VALUE	0.7	0.9	0.6	0.7	1.1	0.8	1.5	1.4	1.4	1.2	1.0	0.7
C.V. (%)	5.9	6.8	5.6	7.3	11.7	8.8	12.9	12.5	12.9	12.0	10.5	7.3

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 7.

GENETIC COLOR RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	IA1	IN1	KS1	MI1	MN1	NC1	NJ1	OK1	UT1	MEAN
NIGHTLIFE	7.7	7.3	9.0	9.0	8.0	8.7	9.0	6.0	7.7	9.0	8.1
KINGDOM	7.7	7.7	9.0	7.0	8.0	9.0	9.0	6.3	8.0	8.7	8.0
ARMOR	8.0	7.0	9.0	9.0	8.0	7.7	8.7	6.3	8.0	8.0	8.0
PIRANHA (DC-1)	7.3	7.7	7.0	8.0	7.0	6.7	7.3	7.0	6.3	6.0	7.0
777 (DLFPS-AP/3054)	7.7	7.3	7.3	8.0	7.0	5.3	7.0	7.3	6.3	6.3	7.0
LUMINARY	7.0	7.0	6.7	7.3	7.0	7.0	7.0	7.3	6.7	5.0	6.8
PENN A-1	7.3	6.3	7.3	7.3	7.0	5.7	8.0	3.7	7.0	7.3	6.7
DLFPS-AP/3018	7.0	6.7	7.0	7.3	7.0	6.0	7.3	7.3	6.3	4.7	6.7
DLFPS-AP/3056	7.0	8.0	7.7	7.0	7.0	6.0	7.7	5.3	5.3	5.7	6.7
V-8	7.3	7.3	8.7	7.3	7.0	5.0	7.3	4.3	6.3	5.3	6.6
DECLARATION	6.7	7.0	6.3	7.7	7.0	5.3	7.7	6.3	6.0	5.3	6.5
DLFPS-AP/3059	7.0	7.0	6.7	8.3	7.0	4.7	7.0	4.7	6.7	5.7	6.5
PURE SELECT	7.0	6.7	8.3	7.0	7.0	4.7	7.0	4.7	6.0	5.3	6.4
SHARK	7.0	7.0	7.7	7.3	7.0	3.7	7.0	5.0	6.7	5.3	6.4
TOUR PRO (GDE)	7.3	6.7	7.3	7.7	7.0	4.0	7.0	5.7	6.0	5.0	6.4
BARRACUDA	7.0	6.7	7.3	7.0	7.0	5.3	7.0	4.3	6.7	5.0	6.3
PURE ECLIPSE (PST-ROPS)	7.3	6.7	8.0	7.7	7.0	4.0	7.3	3.3	5.3	6.0	6.3
DLFPS-AP/3058	7.0	6.3	6.7	7.3	7.0	5.0	7.0	4.7	6.0	5.3	6.2
L-93 XD	6.7	7.0	6.0	7.3	7.0	4.0	7.0	6.7	5.0	5.3	6.2
PENNCROSS	7.0	6.0	6.7	7.3	6.3	6.0	6.3	2.0	7.0	5.0	6.0
LSD VALUE	0.7	1.0	0.8	1.1	0.2	1.2	0.6	1.7	1.2	1.3	0.3
C.V. (%)	5.7	9.1	6.9	9.3	1.8	12.6	4.9	19.1	11.3	13.5	9.7

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 GREENUP RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	MI1	MN1	NC1	UT1	MEAN
TOUR PRO (GDE)	7.3	6.0	7.7	7.0	7.0
PIRANHA (DC-1)	8.0	5.0	7.3	6.7	6.8
DECLARATION	6.0	6.7	7.3	6.3	6.6
DLFPS-AP/3058	6.7	5.0	7.0	7.3	6.5
L-93 XD	7.0	5.3	7.0	6.7	6.5
LUMINARY	7.3	6.3	6.7	5.3	6.4
DLFPS-AP/3018	7.7	4.3	6.7	6.7	6.3
777 (DLFPS-AP/3054)	7.3	4.7	6.7	6.3	6.3
DLFPS-AP/3059	7.0	4.3	7.3	5.7	6.1
BARRACUDA	6.7	3.3	7.3	6.7	6.0
KINGDOM	5.0	5.3	8.0	5.7	6.0
SHARK	6.7	5.7	6.7	5.0	6.0
ARMOR	5.3	5.7	8.0	4.7	5.9
DLFPS-AP/3056	7.3	4.0	7.7	4.7	5.9
NIGHTLIFE	5.0	5.0	7.7	6.0	5.9
V-8	6.7	4.7	7.0	5.3	5.9
PURE ECLIPSE (PST-ROPS)	5.3	5.3	6.7	4.7	5.5
PURE SELECT	6.0	3.3	7.3	4.3	5.3
PENN A-1	4.7	4.0	7.0	4.0	4.9
PENNCROSS	4.0	2.0	5.3	2.7	3.5
LSD VALUE	0.9	1.8	1.1	1.8	0.7
C.V. (%)	8.6	23.4	9.2	20.2	15.2

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 9.

LEAF TEXTURE RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	IN1	NC1	NJ1	OK1	MEAN
PURE SELECT	9.0	8.0	6.3	9.0	8.1
PURE ECLIPSE (PST-ROPS)	9.0	8.7	6.7	7.7	8.0
777 (DLFPS-AP/3054)	7.0	8.0	7.7	9.0	7.9
ARMOR	8.0	8.0	6.3	9.0	7.8
BARRACUDA	7.3	8.0	7.0	9.0	7.8
DLFPS-AP/3018	7.0	8.0	7.3	9.0	7.8
PIRANHA (DC-1)	7.7	8.0	7.0	8.3	7.8
SHARK	8.0	8.0	6.0	9.0	7.8
TOUR PRO (GDE)	7.7	7.3	6.7	9.0	7.7
V-8	7.3	8.0	6.3	8.7	7.6
DLFPS-AP/3058	7.3	7.7	6.3	8.7	7.5
KINGDOM	7.7	7.7	5.7	9.0	7.5
L-93 XD	7.7	8.0	8.0	6.3	7.5
NIGHTLIFE	7.7	7.3	5.7	9.0	7.4
DLFPS-AP/3056	7.3	7.3	6.7	8.0	7.3
DECLARATION	7.3	7.3	6.3	8.0	7.3
LUMINARY	6.7	7.7	6.3	8.3	7.3
DLFPS-AP/3059	6.7	7.0	6.0	9.0	7.2
PENN A-1	7.0	8.0	4.7	9.0	7.2
PENNCROSS	6.7	5.0	3.0	7.0	5.4
LSD VALUE	1.0	0.6	1.3	1.0	0.5
C.V. (%)	8.1	4.8	12.6	7.4	8.3

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 10.

SPRING DENSITY RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	IN1	NC1	MEAN
PIRANHA (DC-1)	8.0	8.0	8.0	8.0
PURE SELECT	7.7	8.3	8.0	8.0
PURE ECLIPSE (PST-ROPS)	7.3	9.0	7.0	7.8
DLFPS-AP/3056	7.0	7.7	8.0	7.6
KINGDOM	7.3	7.7	7.7	7.6
TOUR PRO (GDE)	7.3	7.7	7.7	7.6
DLFPS-AP/3058	7.7	7.0	7.7	7.4
NIGHTLIFE	7.7	7.0	7.7	7.4
ARMOR	7.3	7.7	7.3	7.4
V-8	7.3	7.7	7.3	7.4
777 (DLFPS-AP/3054)	8.0	6.7	7.3	7.3
DLFPS-AP/3059	7.3	7.0	7.7	7.3
SHARK	7.0	7.7	7.3	7.3
DLFPS-AP/3018	7.7	6.7	7.3	7.2
PENN A-1	7.0	7.0	7.7	7.2
BARRACUDA	7.3	6.0	8.0	7.1
L-93 XD	6.3	7.0	8.0	7.1
LUMINARY	7.7	6.0	7.3	7.0
DECLARATION	6.3	6.0	7.7	6.7
PENNCROSS	6.3	6.0	5.0	5.8
LSD VALUE	1.1	1.0	0.7	0.6
C.V. (%)	9.7	8.8	6.2	8.3

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 11.

SUMMER DENSITY RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	IN1	NC1	OK1	MEAN
DLFPS-AP/3058	8.0	6.7	7.7	9.0	7.8
NIGHTLIFE	7.7	7.7	7.3	8.7	7.8
ARMOR	7.7	7.7	6.7	9.0	7.8
KINGDOM	7.7	7.7	7.0	8.3	7.7
LUMINARY	7.3	6.7	7.7	9.0	7.7
TOUR PRO (GDE)	7.7	7.0	7.0	9.0	7.7
DLFPS-AP/3059	7.3	7.3	7.3	8.7	7.7
PURE SELECT	7.7	8.3	6.0	8.7	7.7
DLFPS-AP/3018	7.0	6.7	8.0	7.7	7.3
V-8	6.7	7.3	7.0	8.3	7.3
BARRACUDA	6.7	6.7	7.3	8.3	7.3
PENN A-1	7.0	6.7	7.0	8.3	7.3
SHARK	7.0	6.7	7.0	8.3	7.3
777 (DLFPS-AP/3054)	7.0	6.7	7.0	7.3	7.0
PIRANHA (DC-1)	7.7	7.3	7.3	5.0	6.8
PURE ECLIPSE (PST-ROPS)	7.3	8.7	7.3	4.0	6.8
PENNCROSS	6.3	6.0	6.7	8.0	6.8
DECLARATION	6.7	7.3	7.0	5.7	6.7
DLFPS-AP/3056	7.7	6.7	7.3	5.0	6.7
L-93 XD	7.0	7.0	7.3	4.0	6.3
LSD VALUE	1.1	1.3	1.1	2.6	0.8
C.V. (%)	9.6	11.6	9.2	21.8	14.2

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 12.

FALL DENSITY RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	NJ1	OK1	MEAN
TOUR PRO (GDE)	7.7	6.7	8.3	7.6
L-93 XD	7.3	7.7	7.3	7.4
ARMOR	7.7	6.0	8.3	7.3
DLFPS-AP/3058	8.0	5.7	8.3	7.3
KINGDOM	7.3	6.0	8.7	7.3
777 (DLFPS-AP/3054)	6.7	7.0	8.0	7.2
DLFPS-AP/3018	6.3	6.7	8.3	7.1
PIRANHA (DC-1)	7.7	7.7	6.0	7.1
DLFPS-AP/3059	7.7	5.0	8.3	7.0
LUMINARY	7.0	6.0	8.0	7.0
PURE SELECT	7.7	5.3	8.0	7.0
SHARK	7.7	5.3	8.0	7.0
BARRACUDA	7.7	4.7	8.0	6.8
NIGHTLIFE	7.3	5.0	8.0	6.8
DLFPS-AP/3056	7.7	5.3	6.3	6.4
DECLARATION	7.3	6.0	5.7	6.3
V-8	6.7	4.7	7.7	6.3
PENN A-1	7.0	3.0	7.7	5.9
PURE ECLIPSE (PST-ROPS)	6.7	5.0	5.7	5.8
PENNCROSS	7.0	1.0	7.3	5.1
LSD VALUE	1.2	1.6	2.2	1.0
C.V. (%)	9.8	18.4	18.2	15.8

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 13. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A GREEN  
 2018 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	NC1	OK1	MEAN
ARMOR	99.0	99.0	99.0
BARRACUDA	99.0	99.0	99.0
DLFPS-AP/3058	99.0	99.0	99.0
DLFPS-AP/3059	99.0	99.0	99.0
LUMINARY	99.0	99.0	99.0
NIGHTLIFE	99.0	99.0	99.0
PENN A-1	99.0	99.0	99.0
PURE SELECT	99.0	99.0	99.0
SHARK	99.0	99.0	99.0
TOUR PRO (GDE)	99.0	99.0	99.0
V-8	99.0	99.0	99.0
KINGDOM	99.0	98.3	98.7
DLFPS-AP/3018	99.0	96.7	97.8
PENNCROSS	96.3	99.0	97.7
777 (DLFPS-AP/3054)	99.0	95.7	97.3
DECLARATION	99.0	88.7	93.8
PIRANHA (DC-1)	99.0	72.7	85.8
DLFPS-AP/3056	99.0	64.7	81.8
L-93 XD	99.0	60.0	79.5
PURE ECLIPSE (PST-ROPS)	99.0	59.0	79.0
LSD VALUE	0.4	24.9	12.5
C.V. (%)	0.3	17.0	11.5

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 14. PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	NC1	OK1	MEAN
KINGDOM	99.0	99.0	99.0
NIGHTLIFE	99.0	99.0	99.0
DLFPS-AP/3059	99.0	98.7	98.8
PURE SELECT	99.0	98.7	98.8
TOUR PRO (GDE)	99.0	98.7	98.8
ARMOR	99.0	98.3	98.7
BARRACUDA	99.0	98.3	98.7
DLFPS-AP/3058	99.0	98.3	98.7
SHARK	99.0	98.3	98.7
777 (DLFPS-AP/3054)	99.0	98.0	98.5
DLFPS-AP/3018	99.0	97.3	98.2
PENN A-1	99.0	97.3	98.2
V-8	99.0	97.3	98.2
LUMINARY	99.0	97.0	98.0
PENNCROSS	96.3	96.0	96.2
L-93 XD	99.0	85.0	92.0
DECLARATION	99.0	77.0	88.0
PIRANHA (DC-1)	99.0	70.0	84.5
DLFPS-AP/3056	99.0	66.3	82.7
PURE ECLIPSE (PST-ROPS)	99.0	65.0	82.0
LSD VALUE	0.4	29.0	14.5
C.V. (%)	0.3	19.7	13.4

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 15. PERCENT LIVING GROUND COVER (FALL) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	OK1
ARMOR	98.0
DLFPS-AP/3018	98.0
777 (DLFPS-AP/3054)	97.7
KINGDOM	97.7
DLFPS-AP/3059	97.3
NIGHTLIFE	97.3
PENN A-1	97.3
SHARK	97.3
TOUR PRO (GDE)	96.7
V-8	96.7
PURE SELECT	96.3
BARRACUDA	95.3
LUMINARY	95.0
DLFPS-AP/3058	93.7
PENNCROSS	93.7
L-93 XD	92.7
DECLARATION	71.7
PIRANHA (DC-1)	69.0
DLFPS-AP/3056	65.0
PURE ECLIPSE (PST-ROPS)	62.7
LSD VALUE	29.3
C.V. (%)	20.2

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 16.

WINTER COLOR RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	OK1	MEAN
NIGHTLIFE	7.3	7.0	7.2
ARMOR	7.0	7.0	7.0
KINGDOM	7.0	7.0	7.0
PURE ECLIPSE (PST-ROPS)	7.3	6.0	6.7
TOUR PRO (GDE)	7.0	6.0	6.5
V-8	7.0	6.0	6.5
BARRACUDA	6.7	6.0	6.3
DLFPS-AP/3058	7.0	5.7	6.3
DLFPS-AP/3059	7.0	5.7	6.3
LUMINARY	6.7	6.0	6.3
PIRANHA (DC-1)	6.7	6.0	6.3
777 (DLFPS-AP/3054)	6.7	5.7	6.2
DLFPS-AP/3018	6.7	5.7	6.2
L-93 XD	6.7	5.7	6.2
PENN A-1	6.7	5.7	6.2
DLFPS-AP/3056	6.3	6.0	6.2
SHARK	6.3	6.0	6.2
DECLARATION	6.3	5.7	6.0
PENNCROSS	6.3	5.7	6.0
PURE SELECT	6.0	5.7	5.8
LSD VALUE	0.9	0.6	0.5
C.V. (%)	8.4	6.5	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 17.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	IA1	IN1	KS1	MI1	MN1	MO1	VA1	MEAN
DECLARATION	8.7	9.0	8.3	9.0	9.0	7.7	9.0	7.3	8.5
L-93 XD	8.7	9.0	8.0	9.0	8.7	7.7	9.0	7.0	8.4
TOUR PRO (GDE)	9.0	9.0	8.3	8.7	8.7	7.0	9.0	7.0	8.3
BARRACUDA	8.3	9.0	8.3	8.0	8.3	8.0	9.0	7.0	8.3
DLFPS-AP/3058	9.0	9.0	7.7	8.7	9.0	6.0	9.0	7.0	8.2
LUMINARY	8.7	9.0	8.3	9.0	8.3	6.7	9.0	6.0	8.1
PIRANHA (DC-1)	8.7	9.0	8.0	8.7	8.3	7.3	8.7	6.3	8.1
V-8	8.3	9.0	8.3	9.0	8.0	5.7	9.0	6.7	8.0
DLFPS-AP/3059	9.0	9.0	8.0	8.7	7.7	6.3	7.0	6.7	7.8
PENN A-1	8.7	9.0	8.3	8.3	7.7	6.7	8.0	4.3	7.6
DLFPS-AP/3018	8.7	9.0	7.7	9.0	8.3	5.0	7.3	5.7	7.6
777 (DLFPS-AP/3054)	8.7	9.0	7.7	7.7	7.0	5.3	6.3	6.7	7.3
DLFPS-AP/3056	8.7	8.7	7.3	9.0	7.7	5.3	5.3	4.7	7.1
SHARK	8.7	9.0	7.0	9.0	6.3	4.3	7.7	4.0	7.0
PENNCROSS	7.7	8.3	6.7	8.3	6.0	6.0	6.0	5.3	6.8
PURE ECLIPSE (PST-ROPS)	8.3	8.7	6.7	9.0	7.0	3.7	7.7	3.0	6.8
KINGDOM	7.7	7.7	7.0	9.0	7.0	3.0	5.7	5.3	6.5
PURE SELECT	7.7	9.0	6.0	7.3	7.3	4.0	7.0	3.7	6.5
NIGHTLIFE	8.3	9.0	6.3	7.3	7.7	4.3	4.7	3.0	6.3
ARMOR	7.3	5.7	5.3	3.7	4.0	2.7	2.7	4.0	4.4
LSD VALUE	1.1	0.7	1.2	1.3	1.4	1.4	2.5	2.0	0.5
C.V. (%)	8.2	4.9	9.8	9.8	11.8	15.5	21.3	21.9	13.0

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. BROWN PATCH (WARM TEMPERATURE) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3
DECLARATION	9.0
DLFPS-AP/3056	9.0
DLFPS-AP/3058	9.0
DLFPS-AP/3059	9.0
TOUR PRO (GDE)	9.0
BARRACUDA	8.7
DLFPS-AP/3018	8.7
PENN A-1	8.7
PIRANHA (DC-1)	8.7
V-8	8.7
777 (DLFPS-AP/3054)	8.3
L-93 XD	8.3
PENNCROSS	8.3
PURE ECLIPSE (PST-ROPS)	8.3
SHARK	8.3
LUMINARY	8.0
KINGDOM	7.7
NIGHTLIFE	7.7
ARMOR	7.3
PURE SELECT	7.3
LSD VALUE	0.9
C.V. (%)	6.3

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.

ANTHRACNOSE RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	NC1
DLFPS-AP/3018	8.0
DLFPS-AP/3058	7.7
LUMINARY	7.7
DLFPS-AP/3059	7.3
PIRANHA (DC-1)	7.0
DLFPS-AP/3056	6.7
L-93 XD	6.7
PURE ECLIPSE (PST-ROPS)	6.7
SHARK	6.7
V-8	6.7
777 (DLFPS-AP/3054)	6.3
BARRACUDA	6.3
DECLARATION	6.3
KINGDOM	6.3
NIGHTLIFE	6.3
PENN A-1	6.3
TOUR PRO (GDE)	6.3
ARMOR	5.3
PENNCROSS	5.3
PURE SELECT	4.0
LSD VALUE	2.0
C.V. (%)	18.7

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 20. BROWN PATCH (COOL TEMPERATURE) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3
777 (DLFPS-AP/3054)	9.0
ARMOR	9.0
BARRACUDA	9.0
DECLARATION	9.0
DLFPS-AP/3018	9.0
DLFPS-AP/3056	9.0
DLFPS-AP/3058	9.0
DLFPS-AP/3059	9.0
KINGDOM	9.0
L-93 XD	9.0
LUMINARY	9.0
PENN A-1	9.0
PENNCROSS	9.0
TOUR PRO (GDE)	9.0
V-8	9.0
PIRANHA (DC-1)	8.7
NIGHTLIFE	8.3
SHARK	8.3
PURE SELECT	7.0
PURE ECLIPSE (PST-ROPS)	6.7
LSD VALUE	1.2
C.V. (%)	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 21.

FALL COLOR (SEPTEMBER) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3	MI1	OK1	MEAN
NIGHTLIFE	8.0	7.7	8.0	7.9
ARMOR	8.0	7.0	8.0	7.7
KINGDOM	7.7	7.3	8.0	7.7
777 (DLFPS-AP/3054)	7.7	6.7	7.3	7.2
DLFPS-AP/3018	7.0	7.0	7.0	7.0
PIRANHA (DC-1)	8.0	7.0	6.0	7.0
PENN A-1	7.7	7.0	6.0	6.9
LUMINARY	7.0	7.0	6.3	6.8
TOUR PRO (GDE)	7.7	6.3	6.3	6.8
DLFPS-AP/3059	7.3	6.3	6.3	6.7
PURE ECLIPSE (PST-ROPS)	7.0	7.0	6.0	6.7
SHARK	7.3	6.7	6.0	6.7
DLFPS-AP/3056	7.3	6.7	5.7	6.6
PURE SELECT	7.0	7.0	5.7	6.6
V-8	6.7	7.0	6.0	6.6
PENNCROSS	7.7	6.0	5.7	6.4
DECLARATION	6.7	6.0	6.5	6.4
BARRACUDA	7.0	5.7	6.3	6.3
DLFPS-AP/3058	7.3	6.0	5.7	6.3
L-93 XD	6.7	6.0	6.0	6.2
LSD VALUE	0.9	0.8	1.8	0.7
C.V. (%)	7.5	7.2	17.0	11.0

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 22.

FALL COLOR (OCTOBER) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A GREEN  
 2018 DATA

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

NAME	GA3	MI1	OK1	MEAN
PIRANHA (DC-1)	7.0	9.0	8.0	8.0
SHARK	7.7	8.7	7.7	8.0
PURE ECLIPSE (PST-ROPS)	7.0	9.0	7.5	7.8
DLFPS-AP/3059	7.3	9.0	7.0	7.8
TOUR PRO (GDE)	7.3	9.0	7.0	7.8
777 (DLFPS-AP/3054)	7.0	8.7	7.3	7.7
BARRACUDA	7.0	9.0	6.7	7.6
DLFPS-AP/3018	6.7	9.0	7.0	7.6
V-8	6.7	9.0	6.7	7.4
DLFPS-AP/3056	7.0	9.0	6.3	7.4
DLFPS-AP/3058	6.7	8.3	7.0	7.3
LUMINARY	6.7	8.0	7.3	7.3
PURE SELECT	6.7	8.7	6.7	7.3
ARMOR	7.7	6.7	7.3	7.2
KINGDOM	7.7	6.7	7.3	7.2
NIGHTLIFE	7.0	7.0	7.7	7.2
L-93 XD	7.0	8.7	6.0	7.2
DECLARATION	7.0	8.0	6.5	7.2
PENN A-1	7.3	7.0	7.0	7.1
PENNCROSS	7.0	5.7	6.0	6.2
LSD VALUE	0.9	0.9	1.0	0.5
C.V. (%)	8.2	6.5	8.7	7.7

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 23.

FALL COLOR (NOVEMBER) RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A GREEN  
 2018 DATA

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

NAME	GA3	OK1	MEAN
ARMOR	7.7	8.0	7.8
PIRANHA (DC-1)	8.0	7.5	7.8
777 (DLFPS-AP/3054)	7.0	8.0	7.5
NIGHTLIFE	7.3	7.7	7.5
DLFPS-AP/3018	6.7	8.0	7.3
LUMINARY	7.0	7.7	7.3
PURE SELECT	7.0	7.7	7.3
PENN A-1	7.3	7.3	7.3
TOUR PRO (GDE)	7.3	7.3	7.3
DLFPS-AP/3059	6.7	7.7	7.2
PURE ECLIPSE (PST-ROPS)	7.7	6.7	7.2
DLFPS-AP/3058	7.0	7.3	7.2
BARRACUDA	7.3	6.7	7.0
KINGDOM	6.7	7.3	7.0
SHARK	6.7	7.3	7.0
V-8	7.0	7.0	7.0
DLFPS-AP/3056	7.0	6.7	6.8
L-93 XD	7.0	6.7	6.8
PENNCROSS	6.3	7.3	6.8
DECLARATION	5.7	7.0	6.3
LSD VALUE	1.1	1.5	0.9
C.V. (%)	10.1	12.3	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 24.

FALL COLOR (DECEMBER) RATINGS OF BENTGRASS CULTIVARS 1/  
GROWN ON A GREEN  
2018 DATA

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

NAME	GA3
PURE ECLIPSE (PST-ROPS)	7.7
NIGHTLIFE	7.3
777 (DLFPS-AP/3054)	7.0
ARMOR	7.0
KINGDOM	7.0
L-93 XD	7.0
PIRANHA (DC-1)	7.0
TOUR PRO (GDE)	7.0
BARRACUDA	6.7
DLFPS-AP/3018	6.7
LUMINARY	6.7
PENN A-1	6.7
PURE SELECT	6.7
V-8	6.7
DLFPS-AP/3056	6.3
DLFPS-AP/3058	6.3
DLFPS-AP/3059	6.3
PENNCROSS	6.3
SHARK	6.0
DECLARATION	5.7
LSD VALUE	0.8
C.V. (%)	7.7

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 25.

POA ANNUA RATINGS OF BENTGRASS CULTIVARS 1/  
 GROWN ON A GREEN  
 2018 DATA

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

NAME	OK1
ARMOR	8.0
DLFPS-AP/3018	8.0
DLFPS-AP/3058	7.7
KINGDOM	7.7
NIGHTLIFE	7.7
DLFPS-AP/3059	7.3
SHARK	7.3
777 (DLFPS-AP/3054)	7.0
PURE SELECT	7.0
TOUR PRO (GDE)	7.0
LUMINARY	6.7
PIRANHA (DC-1)	6.7
BARRACUDA	6.3
PENN A-1	6.3
V-8	6.3
DLFPS-AP/3056	6.0
PURE ECLIPSE (PST-ROPS)	5.7
DECLARATION	5.3
L-93 XD	5.3
PENNCROSS	5.0
LSD VALUE	2.1
C.V. (%)	19.2

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 26.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A GREEN AT WEST LAFAYETTE, IN 1/  
2018 DATA

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

NAME	JUNE	JULY	SEPTEMBER	MEAN
TOUR PRO (GDE)	9.0	9.0	8.3	8.8
PENN A-1	9.0	8.7	8.3	8.7
DECLARATION	9.0	8.3	8.3	8.6
PIRANHA (DC-1)	9.0	8.7	8.0	8.6
V-8	8.7	8.7	8.3	8.6
BARRACUDA	8.3	8.7	8.3	8.4
L-93 XD	9.0	8.3	8.0	8.4
LUMINARY	8.7	8.3	8.3	8.4
DLFPS-AP/3018	9.0	8.3	7.7	8.3
DLFPS-AP/3058	8.7	8.7	7.7	8.3
DLFPS-AP/3059	8.7	8.0	8.0	8.2
777 (DLFPS-AP/3054)	8.7	8.0	7.7	8.1
DLFPS-AP/3056	8.3	7.7	7.3	7.8
PURE ECLIPSE (PST-ROPS)	8.0	8.3	6.7	7.7
SHARK	8.0	7.0	7.0	7.3
PENNCROSS	8.0	7.0	6.7	7.2
KINGDOM	7.0	6.7	7.0	6.9
NIGHTLIFE	7.3	7.0	6.3	6.9
PURE SELECT	7.0	7.0	6.0	6.7
ARMOR	5.0	5.3	5.3	5.2
LSD VALUE	1.0	1.0	1.3	0.8
C.V. (%)	7.6	7.7	10.0	6.8

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 27.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A GREEN AT ST. PAUL, MN 1/  
2018 DATA

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

NAME	AUGUST 16	AUGUST 29	MEAN
777 (DLFPS-AP/3054)	5.3	2.3	3.8
ARMOR	2.7	1.0	1.8
BARRACUDA	8.0	4.0	6.0
DECLARATION	7.7	4.7	6.2
DLFPS-AP/3018	5.0	3.0	4.0
DLFPS-AP/3056	5.3	3.0	4.2
DLFPS-AP/3058	6.0	3.7	4.8
DLFPS-AP/3059	6.3	3.3	4.8
KINGDOM	3.0	1.7	2.3
L-93 XD	7.7	4.0	5.8
LUMINARY	6.7	3.3	5.0
NIGHTLIFE	4.3	3.0	3.7
PENN A-1	6.7	3.7	5.2
PENNCROSS	6.0	3.7	4.8
PIRANHA (DC-1)	7.3	3.3	5.3
PURE ECLIPSE (PST-ROPS)	3.7	1.0	2.3
PURE SELECT	4.0	2.0	3.0
SHARK	4.3	2.0	3.2
TOUR PRO (GDE)	7.0	3.7	5.3
V-8	5.7	3.3	4.5
LSD VALUE	1.3	0.9	0.8
C.V. (%)	15.0	18.6	12.6

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.

APPENDIX TABLE. SUMMARY OF TURFGRASS QUALITY RATINGS FOR BENTGRASS CULTIVARS  
 GROWN ON A GREEN  
 2018 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	QUALITY	MAXIMUM
	MEAN 1/	IN TOP 25% 2/
777 (DLFPS-AP/3054)	6.5	23.1
ARMOR	5.9	7.7
BARRACUDA	6.5	23.1
DECLARATION	6.1	7.7
DLFPS-AP/3018	6.7	38.5
DLFPS-AP/3056	6.2	15.4
DLFPS-AP/3058	6.8	61.5
DLFPS-AP/3059	6.4	15.4
KINGDOM	6.4	23.1
L-93 XD	6.5	61.5
LUMINARY	6.4	15.4
NIGHTLIFE	6.4	23.1
PENN A-1	6.0	0.0
PENNCROSS	4.8	0.0
PIRANHA (DC-1)	6.8	69.2
PURE ECLIPSE (PST-ROPS)	6.1	30.8
PURE SELECT	6.3	0.0
SHARK	6.2	0.0
TOUR PRO (GDE)	6.6	53.8
V-8	6.3	15.4
LSD VALUE	0.3	
C.V. (%)	10.5	

\*/ 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.