NATIONAL TURFGRASS EVALUATION PROGRAM

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

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

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

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

CURRENT POLICY COMMITTEE MEMBERS:

Mr. Sean Chaney, DLF North America
Mr. Micah Gould, Barenbrug USA.
Dr. Cole Thompson, USGA Green Section
Dr. Barry Stewart, Mississippi State University
Dr. Chas Schmid, Oregon State University
Dr. Casey Reynolds, Turfgrass Producers International
Mr. Mark Johnson, Golf Course Superintendents Assoc. of America
Dr. Doug Soldat, University of Wisconsin
Mr. Austin Fricker, Pure-Seed Testing, Inc.
Dr. Mike Fidanza, Penn State University, Berks Campus
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2020 National Bentgrass (Fairway/Tee) Test - 2023 data

A Guide to NTEP Turfgrass Ratings

Introduction

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

General Considerations

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

Turfgrass Quality

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

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

Other Ratings

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

2020 NATIONAL BENTGRASS TEST
(Fairway/Tee)

LOCATIONS SUBMITTING DATA FOR 2023

State	Location	Code
Colorado	Fort Collins (Saline Irrigation)	CO1
Indiana	West Lafayette	IN1
Indiana	West Lafayette (Poa Annua Reduction)	IN2
Iowa	Ames	IA1
Massachusetts	Amherst	MA1
Massachusetts	Amherst (Traffic Stress)	MA2
New Jersey	North Brunswick	NJ1
Quebec	Quebec City	QE1
Virginia	Blacksburg	VA1
Wisconsin	Madison	WI1

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

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

*Commercially Available in the US or any Other Country in 2024

TABLE A.   2023 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN
                                THE 2020 NATIONAL BENTGRASS (FAIRWAY/TEE) TEST

LOCATION	SOIL TEXTURE	SOIL PH	SOIL PHOSPHOROUS (LBS/ACRE)	SOIL POTASSIUM (LBS/ACRE)	NITROGEN (LBS/1000 SQ FT)	SUN OR SHADE	MOWING HEIGHT (IN)	IRRIGATION PRACTICED
CO1	SAND	7.1-7.5	-	-	-	FULL SUN	0.6-1.0	TO PREVENT STRESS
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
IN1	SILT LOAM AND SILT	7.1-7.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
IN2	SILT LOAM AND SILT	7.1-7.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
MA1	SILT LOAM AND SILT	5.6-6.0	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MA2	-	-	-	-	-	-	-	-
NJ1	SANDY LOAM	5.6-6.0	271-450	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
QE1	-	-	-	-	-	-	-	-
VA1	SILTY CLAY LOAM	5.6-6.0	61-150	151-240	3.1-4.0	FULL SUN	0.6-1.0	TO PREVENT STRESS
WI1	SILT LOAM AND SILT	7.1-7.5	-	-	3.1-4.0	FULL SUN	-	TO PREVENT DORMANCY

TABLE B.   LOCATIONS AND DATA COLLECTED IN 2023

LOCATION	APRIL QUALITY RATING	MAY QUALITY RATING	JUNE QUALITY RATING	JULY QUALITY RATING	AUGUST QUALITY RATING	SEPTEMBER QUALITY RATING	OCTOBER QUALITY RATING	NOVEMBER QUALITY RATING	GENETIC COLOR	SPRING GREENUP	LEAF TEXTURE
CO1	X	X	X	X	X	X			X	X	X
IA1	X	X	X	X	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			
MA1	X	X	X	X	X	X	X	X			
MA2											
NJ1	X	X	X	X	X	X	X		X	X	X
QE1		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 2023

LOCATION	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	WINTER COLOR	DROUGHT TOLERANCE WILTING	DOLLAR SPOT	BROWN PATCH WARM TEMP.	PINK SNOW MOLD
CO1		X	X	X	X	X	X				
IA1	X	X	X	X	X	X					
IN1		X							X		
IN2									X		
MA1											
MA2											
NJ1			X						X	X	
QE1	X	X	X								X
VA1	X							X	X		
WI1	X	X	X								

TABLE B. (CONT'D)   LOCATIONS AND DATA COLLECTED IN 2023

LOCATION	FALL COLOR OCTOBER	FALL COLOR NOVEMBER	POA ANNUA	MOWING QUALITY	CANOPY SMOOTHNESS	DOLLAR SPOT RATING AUG_8	AUG_14	AUG	SEP	WEAR TOLERANCE MAY	JULY	RATINGS OCTOBER
CO1	X											
IA1												
IN1			X	X	X	X	X					
IN2			X		X	X	X					
MA1										X	X	X
MA2												
NJ1												
QE1		X	X									
VA1								X	X			
WI1		X										

* MORE DATA FOR MA2 IN TABLE 8 AND 9.

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TABLE 1.                          MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON  1/
                                A FAIRWAY OR TEE GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 1  **/
                                                       2023 DATA

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

                    NAME                      # ENTRY     QE1       IA1       WI1      MEAN

                    *PIRANHA                     6        2.9       6.5       6.2       5.2
                    *MATCH PLAY                 10        2.7       6.4       6.2       5.1
                    *007XL                       3        2.8       6.4       6.1       5.1
                    *MUSKET                      8        2.8       6.4       6.1       5.1
                    *SHARK                       9        2.8       6.4       6.0       5.1
                     PST-0R2O                   18        2.8       6.4       6.0       5.0
                     PST-0MRN                   17        2.8       6.3       5.9       5.0
                    *BARRACUDA                   7        2.7       6.3       6.0       5.0
                     DLF-AP-3084                11        2.5       6.3       6.1       5.0
                    *TOURPRO                     5        2.5       6.2       5.9       4.9
                    *S1                          4        2.5       6.2       5.9       4.9
                     PVF-PV-2                   13        2.3       6.1       6.0       4.8
                     PVF-PV-1                   12        2.3       6.1       5.9       4.8
                    *CHINOOK (H10G-OP)           2        2.3       6.1       5.9       4.8
                    *PIPER (PPG-AP-MTV2)        16        2.3       6.1       5.9       4.8
                     PST-R0DS                   19        2.5       6.1       5.7       4.8
                    *SPECTRUM (LNS 19)          14        2.2       6.1       6.0       4.7
                    *OAKLEY (PPG-AP-MTV1)       15        2.2       6.0       5.9       4.7
                    *PENNCROSS                   1        2.4       5.8       5.3       4.5

                    LSD VALUE                             1.1       1.1       1.1       1.1
                    C.V. (%)                             26.5      10.8      11.3      13.7
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*/ COMMERCIALLY AVAILABLE IN THE USA IN 2024 OR ANY OTHER COUNTRY

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

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.

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             TABLE 2.    MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON  1/
                       A FAIRWAY OR TEE GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 2  */
                                            2023 DATA

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

                 NAME                        # ENTRY    IN1      VA1       MEAN

                 DLF-AP-3084                    11       6.4      6.2       6.3
                 MATCH PLAY                     10       6.4      6.1       6.3
                 PIRANHA                         6       6.3      6.1       6.2
                 SPECTRUM (LNS 19)              14       6.3      6.1       6.2
                 007XL                           3       6.3      6.0       6.1
                 PVF-PV-2                       13       6.2      6.0       6.1
                 OAKLEY (PPG-AP-MTV1)           15       6.2      5.9       6.1
                 PVF-PV-1                       12       6.1      5.9       6.0
                 MUSKET                          8       6.2      5.9       6.0
                 PIPER (PPG-AP-MTV2)            16       6.1      5.9       6.0
                 TOURPRO                         5       6.1      5.9       6.0
                 S1                              4       6.1      5.9       6.0
                 CHINOOK (H10G-OP)               2       6.1      5.8       6.0
                 BARRACUDA                       7       6.1      5.8       5.9
                 PST-0R2O                       18       6.1      5.8       5.9
                 SHARK                           9       6.1      5.8       5.9
                 PST-0MRN                       17       5.9      5.6       5.8
                 PST-R0DS                       19       5.7      5.4       5.6
                 PENNCROSS                       1       5.2      4.9       5.1

                 LSD VALUE                               1.1      1.1       1.1
                 C.V. (%)                               11.1     11.5      11.3
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*/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS
    INCLUDED IN THIS LPI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE A LPI GROUP THAT CONTAINS A LOCATION AND
    MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON LPI, GO TO WWW.NTEP.ORG/LPI_Q&A.PDF

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.

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       TABLE 3.       MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON  1/
              A FAIRWAY OR TEE GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 3  */
                                          2023 DATA

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

                     NAME                        # ENTRY      NJ1

                     SPECTRUM (LNS 19)              14         7.6
                     OAKLEY (PPG-AP-MTV1)           15         7.2
                     DLF-AP-3084                    11         7.1
                     PVF-PV-2                       13         6.9
                     PVF-PV-1                       12         6.4
                     PIPER (PPG-AP_MTV2)            16         6.3
                     CHINOOK (H10G-OP)               2         6.1
                     MATCH PLAY                     10         6.1
                     S1                              4         5.6
                     TOURPRO                         5         5.6
                     007XL                           3         5.4
                     PIRANHA                         6         5.2
                     BARRACUDA                       7         4.9
                     MUSKET                          8         4.5
                     PST-0R2O                       18         4.4
                     SHARK                           9         4.2
                     PST-R0DS                       19         3.8
                     PST-0MRN                       17         3.6
                     PENNCROSS                       1         1.6

                     LSD VALUE                                 1.1
                     C.V. (%)                                 12.8
```

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

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.

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TABLE 4.                              MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
                                     GROWN ON A FAIRWAY OR TEE WITH SALINE IRRIGATION AT FORT COLLINS, CO  1/
                                                          2023 DATA

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


                    GENETIC SPRING     LEAF    SUMMER      FALL    PERCENT GROUND COVER   WINTER   COLOR             QUALITY RATINGS
NAME                COLOR   GREENUP TEXTURE DENSITY   DENSITY   SPRING  SUMMER   FALL    COLOR   OCTOBER   APR  MAY  JUN  JUL  AUG  SEP MEAN

PENNCROSS            8.0     1.7     3.3     7.3       6.3      39.3    41.0    83.3     2.3     5.7      1.7  3.3  3.3  5.0  6.7  5.0  4.2
PIPER (PPG-AP-MTV2)  7.0     1.0     4.3     7.0       7.3      44.0    62.0    66.7     2.0     7.0      1.0  3.0  3.0  4.3  5.7  4.7  3.6
PIRANHA              7.3     1.0     3.7     7.3       7.3      39.3    50.3    56.7     2.0     6.7      1.0  3.0  3.7  5.0  5.3  3.7  3.6
PST-0MRN             7.3     1.0     5.0     7.3       7.0      47.7    63.3    44.3     2.0     7.0      1.0  3.3  3.3  5.0  5.0  3.7  3.6
DLF-AP-3084          7.3     1.0     4.0     7.0       6.7      40.7    43.0    60.0     2.3     6.7      1.0  3.3  3.3  4.7  5.3  3.3  3.5
007XL                7.0     1.0     4.0     7.0       6.7      37.3    52.7    63.3     2.0     6.7      1.0  2.7  3.0  4.3  5.0  4.3  3.4
BARRACUDA            7.3     1.0     4.3     7.3       7.7      25.0    51.0    47.7     2.0     6.3      1.0  2.3  3.0  4.7  5.7  4.0  3.4
CHINOOK (H10G-OP)    7.0     1.0     4.0     7.3       7.0      31.0    48.3    54.7     2.0     6.3      1.0  3.0  3.3  4.0  5.7  3.7  3.4
MATCH PLAY           6.7     1.0     4.0     7.3       7.3      33.0    57.7    39.0     2.3     6.3      1.0  2.7  3.0  4.3  5.7  4.0  3.4
PST-0R2O             7.0     1.0     4.7     7.7       7.0      43.7    42.3    66.7     2.7     7.0      1.0  3.0  3.0  4.0  5.0  4.3  3.4
PVF-PV-1             7.0     1.0     4.3     7.3       7.3      36.3    48.7    59.0     2.0     7.0      1.0  3.0  3.0  4.7  5.3  3.7  3.4
S1                   7.3     1.0     3.3     7.3       6.7      30.0    47.3    44.3     2.0     6.7      1.0  3.0  3.3  4.7  5.3  3.3  3.4
OAKLEY (PPG-AP-MTV1) 7.0     1.0     4.0     7.3       7.0      37.7    42.3    57.7     2.0     6.7      1.0  3.0  3.0  4.3  5.3  3.0  3.3
PVF-PV-2             7.3     1.0     4.0     7.0       7.3      27.7    48.0    64.3     2.0     6.7      1.0  2.7  3.0  4.3  5.0  4.0  3.3
SPECTRUM (LNS 19)    7.0     1.0     4.3     7.3       7.0      36.0    47.0    61.7     2.0     6.7      1.0  3.3  3.0  4.3  5.0  3.0  3.3
TOURPRO              7.7     1.0     4.0     7.0       7.0      15.3    40.0    78.0     2.0     7.0      1.0  2.3  2.7  4.3  5.0  4.3  3.3
PST-R0DS             7.0     1.0     4.3     7.0       7.0      17.3    37.7    59.0     2.3     7.0      1.0  2.0  3.0  4.0  5.0  4.0  3.2
SHARK                6.7     1.0     4.0     6.7       7.0      35.7    52.7    53.0     2.0     6.3      1.0  3.0  3.0  4.3  5.0  3.0  3.2
MUSKET               6.0     2.0     3.3     6.7       5.3      24.7    34.0    25.7     3.7     5.0      2.0  2.7  2.7  4.3  4.0  3.0  3.1

LSD VALUE            0.7     1.2     2.4     2.6       1.0      44.0    51.5    47.5     0.7     1.1      1.2  2.4  1.6  1.9  1.9  1.5  0.9
C.V. (%)             5.6    39.1    19.3     9.7       7.3      44.5    33.0    33.3    18.2     8.6     39.1 25.9 15.9 13.6 14.1 18.9  9.9
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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 5.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
                            GROWN ON A FAIRWAY OR TEE UNDER TRAFFIC STRESS AT AMHERST, MA   1/
                                                    2023 DATA

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

| | WEAR TOLERANCE | | | QUALITY RATINGS | | | | | | | | |
NAME	MAY	JULY	OCTOBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	MEAN
007XL	5.3	5.3	6.0	6.7	7.0	6.0	6.7	7.0	6.7	7.0	6.0	6.6
MUSKET	2.7	2.7	3.3	7.7	8.0	7.3	7.0	5.3	7.0	6.3	4.3	6.6
TOURPRO	5.0	5.0	5.0	6.7	7.0	6.7	6.7	6.7	6.7	6.0	5.0	6.4
MATCH PLAY	5.3	5.3	5.7	6.7	6.3	6.3	6.0	6.3	6.0	6.7	5.7	6.3
PIRANHA	5.7	6.0	5.7	6.0	6.3	6.7	6.7	6.0	6.3	6.0	6.0	6.3
PVF-PV-1	4.7	5.0	6.0	6.7	6.7	6.0	6.0	6.3	7.3	6.3	5.3	6.3
PIPER (PPG-AP-MTV2)	6.3	6.0	6.3	6.3	6.3	5.7	6.0	6.3	6.7	6.7	5.3	6.2
PST-R0DS	4.3	5.0	5.0	6.3	6.7	5.7	5.7	6.0	6.7	7.0	5.3	6.2
SPECTRUM (LNS 19)	4.7	5.7	6.0	6.3	6.3	5.3	5.7	6.7	7.3	6.3	5.3	6.2
CHINOOK (H10G-OP)	5.0	5.0	5.3	6.0	6.3	6.3	5.7	6.3	5.7	6.3	5.3	6.0
S1	5.0	5.0	4.3	6.7	6.3	5.7	5.7	6.3	5.7	6.0	5.3	6.0
OAKLEY (PPG-AP-MTV1)	6.0	6.0	6.3	5.7	6.0	6.0	5.3	6.0	6.3	7.0	5.0	5.9
PST-0MRN	5.0	4.3	6.0	6.3	6.0	5.7	5.3	6.3	6.7	6.0	5.0	5.9
DLF-AP-3084	4.3	4.3	4.7	6.3	6.0	5.0	5.7	6.3	5.7	6.3	5.0	5.8
PST-0R2O	5.7	6.0	6.3	5.0	5.7	5.3	5.0	7.0	6.7	6.3	5.7	5.8
PVF-PV-2	6.0	5.3	5.3	5.3	6.3	5.3	5.3	6.3	6.3	6.3	5.3	5.8
SHARK	6.3	6.7	5.3	6.0	6.0	5.3	5.3	6.0	6.3	5.7	5.3	5.8
BARRACUDA	4.3	4.7	5.3	6.3	6.0	5.3	5.3	5.3	6.3	6.0	4.7	5.7
PENNCROSS	3.0	3.0	3.0	5.3	5.7	5.0	4.7	4.3	4.0	4.0	3.0	4.5
LSD VALUE	1.0	0.9	1.0	0.9	0.9	0.8	0.7	0.8	0.9	0.6	0.7	0.3
C.V. (%)	12.3	11.7	11.7	8.3	7.7	8.3	7.0	7.9	8.3	6.6	8.4	2.8

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 FAIRWAY OR TEE WITHOUT POA ANNUA SUPPRESSION AT WEST LAFAYETTE, IN   1/
2023 DATA

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

NAME	POA ANNUA	CANOPY SMOOTHNESS	DOLLAR SPOT 8/8	8/14	QUALITY RATINGS APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	MEAN
MATCH PLAY	9.0	8.0	8.3	7.0	7.0	8.0	7.7	8.0	5.7	7.7	7.0	7.3	7.3
OAKLEY (PPG-AP-MTV1)	8.7	6.3	9.0	8.0	6.7	7.3	7.3	7.7	6.7	7.0	7.0	7.0	7.1
PVF-PV-2	9.0	7.0	8.7	8.3	6.3	7.3	7.3	7.3	7.3	7.3	6.7	6.7	7.0
DLF-AP-3084	9.0	7.0	8.7	7.7	6.0	7.0	7.0	7.3	6.7	7.3	6.3	7.3	6.9
PST-0MRN	8.3	5.0	7.3	5.7	6.3	7.7	7.7	7.3	4.7	7.0	7.0	7.3	6.9
CHINOOK (H10G-OP)	9.0	7.0	8.0	7.0	6.0	7.0	7.3	7.0	5.7	7.7	6.7	7.0	6.8
PIRANHA	9.0	6.7	8.0	6.3	5.7	7.7	7.3	7.7	5.0	7.0	7.3	7.0	6.8
PST-R0DS	8.0	6.3	8.7	7.0	5.3	6.3	7.7	7.0	6.0	7.3	7.0	7.3	6.8
PST-0R2O	8.3	5.7	8.0	6.0	5.3	6.3	7.0	7.3	5.3	7.0	7.7	7.3	6.7
PVF-PV-1	8.7	6.3	9.0	8.3	5.7	6.7	6.7	7.3	6.7	6.7	7.0	7.0	6.7
PIPER (PPG-AP-MTV2)	8.7	5.7	8.7	8.0	6.0	7.0	6.7	7.0	6.0	6.7	6.7	7.0	6.6
S1	8.7	6.7	9.0	7.0	6.0	6.7	7.0	7.0	5.7	7.3	6.3	6.7	6.6
007XL	8.7	5.3	8.7	8.0	6.0	6.3	7.0	6.7	6.3	6.3	6.7	6.3	6.5
SHARK	9.0	5.3	7.3	4.7	6.0	6.7	7.3	7.7	4.3	7.0	6.7	6.3	6.5
SPECTRUM (LNS 19)	8.7	5.3	9.0	8.3	5.3	7.0	6.7	7.0	7.3	6.7	6.3	6.0	6.5
TOURPRO	8.7	7.0	8.3	7.3	6.0	6.3	6.7	7.3	6.0	6.7	6.3	6.7	6.5
BARRACUDA	8.7	7.0	8.3	6.0	5.7	6.0	7.0	7.0	5.0	7.0	6.7	6.0	6.3
MUSKET	6.3	9.0	8.3	7.0	4.3	5.3	6.0	6.0	5.7	6.0	6.0	5.0	5.5
PENNCROSS	6.0	9.0	6.7	4.7	4.3	5.0	6.0	5.7	4.3	6.0	6.0	5.0	5.3
LSD VALUE	1.0	3.2	2.2	2.1	2.0	2.5	2.8	2.5	1.8	2.2	1.5	1.0	1.2
C.V. (%)	7.3	21.9	10.7	16.2	15.1	15.7	12.8	12.7	16.4	11.2	9.1	9.0	8.8

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 FAIRWAY OR TEE EVALUATION PINK SNOW MOLD FOR DISEASE STUDY
AT QUEBEC CITY (CANADA) 1/
2023 DATA

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

NAME	GENETIC COLOR	SPRING GREENUP	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PINK SNOW MOLD	COLOR NOVEMBER	POA ANNUA	QUALITY RATINGS						
									MAY	JUN	JUL	AUG	SEP	OCT	MEAN
MUSKET	4.0	6.0	5.0	6.3	2.0	6.7	2.3	1.0	4.3	5.0	5.7	4.3	4.0	4.0	4.6
007XL	5.0	3.0	2.3	5.0	2.3	6.7	1.0	1.7	2.0	3.3	6.0	3.7	2.3	4.3	3.6
DLF-AP-3084	5.7	2.7	2.0	4.0	3.0	6.7	1.3	1.0	2.0	2.7	5.0	2.3	2.7	2.3	2.8
PENNCROSS	6.0	3.0	2.3	3.7	2.0	7.7	1.0	1.7	2.0	3.3	5.3	2.3	1.3	2.7	2.8
PIRANHA	5.0	2.7	1.7	4.3	2.7	7.0	1.7	1.0	1.7	2.7	6.0	2.0	2.0	2.7	2.8
SPECTRUM (LNS 19)	5.7	2.7	2.3	6.0	2.0	7.3	1.0	1.3	2.3	3.0	4.3	2.0	2.3	2.7	2.8
MATCH PLAY	3.3	2.3	2.0	2.7	2.7	7.3	1.0	1.7	2.0	2.3	4.3	2.7	2.3	2.7	2.7
PIPER (PPG-AP-MTV2)	5.0	2.7	2.0	4.7	3.7	6.0	1.3	1.3	1.7	2.7	5.0	2.0	2.7	2.0	2.7
SHARK	4.0	2.3	2.0	3.3	1.3	7.7	1.0	1.7	1.7	2.0	4.0	2.7	2.0	3.0	2.6
BARRACUDA	4.7	2.3	1.3	3.7	2.7	7.3	1.7	1.7	1.3	1.7	3.7	2.3	3.3	2.0	2.4
PST-0MRN	4.7	2.7	1.3	3.7	3.0	7.0	1.0	1.7	1.3	2.7	3.3	2.0	2.7	2.7	2.3
PST-0R2O	5.0	2.7	2.0	4.0	1.7	6.3	1.7	1.3	2.0	2.7	3.7	2.0	2.0	1.7	2.3
CHINOOK (H10G-OP)	4.3	2.7	2.3	3.3	1.7	7.7	1.3	1.7	2.0	2.7	3.7	1.7	2.0	1.3	2.2
PVF-PV-1	3.3	3.0	2.3	3.7	2.7	7.0	1.0	1.7	1.7	2.0	2.7	2.7	2.3	2.0	2.2
S1	2.3	2.7	2.0	2.0	3.0	7.0	1.0	1.3	2.0	2.3	2.7	1.3	3.0	1.7	2.2
TOURPRO	4.0	2.0	1.3	3.3	1.7	7.7	2.0	1.3	1.3	2.0	3.3	2.3	2.3	2.0	2.2
OAKLEY (PPG-AP-MTV1)	4.3	2.3	1.3	3.3	2.3	8.0	1.0	1.3	1.3	2.0	3.0	1.0	2.0	1.0	1.7
PST-R0DS	2.7	2.3	1.7	2.3	2.0	7.7	2.0	1.0	1.3	2.3	2.0	2.0	1.3	1.0	1.7
PVF-PV-2	3.0	2.0	1.3	3.0	3.0	8.0	1.3	1.0	1.3	1.7	2.3	1.0	3.0	1.0	1.7
LSD VALUE	5.9	0.9	1.7	6.0	5.1	2.9	1.6	1.5	1.3	2.1	4.9	3.5	6.0	3.5	2.9
C.V. (%)	44.1	19.6	42.5	52.2	61.1	13.6	46.6	36.5	36.9	36.8	46.5	57.3	69.1	61.5	42.1

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 8.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
                       GROWN ON A FAIRWAY OR TEE FOR WATER USE/DROUGHT TOLERANCE AT AMHERST, MA 1/
                                                    2023 DATA

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

| | TOTAL WATER | DAYS TO | PRE-DROUGHT | DROUGHT QUALITY RATINGS | | | | | |
NAME	APPLIED	REWATERING	6/13	7/11	7/24	7/31	8/2	MEAN
MUSKET	17	16	8.0	6.7	7.7	8.0	7.3	7.5
007XL	17	16	7.7	7.3	7.0	6.7	6.3	7.0
DLF-AP-3084	17	16	7.3	7.3	7.0	7.0	5.7	6.9
MATCH PLAY	17	16	7.3	7.0	7.3	7.0	6.0	6.9
OAKLEY (PPG-AP-MTV1)	17	16	8.0	6.7	7.0	6.7	6.0	6.9
PIPER (PPG-AP-MTV2)	17	16	7.7	7.3	7.7	6.7	5.3	6.9
PST-0MRN	17	16	7.3	8.0	7.0	6.7	5.7	6.9
PST-0R2O	17	16	7.7	7.3	7.0	7.0	5.7	6.9
TOURPRO	17	16	7.3	7.0	7.0	7.0	6.3	6.9
SHARK	17	16	7.0	7.3	7.0	6.7	5.7	6.7
CHINOOK (H10G-OP)	17	16	7.7	7.7	6.7	6.0	5.0	6.6
PENNCROSS	17	16	6.0	7.3	6.3	7.0	6.3	6.6
PVF-PV-1	17	16	7.7	7.3	6.7	6.3	5.0	6.6
PVF-PV-2	17	16	7.3	7.3	6.3	6.3	5.7	6.6
SPECTRUM (LNS 19)	17	16	7.7	7.7	6.7	6.3	4.7	6.6
BARRACUDA	17	16	7.0	7.3	6.0	6.0	5.3	6.3
S1	17	16	6.7	8.0	6.0	6.0	5.0	6.3
PIRANHA	17	16	7.3	6.7	5.7	5.7	5.3	6.1
PST-R0DS	17	16	7.3	7.0	5.7	5.3	4.7	6.0
LSD VALUE	0	0	1.0	1.3	2.6	3.1	3.4	1.7
C.V. (%)	0	0	6.8	7.5	14.1	16.1	20.5	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.

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

NAME	PRE-DROUGHT PERCENT COVER			PERCENT GREEN COVER RATINGS-DROUGHT PERIOD					
	6/13	6/29	7/7	7/11	7/21	7/25	7/31	8/2
MUSKET	92.3	97.7	94.3	84.0	94.0	88.3	82.7	73.0
007XL	97.0	97.0	97.0	93.3	95.0	92.0	80.0	65.7
DLF-AP-3084	86.0	97.3	93.7	89.7	92.7	90.7	79.7	66.0
MATCH PLAY	91.0	96.7	96.7	90.7	91.3	85.7	82.3	63.3
OAKLEY (PPG-AP-MTV1)	94.0	96.0	96.7	86.3	93.3	90.3	73.3	57.7
PIPER (PPG-AP-MTV2)	94.0	94.7	97.7	91.0	93.0	90.0	82.3	66.0
PST-0MRN	96.0	97.7	98.0	94.3	92.0	86.3	78.7	71.3
PST-0R2O	95.0	97.0	97.3	91.7	92.7	89.7	81.0	61.0
TOURPRO	93.3	96.0	95.0	86.0	89.7	82.7	75.7	66.7
SHARK	92.0	97.3	97.0	91.0	91.3	86.3	78.7	71.0
CHINOOK (H10G-OP)	91.3	98.7	93.0	86.0	89.0	80.7	74.0	59.0
PENNCROSS	93.0	97.3	93.7	89.3	94.3	90.3	85.3	78.7
PVF-PV-1	96.0	97.7	95.7	87.0	88.3	84.0	75.3	58.3
PVF-PV-2	93.0	97.3	96.3	87.7	89.3	85.7	69.7	55.0
SPECTRUM (LNS 19)	90.7	96.3	95.7	91.3	93.3	87.3	69.7	51.0
BARRACUDA	86.0	95.7	90.0	82.0	88.3	81.7	72.3	57.3
S1	86.7	95.3	93.0	83.0	88.0	72.3	64.7	52.0
PIRANHA	93.0	96.0	93.7	79.0	86.0	69.0	69.0	54.0
PST-R0DS	94.7	96.7	94.3	82.0	72.7	65.7	57.0	39.0
LSD VALUE	6.0	7.3	6.7	20.6	10.0	20.2	22.2	52.5
C.V. (%)	3.5	2.2	3.0	8.2	5.7	11.0	12.6	27.9

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 9.

TABLE 9.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
                            GROWN ON A FAIRWAY OR TEE FOR WATER USE/DROUGHT TOLERANCE AT AMHERST, MA   1/
                                                        2022 DATA

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

		DAYS												
	TOTAL WATER	UNTIL				QUALITY RATINGS DURING DROUGHT PERIOD								
NAME	APPLIED	REWATER	7/7	7/22	7/29	7/30	7/30	7/31	8/1	8/2	8/3	8/17	9/1	MEAN
MUSKET	17	13.3	7.0	8.3	8.0	8.0	7.7	7.7	7.7	7.3	6.3	7.7	7.3	7.5
007XL	17	12.7	7.3	8.0	7.7	7.0	7.0	7.0	6.3	5.7	7.0	8.0	7.3	7.1
PVF-PV-1	17	11.7	7.3	7.7	7.0	7.0	7.0	6.7	6.7	6.3	5.5	8.0	7.7	7.0
OAKLEY (PPG-AP-MTV1)	17	13.3	7.0	8.0	7.3	7.0	7.0	7.0	6.3	6.3	4.0	7.7	7.3	6.9
PST-0R2O	17	12.7	7.0	7.7	7.0	7.0	7.0	7.0	6.7	6.7	4.7	8.0	7.3	6.9
PIPER (PPG-AP-MTV2)	17	12.7	6.7	8.0	7.3	6.7	6.7	6.3	5.7	5.7	5.0	8.0	7.7	6.8
PVF-PV-2	17	12.0	6.3	8.0	7.3	7.0	7.0	7.0	6.0	5.0	.	7.7	6.7	6.8
SPECTRUM (LNS 19)	17	13.3	6.7	7.7	7.0	7.0	7.0	6.7	6.3	6.3	5.0	7.7	6.3	6.7
DLF-AP-3084	17	12.0	6.0	7.7	7.0	6.3	6.3	6.0	5.0	4.7	.	7.7	7.0	6.4
TOURPRO	17	11.0	6.0	7.7	6.3	6.0	6.0	6.0	5.7	5.7	5.0	8.0	7.0	6.4
PST-0MRN	17	11.0	6.7	7.7	6.0	5.7	5.7	6.0	5.7	5.3	5.0	7.7	6.7	6.2
PST-R0DS	17	11.0	6.0	7.7	6.3	6.0	6.0	5.7	6.0	5.0	.	7.7	6.0	6.2
BARRACUDA	17	11.7	6.3	7.0	6.3	6.0	6.0	5.7	5.7	5.3	4.0	7.3	6.0	6.1
SHARK	17	11.0	6.0	7.7	6.7	6.0	6.0	5.3	5.0	4.7	.	7.3	6.7	6.1
CHINOOK (H10G-OP)	17	11.0	6.0	7.3	6.3	5.7	5.7	5.3	5.0	4.7	.	7.3	6.7	6.0
S1	17	11.3	6.0	7.0	7.0	6.3	6.3	6.3	5.0	4.3	.	7.0	4.7	6.0
PIRANHA	17	10.0	5.3	7.3	6.3	6.0	6.0	5.7	5.3	5.0	5.0	7.0	6.0	5.9
MATCH PLAY	17	10.0	6.0	7.0	5.7	5.0	5.0	5.0	4.7	4.0	.	7.3	5.7	5.5
PENNCROSS	17	8.7	4.7	5.7	4.7	4.3	4.3	4.7	4.7	3.7	.	5.3	4.0	4.6
LSD VALUE	0	5.1	2.9	1.2	2.3	2.7	2.8	2.9	2.4	2.4	3.0	1.0	2.8	1.6
C.V. (%)	0	16.6	16.7	8.4	15.0	18.0	18.2	18.7	17.9	21.1	16.6	7.4	19.1	12.0

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

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

TABLE 9.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A FAIRWAY OR TEE FOR WATER USE/DROUGHT TOLERANCE AT AMHERST, MA   1/
2022 DATA

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

NAME	PRE-DROUGHT 6/13	6/28	7/7	7/12	7/19	7/29	7/31	8/1	8/2	8/3	8/9	8/17	8/22	8/25
					PERCENT GREEN COVER RATINGS-DROUGHT PERIOD									
MUSKET	92.3	99.0	81.5	80.7	92.7	99.0	98.7	99.0	99.0	97.3	97.7	99.0	99.0	99.0
007XL	97.0	98.7	93.7	94.3	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
PVF-PV-1	96.0	98.0	73.7	91.3	97.0	99.0	98.7	97.3	98.3	99.0	97.3	99.0	99.0	99.0
OAKLEY (PPG-AP-MTV1)	94.0	98.7	88.3	88.3	97.3	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
PST-0R2O	95.0	98.7	92.0	92.7	97.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
PIPER (PPG-AP-MTV2)	94.0	99.0	89.3	92.7	97.7	99.0	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0
PVF-PV-2	93.0	93.3	92.0	92.0	97.3	99.0	99.0	99.0	99.0	.	99.0	93.0	99.0	99.0
SPECTRUM (LNS 19)	90.7	99.0	93.5	92.7	98.3	99.0	97.3	99.0	92.0	99.0	99.0	99.0	99.0	99.0
DLF-AP-3084	86.0	97.7	88.3	84.7	94.0	99.0	99.0	99.0	99.0	.	99.0	99.0	99.0	99.0
TOURPRO	93.3	96.0	85.0	86.3	96.3	99.0	98.0	98.3	98.7	99.0	99.0	99.0	99.0	99.0
PST-0MRN	96.0	98.0	85.7	89.0	98.0	99.0	98.0	98.3	98.7	99.0	99.0	99.0	99.0	99.0
PST-R0DS	94.7	96.3	88.7	82.3	94.3	97.0	96.3	95.7	94.7	.	96.7	98.7	99.0	96.7
BARRACUDA	86.0	98.0	90.7	88.0	95.0	98.7	98.7	99.0	98.7	96.0	99.0	99.0	99.0	99.0
SHARK	92.0	98.7	85.7	86.7	96.7	99.0	99.0	99.0	99.0	.	99.0	99.0	99.0	99.0
CHINOOK (H10G-OP)	91.3	95.7	81.3	86.7	95.0	99.0	97.0	99.0	98.7	.	99.0	99.0	99.0	99.0
S1	86.7	98.0	85.0	85.0	95.3	94.7	93.0	93.7	90.3	.	97.0	93.7	99.0	85.7
PIRANHA	93.0	94.3	81.7	87.0	92.7	86.7	87.3	85.3	83.7	99.0	96.3	76.7	99.0	83.0
MATCH PLAY	91.0	90.0	81.0	84.0	93.0	96.3	89.3	90.3	88.0	.	95.7	98.3	98.0	99.0
PENNCROSS	93.0	92.7	62.0	60.3	81.7	89.3	80.3	87.0	87.0	.	93.3	69.7	99.0	95.3
LSD VALUE	6.0	15.6	27.1	10.1	4.6	17.8	17.2	21.4	30.6	5.2	9.4	43.2	1.4	25.9
C.V. (%)	3.5	5.1	12.6	6.9	2.9	6.2	7.4	7.6	10.0	1.5	3.1	15.1	0.4	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.

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TABLE 10.                            GENETIC COLOR RATINGS OF BENTGRASS CULTIVARS  1/
                                             GROWN ON A FAIRWAY OR TEE
                                                     2023 DATA

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

                    NAME                    IA1     NJ1     VA1     WI1     MEAN

                    PST-R0DS                6.7     5.7     7.0     7.0     6.6
                    PST-0MRN                7.3     5.0     7.3     6.7     6.6
                    SPECTRUM (LNS 19)       3.3     9.0     7.0     6.3     6.4
                    PIRANHA                 5.3     6.3     7.0     6.7     6.3
                    CHINOOK (H10G-OP)       4.3     6.3     7.3     7.0     6.3
                    PST-0R2O                5.7     5.0     7.3     7.0     6.3
                    TOURPRO                 4.3     7.7     6.7     6.3     6.3
                    PVF-PV-2                4.3     8.0     6.3     6.0     6.2
                    PIPER (PPG-AP-MTV2)     3.3     7.7     6.7     6.7     6.1
                    DLF-AP-3084             4.3     7.3     6.3     6.3     6.1
                    SHARK                   4.3     6.7     7.0     6.3     6.1
                    007XL                   3.7     6.7     6.3     6.7     5.8
                    BARRACUDA               4.3     5.3     7.0     6.7     5.8
                    MATCH PLAY              3.3     6.0     7.0     6.7     5.8
                    S1                      3.7     6.3     7.0     6.0     5.8
                    OAKLEY (PPG-AP-MTV1)    4.0     6.3     6.3     6.0     5.7
                    PVF-PV-1                3.7     6.3     6.3     6.3     5.7
                    PENNCROSS               7.0     2.7     6.0     5.3     5.3
                    MUSKET                  1.7     1.3     4.0     5.0     3.0

                    LSD VALUE               1.6     1.4     0.9     0.7     0.6
                    C.V. (%)               22.2    14.4     8.7     7.2    12.9
```

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.

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TABLE 11.                        SPRING GREENUP RATINGS OF BENTGRASS CULTIVARS  1/
                                       GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

                    NAME                    IA1     NJ1     WI1     MEAN

                    007XL                   3.0     7.0     4.3     4.8
                    CHINOOK (H10G-OP)       4.3     5.7     4.3     4.8
                    PVF-PV-2                3.3     6.7     4.0     4.7
                    TOURPRO                 3.0     5.7     5.3     4.7
                    S1                      3.3     4.7     5.7     4.6
                    OAKLEY (PPG-AP-MTV1)    3.7     5.7     4.0     4.4
                    MATCH PLAY              3.3     5.3     4.7     4.4
                    SPECTRUM (LNS 19)       1.0     8.0     4.0     4.3
                    DLF-AP-3084             2.3     5.7     4.7     4.2
                    MUSKET                  4.7     2.0     6.0     4.2
                    PENNCROSS               5.7     1.0     6.0     4.2
                    PIPER (PPG-AP-MTV2)     1.7     7.3     3.7     4.2
                    PIRANHA                 3.7     4.3     4.7     4.2
                    BARRACUDA               4.0     3.3     5.0     4.1
                    PVF-PV-1                2.7     6.3     3.3     4.1
                    PST-0R2O                4.0     3.0     5.3     4.1
                    PST-R0DS                6.3     1.7     4.3     4.1
                    PST-0MRN                4.7     2.3     5.0     4.0
                    SHARK                   3.7     3.3     5.0     4.0

                    LSD VALUE               3.9     1.5     1.5     1.5
                    C.V. (%)               67.7    20.0    19.9    37.0
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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 12.   LEAF TEXTURE RATINGS OF BENTGRASS CULTIVARS 1/
                                          GROWN ON A FAIRWAY OR TEE
                                                 2023 DATA

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

NAME	IN1	NJ1	MEAN
SPECTRUM (LNS 19)	7.3	8.3	7.8
DLF-AP-3084	7.0	8.0	7.5
007XL	8.0	6.7	7.3
MATCH PLAY	7.7	7.0	7.3
PIPER (PPG-AP-MTV2)	7.0	7.3	7.2
PST-0MRN	8.0	6.3	7.2
OAKLEY (PPG-AP-MTV1)	6.3	7.7	7.0
PVF-PV-1	7.0	7.0	7.0
PVF-PV-2	7.3	6.7	7.0
TOURPRO	7.3	6.7	7.0
PST-0R2O	7.3	6.3	6.8
CHINOOK (H10G-OP)	7.3	6.0	6.7
PST-R0DS	7.3	5.7	6.5
BARRACUDA	7.0	5.7	6.3
MUSKET	5.7	7.0	6.3
PIRANHA	6.7	5.7	6.2
S1	7.0	4.7	5.8
SHARK	6.7	5.0	5.8
PENNCROSS	4.3	1.3	2.8
LSD VALUE	1.1	1.6	1.0
C.V. (%)	9.9	15.7	12.8

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.   SPRING DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
                                       GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

NAME	IA1	VA1	WI1	MEAN
MUSKET	8.7	9.0	5.3	7.7
MATCH PLAY	9.0	7.7	5.3	7.3
S1	8.7	7.3	6.0	7.3
TOURPRO	8.7	7.3	6.0	7.3
PIRANHA	8.3	7.7	5.7	7.2
PST-0R2O	8.3	7.0	6.3	7.2
CHINOOK (H10G-OP)	9.0	7.3	5.3	7.2
OAKLEY (PPG-AP-MTV1)	8.7	7.7	5.3	7.2
BARRACUDA	8.3	7.0	6.0	7.1
PVF-PV-1	8.7	7.7	5.0	7.1
PVF-PV-2	9.0	7.0	5.3	7.1
SPECTRUM (LNS 19)	9.0	7.0	5.3	7.1
SHARK	8.3	7.0	5.7	7.0
007XL	9.0	7.0	4.7	6.9
DLF-AP-3084	8.3	6.7	5.7	6.9
PIPER (PPG-AP-MTV2)	9.0	7.3	4.3	6.9
PST-0MRN	8.3	6.3	5.3	6.7
PST-R0DS	8.0	6.3	5.7	6.7
PENNCROSS	6.0	4.0	4.0	4.7
LSD VALUE	1.4	1.0	1.3	0.7
C.V. (%)	10.0	9.0	14.5	10.9

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.

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TABLE 14.                        SUMMER DENSITY RATINGS OF BENTGRASS CULTIVARS  1/
                                        GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

                    NAME                 IA1    IN1    WI1    MEAN

                    PST-0MRN             9.0    8.3    7.7    8.3
                    PST-0R2O             9.0    8.0    8.0    8.3
                    OAKLEY (PPG-AP-MTV1) 9.0    8.3    7.3    8.2
                    PST-R0DS             9.0    8.3    7.3    8.2
                    007XL               9.0    8.7    7.0    8.2
                    SPECTRUM (LNS 19)    9.0    8.0    7.3    8.1
                    PIPER (PPG-AP-MTV2)  9.0    8.0    7.0    8.0
                    PVF-PV-1             9.0    7.3    7.7    8.0
                    CHINOOK (H10G-OP)    9.0    7.3    7.3    7.9
                    PVF-PV-2             9.0    7.3    7.3    7.9
                    MATCH PLAY           9.0    7.7    6.7    7.8
                    BARRACUDA            9.0    7.3    7.0    7.8
                    DLF-AP-3084          9.0    7.0    7.0    7.7
                    SHARK               9.0    7.0    7.0    7.7
                    TOURPRO             9.0    7.0    7.0    7.7
                    PIRANHA             8.7    6.7    7.3    7.6
                    S1                  8.7    7.0    7.0    7.6
                    MUSKET              9.0    5.7    7.3    7.3
                    PENNCROSS           8.3    4.0    5.0    5.8

                    LSD VALUE           0.4    1.1    1.1    0.6
                    C.V. (%)            2.6    9.7    9.8    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 15.   FALL DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
                                        GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

NAME	IA1	NJ1	WI1	MEAN
SPECTRUM (LNS 19)	9	8.7	7.3	8.3
PIPER (PPG-AP-MTV2)	9	8.0	7.7	8.2
PVF-PV-1	9	7.3	7.7	8.0
DLF-AP-3084	9	7.7	7.0	7.9
OAKLEY (PPG-AP-MTV1)	9	7.3	7.3	7.9
PVF-PV-2	9	7.0	7.3	7.8
007XL	9	6.7	7.3	7.7
MATCH PLAY	9	6.7	7.3	7.7
PST-0MRN	9	6.0	7.7	7.6
TOURPRO	9	6.7	7.0	7.6
MUSKET	9	6.7	6.7	7.4
CHINOOK (H10G-OP)	9	6.3	7.0	7.4
PIRANHA	9	5.3	7.0	7.1
PST-0R2O	9	5.0	7.3	7.1
PST-R0DS	9	5.3	7.0	7.1
BARRACUDA	9	4.7	7.0	6.9
S1	9	4.7	7.0	6.9
SHARK	9	4.7	7.0	6.9
PENNCROSS	9	1.0	5.3	5.1
LSD VALUE	0	1.4	0.8	0.5
C.V. (%)	0	14.4	7.0	7.9

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.

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TABLE 16.              PERCENT LIVING GROUND COVER (SPRING) RATINGS OF BENTGRASS CULTIVARS  1/
                                   GROWN ON A FAIRWAY OR TEE
                                          2023 DATA

                    PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS   2/


                              NAME                     IA1

                              PIPER (PPG-AP-MTV2)      96.7
                              SPECTRUM (LNS 19)        96.7
                              DLF-AP-3084              96.0
                              TOURPRO                  95.0
                              OAKLEY (PPG-AP-MTV1)     94.7
                              PVF-PV-1                 94.7
                              007XL                    94.3
                              MATCH PLAY               94.0
                              S1                       94.0
                              PVF-PV-2                 93.7
                              PIRANHA                  93.3
                              CHINOOK (H10G-OP)        92.0
                              BARRACUDA                91.7
                              PST-0R2O                 91.0
                              PST-0MRN                 89.3
                              SHARK                    88.7
                              PST-R0DS                 84.0
                              MUSKET                   81.3
                              PENNCROSS                78.0


                              LSD VALUE                14.5
                              C.V. (%)                  9.9
```

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 17.   PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF BENTGRASS CULTIVARS 1/
                              GROWN ON A FAIRWAY OR TEE
                                     2023 DATA

                    PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS   2/

NAME	IA1
007XL	99
BARRACUDA	99
CHINOOK (H10G-OP)	99
DLF-AP-3084	99
MATCH PLAY	99
MUSKET	99
OAKLEY (PPG-AP-MTV1)	99
PENNCROSS	99
PIPER (PPG-AP-MTV2)	99
PIRANHA	99
PST-0MRN	99
PST-0R2O	99
PST-R0DS	99
PVF-PV-1	99
PVF-PV-2	99
S1	99
SHARK	99
SPECTRUM (LNS 19)	99
TOURPRO	99
LSD VALUE	0
C.V. (%)	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.

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TABLE 18.               PERCENT LIVING GROUND COVER (FALL) RATINGS OF BENTGRASS CULTIVARS  1/
                                GROWN ON A FAIRWAY OR TEE
                                        2023 DATA

                    PERCENT LIVING GROUND COVER IN FALL: LOCATIONS    2/

                            NAME                    IA1

                            PIPER (PPG-AP-MTV2)     98.7
                            PVF-PV-2                98.3
                            S1                      98.3
                            PVF-PV-1                97.3
                            SPECTRUM (LNS 19)       96.7
                            007XL                   96.3
                            MATCH PLAY              96.3
                            CHINOOK (H10G-OP)       96.0
                            BARRACUDA               95.3
                            PST-0MRN                94.0
                            OAKLEY (PPG-AP-MTV1)    93.0
                            TOURPRO                 92.3
                            PIRANHA                 91.3
                            DLF-AP-3084             89.7
                            PST-R0DS                89.7
                            MUSKET                  89.0
                            PST-0R2O                87.7
                            PENNCROSS               83.0
                            SHARK                   82.0

                            LSD VALUE               12.9
                            C.V. (%)                 8.6
```

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.

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TABLE 19.               DROUGHT TOLERANCE (WILTING) RATINGS OF BENTGRASS CULTIVARS  1/
                                    GROWN ON A FAIRWAY OR TEE
                                          2023 DATA

                        DROUGHT TOLERANCE (WILTING) RATINGS 1-9; 9=NO WILTING   2/


                                    NAME                   VA1

                                    PENNCROSS              6.7
                                    PST-0R2O               6.3
                                    PST-R0DS               6.0
                                    SHARK                  6.0
                                    BARRACUDA              5.7
                                    PST-0MRN               5.7
                                    SPECTRUM (LNS 19)      5.7
                                    007XL                  5.3
                                    PVF-PV-2               5.3
                                    S1                     5.3
                                    DLF-AP-3084            5.0
                                    MATCH PLAY             5.0
                                    PVF-PV-1               5.0
                                    CHINOOK (H10G-OP)      4.7
                                    MUSKET                 4.7
                                    OAKLEY (PPG-AP-MTV1)   4.7
                                    PIRANHA                4.7
                                    TOURPRO                4.7
                                    PIPER (PPG-AP-MTV2)    4.3

                                    LSD VALUE              1.5
                                    C.V. (%)               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 20.   DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS 1/
                                        GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

NAME	IN1	NJ1	VA1	MEAN
MUSKET	8.3	8.0	8.0	8.1
SPECTRUM (LNS 19)	9.0	7.0	6.7	7.6
PVF-PV-2	9.0	5.3	7.7	7.3
DLF-AP-3084	8.0	6.0	7.0	7.0
PVF-PV-1	9.0	5.0	7.0	7.0
S1	8.3	5.3	7.3	7.0
MATCH PLAY	8.3	4.7	7.3	6.8
007XL	8.3	5.7	6.0	6.7
PIPER (PPG-AP-MTV2)	8.7	4.0	7.3	6.7
BARRACUDA	7.7	5.0	7.0	6.6
OAKLEY (PPG-AP-MTV1)	8.3	5.0	6.3	6.6
PIRANHA	8.0	4.7	7.0	6.6
CHINOOK (H10G-OP)	7.3	5.0	7.0	6.4
TOURPRO	7.3	5.7	6.3	6.4
PST-R0DS	8.3	3.7	5.0	5.7
SHARK	6.0	3.3	6.0	5.1
PENNCROSS	6.0	4.0	4.3	4.8
PST-0R2O	7.3	3.0	4.0	4.8
PST-0MRN	6.3	3.3	4.3	4.7
LSD VALUE	1.5	1.6	1.2	0.8
C.V. (%)	12.0	19.7	11.3	13.9

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 21.   BROWN PATCH (WARM TEMPERATURE) RATINGS OF BENTGRASS CULTIVARS 1/
                                    GROWN ON A FAIRWAY OR TEE
                                            2023 DATA

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

                        NAME   NJ1

                        DLF-AP-3084   8.3
                        PIPER (PPG-AP-MTV2)   8.3
                        PST-0MRN   8.3
                        SPECTRUM (LNS 19)   8.3
                        007XL   8.0
                        OAKLEY (PPG-AP-MTV1)   7.7
                        PVF-PV-1   7.7
                        PVF-PV-2   7.3
                        BARRACUDA   7.0
                        CHINOOK (H10G-OP)   7.0
                        MATCH PLAY   6.7
                        PIRANHA   6.7
                        SHARK   6.7
                        PST-0R2O   6.0
                        PST-R0DS   5.7
                        TOURPRO   5.7
                        S1   5.3
                        PENNCROSS   4.7
                        MUSKET   2.3

                        LSD VALUE   2.2
                        C.V. (%)   20.5

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 22.   FALL COLOR (NOVEMBER) RATINGS OF BENTGRASS CULTIVARS 1/
                                        GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

                                    NAME   WI1

                                    S1   7.0
                                    007XL   6.7
                                    PST-0MRN   6.7
                                    SHARK   6.7
                                    BARRACUDA   6.3
                                    CHINOOK (H10G-OP)   6.3
                                    MATCH PLAY   6.3
                                    PIPER (PPG-AP-MTV2)   6.3
                                    PIRANHA   6.3
                                    PST-0R2O   6.3
                                    PST-R0DS   6.3
                                    PVF-PV-1   6.3
                                    PVF-PV-2   6.3
                                    TOURPRO   6.3
                                    DLF-AP-3084   6.0
                                    OAKLEY (PPG-AP-MTV1)   6.0
                                    PENNCROSS   6.0
                                    SPECTRUM (LNS 19)   6.0
                                    MUSKET   5.3

                                    LSD VALUE   1.0
                                    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.

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TABLE 23.                    POA ANNUA RATINGS OF BENTGRASS CULTIVARS  1/
                                 GROWN ON A FAIRWAY OR TEE
                                        2023 DATA

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

                    NAME                    IN1

                    MATCH PLAY              9.0
                    SHARK                   9.0
                    DLF-AP-3084             8.7
                    OAKLEY (PPG-AP-MTV1)    8.7
                    PIRANHA                 8.7
                    PVF-PV-1                8.7
                    007XL                   8.3
                    BARRACUDA               8.3
                    CHINOOK (H10G-OP)       8.3
                    PIPER (PPG-AP-MTV2)     8.3
                    PST-0MRN                8.3
                    PST-0R2O                8.3
                    PVF-PV-2                8.3
                    S1                      8.3
                    SPECTRUM (LNS 19)       8.3
                    TOURPRO                 8.3
                    PST-R0DS                8.0
                    PENNCROSS               6.3
                    MUSKET                  5.7

                    LSD VALUE               1.1
                    C.V. (%)                8.1
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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 24.   MOWING QUALITY RATINGS OF BENTGRASS CULTIVARS 1/
                                        GROWN ON A FAIRWAY OR TEE
                                              2023 DATA

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

                          NAME   IN1

                          PENNCROSS   8.7
                          MUSKET   8.0
                          PIRANHA   8.0
                          PST-0R2O   8.0
                          OAKLEY (PPG-AP-MTV1)   7.7
                          PST-0MRN   7.7
                          SHARK   7.7
                          MATCH PLAY   7.3
                          S1   7.3
                          CHINOOK (H10G-OP)   6.7
                          PVF-PV-2   6.7
                          007XL   6.3
                          DLF-AP-3084   6.3
                          PIPER (PPG-AP-MTV2)   6.3
                          PST-R0DS   6.3
                          BARRACUDA   6.0
                          PVF-PV-1   5.7
                          TOURPRO   5.7
                          SPECTRUM (LNS 19)   5.3

                          LSD VALUE   2.9
                          C.V. (%)   26.1

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.

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TABLE 25.                    CANOPY SMOOTHNESS RATINGS OF BENTGRASS CULTIVARS  1/
                                    GROWN ON A FAIRWAY OR TEE
                                          2023 DATA

                          CANOPY SMOOTHNESS RATINGS 1-9; 9=SMOOTH   2/

                              NAME                     IN1

                              MUSKET                   9.0
                              PENNCROSS                9.0
                              MATCH PLAY               7.3
                              CHINOOK (H10G-OP)        6.7
                              BARRACUDA                6.3
                              PIRANHA                  6.3
                              SHARK                    6.3
                              DLF-AP-3084              6.0
                              PST-R0DS                 6.0
                              PVF-PV-2                 6.0
                              S1                       6.0
                              TOURPRO                  6.0
                              PVF-PV-1                 5.7
                              OAKLEY (PPG-AP-MTV1)     5.0
                              PST-0MRN                 5.0
                              007XL                    4.7
                              PST-0R2O                 4.7
                              SPECTRUM (LNS 19)        4.7
                              PIPER (PPG-AP-MTV2)      3.7

                              LSD VALUE                2.4
                              C.V. (%)                24.5
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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.

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TABLE 26.   DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS
                            GROWN ON A FAIRWAY OR TEE AT WEST LAFAYETTE, IN   1/
                                              2023 DATA

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

        NAME   8/8   8/14   MEAN

        SPECTRUM (LNS 19)   9.0   8.0   8.5
        PVF-PV-2   9.0   7.7   8.3
        PIPER (PPG-AP-MTV2)   8.7   7.7   8.2
        PVF-PV-1   9.0   7.3   8.2
        007XL   8.3   7.7   8.0
        OAKLEY (PPG-AP-MTV1)   8.3   7.3   7.8
        PST-R0DS   8.3   7.0   7.7
        MUSKET   8.3   6.7   7.5
        S1   8.3   6.7   7.5
        DLF-AP-3084   8.0   6.7   7.3
        MATCH PLAY   8.3   6.3   7.3
        CHINOOK (H10G-OP)   7.3   6.7   7.0
        PIRANHA   8.0   6.0   7.0
        TOURPRO   7.3   6.3   6.8
        BARRACUDA   7.7   5.3   6.5
        PST-0R2O   7.3   5.7   6.5
        PST-0MRN   6.3   4.7   5.5
        SHARK   6.0   4.3   5.2
        PENNCROSS   6.0   3.7   4.8

        LSD VALUE   1.7   2.2   1.8
        C.V. (%)   11.9   18.7   13.8

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 FAIRWAY OR TEE AT BLACKSBURG, VA   1/
                                                2023 DATA

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

NAME	AUGUST	SEPTEMBER	MEAN
MUSKET	8.0	8.3	8.2
PVF-PV-2	7.7	7.0	7.3
DLF-AP-3084	7.0	7.3	7.2
CHINOOK (H10G-OP)	7.0	7.0	7.0
MATCH PLAY	7.3	6.7	7.0
PIPER (PPG-AP-MTV2)	7.3	6.7	7.0
PIRANHA	7.0	7.0	7.0
PVF-PV-1	7.0	6.7	6.8
S1	7.3	6.3	6.8
TOURPRO	6.3	7.0	6.7
BARRACUDA	7.0	6.0	6.5
SPECTRUM (LNS 19)	6.7	6.3	6.5
OAKLEY (PPG-AP-MTV1)	6.3	6.0	6.2
007XL	6.0	5.7	5.8
SHARK	6.0	5.0	5.5
PST-R0DS	5.0	5.0	5.0
PST-0MRN	4.3	4.3	4.3
PST-0R2O	4.0	4.3	4.2
PENNCROSS	4.3	3.0	3.7
LSD VALUE	1.1	1.3	1.1
C.V. (%)	11.3	13.3	10.9

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.

APPENDIX TABLE.   SUMMARY OF TURFGRASS QUALITY RATINGS FOR BENTGRASS CULTIVARS
GROWN ON A FAIRWAY OR TEE
2023 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

| | QUALITY | MAXIMUM |
NAME	MEAN 1/	IN TOP 25% 2/
007XL	5.9	0
BARRACUDA	5.9	20
CHINOOK (H10G-OP)	6.0	0
DLF-AP-3084	6.3	20
MATCH PLAY	6.2	40
MUSKET	5.5	0
OAKLEY (PPG-AP-MTV1)	6.3	40
PENNCROSS	4.5	0
PIPER (PPG-AP-MTV2)	6.0	0
PIRANHA	6.1	40
PST-0MRN	5.6	20
PST-0R2O	5.8	40
PST-R0DS	5.5	0
PVF-PV-1	6.1	0
PVF-PV-2	6.4	80
S1	6.0	20
SHARK	5.7	20
SPECTRUM (LNS 19)	6.3	20
TOURPRO	6.0	40
LSD VALUE	0.4	
C.V. (%)	9.7	

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

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

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

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