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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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*.

2016 NATIONAL PERENNIAL RYEGRASS TEST

LOCATIONS SUBMITTING DATA FOR 2018

State	Location	Code
California	Fresno	CA7
Colorado	Ft. Collins	CO1
Connecticut	Storrs	CT1
Illinois	Urbana	IL1
Iowa	Ames	IA1
Kansas	Manhattan	KS1
Massachusetts	Amherst (Traffic)	MA1
Maryland	College Park	MD1
Michigan	East Lansing	MI1
Minnesota	St. Paul	MN1
Missouri	Columbia	MO1
Nebraska	Mead	NE1
New Jersey	Adelphia	NJ2
North Dakota	Fargo	ND1
Oregon	Corvallis	OR1
Oregon	Corvallis (Traffic)	OR2
Utah	Logan	UT1
Utah	Logan (Drought)	UT2
Virginia	Blacksburg	VA1
Virginia	Blacksburg (Traffic)	VA2
Wisconsin	Madison (Traffic)	WI1

2016 NATIONAL PERENNIAL RYEGRASS TEST
Entries and Sponsors

Entry	Name	Sponsor	Entry	Name	Sponsor	Entry	Name	Sponsor
1	021	The Scotts Miracle-Gro Co.	40	APR2616	Pennington Seed	*79	Furlong (LTP-FCB)	Lebanon Seaboard Corp.
*2	Hatrick (BSP-17)	Bailey Seed & Grain LLC	41	GO-141	Grassland Oregon	80	BAR LP 6117	Barenbrug USA
*3	Fireball (BWH)	Bailey Seed & Grain LLC	42	GO-142	Grassland Oregon	81	BAR LP 6131	Barenbrug USA
*4	Tee-Me-Up (BSP-25)	Bailey Seed & Grain LLC	43	GO-143	Grassland Oregon	82	BAR LP 6159	Barenbrug USA
*5	Savant	Ledeboer Seed LLC	44	APR2612	ProSeeds Marketing	83	BAR LP 6233	Barenbrug USA
6	LPB-SD-105	Ledeboer Seed LLC	45	APR3060	Pennington Seed	84	PST-2FOXY	Pure-Seed Testing, Inc.
*7	Saguaro	Ledeboer Seed LLC	*46	Green Supreme+ (AMP-R1)	AMPAC Seed Co.	*85	Silver Sport (PST-2CRP)	Rose Agri-Seed, Inc.
8	LPB-SD-104	Ledeboer Seed LLC	47	DLFPS-236/3546	DLF Pickseed USA, Inc	86	PST-2EGAD	Pure-Seed Testing, Inc.
*9	Mensa	Ledeboer Seed LLC	48	DLFPS-236/3547	DLF Pickseed USA, Inc	*87	Gray Hawk (PST-2FIND)	Pure-Seed Testing, Inc.
10	LPB-SD-101	Ledeboer Seed LLC	49	DLFPS-236/3548	DLF Pickseed USA, Inc	88	PST-2GTD	Pure-Seed Testing, Inc.
11	LPB-SD-102	Ledeboer Seed LLC	50	PR-6-15	Columbia Seeds	89	PST-2BDT	Grassland Oregon
12	LPB-SD-103	Ledeboer Seed LLC	51	DLFPS-236/3550	DLF Pickseed USA, Inc	90	PST-2MAY	Pure-Seed Testing, Inc.
13	DLFPS-236/3540	DLF Pickseed USA, Inc	52	DLFPS-236/3552	DLF Pickseed USA, Inc	*91	Gray Wolf (PST-2GAL)	Rose Agri-Seed, Inc.
14	DLFPS-236/3542	DLF Pickseed USA, Inc	53	023	Brett Young Seeds	92	PST-2PDA	Pure-Seed Testing, Inc.
15	DLFPS-236/3544	DLF Pickseed USA, Inc	*54	Paragon 2 GLR (FP2)	Turf Merchants, Inc.	93	PST-2A2	Pure-Seed Testing, Inc.
*16	Intense	Landmark Turf & Native Seed	55	02BS2	Brett Young Seeds	94	DLFPS-236/3553	DLF Pickseed USA, Inc.
*17	Xcelerator	Landmark Turf & Native Seed	*56	Alloy (RRT)	The Scotts Miracle-Gro Co	95	DLFPS-236/3554	DLF Pickseed USA, Inc.
*18	Spike GLS (UF3)	Landmark Turf & Native Seed	*57	Slider LS (PPG-PR 241)	Mountain View Seeds	96	PR-5-16	Columbia Seeds
19	JR-123	Jacklin Seed by Simplot	*58	Fastball 3GL (PPG-PR 329)	Mountain View Seeds	97	BAR LP 6158	Barenbrug USA
20	JR-747	Jacklin Seed by Simplot	*59	Paradox GLR (PPG-PR 331)	Turf Merchants, Inc	98	BAR LP 6162	Barenbrug USA
21	JR-888	Jacklin Seed by Simplot	*60	Derby Xtreme	Standard	99	BAR LP 6164	Barenbrug USA
22	DLFPS-236/3541	DLF Pickseed USA, Inc	*61	Apple 3GL (PPG-PR 339)	Mountain View Seeds	100	BAR LP 6165	Barenbrug USA
23	DLFPS-236/3543	DLF Pickseed USA, Inc	*62	Slugger 3GL (PPG-PR 343)	Mountain View Seeds	*101	Overdrive 5G	Burlingham Seeds, LLC.
24	DLFPS-236/3545	DLF Pickseed USA, Inc	63	PPG-PR 360	Integra Turf	102	02BS1	ProSeeds Marketing
*25	Evolve	SiteOne Landscape Supply	64	PPG-PR 367	Mountain View Seeds	103	CPN	Columbia Seeds
26	MRSL-PR16	SiteOne Landscape Supply	65	PPG-PR 370	Lewis Seed Company	104	JR-197	Jacklin Simplot by Simplot
27	PL2	SiteOne Landscape Supply	66	PPG-PR 371	Turf Merchants, Inc.	105	DLFPS-238/3014	DLF Pickseed USA, Inc.
28	MRSL-PR15	SiteOne Landscape Supply	67	PPG-PR 372	Columbia Seeds	*106	Pepper II (RAD-PR 103)	Lewis Seed Company
29	SNX	Smith Seed Services	68	PPG-PR 385	Mountain View Seeds	107	RAD-PR 112	Bailey Seed
*30	Signet	Smith Seed Services	*69	Homerun LS (PPG-PR 419)	Mountain View Seeds	*108	UMPQUA	Vista Seed Partners LLC
*31	Shield (02BS4)	Smith Seed Services	70	PPG-PR 420	Peak Plant Genetics, LLC.	*109	Seabiscuit	Lebanon Seaboard Corp.
32	CS-6	Columbia Seeds	71	PPG-PR 421	Proseeds Marketing	*110	Man O'War	Lebanon Seaboard Corp.
33	DLFPS-236/3556	DLF Pickseed USA, Inc	72	PPG-PR 422	Columbia Seeds	*111	Pharaoh	Lebanon Seaboard Corp.
*34	ASP0116EXT	Allied Seed LLC	73	PPG-PR 423	Peak Plant Genetics, LLC	*112	Allstar III	Standard
*35	ASP0117 (A-PR15)	Allied Seed LLC	74	PPG-PR 424	Peak Plant Genetics, LLC	*113	Brightstar SLT	Standard
*36	ASP0118GL (A-4G)	Allied Seed LLC	*75	Karma	Standard	*114	Linn	Standard
*37	ASP0218 (A-6D)	Allied Seed LLC	*76	SR 4650	Standard			
38	NP-3	Pennington Seed	77	DLFPS-236/3538	DLF Pickseed USA, Inc.			
39	NP-2	Pennington Seed	*78	Grand Slam GLD	Standard			

*COMMERCIALLY AVAILABLE IN 2019 IN THE US OR ANY OTHER COUNTRY

TABLE A.   2018 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN
                                    THE 2016 NATIONAL PERENNIAL RYEGRASS TEST

| | | | SOIL | SOIL | | SUN | MOWING | |
| | SOIL | SOIL | PHOSPHOROUS | POTASSIUM | NITROGEN | OR | HEIGHT | IRRIGATION |
LOCATION	TEXTURE	PH	(LBS/ACRE)	(LBS/ACRE)	(LBS/1000 SQ FT)	SHADE	(IN)	PRACTICED
CA7	-	-	-	-	-	-	-	-
CO1	-	-	-	-	-	-	-	-
CT1	SANDY LOAM	6.1-6.5	61-150	151-240	-	FULL SUN	1.1-1.5	TO PREVENT STRESS
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	2.6-3.0	TO PREVENT DORMANCY
IL1	SILT LOAM AND SILT	6.1-6.5	0-60	376-500	3.1-4.0	FULL SUN	0.6-1.0	TO PREVENT STRESS
KS1	-	-	-	-	-	-	-	-
MA1	LOAM	5.6-6.0	0-60	241-375	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MD1	SILT LOAM AND SILT	6.1-6.5	61-150	151-240	2.1-3.0	FULL SUN	2.6-3.0	TO PREVENT DORMANCY
MI1	-	-	-	-	-	-	-	-
MN1	SILTY CLAY LOAM	6.6-7.0	0-60	151-240	2.1-3.0	FULL SUN	1.6-2.0	ONLY DURING SEVERE STRESS
MO1	-	-	-	-	-	-	-	-
ND1	SILTY CLAY AND CLAY	7.1-7.5	0-60	151-240	2.1-3.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
NE1	SILTY CLAY AND CLAY	7.1-7.5	0-60	376-500	3.1-4.0	FULL SUN	0.6-1.0	TO PREVENT STRESS
NJ2	SANDY LOAM	6.6-7.0	451+	376-500	3.1-4.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
OR1	SILTY CLAY LOAM	5.6-6.0	61-150	241-375	4.1-5.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
OR2	SILTY CLAY LOAM	5.6-6.0	61-150	241-375	4.1-5.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
UT1	SILT LOAM AND SILT	7.1-7.5	-	-	-	FULL SUN	2.6-3.0	TO PREVENT STRESS
UT2	SILT LOAM AND SILT	7.1-7.5	-	-	-	FULL SUN	2.6-3.0	TO PREVENT DORMANCY
VA1	SILT LOAM AND SILT	6.1-6.5	0-60	0-150	2.1-3.0	FULL SUN	1.1-1.5	ONLY DURING SEVERE STRESS
VA2	SILT LOAM AND SILT	6.1-6.5	0-60	0-150	2.1-3.0	FULL SUN	1.1-1.5	ONLY DURING SEVERE STRESS
WI1	SILT LOAM AND SILT	7.1-7.5	-	-	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY

TABLE B.

LOCATIONS AND DATA COLLECTED IN 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
CA7	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CO1										X		X		
CT1					X	X	X	X	X	X			X	X
IA1					X	X	X	X	X	X			X	
IL1				X	X	X	X	X	X	X			X	X
KS1				X	X	X	X	X	X	X				
MA1				X	X	X	X	X	X	X	X			X
MD1					X	X	X	X	X	X	X			
MI1					X	X	X	X	X	X			X	X
MN1					X	X	X	X	X	X			X	
MO1				X	X	X	X	X	X	X				
ND1														
NE1				X	X	X	X	X	X	X			X	X
NJ2				X	X	X	X	X	X	X	X		X	
OR1	X	X	X	X	X	X	X	X	X	X	X	X	X	
OR2	X	X	X	X	X	X	X	X	X	X	X	X		
UT1				X	X	X	X	X	X	X			X	
UT2				X	X	X	X	X	X	X			X	
VA1					X	X	X	X	X	X	X			
VA2					X	X	X	X						
WI1					X	X		X	X	X	X			

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TABLE B.   LOCATIONS AND DATA COLLECTED IN 2018
(CONT'D)

LOCATION	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	RED THREAD	CROWN RUST	PINK SNOW MOLD	FALL COLOR NOVEMBER
CA7							
* CO1							
CT1							
IA1							
IL1							X
KS1							
* MA1							
MD1				X			
MI1							
MN1					X	X	
MO1	X			X			
ND1	X	X	X				
NE1							
NJ2							
OR1							
OR2							
UT1							
UT2							
VA1	X		X				
VA2							
WI1							

    *   MORE DATA FOR SALINITY STRESS IN THE GREENHOUSE AT CO1 IN TABLE 17.
    *   MORE DATA FOR TRAFFIC STRESS AT MA1 IN TABLE 12 AND VA2 IN TABLE 14.

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TABLE 1.                    TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  1/
                              GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 1  **/
                                               2018 DATA

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


    NAME                     # ENTRY    CT1      NJ2      MI1      MN1      NE1      UT1      OR1      MEAN

  * FURLONG (LTP-FCB)          79       6.7      6.2      6.6      5.9      5.1      6.4      6.7      6.2
    PR-6-15                    50       6.5      5.7      6.5      5.7      5.1      6.3      6.6      6.1
    DLFPS-236/3546             47       6.5      6.0      6.4      5.6      5.0      6.3      6.6      6.1
    DLFPS-236/3543             23       6.5      6.1      6.4      5.6      4.9      6.3      6.5      6.1
    DLFPS-236/3554             95       6.5      6.1      6.3      5.3      4.9      6.3      6.5      6.0
    PPG-PR 424                 74       6.5      5.5      6.5      5.6      5.1      6.4      6.7      6.0
    PPG-PR 423                 73       6.5      5.9      6.4      5.6      5.0      6.3      6.6      6.0
    PPG-PR 421                 71       6.5      5.8      6.5      5.4      5.0      6.4      6.6      6.0
    DLFPS-236/3541             22       6.5      6.3      6.3      5.7      4.9      6.2      6.4      6.0
  * ALLOY (RRT)                56       6.4      6.3      6.3      5.6      4.8      6.2      6.4      6.0
    PPG-PR 422                 72       6.5      5.3      6.5      5.5      5.1      6.4      6.6      6.0
    DLFPS-236/3544             15       6.5      5.8      6.4      5.3      5.0      6.3      6.6      6.0
    NP-2                       39       6.4      5.6      6.4      5.6      5.0      6.3      6.5      6.0
    PPG-PR 372                 67       6.4      5.6      6.4      5.5      5.0      6.3      6.5      6.0
    02BS2                      55       6.4      6.4      6.2      5.6      4.7      6.1      6.3      6.0
  * PARADOX GLR (PPG-PR 331)   59       6.4      5.4      6.4      5.6      5.0      6.3      6.5      5.9
  * FASTBALL 3GL (PPG-PR 329)  58       6.4      6.0      6.3      5.5      4.8      6.1      6.4      5.9
  * SLUGGER 3GL (PPG-PR 343)   62       6.4      6.1      6.3      5.5      4.8      6.1      6.4      5.9
    DLFPS-236/3547             48       6.4      5.7      6.3      5.4      4.9      6.3      6.5      5.9
    CPN                       103       6.4      5.4      6.4      5.5      5.0      6.3      6.5      5.9
    PPG-PR 360                 63       6.3      6.0      6.3      5.5      4.8      6.1      6.4      5.9
  * PARAGON 2 GLR (FP2)        54       6.4      5.6      6.3      5.4      4.9      6.2      6.5      5.9
    PL2                        27       6.4      6.0      6.2      5.2      4.8      6.2      6.4      5.9
    DLFPS-236/3545             24       6.4      5.9      6.2      5.2      4.8      6.2      6.4      5.9
  * SILVER SPORT (PST-2CRP)    85       6.3      5.7      6.3      5.3      4.8      6.2      6.4      5.9
    APR2616                    40       6.4      5.3      6.3      5.3      5.0      6.2      6.5      5.9
  * APPLE 3GL (PPG-PR 339)     61       6.3      5.9      6.2      5.3      4.8      6.1      6.4      5.9
    PPG-PR 367                 64       6.3      5.2      6.3      5.4      5.0      6.2      6.5      5.9
    DLFPS-236/3550             51       6.4      5.1      6.4      5.3      5.0      6.3      6.5      5.8
    023                        53       6.3      5.3      6.3      5.3      4.9      6.2      6.5      5.8
    DLFPS-236/3540             13       6.4      5.2      6.3      5.3      5.0      6.2      6.5      5.8
  * XCELERATOR                 17       6.4      5.2      6.3      5.2      5.0      6.3      6.5      5.8
    JR-197                    104       6.3      5.6      6.2      5.2      4.8      6.1      6.4      5.8
  * HOMERUN LS (PPG-PR 419)    69       6.4      5.0      6.4      5.1      5.0      6.3      6.6      5.8
    DLFPS-236/3552             52       6.3      5.6      6.2      5.1      4.8      6.2      6.4      5.8
  * SLIDER LS (PPG-PR 241)     57       6.3      5.3      6.3      5.4      4.9      6.2      6.4      5.8
    DLFPS-236/3556             33       6.3      5.2      6.3      5.2      4.9      6.2      6.5      5.8
    021                         1       6.3      6.0      6.1      5.1      4.7      6.1      6.4      5.8
    DLFPS-236/3553             94       6.3      5.3      6.3      5.3      4.9      6.2      6.5      5.8
    PPG-PR 420                 70       6.3      5.3      6.3      5.0      4.9      6.2      6.5      5.8
  * UMPQUA                    108       6.3      5.3      6.3      5.2      4.9      6.2      6.5      5.8
    DLFPS-236/3548             49       6.3      5.5      6.2      5.0      4.8      6.2      6.4      5.8
  * SHIELD (02BS4)             31       6.3      5.5      6.2      5.1      4.8      6.2      6.4      5.8
  * ASP0117 (A-PR15)           35       6.3      5.0      6.3      5.2      4.9      6.2      6.4      5.8
  * GRAY WOLF (PST-2GAL)       91       6.3      5.3      6.3      5.1      4.9      6.2      6.5      5.8
    NP-3                       38       6.3      5.0      6.3      5.1      4.9      6.2      6.4      5.8

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TABLE 1.
(CONT'D)

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 1 **/
2018 DATA

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

NAME	# ENTRY	CT1	NJ2	MI1	MN1	NE1	UT1	OR1	MEAN
* OVERDRIVE 5G	101	6.3	5.1	6.3	5.3	5.0	6.2	6.5	5.8
PST-2MAY	90	6.2	5.5	6.1	5.1	4.7	6.0	6.3	5.7
PST-2A2	93	6.2	5.2	6.2	5.2	4.8	6.1	6.4	5.7
PPG-PR 371	66	6.2	5.6	6.1	4.9	4.7	6.1	6.3	5.7
PST-2GTD	88	6.2	5.6	6.1	4.9	4.7	6.1	6.3	5.7
* SPIKE GLS (UF3)	18	6.2	5.6	6.1	5.1	4.7	6.0	6.3	5.7
PST-2FOXY	84	6.2	5.3	6.2	5.0	4.8	6.1	6.3	5.7
* SIGNET	30	6.2	5.3	6.1	5.1	4.8	6.1	6.3	5.7
02BS1	102	6.2	5.3	6.1	5.1	4.7	6.0	6.3	5.7
DLFPS-236/3542	14	6.2	5.2	6.1	4.8	4.8	6.1	6.4	5.7
PPG-PR 370	65	6.2	5.2	6.1	4.8	4.7	6.1	6.3	5.6
* PHARAOH	111	6.2	5.1	6.2	5.1	4.8	6.1	6.3	5.6
* GRAY HAWK (PST-2FIND)	87	6.2	4.9	6.2	5.0	4.8	6.1	6.4	5.6
PR-5-16	96	6.2	5.2	6.1	5.1	4.7	6.1	6.3	5.6
LPB-SD-102	11	6.1	4.0	6.3	5.5	5.0	6.1	6.4	5.6
* SR 4650	76	6.1	4.8	6.1	5.1	4.8	6.0	6.3	5.6
PST-2BDT	89	6.1	5.3	6.0	5.1	4.6	5.9	6.2	5.6
PST-2EGAD	86	6.2	5.2	6.1	4.8	4.7	6.0	6.3	5.6
* GRAND SLAM GLD	78	6.1	5.4	6.0	4.9	4.6	6.0	6.2	5.6
* ASP0118GL (A-4G)	36	6.1	5.3	6.0	4.9	4.6	6.0	6.2	5.6
* ASP0116EXT	34	6.1	4.7	6.1	4.9	4.8	6.0	6.3	5.6
* SEABISCUIT	109	6.1	5.4	6.0	4.7	4.6	6.0	6.2	5.6
* INTENSE	16	6.1	5.2	6.0	4.7	4.6	5.9	6.2	5.5
JR-123	19	6.1	5.2	5.9	4.8	4.5	5.9	6.2	5.5
* DERBY XTREME	60	6.0	4.8	6.0	5.0	4.7	5.9	6.2	5.5
DLFPS-236/3538	77	6.1	5.1	6.0	4.6	4.6	6.0	6.2	5.5
* MAN O WAR	110	6.0	5.0	6.0	5.0	4.6	5.9	6.2	5.5
PST-2PDA	92	6.0	5.1	6.0	4.9	4.6	5.9	6.1	5.5
APR3060	45	6.0	5.5	5.8	4.8	4.4	5.8	6.0	5.5
* SAGUARO	7	6.0	4.0	6.1	5.0	4.8	6.0	6.3	5.5
PPG-PR 385	68	6.0	4.8	6.0	4.7	4.6	5.9	6.2	5.5
BAR LP 6233	83	6.0	4.9	5.9	4.6	4.6	5.9	6.2	5.4
BAR LP 6159	82	6.0	4.9	5.9	4.7	4.5	5.8	6.1	5.4
MRSL-PR16	26	5.9	5.0	5.8	4.7	4.5	5.8	6.1	5.4
CS-6	32	6.0	4.6	5.9	4.7	4.6	5.9	6.1	5.4
* EVOLVE	25	5.9	4.7	5.9	4.6	4.5	5.8	6.1	5.4
* ASP0218 (A-6D)	37	5.9	4.7	5.8	4.4	4.5	5.8	6.1	5.3
LPB-SD-103	12	5.8	3.7	6.0	4.9	4.7	5.8	6.1	5.3

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

NAME	# ENTRY	CT1	NJ2	MI1	MN1	NE1	UT1	OR1	MEAN
* KARMA	75	5.8	4.2	5.8	4.7	4.5	5.8	6.0	5.3
* MENSA	9	5.8	3.6	6.0	4.8	4.7	5.8	6.1	5.3
BAR LP 6117	80	5.9	4.5	5.8	4.3	4.4	5.8	6.1	5.3
BAR LP 6164	99	6.0	4.8	5.9	4.4	4.5	5.9	6.2	5.2
LPB-SD-105	6	5.8	3.0	6.0	4.8	4.9	5.9	6.2	5.2
JR-888	21	5.8	3.7	5.9	4.7	4.6	5.8	6.0	5.2
GO-141	41	5.8	4.0	5.8	4.6	4.5	5.8	6.0	5.2
* HATRICK (BSP-17)	2	5.8	4.5	5.7	4.2	4.4	5.7	6.0	5.2
* GREEN SUPREME+ (AMP-R1)	46	5.7	4.5	5.7	4.4	4.3	5.7	5.9	5.2
SNX	29	5.8	4.7	5.6	4.2	4.3	5.7	5.9	5.2
* SAVANT	5	5.8	3.1	5.9	4.6	4.7	5.8	6.1	5.2
MRSL-PR15	28	5.7	4.6	5.6	4.3	4.3	5.6	5.9	5.2
GO-142	42	5.7	4.4	5.7	4.4	4.3	5.6	5.9	5.2
RAD-PR 112	107	5.8	4.6	5.7	4.4	4.3	5.7	5.9	5.1
GO-143	43	5.7	4.4	5.6	4.3	4.3	5.6	5.9	5.1
LPB-SD-101	10	5.7	3.1	5.9	4.6	4.7	5.8	6.0	5.1
* FIREBALL (BWH)	3	5.7	4.0	5.7	4.2	4.4	5.7	5.9	5.1
APR2612	44	5.7	4.6	5.5	4.1	4.2	5.6	5.8	5.1
BAR LP 6158	97	5.8	4.5	5.7	4.2	4.4	5.8	6.0	5.1
BAR LP 6131	81	5.6	4.2	5.6	4.2	4.3	5.6	5.9	5.0
* ALLSTAR III	112	5.6	4.3	5.6	4.4	4.3	5.6	5.8	5.0
* PEPPER II (RAD-PR 103)	106	5.7	4.5	5.6	4.2	4.3	5.6	5.9	5.0
LPB-SD-104	8	5.5	3.4	5.6	4.4	4.3	5.5	5.7	4.9
JR-747	20	5.5	2.9	5.6	4.2	4.4	5.6	5.8	4.9
* BRIGHTSTAR SLT	113	5.6	3.9	5.6	4.3	4.3	5.6	5.8	4.9
* TEE-ME-UP (BSP-25)	4	5.5	4.0	5.4	3.7	4.1	5.5	5.7	4.8
BAR LP 6165	100	5.5	3.5	5.5	3.8	4.3	5.6	5.9	4.6
DLFPS-238/3014	105	5.2	3.9	5.0	3.1	3.7	5.2	5.4	4.3
BAR LP 6162	98	5.0	3.1	4.9	2.7	3.7	5.1	5.4	3.9
* LINN	114	3.4	1.1	3.3	1.2	2.1	3.5	3.8	2.3
LSD VALUE		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
C.V. (%)		9.3	11.4	9.4	11.6	12.2	9.5	9.1	10.3

*   COMMERCIALLY 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 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.

TABLE 2.   TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
                          GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 2 */
                                            2018 DATA

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

NAME	# ENTRY	MD	VA1	IL1	IA1	MO1	KS1	CA7	MEAN
DLFPS-236/3554	95	5.5	7.2	6.3	6.8	4.4	6.3	6.0	6.5
SEABISCUIT	109	5.1	7.0	6.2	6.6	4.2	6.0	6.1	6.2
GRAY WOLF (PST-2GAL)	91	4.9	7.0	6.3	6.6	4.1	6.1	6.2	6.2
BAR LP 6164	99	4.8	7.1	6.3	6.5	4.2	6.0	6.5	6.2
JR-197	104	5.0	6.9	6.1	6.5	4.0	6.0	5.8	6.1
UMPQUA	108	4.7	6.9	6.3	6.5	4.0	6.1	6.2	6.1
DLFPS-236/3544	15	5.4	7.2	6.4	6.8	4.4	6.3	6.2	6.1
PPG-PR 421	71	5.3	7.2	6.5	6.8	4.3	6.3	6.2	6.1
DLFPS-236/3553	94	4.7	6.9	6.3	6.4	3.9	6.0	6.1	6.1
DLFPS-236/3542	14	5.1	7.2	6.4	6.7	4.4	6.2	6.4	6.1
PST-2MAY	90	4.9	6.8	6.1	6.4	3.9	5.9	5.8	6.1
BAR LP 6158	97	4.6	6.9	6.2	6.4	4.1	5.9	6.4	6.0
HOMERUN LS (PPG-PR 419)	69	4.7	7.1	6.6	6.6	4.2	6.3	6.7	6.0
DLFPS-236/3552	52	5.3	7.2	6.3	6.7	4.3	6.2	6.1	6.0
DLFPS-236/3545	24	5.4	7.1	6.2	6.7	4.3	6.2	5.9	6.0
CPN	103	4.6	6.8	6.2	6.3	3.7	6.0	5.9	6.0
PPG-PR 420	70	5.0	7.1	6.4	6.6	4.2	6.2	6.4	6.0
DLFPS-236/3548	49	5.2	7.1	6.3	6.7	4.3	6.2	6.2	6.0
021	1	5.6	7.1	6.2	6.8	4.3	6.1	5.8	6.0
OVERDRIVE 5G	101	4.5	6.8	6.3	6.3	3.8	6.0	6.2	6.0
PST-2GTD	88	5.3	7.1	6.2	6.7	4.3	6.1	6.0	6.0
02BS1	102	4.7	6.8	6.1	6.3	3.8	5.9	5.8	6.0
PR-5-16	96	4.6	6.8	6.1	6.3	3.8	5.9	6.0	6.0
PHARAOH	111	4.6	6.8	6.2	6.3	3.8	5.9	6.0	5.9
PPG-PR 371	66	5.3	7.1	6.2	6.7	4.3	6.1	6.0	5.9
PPG-PR 370	65	5.0	7.1	6.3	6.6	4.2	6.1	6.3	5.9
PL2	27	5.4	7.1	6.2	6.7	4.2	6.1	5.8	5.9
DLFPS-236/3538	77	5.0	7.1	6.3	6.6	4.2	6.0	6.3	5.9
XCELERATOR	17	4.8	7.0	6.4	6.6	4.1	6.2	6.3	5.9
PST-2A2	93	4.5	6.7	6.1	6.2	3.7	5.9	5.9	5.9
PST-2EGAD	86	5.0	7.0	6.2	6.6	4.2	6.0	6.2	5.9
DLFPS-236/3546	47	5.2	7.0	6.3	6.6	4.1	6.1	5.8	5.9
SHIELD (02BS4)	31	5.0	7.0	6.3	6.6	4.1	6.1	6.0	5.9
PPG-PR 423	73	5.1	7.0	6.3	6.6	4.0	6.1	5.9	5.9
PPG-PR 424	74	4.7	7.0	6.4	6.5	3.9	6.2	6.2	5.8
PST-2BDT	89	4.6	6.6	5.9	6.2	3.7	5.8	5.6	5.8
PEPPER II (RAD-PR 103)	106	4.4	6.7	6.0	6.2	3.9	5.7	6.1	5.8
DLFPS-236/3547	48	5.0	7.0	6.3	6.6	4.0	6.1	5.9	5.8
DLFPS-238/3014	105	4.5	6.8	5.8	6.2	4.1	5.5	6.3	5.8
MAN O WAR	110	4.5	6.6	6.0	6.2	3.6	5.8	5.8	5.8

TABLE 2.
(CONT'D)

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 2 */
2018 DATA

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

NAME	# ENTRY	MD	VA1	IL1	IA1	MO1	KS1	CA7	MEAN
DLFPS-236/3550	51	4.6	6.9	6.4	6.4	3.9	6.1	6.3	5.8
BAR LP 6162	98	4.1	6.9	6.1	6.2	4.2	5.6	7.0	5.8
PST-2PDA	92	4.5	6.6	6.0	6.2	3.6	5.7	5.7	5.8
DLFPS-236/3540	13	4.7	6.9	6.3	6.4	3.9	6.1	6.2	5.8
INTENSE	16	4.9	6.9	6.1	6.5	4.1	6.0	6.0	5.8
PPG-PR 422	72	4.6	6.9	6.4	6.4	3.8	6.1	6.2	5.8
FURLONG (LTP-FCB)	79	5.2	6.9	6.2	6.6	3.9	6.1	5.6	5.8
GRAND SLAM GLD	78	5.0	6.9	6.1	6.5	4.1	6.0	5.9	5.8
BAR LP 6117	80	4.6	6.9	6.2	6.4	4.1	5.9	6.5	5.8
PPG-PR 372	67	4.8	6.9	6.3	6.5	3.9	6.1	6.0	5.8
DLFPS-236/3556	33	4.6	6.9	6.3	6.4	3.9	6.1	6.2	5.8
SILVER SPORT (PST-2CRP)	85	5.1	6.9	6.2	6.5	4.0	6.0	5.8	5.8
PST-2FOXY	84	4.8	6.9	6.2	6.4	4.0	6.0	6.1	5.8
RAD-PR 112	107	4.4	6.6	5.9	6.1	3.7	5.7	6.0	5.8
DLFPS-236/3543	23	5.2	6.9	6.1	6.5	4.0	6.1	5.6	5.8
ASP0218 (A-6D)	37	4.6	6.9	6.2	6.4	4.0	5.9	6.3	5.8
SNX	29	4.8	6.9	6.1	6.4	4.1	5.8	6.2	5.8
SPIKE GLS (UF3)	18	5.1	6.9	6.1	6.5	4.0	6.0	5.8	5.7
NP-3	38	4.5	6.9	6.3	6.4	3.8	6.0	6.3	5.7
JR-123	19	4.9	6.9	6.1	6.4	4.0	5.9	5.9	5.7
023	53	4.7	6.9	6.3	6.4	3.9	6.0	6.0	5.7
PPG-PR 385	68	4.6	6.9	6.2	6.4	3.9	5.9	6.2	5.7
APR2616	40	4.6	6.8	6.3	6.4	3.8	6.0	6.1	5.7
GRAY HAWK (PST-2FIND)	87	4.5	6.8	6.3	6.3	3.8	6.0	6.3	5.7
ALLOY (RRT)	56	5.3	6.9	6.0	6.5	3.9	6.0	5.3	5.7
SIGNET	30	4.7	6.8	6.2	6.4	3.9	5.9	6.0	5.7
BAR LP 6233	83	4.6	6.8	6.1	6.3	3.9	5.9	6.2	5.7
BAR LP 6165	100	3.8	6.7	6.2	6.1	3.8	5.7	6.8	5.7
APPLE 3GL (PPG-PR 339)	61	5.1	6.8	6.0	6.5	3.9	6.0	5.5	5.7
PARAGON 2 GLR (FP2)	54	4.8	6.8	6.2	6.4	3.8	6.0	5.8	5.7
HATRICK (BSP-17)	2	4.5	6.8	6.1	6.3	4.0	5.8	6.3	5.7
ASP0117 (A-PR15)	35	4.4	6.8	6.3	6.3	3.8	6.0	6.2	5.7
PPG-PR 367	64	4.5	6.8	6.3	6.3	3.8	6.0	6.0	5.7
DLFPS-236/3541	22	5.3	6.8	6.0	6.5	3.9	6.0	5.3	5.7
PR-6-15	50	4.8	6.8	6.2	6.4	3.7	6.0	5.8	5.7
SLUGGER 3GL (PPG-PR 343)	62	5.2	6.8	6.0	6.5	3.9	5.9	5.4	5.7
ASP0118GL (A-4G)	36	4.8	6.8	6.1	6.4	3.9	5.9	5.8	5.7
EVOLVE	25	4.5	6.8	6.1	6.3	3.9	5.8	6.1	5.6
ASP0116EXT	34	4.3	6.8	6.2	6.2	3.8	5.9	6.2	5.6
APR2612	44	4.6	6.8	6.0	6.3	4.0	5.7	6.1	5.6
NP-2	39	4.7	6.8	6.2	6.3	3.7	6.0	5.8	5.6
FASTBALL 3GL (PPG-PR 329)	58	5.1	6.7	6.0	6.4	3.8	5.9	5.4	5.6

TABLE 2.
(CONT'D)

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
GROWN IN LOCATION PERFORMANCE INDEX (LPI) GROUP 2 */
2018 DATA

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

NAME	# ENTRY	MD	VA1	IL1	IA1	MO1	KS1	CA7	MEAN
MRSL-PR16	26	4.7	6.7	6.0	6.3	3.8	5.8	5.9	5.6
BAR LP 6159	82	4.6	6.7	6.0	6.2	3.8	5.8	6.0	5.6
PPG-PR 360	63	5.1	6.7	5.9	6.4	3.8	5.9	5.3	5.6
02BS2	55	5.3	6.7	5.8	6.4	3.8	5.9	5.0	5.6
PARADOX GLR (PPG-PR 331)	59	4.5	6.7	6.2	6.3	3.6	5.9	5.8	5.6
CS-6	32	4.3	6.7	6.1	6.2	3.7	5.8	6.2	5.6
SLIDER LS (PPG-PR 241)	57	4.5	6.7	6.1	6.2	3.6	5.9	5.8	5.6
TEE-ME-UP (BSP-25)	4	4.3	6.7	6.0	6.1	3.9	5.6	6.4	5.6
APR3060	45	4.9	6.7	5.8	6.3	3.8	5.7	5.4	5.5
ALLSTAR III	112	4.0	6.4	5.8	5.9	3.4	5.5	5.8	5.5
MRSL-PR15	28	4.4	6.6	5.9	6.1	3.7	5.7	6.0	5.5
SR 4650	76	4.2	6.6	6.1	6.1	3.5	5.8	6.0	5.5
GO-143	43	4.2	6.6	6.0	6.1	3.7	5.6	6.1	5.5
BAR LP 6131	81	4.1	6.6	6.0	6.0	3.7	5.6	6.2	5.5
BRIGHTSTAR SLT	113	3.7	6.4	5.9	5.8	3.3	5.5	6.1	5.4
FIREBALL (BWH)	3	3.9	6.6	6.1	6.0	3.6	5.6	6.3	5.4
GREEN SUPREME+ (AMP-R1)	46	4.2	6.6	5.9	6.0	3.6	5.6	6.0	5.4
DERBY XTREME	60	4.2	6.5	6.0	6.0	3.5	5.7	5.8	5.4
GO-142	42	4.1	6.5	5.9	6.0	3.6	5.6	5.9	5.4
GO-141	41	3.6	6.4	6.0	5.8	3.3	5.6	6.2	5.3
SAGUARO	7	3.4	6.4	6.2	5.8	3.2	5.7	6.3	5.3
KARMA	75	3.7	6.4	6.0	5.8	3.3	5.6	6.0	5.3
SAVANT	5	2.7	6.2	6.2	5.5	2.9	5.5	6.6	5.1
JR-888	21	3.1	6.1	6.0	5.5	2.9	5.4	6.1	5.0
LPB-SD-102	11	3.0	6.1	6.1	5.5	2.7	5.5	6.0	5.0
MENSA	9	3.0	6.1	6.0	5.5	2.8	5.4	6.2	5.0
LPB-SD-101	10	2.6	6.0	6.1	5.4	2.8	5.4	6.4	5.0
LPB-SD-103	12	3.0	6.0	5.9	5.4	2.8	5.4	6.0	4.9
LPB-SD-105	6	2.4	6.0	6.2	5.3	2.6	5.4	6.6	4.9
JR-747	20	2.6	6.0	5.9	5.3	2.8	5.3	6.4	4.9
LPB-SD-104	8	2.9	5.9	5.7	5.3	2.7	5.2	5.9	4.8
LINN	114	1.9	4.9	4.3	4.2	2.1	3.8	5.3	3.9
LSD VALUE		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
C.V. (%)		12.5	8.4	9.3	9.1	15.0	9.7	9.4	10.0

*   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.

TABLE 3.   MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
                    GROWN AT FIVE LOCATIONS IN THE U.S. 1/
                       MAINTAINED USING "SCHEDULE A" *
                                  2018 DATA

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

NAME	IL1	KS1	MI1	NE1	NJ2	MEAN
FURLONG (LTP-FCB)	6.0	6.3	6.7	5.4	6.6	6.2
PPG-PR 423	6.6	6.1	6.7	5.0	6.0	6.1
PPG-PR 421	6.7	6.1	6.3	5.1	5.9	6.1
DLFPS-236/3554	6.5	6.7	6.2	4.8	5.8	6.0
PR-6-15	6.2	6.0	6.6	5.3	5.8	6.0
DLFPS-236/3543	6.1	6.3	6.3	5.1	5.9	6.0
APR2616	6.2	6.2	6.1	5.5	5.8	6.0
FASTBALL 3GL (PPG-PR 329)	6.2	6.1	6.2	5.6	5.5	5.9
NP-2	6.1	6.0	6.4	5.3	5.9	5.9
DLFPS-236/3552	6.1	6.1	6.7	5.1	5.6	5.9
DLFPS-236/3545	6.4	6.3	6.2	5.2	5.5	5.9
DLFPS-236/3540	6.5	6.2	6.0	5.3	5.5	5.9
XCELERATOR	7.1	6.4	6.1	4.7	5.2	5.9
DLFPS-236/3547	6.7	6.1	6.1	4.7	5.9	5.9
SILVER SPORT (PST-2CRP)	6.0	6.5	6.4	4.9	5.7	5.9
SLUGGER 3GL (PPG-PR 343)	6.5	5.9	6.6	4.6	6.0	5.9
GRAY WOLF (PST-2GAL)	6.0	6.4	6.4	5.1	5.5	5.9
DLFPS-236/3546	6.3	6.3	6.3	4.5	6.0	5.9
PPG-PR 424	6.3	6.0	6.4	5.2	5.4	5.9
PPG-PR 371	6.0	6.2	6.2	5.1	5.8	5.9
PPG-PR 420	6.4	6.2	6.4	5.0	5.4	5.9
PPG-PR 372	6.1	6.0	6.4	4.9	5.9	5.9
ALLOY (RRT)	5.6	6.1	6.6	4.9	6.2	5.9
APPLE 3GL (PPG-PR 339)	6.3	6.0	6.8	4.3	5.9	5.9
HOMERUN LS (PPG-PR 419)	6.6	6.0	6.1	5.5	5.1	5.9
GRAY HAWK (PST-2FIND)	6.1	6.0	6.3	5.1	5.6	5.8
JR-197	6.0	6.0	6.1	5.5	5.5	5.8
SIGNET	6.4	5.8	6.2	4.8	5.9	5.8
DLFPS-236/3542	6.3	6.3	6.3	4.6	5.7	5.8
DLFPS-236/3541	5.7	6.0	6.3	4.8	6.4	5.8
DLFPS-236/3548	6.6	6.2	6.4	4.4	5.5	5.8
023	5.7	6.0	6.3	5.2	5.8	5.8
SHIELD (02BS4)	6.6	5.9	6.0	4.9	5.5	5.8
DLFPS-236/3544	6.2	6.0	5.9	5.3	5.5	5.8
PL2	6.2	5.3	6.5	4.8	5.9	5.8
CPN	6.0	6.1	5.9	5.0	5.7	5.7
DLFPS-236/3556	6.5	5.8	6.3	5.0	5.2	5.7
OVERDRIVE 5G	6.6	5.9	5.7	5.3	5.3	5.7
DLFPS-236/3550	5.9	6.3	6.6	4.8	5.1	5.7
SLIDER LS (PPG-PR 241)	6.0	5.9	6.1	5.3	5.3	5.7
PPG-PR 360	5.8	6.0	6.2	4.8	5.8	5.7
PPG-PR 367	6.1	5.9	6.6	4.5	5.4	5.7
PST-2EGAD	6.1	6.1	6.2	5.1	5.0	5.7
PST-2A2	6.4	5.7	6.6	4.3	5.5	5.7

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

NAME	IL1	KS1	MI1	NE1	NJ2	MEAN
PST-2GTD	5.8	6.0	6.1	5.1	5.4	5.7
GRAND SLAM GLD	6.3	6.1	5.8	4.7	5.5	5.7
PPG-PR 370	6.2	6.1	6.3	4.4	5.4	5.7
PST-2BDT	5.4	6.0	6.3	5.3	5.4	5.7
PPG-PR 422	6.4	6.0	6.2	5.0	4.7	5.7
INTENSE	6.8	5.6	5.3	4.7	5.9	5.7
SEABISCUIT	6.2	5.7	6.1	4.7	5.6	5.7
DLFPS-236/3553	6.1	5.9	6.2	4.7	5.3	5.6
02BS1	6.2	5.3	6.0	4.8	5.9	5.6
PARADOX GLR (PPG-PR 331)	6.4	5.9	6.3	4.6	4.9	5.6
02BS2	5.7	5.8	6.1	4.7	5.8	5.6
PR-5-16	5.9	6.1	6.2	4.8	5.0	5.6
PST-2PDA	6.0	5.7	6.5	4.7	5.1	5.6
PARAGON 2 GLR (FP2)	5.7	6.0	5.6	5.1	5.6	5.6
DERBY XTREME	6.6	5.7	6.2	4.6	5.0	5.6
PST-2FOXY	5.9	6.0	6.1	4.8	5.3	5.6
NP-3	6.3	6.3	6.2	4.4	4.8	5.6
ASP0117 (A-PR15)	6.2	5.9	6.1	4.7	5.1	5.6
BAR LP 6233	6.0	5.4	6.7	5.1	4.7	5.6
APR3060	6.1	6.2	5.4	4.8	5.3	5.6
BAR LP 6164	6.3	6.0	6.2	4.9	4.3	5.5
PST-2MAY	5.9	.	6.2	4.5	5.6	5.5
UMPQUA	6.1	5.5	6.2	4.7	5.2	5.5
MRSL-PR16	6.6	5.9	5.9	4.2	5.0	5.5
PHARAOH	5.8	5.7	6.4	4.7	4.9	5.5
EVOLVE	6.5	5.8	6.1	5.0	4.2	5.5
PPG-PR 385	6.2	5.7	5.9	4.3	5.4	5.5
SR 4650	6.2	5.5	5.7	4.9	5.1	5.5
ASP0118GL (A-4G)	6.0	6.0	5.7	4.5	5.2	5.5
SPIKE GLS (UF3)	6.3	5.4	5.8	4.3	5.6	5.5
021	5.5	5.7	6.2	4.4	5.5	5.5
BAR LP 6159	5.9	6.0	6.3	4.6	4.6	5.5
DLFPS-236/3538	6.0	6.4	5.7	4.4	4.6	5.4
BAR LP 6117	6.1	6.4	5.7	4.5	4.4	5.4
MAN O WAR	5.8	6.0	6.3	4.0	5.0	5.4
ASP0116EXT	6.5	5.7	6.2	4.0	4.7	5.4
KARMA	6.4	.	6.1	4.8	4.3	5.4
JR-123	5.8	6.0	5.9	4.1	5.2	5.4
BAR LP 6158	6.0	6.2	6.1	4.1	4.5	5.4
SAGUARO	6.5	5.6	5.7	5.1	3.9	5.4
SAVANT	6.6	5.5	6.4	5.0	3.2	5.3
SNX	6.3	6.0	5.7	4.0	4.7	5.3
CS-6	6.6	5.6	6.1	3.8	4.7	5.3
APR2612	6.0	5.9	5.7	4.4	4.6	5.3
LPB-SD-102	6.0	5.5	6.1	5.2	3.8	5.3

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

NAME	IL1	KS1	MI1	NE1	NJ2	MEAN
ASP0218 (A-6D)	6.0	5.9	5.7	4.3	4.6	5.3
BAR LP 6131	6.0	5.8	6.1	4.7	3.7	5.3
ALLSTAR III	5.8	5.8	6.1	4.2	4.4	5.3
RAD-PR 112	6.7	5.7	5.7	3.7	4.5	5.3
GO-142	5.9	5.9	5.5	4.3	4.6	5.2
GO-143	6.2	5.8	5.3	4.4	4.5	5.2
PEPPER II (RAD-PR 103)	6.7	5.6	5.8	3.7	4.5	5.2
MRSL-PR15	5.9	5.5	5.9	4.2	4.7	5.2
BAR LP 6165	6.0	5.4	6.2	4.7	3.5	5.2
FIREBALL (BWH)	6.3	5.7	5.9	4.1	3.7	5.1
GO-141	6.0	5.8	5.5	4.5	4.0	5.1
GREEN SUPREME+ (AMP-R1)	6.3	5.8	5.8	3.4	4.3	5.1
MENSA	5.7	5.1	6.3	4.7	3.5	5.1
LPB-SD-103	6.2	5.4	5.5	4.6	3.7	5.1
LPB-SD-105	6.2	5.4	6.6	4.5	2.6	5.1
TEE-ME-UP (BSP-25)	6.1	5.7	5.4	3.4	4.5	5.0
BRIGHTSTAR SLT	6.0	5.6	5.9	4.4	3.2	5.0
JR-888	5.6	5.5	5.9	4.6	3.3	5.0
HATRICK (BSP-17)	5.7	5.8	5.6	3.7	4.3	5.0
LPB-SD-101	6.0	5.6	5.6	4.6	2.9	5.0
LPB-SD-104	5.5	5.6	5.6	4.1	3.6	4.9
JR-747	5.9	5.1	5.3	4.8	3.3	4.9
BAR LP 6162	6.9	5.7	4.3	3.5	3.6	4.8
DLFPS-238/3014	5.8	5.5	4.5	3.8	3.5	4.6
LINN	2.6	3.6	2.9	3.3	1.0	2.7
LSD VALUE	1.2	0.5	0.7	0.7	0.9	0.4
C.V. (%)	11.8	5.6	7.0	8.9	11.3	9.2

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.

3/ SCHEDULE A
    MOWING HEIGHT: 2.5"-0.75"
    NITROGEN: 0.5-0.75lbs/1000sq. ft./GROWING MONTH
    IRRIGATION: TO PREVENT VISUAL DROUGHT STRESS OR DORMANCY
    FUNGICIDE USE ONLY IF SEVERE STAND LOSS IS POSSIBLE
    WEED AND INSECT CONTROL TO PREVENT STAND LOSS

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

NAME	OR1	VA1	MEAN
SLUGGER 3GL (PPG-PR 343)	6.6	7.4	7.0
UMPQUA	6.6	7.4	7.0
PPG-PR 367	6.8	7.2	7.0
DLFPS-236/3545	6.8	7.1	6.9
MAN O WAR	6.7	7.1	6.9
DLFPS-236/3556	6.7	7.0	6.9
021	6.4	7.2	6.8
DLFPS-236/3554	6.4	7.2	6.8
JR-197	6.8	6.9	6.8
DLFPS-236/3548	6.3	7.4	6.8
PR-6-15	6.6	7.0	6.8
SEABISCUIT	6.3	7.4	6.8
DLFPS-236/3547	6.8	6.8	6.8
DLFPS-236/3542	6.6	7.0	6.8
DLFPS-236/3541	6.8	6.7	6.8
PPG-PR 420	6.4	7.1	6.8
OVERDRIVE 5G	6.6	7.0	6.8
PARADOX GLR (PPG-PR 331)	6.5	7.0	6.8
PPG-PR 372	6.6	6.9	6.8
PARAGON 2 GLR (FP2)	6.5	7.0	6.7
ALLOY (RRT)	6.6	6.9	6.7
FURLONG (LTP-FCB)	6.8	6.7	6.7
PST-2FOXY	6.5	7.0	6.7
HOMERUN LS (PPG-PR 419)	6.6	6.9	6.7
DLFPS-236/3550	6.5	6.9	6.7
JR-123	6.5	6.9	6.7
GRAY WOLF (PST-2GAL)	6.3	7.1	6.7
DLFPS-236/3544	6.6	6.8	6.7
PST-2A2	6.7	6.7	6.7
PPG-PR 424	6.5	6.9	6.7
PST-2GTD	6.4	7.0	6.7
INTENSE	6.4	7.0	6.7
PPG-PR 421	6.5	6.9	6.7
DLFPS-236/3546	6.6	6.7	6.7
SILVER SPORT (PST-2CRP)	6.3	7.0	6.7
PPG-PR 371	6.2	7.1	6.7
SIGNET	6.2	7.1	6.7
02BS1	6.4	7.0	6.7
SPIKE GLS (UF3)	6.6	6.7	6.7
023	6.4	6.9	6.6
ASP0118GL (A-4G)	6.5	6.8	6.6
02BS2	6.5	6.8	6.6
ASP0116EXT	6.2	7.0	6.6
DERBY XTREME	6.5	6.8	6.6
PPG-PR 422	6.4	6.8	6.6

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

NAME	OR1	VA1	MEAN
DLFPS-236/3553	6.5	6.7	6.6
MRSL-PR16	6.0	7.2	6.6
CPN	6.5	6.7	6.6
DLFPS-236/3552	6.5	6.7	6.6
NP-2	6.4	6.8	6.6
NP-3	6.4	6.8	6.6
RAD-PR 112	6.5	6.7	6.6
APPLE 3GL (PPG-PR 339)	6.6	6.6	6.6
APR2616	5.9	7.2	6.6
PHARAOH	6.6	6.6	6.6
SR 4650	6.3	6.9	6.6
CS-6	6.1	7.0	6.6
SHIELD (02BS4)	6.2	6.9	6.6
XCELERATOR	6.3	6.8	6.6
SLIDER LS (PPG-PR 241)	6.4	6.7	6.6
PPG-PR 370	6.2	6.9	6.5
PR-5-16	6.1	7.0	6.5
GREEN SUPREME+ (AMP-R1)	6.0	7.0	6.5
PL2	6.3	6.7	6.5
DLFPS-236/3543	6.6	6.4	6.5
PST-2EGAD	6.0	7.0	6.5
ASP0117 (A-PR15)	6.3	6.7	6.5
PPG-PR 385	6.0	7.0	6.5
BAR LP 6165	5.5	7.4	6.5
BAR LP 6162	5.4	7.5	6.5
FASTBALL 3GL (PPG-PR 329)	6.3	6.6	6.5
GO-143	6.0	6.9	6.5
PPG-PR 423	6.1	6.8	6.5
PEPPER II (RAD-PR 103)	6.0	6.9	6.4
DLFPS-236/3540	6.1	6.7	6.4
PPG-PR 360	6.3	6.6	6.4
DLFPS-236/3538	6.0	6.9	6.4
GRAY HAWK (PST-2FIND)	6.1	6.7	6.4
PST-2PDA	5.9	6.9	6.4
SNX	5.9	6.9	6.4
ASP0218 (A-6D)	6.2	6.6	6.4
BAR LP 6158	5.6	7.1	6.4
BAR LP 6117	5.7	7.1	6.4
GRAND SLAM GLD	6.2	6.5	6.4
PST-2BDT	6.2	6.6	6.4
DLFPS-238/3014	5.5	7.2	6.4
EVOLVE	5.8	6.9	6.4
APR3060	5.6	7.1	6.4
PST-2MAY	6.2	6.5	6.3
BAR LP 6164	5.6	7.0	6.3

TABLE 4.   MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
(CONT'D)   GROWN AT TWO LOCATIONS IN THE U.S. 1/
                    MAINTAINED USING "SCHEDULE B" *
                             2018 DATA

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

          NAME   OR1   VA1   MEAN

          BAR LP 6131   5.6   7.0   6.3
          TEE-ME-UP (BSP-25)   6.2   6.3   6.3
          GO-142   5.8   6.7   6.3
          BAR LP 6159   5.6   6.9   6.3
          GO-141   5.6   6.9   6.3
          LPB-SD-102   6.7   5.8   6.2
          LPB-SD-101   6.2   6.3   6.2
          FIREBALL (BWH)   6.3   6.1   6.2
          KARMA   6.0   6.4   6.2
          SAGUARO   5.9   6.5   6.2
          BRIGHTSTAR SLT   5.5   6.8   6.1
          APR2612   5.8   6.5   6.1
          MENSA   6.2   6.0   6.1
          MRSL-PR15   5.9   6.4   6.1
          JR-747   6.1   6.1   6.1
          JR-888   5.7   6.5   6.1
          LPB-SD-103   6.2   6.0   6.1
          ALLSTAR III   6.0   6.1   6.1
          BAR LP 6233   5.4   6.6   6.0
          HATRICK (BSP-17)   6.0   5.8   5.9
          SAVANT   6.0   5.8   5.9
          LPB-SD-104   6.3   5.5   5.9
          LPB-SD-105   6.1   5.5   5.8
          LINN   4.8   3.7   4.2

          LSD VALUE   0.4   0.8   0.5
          C.V. (%)   3.9   7.6   6.2

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.

3/ SCHEDULE B
    MOWING HEIGHT: 1.0"-2.0"
    NITROGEN: 0.5-1.0lbs/1000sq. ft./GROWING MONTH
    IRRIGATION: TO PREVENT DORMANCY, ONLY DURING SEVERE STRESS OR NONE
    FUNGICIDE USE ONLY IF SEVERE STAND LOSS IS POSSIBLE
    WEED AND INSECT CONTROL TO PREVENT STAND LOSS

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TABLE 5.      MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
                 GROWN AT SEVEN LOCATIONS IN THE U.S.  1/
                     MAINTAINED USING "SCHEDULE C"  *
                             2018 DATA


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


     NAME                      CA7    CT1    IA1    MD1    MN1    MO1    UT1    MEAN

     DLFPS-236/3544            6.7    6.2    6.8    6.0    6.1    4.6    6.1    6.1
     021                       6.0    6.6    7.2    5.9    5.3    4.1    6.4    5.9
     PPG-PR 421                6.3    6.9    6.8    5.4    5.1    4.3    6.6    5.9
     PPG-PR 422                6.0    7.1    6.2    4.9    6.0    4.4    6.5    5.9
     PL2                       5.9    6.8    6.9    5.6    5.2    4.5    6.0    5.8
     DLFPS-236/3554            5.7    6.7    6.7    5.8    5.2    4.1    6.6    5.8
     DLFPS-236/3546            6.2    6.8    6.4    5.4    5.9    4.0    6.0    5.8
     PPG-PR 424                6.4    6.8    6.5    4.9    5.6    3.9    6.4    5.8
     HOMERUN LS (PPG-PR 419)   6.9    6.1    6.9    4.6    5.3    4.3    6.1    5.7
     DLFPS-236/3538            5.8    6.3    6.7    4.7    5.1    5.2    6.2    5.7
     PST-2GTD                  6.2    6.3    7.2    5.7    4.8    3.9    5.9    5.7
     DLFPS-236/3552            6.2    6.8    6.7    5.6    4.4    4.0    6.3    5.7
     PPG-PR 423                6.0    6.6    6.6    5.1    5.4    3.9    6.4    5.7
     DLFPS-236/3543            5.5    6.3    7.3    5.4    5.6    3.6    6.3    5.7
     DLFPS-236/3553            6.4    6.5    6.3    4.6    5.7    4.3    6.0    5.7
     FURLONG (LTP-FCB)         5.5    6.2    6.9    4.5    5.7    4.4    6.5    5.7
     XCELERATOR                6.3    6.6    6.2    5.1    5.2    3.9    6.5    5.7
     PARAGON 2 GLR (FP2)       6.1    5.8    6.3    4.6    6.3    4.4    6.1    5.7
     UMPQUA                    6.4    6.5    7.2    4.7    5.6    3.5    5.8    5.7
     DLFPS-236/3548            6.1    6.7    6.3    5.3    4.9    4.1    6.2    5.7
     PPG-PR 420                6.3    6.4    6.7    4.8    4.9    4.3    6.1    5.7
     DLFPS-236/3542            6.7    6.9    6.8    5.0    4.0    3.8    6.3    5.6
     PPG-PR 370                6.4    6.3    6.4    4.9    4.6    4.4    6.6    5.6
     DLFPS-236/3550            6.7    6.4    5.7    4.9    5.3    4.0    6.5    5.6
     DLFPS-236/3545            5.4    6.7    7.1    5.6    4.7    4.0    6.1    5.6
     SPIKE GLS (UF3)           6.1    6.2    6.4    5.3    5.4    4.0    6.0    5.6
     SHIELD (02BS4)            6.3    6.6    6.4    5.1    5.3    4.0    5.7    5.6
     02BS2                     4.6    6.6    6.3    5.5    5.7    4.2    6.4    5.6
     HATRICK (BSP-17)          6.9    5.8    6.8    5.0    4.5    3.8    6.7    5.6
     PPG-PR 372                6.1    6.9    6.5    4.4    5.2    4.0    6.1    5.6
     DLFPS-236/3541            5.6    5.9    6.5    5.4    5.7    3.6    6.5    5.6
     ALLOY (RRT)               4.9    6.5    6.7    5.0    5.1    4.2    6.8    5.6
     NP-3                      6.1    6.9    6.2    4.3    5.3    4.2    6.2    5.6
     DLFPS-236/3547            5.7    6.5    6.9    4.5    5.4    4.2    5.9    5.6
     ASP0117 (A-PR15)          6.6    6.3    6.4    4.5    5.6    3.6    6.2    5.6
     CPN                       6.4    5.9    6.5    4.4    6.0    3.8    6.1    5.6
     PPG-PR 360                4.8    7.1    6.3    4.9    5.1    4.1    6.7    5.6
     DLFPS-236/3540            6.7    6.3    6.3    5.0    5.3    3.3    6.0    5.6
     PARADOX GLR (PPG-PR 331)  5.1    6.8    6.0    4.3    5.9    4.4    6.5    5.6
     PST-2MAY                  5.9    5.9    6.4    4.9    5.2    4.1    6.5    5.6
     GRAY WOLF (PST-2GAL)      6.3    6.6    6.3    4.9    4.6    4.0    6.5    5.6
     PST-2EGAD                 6.1    6.1    6.7    5.2    4.9    4.1    5.8    5.6
     PPG-PR 371                5.5    6.7    6.3    4.6    4.2    5.0    6.5    5.6
     PST-2FOXY                 6.3    6.3    6.3    4.8    5.2    4.0    5.9    5.5
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TABLE 5.    MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
(CONT'D)              GROWN AT SEVEN LOCATIONS IN THE U.S.  1/
                          MAINTAINED USING "SCHEDULE C"  *
                                 2018 DATA

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

NAME                         CA7    CT1    IA1    MD1    MN1    MO1    UT1    MEAN

023                          6.4    6.4    6.3    4.2    5.1    4.2    6.1    5.5
BAR LP 6164                  6.4    5.9    6.6    5.4    4.6    4.1    5.7    5.5
DLFPS-236/3556              6.5    5.7    6.2    4.9    5.6    3.9    5.9    5.5
SILVER SPORT (PST-2CRP)      5.7    5.6    6.8    4.9    5.6    4.0    6.1    5.5
GRAND SLAM GLD               6.2    5.8    6.2    5.2    4.9    4.0    6.1    5.5
PR-6-15                      5.9    6.7    6.6    4.8    5.6    3.3    5.7    5.5
SEABISCUIT                   6.1    6.1    6.9    4.6    5.0    4.6    5.2    5.5
PHARAOH                      5.7    6.7    6.8    4.4    4.7    3.9    6.2    5.5
JR-123                       6.1    6.3    5.7    5.0    5.0    4.6    5.9    5.5
APPLE 3GL (PPG-PR 339)       5.4    6.4    5.9    5.1    5.1    4.4    6.0    5.5
NP-2                         5.8    6.6    6.4    4.4    5.3    3.7    6.1    5.5
OVERDRIVE 5G                 6.2    6.4    6.6    4.3    5.4    3.5    5.8    5.5
PPG-PR 367                   6.5    6.3    5.7    4.7    5.5    3.6    5.9    5.5
ASP0218 (A-6D)               6.6    6.1    5.9    4.9    4.4    4.2    6.0    5.5
JR-197                       5.6    6.1    7.0    5.0    5.0    3.8    5.7    5.5
FASTBALL 3GL (PPG-PR 329)    4.4    5.8    6.5    4.8    5.5    4.7    6.4    5.4
APR2616                      6.5    5.9    5.8    4.6    5.5    3.7    6.1    5.4
ASP0118GL (A-4G)             5.9    6.1    6.6    5.0    4.9    3.5    6.1    5.4
BAR LP 6233                  6.3    6.3    6.3    4.8    4.6    4.3    5.3    5.4
ASP0116EXT                   6.5    5.4    6.7    4.5    5.3    3.0    6.6    5.4
PR-5-16                      6.1    5.8    6.2    4.7    5.4    3.9    5.9    5.4
SLIDER LS (PPG-PR 241)       5.9    6.3    6.3    4.6    5.3    3.5    6.0    5.4
PPG-PR 385                   6.6    5.8    6.4    4.1    4.8    4.1    6.0    5.4
SLUGGER 3GL (PPG-PR 343)     4.9    6.1    6.0    5.1    5.2    3.9    6.5    5.4
INTENSE                      6.4    6.3    6.1    4.8    4.4    3.7    5.9    5.4
02BS1                        6.2    5.9    6.5    4.5    5.0    3.5    6.0    5.4
GRAY HAWK (PST-2FIND)        6.8    5.9    6.6    4.0    4.7    3.8    5.8    5.3
BAR LP 6117                  6.6    5.3    5.9    4.7    5.0    4.3    5.5    5.3
SIGNET                       6.1    6.2    6.6    4.4    4.6    3.4    6.1    5.3
BAR LP 6158                  6.4    6.4    6.3    4.4    4.1    4.2    5.5    5.3
PST-2A2                      6.1    6.3    6.2    4.4    4.9    3.3    6.0    5.3
BAR LP 6159                  5.9    5.3    6.4    4.8    5.2    3.8    5.8    5.3
SR 4650                      6.4    5.9    6.3    4.0    5.5    3.3    5.6    5.3
SNX                          5.9    5.3    6.3    4.7    4.0    4.2    6.5    5.3
CS-6                         6.5    5.5    5.9    4.4    5.0    3.3    6.3    5.3
EVOLVE                       5.8    6.1    6.1    5.0    4.9    4.0    4.9    5.2
APR3060                      5.0    5.7    6.5    4.7    5.3    4.0    5.4    5.2
PST-2BDT                     5.6    6.5    5.7    4.8    4.4    3.7    5.8    5.2
MAN O WAR                    5.6    6.3    6.6    4.4    4.7    3.0    5.7    5.2
MRSL-PR15                    6.4    5.9    6.1    4.8    4.1    3.3    5.6    5.2
MRSL-PR16                    5.7    5.1    6.6    4.8    5.0    3.2    5.8    5.2
SAGUARO                      6.3    6.0    5.7    3.5    5.5    3.3    5.8    5.2
PST-2PDA                     5.9    5.8    6.1    4.6    4.8    3.3    5.5    5.1
APR2612                      6.2    5.7    6.1    4.9    3.7    3.8    5.6    5.1
GREEN SUPREME+ (AMP-R1)      5.7    5.6    5.6    4.2    4.7    3.7    6.1    5.1
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TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	CA7	CT1	IA1	MD1	MN1	MO1	UT1	MEAN
PEPPER II (RAD-PR 103)	5.6	5.6	6.4	4.1	3.9	3.9	6.1	5.1
FIREBALL (BWH)	5.8	5.4	6.4	4.0	3.9	3.5	6.4	5.1
LPB-SD-102	5.8	6.2	6.2	2.9	5.3	2.7	6.2	5.1
RAD-PR 112	5.4	5.2	6.5	4.4	4.1	3.3	6.6	5.1
GO-141	6.7	5.5	5.6	3.9	5.2	2.8	5.5	5.0
DERBY XTREME	5.5	6.0	6.0	4.1	4.7	3.2	5.6	5.0
GO-142	6.5	5.8	4.9	4.6	4.6	3.2	5.2	5.0
DLFPS-238/3014	5.7	5.3	6.6	4.4	3.4	4.2	5.3	5.0
TEE-ME-UP (BSP-25)	6.5	4.9	7.1	4.0	3.1	2.9	6.3	5.0
GO-143	6.0	5.2	5.7	4.2	4.4	3.7	5.6	5.0
BAR LP 6131	5.9	5.3	5.6	4.5	4.4	3.8	5.2	5.0
JR-888	5.7	6.3	5.4	3.0	4.9	3.4	5.8	4.9
BAR LP 6165	6.4	5.9	6.9	3.1	3.5	3.8	4.7	4.9
LPB-SD-105	6.3	5.5	5.9	2.3	5.1	3.2	6.0	4.9
BRIGHTSTAR SLT	5.2	5.4	6.2	3.7	4.6	3.8	5.5	4.9
LPB-SD-103	5.9	5.5	5.9	3.0	5.1	2.4	6.3	4.9
MENSA	6.1	5.8	5.6	3.0	4.7	3.1	5.8	4.9
KARMA	5.8	5.6	5.2	3.8	4.4	3.6	5.7	4.9
ALLSTAR III	5.8	5.9	5.6	4.0	3.9	3.4	5.3	4.8
SAVANT	6.3	6.3	5.0	2.9	3.7	3.0	6.2	4.8
LPB-SD-101	6.2	6.1	5.3	2.7	4.4	2.5	6.0	4.7
BAR LP 6162	6.9	5.0	5.4	3.9	2.6	4.0	5.3	4.7
JR-747	6.7	5.1	4.6	2.9	3.9	2.6	6.0	4.6
LPB-SD-104	5.8	5.9	5.4	2.9	3.6	2.3	5.8	4.5
LINN	5.6	3.7	4.7	1.5	1.2	3.7	2.8	3.3
LSD VALUE	1.3	0.7	1.0	0.8	1.2	1.2	0.8	0.4
C.V. (%)	13.2	7.3	9.8	11.2	15.9	19.7	8.8	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.

3/ SCHEDULE C
    MOWING HEIGHT: 1.5"-2.5"
    NITROGEN: 0.3-0.5lbs/1000sq. ft./GROWING MONTH
    IRRIGATION: NONE, ONLY DURING SEVERE STRESS OR TO PREVENT DORMANCY
    FUNGICIDE OR INSECTICIDE USE OR NONE
    WEED CONTROL TO PREVENT SIGNIFICANT STAND LOSS

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TABLE 6.              MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
                               GROWN AT TWO LOCATIONS  1/
                                IN THE NORTHEAST REGION
                                      2018 DATA
                          TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF  2/


                         NAME                        CT1    NJ2    MEAN


                         PPG-PR 360                  7.1    5.8    6.5
                         PPG-PR 421                  6.9    5.9    6.4
                         DLFPS-236/3546              6.8    6.0    6.4
                         PPG-PR 372                  6.9    5.9    6.4
                         FURLONG (LTP-FCB)           6.2    6.6    6.4
                         PL2                         6.8    5.9    6.3
                         ALLOY (RRT)                 6.5    6.2    6.3
                         PPG-PR 423                  6.6    6.0    6.3
                         DLFPS-236/3542              6.9    5.7    6.3
                         DLFPS-236/3554              6.7    5.8    6.3
                         PPG-PR 371                  6.7    5.8    6.3
                         NP-2                        6.6    5.9    6.2
                         PR-6-15                     6.7    5.8    6.2
                         DLFPS-236/3547              6.5    5.9    6.2
                         DLFPS-236/3552              6.8    5.6    6.2
                         02BS2                       6.6    5.8    6.2
                         APPLE 3GL (PPG-PR 339)      6.4    5.9    6.2
                         DLFPS-236/3541              5.9    6.4    6.2
                         INTENSE                     6.3    5.9    6.1
                         DLFPS-236/3545              6.7    5.5    6.1
                         DLFPS-236/3543              6.3    5.9    6.1
                         PPG-PR 424                  6.8    5.4    6.1
                         023                         6.4    5.8    6.1
                         DLFPS-236/3548              6.7    5.5    6.1
                         SLUGGER 3GL (PPG-PR 343)    6.1    6.0    6.1
                         021                         6.6    5.5    6.0
                         GRAY WOLF (PST-2GAL)        6.6    5.5    6.0
                         SHIELD (02BS4)              6.6    5.5    6.0
                         SIGNET                      6.2    5.9    6.0
                         PST-2BDT                    6.5    5.4    6.0
                         DLFPS-236/3540              6.3    5.5    5.9
                         DLFPS-236/3553              6.5    5.3    5.9
                         PST-2A2                     6.3    5.5    5.9
                         XCELERATOR                  6.6    5.2    5.9
                         02BS1                       5.9    5.9    5.9
                         SPIKE GLS (UF3)             6.2    5.6    5.9
                         PPG-PR 422                  7.1    4.7    5.9
                         NP-3                        6.9    4.8    5.9
                         PPG-PR 420                  6.4    5.4    5.9
                         PPG-PR 367                  6.3    5.4    5.9
                         PST-2GTD                    6.3    5.4    5.9
                         SEABISCUIT                  6.1    5.6    5.8
                         DLFPS-236/3544              6.2    5.5    5.8
                         UMPQUA                      6.5    5.2    5.8
                         SLIDER LS (PPG-PR 241)      6.3    5.3    5.8
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TABLE 6.
(CONT'D)

MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
GROWN AT TWO LOCATIONS 1/
IN THE NORTHEAST REGION
2018 DATA
TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	CT1	NJ2	MEAN
CPN	5.9	5.7	5.8
PARADOX GLR (PPG-PR 331)	6.8	4.9	5.8
PPG-PR 370	6.3	5.4	5.8
APR2616	5.9	5.8	5.8
OVERDRIVE 5G	6.4	5.3	5.8
JR-197	6.1	5.5	5.8
PHARAOH	6.7	4.9	5.8
PST-2FOXY	6.3	5.3	5.8
GRAY HAWK (PST-2FIND)	5.9	5.6	5.8
DLFPS-236/3550	6.4	5.1	5.8
PST-2MAY	5.9	5.6	5.7
ASP0117 (A-PR15)	6.3	5.1	5.7
PARAGON 2 GLR (FP2)	5.8	5.6	5.7
JR-123	6.3	5.2	5.7
FASTBALL 3GL (PPG-PR 329)	5.8	5.5	5.7
GRAND SLAM GLD	5.8	5.5	5.7
ASP0118GL (A-4G)	6.1	5.2	5.7
SILVER SPORT (PST-2CRP)	5.6	5.7	5.7
MAN O WAR	6.3	5.0	5.6
HOMERUN LS (PPG-PR 419)	6.1	5.1	5.6
PPG-PR 385	5.8	5.4	5.6
SR 4650	5.9	5.1	5.5
PST-2EGAD	6.1	5.0	5.5
BAR LP 6233	6.3	4.7	5.5
APR3060	5.7	5.3	5.5
DERBY XTREME	6.0	5.0	5.5
DLFPS-236/3538	6.3	4.6	5.5
PST-2PDA	5.8	5.1	5.5
BAR LP 6158	6.4	4.5	5.4
DLFPS-236/3556	5.7	5.2	5.4
PR-5-16	5.8	5.0	5.4
ASP0218 (A-6D)	6.1	4.6	5.3
MRSL-PR15	5.9	4.7	5.3
GO-142	5.8	4.6	5.2
APR2612	5.7	4.6	5.2
EVOLVE	6.1	4.2	5.2
ALLSTAR III	5.9	4.4	5.2
BAR LP 6164	5.9	4.3	5.1
CS-6	5.5	4.7	5.1
ASP0116EXT	5.4	4.7	5.1
PEPPER II (RAD-PR 103)	5.6	4.5	5.0
MRSL-PR16	5.1	5.0	5.0
HATRICK (BSP-17)	5.8	4.3	5.0
LPB-SD-102	6.2	3.8	5.0
SNX	5.3	4.7	5.0
SAGUARO	6.0	3.9	5.0

NAME	CT1	NJ2	MEAN
KARMA	5.6	4.3	4.9
BAR LP 6159	5.3	4.6	4.9
GREEN SUPREME+ (AMP-R1)	5.6	4.3	4.9
BAR LP 6117	5.3	4.4	4.9
GO-143	5.2	4.5	4.8
RAD-PR 112	5.2	4.5	4.8
JR-888	6.3	3.3	4.8
SAVANT	6.3	3.2	4.7
LPB-SD-104	5.9	3.6	4.7
GO-141	5.5	4.0	4.7
TEE-ME-UP (BSP-25)	4.9	4.5	4.7
BAR LP 6165	5.9	3.5	4.7
MENSA	5.8	3.5	4.7
LPB-SD-103	5.5	3.7	4.6
FIREBALL (BWH)	5.4	3.7	4.5
LPB-SD-101	6.1	2.9	4.5
BAR LP 6131	5.3	3.7	4.5
DLFPS-238/3014	5.3	3.5	4.4
BAR LP 6162	5.0	3.6	4.3
BRIGHTSTAR SLT	5.4	3.2	4.3
JR-747	5.1	3.3	4.2
LPB-SD-105	5.5	2.6	4.1
LINN	3.7	1.0	2.3
LSD VALUE	0.7	0.9	0.6
C.V. (%)	7.3	11.3	9.2

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.

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TABLE 7.        MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
                       GROWN AT FOUR LOCATIONS  1/
                       IN THE TRANSITION REGION
                            2018 DATA
                TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF  2/


    NAME                            KS1    MD1    MO1    VA1    MEAN

    DLFPS-236/3554                  6.7    5.8    4.1    7.2    6.0
    DLFPS-236/3544                  6.0    6.0    4.6    6.8    5.8
    DLFPS-236/3538                  6.4    4.7    5.2    6.9    5.8
    DLFPS-236/3545                  6.3    5.6    4.0    7.1    5.8
    DLFPS-236/3548                  6.2    5.3    4.1    7.4    5.8
    PPG-PR 371                      6.2    4.6    5.0    7.1    5.7
    021                            5.7    5.9    4.1    7.2    5.7
    PPG-PR 421                      6.1    5.4    4.3    6.9    5.7
    BAR LP 6117                     6.4    4.7    4.3    7.1    5.6
    DLFPS-236/3552                  6.1    5.6    4.0    6.7    5.6
    PST-2GTD                        6.0    5.7    3.9    7.0    5.6
    PPG-PR 420                      6.2    4.8    4.3    7.1    5.6
    JR-123                          6.0    5.0    4.6    6.9    5.6
    SILVER SPORT (PST-2CRP)         6.5    4.9    4.0    7.0    5.6
    BAR LP 6164                     6.0    5.4    4.1    7.0    5.6
    DLFPS-236/3546                  6.3    5.4    4.0    6.7    5.6
    PST-2EGAD                       6.1    5.2    4.1    7.0    5.6
    02BS2                          5.8    5.5    4.2    6.8    5.6
    GRAY WOLF (PST-2GAL)            6.4    4.9    4.0    7.1    5.6
    ALLOY (RRT)                     6.1    5.0    4.2    6.9    5.6
    SLUGGER 3GL (PPG-PR 343)        5.9    5.1    3.9    7.4    5.6
    FASTBALL 3GL (PPG-PR 329)       6.1    4.8    4.7    6.6    5.6
    PPG-PR 370                      6.1    4.9    4.4    6.9    5.6
    SEABISCUIT                      5.7    4.6    4.6    7.4    5.6
    PL2                            5.3    5.6    4.5    6.7    5.5
    XCELERATOR                      6.4    5.1    3.9    6.8    5.5
    DLFPS-236/3542                  6.3    5.0    3.8    7.0    5.5
    DLFPS-236/3550                  6.3    4.9    4.0    6.9    5.5
    PPG-PR 422                      6.0    4.9    4.4    6.8    5.5
    APPLE 3GL (PPG-PR 339)          6.0    5.1    4.4    6.6    5.5
    BAR LP 6158                     6.2    4.4    4.2    7.1    5.5
    PARAGON 2 GLR (FP2)            6.0    4.6    4.4    7.0    5.5
    APR3060                         6.2    4.7    4.0    7.1    5.5
    SHIELD (02BS4)                  5.9    5.1    4.0    6.9    5.5
    FURLONG (LTP-FCB)              6.3    4.5    4.4    6.7    5.5
    PPG-PR 423                      6.1    5.1    3.9    6.8    5.5
    GRAND SLAM GLD                  6.1    5.2    4.0    6.5    5.5
    HOMERUN LS (PPG-PR 419)         6.0    4.6    4.3    6.9    5.4
    PST-2FOXY                       6.0    4.8    4.0    7.0    5.4
    DLFPS-236/3541                  6.0    5.4    3.6    6.7    5.4
    APR2616                         6.2    4.6    3.7    7.2    5.4
    SNX                            6.0    4.7    4.2    6.9    5.4
    DLFPS-236/3547                  6.1    4.5    4.2    6.8    5.4
    EVOLVE                         5.8    5.0    4.0    6.9    5.4
    PPG-PR 360                      6.0    4.9    4.1    6.6    5.4
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NAME	KS1	MD1	MO1	VA1	MEAN
PPG-PR 424	6.0	4.9	3.9	6.9	5.4
PR-5-16	6.1	4.7	3.9	7.0	5.4
PARADOX GLR (PPG-PR 331)	5.9	4.3	4.4	7.0	5.4
DLFPS-236/3543	6.3	5.4	3.6	6.4	5.4
NP-3	6.3	4.3	4.2	6.8	5.4
ASP0218 (A-6D)	5.9	4.9	4.2	6.6	5.4
DLFPS-236/3556	5.8	4.9	3.9	7.0	5.4
JR-197	6.0	5.0	3.8	6.9	5.4
DLFPS-236/3553	5.9	4.6	4.3	6.7	5.4
BAR LP 6159	6.0	4.8	3.8	6.9	5.4
PPG-PR 372	6.0	4.4	4.0	6.9	5.4
SPIKE GLS (UF3)	5.4	5.3	4.0	6.7	5.4
DLFPS-238/3014	5.5	4.4	4.2	7.2	5.3
PPG-PR 367	5.9	4.7	3.6	7.2	5.3
023	6.0	4.2	4.2	6.9	5.3
ASP0118GL (A-4G)	6.0	5.0	3.5	6.8	5.3
DLFPS-236/3540	6.2	5.0	3.3	6.7	5.3
BAR LP 6131	5.8	4.5	3.8	7.0	5.3
PR-6-15	6.0	4.8	3.3	7.0	5.3
MRSL-PR16	5.9	4.8	3.2	7.2	5.3
BAR LP 6233	5.4	4.8	4.3	6.6	5.3
UMPQUA	5.5	4.7	3.5	7.4	5.3
INTENSE	5.6	4.8	3.7	7.0	5.3
APR2612	5.9	4.9	3.8	6.5	5.3
BAR LP 6162	5.7	3.9	4.0	7.5	5.3
CPN	6.1	4.4	3.8	6.7	5.3
PST-2BDT	6.0	4.8	3.7	6.6	5.2
NP-2	6.0	4.4	3.7	6.8	5.2
PPG-PR 385	5.7	4.1	4.1	7.0	5.2
GREEN SUPREME+ (AMP-R1)	5.8	4.2	3.7	7.0	5.2
ASP0117 (A-PR15)	5.9	4.5	3.6	6.7	5.2
PST-2MAY	.	4.9	4.1	6.5	5.2
SLIDER LS (PPG-PR 241)	5.9	4.6	3.5	6.7	5.2
OVERDRIVE 5G	5.9	4.3	3.5	7.0	5.2
GO-143	5.8	4.2	3.7	6.9	5.2
PHARAOH	5.7	4.4	3.9	6.6	5.2
SIGNET	5.8	4.4	3.4	7.1	5.2
PST-2PDA	5.7	4.6	3.3	6.9	5.1
PEPPER II (RAD-PR 103)	5.6	4.1	3.9	6.9	5.1
MAN O WAR	6.0	4.4	3.0	7.1	5.1
GO-142	5.9	4.6	3.2	6.7	5.1
CS-6	5.6	4.4	3.3	7.0	5.1
GRAY HAWK (PST-2FIND)	6.0	4.0	3.8	6.7	5.1
ASP0116EXT	5.7	4.5	3.0	7.0	5.1
HATRICK (BSP-17)	5.8	5.0	3.8	5.8	5.1
02BS1	5.3	4.5	3.5	7.0	5.1

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TABLE 7.        MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
(CONT'D)                        GROWN AT FOUR LOCATIONS  1/
                                IN THE TRANSITION REGION
                                      2018 DATA
                        TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF  2/

        NAME                            KS1     MD1     MO1     VA1     MEAN

        PST-2A2                         5.7     4.4     3.3     6.7     5.0
        RAD-PR 112                      5.7     4.4     3.3     6.7     5.0
        MRSL-PR15                       5.5     4.8     3.3     6.4     5.0
        BRIGHTSTAR SLT                  5.6     3.7     3.8     6.8     5.0
        BAR LP 6165                     5.4     3.1     3.8     7.4     4.9
        DERBY XTREME                    5.7     4.1     3.2     6.8     4.9
        SR 4650                         5.5     4.0     3.3     6.9     4.9
        ALLSTAR III                     5.8     4.0     3.4     6.1     4.8
        GO-141                          5.8     3.9     2.8     6.9     4.8
        FIREBALL (BWH)                  5.7     4.0     3.5     6.1     4.8
        TEE-ME-UP (BSP-25)              5.7     4.0     2.9     6.3     4.8
        SAGUARO                         5.6     3.5     3.3     6.5     4.7
        JR-888                          5.5     3.0     3.4     6.5     4.6
        KARMA                            .      3.8     3.6     6.4     4.6
        MENSA                           5.1     3.0     3.1     6.0     4.3
        SAVANT                          5.5     2.9     3.0     5.8     4.3
        LPB-SD-101                      5.6     2.7     2.5     6.3     4.3
        LPB-SD-102                      5.5     2.9     2.7     5.8     4.2
        LPB-SD-103                      5.4     3.0     2.4     6.0     4.2
        JR-747                          5.1     2.9     2.6     6.1     4.2
        LPB-SD-105                      5.4     2.3     3.2     5.5     4.1
        LPB-SD-104                      5.6     2.9     2.3     5.5     4.1
        LINN                            3.6     1.5     3.7     3.7     3.1

        LSD VALUE                       0.5     0.8     1.2     0.8     0.4
        C.V. (%)                        5.6    11.2    19.7     7.6    10.4
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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 8.      MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
                          GROWN AT FIVE LOCATIONS  1/
                          IN THE NORTH CENTRAL REGION
                                2018 DATA
                     TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF  2/


          NAME                        IA1    IL1    MI1    MN1    NE1    MEAN


          FURLONG (LTP-FCB)           6.9    6.0    6.7    5.7    5.4    6.1
          DLFPS-236/3543              7.3    6.1    6.3    5.6    5.1    6.1
          HOMERUN LS (PPG-PR 419)     6.9    6.6    6.1    5.3    5.5    6.1
          PR-6-15                     6.6    6.2    6.6    5.6    5.3    6.0
          DLFPS-236/3544              6.8    6.2    5.9    6.1    5.3    6.0
          PPG-PR 423                  6.6    6.6    6.7    5.4    5.0    6.0
          PPG-PR 421                  6.8    6.7    6.3    5.1    5.1    6.0
          PPG-PR 424                  6.5    6.3    6.4    5.6    5.2    6.0
          FASTBALL 3GL (PPG-PR 329)   6.5    6.2    6.2    5.5    5.6    6.0
          DLFPS-236/3547              6.9    6.7    6.1    5.4    4.7    6.0
          PPG-PR 422                  6.2    6.4    6.2    6.0    5.0    6.0
          UMPQUA                      7.2    6.1    6.2    5.6    4.7    6.0
          JR-197                      7.0    6.0    6.1    5.0    5.5    5.9
          OVERDRIVE 5G                6.6    6.6    5.7    5.4    5.3    5.9
          PL2                         6.9    6.2    6.5    5.2    4.8    5.9
          SILVER SPORT (PST-2CRP)     6.8    6.0    6.4    5.6    4.9    5.9
          DLFPS-236/3556              6.2    6.5    6.3    5.6    5.0    5.9
          NP-2                        6.4    6.1    6.4    5.3    5.3    5.9
          DLFPS-236/3545              7.1    6.4    6.2    4.7    5.2    5.9
          DLFPS-236/3546              6.4    6.3    6.3    5.9    4.5    5.9
          CPN                         6.5    6.0    5.9    6.0    5.0    5.9
          DLFPS-236/3540              6.3    6.5    6.0    5.3    5.3    5.9
          PPG-PR 420                  6.7    6.4    6.4    4.9    5.0    5.9
          DLFPS-236/3554              6.7    6.5    6.2    5.2    4.8    5.9
          XCELERATOR                  6.2    7.1    6.1    5.2    4.7    5.9
          PARADOX GLR (PPG-PR 331)    6.0    6.4    6.3    5.9    4.6    5.9
          SHIELD (02BS4)              6.4    6.6    6.0    5.3    4.9    5.8
          PPG-PR 372                  6.5    6.1    6.4    5.2    4.9    5.8
          PST-2GTD                    7.2    5.8    6.1    4.8    5.1    5.8
          APR2616                     5.8    6.2    6.1    5.5    5.5    5.8
          PST-2EGAD                   6.7    6.1    6.2    4.9    5.1    5.8
          DLFPS-236/3553              6.3    6.1    6.2    5.7    4.7    5.8
          PARAGON 2 GLR (FP2)         6.3    5.7    5.6    6.3    5.1    5.8
          DLFPS-236/3552              6.7    6.1    6.7    4.4    5.1    5.8
          SLIDER LS (PPG-PR 241)      6.3    6.0    6.1    5.3    5.3    5.8
          ASP0117 (A-PR15)            6.4    6.2    6.1    5.6    4.7    5.8
          DLFPS-236/3541              6.5    5.7    6.3    5.7    4.8    5.8
          SEABISCUIT                  6.9    6.2    6.1    5.0    4.7    5.8
          GRAY HAWK (PST-2FIND)       6.6    6.1    6.3    4.7    5.1    5.8
          SLUGGER 3GL (PPG-PR 343)    6.0    6.5    6.6    5.2    4.6    5.8
          ALLOY (RRT)                 6.7    5.6    6.6    5.1    4.9    5.8
          LPB-SD-102                  6.2    6.0    6.1    5.3    5.2    5.8
          BAR LP 6233                 6.3    6.0    6.7    4.6    5.1    5.7
          021                         7.2    5.5    6.2    5.3    4.4    5.7
          023                         6.3    5.7    6.3    5.1    5.2    5.7
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TABLE 8.        MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
(CONT'D)                         GROWN AT FIVE LOCATIONS  1/
                                 IN THE NORTH CENTRAL REGION
                                        2018 DATA
                          TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF  2/


          NAME                      IA1     IL1     MI1     MN1     NE1     MEAN

          ASP0116EXT                6.7     6.5     6.2     5.3     4.0     5.7
          BAR LP 6164               6.6     6.3     6.2     4.6     4.9     5.7
          SIGNET                    6.6     6.4     6.2     4.6     4.8     5.7
          DLFPS-236/3548            6.3     6.6     6.4     4.9     4.4     5.7
          SR 4650                   6.3     6.2     5.7     5.5     4.9     5.7
          EVOLVE                    6.1     6.5     6.1     4.9     5.0     5.7
          PR-5-16                   6.2     5.9     6.2     5.4     4.8     5.7
          02BS1                     6.5     6.2     6.0     5.0     4.8     5.7
          PPG-PR 367                5.7     6.1     6.6     5.5     4.5     5.7
          02BS2                     6.3     5.7     6.1     5.7     4.7     5.7
          PHARAOH                   6.8     5.8     6.4     4.7     4.7     5.7
          SAGUARO                   5.7     6.5     5.7     5.5     5.1     5.7
          APPLE 3GL (PPG-PR 339)    5.9     6.3     6.8     5.1     4.3     5.7
          PST-2A2                   6.2     6.4     6.6     4.9     4.3     5.7
          NP-3                      6.2     6.3     6.2     5.3     4.4     5.7
          GRAY WOLF (PST-2GAL)      6.3     6.0     6.4     4.6     5.1     5.7
          BAR LP 6159               6.4     5.9     6.3     5.2     4.6     5.7
          PST-2FOXY                 6.3     5.9     6.1     5.2     4.8     5.7
          LPB-SD-105                5.9     6.2     6.6     5.1     4.5     5.7
          MRSL-PR16                 6.6     6.6     5.9     5.0     4.2     5.7
          DLFPS-236/3550            5.7     5.9     6.6     5.3     4.8     5.6
          PST-2MAY                  6.4     5.9     6.2     5.2     4.5     5.6
          PPG-PR 360                6.3     5.8     6.2     5.1     4.8     5.6
          SPIKE GLS (UF3)           6.4     6.3     5.8     5.4     4.3     5.6
          APR3060                   6.5     6.1     5.4     5.3     4.8     5.6
          PST-2PDA                  6.1     6.0     6.5     4.8     4.7     5.6
          DERBY XTREME              6.0     6.6     6.2     4.7     4.6     5.6
          GRAND SLAM GLD            6.2     6.3     5.8     4.9     4.7     5.6
          PPG-PR 370                6.4     6.2     6.3     4.6     4.4     5.6
          DLFPS-236/3538            6.7     6.0     5.7     5.1     4.4     5.6
          DLFPS-236/3542            6.8     6.3     6.3     4.0     4.6     5.6
          PPG-PR 371                6.3     6.0     6.2     4.2     5.1     5.6
          ASP0118GL (A-4G)          6.6     6.0     5.7     4.9     4.5     5.5
          PPG-PR 385                6.4     6.2     5.9     4.8     4.3     5.5
          MAN O WAR                 6.6     5.8     6.3     4.7     4.0     5.5
          BAR LP 6165               6.9     6.0     6.2     3.5     4.7     5.5
          INTENSE                   6.1     6.8     5.3     4.4     4.7     5.5
          CS-6                      5.9     6.6     6.1     5.0     3.8     5.5
          LPB-SD-103                5.9     6.2     5.5     5.1     4.6     5.5
          BRIGHTSTAR SLT            6.2     6.0     5.9     4.6     4.4     5.5
          BAR LP 6117               5.9     6.1     5.7     5.0     4.5     5.4
          PST-2BDT                  5.7     5.4     6.3     4.4     5.3     5.4
          MENSA                     5.6     5.7     6.3     4.7     4.7     5.4
          KARMA                     5.2     6.4     6.1     4.4     4.8     5.4
          BAR LP 6131               5.6     6.0     6.1     4.4     4.7     5.4
          GO-141                    5.6     6.0     5.5     5.2     4.5     5.4
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TABLE 8.        MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS
(CONT'D)                       GROWN AT FIVE LOCATIONS  1/
                               IN THE NORTH CENTRAL REGION
                                      2018 DATA
                       TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF  2/


             NAME                       IA1    IL1    MI1    MN1    NE1    MEAN

             RAD-PR 112                  6.5    6.7    5.7    4.1    3.7    5.3
             SAVANT                      5.0    6.6    6.4    3.7    5.0    5.3
             FIREBALL (BWH)              6.4    6.3    5.9    3.9    4.1    5.3
             BAR LP 6158                 6.3    6.0    6.1    4.1    4.1    5.3
             PEPPER II (RAD-PR 103)      6.4    6.7    5.8    3.9    3.7    5.3
             JR-123                      5.7    5.8    5.9    5.0    4.1    5.3
             JR-888                      5.4    5.6    5.9    4.9    4.6    5.3
             ASP0218 (A-6D)              5.9    6.0    5.7    4.4    4.3    5.3
             SNX                         6.3    6.3    5.7    4.0    4.0    5.3
             HATRICK (BSP-17)            6.8    5.7    5.6    4.5    3.7    5.2
             MRSL-PR15                   6.1    5.9    5.9    4.1    4.2    5.2
             GO-143                      5.7    6.2    5.3    4.4    4.4    5.2
             APR2612                     6.1    6.0    5.7    3.7    4.4    5.2
             LPB-SD-101                  5.3    6.0    5.6    4.4    4.6    5.2
             GREEN SUPREME+ (AMP-R1)     5.6    6.3    5.8    4.7    3.4    5.2
             ALLSTAR III                 5.6    5.8    6.1    3.9    4.2    5.1
             GO-142                      4.9    5.9    5.5    4.6    4.3    5.0
             TEE-ME-UP (BSP-25)          7.1    6.1    5.4    3.1    3.4    5.0
             JR-747                      4.6    5.9    5.3    3.9    4.8    4.9
             LPB-SD-104                  5.4    5.5    5.6    3.6    4.1    4.9
             DLFPS-238/3014              6.6    5.8    4.5    3.4    3.8    4.8
             BAR LP 6162                 5.4    6.9    4.3    2.6    3.5    4.5
             LINN                        4.7    2.6    2.9    1.2    3.3    2.9

             LSD VALUE                   1.0    1.2    0.7    1.2    0.7    0.4
             C.V. (%)                    9.8   11.8    7.0   15.9    8.9   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 9.                    TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH
                            MONTH GROWN AT LOGAN, UT (IN THE UPPER WEST/MOUNTAIN REGION)  1/
                                                   2018 DATA

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

NAME                     APR     MAY     JUN     JUL     AUG     SEP     OCT     MEAN

ALLOY (RRT)             5.0     7.7     6.3     6.0     7.3     8.3     7.0     6.8
HATRICK (BSP-17)        6.0     7.7     6.7     6.0     6.0     8.0     6.3     6.7
PPG-PR 360              5.0     7.0     6.7     6.3     8.0     7.3     6.3     6.7
DLFPS-236/3554          6.0     6.7     7.3     6.0     7.0     7.0     6.3     6.6
PPG-PR 370              5.3     6.3     7.7     6.0     7.3     7.0     6.7     6.6
ASP0116EXT              5.0     7.3     6.3     6.0     6.7     7.3     7.3     6.6
PPG-PR 421              5.3     7.0     6.7     6.0     7.3     7.0     6.7     6.6
RAD-PR 112              5.3     6.7     8.0     6.3     6.3     6.7     6.7     6.6
DLFPS-236/3541          6.0     6.7     6.3     6.0     7.0     7.3     6.3     6.5
FURLONG (LTP-FCB)       4.7     6.7     7.0     6.3     7.7     7.3     6.0     6.5
PST-2MAY                5.3     7.0     6.0     6.3     7.0     7.0     7.0     6.5
GRAY WOLF (PST-2GAL)    4.7     6.7     7.3     6.0     7.3     7.3     6.3     6.5
PPG-PR 371              5.3     7.0     6.7     6.3     7.0     7.0     6.3     6.5
SLUGGER 3GL (PPG-PR 343) 5.3    7.3     7.0     6.0     6.7     7.3     6.0     6.5
SNX                     5.7     7.0     6.3     6.0     6.7     7.3     6.7     6.5
DLFPS-236/3550          5.3     6.7     6.7     5.7     7.3     7.3     6.3     6.5
XCELERATOR              6.0     6.3     6.0     5.7     7.7     7.3     6.3     6.5
PARADOX GLR (PPG-PR 331) 5.0    6.7     6.0     6.0     8.0     7.0     6.7     6.5
PPG-PR 422              4.7     6.7     6.7     6.3     7.3     7.7     6.0     6.5
02BS2                   5.3     6.3     5.7     5.7     7.3     8.0     6.7     6.4
FIREBALL (BWH)          5.3     7.0     6.7     5.0     7.0     7.7     6.3     6.4
FASTBALL 3GL (PPG-PR 329) 5.3   7.0     6.7     6.0     7.0     6.7     6.3     6.4
PPG-PR 424              5.7     7.0     6.3     5.7     6.7     7.3     6.3     6.4
021                     5.7     6.7     5.7     5.7     7.3     7.3     6.3     6.4
PPG-PR 423              5.0     6.7     6.7     5.7     7.0     7.7     6.0     6.4
TEE-ME-UP (BSP-25)      6.0     7.3     6.3     5.3     6.3     7.3     5.7     6.3
DLFPS-236/3542          5.0     7.0     7.0     4.7     6.7     7.3     6.7     6.3
DLFPS-236/3543          4.3     6.7     6.7     6.0     7.3     7.3     6.0     6.3
CS-6                    5.3     7.7     6.3     4.7     6.0     7.3     6.7     6.3
DLFPS-236/3552          5.0     6.7     6.7     5.7     7.0     6.7     6.3     6.3
LPB-SD-103              5.0     6.3     6.0     5.3     7.7     7.3     6.3     6.3
DLFPS-236/3538          5.3     7.3     6.0     5.7     6.3     7.0     6.0     6.2
LPB-SD-102              4.0     7.0     6.7     6.0     7.0     7.3     5.7     6.2
PHARAOH                 5.0     7.0     6.0     6.0     6.7     6.7     6.3     6.2
SAVANT                  3.7     6.3     6.0     5.7     8.0     7.7     6.3     6.2
ASP0117 (A-PR15)        5.3     7.0     6.0     5.7     6.3     7.0     6.0     6.2
DLFPS-236/3548          4.7     6.7     6.3     5.7     7.3     7.0     5.7     6.2
NP-3                    5.3     7.3     7.0     6.0     6.3     6.3     5.0     6.2
DLFPS-236/3544          5.3     7.0     5.7     5.7     6.0     7.0     6.3     6.1
PARAGON 2 GLR (FP2)     5.0     6.7     7.0     5.3     6.3     6.3     6.3     6.1
GRAND SLAM GLD          5.3     6.7     6.3     5.3     7.0     6.7     5.7     6.1
PPG-PR 372              4.7     6.7     7.0     5.7     6.7     6.7     5.7     6.1
SIGNET                  5.0     6.7     7.3     5.3     6.3     6.3     6.0     6.1
023                     4.3     6.3     6.7     5.7     6.3     7.0     6.7     6.1
GREEN SUPREME+ (AMP-R1) 5.3     7.0     5.7     5.0     6.7     7.7     5.7     6.1
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                                TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS 2/

NAME	APR	MAY	JUN	JUL	AUG	SEP	OCT	MEAN
DLFPS-236/3545	6.0	6.0	6.3	5.3	6.3	7.3	5.7	6.1
HOMERUN LS (PPG-PR 419)	5.0	7.7	6.0	6.0	6.3	6.3	5.7	6.1
NP-2	5.7	7.0	6.3	6.0	6.0	6.7	5.3	6.1
SILVER SPORT (PST-2CRP)	5.0	6.7	6.0	5.3	7.0	7.0	6.0	6.1
APR2616	5.0	6.7	6.3	5.7	7.3	6.3	5.3	6.1
ASP0118GL (A-4G)	5.7	6.7	6.3	6.0	5.7	6.3	6.0	6.1
CPN	5.0	7.0	6.3	4.7	6.0	6.7	7.0	6.1
PEPPER II (RAD-PR 103)	5.3	7.3	6.3	5.7	6.0	6.3	5.7	6.1
PPG-PR 420	5.3	6.7	6.0	5.3	7.0	6.7	5.7	6.1
APPLE 3GL (PPG-PR 339)	4.3	6.7	6.7	5.7	6.7	6.7	5.7	6.0
ASP0218 (A-6D)	5.0	7.0	6.0	4.7	6.0	6.7	7.0	6.0
DLFPS-236/3540	4.7	6.7	6.7	5.3	6.3	6.7	6.0	6.0
JR-747	3.7	6.3	7.3	5.7	6.7	7.0	5.7	6.0
PPG-PR 385	5.0	6.3	5.7	5.7	6.7	7.0	6.0	6.0
DLFPS-236/3546	4.7	6.7	6.0	5.3	6.7	6.7	6.0	6.0
LPB-SD-101	4.3	6.3	5.7	6.0	7.0	6.7	6.0	6.0
LPB-SD-105	3.7	5.7	6.0	6.7	7.3	7.7	5.0	6.0
PL2	4.3	6.7	6.0	5.3	6.0	7.7	6.0	6.0
PST-2A2	4.3	6.3	6.7	5.3	6.7	6.7	6.0	6.0
SLIDER LS (PPG-PR 241)	5.0	6.7	6.0	5.3	7.0	6.7	5.3	6.0
SPIKE GLS (UF3)	5.0	6.0	5.7	5.3	7.0	7.0	6.0	6.0
02BS1	5.3	6.7	5.3	5.3	5.7	6.7	6.7	6.0
DLFPS-236/3553	4.7	7.0	7.0	5.0	6.3	6.0	5.7	6.0
DLFPS-236/3547	4.7	6.7	6.0	6.3	6.0	6.3	5.3	5.9
DLFPS-236/3556	5.0	7.0	5.7	5.0	6.3	6.7	5.7	5.9
PR-5-16	5.3	6.3	5.7	5.0	6.3	7.0	5.7	5.9
PST-2FOXY	4.3	6.3	6.3	5.0	6.0	7.3	6.0	5.9
INTENSE	5.3	6.7	5.7	5.3	6.0	6.0	6.0	5.9
JR-123	4.7	6.7	6.7	4.7	5.3	6.7	6.3	5.9
PPG-PR 367	5.0	6.7	6.0	5.0	5.7	6.7	6.0	5.9
PST-2GTD	5.3	6.3	5.7	5.3	5.7	7.3	5.3	5.9
JR-888	4.7	5.7	5.3	6.0	6.7	6.7	5.7	5.8
MENSA	4.0	7.3	6.7	5.0	6.3	6.0	5.3	5.8
LPB-SD-104	3.7	7.0	7.3	5.3	6.0	6.0	5.3	5.8
OVERDRIVE 5G	5.3	6.0	6.3	4.3	6.3	6.0	6.3	5.8
BAR LP 6159	5.3	6.3	5.0	5.7	6.0	6.0	6.0	5.8
GRAY HAWK (PST-2FIND)	4.7	6.3	5.3	5.3	6.0	6.7	6.0	5.8
MRSL-PR16	5.3	7.0	5.0	4.7	6.0	6.7	5.7	5.8
PST-2BDT	5.0	7.0	5.7	4.3	5.7	6.0	6.7	5.8
PST-2EGAD	5.3	5.7	5.0	4.7	6.3	7.3	6.0	5.8
SAGUARO	5.0	7.0	6.0	4.3	5.7	6.3	6.0	5.8
UMPQUA	4.7	6.3	5.3	5.7	6.0	6.3	6.0	5.8
JR-197	6.0	5.7	5.7	4.7	6.0	6.3	5.7	5.7
PR-6-15	4.7	7.3	6.0	5.0	5.7	6.0	5.3	5.7
KARMA	4.3	7.0	5.7	4.0	6.0	6.7	6.3	5.7
SHIELD (02BS4)	4.7	6.0	6.0	5.0	6.3	6.3	5.7	5.7

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

NAME	APR	MAY	JUN	JUL	AUG	SEP	OCT	MEAN
BAR LP 6164	5.3	6.3	5.0	4.7	6.7	6.3	5.3	5.7
MAN O WAR	4.3	6.7	5.7	5.3	5.7	6.7	5.3	5.7
APR2612	4.3	6.7	5.3	5.3	6.3	6.0	5.3	5.6
GO-143	5.0	6.7	5.0	4.3	6.3	6.3	5.7	5.6
MRSL-PR15	4.0	6.7	5.7	5.3	6.0	6.3	5.3	5.6
SR 4650	5.0	6.7	6.0	5.3	5.7	5.7	5.0	5.6
DERBY XTREME	4.3	7.0	5.7	4.0	5.3	7.0	5.7	5.6
BAR LP 6158	4.7	6.3	5.0	4.3	6.3	6.3	5.7	5.5
GO-141	4.7	6.3	6.0	4.3	5.7	6.3	5.3	5.5
BRIGHTSTAR SLT	4.3	6.3	5.0	4.3	6.0	7.0	5.3	5.5
BAR LP 6117	5.0	7.0	5.7	4.3	5.0	6.3	5.0	5.5
PST-2PDA	5.0	6.3	4.3	4.3	5.7	6.7	6.0	5.5
APR3060	4.3	6.0	5.3	4.7	6.0	6.0	5.7	5.4
BAR LP 6233	4.3	6.0	5.0	4.7	5.7	6.0	5.7	5.3
DLFPS-238/3014	4.3	5.7	5.0	4.3	5.3	6.3	6.3	5.3
ALLSTAR III	5.7	5.7	5.0	3.7	5.3	6.0	5.7	5.3
BAR LP 6162	3.7	6.7	5.0	4.0	5.7	6.3	5.7	5.3
GO-142	4.3	6.3	4.7	4.0	5.0	6.3	6.0	5.2
BAR LP 6131	4.3	5.3	4.3	4.3	5.7	7.0	5.3	5.2
SEABISCUIT	4.7	5.7	4.3	4.7	5.3	6.3	5.3	5.2
EVOLVE	4.3	6.7	4.0	3.3	4.7	5.3	5.7	4.9
BAR LP 6165	3.7	5.3	4.3	4.0	5.0	6.0	4.7	4.7
LINN	2.7	3.3	2.0	2.3	2.7	3.3	3.3	2.8
LSD VALUE	1.1	1.1	1.5	1.2	1.6	1.7	1.7	0.8
C.V. (%)	13.7	10.2	16.0	14.2	15.5	16.1	17.9	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 10.

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH
MONTH GROWN AT FRESNO, CA (IN THE SOUTHWEST REGION) 1/
2018 DATA

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

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
BAR LP 6162	7.7	7.7	7.3	7.0	6.7	6.0	5.7	6.0	7.0	7.0	7.7	7.3	6.9
HATRICK (BSP-17)	7.3	8.3	7.3	7.3	6.7	6.7	6.0	6.0	6.7	6.7	7.0	6.7	6.9
HOMERUN LS (PPG-PR 419)	8.0	8.0	7.7	7.0	7.0	5.7	5.7	5.7	6.3	6.3	7.7	7.7	6.9
GRAY HAWK (PST-2FIND)	7.7	7.7	6.7	6.7	6.7	6.0	6.3	6.0	6.3	7.0	7.3	6.7	6.8
DLFPS-236/3540	7.3	7.3	8.0	6.3	6.3	5.7	5.3	6.0	7.0	7.3	7.3	6.7	6.7
JR-747	8.3	8.3	7.0	6.3	7.0	5.3	5.0	6.3	6.7	7.3	7.0	6.0	6.7
DLFPS-236/3544	7.3	7.0	6.7	6.7	7.0	6.3	6.3	6.3	6.7	7.3	6.7	6.0	6.7
DLFPS-236/3550	7.7	8.0	7.7	7.0	7.0	5.7	5.7	5.3	6.0	6.3	7.0	7.0	6.7
GO-141	7.0	7.7	7.3	6.7	7.0	6.7	5.7	6.0	6.7	6.7	6.7	6.3	6.7
DLFPS-236/3542	7.3	7.3	7.0	6.7	7.0	6.3	5.7	6.0	6.7	6.3	7.0	6.7	6.7
ASP0117 (A-PR15)	7.3	8.0	8.0	6.7	7.0	5.3	4.7	6.0	6.3	6.7	6.7	7.0	6.6
BAR LP 6117	7.3	7.0	7.0	6.3	6.7	5.7	5.7	6.0	6.7	7.3	7.0	7.0	6.6
ASP0218 (A-6D)	7.3	7.3	7.3	7.0	6.7	5.7	6.0	5.7	6.0	6.3	6.7	7.0	6.6
PPG-PR 385	7.3	8.3	7.7	7.0	6.3	4.7	5.0	5.0	6.3	7.3	6.7	7.0	6.6
APR2616	7.0	7.7	7.0	7.0	7.7	6.0	5.3	5.7	6.0	6.0	6.7	6.3	6.5
TEE-ME-UP (BSP-25)	7.7	8.0	7.3	6.7	7.0	5.3	5.3	5.3	5.7	5.7	7.0	7.3	6.5
GO-142	8.3	8.0	7.3	7.0	7.3	5.3	5.3	4.7	6.0	6.0	7.0	6.0	6.5
PPG-PR 367	7.3	8.0	7.3	7.3	6.7	5.7	5.3	5.0	5.7	5.7	7.3	6.7	6.5
ASP0116EXT	6.3	7.0	7.0	7.0	6.3	6.0	5.3	5.7	6.3	7.0	7.0	6.7	6.5
CS-6	7.0	7.3	7.3	7.0	7.0	5.0	5.3	5.7	6.0	6.3	7.0	6.7	6.5
DLFPS-236/3556	7.3	7.3	7.7	6.7	7.0	6.0	5.7	5.0	6.0	6.0	7.0	6.0	6.5
BAR LP 6165	7.3	7.0	6.7	6.7	7.0	5.7	5.7	5.7	5.7	6.0	7.3	6.3	6.4
CPN	8.0	8.0	7.3	6.3	5.7	5.7	5.0	5.3	6.0	6.0	7.0	6.7	6.4
DLFPS-236/3553	7.0	7.3	6.7	5.7	6.7	5.7	6.0	5.3	6.3	7.0	7.0	6.3	6.4
INTENSE	7.7	7.0	7.3	7.0	7.0	5.3	4.7	5.7	6.0	7.0	6.7	5.7	6.4
UMPQUA	6.7	7.3	7.3	7.0	6.7	6.0	5.3	5.7	6.0	6.3	6.7	6.0	6.4
SR 4650	7.3	7.3	7.0	6.3	7.0	5.3	5.7	5.3	6.0	6.3	6.7	6.3	6.4
BAR LP 6164	7.7	7.3	7.3	6.3	6.7	6.0	5.0	5.0	6.0	6.0	7.0	6.3	6.4
PPG-PR 370	7.7	8.3	7.3	7.0	6.7	4.7	5.0	5.0	5.7	6.0	6.7	6.3	6.4
023	6.7	7.3	7.3	7.0	7.0	5.7	5.7	5.3	5.7	6.0	6.3	6.3	6.4
BAR LP 6158	7.0	7.3	7.0	6.7	7.0	6.0	5.0	5.0	6.0	6.0	6.7	6.7	6.4
MRSL-PR15	6.7	7.7	7.3	6.7	6.3	5.0	5.7	5.7	6.0	6.0	6.7	6.7	6.4
PPG-PR 424	7.3	7.7	7.0	7.3	6.3	5.3	5.3	5.7	5.7	5.3	6.7	6.7	6.4
LPB-SD-105	7.0	7.3	6.7	6.7	6.7	6.3	5.0	5.0	6.0	6.3	6.7	6.3	6.3
BAR LP 6233	7.0	7.7	6.7	6.3	6.7	5.3	5.0	5.0	6.3	6.3	7.0	6.3	6.3
PPG-PR 421	7.3	8.0	8.0	7.3	7.0	5.0	4.3	4.3	5.0	6.3	6.3	6.7	6.3
PPG-PR 420	7.0	8.0	7.7	7.0	6.3	5.7	5.3	5.0	5.3	5.7	6.3	6.3	6.3
SAGUARO	6.3	6.7	7.3	6.3	7.0	5.3	5.3	5.3	6.3	6.7	6.3	6.7	6.3
PST-2FOXY	7.0	7.3	7.0	6.7	6.7	5.3	5.3	5.3	6.0	6.0	6.3	6.3	6.3
GRAY WOLF (PST-2GAL)	7.0	7.0	6.0	6.3	6.7	5.7	5.3	5.7	5.7	6.7	6.7	6.3	6.3
SAVANT	6.3	7.0	6.7	7.0	6.7	5.7	5.0	5.7	6.0	6.0	6.7	6.3	6.3
SHIELD (02BS4)	6.7	7.7	7.0	6.7	6.3	5.7	5.3	5.3	6.0	6.0	6.3	6.0	6.3
XCELERATOR	7.7	7.7	6.7	5.7	6.3	5.3	5.3	5.3	6.0	6.3	6.7	6.0	6.3
OVERDRIVE 5G	7.3	7.3	7.0	6.3	6.7	5.7	5.3	5.0	5.3	5.7	6.7	6.3	6.2
DLFPS-236/3552	7.0	7.3	7.3	7.0	6.3	5.3	5.3	5.3	5.7	5.7	6.0	6.0	6.2

TABLE 10.
(CONT'D)

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH
MONTH GROWN AT FRESNO, CA (IN THE SOUTHWEST REGION) 1/
2018 DATA

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

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
02BS1	7.3	7.7	6.7	7.0	6.7	5.3	5.3	5.0	5.3	5.7	6.0	6.3	6.2
LPB-SD-101	7.3	7.7	7.3	6.7	6.7	5.7	5.0	5.0	5.7	5.7	5.7	6.0	6.2
APR2612	6.3	6.7	6.7	6.7	5.7	6.0	4.7	5.3	6.0	6.0	7.0	7.0	6.2
DLFPS-236/3546	7.0	7.7	7.0	6.0	6.0	4.7	4.7	5.0	5.7	6.0	7.3	7.0	6.2
GRAND SLAM GLD	7.3	7.7	7.0	6.3	6.0	5.3	5.3	4.7	5.3	5.3	6.7	7.0	6.2
PST-2GTD	7.0	7.3	7.0	6.3	6.0	5.3	5.3	5.3	6.0	6.0	6.3	6.0	6.2
MENSA	6.7	7.3	7.3	6.3	6.7	5.3	5.0	4.7	5.7	6.0	6.3	6.3	6.1
NP-3	7.0	7.7	7.0	7.0	7.0	5.0	4.7	5.0	5.7	6.0	5.7	6.0	6.1
PST-2EGAD	7.3	7.7	6.7	7.0	7.3	5.3	4.7	5.0	5.3	5.3	6.0	6.0	6.1
SEABISCUIT	7.3	7.7	6.7	6.3	6.0	4.7	5.0	4.7	6.0	6.0	7.0	6.3	6.1
DLFPS-236/3548	6.7	7.0	6.3	7.0	7.0	5.0	5.0	5.0	5.7	5.7	6.7	6.3	6.1
SPIKE GLS (UF3)	6.7	7.0	7.3	7.0	6.0	5.0	5.3	5.3	5.7	5.3	6.3	6.3	6.1
JR-123	6.3	6.3	7.0	6.7	6.3	5.7	5.7	5.3	6.0	6.0	6.0	5.7	6.1
PPG-PR 372	7.0	7.0	6.7	6.3	6.7	6.0	5.3	4.7	5.7	6.0	6.0	5.7	6.1
PST-2A2	7.0	7.3	7.0	6.3	6.0	5.7	5.3	5.0	5.7	5.7	6.0	6.0	6.1
SIGNET	6.0	6.3	6.7	7.3	6.3	5.3	4.7	5.3	6.0	6.3	6.3	6.3	6.1
PARAGON 2 GLR (FP2)	7.0	7.3	6.7	6.0	5.7	5.3	5.3	5.3	5.3	6.0	6.3	6.3	6.1
PR-5-16	7.3	7.3	7.0	6.3	6.3	4.7	4.7	4.7	5.3	5.7	6.7	6.7	6.1
021	6.7	7.0	7.0	6.3	6.7	5.0	5.0	4.7	5.3	5.3	6.7	6.3	6.0
GO-143	7.3	7.0	6.3	6.7	6.7	5.7	4.7	4.7	5.7	6.0	5.7	5.7	6.0
PPG-PR 422	7.0	7.3	7.0	7.0	5.7	5.0	5.0	5.3	5.0	5.3	6.3	5.7	6.0
PPG-PR 423	7.0	7.0	6.3	6.3	6.3	5.0	5.0	5.0	5.3	5.7	6.3	6.3	6.0
BAR LP 6159	7.3	7.7	6.7	6.3	6.7	5.0	5.0	5.0	5.0	5.0	6.0	5.7	5.9
LPB-SD-103	6.0	6.0	6.3	6.0	5.7	4.7	5.3	5.7	5.7	5.7	7.0	7.0	5.9
PL2	7.0	7.7	7.0	6.7	5.7	4.0	4.7	4.7	5.7	5.7	6.3	6.3	5.9
PST-2MAY	6.0	6.7	6.3	7.0	6.3	4.7	5.3	5.0	5.3	5.7	6.3	6.3	5.9
PR-6-15	7.3	7.0	6.3	6.0	6.3	4.7	4.7	5.0	5.3	5.3	6.7	6.0	5.9
SLIDER LS (PPG-PR 241)	7.0	7.0	7.0	7.3	6.3	5.3	4.7	4.3	5.0	5.3	6.0	5.3	5.9
ASP0118GL (A-4G)	6.7	6.3	6.3	5.7	6.0	5.3	5.0	5.3	5.7	6.0	5.7	6.3	5.9
BAR LP 6131	7.0	6.7	7.0	6.7	7.0	4.7	4.7	4.3	5.3	5.3	6.0	5.7	5.9
PST-2PDA	7.3	7.7	6.7	6.3	6.3	5.0	5.0	4.3	5.0	5.0	5.3	6.3	5.9
SNX	6.3	8.3	6.7	6.3	6.3	5.0	4.3	4.7	5.0	5.7	6.0	5.7	5.9
DLFPS-236/3538	7.0	6.7	7.0	6.7	6.7	5.3	4.7	4.7	5.0	5.0	5.7	5.7	5.8
KARMA	7.7	7.3	7.3	6.7	6.0	4.3	4.3	4.0	4.7	5.0	6.0	6.7	5.8
FIREBALL (BWH)	7.3	7.0	7.0	6.7	6.3	4.7	4.7	4.3	5.3	5.3	5.7	5.3	5.8
LPB-SD-102	6.7	7.3	7.0	6.0	5.3	4.7	5.0	4.7	5.3	5.3	6.0	6.3	5.8
EVOLVE	6.7	6.7	6.7	6.0	6.7	4.7	4.3	4.7	5.7	5.7	6.0	6.0	5.8
ALLSTAR III	6.7	7.0	6.7	6.7	6.3	5.0	4.3	4.3	5.3	5.3	6.0	5.7	5.8
NP-2	6.7	6.7	6.7	6.3	6.7	5.7	4.7	4.3	5.0	5.0	6.0	5.7	5.8
LPB-SD-104	6.3	6.3	6.3	6.0	5.7	4.7	4.7	5.0	5.3	5.7	6.3	6.3	5.8
DLFPS-238/3014	6.7	6.7	6.0	5.7	6.0	4.7	5.3	5.0	5.3	5.7	5.7	6.0	5.7
MRSL-PR16	5.7	6.3	6.7	6.0	6.3	5.0	4.3	5.0	5.7	5.7	6.0	6.0	5.7
GREEN SUPREME+ (AMP-R1)	6.0	7.0	7.0	6.0	5.7	4.7	4.3	5.0	5.3	5.7	6.0	6.0	5.7
DLFPS-236/3547	6.3	6.3	6.3	6.0	6.3	5.3	4.7	5.0	5.3	5.3	6.0	5.7	5.7
JR-888	7.0	6.7	6.3	5.3	5.3	4.0	4.3	4.7	6.3	6.3	7.0	5.3	5.7
DLFPS-236/3554	6.0	6.0	7.3	6.3	5.7	5.3	4.7	4.7	5.3	5.7	5.7	5.7	5.7

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TABLE 10.                    TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH
(CONT'D)                         MONTH GROWN AT FRESNO, CA (IN THE SOUTHWEST REGION)  1/
                                                   2018 DATA


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

NAME                    JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC   MEAN

PHARAOH                 6.3   7.0   6.7   6.3   6.0   4.7   4.7   4.7   5.0   5.0   5.7   6.3   5.7
SILVER SPORT (PST-2CRP) 7.3   7.0   7.0   6.7   6.7   4.7   4.3   4.0   4.7   5.0   5.7   5.3   5.7
MAN O WAR               6.3   6.3   6.0   5.3   6.0   5.0   4.3   5.0   5.3   5.3   6.3   6.3   5.6
JR-197                  6.7   7.3   6.7   6.3   6.0   4.3   4.3   4.7   5.0   5.0   5.7   5.7   5.6
PST-2BDT                6.3   6.7   6.0   5.3   5.0   5.0   4.7   4.7   5.3   5.3   6.7   6.3   5.6
PEPPER II (RAD-PR 103)  6.0   6.3   7.3   5.7   6.0   5.0   5.0   4.3   5.3   5.0   5.7   5.7   5.6
DLFPS-236/3541          6.7   6.3   6.0   6.0   5.3   4.3   4.3   5.0   6.0   6.0   5.7   5.3   5.6
LINN                    6.0   6.7   6.3   6.0   5.7   5.0   4.7   4.7   5.0   5.3   6.0   5.3   5.6
DERBY XTREME            7.0   7.3   6.7   6.0   6.3   4.7   5.0   4.3   4.7   4.7   5.0   4.7   5.5
DLFPS-236/3543          6.7   6.7   6.7   6.3   6.0   5.0   4.3   3.7   5.0   5.0   5.3   5.3   5.5
FURLONG (LTP-FCB)       6.3   7.0   6.3   6.3   6.3   5.0   4.3   4.3   4.7   4.7   5.3   5.3   5.5
PPG-PR 371              6.7   6.7   6.0   5.7   5.3   4.7   4.3   4.7   5.3   5.7   5.7   5.3   5.5
DLFPS-236/3545          5.7   6.0   6.0   6.3   6.3   4.7   4.3   3.7   5.0   5.0   5.7   5.7   5.4
RAD-PR 112              8.0   8.7   7.7   6.3   5.0   4.7   4.0   3.3   3.7   3.7   4.7   4.7   5.4
APPLE 3GL (PPG-PR 339)  6.3   6.3   6.3   6.0   5.7   4.3   4.3   4.7   4.7   5.0   5.3   5.3   5.4
BRIGHTSTAR SLT          6.0   6.3   6.3   5.7   5.7   4.3   4.0   4.0   4.7   4.7   5.3   5.0   5.2
PARADOX GLR (PPG-PR 331)7.3   7.3   6.3   5.3   5.0   4.0   3.7   3.7   4.7   4.7   4.7   4.7   5.1
APR3060                 5.0   5.3   5.0   5.0   4.7   4.7   4.3   4.3   5.3   5.3   5.3   5.3   5.0
ALLOY (RRT)             7.0   6.7   5.3   5.0   4.7   4.0   3.7   3.3   4.3   4.7   5.3   4.7   4.9
SLUGGER 3GL (PPG-PR 343)6.3   5.7   5.3   4.3   4.7   4.3   4.0   4.0   4.7   5.0   5.3   4.7   4.9
PPG-PR 360              5.7   6.0   5.0   5.3   4.7   4.0   4.3   4.0   4.3   4.3   5.0   5.0   4.8
02BS2                   5.0   5.3   5.3   5.0   5.3   4.3   4.0   3.7   4.0   4.0   4.7   4.7   4.6
FASTBALL 3GL (PPG-PR 329)6.3  5.3   4.3   4.0   3.7   3.0   3.3   3.7   4.7   5.0   5.0   4.0   4.4

LSD VALUE               2.0   1.9   1.5   1.4   1.5   1.5   1.5   1.8   1.6   1.7   1.9   1.7   1.3
C.V. (%)               17.9  16.8  13.5  14.0  15.2  17.7  19.1  23.1  18.2  18.8  18.7  17.0  13.2


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.
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TABLE 11.   TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH
                              MONTH GROWN AT CORVALLIS, OR (PACIFIC REGION) 1/
                              2018 DATA

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

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
DLFPS-236/3541	6.0	6.0	7.0	7.3	6.7	7.0	7.0	6.7	7.0	8.0	6.7	6.7	6.8
DLFPS-236/3547	5.7	7.0	7.0	6.7	7.0	7.0	7.0	7.0	7.0	7.7	6.3	6.3	6.8
JR-197	5.7	6.7	6.7	6.3	6.3	7.3	7.7	7.0	7.0	7.3	6.7	6.7	6.8
PPG-PR 367	5.7	6.7	6.7	6.0	6.7	7.3	7.7	6.3	7.0	7.7	7.0	6.7	6.8
DLFPS-236/3545	5.7	7.0	6.3	6.0	6.3	7.3	7.7	7.0	7.3	7.7	6.3	6.3	6.8
FURLONG (LTP-FCB)	5.3	6.7	6.7	6.3	6.3	7.0	7.3	7.0	7.3	8.0	6.7	6.3	6.8
DLFPS-236/3556	5.7	6.3	6.7	6.3	6.3	7.0	7.0	7.3	7.3	7.7	6.7	6.3	6.7
MAN O WAR	5.7	6.7	6.7	6.3	6.3	7.3	7.3	6.3	7.3	7.7	6.3	6.3	6.7
PST-2A2	6.0	7.0	7.0	6.3	6.3	7.3	7.3	7.0	7.0	6.7	6.0	6.3	6.7
LPB-SD-102	6.0	6.7	7.0	6.7	6.3	7.0	7.0	7.0	7.0	7.0	6.0	6.3	6.7
DLFPS-236/3543	5.3	6.3	6.7	6.7	6.7	7.3	7.3	7.0	7.0	7.3	6.0	6.0	6.6
SPIKE GLS (UF3)	5.3	6.7	6.7	6.0	6.0	7.0	7.0	7.0	7.3	7.7	6.3	6.7	6.6
DLFPS-236/3544	5.3	6.3	6.3	6.3	6.7	7.3	7.3	6.7	7.0	7.3	6.3	6.3	6.6
UMPQUA	5.7	7.0	7.0	6.3	6.3	7.0	7.0	7.0	7.0	6.7	6.0	6.3	6.6
ALLOY (RRT)	5.3	6.3	6.7	6.3	7.0	7.0	7.0	6.7	7.0	7.0	6.7	6.3	6.6
APPLE 3GL (PPG-PR 339)	5.7	6.7	6.7	6.3	6.3	7.0	7.0	7.0	7.0	7.3	6.3	6.0	6.6
DLFPS-236/3546	5.3	6.0	6.3	6.7	6.3	7.3	7.7	6.7	7.0	7.7	6.3	6.0	6.6
PPG-PR 372	5.7	6.3	6.7	7.0	6.7	7.0	7.0	6.7	7.0	7.0	6.0	6.3	6.6
HOMERUN LS (PPG-PR 419)	5.7	6.3	6.3	6.0	7.0	7.3	7.3	6.7	6.7	7.0	6.3	6.3	6.6
OVERDRIVE 5G	5.3	6.3	6.3	6.0	6.7	7.0	7.0	6.7	7.3	7.3	6.3	6.7	6.6
PR-6-15	5.7	6.3	6.7	6.7	6.7	7.3	7.3	7.0	6.7	6.7	6.0	6.0	6.6
SLUGGER 3GL (PPG-PR 343)	5.7	6.3	7.0	6.7	6.3	7.0	7.0	6.3	7.0	7.0	6.3	6.3	6.6
DLFPS-236/3542	6.0	6.0	7.0	7.0	6.0	7.0	7.0	6.7	7.0	7.0	6.0	6.0	6.6
PHARAOH	5.7	6.3	6.3	6.0	6.7	7.0	7.0	6.7	7.0	7.7	6.3	6.0	6.6
ASP0118GL (A-4G)	5.7	6.3	6.3	6.0	6.3	7.0	7.3	7.3	7.0	7.0	6.0	6.0	6.5
DLFPS-236/3553	5.7	6.7	6.7	6.3	6.3	6.7	6.7	6.7	7.0	7.7	6.0	6.0	6.5
JR-123	5.7	5.7	6.7	6.7	6.3	7.0	7.3	7.0	7.0	7.0	6.3	5.7	6.5
DLFPS-236/3550	5.3	7.0	7.0	7.0	6.3	6.7	7.0	6.7	7.0	6.7	6.0	5.7	6.5
PARAGON 2 GLR (FP2)	5.7	5.7	6.3	6.3	7.0	7.0	7.0	6.3	6.7	7.7	6.3	6.3	6.5
RAD-PR 112	5.7	6.3	7.0	7.0	6.3	7.0	6.7	6.3	7.0	7.0	6.0	6.0	6.5
CPN	5.3	6.3	6.7	6.0	6.3	7.0	7.0	6.7	7.0	7.0	6.3	6.3	6.5
DERBY XTREME	5.0	6.0	6.3	6.3	6.3	7.0	7.3	6.7	7.0	7.0	6.7	6.3	6.5
DLFPS-236/3552	5.7	6.0	6.3	6.3	6.7	7.0	7.0	7.0	7.3	6.7	6.0	6.0	6.5
PPG-PR 424	5.0	6.7	6.7	6.3	6.3	7.0	7.0	7.0	7.3	6.7	6.0	6.0	6.5
PST-2FOXY	5.7	6.3	6.3	6.3	6.3	6.7	6.7	7.0	7.0	7.3	6.3	6.0	6.5
PARADOX GLR (PPG-PR 331)	5.3	6.3	6.3	6.0	6.0	7.0	7.3	6.7	6.7	7.3	6.3	6.3	6.5
02BS2	5.0	6.0	6.7	6.3	6.3	7.0	7.0	6.0	7.3	7.7	6.0	6.3	6.5
PPG-PR 421	5.3	5.7	6.3	6.3	6.7	7.3	7.3	7.0	7.0	7.0	6.0	5.7	6.5
PPG-PR 420	5.3	6.3	6.3	6.0	6.7	7.0	7.0	7.0	7.0	7.0	6.0	5.7	6.4
021	5.7	6.3	6.3	6.0	6.7	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.4
NP-2	5.7	6.3	6.3	5.7	6.7	7.0	7.0	6.7	7.3	6.7	6.0	6.0	6.4
PPG-PR 422	5.3	6.0	6.3	6.3	6.3	7.0	7.3	6.7	7.0	7.0	6.0	6.0	6.4
SLIDER LS (PPG-PR 241)	5.3	6.0	6.3	6.3	6.3	7.0	7.3	6.7	7.0	7.0	6.0	6.0	6.4
DLFPS-236/3554	5.7	5.7	6.0	6.3	6.7	7.0	7.3	7.0	7.0	6.7	6.0	5.7	6.4
PST-2GTD	5.3	6.3	6.3	6.0	6.3	7.0	7.0	6.7	7.0	7.0	6.0	6.0	6.4
023	5.0	5.7	6.3	6.3	6.7	7.0	7.0	6.7	7.0	7.0	6.0	6.0	6.4

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

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
NP-3	5.3	6.3	6.3	6.0	6.0	7.0	7.3	6.7	6.7	6.7	6.0	6.3	6.4
02BS1	5.7	6.0	6.0	5.7	6.3	6.7	6.7	6.7	7.0	7.0	6.3	6.3	6.4
INTENSE	5.3	5.7	6.0	5.7	6.3	7.0	7.3	7.0	7.0	6.7	6.3	6.0	6.4
FIREBALL (BWH)	5.7	5.7	6.3	6.3	6.3	7.0	7.0	6.7	6.3	6.7	6.0	6.0	6.3
FASTBALL 3GL (PPG-PR 329)	5.0	6.0	6.0	5.7	6.7	7.0	7.3	6.7	7.0	6.7	6.3	5.7	6.3
GRAY WOLF (PST-2GAL)	4.7	5.7	6.0	6.0	6.7	7.0	7.0	6.7	7.0	7.0	6.3	6.0	6.3
PL2	5.0	6.0	6.3	6.0	6.0	7.0	7.0	6.7	6.7	7.3	6.0	6.0	6.3
XCELERATOR	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.7	6.7	7.0	6.0	6.0	6.3
LPB-SD-104	5.0	6.0	6.7	7.0	6.3	7.0	7.0	7.0	6.7	6.3	5.3	5.0	6.3
PPG-PR 360	5.0	5.7	6.3	6.3	6.7	7.0	6.3	6.3	7.0	7.0	6.0	5.7	6.3
SILVER SPORT (PST-2CRP)	5.3	5.7	6.0	6.0	6.0	7.0	7.0	6.7	7.0	6.7	6.0	6.0	6.3
ASP0117 (A-PR15)	5.0	6.0	6.3	6.3	6.0	7.0	7.0	6.7	6.3	6.3	6.0	6.0	6.3
DLFPS-236/3548	5.0	5.0	6.0	6.3	7.0	7.0	7.0	6.3	6.7	6.7	6.0	6.0	6.3
SEABISCUIT	6.0	6.3	6.3	5.7	6.0	6.7	6.7	6.0	6.7	6.7	6.0	6.0	6.3
SR 4650	5.0	6.0	6.3	6.3	6.0	6.7	6.7	6.7	6.3	7.0	6.3	5.7	6.3
ASP0116EXT	5.3	6.3	7.0	6.7	6.3	6.7	6.7	6.0	6.3	6.0	5.7	5.7	6.2
TEE-ME-UP (BSP-25)	5.3	6.7	6.7	6.3	6.0	6.7	7.0	6.0	6.0	6.0	6.0	6.0	6.2
MENSA	5.0	5.3	6.0	6.3	6.0	7.0	7.3	6.3	6.3	7.0	6.0	6.0	6.2
SHIELD (02BS4)	5.3	5.7	6.0	5.7	6.0	7.0	7.0	6.7	7.0	6.3	6.0	6.0	6.2
GRAND SLAM GLD	5.3	5.3	6.3	6.3	6.0	6.7	6.7	6.7	7.0	6.7	6.0	5.7	6.2
PPG-PR 371	4.7	5.7	6.3	6.3	6.3	7.0	7.0	6.7	6.7	6.7	5.7	5.7	6.2
SIGNET	5.0	5.7	6.3	6.0	6.3	7.0	7.0	6.3	6.7	6.3	6.0	6.0	6.2
PPG-PR 370	5.0	5.7	6.0	6.3	6.3	6.7	6.7	6.0	6.7	7.0	6.0	6.0	6.2
PST-2MAY	5.0	5.7	6.0	6.0	6.3	6.7	6.7	6.3	6.7	7.0	6.0	6.0	6.2
ASP0218 (A-6D)	5.0	6.0	6.3	6.3	5.7	6.7	6.7	6.3	6.3	6.7	6.0	6.0	6.2
LPB-SD-101	5.0	5.7	6.0	6.0	6.3	7.0	7.0	6.3	6.7	6.7	5.7	5.3	6.2
LPB-SD-103	4.7	5.7	6.0	6.0	6.0	7.0	7.0	6.7	6.3	6.7	6.0	6.0	6.2
PST-2BDT	5.0	6.0	6.0	6.0	6.7	6.7	6.7	6.7	6.3	6.7	5.7	5.7	6.2
DLFPS-236/3540	5.0	5.7	6.0	6.0	6.3	6.7	6.7	6.7	6.3	6.3	6.0	6.0	6.1
PPG-PR 423	4.7	5.3	6.0	6.3	6.0	6.7	6.7	6.3	7.0	6.7	6.0	6.0	6.1
GRAY HAWK (PST-2FIND)	5.0	5.7	6.0	5.7	6.0	6.7	6.7	7.0	7.0	6.3	6.0	5.3	6.1
PR-5-16	4.7	5.7	5.7	5.7	6.0	7.0	7.0	6.3	6.7	6.7	6.0	6.0	6.1
CS-6	5.0	6.0	6.0	6.0	6.0	6.7	6.7	6.0	6.3	6.3	6.0	6.0	6.1
JR-747	4.7	5.0	6.0	6.7	7.0	7.0	6.7	6.0	6.0	6.3	6.0	5.7	6.1
LPB-SD-105	4.0	5.0	6.0	7.0	6.0	7.0	7.0	6.7	6.7	6.3	5.7	5.7	6.1
HATRICK (BSP-17)	4.7	5.7	6.3	6.3	6.3	7.0	7.0	6.7	6.0	6.0	5.0	5.3	6.0
PST-2EGAD	5.0	5.3	5.7	5.7	6.3	7.0	7.0	6.7	6.7	6.0	5.7	5.3	6.0
ALLSTAR III	5.0	5.7	6.0	6.0	6.0	6.7	6.7	6.3	6.3	6.0	5.7	5.7	6.0
GREEN SUPREME+ (AMP-R1)	4.7	5.3	6.0	6.0	6.3	6.7	7.0	6.3	6.3	6.7	5.3	5.3	6.0
GO-143	5.0	5.3	6.3	6.3	6.0	6.7	6.7	6.0	6.0	6.0	5.7	5.3	6.0
KARMA	5.3	5.3	6.0	6.0	6.3	7.0	6.7	6.0	6.0	6.0	5.7	5.7	6.0
MRSL-PR16	5.0	5.3	6.0	6.0	6.0	7.0	7.0	6.3	6.3	6.7	5.0	5.3	6.0
PPG-PR 385	4.7	5.3	6.0	5.7	6.0	6.7	6.7	7.0	6.3	6.0	6.0	5.7	6.0
SAVANT	4.3	5.3	6.3	6.7	6.0	6.3	6.3	6.3	6.7	6.7	5.7	5.3	6.0
PEPPER II (RAD-PR 103)	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.3	6.7	6.0	6.0	5.7	6.0
DLFPS-236/3538	5.0	5.3	5.7	5.7	6.0	6.7	6.7	6.7	6.3	6.3	6.0	5.3	6.0

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TABLE 11.                    TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH
(CONT'D)                         MONTH GROWN AT CORVALLIS, OR (PACIFIC REGION)  1/
                                                2018 DATA


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

NAME              JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC    MEAN

APR2616           5.0    5.0    6.0    6.0    6.0    6.7    6.7    6.0    6.3    6.7    5.7    5.3    5.9
PST-2PDA          5.0    6.0    6.0    5.0    6.0    7.0    7.0    7.0    6.0    6.0    5.3    5.0    5.9
SNX               5.0    5.3    6.0    6.0    6.0    7.0    7.0    6.3    6.0    6.0    5.3    5.3    5.9
MRSL-PR15         4.7    5.7    6.0    6.0    6.0    6.7    6.7    6.3    6.0    6.0    5.0    5.3    5.9
SAGUARO           4.7    5.3    5.7    5.7    6.3    6.7    6.3    6.3    6.0    6.3    5.3    5.7    5.9
EVOLVE            4.7    5.3    5.7    5.7    6.0    6.7    6.7    6.3    6.0    6.0    5.0    5.7    5.8
APR2612           4.7    5.3    6.0    6.0    6.0    6.3    6.3    6.3    6.0    6.0    5.3    5.3    5.8
GO-142            4.7    5.3    6.0    6.0    6.3    6.3    6.0    6.0    6.0    6.0    5.3    5.7    5.8
JR-888            4.0    5.0    5.7    5.7    5.7    6.3    6.7    6.7    6.0    6.0    5.3    5.3    5.7
BAR LP 6117       4.7    5.0    5.7    6.0    6.0    6.3    6.3    6.3    5.7    6.0    5.0    5.0    5.7
BAR LP 6158       4.3    5.0    5.7    5.7    5.7    6.7    6.7    6.0    6.0    6.0    5.0    5.0    5.6
BAR LP 6164       4.7    5.0    5.7    5.7    6.0    6.0    6.0    6.3    6.0    6.0    5.0    5.0    5.6
APR3060           4.0    5.0    6.0    6.0    6.0    6.3    6.3    5.7    5.7    6.0    5.0    5.3    5.6
BAR LP 6159       4.3    5.0    5.7    5.7    6.0    6.0    6.0    6.0    6.0    6.0    5.3    5.3    5.6
GO-141            4.3    5.0    6.0    6.0    6.0    6.3    6.3    5.7    5.7    6.0    5.0    5.0    5.6
BAR LP 6131       4.7    5.0    5.3    5.3    6.0    6.0    6.0    6.3    5.7    6.0    5.0    5.3    5.6
BRIGHTSTAR SLT    4.3    5.3    5.3    5.0    5.7    6.0    6.3    5.7    6.0    6.0    5.3    5.3    5.5
DLFPS-238/3014    4.3    5.0    5.7    5.7    6.0    6.0    6.0    5.7    6.0    6.0    5.0    5.0    5.5
BAR LP 6165       4.0    5.3    6.0    6.0    5.0    6.0    6.0    6.0    5.7    5.7    5.0    5.3    5.5
BAR LP 6162       4.3    5.3    5.3    5.3    5.7    6.0    6.0    5.7    5.7    6.0    5.0    5.0    5.4
BAR LP 6233       3.3    5.0    5.0    5.0    6.0    6.3    6.3    6.0    6.0    5.7    5.3    5.3    5.4
LINN              3.3    4.3    4.3    4.0    5.0    5.3    5.3    5.3    5.0    5.0    5.0    5.0    4.8


LSD VALUE         1.0    1.1    0.8    0.8    0.7    0.7    0.8    0.9    0.7    0.7    0.6    0.7    0.4
C.V. (%)         11.8   11.3    8.2    8.0    7.1    5.9    7.0    8.9    6.5    6.7    6.6    7.7    3.9
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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 12.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER TRAFFIC STRESS AT AMHERST, MA 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

| NAME | SPRING GREENUP | SEED HEAD | WEAR TOLERANCE RATINGS | | | QUALITY RATINGS | | | | | | | | | MEAN |
			MAY	JULY	OCTOBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
PARADOX GLR (PPG-PR 331)	5.0	7.0	5.7	5.7	6.0	6.3	6.3	6.7	6.7	6.3	7.0	6.7	6.7	6.0	6.5
CPN	4.3	6.0	5.3	5.3	6.7	6.0	6.0	5.3	6.3	6.7	6.7	6.7	6.3	5.7	6.2
JR-197	4.3	6.3	6.7	5.7	6.7	6.3	6.3	6.3	6.3	6.0	6.7	6.0	6.3	5.7	6.2
NP-3	5.3	6.7	6.0	5.7	6.0	6.3	6.0	6.3	6.7	5.7	6.0	6.3	6.3	6.0	6.2
PR-6-15	4.7	5.0	6.3	6.0	6.0	6.0	6.0	5.7	6.3	6.3	6.7	6.3	6.3	6.0	6.2
02BS2	4.7	6.3	5.3	5.3	6.7	6.0	5.3	6.0	6.7	6.3	6.0	6.7	6.0	6.0	6.1
APPLE 3GL (PPG-PR 339)	3.7	6.3	5.3	5.0	5.7	5.3	6.0	5.7	5.7	6.7	7.0	7.0	6.3	5.3	6.1
DLFPS-236/3553	3.7	5.0	4.7	5.0	5.0	6.0	6.7	5.3	6.3	6.0	6.3	6.0	6.0	6.0	6.1
FASTBALL 3GL (PPG-PR 329)	4.7	6.0	6.0	6.3	6.7	6.0	6.0	6.0	6.0	6.3	6.3	6.7	6.0	5.7	6.1
FURLONG (LTP-FCB)	3.7	7.0	5.0	5.7	6.7	5.7	6.0	6.3	6.7	6.3	6.7	6.7	5.7	5.3	6.1
PPG-PR 372	3.7	5.7	5.3	5.0	5.3	6.0	6.3	5.7	5.7	6.7	7.0	6.3	6.0	5.3	6.1
PPG-PR 421	5.3	6.7	5.7	5.3	6.0	6.3	6.7	6.0	6.7	6.7	6.0	6.0	5.7	5.3	6.1
SILVER SPORT (PST-2CRP)	3.7	6.3	4.3	5.0	5.0	5.7	6.3	5.7	6.3	6.7	6.7	6.3	6.0	5.3	6.1
DLFPS-236/3546	4.3	6.0	6.0	5.3	5.3	5.7	6.3	5.3	6.3	5.7	6.3	6.0	6.7	5.7	6.0
DLFPS-236/3547	4.3	5.0	5.7	6.0	5.7	6.3	6.0	5.0	6.3	6.3	6.3	6.3	5.7	5.3	6.0
DLFPS-236/3550	3.7	5.0	6.0	6.3	6.0	5.7	6.3	5.0	5.7	7.0	7.0	6.0	6.0	5.7	6.0
JR-123	3.7	5.3	6.0	5.7	6.3	6.3	5.7	5.3	6.0	6.3	6.7	6.3	5.7	5.7	6.0
PPG-PR 360	4.0	6.3	5.7	5.3	5.7	6.0	6.3	5.7	6.3	6.3	6.7	6.3	5.3	5.0	6.0
PPG-PR 424	5.3	6.3	5.3	5.0	5.3	5.7	6.0	6.0	6.0	6.3	6.3	6.0	6.0	5.3	6.0
PST-2GTD	3.3	5.7	4.7	5.0	5.3	5.0	6.0	5.3	6.7	6.3	6.7	6.3	6.3	5.3	6.0
SLUGGER 3GL (PPG-PR 343)	3.7	6.0	5.3	5.7	6.0	5.3	6.3	5.7	6.0	6.0	6.3	6.3	6.0	5.7	6.0
DLFPS-236/3543	3.7	6.3	6.0	5.3	5.7	5.0	6.0	6.0	6.3	6.7	6.3	6.0	6.0	5.0	5.9
DLFPS-236/3545	3.3	6.0	5.3	5.3	6.0	5.7	6.0	5.7	5.7	5.7	7.0	6.0	5.7	5.3	5.9
DLFPS-236/3552	3.3	6.0	6.7	5.7	6.3	5.7	5.7	5.7	6.0	6.0	6.7	6.3	6.3	5.0	5.9
INTENSE	5.0	6.0	5.7	5.3	5.3	6.0	5.7	6.0	6.0	5.3	6.3	6.0	6.0	5.3	5.9
PPG-PR 367	4.3	6.0	6.7	5.3	6.0	6.0	5.7	5.7	6.0	5.7	6.7	6.0	6.0	5.3	5.9
PPG-PR 370	3.0	5.7	4.7	5.7	5.7	5.7	6.7	5.7	6.3	6.0	5.7	6.0	6.0	5.0	5.9
PPG-PR 371	3.7	6.0	5.7	5.3	5.7	5.7	6.7	5.7	6.3	6.0	6.0	5.7	5.7	5.0	5.9
PPG-PR 420	4.3	6.3	6.0	5.3	6.0	5.7	5.7	5.7	6.3	6.3	6.3	6.0	5.7	5.3	5.9
PST-2A2	4.0	5.3	4.7	5.0	6.0	5.0	6.3	5.0	6.0	6.0	6.3	6.3	6.3	5.3	5.9
SLIDER LS (PPG-PR 241)	4.0	6.7	5.0	4.7	5.0	5.3	6.0	6.0	6.3	6.3	6.0	5.7	6.0	5.0	5.9
DLFPS-236/3541	4.3	6.0	6.3	6.3	5.7	5.7	6.0	5.0	6.0	6.0	6.0	6.0	6.0	5.7	5.8
DLFPS-236/3544	5.0	6.3	5.7	5.3	6.0	5.7	6.0	5.7	6.0	5.7	6.0	6.0	5.7	5.3	5.8
DLFPS-236/3548	3.3	6.0	5.3	5.3	5.3	5.0	6.3	5.7	6.3	6.0	6.3	5.7	5.7	5.3	5.8
DLFPS-236/3554	3.7	6.3	6.7	6.7	6.7	5.0	5.7	5.3	6.3	6.0	6.0	6.7	5.7	5.3	5.8
PHARAOH	5.7	6.0	6.0	6.0	5.7	6.0	5.7	6.3	6.0	5.7	6.0	5.7	5.7	5.3	5.8
PL2	4.7	5.3	6.0	5.3	5.3	6.0	5.7	5.3	6.3	5.3	6.3	6.0	6.0	5.3	5.8
PPG-PR 385	4.0	5.3	4.7	5.0	5.7	5.7	6.0	5.3	6.0	6.3	6.0	6.0	6.0	5.0	5.8
PST-2BDT	3.3	6.3	5.3	5.0	6.0	5.7	6.0	5.0	6.0	6.0	6.0	6.0	6.0	5.3	5.8
XCELERATOR	4.7	5.7	6.0	5.7	6.3	6.0	6.0	5.0	5.7	6.0	6.0	6.0	6.0	5.0	5.8
023	4.7	4.3	5.3	5.0	6.7	6.0	6.0	4.7	5.7	6.0	6.0	6.3	5.7	5.0	5.7
02BS1	4.0	6.0	5.3	6.0	6.0	5.3	6.0	5.3	5.3	5.7	6.0	5.7	6.3	5.3	5.7
APR3060	4.0	6.7	5.3	4.7	5.3	5.0	5.7	5.7	6.3	5.3	5.3	5.7	6.0	6.0	5.7
PARAGON 2 GLR (FP2)	4.7	5.7	6.0	5.3	6.7	5.3	5.3	6.0	5.7	5.7	6.0	6.0	6.3	5.3	5.7
GRAND SLAM GLD	4.0	4.3	4.3	4.7	5.3	6.0	6.0	4.3	5.0	6.0	6.3	6.0	6.0	5.3	5.7
MAN O WAR	3.7	4.3	5.3	5.7	5.7	5.7	5.7	5.0	5.3	6.0	6.0	6.3	6.0	5.7	5.7
NP-2	4.7	6.7	5.0	5.7	5.7	5.7	5.7	6.0	6.0	5.7	5.7	5.7	6.0	5.3	5.7

TABLE 12.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER TRAFFIC STRESS AT AMHERST, MA 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	SPRING GREENUP	SEED HEAD	WEAR TOLERANCE RATINGS			QUALITY RATINGS									
			MAY	JULY	OCTOBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
PPG-PR 423	4.0	5.7	4.3	5.3	5.3	5.0	6.3	5.7	6.0	6.0	5.7	6.0	5.3	5.3	5.7
PR-5-16	4.0	6.7	5.0	5.3	5.3	5.7	5.7	5.7	6.0	6.3	6.3	5.3	5.3	5.3	5.7
PST-2MAY	3.3	5.7	5.3	5.7	6.0	5.3	5.7	5.0	6.0	5.7	6.0	6.0	6.0	5.3	5.7
SIGNET	4.3	5.7	5.0	5.7	6.3	5.3	6.3	5.3	6.0	6.0	6.3	6.0	5.0	5.3	5.7
021	4.7	5.0	5.3	4.7	5.7	5.3	5.7	5.0	5.3	6.0	6.0	6.0	5.7	5.3	5.6
ALLOY (RRT)	3.7	5.3	5.0	5.0	5.7	5.3	5.7	5.0	6.0	6.0	6.0	6.0	5.7	5.0	5.6
ASP0117 (A-PR15)	4.0	6.0	5.0	5.3	5.3	5.3	6.0	5.3	5.7	6.0	5.7	5.7	5.3	5.3	5.6
BRIGHTSTAR SLT	3.3	6.0	5.7	5.7	5.3	4.7	5.7	5.0	5.7	6.3	6.0	6.0	5.7	5.7	5.6
DERBY XTREME	4.3	5.0	6.3	5.0	5.7	5.3	5.7	4.3	5.3	6.0	6.7	6.0	6.0	5.0	5.6
DLFPS-236/3542	3.0	5.7	5.7	6.7	5.7	4.7	6.0	5.7	6.3	5.3	5.3	6.0	5.3	5.3	5.6
HOMERUN LS (PPG-PR 419)	3.7	6.3	5.7	5.7	6.7	5.0	5.7	5.3	6.0	5.7	5.7	6.0	5.7	5.0	5.6
LPB-SD-103	3.0	7.3	6.3	6.0	5.7	5.0	6.0	6.0	6.3	6.0	5.7	5.3	5.0	4.7	5.6
PPG-PR 422	4.7	6.0	4.7	5.3	5.0	5.3	5.7	5.7	6.0	5.3	5.7	5.7	6.0	5.0	5.6
PST-2FOXY	3.3	5.0	6.3	5.3	6.0	5.0	6.0	4.7	5.7	5.7	6.7	6.0	5.7	5.0	5.6
SR 4650	3.7	5.0	6.0	5.7	5.7	5.7	5.3	5.7	5.7	6.3	5.7	5.7	5.7	5.0	5.6
BAR LP 6159	3.3	6.7	5.7	5.0	4.3	6.0	5.7	6.0	6.0	5.7	4.7	5.3	5.0	5.0	5.5
BAR LP 6164	3.3	6.7	6.0	6.3	5.7	5.0	5.3	6.0	6.0	5.7	5.7	5.3	5.3	5.0	5.5
DLFPS-236/3556	5.0	5.3	5.3	5.0	6.0	6.3	5.7	5.0	5.3	5.7	5.7	5.3	5.7	5.0	5.5
PST-2PDA	4.3	5.0	5.7	6.0	5.7	5.0	5.3	4.7	5.7	5.7	6.7	5.7	5.7	5.3	5.5
SEABISCUIT	4.7	5.7	5.7	5.7	5.0	5.7	5.0	5.3	5.3	5.7	6.0	5.7	6.0	5.0	5.5
SHIELD (02BS4)	3.3	6.0	5.0	5.3	6.3	5.3	5.3	5.3	5.3	5.7	5.3	6.0	5.7	5.3	5.5
SPIKE GLS (UF3)	3.7	5.0	4.3	5.3	5.7	5.0	5.7	5.0	5.3	5.7	6.0	6.0	6.0	4.7	5.5
ALLSTAR III	3.3	5.0	5.3	5.0	6.0	4.7	5.3	4.7	5.7	5.3	5.7	5.7	6.0	5.3	5.4
ASP0118GL (A-4G)	3.0	6.0	6.0	6.0	6.3	5.0	6.0	5.0	5.7	5.7	5.3	5.7	5.3	5.3	5.4
BAR LP 6233	4.0	7.0	5.3	5.7	6.3	5.0	5.3	5.7	5.7	5.7	5.7	5.3	5.3	5.0	5.4
HATRICK (BSP-17)	3.7	5.7	5.3	6.3	6.0	6.3	6.0	5.0	5.3	5.7	5.7	5.3	5.0	4.7	5.4
DLFPS-236/3538	4.0	5.3	5.3	4.7	5.3	5.7	5.7	5.3	6.0	6.0	5.7	5.3	5.0	4.3	5.4
DLFPS-236/3540	3.0	5.3	5.7	5.7	6.0	5.0	5.7	5.0	5.7	6.0	5.7	5.7	5.7	4.7	5.4
EVOLVE	3.7	5.3	5.0	5.0	5.7	5.3	5.7	5.3	5.7	5.7	5.3	5.7	5.3	5.0	5.4
GRAY HAWK (PST-2FIND)	3.0	6.0	5.3	5.7	6.0	5.3	5.7	5.0	5.7	5.3	5.7	5.3	5.0	5.3	5.4
KARMA	3.3	5.7	4.3	5.0	5.3	5.0	5.7	5.0	6.0	6.0	5.7	5.0	5.3	4.7	5.4
OVERDRIVE 5G	4.0	5.0	5.0	5.3	5.3	4.7	5.3	5.3	5.3	5.7	5.7	5.7	5.7	5.0	5.4
RAD-PR 112	3.3	5.0	6.0	5.7	5.7	6.0	5.7	4.7	5.7	5.3	5.7	5.7	5.3	5.0	5.4
APR2616	3.3	6.7	5.7	5.7	6.0	5.0	5.7	5.0	5.3	5.7	5.3	5.3	5.3	5.0	5.3
BAR LP 6117	2.7	7.3	4.7	4.7	4.7	5.7	5.0	6.0	6.3	5.3	5.0	5.0	4.7	4.7	5.3
BAR LP 6165	3.3	6.3	4.7	4.7	5.0	4.3	4.7	5.0	6.0	5.7	5.7	5.3	5.3	5.3	5.3
LPB-SD-101	2.7	7.3	4.3	3.7	4.3	5.3	5.3	6.0	5.7	5.7	4.7	5.0	5.3	4.7	5.3
LPB-SD-102	2.3	7.3	5.3	5.7	6.0	5.7	5.7	5.3	5.3	5.3	5.0	5.3	5.0	4.7	5.3
LPB-SD-105	2.7	8.0	4.3	3.7	4.0	5.7	6.0	5.0	5.0	6.0	4.7	5.0	5.3	5.0	5.3
MRSL-PR15	4.0	5.0	5.0	5.3	5.7	5.0	5.3	4.7	5.3	6.0	5.3	5.7	5.3	5.0	5.3
SNX	4.0	5.0	5.7	5.3	6.3	5.0	5.0	4.7	5.3	5.7	5.3	5.7	5.0	5.3
GREEN SUPREME+ (AMP-R1)	3.3	5.3	5.3	5.3	5.0	5.0	5.7	4.7	5.0	5.3	5.7	5.3	5.3	5.0	5.2
ASP0218 (A-6D)	4.3	5.3	4.7	5.0	5.7	5.0	6.0	4.3	5.0	5.3	5.0	5.7	5.7	5.0	5.2
GO-142	3.7	4.3	6.0	6.0	6.7	4.3	5.7	4.7	5.0	5.7	5.3	5.7	5.3	5.0	5.2
GRAY WOLF (PST-2GAL)	3.3	6.7	5.0	5.7	5.7	4.3	5.3	5.0	5.7	5.3	5.7	5.7	5.3	4.3	5.2
JR-747	3.3	7.3	4.3	4.7	4.7	5.3	5.3	5.3	5.3	6.0	5.3	5.0	5.0	4.3	5.2
LPB-SD-104	2.7	7.3	5.3	5.0	5.3	5.3	5.7	5.7	5.0	5.7	5.0	5.0	5.0	4.3	5.2

TABLE 12.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER TRAFFIC STRESS AT AMHERST, MA 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	SPRING GREENUP	SEED HEAD	WEAR TOLERANCE RATINGS			QUALITY RATINGS									
			MAY	JULY	OCTOBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
PST-2EGAD	3.7	6.0	4.3	5.0	5.0	5.0	5.0	5.7	6.0	5.7	4.7	5.0	5.3	4.7	5.2
UMPQUA	3.7	4.7	4.3	4.7	4.7	5.0	6.0	5.0	5.3	5.3	5.7	5.0	5.0	4.7	5.2
APR2612	3.3	6.7	5.7	5.0	5.0	4.7	5.0	5.3	6.0	5.0	5.0	5.0	5.3	5.0	5.1
ASP0116EXT	3.7	5.3	4.7	5.0	5.7	4.3	5.3	4.7	5.3	5.3	5.0	5.3	5.3	5.0	5.1
BAR LP 6131	3.0	6.3	4.3	5.0	5.0	5.0	5.3	4.7	6.3	5.3	5.0	5.0	5.3	4.3	5.1
FIREBALL (BWH)	4.0	5.7	5.7	5.0	6.0	4.3	5.3	4.7	5.3	5.3	5.0	5.3	5.3	5.0	5.1
GO-143	3.3	4.3	5.3	5.7	5.0	5.3	5.7	4.3	5.3	5.0	5.0	5.0	5.0	5.0	5.1
JR-888	3.0	7.0	4.3	4.3	5.0	5.7	5.0	5.0	5.3	6.0	5.0	5.0	5.0	4.3	5.1
MENSA	3.7	7.3	5.0	5.3	5.3	5.7	5.0	5.0	5.0	5.3	5.0	4.7	5.0	5.0	5.1
MRSL-PR16	3.3	4.7	5.3	5.3	5.3	4.7	5.7	4.3	5.7	5.0	5.0	5.7	5.3	4.7	5.1
SAGUARO	2.7	6.3	4.3	4.3	5.3	4.7	5.7	5.7	5.7	5.7	4.7	4.7	5.0	4.7	5.1
SAVANT	3.0	7.0	4.3	5.0	5.0	5.7	6.0	5.3	5.3	5.3	4.3	5.0	4.7	4.0	5.1
BAR LP 6158	3.0	6.7	4.7	4.7	4.7	5.0	5.0	5.7	6.0	5.3	4.7	4.7	4.7	4.3	5.0
BAR LP 6162	2.7	5.7	4.3	5.0	5.3	3.7	5.0	5.3	5.3	5.0	5.0	5.0	5.0	5.3	5.0
TEE-ME-UP (BSP-25)	3.3	5.3	5.7	5.7	5.7	4.3	5.0	4.3	5.0	5.3	5.0	5.3	5.3	5.0	5.0
CS-6	4.0	5.7	6.0	5.7	5.7	5.0	5.0	4.7	5.0	5.0	4.7	5.7	5.0	5.3	5.0
DLFPS-238/3014	4.0	6.7	4.3	4.3	5.3	4.0	4.3	5.7	5.0	5.3	5.0	5.0	5.0	5.3	5.0
GO-141	3.0	4.0	4.0	4.7	4.7	4.0	6.0	4.3	5.0	5.3	5.0	5.0	5.0	5.0	5.0
PEPPER II (RAD-PR 103)	4.0	6.3	5.0	5.3	5.0	5.0	5.0	5.0	5.7	4.7	5.0	5.0	5.0	5.0	5.0
LINN	2.7	5.7	2.3	2.7	2.7	3.3	3.0	4.0	3.3	3.0	3.3	3.3	3.0	3.0	3.3
LSD VALUE	1.0	1.1	1.0	1.1	1.0	1.0	0.9	0.8	0.9	1.2	0.7	1.0	1.0	1.0	0.5
C.V. (%)	15.8	11.8	11.4	11.5	10.3	11.0	9.3	9.0	9.2	10.6	7.5	10.2	10.2	10.3	5.6

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 13.   MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
                    2016 NATIONAL PERENNIAL RYEGRASS TEST AT CORVALLIS (TRAFFIC STUDY), OR 1/
                                        2018 DATA
                         TURFGRASS QUALITY RATINGS 1-9; 9=BEST 2/

QUALITY RATINGS

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
FURLONG (LTP-FCB)	5.0	6.0	6.7	7.0	6.3	7.0	7.3	7.3	7.7	6.0	6.0	6.0	6.5
SLUGGER 3GL (PPG-PR 343)	5.3	6.7	7.0	6.7	6.3	7.0	7.0	6.7	7.0	6.0	6.0	6.0	6.5
DERBY XTREME	5.0	5.7	6.7	6.7	6.7	7.0	7.0	6.7	7.0	6.3	6.0	6.0	6.4
DLFPS-236/3541	5.0	5.7	6.7	7.0	6.7	7.0	6.7	6.7	7.0	6.0	6.0	6.0	6.4
DLFPS-236/3552	5.0	6.0	6.7	6.7	6.7	7.0	7.0	6.7	7.3	6.0	5.7	5.7	6.4
PPG-PR 372	5.3	6.0	6.7	7.0	6.7	7.0	7.0	6.7	7.0	6.0	5.7	5.7	6.4
ALLOY (RRT)	4.7	5.7	6.0	6.0	6.7	7.0	7.3	7.0	7.3	6.0	6.0	6.0	6.3
APPLE 3GL (PPG-PR 339)	5.0	6.3	6.7	6.7	6.0	6.7	7.0	6.7	6.7	6.0	6.0	6.0	6.3
DLFPS-236/3546	4.3	5.3	6.3	6.3	7.3	7.3	7.3	7.0	7.0	6.0	5.7	5.7	6.3
DLFPS-236/3550	4.7	5.7	6.3	6.7	6.3	7.0	7.0	7.0	7.0	6.0	5.7	5.7	6.3
DLFPS-236/3556	4.7	5.7	6.3	6.7	6.7	7.0	7.0	7.3	7.0	6.0	5.7	6.0	6.3
LPB-SD-102	5.0	6.0	7.0	7.0	6.3	7.0	7.0	6.7	6.7	6.0	5.7	5.7	6.3
NP-2	4.3	6.0	6.3	6.0	6.7	7.3	7.3	6.7	7.0	6.0	6.0	5.7	6.3
NP-3	5.3	6.0	6.3	6.3	6.0	7.0	7.3	6.7	7.0	6.0	5.3	5.7	6.3
OVERDRIVE 5G	5.3	5.7	6.0	6.0	6.7	7.0	7.0	6.7	7.0	6.0	6.0	6.0	6.3
PHARAOH	5.0	6.0	6.3	6.0	6.7	7.0	6.7	6.7	7.3	6.0	6.0	5.7	6.3
PPG-PR 367	4.7	6.0	6.7	6.7	7.0	7.0	7.0	6.3	7.0	6.0	5.7	5.7	6.3
PPG-PR 421	5.0	5.3	6.3	6.3	6.7	7.0	7.0	7.0	7.0	6.0	5.7	5.7	6.3
PPG-PR 424	4.7	5.7	6.3	6.7	6.0	7.0	7.0	7.0	7.7	6.0	6.0	6.0	6.3
PST-2A2	5.3	6.3	6.3	6.3	6.0	7.0	7.3	6.7	7.0	6.0	5.7	5.7	6.3
SLIDER LS (PPG-PR 241)	4.7	5.7	6.7	6.7	6.3	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.3
021	4.3	6.0	6.3	6.0	6.3	6.7	6.7	6.7	7.0	6.0	6.0	6.0	6.2
DLFPS-236/3542	5.3	5.3	6.3	7.0	6.7	7.0	6.7	6.7	6.3	6.0	5.7	5.7	6.2
DLFPS-236/3543	4.3	5.3	6.3	6.7	6.3	7.0	7.3	7.0	7.0	6.0	6.0	5.3	6.2
DLFPS-236/3544	5.0	5.3	6.0	6.0	6.7	7.0	7.0	6.7	7.0	6.0	5.7	5.7	6.2
DLFPS-236/3547	4.7	5.7	6.0	6.3	6.3	7.0	7.0	6.7	7.0	6.0	6.0	6.0	6.2
PARAGON 2 GLR (FP2)	4.7	5.7	6.3	6.3	6.7	7.0	7.0	6.7	7.0	6.0	5.7	5.7	6.2
INTENSE	4.3	5.3	6.3	6.3	6.7	7.0	7.3	6.7	7.0	6.0	5.7	5.3	6.2
JR-197	5.0	6.0	6.0	6.0	6.0	6.7	7.0	7.0	7.0	6.0	6.0	5.7	6.2
PPG-PR 371	4.7	5.7	6.0	6.0	6.3	7.0	7.0	7.0	6.7	6.0	6.0	5.7	6.2
PPG-PR 422	4.7	5.7	6.0	6.0	6.7	7.0	7.0	6.7	7.0	6.0	6.0	6.0	6.2
023	4.0	5.0	6.0	6.3	6.3	7.0	7.0	6.7	6.3	6.0	6.0	6.0	6.1
02BS1	5.0	5.7	5.7	5.7	6.3	7.0	7.3	6.7	7.0	6.0	5.3	5.3	6.1
02BS2	4.3	5.7	6.0	6.0	6.3	7.0	7.0	6.3	7.0	6.0	5.7	5.3	6.1
ASP0118GL (A-4G)	5.0	6.0	6.3	6.3	6.3	7.0	7.0	7.0	6.7	5.7	5.3	5.0	6.1
FIREBALL (BWH)	4.7	5.0	6.0	6.3	7.0	6.7	7.0	6.7	6.3	6.0	5.7	5.7	6.1
CPN	4.3	5.3	5.7	6.0	6.7	7.0	7.0	6.7	6.7	6.0	5.7	5.7	6.1
DLFPS-236/3545	4.7	5.7	6.0	6.0	6.3	7.0	7.0	6.7	7.0	6.0	5.7	5.7	6.1
DLFPS-236/3548	4.3	5.0	6.0	7.0	7.0	7.0	7.0	6.3	7.0	6.0	5.3	5.3	6.1
DLFPS-236/3553	5.0	6.0	6.0	6.0	6.3	6.7	6.7	6.7	7.0	6.0	5.7	5.7	6.1
FASTBALL 3GL (PPG-PR 329)	4.0	5.3	5.7	5.7	6.7	7.0	7.0	6.7	7.0	6.0	6.0	6.0	6.1
JR-123	4.3	5.3	6.3	6.7	6.7	7.0	6.7	7.0	6.7	6.0	5.3	5.3	6.1
LPB-SD-101	5.0	5.7	6.3	6.3	6.7	7.0	6.7	6.7	6.3	5.3	6.0	5.7	6.1
LPB-SD-104	4.3	5.3	6.3	7.0	6.7	7.0	7.0	6.7	6.7	5.7	5.7	5.0	6.1
MAN O WAR	5.0	5.3	6.0	6.0	6.3	7.0	7.0	6.3	7.0	6.0	5.3	5.3	6.1
PL2	4.3	6.0	6.3	6.0	6.0	7.0	7.0	6.7	7.0	6.0	5.3	5.3	6.1
PARADOX GLR (PPG-PR 331)	4.7	5.7	6.0	6.0	6.0	7.0	7.3	6.7	7.0	6.0	5.7	5.7	6.1

TABLE 13.   MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)   2016 NATIONAL PERENNIAL RYEGRASS TEST AT CORVALLIS (TRAFFIC STUDY), OR 1/
                              2018 DATA
                    TURFGRASS QUALITY RATINGS 1-9; 9=BEST 2/

QUALITY RATINGS

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
PPG-PR 420	4.7	5.7	6.0	6.0	6.3	6.7	7.3	6.7	6.7	6.0	5.7	5.7	6.1
PPG-PR 423	4.3	5.3	6.3	6.3	6.3	7.0	7.0	6.7	7.0	6.0	5.7	5.7	6.1
PR-6-15	4.7	5.3	6.0	6.7	6.7	7.0	7.3	6.7	6.7	6.0	5.3	5.3	6.1
PST-2EGAD	5.0	6.0	6.0	5.3	6.0	6.7	6.7	6.7	7.0	6.0	5.7	5.7	6.1
PST-2FOXY	4.7	5.3	6.0	6.0	6.7	7.0	7.0	7.0	7.0	6.0	5.3	5.0	6.1
SPIKE GLS (UF3)	4.7	5.3	6.0	6.0	6.0	7.0	7.0	7.0	7.3	6.0	5.3	5.3	6.1
UMPQUA	4.7	6.0	6.3	6.0	6.0	7.0	7.0	6.3	7.0	6.0	5.3	5.3	6.1
ASP0117 (A-PR15)	4.7	5.7	6.3	6.3	6.3	7.0	7.0	6.7	6.3	5.7	5.0	5.0	6.0
DLFPS-236/3540	5.0	5.3	6.3	6.3	6.3	6.3	6.3	6.7	6.3	6.0	5.3	5.7	6.0
DLFPS-236/3554	4.7	6.0	6.7	6.3	6.0	6.3	6.3	6.3	7.0	5.7	5.7	5.3	6.0
HOMERUN LS (PPG-PR 419)	4.0	5.0	5.7	5.7	6.7	7.0	7.0	6.7	6.7	6.0	5.7	5.7	6.0
PPG-PR 360	4.3	5.7	6.3	6.3	6.7	6.3	6.3	6.0	6.7	6.0	5.7	5.3	6.0
PR-5-16	4.7	5.3	6.0	6.0	6.0	7.0	7.0	6.3	6.7	6.0	5.0	5.7	6.0
PST-2GTD	4.3	5.7	6.0	5.7	6.3	6.7	6.7	6.7	6.7	6.0	5.7	5.7	6.0
PST-2MAY	4.7	5.7	6.0	6.0	6.0	6.7	6.7	6.7	6.7	6.0	5.3	5.3	6.0
SEABISCUIT	5.0	5.3	6.0	6.0	6.3	6.7	6.7	6.7	6.7	6.0	5.3	5.3	6.0
TEE-ME-UP (BSP-25)	4.7	5.7	6.3	6.7	6.0	7.0	7.0	6.0	6.0	5.3	5.3	5.3	5.9
CS-6	4.3	5.0	6.0	6.0	6.7	6.3	6.7	6.7	6.3	6.0	5.0	5.3	5.9
GRAND SLAM GLD	4.0	5.3	5.7	6.0	6.0	6.7	6.7	6.7	7.0	6.0	5.3	5.3	5.9
GRAY HAWK (PST-2FIND)	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.7	7.0	6.0	5.3	5.3	5.9
GRAY WOLF (PST-2GAL)	4.3	5.7	6.0	5.7	6.3	6.7	6.7	6.7	6.7	6.0	5.3	5.3	5.9
KARMA	4.3	5.3	6.0	6.0	6.3	7.0	7.0	6.0	6.7	6.0	5.3	5.3	5.9
MENSA	4.7	5.3	6.0	6.3	6.0	6.7	6.7	5.7	6.3	6.0	5.7	5.7	5.9
PPG-PR 370	3.7	5.0	5.7	6.3	6.3	7.0	7.0	6.0	6.7	6.0	5.3	5.3	5.9
PST-2BDT	4.7	6.0	6.0	6.0	6.0	6.7	6.7	6.0	6.7	5.7	5.3	5.7	5.9
RAD-PR 112	5.0	5.7	6.3	6.7	6.0	6.3	6.3	6.0	6.0	5.7	5.0	5.3	5.9
SHIELD (02BS4)	4.3	5.7	6.0	5.7	6.0	6.7	6.7	6.3	6.7	6.0	5.0	5.3	5.9
SIGNET	4.0	5.7	6.0	6.0	6.3	6.7	6.7	6.7	6.3	6.0	5.0	5.0	5.9
SILVER SPORT (PST-2CRP)	4.0	5.0	6.0	6.3	6.3	7.0	7.0	6.7	6.7	5.7	5.3	5.3	5.9
ASP0116EXT	4.7	5.7	6.3	6.3	6.0	6.3	6.3	6.0	6.0	5.3	5.0	5.0	5.8
BAR LP 6117	4.0	6.0	6.3	6.3	6.0	6.0	6.0	6.7	6.0	6.0	5.0	5.3	5.8
HATRICK (BSP-17)	4.7	4.7	5.7	6.3	6.0	7.0	7.0	6.0	5.7	5.3	5.0	5.7	5.8
JR-747	4.0	5.0	6.0	6.7	6.7	6.7	6.3	6.0	6.0	5.3	5.3	5.3	5.8
LPB-SD-103	3.7	5.0	5.7	6.0	6.0	7.0	7.0	6.3	6.0	6.0	6.0	5.3	5.8
LPB-SD-105	4.0	5.0	6.0	7.0	6.7	6.7	6.0	5.7	6.3	5.3	5.7	5.3	5.8
PPG-PR 385	3.7	5.3	6.0	6.0	6.0	6.7	6.7	6.0	6.0	6.0	5.3	5.3	5.8
PST-2PDA	4.3	5.7	6.0	5.3	5.7	6.7	7.0	7.0	6.0	6.0	5.0	5.0	5.8
SAVANT	4.3	5.3	6.3	6.7	6.0	6.3	6.3	6.3	6.3	5.7	5.3	5.0	5.8
SR 4650	4.0	5.3	6.0	6.0	6.0	6.7	6.7	6.3	6.0	6.0	5.3	5.3	5.8
XCELERATOR	4.0	5.0	5.7	5.7	6.0	7.0	7.0	6.7	7.0	5.7	5.3	5.0	5.8
APR2612	3.7	5.0	6.0	6.0	6.3	6.7	6.7	6.3	6.3	5.3	5.0	5.0	5.7
ASP0218 (A-6D)	4.3	5.0	6.0	6.0	5.7	6.3	6.3	6.3	6.3	6.0	5.0	5.0	5.7
DLFPS-236/3538	4.0	5.0	6.0	6.3	6.0	6.3	6.3	6.7	6.0	5.7	5.3	5.0	5.7
GO-143	4.3	5.7	6.0	6.0	6.0	6.3	6.3	6.3	6.0	5.3	5.0	5.0	5.7
JR-888	3.7	5.0	6.0	6.0	5.7	6.3	6.7	6.7	6.0	5.7	5.0	5.3	5.7
MRSL-PR15	4.7	5.3	6.0	6.0	6.0	6.7	6.7	6.0	6.0	5.0	5.0	5.3	5.7
MRSL-PR16	4.0	5.0	6.0	6.0	6.3	6.7	6.7	6.0	6.0	5.3	5.0	5.0	5.7

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TABLE 13.              MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)               2016 NATIONAL PERENNIAL RYEGRASS TEST AT CORVALLIS (TRAFFIC STUDY), OR  1/
                                       2018 DATA
                       TURFGRASS QUALITY RATINGS 1-9;  9=BEST  2/
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	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
QUALITY RATINGS													
NAME													
PEPPER II (RAD-PR 103)	4.0	5.3	6.3	6.7	6.0	6.0	5.7	6.0	6.3	5.7	5.3	5.0	5.7
SNX	4.3	5.0	6.0	6.3	6.3	6.3	6.3	6.0	6.0	5.7	5.0	5.0	5.7
ALLSTAR III	4.7	5.3	5.7	5.7	6.0	6.3	6.3	6.0	6.0	5.7	5.0	5.0	5.6
GREEN SUPREME+ (AMP-R1)	3.7	4.7	5.7	6.0	6.0	6.7	7.0	6.0	6.0	5.7	5.0	5.0	5.6
APR2616	4.0	5.0	6.0	6.0	6.0	6.0	5.7	6.0	6.3	6.0	5.0	5.0	5.6
BAR LP 6164	4.0	5.0	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.6
GO-142	4.0	5.3	6.0	6.0	6.0	6.0	6.0	5.7	6.0	5.7	5.0	5.0	5.6
SAGUARO	4.0	5.3	5.7	5.7	6.0	6.3	6.3	5.7	6.0	5.3	5.0	5.3	5.6
BAR LP 6158	4.3	5.3	5.7	5.3	6.0	6.0	6.0	6.0	6.0	5.7	5.0	5.0	5.5
EVOLVE	4.3	5.7	5.7	5.7	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.5
BAR LP 6131	4.3	4.7	5.3	5.3	5.7	6.3	6.3	6.0	6.0	5.3	5.0	5.0	5.4
BAR LP 6159	4.0	5.0	5.3	5.3	6.0	6.0	6.0	6.0	6.0	5.7	5.0	5.0	5.4
BAR LP 6233	3.3	4.7	5.0	5.3	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.4
BRIGHTSTAR SLT	4.0	5.0	5.7	5.7	5.7	6.0	6.0	5.7	5.7	6.0	5.0	5.0	5.4
DLFPS-238/3014	4.0	5.0	5.7	5.7	6.0	6.0	6.0	5.7	5.7	5.3	5.0	5.0	5.4
APR3060	3.3	5.0	6.0	6.0	6.0	6.0	6.0	5.7	5.7	5.0	4.7	4.7	5.3
BAR LP 6162	4.0	5.0	5.3	5.3	6.0	6.0	5.7	5.3	5.3	5.0	5.0	5.0	5.3
BAR LP 6165	3.7	4.7	5.7	6.0	5.7	5.7	5.7	6.0	5.7	5.0	5.0	5.3	5.3
GO-141	3.7	4.7	5.7	6.0	6.0	6.0	6.0	5.7	5.7	5.0	4.7	5.0	5.3
LINN	3.0	4.0	4.3	4.3	5.0	5.0	5.0	5.0	5.3	5.0	4.0	5.0	4.6
LSD VALUE	1.2	1.2	0.7	0.7	1.0	0.6	0.8	0.8	0.6	0.5	0.7	1.0	0.3
C.V. (%)	13.5	10.2	6.7	7.0	7.2	5.5	6.9	7.2	6.0	5.2	7.5	8.2	3.6

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 14.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
                   2016 NATIONAL PERENNIAL RYEGRASS TEST AT BLACKSBURG (TRAFFIC STUDY), VA 1/ 2018 DATA
                   TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	MAY	JUN	JUL	AUG	MEAN	PERCENT GROUND COVER PRE-TRAFFIC	QUALITY MID-TRAFFIC	PERCENT COVER POST TRAFFIC	QUALITY POST TRAFFIC	PERCENT GROUND COV 2 WKS POST TRAFFIC	QUALITY 2 WKS POST TRAFFIC
021	6.7	8.3	7.7	7.7	7.6	99	8.0	99	7	99	7
023	7.0	8.0	7.0	7.3	7.3	99	7.0	99	7	99	7
02BS1	6.3	8.0	7.0	6.7	7.0	99	7.0	99	7	99	7
02BS2	6.0	8.0	7.3	7.3	7.2	99	7.0	99	7	99	7
GREEN SUPREME+ (AMP-R1)	6.3	8.0	7.0	7.3	7.2	99	7.7	99	7	99	7
APPLE 3GL (PPG-PR 339)	6.0	8.0	7.3	7.0	7.1	99	7.0	99	7	99	7
APR3060	6.7	8.0	7.3	7.3	7.3	99	7.3	99	7	99	7
ASP0116EXT	6.0	8.0	7.0	7.0	7.0	99	7.3	99	7	99	7
ASP0117 (A-PR15)	5.7	8.0	7.0	6.7	6.8	99	7.3	99	7	99	7
ASP0118GL (A-4G)	6.3	8.0	7.3	7.3	7.3	99	7.3	99	7	99	7
BAR LP 6117	7.0	8.0	7.3	6.7	7.3	99	7.3	99	7	99	7
BAR LP 6131	6.7	8.0	7.0	7.0	7.2	99	7.3	99	7	99	7
BAR LP 6158	6.7	8.0	7.0	7.3	7.3	99	7.3	99	7	99	7
BAR LP 6159	6.7	8.0	7.0	7.3	7.3	99	7.3	99	7	99	7
BAR LP 6162	7.0	8.0	8.0	7.3	7.6	99	7.7	99	7	99	7
BAR LP 6164	7.0	8.0	7.3	7.3	7.4	99	7.3	99	7	99	7
BAR LP 6165	6.7	8.0	7.3	7.3	7.3	99	8.0	99	7	99	7
CPN	6.7	8.0	7.3	6.7	7.2	99	7.0	99	7	99	7
CS-6	6.7	8.0	7.0	7.7	7.3	99	7.7	99	7	99	7
DERBY XTREME	6.7	8.0	7.3	7.0	7.3	99	7.0	99	7	99	7
DLFPS-236/3538	7.0	8.0	7.0	6.7	7.2	99	7.0	99	7	99	7
DLFPS-236/3542	6.3	8.0	7.3	7.3	7.3	99	7.0	99	7	99	7
DLFPS-236/3545	6.7	8.0	7.7	7.0	7.3	99	7.7	99	7	99	7
DLFPS-236/3547	6.3	8.0	7.3	6.7	7.1	99	7.0	99	7	99	7
DLFPS-236/3548	6.7	8.0	7.7	7.7	7.5	99	8.0	99	7	99	7
DLFPS-236/3550	7.0	8.0	7.0	7.0	7.3	99	7.0	99	7	99	7
DLFPS-236/3556	6.3	8.0	7.3	7.3	7.3	99	7.0	99	7	99	7
DLFPS-238/3014	6.7	8.0	7.3	7.7	7.4	99	7.7	99	7	99	7
PARAGON 2 GLR (FP2)	7.0	8.0	7.3	6.7	7.3	99	7.3	99	7	99	7
GO-141	6.7	8.0	7.0	7.0	7.2	99	7.0	99	7	99	7
GO-142	6.7	8.0	7.0	7.0	7.2	99	7.0	99	7	99	7
GO-143	6.3	8.0	7.0	7.3	7.2	99	7.3	99	7	99	7
GRAY WOLF (PST-2GAL)	7.0	8.0	7.3	7.3	7.4	99	7.3	99	7	99	7
HOMERUN LS (PPG-PR 419)	6.7	8.0	7.0	6.7	7.1	99	7.0	99	7	99	7
JR-123	6.7	8.0	7.0	7.3	7.3	99	7.0	99	7	99	7
JR-197	6.7	8.0	7.3	7.3	7.3	99	7.3	99	7	99	7
MAN O WAR	7.0	8.0	7.7	7.7	7.6	99	7.7	99	7	99	7
MRSL-PR16	6.7	8.0	7.0	7.3	7.3	99	7.3	99	7	99	7
NP-2	6.3	8.0	7.7	7.0	7.3	99	7.0	99	7	99	7
OVERDRIVE 5G	6.7	7.7	7.3	7.0	7.2	99	7.3	99	7	99	7
PARADOX GLR (PPG-PR 331)	7.0	8.0	7.7	7.3	7.5	99	7.3	99	7	99	7
PPG-PR 367	6.3	8.0	7.7	7.7	7.4	99	7.7	99	7	99	7
PPG-PR 370	6.7	8.0	7.3	6.7	7.2	99	7.0	99	7	99	7
PPG-PR 371	6.7	8.0	7.7	7.0	7.3	99	7.0	99	7	99	7
PPG-PR 385	7.0	8.0	7.0	7.0	7.3	99	7.0	99	7	99	7
PPG-PR 420	7.0	8.0	7.0	7.0	7.3	99	7.0	99	7	99	7
PPG-PR 421	6.7	8.0	7.3	7.0	7.3	99	7.0	99	7	99	7

TABLE 14.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST AT BLACKSBURG (TRAFFIC STUDY), VA 1/ 2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	MAY	JUN	JUL	AUG	MEAN	PERCENT GROUND COVER PRE-TRAFFIC	QUALITY MID-TRAFFIC	PERCENT COVER POST TRAFFIC	QUALITY POST TRAFFIC	PERCENT GROUND COV 2 WKS TRAFFIC	QUALITY POST TRAFFIC
PPG-PR 424	6.7	8.0	7.3	6.7	7.2	99	7.0	99.0	7.0	99.0	7.0
PR-5-16	7.0	8.0	7.3	7.3	7.4	99	7.3	99.0	7.0	99.0	7.0
PR-6-15	6.3	8.0	7.0	7.3	7.2	99	7.7	99.0	7.0	99.0	7.0
PST-2EGAD	6.0	8.0	7.0	6.7	6.9	99	7.0	99.0	7.0	99.0	7.0
PST-2FOXY	6.3	8.0	7.0	6.7	7.0	99	7.0	99.0	7.0	99.0	7.0
PST-2GTD	6.7	8.0	7.3	7.0	7.3	99	7.3	99.0	7.0	99.0	7.0
PST-2PDA	7.0	8.0	7.0	7.0	7.3	99	7.0	99.0	7.0	99.0	7.0
SEABISCUIT	7.0	8.0	7.7	8.0	7.7	99	7.7	99.0	7.0	99.0	7.0
SIGNET	6.7	8.0	7.0	7.0	7.2	99	7.3	99.0	7.0	99.0	7.0
SILVER SPORT (PST-2CRP)	7.0	8.0	7.3	7.0	7.3	99	7.3	99.0	7.0	99.0	7.0
SLUGGER 3GL (PPG-PR 343)	7.3	8.0	8.0	7.7	7.8	99	7.7	99.0	7.0	99.0	7.0
SNX	6.3	8.0	7.0	6.7	7.0	99	7.0	99.0	7.0	99.0	7.0
UMPQUA	6.3	8.0	7.7	7.7	7.4	99	8.0	99.0	7.0	99.0	7.0
ALLOY (RRT)	7.0	8.0	7.0	7.0	7.3	99	6.7	99.0	6.7	99.0	6.7
APR2616	6.7	8.0	7.7	7.3	7.4	99	7.3	99.0	6.7	99.0	6.7
BRIGHTSTAR SLT	6.3	8.0	7.0	7.0	7.1	99	7.0	99.0	6.7	99.0	6.7
DLFPS-236/3540	6.7	8.0	7.0	6.7	7.1	99	6.7	99.0	6.7	99.0	6.7
DLFPS-236/3541	7.0	8.0	7.0	6.7	7.2	99	6.7	94.3	6.3	96.0	6.7
DLFPS-236/3544	7.0	8.0	7.0	6.7	7.2	99	6.7	99.0	6.7	99.0	6.7
DLFPS-236/3552	7.0	8.0	7.3	6.7	7.3	99	6.7	99.0	6.7	99.0	6.7
DLFPS-236/3554	7.0	8.0	7.7	7.0	7.4	99	7.3	99.0	6.7	99.0	6.7
EVOLVE	6.3	8.0	7.0	6.7	7.0	99	7.0	99.0	6.7	99.0	6.7
FASTBALL 3GL (PPG-PR 329)	6.3	8.0	7.3	6.7	7.1	99	6.7	99.0	6.7	99.0	6.7
FURLONG (LTP-FCB)	6.7	8.0	7.7	7.0	7.3	99	6.7	99.0	6.7	99.0	6.7
GRAY HAWK (PST-2FIND)	6.0	8.0	7.0	7.0	7.0	99	6.7	99.0	6.7	99.0	6.7
INTENSE	6.7	8.0	8.0	7.3	7.5	99	7.0	99.0	6.7	99.0	6.7
NP-3	6.3	8.0	7.3	6.3	7.0	99	6.7	99.0	6.7	99.0	6.7
PEPPER II (RAD-PR 103)	6.3	8.0	7.0	6.7	7.0	99	7.0	99.0	6.7	99.0	6.7
PHARAOH	6.0	8.0	7.7	6.7	7.1	99	6.7	99.0	6.7	99.0	6.7
PPG-PR 372	6.7	8.0	7.7	6.7	7.3	99	6.7	99.0	6.7	99.0	6.7
PPG-PR 422	7.0	8.0	7.7	7.0	7.4	99	6.7	99.0	6.7	99.0	6.7
PPG-PR 423	6.7	8.0	7.7	6.7	7.3	99	7.0	99.0	6.7	99.0	6.7
PST-2BDT	6.7	8.0	7.0	6.3	7.0	99	6.7	99.0	6.7	99.0	6.7
PST-2MAY	6.0	8.0	7.0	6.7	6.9	99	6.7	99.0	6.7	99.0	6.7
RAD-PR 112	7.0	8.0	7.0	6.0	7.0	99	6.7	99.0	6.7	99.0	6.7
SHIELD (02BS4)	6.3	8.0	7.3	7.0	7.2	99	7.0	99.0	6.7	99.0	6.7
SR 4650	6.7	8.0	7.3	6.7	7.2	99	6.7	99.0	6.7	99.0	6.7
XCELERATOR	6.3	8.0	7.3	7.3	7.3	99	7.0	99.0	6.7	99.0	6.7
APR2612	6.3	8.0	7.0	6.3	6.9	99	6.3	94.3	6.3	96.0	6.3
ASP0218 (A-6D)	6.7	8.0	7.0	6.7	7.1	99	6.3	99.0	6.3	99.0	6.3
BAR LP 6233	6.3	8.0	7.0	6.7	7.0	99	6.3	99.0	6.3	99.0	6.3
TEE-ME-UP (BSP-25)	6.0	7.3	7.0	6.0	6.6	99	6.3	97.7	6.3	97.7	6.3
DLFPS-236/3546	6.7	8.0	7.0	6.3	7.0	99	6.7	99.0	6.3	99.0	6.3
DLFPS-236/3553	7.0	8.0	7.3	6.0	7.1	99	6.3	99.0	6.3	99.0	6.3
GRAND SLAM GLD	6.7	8.0	7.0	6.3	7.0	99	6.3	99.0	6.3	99.0	6.3
JR-888	6.7	8.0	7.3	6.7	7.2	99	6.3	99.0	6.3	99.0	6.3
LPB-SD-101	6.7	8.0	7.0	6.7	7.1	99	6.3	99.0	6.0	99.0	6.3

TABLE 14.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)   2016 NATIONAL PERENNIAL RYEGRASS TEST AT BLACKSBURG (TRAFFIC STUDY), VA 1/ 2018 DATA
                                    TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

| | | | | | | PERCENT
GROUND COVER | QUALITY | PERCENT
COVER | QUALITY | PERCENT
GROUND COV | QUALITY |
| | | QUALITY RATINGS | | | | PRE- | MID- | POST | POST | 2 WKS | POST |
NAME	MAY	JUN	JUL	AUG	MEAN	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC
MRSL-PR15	6.3	8.0	6.7	6.7	6.9	99.0	6.3	94.3	6.3	94.3	6.3
PL2	6.7	8.0	7.0	6.7	7.1	99.0	6.7	99.0	6.3	99.0	6.3
PPG-PR 360	7.0	8.0	7.7	6.7	7.3	99.0	6.7	97.7	6.3	96.0	6.3
PST-2A2	6.7	8.0	7.3	6.0	7.0	99.0	6.7	99.0	6.3	99.0	6.3
SLIDER LS (PPG-PR 241)	6.3	8.0	7.3	6.7	7.1	99.0	6.7	99.0	6.3	99.0	6.3
SPIKE GLS (UF3)	6.0	8.0	7.0	6.7	6.9	99.0	6.7	99.0	6.3	99.0	6.3
ALLSTAR III	6.3	8.0	6.7	5.7	6.7	99.0	6.0	99.0	6.0	99.0	6.0
HATRICK (BSP-17)	5.3	6.7	6.0	6.7	6.2	87.7	6.3	87.7	6.0	87.7	6.0
FIREBALL (BWH)	6.0	7.3	6.7	6.3	6.6	99.0	6.0	94.3	6.0	94.3	6.0
DLFPS-236/3543	6.7	8.0	7.0	6.0	6.9	99.0	6.0	97.7	6.0	97.7	6.0
SAGUARO	7.0	8.0	7.0	6.0	7.0	99.0	6.0	99.0	6.0	99.0	6.0
JR-747	6.7	7.7	6.7	5.7	6.7	99.0	5.7	94.3	5.7	94.3	5.7
KARMA	7.3	8.0	7.0	6.0	7.1	99.0	5.7	96.0	5.7	96.0	5.7
LPB-SD-102	6.3	8.0	7.0	5.7	6.8	99.0	5.7	97.7	5.7	96.0	5.7
LPB-SD-103	7.0	8.0	7.0	6.0	7.0	99.0	5.7	96.0	5.7	94.3	5.7
MENSA	6.7	8.0	7.0	6.3	7.0	99.0	5.7	99.0	5.7	97.7	5.7
LPB-SD-104	6.3	7.0	6.0	5.3	6.2	99.0	5.3	88.0	5.3	86.3	5.3
SAVANT	6.7	8.0	7.0	5.7	6.8	99.0	5.3	85.0	5.3	86.7	5.3
LPB-SD-105	6.3	8.0	6.7	5.0	6.5	99.0	5.0	86.7	5.0	86.7	5.0
LINN	5.0	4.3	3.7	2.7	3.9	97.7	3.7	76.7	3.7	73.3	3.7
LSD VALUE	1.9	0.5	0.9	1.6	0.7	8.3	1.3	6.4	1.0	5.9	1.0
C.V. (%)	8.9	4.1	7.0	11.6	5.6	1.9	10.5	3.5	8.4	3.5	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.

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TABLE 15.              MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
                       2016 NATIONAL PERENNIAL RYEGRASS TEST AT MADISON, WI (TRAFFIC STUDY)  1/
                                            2018 DATA
                              TURFGRASS QUALITY RATINGS 1-9;  9=BEST  2/


                                            QUALITY RATINGS
NAME                          MAY   JUN   AUG   SEP   OCT   NOV   MEAN

DLFPS-236/3556                2.3   3.3   3.3   3.7   4.7   4.7   3.7
PPG-PR 360                    2.3   4.3   3.7   3.7   4.0   4.0   3.7
ASP0218 (A-6D)                2.7   4.3   4.0   3.3   4.0   3.3   3.6
DLFPS-238/3014                2.7   4.3   4.3   3.3   3.3   3.3   3.6
PL2                           2.3   4.3   3.7   3.3   3.7   4.0   3.6
PPG-PR 423                    1.7   4.0   4.7   3.7   4.0   3.7   3.6
PPG-PR 424                    2.3   4.7   3.7   3.7   3.7   3.7   3.6
PST-2A2                       1.3   4.3   3.7   4.0   4.3   3.7   3.6
ASP0117 (A-PR15)              2.3   3.3   3.7   3.7   4.3   3.7   3.5
NP-3                          2.0   3.3   4.0   3.7   3.7   4.3   3.5
02BS2                         2.0   3.7   3.3   4.0   3.7   3.7   3.4
BAR LP 6131                   2.0   4.7   4.7   2.7   3.3   3.3   3.4
BAR LP 6164                   3.0   4.0   3.7   3.0   3.7   3.3   3.4
DLFPS-236/3554                1.7   4.7   3.3   3.3   3.7   3.7   3.4
NP-2                          2.0   3.0   3.3   4.0   4.0   4.3   3.4
PPG-PR 367                    2.0   4.0   3.0   4.0   4.0   3.7   3.4
PPG-PR 385                    2.0   3.7   4.0   3.7   3.3   3.7   3.4
PPG-PR 421                    2.3   3.7   3.3   3.7   3.7   4.0   3.4
PR-6-15                       2.0   3.7   3.7   3.3   4.0   3.7   3.4
021                           2.3   3.7   3.0   3.7   3.7   3.3   3.3
BAR LP 6233                   2.3   4.0   3.7   3.3   3.3   3.3   3.3
DLFPS-236/3545                1.3   3.7   3.0   4.0   4.0   4.0   3.3
EVOLVE                        2.3   4.0   3.7   3.3   3.3   3.3   3.3
INTENSE                       2.3   4.0   4.0   3.0   3.3   3.3   3.3
MRSL-PR15                     2.3   4.0   3.3   3.0   3.7   3.3   3.3
PST-2GTD                      2.7   3.7   3.3   2.7   3.7   3.7   3.3
SAGUARO                       2.0   3.7   3.3   3.7   3.3   4.0   3.3
SILVER SPORT (PST-2CRP)       1.7   4.3   3.7   3.3   3.3   3.7   3.3
SLIDER LS (PPG-PR 241)        2.0   3.7   3.3   3.3   3.7   3.7   3.3
XCELERATOR                    1.7   3.7   4.0   3.3   3.7   3.7   3.3
023                           1.7   3.7   3.0   3.3   3.7   3.7   3.2
ALLSTAR III                   2.0   4.7   3.7   3.0   3.0   3.0   3.2
APR2612                       2.0   3.7   3.3   3.0   3.3   3.7   3.2
BRIGHTSTAR SLT                2.0   4.3   4.0   2.7   3.0   3.0   3.2
HATRICK (BSP-17)              3.3   4.3   3.0   2.7   3.0   2.7   3.2
CS-6                          2.0   4.0   3.7   2.7   3.3   3.3   3.2
DLFPS-236/3541                2.0   3.7   3.0   3.3   3.7   3.3   3.2
DLFPS-236/3552                2.0   4.0   3.3   3.0   3.0   4.0   3.2
JR-197                        1.7   3.7   3.7   3.3   3.7   3.3   3.2
KARMA                         2.0   3.3   4.0   3.0   3.7   3.3   3.2
MRSL-PR16                     2.3   4.0   3.3   3.0   3.7   3.0   3.2
PARADOX GLR (PPG-PR 331)      2.0   3.7   3.7   3.3   3.7   3.0   3.2
PPG-PR 422                    1.7   3.7   3.3   3.3   3.7   3.3   3.2
PR-5-16                       1.7   3.3   3.3   3.0   4.0   3.7   3.2
02BS1                         2.0   3.7   3.0   3.0   3.3   3.3   3.1
APR2616                       1.7   3.7   4.0   3.3   3.0   3.0   3.1
APR3060                       2.0   3.7   3.3   3.0   3.3   3.0   3.1
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TABLE 15.          MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)          2016 NATIONAL PERENNIAL RYEGRASS TEST AT MADISON, WI (TRAFFIC STUDY)  1/
                            2018 DATA
                  TURFGRASS QUALITY RATINGS 1-9;  9=BEST  2/


                                           QUALITY RATINGS
NAME                      MAY    JUN    AUG    SEP    OCT    NOV    MEAN

BAR LP 6158               2.3    4.0    3.0    3.3    3.0    3.0    3.1
TEE-ME-UP (BSP-25)        2.3    3.7    3.0    2.7    3.3    3.3    3.1
FIREBALL (BWH)            2.7    4.0    2.7    3.3    3.0    3.0    3.1
DLFPS-236/3538            1.7    3.7    4.3    2.7    3.0    3.0    3.1
DLFPS-236/3540            2.0    4.0    3.3    3.3    3.3    2.7    3.1
DLFPS-236/3544            2.0    3.0    3.0    3.3    3.7    3.7    3.1
DLFPS-236/3548            1.7    4.0    3.0    3.3    3.0    3.7    3.1
GO-141                    2.3    3.7    3.3    2.7    3.0    3.3    3.1
OVERDRIVE 5G              2.0    3.3    3.3    3.0    3.3    3.7    3.1
PST-2EGAD                 2.7    3.7    3.3    2.7    3.7    2.7    3.1
PST-2FOXY                 2.0    3.7    3.7    3.0    3.3    3.0    3.1
PST-2PDA                  2.3    3.3    3.0    3.0    3.7    3.0    3.1
SPIKE GLS (UF3)           2.0    3.3    3.0    3.3    3.3    3.3    3.1
APPLE 3GL (PPG-PR 339)    1.7    3.7    3.0    3.0    3.3    3.3    3.0
BAR LP 6117               2.7    3.7    3.7    2.7    2.7    2.7    3.0
DLFPS-236/3543            2.0    3.0    3.0    3.3    3.7    3.0    3.0
DLFPS-236/3553            1.7    3.0    3.0    3.7    3.3    3.3    3.0
FURLONG (LTP-FCB)         1.7    3.3    3.0    3.0    3.7    3.3    3.0
PPG-PR 370                2.0    3.3    2.7    3.0    3.3    3.7    3.0
PPG-PR 371                1.3    3.7    3.7    3.3    3.3    2.7    3.0
SAVANT                    1.3    3.7    3.3    3.0    3.3    3.3    3.0
SIGNET                    1.7    3.0    3.3    3.0    3.3    3.7    3.0
ALLOY (RRT)               1.7    3.3    3.0    2.7    3.3    3.3    2.9
BAR LP 6165               2.0    3.0    3.7    3.7    2.3    3.0    2.9
DERBY XTREME              2.3    3.7    3.3    2.3    3.3    2.3    2.9
DLFPS-236/3542            1.7    3.3    3.0    3.0    3.3    3.0    2.9
FASTBALL 3GL (PPG-PR 329) 2.0    4.0    3.3    3.0    2.7    2.7    2.9
HOMERUN LS (PPG-PR 419)   1.7    3.3    3.3    3.0    3.0    3.3    2.9
PHARAOH                   1.7    3.0    3.7    2.7    2.7    3.7    2.9
PPG-PR 372                1.7    3.7    3.0    3.3    2.7    3.3    2.9
PPG-PR 420                2.0    3.7    3.3    2.7    2.7    3.0    2.9
PST-2MAY                  1.3    3.7    3.7    3.0    3.0    3.0    2.9
UMPQUA                    2.0    3.0    3.0    3.0    3.3    3.3    2.9
ASP0118GL (A-4G)          2.3    3.3    3.0    2.3    3.0    2.7    2.8
BAR LP 6159               2.0    3.7    3.3    2.3    2.7    2.7    2.8
DLFPS-236/3547            1.7    2.7    2.3    3.3    3.3    3.3    2.8
DLFPS-236/3550            2.0    3.3    3.0    2.7    3.0    3.0    2.8
GO-142                    1.3    4.0    3.7    2.7    2.7    2.7    2.8
GRAY HAWK (PST-2FIND)     1.7    3.3    3.3    3.0    3.0    2.7    2.8
GRAY WOLF (PST-2GAL)      1.3    3.3    2.3    3.0    3.7    3.0    2.8
MAN O WAR                 1.7    3.0    2.7    3.0    3.0    3.7    2.8
PEPPER II (RAD-PR 103)    2.0    3.3    3.0    2.7    3.0    2.7    2.8
PST-2BDT                  1.7    3.3    3.0    2.7    3.0    3.0    2.8
SEABISCUIT                2.0    3.0    3.0    2.7    3.0    3.0    2.8
SHIELD (02BS4)            2.3    3.3    3.0    2.7    3.0    2.7    2.8
ASP0116EXT                2.7    3.3    2.7    2.3    2.7    2.3    2.7
CPN                       1.7    3.7    3.3    2.3    2.7    2.3    2.7
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QUALITY RATINGS

NAME	MAY	JUN	AUG	SEP	OCT	NOV	MEAN
DLFPS-236/3546	1.3	2.3	2.7	3.0	3.3	3.3	2.7
PARAGON 2 GLR (FP2)	1.7	3.0	2.3	3.3	3.0	3.0	2.7
GRAND SLAM GLD	1.3	3.3	3.0	3.0	2.3	3.0	2.7
LPB-SD-103	1.3	3.3	2.7	3.0	3.3	2.7	2.7
BAR LP 6162	2.7	3.3	3.0	2.0	2.3	2.0	2.6
MENSA	1.7	3.0	3.0	2.7	2.7	2.7	2.6
RAD-PR 112	2.0	3.7	3.0	2.3	2.3	2.3	2.6
GREEN SUPREME+ (AMP-R1)	1.7	3.3	2.3	2.7	2.3	2.7	2.5
SLUGGER 3GL (PPG-PR 343)	1.3	2.7	2.7	2.7	2.7	3.0	2.5
SNX	2.0	2.7	2.3	2.3	2.7	3.0	2.5
GO-143	2.0	3.0	2.7	2.0	2.3	2.3	2.4
JR-888	1.3	2.3	2.3	2.7	3.0	3.0	2.4
SR 4650	1.3	2.7	2.7	2.7	2.7	2.7	2.4
LPB-SD-101	1.0	2.3	2.3	2.3	2.7	3.0	2.3
JR-123	1.7	2.0	2.3	2.3	2.3	2.7	2.2
LPB-SD-102	1.0	2.3	2.3	2.0	3.0	2.3	2.2
LINN	1.3	2.3	2.3	2.3	2.0	2.0	2.1
LPB-SD-104	1.0	2.0	2.0	2.0	2.0	2.3	1.9
LPB-SD-105	1.0	2.0	2.0	2.0	1.7	2.0	1.8
JR-747	1.0	1.7	1.7	1.7	1.7	2.3	1.7
LSD VALUE	1.3	2.5	3.3	1.7	2.4	1.5	1.6
C.V. (%)	30.5	25.0	27.5	22.8	25.5	21.0	19.1

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 16.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
            2016 NATIONAL PERENNIAL RYEGRASS TEST AT LOGAN UNDER REDUCED IRRIGATION, UT 1/
                                        2018 DATA
                    TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

| | GENETIC | QUALITY RATINGS | | | | | | | |
NAME	COLOR	APR	MAY	JUN	JUL	AUG	SEP	OCT	MEAN
DLFPS-236/3540	6.3	5.7	7.3	7.0	5.0	5.7	5.3	4.0	5.7
HATRICK (BSP-17)	7.0	5.3	7.0	7.0	4.7	4.7	5.7	5.0	5.6
PARADOX GLR (PPG-PR 331)	6.0	5.0	7.0	6.7	5.0	5.7	5.3	3.7	5.5
PPG-PR 370	6.7	4.7	6.7	7.3	6.3	4.7	4.3	4.3	5.5
PPG-PR 421	6.0	5.0	7.3	7.3	5.0	5.0	5.0	4.0	5.5
SILVER SPORT (PST-2CRP)	5.3	6.3	6.3	7.0	4.3	5.0	5.3	4.3	5.5
PPG-PR 420	6.3	5.3	7.0	6.7	5.7	5.0	4.3	4.0	5.4
SPIKE GLS (UF3)	5.7	4.7	7.0	6.3	5.7	5.7	4.7	4.0	5.4
APR2616	7.0	4.3	6.3	6.3	5.7	6.0	4.7	3.7	5.3
DLFPS-236/3548	6.5	5.5	6.5	6.5	4.5	5.5	5.0	3.5	5.3
FURLONG (LTP-FCB)	6.3	4.3	6.7	6.7	5.3	5.7	4.7	3.7	5.3
PST-2MAY	6.7	5.3	6.7	6.3	4.3	5.0	5.3	4.3	5.3
SAVANT	4.7	3.7	5.3	7.0	5.7	5.3	5.7	4.3	5.3
GRAY WOLF (PST-2GAL)	5.7	5.7	6.3	6.7	5.3	4.3	4.0	4.0	5.2
PST-2FOXY	7.7	5.0	6.0	6.7	5.0	5.3	4.7	3.7	5.2
BAR LP 6164	5.3	5.0	6.3	6.7	4.7	5.0	4.7	3.7	5.1
TEE-ME-UP (BSP-25)	9.0	5.7	6.7	7.0	4.7	4.7	3.3	3.7	5.1
DLFPS-236/3541	6.7	5.3	6.3	6.7	4.7	4.7	4.7	3.7	5.1
DLFPS-236/3545	6.7	5.7	6.0	6.0	5.3	4.3	4.7	4.0	5.1
DLFPS-236/3553	6.3	4.3	6.3	7.0	5.0	5.0	4.0	4.0	5.1
DLFPS-236/3556	5.7	5.0	5.7	6.0	5.0	5.3	4.7	4.0	5.1
INTENSE	5.7	4.7	6.3	6.3	4.7	4.7	5.0	4.3	5.1
PPG-PR 424	5.7	4.7	6.3	6.0	5.3	4.7	4.7	4.3	5.1
SLUGGER 3GL (PPG-PR 343)	5.7	4.7	6.0	6.7	5.3	4.3	5.0	4.0	5.1
021	5.0	4.7	6.7	6.0	5.0	5.0	3.7	4.0	5.0
DLFPS-236/3538	5.3	5.3	6.3	6.3	4.3	4.0	4.7	4.0	5.0
DLFPS-236/3554	6.3	4.7	7.3	7.3	4.3	4.0	4.0	3.3	5.0
FASTBALL 3GL (PPG-PR 329)	6.0	4.7	6.0	6.3	5.3	5.7	3.7	3.7	5.0
MAN O WAR	5.0	4.3	5.7	6.0	5.7	5.0	4.7	4.0	5.0
MRSL-PR15	7.0	5.3	6.7	6.0	4.0	4.7	4.3	4.0	5.0
MRSL-PR16	7.0	5.0	6.7	5.7	4.7	4.7	4.3	3.7	5.0
PPG-PR 371	6.7	4.3	6.3	7.0	5.3	4.7	4.0	3.3	5.0
PPG-PR 422	5.3	4.7	6.3	6.3	5.0	4.3	4.7	3.7	5.0
PPG-PR 423	6.0	4.3	7.0	6.7	4.7	4.3	3.7	4.0	5.0
PST-2A2	5.0	5.7	6.0	6.7	5.0	3.7	4.3	3.7	5.0
RAD-PR 112	6.7	6.0	6.0	6.3	4.0	4.0	4.7	4.0	5.0
SAGUARO	5.7	5.3	6.3	6.0	4.7	3.7	5.3	3.7	5.0
SEABISCUIT	5.0	4.7	6.0	5.7	5.7	5.0	4.7	3.7	5.0
SIGNET	7.0	5.0	6.0	6.0	4.7	4.0	5.0	4.7	5.0
DLFPS-236/3542	5.3	5.7	7.0	6.3	4.0	2.7	4.7	4.0	4.9
DLFPS-236/3544	5.3	6.0	6.7	6.7	3.7	3.3	4.7	3.7	4.9
DLFPS-236/3550	6.3	4.3	6.3	5.7	5.0	5.0	4.0	3.7	4.9
PARAGON 2 GLR (FP2)	6.3	4.3	6.7	6.3	5.0	4.7	3.7	3.7	4.9
LPB-SD-102	6.0	3.3	5.3	7.0	5.0	5.0	4.7	4.0	4.9
NP-3	5.7	5.7	6.7	5.3	4.3	4.3	4.0	3.7	4.9
PPG-PR 360	6.3	5.0	7.0	5.3	4.3	4.0	4.7	4.0	4.9
PR-5-16	5.3	5.3	6.3	6.7	4.7	3.7	4.0	3.3	4.9

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| | GENETIC | | | QUALITY RATINGS | | | | | |
| | COLOR | APR | MAY | JUN | JUL | AUG | SEP | OCT | MEAN |
NAME									
UMPQUA	6.7	4.3	6.3	5.7	5.0	5.7	3.7	3.7	4.9
023	6.0	4.7	6.3	6.0	4.7	4.3	3.7	3.7	4.8
ALLOY (RRT)	6.3	5.0	6.7	6.0	4.0	4.0	4.0	4.0	4.8
DLFPS-236/3543	6.3	5.3	6.3	7.0	3.7	3.3	4.3	3.3	4.8
DLFPS-236/3547	5.0	5.3	6.7	6.3	4.0	3.7	4.0	3.7	4.8
GO-141	6.3	4.0	6.0	5.7	4.7	5.0	4.3	3.7	4.8
GRAND SLAM GLD	6.7	4.3	6.0	6.3	4.3	4.7	4.3	3.7	4.8
HOMERUN LS (PPG-PR 419)	6.0	4.7	6.3	7.0	4.0	3.7	4.0	4.0	4.8
NP-2	6.0	5.0	6.0	6.0	4.3	4.3	4.0	3.7	4.8
PPG-PR 385	6.3	5.0	6.3	6.0	4.7	4.3	3.7	3.3	4.8
PR-6-15	6.7	5.0	7.0	6.3	4.0	3.0	4.3	4.0	4.8
ALLSTAR III	5.3	5.3	6.0	5.7	3.3	4.3	4.3	4.0	4.7
APR3060	5.7	4.7	6.7	6.7	4.0	3.7	3.7	3.3	4.7
ASP0116EXT	8.3	5.0	6.7	7.0	4.3	2.7	3.0	4.0	4.7
ASP0117 (A-PR15)	6.3	4.7	7.0	6.3	4.0	3.7	3.7	3.7	4.7
ASP0218 (A-6D)	6.3	5.0	6.7	6.3	4.0	3.7	3.7	3.7	4.7
FIREBALL (BWH)	7.3	5.7	6.0	6.3	4.3	3.7	3.7	3.0	4.7
CPN	5.0	4.3	6.0	6.0	5.0	4.3	3.7	3.7	4.7
CS-6	7.7	5.3	5.7	5.7	4.3	4.3	4.3	3.3	4.7
GO-143	6.5	6.0	6.0	6.0	3.5	3.5	4.0	4.0	4.7
GRAY HAWK (PST-2FIND)	5.7	4.7	6.0	5.3	4.0	4.3	4.7	4.0	4.7
JR-123	5.7	4.7	6.0	6.3	4.7	4.0	3.7	3.7	4.7
JR-197	6.0	5.3	6.7	5.3	4.0	3.3	4.3	4.0	4.7
LPB-SD-101	5.3	4.0	5.7	6.7	4.7	4.3	4.0	3.3	4.7
LPB-SD-104	7.0	3.0	5.0	7.0	6.3	4.7	3.3	3.3	4.7
LPB-SD-105	6.3	2.3	4.0	7.3	6.0	4.7	4.3	4.0	4.7
MENSA	5.7	3.3	5.3	6.7	5.0	4.3	4.7	3.7	4.7
PST-2EGAD	5.7	4.7	5.7	5.3	4.3	4.3	4.0	4.3	4.7
PST-2GTD	5.3	5.0	5.7	5.7	4.3	4.7	4.0	3.7	4.7
SLIDER LS (PPG-PR 241)	6.0	4.3	5.7	6.7	4.3	4.3	3.7	3.7	4.7
SR 4650	6.0	4.0	7.0	5.7	4.3	4.3	4.0	3.7	4.7
02BS2	5.3	5.7	6.3	6.3	3.7	3.0	3.7	3.3	4.6
APR2612	6.0	5.3	6.0	5.7	4.0	4.0	3.7	3.7	4.6
BAR LP 6162	6.0	5.0	6.0	5.3	4.0	4.0	4.0	4.0	4.6
DLFPS-236/3552	7.0	5.3	6.7	5.3	3.7	4.3	3.7	3.0	4.6
LPB-SD-103	6.3	4.7	6.0	5.7	4.3	4.0	4.0	3.7	4.6
PEPPER II (RAD-PR 103)	8.0	5.0	6.7	6.0	4.0	3.7	3.3	3.7	4.6
PHARAOH	5.7	5.7	6.3	6.0	3.7	3.3	3.7	3.3	4.6
GREEN SUPREME+ (AMP-R1)	7.3	4.3	5.7	5.7	5.0	4.3	3.3	3.3	4.5
APPLE 3GL (PPG-PR 339)	7.0	4.7	6.3	6.3	4.3	3.3	3.0	3.3	4.5
BAR LP 6158	5.0	5.3	6.0	5.7	3.7	3.7	3.3	3.7	4.5
KARMA	6.3	4.7	6.0	6.0	4.0	3.3	4.0	3.7	4.5
OVERDRIVE 5G	6.0	4.7	6.3	6.7	3.7	3.3	4.0	3.0	4.5
PST-2BDT	6.3	5.0	5.7	5.3	4.0	3.7	3.7	4.0	4.5
PST-2PDA	4.7	5.0	6.3	5.0	3.7	3.7	4.0	3.7	4.5
SHIELD (02BS4)	6.0	4.3	5.3	5.3	4.7	4.3	3.7	4.0	4.5
BAR LP 6233	4.7	4.0	5.7	4.7	5.0	4.3	3.3	3.7	4.4

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TABLE 16.          MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)          2016 NATIONAL PERENNIAL RYEGRASS TEST AT LOGAN UNDER REDUCED IRRIGATION, UT  1/
                                        2018 DATA
                         TURFGRASS QUALITY AND OTHER RATINGS 1-9;  9=BEST  2/

              GENETIC                  QUALITY RATINGS
NAME           COLOR     APR    MAY    JUN    JUL    AUG    SEP    OCT    MEAN

DERBY XTREME    7.3      3.7    5.3    6.0    4.7    4.3    3.7    3.3    4.4
DLFPS-236/3546  6.3      4.7    6.0    6.0    3.7    3.3    4.0    3.3    4.4
DLFPS-238/3014  4.3      4.3    5.0    5.3    4.3    4.0    4.3    3.7    4.4
PL2             6.0      4.7    6.3    4.7    3.7    4.0    4.0    3.3    4.4
SNX             7.3      5.0    6.0    5.3    3.7    3.7    3.3    4.0    4.4
XCELERATOR      5.7      4.3    5.0    4.7    5.0    4.0    4.3    3.3    4.4
02BS1           5.7      5.0    6.7    5.0    3.7    4.0    3.0    2.7    4.3
BAR LP 6117     6.0      5.0    6.0    5.3    3.7    3.0    3.7    3.3    4.3
BAR LP 6131     5.7      4.7    6.0    5.3    3.7    3.7    3.3    3.7    4.3
EVOLVE          5.0      5.3    6.0    4.7    4.0    3.3    3.3    3.7    4.3
JR-888          5.7      3.7    6.0    6.3    4.3    3.3    3.3    3.3    4.3
PPG-PR 367      5.7      5.0    5.7    5.7    4.0    3.0    3.3    3.7    4.3
ASP0118GL (A-4G) 7.3     4.7    6.3    5.7    3.0    2.7    3.7    3.3    4.2
GO-142          6.3      4.3    6.0    5.7    3.3    3.3    3.7    3.3    4.2
PPG-PR 372      6.7      4.0    6.3    6.7    3.3    2.7    3.3    3.3    4.2
BAR LP 6159     4.7      5.0    5.3    5.0    4.0    4.3    2.7    2.7    4.1
BRIGHTSTAR SLT  5.0      5.0    5.3    4.7    2.7    2.7    4.3    3.3    4.0
JR-747          6.3      2.3    4.3    5.7    4.0    2.7    4.0    3.3    3.8
BAR LP 6165     4.5      4.0    5.0    4.5    3.0    3.5    3.0    3.0    3.7
LINN            2.0      2.7    2.3    2.3    3.0    3.0    3.0    3.0    2.8

LSD VALUE       1.5      1.6    1.4    1.8    2.1    6.1    2.8    1.5    1.1
C.V. (%)       14.5     17.1   12.1   14.9   20.8   32.1   22.8   14.7   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 17.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
                      2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER SALINITY STRESS IN THE GREENHOUSE AT FORT COLLINS, CO 1/
                                                          2018 DATA
                                        TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

	QUALITY RATINGS OF THE SALT TREATMENT				QUALITY RATINGS OF THE CONTROL				PERCENT OF QUALITY (TREATMENT OVER CONTROL)			
NAME	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS
021	8.6	7.3	6.6	6.7	8.2	7.8	8.2	8.4	104.6	93.9	81.1	79.4
HATRICK (BSP-17)	8.5	7.2	6.6	6.5	8.1	7.8	8.2	8.3	105.1	93.1	81.1	78.2
TEE-ME-UP (BSP-25)	8.6	7.1	6.6	6.3	8.1	7.7	8.2	8.3	106.4	92.1	80.7	76.1
FIREBALL (BWH)	8.6	7.2	6.3	6.3	8.2	7.8	8.2	8.3	105.9	92.1	77.8	76.1
DLFPS-236/3541	8.3	6.9	6.4	6.3	8.0	7.7	8.2	8.3	104.0	90.1	78.6	75.9
LPB-SD-101	8.7	7.2	6.6	6.3	8.2	7.8	8.2	8.3	106.3	92.7	80.7	76.1
SIGNET	8.2	7.0	6.7	6.3	8.1	7.8	8.2	8.3	102.2	91.4	82.6	76.1
EVOLVE	8.3	6.7	6.4	6.2	8.0	7.6	8.2	8.3	104.3	88.4	78.7	73.9
INTENSE	8.5	7.1	6.5	6.2	8.2	7.7	8.2	8.3	104.6	91.2	79.5	73.9
LPB-SD-103	8.6	7.2	6.4	6.2	8.1	7.8	8.2	8.3	106.4	92.2	78.6	74.0
LPB-SD-104	8.5	7.1	6.3	6.2	8.2	7.7	8.2	8.3	104.5	92.4	77.8	73.9
MENSA	8.4	7.2	6.7	6.2	8.2	7.8	8.2	8.3	102.9	92.7	82.7	73.9
MRSL-PR15	8.3	6.9	6.3	6.2	8.1	7.6	8.2	8.3	102.1	92.0	77.8	74.0
PL2	8.3	6.9	6.4	6.2	8.1	7.7	8.2	8.3	102.1	90.9	78.7	73.9
SR 4650	8.1	6.7	6.0	6.2	8.1	7.9	8.2	8.3	100.1	85.7	73.6	74.0
BAR LP 6117	8.3	6.4	5.9	6.0	7.9	7.8	8.2	8.3	105.5	82.8	72.8	71.8
BAR LP 6165	7.9	6.5	6.1	6.0	7.8	7.4	8.1	8.2	101.4	88.8	75.9	74.0
DLFPS-236/3540	8.4	7.3	6.5	6.0	8.3	7.8	8.2	8.3	101.6	93.3	79.5	72.0
DLFPS-236/3542	8.4	7.3	6.3	6.0	8.3	7.7	8.2	8.3	102.0	94.2	77.8	72.0
DLFPS-236/3543	8.3	6.9	6.4	6.0	7.9	7.7	8.2	8.3	105.3	89.3	78.2	72.0
DLFPS-236/3544	8.5	7.2	6.4	6.0	8.2	7.8	8.2	8.3	103.7	92.9	78.6	72.0
DLFPS-236/3545	8.3	6.7	6.4	6.0	7.6	7.5	8.1	7.8	108.4	90.5	78.8	77.6
DLFPS-236/3553	8.1	6.6	6.2	6.0	8.1	7.8	8.2	8.3	100.1	84.9	75.7	72.2
HOMERUN LS (PPG-PR 419)	8.3	6.7	6.2	6.0	8.1	7.6	8.2	8.3	103.7	89.5	76.5	72.0
JR-888	8.2	6.8	6.4	6.0	7.9	7.6	8.2	8.3	104.1	90.8	78.7	72.0
LPB-SD-102	8.6	7.3	6.5	6.0	8.2	7.8	8.2	8.3	105.0	93.0	79.5	72.0
LPB-SD-105	8.5	7.2	6.4	6.0	8.2	7.7	8.2	8.3	103.3	94.0	78.6	72.0
PPG-PR 371	8.4	6.7	6.0	6.0	8.0	7.8	8.2	8.3	104.6	86.4	73.7	72.1
PPG-PR 372	8.2	6.7	6.1	6.0	8.0	7.7	8.2	8.3	102.8	86.9	74.5	72.1
PPG-PR 420	8.4	6.8	6.2	6.0	8.0	7.7	8.2	8.3	104.5	89.0	76.5	72.0
PR-5-16	8.0	6.6	6.0	6.0	8.0	7.8	8.2	8.3	100.5	85.6	73.2	72.3
SAGUARO	8.5	7.2	6.4	6.0	8.3	7.8	8.2	8.3	102.5	92.6	78.6	72.0
SNX	8.2	6.8	6.5	6.0	8.0	7.7	8.2	8.3	103.0	87.9	79.5	72.0
DLFPS-236/3538	8.3	6.8	5.9	5.8	8.0	7.7	8.2	8.3	104.1	89.1	72.8	70.0
DLFPS-236/3554	8.2	6.6	6.2	5.8	8.1	7.8	8.2	8.3	101.0	85.7	75.7	70.2
GRAND SLAM GLD	8.2	6.6	6.0	5.8	7.9	7.7	8.2	8.3	103.5	86.3	73.6	70.0
MRSL-PR16	8.3	6.9	6.4	5.8	8.0	7.6	8.2	8.3	103.9	91.3	78.6	69.9
PPG-PR 424	8.2	6.8	6.1	5.8	8.2	7.8	8.2	8.3	100.9	88.2	74.5	70.0
PST-2A2	8.2	6.6	6.1	5.8	8.1	7.7	8.2	8.3	100.9	86.0	75.3	70.1
PST-2BDT	7.7	6.6	6.0	5.8	8.1	7.3	8.1	8.2	95.8	90.9	74.7	71.8
PST-2MAY	8.2	6.7	6.1	5.8	8.2	7.7	8.2	8.3	100.0	87.6	75.3	70.1
SAVANT	8.4	7.2	6.5	5.8	8.1	7.5	8.2	8.3	103.8	95.6	79.8	69.9
SHIELD (02BS4)	8.2	6.9	6.5	5.8	8.1	7.8	8.2	8.3	100.3	89.6	79.5	70.0
ALLOY (RRT)	8.3	6.9	6.0	5.7	7.9	7.7	8.2	8.3	105.2	90.9	73.7	68.0
GREEN SUPREME+ (AMP-R1)	8.2	7.0	6.2	5.7	8.0	7.7	8.2	8.3	102.1	91.9	76.5	68.0
APR2616	8.1	6.8	6.3	5.7	8.0	7.0	7.5	8.3	102.2	98.4	84.3	68.1
APR3060	8.1	6.9	6.3	5.7	8.0	7.6	8.2	8.3	101.6	91.4	77.4	68.0

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TABLE 17.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER SALINITY STRESS IN THE GREENHOUSE AT FORT COLLINS, CO 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	QUALITY RATINGS OF THE SALT TREATMENT				QUALITY RATINGS OF THE CONTROL				PERCENT OF QUALITY (TREATMENT OVER CONTROL)			
	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS
ASP0116EXT	8.1	6.8	6.7	5.7	8.2	7.7	8.2	8.3	98.7	88.9	81.9	68.0
ASP0117 (A-PR15)	8.2	6.7	6.4	5.7	8.2	7.7	8.2	8.3	99.9	87.2	78.6	68.0
ASP0118GL (A-4G)	8.2	6.5	6.3	5.7	8.1	7.7	8.2	8.3	100.8	86.0	77.7	68.0
BAR LP 6131	8.2	6.6	5.7	5.7	8.1	7.6	8.2	8.3	101.8	88.1	70.3	68.1
CS-6	8.2	6.8	6.4	5.7	8.1	7.7	8.2	8.3	101.6	88.8	78.6	68.1
DLFPS-236/3546	8.4	6.9	6.1	5.7	8.0	7.7	8.2	8.3	104.7	90.5	75.2	68.0
PARAGON 2 GLR (FP2)	8.2	6.8	6.0	5.7	8.0	7.7	8.2	8.3	103.0	89.4	73.7	68.0
FURLONG (LTP-FCB)	8.2	6.5	5.9	5.7	7.9	7.7	8.2	8.3	104.0	84.3	72.8	67.9
GRAY WOLF (PST-2GAL)	8.2	6.7	6.1	5.7	8.2	7.7	8.2	8.3	99.2	87.1	75.3	68.1
JR-123	8.4	6.9	6.5	5.7	8.2	7.8	7.8	8.2	102.5	89.0	82.9	69.5
KARMA	8.1	6.8	6.0	5.7	8.0	7.6	8.2	8.3	101.6	89.6	73.2	68.0
PPG-PR 385	8.3	6.6	5.9	5.7	8.0	7.7	8.2	8.3	105.2	85.8	72.4	68.0
PPG-PR 421	7.8	6.5	6.0	5.7	7.8	7.4	8.0	8.2	99.5	88.4	75.0	69.5
PPG-PR 423	8.3	6.8	6.0	5.7	8.1	7.7	8.2	8.3	102.7	88.2	73.2	68.0
PST-2EGAD	8.2	6.6	6.0	5.7	8.2	7.8	8.2	8.3	100.0	85.8	74.1	68.1
PST-2GTD	8.1	6.7	6.0	5.7	8.1	7.8	8.2	8.3	100.0	87.1	74.1	68.1
PST-2PDA	8.0	6.7	6.1	5.7	8.0	7.7	8.2	8.3	101.1	86.7	74.5	68.1
SILVER SPORT (PST-2CRP)	8.2	6.7	6.1	5.7	8.2	7.8	8.2	8.3	100.0	86.7	74.5	68.1
SPIKE GLS (UF3)	8.4	6.8	6.4	5.7	8.0	7.7	7.7	8.3	104.2	88.4	83.4	68.0
UMPQUA	8.2	6.7	6.1	5.7	8.2	7.6	8.2	8.3	100.0	88.3	74.4	68.1
023	8.3	6.6	6.0	5.5	7.9	7.8	8.2	8.3	105.6	85.3	73.3	66.1
02BS1	8.1	6.5	5.9	5.5	8.0	7.7	7.7	8.3	102.2	85.2	77.5	66.1
02BS2	8.3	6.9	5.9	5.5	7.9	7.6	8.2	8.3	104.3	91.8	72.8	66.1
ALLSTAR III	8.1	6.5	5.8	5.5	8.2	7.7	8.2	8.3	99.6	86.0	71.6	66.1
APPLE 3GL (PPG-PR 339)	8.1	6.6	5.6	5.5	7.9	7.4	8.2	8.3	103.0	91.1	68.7	66.1
APR2612	8.1	6.9	6.2	5.5	7.9	7.5	8.2	8.3	103.1	92.8	76.5	66.1
BAR LP 6158	8.0	6.4	5.8	5.5	8.0	7.7	8.2	8.3	99.6	83.5	71.1	67.0
BAR LP 6159	8.2	6.8	5.6	5.5	8.1	7.6	8.2	8.3	101.4	90.3	68.3	66.1
BAR LP 6162	8.0	6.5	6.0	5.5	8.0	7.7	8.2	8.3	100.0	84.2	73.2	66.8
BAR LP 6164	8.3	6.6	6.0	5.5	8.0	7.8	8.2	8.3	103.2	84.9	73.6	67.0
BRIGHTSTAR SLT	8.2	6.3	5.8	5.5	8.1	7.7	8.2	8.3	101.8	82.7	71.6	66.8
CPN	8.2	6.5	6.0	5.5	8.1	7.6	7.7	8.3	101.2	85.9	78.4	66.1
DERBY XTREME	8.2	6.6	5.6	5.5	7.9	7.5	8.2	8.3	104.3	90.2	68.3	66.1
DLFPS-236/3547	8.1	6.9	6.0	5.5	7.9	7.6	8.2	8.3	102.1	91.4	73.2	66.1
DLFPS-236/3548	8.2	6.8	6.1	5.5	8.0	7.6	8.2	8.3	102.5	90.5	75.3	66.1
DLFPS-236/3550	8.2	6.8	6.0	5.5	7.9	7.7	8.2	8.3	103.5	88.9	74.1	65.9
DLFPS-236/3552	8.2	6.8	6.0	5.5	8.0	7.7	8.2	8.3	102.6	88.7	73.7	66.1
DLFPS-238/3014	8.2	6.5	6.0	5.5	7.9	7.7	8.2	8.3	103.5	83.9	74.1	66.1
GO-142	8.2	6.9	6.2	5.5	7.7	7.7	8.2	8.3	106.6	90.7	75.6	65.9
GO-143	8.3	7.0	6.2	5.5	7.9	7.6	8.2	8.3	105.3	93.3	75.7	66.1
JR-197	8.1	6.6	5.9	5.5	8.2	7.5	7.7	7.8	99.1	89.0	77.5	71.7
JR-747	8.4	6.7	6.5	5.5	8.1	7.7	7.8	8.3	102.9	86.2	82.9	66.1
LINN	8.2	6.4	6.0	5.5	8.0	7.8	8.2	8.3	103.2	83.5	73.2	66.8
MAN O WAR	8.3	6.6	6.0	5.5	8.1	7.7	8.2	8.3	101.7	85.4	74.1	66.1
NP-2	8.2	6.8	6.3	5.5	8.0	7.0	7.6	8.3	102.2	98.3	83.0	66.1
NP-3	8.1	6.8	6.2	5.5	8.0	7.0	7.6	8.2	101.6	97.9	81.2	67.4
OVERDRIVE 5G	8.2	6.4	6.0	5.5	8.0	7.6	8.2	8.3	103.5	85.4	73.7	66.1

TABLE 17.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)   2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER SALINITY STRESS IN THE GREENHOUSE AT FORT COLLINS, CO 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	QUALITY RATINGS OF THE SALT TREATMENT				QUALITY RATINGS OF THE CONTROL				PERCENT OF QUALITY (TREATMENT OVER CONTROL)			
	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS
PEPPER II (RAD-PR 103)	7.9	6.6	5.9	5.5	7.7	7.5	8.2	8.3	103.1	88.7	72.8	66.1
PHARAOH	8.2	6.6	5.9	5.5	8.1	7.7	8.2	8.3	100.9	86.8	72.4	66.1
PPG-PR 360	8.2	6.7	5.6	5.5	8.0	7.5	8.2	8.3	103.3	89.7	69.1	66.1
PPG-PR 367	8.2	6.6	5.6	5.5	8.0	7.5	8.2	8.3	103.3	89.4	69.1	66.1
PPG-PR 370	8.3	6.7	5.8	5.5	7.9	7.6	8.2	8.3	105.2	89.6	71.1	66.1
PPG-PR 422	8.3	6.7	5.9	5.5	8.0	7.6	8.2	8.3	104.2	88.0	71.9	66.1
PR-6-15	8.2	6.9	6.2	5.5	8.0	7.7	8.2	8.3	103.1	90.3	76.5	66.1
PST-2FOXY	8.2	6.7	5.6	5.5	8.0	7.6	8.2	8.3	102.7	88.3	69.1	66.1
RAD-PR 112	8.2	6.7	6.0	5.5	8.2	7.7	8.2	8.3	99.6	87.7	74.1	66.1
SEABISCUIT	8.3	6.5	6.0	5.5	8.1	7.8	8.2	8.3	101.7	84.1	73.2	66.1
SLIDER LS (PPG-PR 241)	8.2	6.5	5.9	5.5	7.8	7.7	8.2	8.3	104.9	84.8	72.4	66.1
SLUGGER 3GL (PPG-PR 343)	8.2	6.7	5.6	5.5	8.0	7.5	8.2	8.3	103.3	89.8	68.3	66.1
XCELERATOR	7.8	6.7	6.3	5.5	8.0	7.4	7.5	8.0	97.0	90.5	84.0	68.8
ASP0218 (A-6D)	8.0	6.3	6.2	5.3	7.8	7.1	7.6	8.2	103.1	89.6	82.1	65.3
BAR LP 6233	8.1	6.7	5.6	5.3	8.1	7.5	8.2	8.3	101.0	89.1	69.1	64.1
DLFPS-236/3556	8.1	6.6	6.4	5.3	8.1	7.6	8.2	8.3	100.3	87.5	78.6	64.1
GO-141	8.2	6.9	6.2	5.3	7.7	7.8	8.2	8.3	107.6	89.8	76.6	64.1
GRAY HAWK (PST-2FIND)	8.1	6.7	6.0	5.3	8.2	7.7	8.2	8.3	99.2	87.5	73.2	64.1
FASTBALL 3GL (PPG-PR 329)	8.1	6.6	5.6	5.2	7.8	7.6	8.2	8.3	103.9	87.3	68.2	62.1
PARADOX GLR (PPG-PR 331)	8.1	6.6	5.5	5.2	7.9	7.4	8.2	8.3	103.5	89.9	67.8	62.1
LSD VALUE	0.5	0.7	1.7	2.1	0.6	0.4	1.1	0.6	11.1	11.1	20.0	28.0
C.V. (%)	2.7	4.4	7.4	8.7	2.5	2.6	3.3	1.8	3.3	5.0	8.1	9.0

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

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

NAME	PERCENT LEAF FIRING DURING TREATMENT				LEAF FIRING OF THE CONTROL			
	12DS	16DS	20DS	24DS	12DS	16DS	20DS	24DS
021	0	3.7	10.0	11.7	0	0	0	0
HATRICK (BSP-17)	0	2.7	8.0	12.0	0	0	0	0
TEE-ME-UP (BSP-25)	0	4.7	10.0	12.3	0	0	0	0
FIREBALL (BWH)	0	4.0	10.7	11.7	0	0	0	0
DLFPS-236/3541	0	3.7	7.3	15.7	0	0	0	0
LPB-SD-101	0	3.3	6.7	11.0	0	0	0	0
SIGNET	0	6.3	7.0	13.3	0	0	0	0
EVOLVE	0	7.7	15.0	16.3	0	0	0	0
INTENSE	0	8.7	9.7	13.7	0	0	0	0
LPB-SD-103	0	4.7	8.0	9.0	0	0	0	0
LPB-SD-104	0	6.3	10.3	13.3	0	0	0	0
MENSA	0	3.3	9.0	14.0	0	0	0	0
MRSL-PR15	0	4.3	9.3	12.7	0	0	0	0
PL2	0	3.0	6.3	15.0	0	0	0	0
SR 4650	0	6.0	9.3	12.7	0	0	0	0
BAR LP 6117	0	14.7	16.0	17.7	0	0	0	0
BAR LP 6165	0	10.7	15.0	12.7	0	0	0	0
DLFPS-236/3540	0	3.7	8.7	12.0	0	0	0	0
DLFPS-236/3542	0	3.7	11.3	13.0	0	0	0	0
DLFPS-236/3543	0	2.7	7.3	16.3	0	0	0	0
DLFPS-236/3544	0	3.7	8.3	14.0	0	0	0	0
DLFPS-236/3545	0	3.3	8.3	13.7	0	0	0	0
DLFPS-236/3553	0	12.7	11.3	12.0	0	0	0	0
HOMERUN LS (PPG-PR 419)	0	5.0	6.3	14.7	0	0	0	0
JR-888	0	4.3	8.7	16.7	0	0	0	0
LPB-SD-102	0	3.7	7.0	11.3	0	0	0	0
LPB-SD-105	0	3.7	10.3	14.7	0	0	0	0
PPG-PR 371	0	4.7	9.0	14.0	0	0	0	0
PPG-PR 372	0	5.0	7.7	10.7	0	0	0	0
PPG-PR 420	0	4.7	7.7	14.7	0	0	0	0
PR-5-16	0	8.7	13.3	11.3	0	0	0	0
SAGUARO	0	3.7	9.7	12.7	0	0	0	0
SNX	0	9.0	12.7	19.3	0	0	0	0
DLFPS-236/3538	0	4.3	8.3	14.7	0	0	0	0
DLFPS-236/3554	0	11.3	12.0	10.7	0	0	0	0
GRAND SLAM GLD	0	7.3	12.7	14.7	0	0	0	0
MRSL-PR16	0	5.7	13.3	17.3	0	0	0	0
PPG-PR 424	0	4.3	11.0	14.7	0	0	0	0
PST-2A2	0	9.0	14.7	12.0	0	0	0	0
PST-2BDT	0	9.3	10.7	16.0	0	0	0	0
PST-2MAY	0	6.3	10.7	12.0	0	0	0	0
SAVANT	0	4.0	9.7	15.0	0	0	0	0
SHIELD (02BS4)	0	8.7	13.7	22.7	0	0	0	0
ALLOY (RRT)	0	5.7	15.7	12.7	0	0	0	0
GREEN SUPREME+ (AMP-R1)	0	4.3	11.3	14.0	0	0	0	0
APR2616	0	8.0	13.3	15.3	0	0	0	0
APR3060	0	7.0	12.7	16.0	0	0	0	0

NAME	PERCENT LEAF FIRING DURING TREATMENT				LEAF FIRING OF THE CONTROL			
	12DS	16DS	20DS	24DS	12DS	16DS	20DS	24DS
ASP0116EXT	0	7.0	6.3	13.3	0	0	0	0
ASP0117 (A-PR15)	0	9.0	13.3	16.7	0	0	0	0
ASP0118GL (A-4G)	0	10.3	14.7	20.7	0	0	0	0
BAR LP 6131	0	7.0	13.3	17.3	0	0	0	0
CS-6	0	9.0	12.0	23.0	0	0	0	0
DLFPS-236/3546	0	6.0	9.7	16.0	0	0	0	0
PARAGON 2 GLR (FP2)	0	4.7	12.0	15.7	0	0	0	0
FURLONG (LTP-FCB)	0	12.0	19.7	20.7	0	0	0	0
GRAY WOLF (PST-2GAL)	0	5.0	10.7	12.0	0	0	0	0
JR-123	0	5.7	11.3	20.3	0	0	0	0
KARMA	0	5.0	10.0	14.0	0	0	0	0
PPG-PR 385	0	10.7	10.7	14.0	0	0	0	0
PPG-PR 421	0	7.3	10.0	18.0	0	0	0	0
PPG-PR 423	0	4.3	8.3	14.0	0	0	0	0
PST-2EGAD	0	8.0	15.3	13.3	0	0	0	0
PST-2GTD	0	5.7	13.0	13.3	0	0	0	0
PST-2PDA	0	6.3	12.0	10.7	0	0	0	0
SILVER SPORT (PST-2CRP)	0	10.0	11.7	12.7	0	0	0	0
SPIKE GLS (UF3)	0	9.7	12.7	25.3	0	0	0	0
UMPQUA	0	4.3	11.3	12.7	0	0	0	0
023	0	14.3	17.3	20.7	0	0	0	0
02BS1	0	15.3	24.3	22.0	0	0	0	0
02BS2	0	4.7	17.7	14.7	0	0	0	0
ALLSTAR III	0	11.0	14.7	16.7	0	0	0	0
APPLE 3GL (PPG-PR 339)	0	8.0	17.3	19.3	0	0	0	0
APR2612	0	6.3	8.7	16.0	0	0	0	0
BAR LP 6158	0	18.7	21.3	20.7	0	0	0	0
BAR LP 6159	0	9.0	16.7	18.0	0	0	0	0
BAR LP 6162	0	17.0	15.3	16.0	0	0	0	0
BAR LP 6164	0	12.3	20.0	18.7	0	0	0	0
BRIGHTSTAR SLT	0	15.3	22.0	20.0	0	0	0	0
CPN	0	8.0	15.0	12.7	0	0	0	0
DERBY XTREME	0	7.0	20.3	26.3	0	0	0	0
DLFPS-236/3547	0	6.0	15.3	18.0	0	0	0	0
DLFPS-236/3548	0	8.0	11.0	17.7	0	0	0	0
DLFPS-236/3550	0	9.0	12.0	20.3	0	0	0	0
DLFPS-236/3552	0	10.0	12.0	22.7	0	0	0	0
DLFPS-238/3014	0	11.3	11.3	16.7	0	0	0	0
GO-142	0	8.0	17.7	15.3	0	0	0	0
GO-143	0	4.0	9.7	17.7	0	0	0	0
JR-197	0	6.0	15.3	14.0	0	0	0	0
JR-747	0	20.0	13.3	19.7	0	0	0	0
LINN	0	15.3	22.0	22.7	0	0	0	0
MAN O WAR	0	9.7	12.7	19.3	0	0	0	0
NP-2	0	7.7	16.0	16.0	0	0	0	0
NP-3	0	8.7	17.3	21.0	0	0	0	0
OVERDRIVE 5G	0	19.3	22.3	18.7	0	0	0	0

TABLE 17.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER SALINITY STRESS IN THE GREENHOUSE AT FORT COLLINS, CO 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT LEAF FIRING DURING TREATMENT				LEAF FIRING OF THE CONTROL			
	12DS	16DS	20DS	24DS	12DS	16DS	20DS	24DS
PEPPER II (RAD-PR 103)	0	7.0	12.0	16.3	0	0	0	0
PHARAOH	0	10.7	14.7	18.7	0	0	0	0
PPG-PR 360	0	6.7	18.7	17.3	0	0	0	0
PPG-PR 367	0	7.7	18.7	13.3	0	0	0	0
PPG-PR 370	0	7.7	13.0	22.0	0	0	0	0
PPG-PR 422	0	4.3	9.0	12.0	0	0	0	0
PR-6-15	0	6.0	11.3	19.3	0	0	0	0
PST-2FOXY	0	11.3	13.3	20.0	0	0	0	0
RAD-PR 112	0	5.0	10.0	13.7	0	0	0	0
SEABISCUIT	0	11.3	12.7	18.0	0	0	0	0
SLIDER LS (PPG-PR 241)	0	13.0	23.3	21.3	0	0	0	0
SLUGGER 3GL (PPG-PR 343)	0	5.3	15.3	18.0	0	0	0	0
XCELERATOR	0	8.3	13.3	22.7	0	0	0	0
ASP0218 (A-6D)	0	14.3	19.0	24.0	0	0	0	0
BAR LP 6233	0	12.7	12.7	18.0	0	0	0	0
DLFPS-236/3556	0	14.3	12.7	24.0	0	0	0	0
GO-141	0	4.0	11.3	18.7	0	0	0	0
GRAY HAWK (PST-2FIND)	0	7.7	15.3	15.3	0	0	0	0
FASTBALL 3GL (PPG-PR 329)	0	14.0	21.0	28.7	0	0	0	0
PARADOX GLR (PPG-PR 331)	0	13.0	26.0	29.0	0	0	0	0
LSD VALUE	0	10.0	13.6	30.5	0	0	0	0
C.V. (%)	.	61.5	44.9	42.4	.	.	.	.

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.

NAME	CLIPPING YIELD (MG) DURING TREATMENT				CLIPPING YIELD (MG) CONTROL				PERCENT TREATMENT CLIPPING YIELD OVER CONTROL			
	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS
021	105.0	103.0	51.0	22.7	132.7	203.0	176.7	175.7	74.6	65.0	29.7	13.2
HATRICK (BSP-17)	110.7	115.3	46.7	18.3	132.7	187.7	177.7	169.7	94.3	71.6	26.8	10.9
TEE-ME-UP (BSP-25)	78.7	116.7	53.0	34.3	104.3	188.0	166.0	178.0	75.4	74.5	31.6	17.3
FIREBALL (BWH)	71.3	96.7	52.0	23.3	93.3	205.0	175.3	164.7	98.2	61.7	29.8	13.8
DLFPS-236/3541	66.7	103.7	34.7	25.7	114.0	199.5	182.7	259.3	66.9	60.6	18.4	9.5
LPB-SD-101	83.7	102.7	61.0	34.3	92.7	208.0	178.3	185.0	92.0	64.6	35.0	18.9
SIGNET	77.0	115.0	48.0	23.0	136.0	210.3	170.7	167.0	58.1	65.7	28.4	13.8
EVOLVE	84.0	87.7	40.7	22.0	144.7	234.3	165.3	197.3	62.7	43.3	25.4	11.2
INTENSE	117.7	112.7	48.3	30.7	119.7	695.0	178.0	204.0	120.9	27.6	29.3	15.2
LPB-SD-103	70.3	97.3	68.7	36.7	52.0	215.0	178.7	180.0	137.3	48.5	38.2	22.2
LPB-SD-104	78.7	88.7	58.0	24.7	106.0	222.3	189.0	167.3	73.6	41.5	31.3	14.5
MENSA	86.7	124.0	57.0	31.3	95.0	223.3	152.7	151.3	96.7	58.7	36.6	20.3
MRSL-PR15	79.0	107.7	43.7	21.7	134.0	182.0	162.0	154.3	59.0	67.7	26.6	13.9
PL2	85.3	103.3	54.3	25.7	125.3	176.7	169.0	185.3	78.1	70.7	31.7	14.6
SR 4650	100.7	103.3	45.0	41.0	102.7	190.3	187.7	194.3	99.8	59.1	24.3	23.3
BAR LP 6117	76.3	83.7	36.7	37.0	108.0	201.0	174.3	166.3	73.9	43.2	21.2	24.9
BAR LP 6165	61.7	92.7	59.3	22.0	94.0	200.7	230.7	187.7	66.4	50.3	25.8	11.7
DLFPS-236/3540	93.3	106.3	56.3	28.3	140.7	193.3	177.7	194.3	68.0	71.5	32.4	14.1
DLFPS-236/3542	546.7	90.3	64.7	39.3	99.7	202.3	173.3	159.0	198.9	47.8	38.1	24.5
DLFPS-236/3543	65.3	102.7	52.0	30.7	122.7	214.0	154.0	203.0	56.8	57.5	33.8	14.9
DLFPS-236/3544	87.7	80.3	50.3	28.0	126.0	212.3	189.3	189.0	70.9	39.5	26.6	14.5
DLFPS-236/3545	74.7	113.0	48.3	34.7	82.0	217.0	161.3	189.0	113.0	59.8	29.5	18.2
DLFPS-236/3553	102.0	117.3	72.7	32.0	138.3	209.7	187.7	195.0	76.9	59.4	39.6	16.4
HOMERUN LS (PPG-PR 419)	102.3	95.3	50.7	50.7	150.3	270.3	203.7	174.7	71.6	34.4	24.9	28.8
JR-888	59.7	81.0	46.0	28.0	173.7	208.3	160.0	190.3	34.1	42.6	29.3	14.9
LPB-SD-102	73.0	51.0	57.3	35.0	96.0	199.3	187.3	145.0	107.8	28.7	31.6	23.7
LPB-SD-105	68.3	95.7	61.0	37.0	120.3	209.0	187.0	167.7	57.1	46.9	32.5	23.8
PPG-PR 371	96.3	91.7	47.7	47.0	137.0	211.3	188.0	187.7	77.4	44.4	25.8	25.3
PPG-PR 372	103.3	108.7	48.3	36.0	98.3	200.3	194.7	219.0	139.1	58.7	24.8	17.9
PPG-PR 420	101.7	99.7	54.7	49.3	123.0	233.0	183.3	196.3	94.7	46.2	31.1	25.4
PR-5-16	113.3	108.7	69.0	33.3	126.3	222.0	203.3	181.3	94.6	49.8	35.4	17.6
SAGUARO	85.3	96.7	62.3	35.3	113.7	233.7	183.3	175.7	75.3	43.7	34.3	19.5
SNX	72.3	104.7	37.0	22.7	118.7	222.3	160.0	157.7	75.1	48.0	23.0	14.3
DLFPS-236/3538	72.3	99.7	38.3	51.3	83.0	182.0	181.3	192.0	93.6	60.7	21.7	26.7
DLFPS-236/3554	83.7	133.3	70.3	30.3	104.7	199.0	196.7	198.0	90.3	79.9	36.6	14.7
GRAND SLAM GLD	71.7	91.0	40.0	32.0	119.0	223.7	177.7	217.0	60.4	40.1	23.5	20.4
MRSL-PR16	83.3	89.7	44.7	27.0	153.7	201.7	171.7	156.3	56.7	48.1	26.5	16.7
PPG-PR 424	86.3	108.0	52.3	42.3	167.3	212.3	200.0	172.0	49.7	57.0	27.9	27.3
PST-2A2	108.3	105.3	60.3	26.0	107.0	207.3	198.0	188.3	105.0	62.0	32.1	13.8
PST-2BDT	103.3	97.7	43.7	35.0	136.7	223.7	142.7	161.0	80.8	55.4	31.4	22.9
PST-2MAY	80.3	119.3	81.7	28.0	134.0	255.7	167.3	152.7	69.8	61.0	49.0	18.5
SAVANT	79.7	80.3	57.3	28.3	104.0	237.3	144.7	186.3	73.4	39.9	40.4	15.1
SHIELD (02BS4)	83.0	92.3	45.7	21.0	126.3	265.3	184.7	169.7	66.4	39.2	25.0	12.9
ALLOY (RRT)	86.7	113.0	65.0	42.3	102.7	192.7	151.0	166.7	128.5	67.1	42.5	26.4
GREEN SUPREME+ (AMP-R1)	99.0	100.7	79.3	34.7	107.3	224.7	176.0	205.0	92.8	52.7	45.7	17.1
APR2616	87.0	107.0	62.3	24.0	78.3	206.3	204.0	238.0	124.0	61.0	31.3	9.9
APR3060	83.7	100.0	76.3	29.0	105.3	231.7	179.0	190.7	83.6	45.8	43.1	14.6

TABLE 17.   MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
(CONT'D)   2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER SALINITY STRESS IN THE GREENHOUSE AT FORT COLLINS, CO 1/
                                                           2018 DATA
                                        TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	CLIPPING YIELD (MG) DURING TREATMENT				CLIPPING YIELD (MG) CONTROL				PERCENT TREATMENT CLIPPING YIELD OVER CONTROL			
	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS
ASP0116EXT	108.3	97.7	48.3	20.0	129.7	235.0	182.3	172.7	83.6	44.3	26.8	12.6
ASP0117 (A-PR15)	89.0	101.3	45.0	19.0	130.3	214.3	181.7	195.7	68.3	61.3	24.5	9.9
ASP0118GL (A-4G)	75.0	105.0	49.3	22.0	97.3	196.7	178.0	199.7	80.6	55.0	28.6	11.8
BAR LP 6131	76.0	95.3	40.0	35.7	114.3	207.7	145.3	189.7	69.9	48.2	27.9	22.0
CS-6	70.0	88.0	50.3	20.7	104.7	229.3	174.0	182.0	64.4	43.4	29.2	12.0
DLFPS-236/3546	75.7	104.3	81.3	43.0	77.3	208.7	186.7	211.3	99.5	58.6	44.1	21.6
PARAGON 2 GLR (FP2)	109.0	106.3	58.0	31.3	112.0	201.3	188.7	224.3	93.0	55.7	31.6	14.2
FURLONG (LTP-FCB)	78.3	94.7	30.7	29.3	81.5	169.3	188.7	193.3	86.1	61.6	16.1	16.4
GRAY WOLF (PST-2GAL)	77.0	115.3	32.5	27.3	124.3	238.7	187.3	157.3	60.2	60.3	16.6	17.7
JR-123	76.7	104.7	44.3	24.3	86.3	236.0	177.0	161.0	145.2	51.4	25.3	14.1
KARMA	101.0	100.0	42.3	41.7	119.0	178.3	170.3	166.0	148.2	61.6	25.0	26.7
PPG-PR 385	96.7	101.0	58.3	58.7	91.3	243.0	200.0	194.0	136.5	44.6	29.5	33.2
PPG-PR 421	84.7	107.3	43.0	50.7	140.3	222.3	173.3	200.3	64.9	57.4	27.8	25.5
PPG-PR 423	83.7	102.3	48.3	49.0	129.7	193.7	180.3	183.7	62.3	55.6	28.0	26.2
PST-2EGAD	84.0	90.7	60.0	33.0	106.0	191.3	174.7	183.0	77.7	48.4	35.4	20.3
PST-2GTD	85.0	121.7	58.7	35.3	117.3	203.7	173.7	191.7	72.7	65.3	33.5	24.6
PST-2PDA	96.3	125.0	75.7	39.3	119.0	252.3	198.0	200.0	50.5	52.4	38.6	20.8
SILVER SPORT (PST-2CRP)	84.3	102.3	46.3	25.3	103.7	178.7	138.0	203.3	80.7	58.1	35.8	12.6
SPIKE GLS (UF3)	94.7	112.0	45.0	34.7	102.0	241.3	175.0	191.7	130.1	56.0	26.9	17.8
UMPQUA	75.7	91.3	60.7	32.0	108.7	209.3	187.3	187.0	71.3	44.5	32.3	17.2
023	99.7	83.3	61.7	45.7	134.0	204.7	198.3	240.7	78.4	49.0	31.4	18.8
02BS1	86.0	118.0	58.3	29.7	100.7	200.0	195.3	196.3	87.3	59.7	30.3	15.4
02BS2	91.0	109.0	57.3	31.0	87.7	217.7	166.0	206.0	128.9	58.4	35.3	16.5
ALLSTAR III	387.3	95.0	52.7	43.3	111.3	224.0	166.0	163.3	277.3	47.3	30.8	28.9
APPLE 3GL (PPG-PR 339)	98.7	85.0	50.3	34.3	151.3	228.3	184.0	200.3	62.2	42.5	28.4	18.5
APR2612	71.7	97.0	66.3	36.0	99.7	226.3	187.0	197.7	85.0	45.2	36.2	19.3
BAR LP 6158	97.3	114.0	44.7	32.3	112.3	214.0	193.7	175.0	94.1	58.1	23.5	18.6
BAR LP 6159	79.7	117.0	62.3	33.3	84.7	221.7	169.0	186.3	91.2	54.8	36.5	18.9
BAR LP 6162	113.0	96.0	53.0	26.3	106.3	236.7	214.3	200.7	116.7	44.9	25.5	13.2
BAR LP 6164	88.0	113.3	52.0	40.3	105.0	171.0	189.3	195.0	96.8	76.7	28.8	20.9
BRIGHTSTAR SLT	59.0	105.0	55.3	25.7	108.3	257.7	192.3	208.3	53.7	49.0	30.0	13.7
CPN	81.0	109.3	71.3	32.0	101.0	195.0	179.0	193.7	85.9	59.4	39.9	16.2
DERBY XTREME	86.7	122.0	51.3	28.7	115.0	197.7	174.3	238.0	83.5	68.6	29.9	12.3
DLFPS-236/3547	80.7	109.0	64.0	31.0	91.3	193.7	183.3	193.3	94.2	67.1	35.7	15.7
DLFPS-236/3548	88.0	84.3	69.7	52.0	99.3	253.3	175.7	225.3	85.3	39.7	43.3	23.0
DLFPS-236/3550	93.0	100.0	63.7	48.3	125.3	223.7	180.0	186.7	73.6	62.4	36.7	25.5
DLFPS-236/3552	80.0	115.0	59.7	22.0	106.7	209.0	175.0	234.3	82.4	63.7	35.7	9.8
DLFPS-238/3014	101.0	117.7	69.7	46.3	140.3	214.7	197.7	200.7	79.9	53.8	40.8	22.9
GO-142	84.3	106.0	65.7	40.0	86.0	217.7	184.7	178.0	102.9	55.0	36.3	22.3
GO-143	80.7	105.0	61.7	29.0	86.3	240.0	184.7	213.7	98.6	52.1	33.3	13.3
JR-197	69.7	96.7	58.3	40.3	125.0	191.7	186.7	173.0	60.9	55.8	30.8	22.4
JR-747	57.0	105.0	50.3	32.7	104.7	227.7	176.0	166.3	60.3	56.1	29.0	19.3
LINN	82.7	137.3	85.7	31.0	154.3	286.7	243.3	206.3	52.9	54.9	35.1	14.9
MAN O WAR	74.3	110.3	63.0	42.3	110.7	218.0	183.3	185.7	71.2	60.9	34.7	23.6
NP-2	73.7	105.0	47.3	28.7	90.3	181.7	202.7	234.3	79.4	63.3	23.5	11.8
NP-3	81.7	100.3	58.3	15.7	119.7	236.7	163.0	182.0	63.6	47.3	38.3	9.3
OVERDRIVE 5G	91.7	97.0	51.3	20.3	81.3	172.3	189.3	191.3	112.3	59.8	27.1	10.9

TABLE 17.
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS IN THE
2016 NATIONAL PERENNIAL RYEGRASS TEST UNDER SALINITY STRESS IN THE GREENHOUSE AT FORT COLLINS, CO 1/
2018 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

	CLIPPING YIELD (MG) DURING TREATMENT				CLIPPING YIELD (MG) CONTROL				PERCENT TREATMENT CLIPPING YIELD OVER CONTROL			
NAME	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS	12_DS	16_DS	20_DS	24_DS
PEPPER II (RAD-PR 103)	76.0	110.3	67.3	42.7	117.0	210.7	198.7	205.7	65.5	54.8	36.2	20.3
PHARAOH	80.0	111.7	53.3	41.0	128.7	227.0	170.3	170.7	60.8	55.4	31.9	23.4
PPG-PR 360	69.0	95.0	45.0	32.3	106.7	231.3	167.3	212.3	67.2	46.3	27.5	16.1
PPG-PR 367	87.0	88.3	43.0	39.7	118.7	251.7	177.0	195.3	79.7	42.6	24.2	21.6
PPG-PR 370	102.0	96.3	60.0	43.7	142.3	233.3	177.7	178.7	81.9	46.2	34.0	27.0
PPG-PR 422	89.3	103.3	45.3	27.3	110.3	225.7	182.7	168.0	82.3	50.6	27.7	15.6
PR-6-15	184.3	97.7	40.0	33.7	136.0	213.7	162.3	146.7	154.4	49.5	25.5	23.0
PST-2FOXY	70.7	97.3	52.7	29.7	119.3	192.3	147.7	183.7	55.7	51.5	38.3	16.3
RAD-PR 112	70.0	110.0	53.0	30.7	92.7	214.3	179.3	205.3	82.8	56.2	31.4	14.8
SEABISCUIT	80.3	126.0	46.7	25.0	94.3	197.3	178.3	184.7	85.5	76.9	26.4	13.4
SLIDER LS (PPG-PR 241)	98.3	93.0	46.3	30.3	99.0	190.3	159.3	214.7	117.7	51.7	28.5	13.3
SLUGGER 3GL (PPG-PR 343)	92.0	110.3	51.3	43.0	106.0	209.0	153.3	188.7	90.7	63.7	36.1	23.8
XCELERATOR	83.7	114.7	61.3	33.7	130.7	208.7	172.3	205.3	77.7	57.9	35.8	15.4
ASP0218 (A-6D)	74.0	91.7	51.7	17.3	117.3	193.0	170.7	188.7	65.8	49.7	31.2	9.3
BAR LP 6233	69.7	72.7	52.0	36.7	123.0	241.7	168.7	198.7	56.8	30.4	30.2	19.6
DLFPS-236/3556	96.0	110.3	39.0	19.3	92.0	224.3	183.3	223.3	117.9	62.4	20.6	8.7
GO-141	90.3	96.0	62.0	48.0	92.0	208.0	191.0	209.3	103.0	55.4	32.2	21.9
GRAY HAWK (PST-2FIND)	99.3	100.7	65.0	30.0	107.7	181.3	163.0	199.7	93.0	66.2	41.2	14.8
FASTBALL 3GL (PPG-PR 329)	87.0	116.0	58.0	28.7	90.0	210.7	162.7	217.0	125.6	61.1	38.1	13.3
PARADOX GLR (PPG-PR 331)	94.7	103.7	60.0	46.3	89.3	230.3	156.7	213.0	102.3	46.5	38.2	20.5
LSD VALUE	421.0	97.9	55.3	78.7	167.4	399.2	55.1	135.0	253.3	72.6	40.3	53.9
C.V. (%)	100.6	21.1	30.6	48.4	31.9	40.0	12.7	18.5	62.7	31.5	32.1	55.2

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

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

TABLE 18.   GENETIC COLOR RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
                                                 2018 DATA

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

NAME	CA7	CT1	IA1	IL1	MI1	MN1	NE1	NJ2	OR1	UT1	MEAN
HATRICK (BSP-17)	5.3	8.7	6.7	8.7	7.7	6.7	5.0	8.3	8.0	8.3	7.3
FIREBALL (BWH)	6.7	8.7	5.7	8.3	7.7	8.0	5.0	8.0	8.0	7.3	7.3
ASP0116EXT	6.7	8.3	5.3	8.0	7.7	7.3	5.0	9.0	7.7	6.7	7.2
MRSL-PR16	8.7	6.7	6.0	7.7	7.0	6.0	5.3	7.7	7.7	5.3	6.8
DLFPS-236/3546	7.7	7.7	6.0	7.7	7.3	6.3	4.7	6.7	7.3	6.0	6.7
TEE-ME-UP (BSP-25)	6.3	8.3	5.7	7.7	7.3	4.7	5.0	7.0	7.7	7.3	6.7
DLFPS-236/3545	8.3	7.0	7.0	7.3	7.0	6.3	4.7	7.0	7.3	5.0	6.7
RAD-PR 112	3.7	7.7	6.3	7.3	7.3	6.7	5.0	8.0	7.3	7.7	6.7
SNX	7.0	8.3	5.0	8.0	7.3	6.3	5.0	7.7	7.3	5.0	6.7
CS-6	6.0	7.3	5.0	7.7	7.3	6.3	5.0	8.0	7.7	6.3	6.7
PEPPER II (RAD-PR 103)	5.3	7.7	6.0	8.3	7.7	6.0	5.0	7.7	7.0	6.0	6.7
PR-6-15	6.0	7.7	6.3	7.3	7.0	7.7	5.0	7.0	7.3	5.3	6.7
JR-197	7.0	7.3	6.3	8.3	6.7	6.3	5.0	6.3	7.3	5.7	6.6
SILVER SPORT (PST-2CRP)	6.7	7.3	6.3	7.7	7.0	6.3	5.0	6.7	7.3	6.0	6.6
ASP0218 (A-6D)	7.0	8.3	5.7	7.3	7.0	6.0	5.0	6.3	7.3	6.3	6.6
FURLONG (LTP-FCB)	6.7	8.0	7.3	7.0	7.3	5.7	4.0	7.0	7.3	5.7	6.6
ASP0118GL (A-4G)	7.0	7.3	6.0	8.3	7.7	5.0	5.0	6.7	7.7	5.3	6.6
PARAGON 2 GLR (FP2)	6.3	7.0	6.7	7.7	7.0	6.7	5.0	7.0	7.0	5.3	6.6
MAN O WAR	7.3	7.3	6.0	7.3	7.3	7.3	4.7	6.7	6.7	4.7	6.5
PPG-PR 360	5.0	7.7	7.3	8.3	7.0	5.7	4.7	6.3	7.0	5.7	6.5
PST-2FOXY	5.3	7.0	6.7	7.7	7.3	5.7	5.0	7.3	7.0	5.7	6.5
DLFPS-236/3552	7.3	7.7	7.0	7.7	6.7	4.0	4.7	7.0	7.7	5.0	6.5
LPB-SD-102	7.0	7.7	5.3	8.3	7.0	5.7	5.0	6.0	6.7	6.0	6.5
PPG-PR 422	6.3	7.7	6.3	8.0	7.0	6.0	5.0	6.3	7.0	5.0	6.5
PPG-PR 423	6.7	7.0	6.3	8.0	7.0	5.7	4.7	6.7	7.3	5.3	6.5
DLFPS-236/3542	7.7	7.7	5.0	7.3	7.3	6.3	4.3	6.0	7.0	5.7	6.4
GREEN SUPREME+ (AMP-R1)	5.0	7.3	5.3	7.7	7.7	6.7	5.0	6.7	7.3	5.7	6.4
MRSL-PR15	7.0	8.0	5.7	7.0	7.3	4.7	5.0	6.3	7.0	6.3	6.4
PL2	5.7	8.0	6.7	7.7	7.0	6.7	5.0	5.7	7.0	5.0	6.4
PPG-PR 372	5.7	8.0	6.7	7.7	7.0	5.7	5.0	6.3	7.0	5.3	6.4
PHARAOH	6.7	7.7	6.7	7.7	7.0	6.0	4.3	6.3	7.0	4.7	6.4
GRAND SLAM GLD	7.3	7.0	6.7	7.7	7.0	4.3	4.3	7.0	7.0	5.3	6.4
ASP0117 (A-PR15)	6.7	7.3	5.7	7.7	7.3	4.7	5.0	6.0	7.0	6.3	6.4
DLFPS-236/3554	6.0	7.3	5.7	8.0	7.0	4.7	5.0	6.3	7.3	6.3	6.4
PPG-PR 421	6.7	7.3	6.7	7.3	7.0	5.3	5.3	6.0	7.0	5.0	6.4
PST-2GTD	6.3	6.7	7.7	7.0	7.0	5.7	5.0	6.3	7.0	5.0	6.4
023	7.0	7.7	7.3	8.0	7.3	4.7	4.3	5.0	7.0	5.0	6.3
GRAY WOLF (PST-2GAL)	6.7	7.7	6.0	8.0	7.3	5.0	4.7	6.3	6.7	5.0	6.3
PPG-PR 370	6.3	8.0	6.0	7.3	7.0	5.0	5.0	6.3	7.0	5.3	6.3
PST-2A2	5.7	8.0	5.7	8.0	7.0	5.3	4.7	6.7	7.3	5.0	6.3
NP-2	7.0	7.3	6.3	8.3	7.0	5.0	4.7	6.0	7.0	4.7	6.3
DLFPS-236/3544	4.7	6.7	7.0	7.7	7.0	6.7	5.0	6.3	7.0	5.0	6.3
HOMERUN LS (PPG-PR 419)	7.7	7.3	7.0	7.3	7.0	5.3	4.7	5.3	7.0	4.3	6.3
OVERDRIVE 5G	6.3	7.0	6.0	7.7	7.0	5.3	5.0	7.0	7.0	4.7	6.3
DLFPS-236/3543	5.0	7.3	7.0	7.3	7.0	5.3	4.3	6.3	7.3	5.7	6.3

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

NAME	CA7	CT1	IA1	IL1	MI1	MN1	NE1	NJ2	OR1	UT1	MEAN
PPG-PR 367	7.0	7.7	5.3	7.0	7.0	6.0	4.3	6.3	7.3	4.7	6.3
ALLOY (RRT)	4.0	7.0	7.0	7.7	7.3	5.7	5.0	7.0	7.0	5.0	6.3
APR2616	6.7	7.3	6.7	8.3	7.3	4.7	5.0	5.0	6.7	5.0	6.3
DLFPS-236/3547	5.7	7.0	7.0	8.0	6.3	5.3	5.0	6.7	7.0	4.7	6.3
APR2612	5.7	6.0	6.3	7.7	7.3	6.0	5.0	6.3	7.0	5.0	6.2
PST-2BDT	5.7	7.3	5.3	8.3	7.0	5.7	5.0	5.7	7.0	5.3	6.2
02BS1	5.3	6.3	5.7	7.3	7.0	7.0	5.0	7.0	7.0	4.3	6.2
PST-2MAY	6.0	7.3	6.7	7.3	6.7	5.3	4.7	6.0	7.0	5.0	6.2
LPB-SD-104	6.0	8.3	5.0	8.7	7.0	4.7	4.7	4.7	7.0	6.0	6.2
SLIDER LS (PPG-PR 241)	5.3	7.0	6.3	7.3	7.0	5.3	5.0	6.0	7.3	5.0	6.2
GRAY HAWK (PST-2FIND)	6.3	6.7	6.7	8.0	7.0	5.0	4.7	5.7	6.7	5.0	6.2
PPG-PR 420	6.7	7.7	6.3	7.3	7.0	5.0	4.7	5.3	7.0	4.7	6.2
PPG-PR 424	6.3	7.3	6.7	7.3	7.0	5.7	4.7	5.0	7.0	4.7	6.2
SPIKE GLS (UF3)	5.0	7.3	5.7	7.7	7.3	6.0	5.0	5.7	7.0	5.0	6.2
NP-3	6.3	6.7	6.0	7.7	7.0	5.3	4.3	6.0	7.0	5.0	6.1
PST-2EGAD	5.7	7.3	6.7	8.0	7.0	5.0	5.0	5.3	7.0	4.3	6.1
ALLSTAR III	6.7	7.0	5.3	8.3	7.0	4.7	4.7	6.3	7.0	4.3	6.1
DLFPS-236/3540	5.7	6.7	5.3	7.7	7.0	5.0	5.0	6.3	7.0	5.7	6.1
PPG-PR 371	4.7	7.7	5.7	7.7	7.0	6.3	5.0	5.7	7.0	4.7	6.1
SLUGGER 3GL (PPG-PR 343)	5.3	6.7	5.7	8.0	7.0	6.0	4.7	5.7	7.0	5.3	6.1
GO-143	6.0	6.0	5.3	8.0	7.0	4.7	5.0	7.0	7.0	5.3	6.1
PST-2PDA	6.7	7.0	6.3	8.7	6.7	4.0	4.7	6.0	7.0	4.3	6.1
DLFPS-236/3550	6.3	6.7	5.7	7.7	7.0	4.3	4.7	6.0	7.3	5.3	6.1
UMPQUA	6.0	6.0	7.7	8.0	7.3	4.3	4.3	5.3	7.0	5.0	6.1
DLFPS-236/3553	6.3	7.0	6.0	7.7	7.0	5.3	4.3	5.7	6.7	5.0	6.1
SHIELD (02BS4)	6.3	7.3	6.3	7.3	7.3	4.3	5.0	5.3	7.0	4.7	6.1
APPLE 3GL (PPG-PR 339)	5.3	7.0	5.7	8.0	7.0	5.0	4.7	6.0	7.0	5.0	6.1
INTENSE	4.7	7.0	5.3	7.7	7.0	5.3	5.0	7.0	7.0	4.7	6.1
SEABISCUIT	5.3	7.0	6.3	8.0	7.0	4.7	5.0	6.3	7.0	4.0	6.1
DLFPS-236/3556	6.3	7.7	6.0	8.3	7.3	4.3	4.0	5.0	7.0	4.3	6.0
02BS2	5.3	7.0	6.3	7.3	7.0	6.3	4.7	5.0	7.0	4.3	6.0
DERBY XTREME	4.0	6.7	5.7	8.0	7.3	5.7	5.0	6.0	7.0	5.0	6.0
DLFPS-236/3548	5.0	7.7	6.3	7.0	7.0	5.3	4.7	5.3	7.0	5.0	6.0
PPG-PR 385	7.7	6.7	6.7	7.7	7.0	4.3	4.7	4.7	7.0	4.0	6.0
CPN	5.7	6.7	6.0	8.0	7.3	4.3	4.3	6.3	7.0	4.3	6.0
XCELERATOR	4.3	7.3	6.3	7.7	7.0	5.3	4.3	6.3	7.0	4.3	6.0
DLFPS-236/3538	6.3	7.3	6.3	8.7	7.0	4.3	4.3	4.0	7.0	4.7	6.0
DLFPS-236/3541	3.7	6.7	7.3	7.7	7.0	4.3	4.7	7.0	7.0	4.7	6.0
GO-141	6.0	6.7	5.7	7.3	7.0	4.3	5.0	6.7	6.7	4.7	6.0
MENSA	6.7	6.7	5.3	8.3	7.0	4.3	4.3	5.0	7.0	5.7	6.0
APR3060	5.7	7.0	6.7	8.3	7.3	4.3	4.7	4.0	6.7	5.0	6.0
PARADOX GLR (PPG-PR 331)	4.3	7.3	6.0	8.0	7.0	4.7	5.0	5.0	7.0	5.3	6.0
KARMA	7.0	6.7	5.7	7.7	7.0	5.3	4.0	4.7	7.0	4.3	5.9
SIGNET	5.0	7.7	6.0	7.0	7.0	4.3	4.7	5.7	7.3	4.7	5.9
LPB-SD-103	6.0	7.0	5.0	8.3	7.0	4.7	5.0	5.0	6.7	4.7	5.9
JR-123	4.0	7.0	5.3	7.7	7.0	5.0	5.0	6.3	7.0	4.7	5.9

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

NAME	CA7	CT1	IA1	IL1	MI1	MN1	NE1	NJ2	OR1	UT1	MEAN
SR 4650	5.7	7.0	5.3	7.7	7.0	5.7	4.3	5.0	7.0	4.3	5.9
GO-142	6.0	7.0	5.0	8.0	7.3	4.0	4.7	4.7	7.0	4.7	5.8
LPB-SD-105	6.3	7.7	5.0	8.3	6.7	4.0	4.0	4.0	6.7	5.3	5.8
FASTBALL 3GL (PPG-PR 329)	1.0	6.3	6.7	7.3	7.0	6.0	5.0	6.7	7.0	5.0	5.8
021	5.7	6.0	5.7	7.7	7.3	5.7	4.0	5.0	7.0	3.7	5.8
BAR LP 6117	6.7	6.7	5.7	7.7	7.0	3.7	5.0	3.7	6.7	5.0	5.8
EVOLVE	6.0	6.7	5.3	7.3	7.7	5.0	4.3	4.7	7.0	3.7	5.8
PR-5-16	5.7	7.0	5.0	7.0	7.0	4.0	4.3	6.0	7.0	4.3	5.7
BAR LP 6159	6.3	6.0	7.7	8.0	6.7	3.3	4.3	4.0	6.3	4.3	5.7
SAGUARO	6.7	6.0	5.3	7.3	7.0	4.3	4.7	4.7	6.3	4.7	5.7
BAR LP 6162	7.0	5.3	5.7	7.7	7.0	1.3	5.0	6.7	6.3	4.3	5.6
JR-747	4.7	7.3	4.7	7.7	6.7	4.7	4.3	4.7	7.0	4.7	5.6
BAR LP 6158	6.0	6.7	6.0	8.0	7.0	3.3	4.3	3.3	6.7	4.3	5.6
BAR LP 6164	6.7	6.0	6.3	7.0	6.7	3.7	5.0	3.3	6.3	4.3	5.5
DLFPS-238/3014	6.3	6.7	6.7	6.7	7.0	2.3	4.7	4.0	6.0	4.7	5.5
BAR LP 6131	6.3	6.3	5.7	7.3	7.0	2.7	4.3	4.7	6.7	4.0	5.5
LPB-SD-101	7.3	6.0	5.0	7.7	7.0	2.3	4.3	3.3	6.3	5.0	5.4
BAR LP 6233	6.0	6.7	6.7	7.3	6.7	3.0	4.0	3.7	6.3	3.7	5.4
BRIGHTSTAR SLT	5.7	6.0	5.7	7.3	6.3	2.7	5.0	4.0	7.0	4.3	5.4
SAVANT	5.3	7.3	4.3	7.3	6.3	4.0	4.0	3.3	6.3	3.7	5.2
BAR LP 6165	5.7	5.0	8.3	6.3	7.0	1.3	4.0	1.0	6.0	3.3	4.8
JR-888	2.3	6.0	5.0	7.3	7.0	3.0	4.0	2.7	6.7	3.7	4.8
LINN	6.3	4.0	5.7	5.0	6.3	1.0	3.0	1.0	5.0	2.0	3.9
LSD VALUE	1.4	1.2	1.3	1.2	0.7	1.1	0.6	1.3	0.6	1.2	0.3
C.V. (%)	14.4	10.8	13.4	10.0	6.1	13.9	8.5	13.5	5.3	14.3	11.1

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 19.   SPRING GREENUP RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
                                2018 DATA

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

NAME	CA7	CT1	IL1	MI1	NE1	MEAN
NP-2	7.0	6.3	8.0	5.7	4.7	6.3
PHARAOH	7.0	7.7	7.7	5.3	4.0	6.3
PPG-PR 367	7.0	7.3	7.7	5.7	4.0	6.3
DLFPS-236/3545	8.7	6.0	7.0	5.3	4.7	6.3
PARAGON 2 GLR (FP2)	6.3	7.0	7.7	6.3	4.3	6.3
DLFPS-236/3556	7.0	6.7	7.7	5.7	4.3	6.3
PR-6-15	7.0	6.0	8.0	5.3	5.0	6.3
DLFPS-236/3542	7.7	6.0	7.3	5.7	4.0	6.1
DLFPS-236/3552	6.3	7.0	7.7	6.0	3.7	6.1
PPG-PR 424	5.7	8.0	7.7	5.0	4.3	6.1
023	6.3	7.3	7.0	6.0	4.0	6.1
OVERDRIVE 5G	6.3	6.3	7.7	6.0	4.3	6.1
CPN	6.7	6.7	7.7	5.7	3.7	6.1
JR-197	6.3	6.7	7.7	5.7	4.0	6.1
DLFPS-236/3540	7.3	5.7	7.3	5.3	4.7	6.1
PST-2BDT	7.3	5.3	7.7	5.7	4.3	6.1
ASP0117 (A-PR15)	7.3	5.7	7.3	5.7	4.0	6.0
ASP0218 (A-6D)	7.3	6.3	7.7	5.7	3.0	6.0
DLFPS-236/3538	6.3	6.7	8.0	5.7	3.3	6.0
EVOLVE	7.3	6.0	6.7	5.3	4.7	6.0
HOMERUN LS (PPG-PR 419)	7.0	6.7	7.0	5.0	4.3	6.0
MAN O WAR	7.3	6.3	7.7	5.7	3.0	6.0
PPG-PR 423	6.3	6.3	8.3	5.3	3.7	6.0
SAGUARO	7.7	5.7	7.3	5.0	4.3	6.0
MRSL-PR15	8.0	6.0	7.3	5.3	3.3	6.0
PPG-PR 420	6.3	7.0	7.3	6.0	3.3	6.0
PPG-PR 421	6.3	7.0	7.3	5.0	4.3	6.0
FURLONG (LTP-FCB)	5.7	7.0	7.7	5.7	3.7	5.9
PST-2A2	6.0	6.7	8.0	5.3	3.7	5.9
PST-2PDA	6.3	6.7	7.7	5.3	3.7	5.9
SHIELD (02BS4)	6.0	6.0	7.7	5.7	4.3	5.9
FIREBALL (BWH)	6.3	6.3	8.0	6.0	3.0	5.9
DLFPS-236/3544	5.0	7.3	8.0	5.3	4.0	5.9
DLFPS-236/3554	6.7	6.3	7.3	5.3	4.0	5.9
PL2	5.7	6.7	8.0	5.0	4.0	5.9
PPG-PR 385	8.0	5.7	7.0	5.0	3.7	5.9
SEABISCUIT	6.0	7.7	7.7	4.7	3.3	5.9
APR2616	6.3	5.7	7.7	5.3	4.3	5.9
DLFPS-236/3553	7.3	6.0	7.7	5.0	3.3	5.9
MENSA	7.7	5.3	7.3	5.0	4.0	5.9
NP-3	6.7	7.0	7.3	5.0	3.3	5.9
PPG-PR 372	6.3	6.7	7.3	5.7	3.3	5.9
SIGNET	5.7	7.0	7.3	5.0	4.3	5.9
SLIDER LS (PPG-PR 241)	5.7	6.3	7.3	5.3	4.7	5.9
SR 4650	6.3	6.3	7.7	5.3	3.7	5.9

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

NAME	CA7	CT1	IL1	MI1	NE1	MEAN
PPG-PR 422	5.3	7.0	7.3	5.3	4.3	5.9
DLFPS-236/3543	5.7	6.7	7.0	5.7	4.0	5.8
DLFPS-236/3546	5.7	7.0	7.0	5.3	4.0	5.8
GRAND SLAM GLD	6.7	6.7	7.0	5.3	3.3	5.8
GRAY HAWK (PST-2FIND)	5.7	6.3	7.0	5.7	4.3	5.8
PPG-PR 370	5.7	6.7	7.7	5.7	3.3	5.8
INTENSE	6.0	7.3	7.3	5.0	3.3	5.8
LPB-SD-105	7.3	5.0	7.0	5.3	4.3	5.8
DERBY XTREME	5.7	6.7	7.0	5.7	3.7	5.7
DLFPS-236/3548	6.0	5.7	8.0	6.0	3.0	5.7
GO-141	6.7	5.7	7.3	5.3	3.7	5.7
LPB-SD-103	6.0	5.7	7.0	5.7	4.3	5.7
MRSL-PR16	8.0	5.0	7.7	4.7	3.3	5.7
SNX	6.7	5.7	8.0	5.0	3.3	5.7
DLFPS-236/3547	5.3	7.0	7.3	5.3	3.7	5.7
LPB-SD-101	7.3	4.7	7.3	5.0	4.3	5.7
PST-2MAY	5.7	6.7	7.7	5.3	3.3	5.7
TEE-ME-UP (BSP-25)	7.0	4.7	8.0	5.7	3.0	5.7
GO-143	6.3	5.0	7.7	5.7	3.7	5.7
PEPPER II (RAD-PR 103)	5.7	6.0	8.7	5.0	3.0	5.7
SILVER SPORT (PST-2CRP)	6.7	5.7	7.0	5.7	3.3	5.7
02BS2	5.3	6.3	7.3	5.0	4.3	5.7
ALLSTAR III	6.3	6.0	7.3	5.3	3.3	5.7
BAR LP 6162	7.7	4.7	7.7	5.3	3.0	5.7
GRAY WOLF (PST-2GAL)	5.3	6.7	7.0	5.3	4.0	5.7
KARMA	6.0	5.3	7.7	5.3	4.0	5.7
PST-2EGAD	5.7	5.7	7.7	5.3	4.0	5.7
PST-2GTD	6.0	6.0	7.0	5.3	4.0	5.7
XCELERATOR	3.7	6.7	8.7	5.3	4.0	5.7
PR-5-16	6.0	5.7	7.7	5.0	3.7	5.6
02BS1	5.3	6.3	7.0	5.7	3.7	5.6
ASP0116EXT	6.3	5.3	7.3	5.7	3.3	5.6
BAR LP 6233	5.7	5.0	7.0	6.0	4.3	5.6
DLFPS-236/3550	6.0	6.0	7.3	5.0	3.7	5.6
LPB-SD-102	6.0	4.7	7.3	5.0	5.0	5.6
PPG-PR 360	5.3	6.0	8.0	5.3	3.3	5.6
PST-2FOXY	5.7	5.7	7.7	5.7	3.3	5.6
SAVANT	5.3	5.7	7.0	5.3	4.7	5.6
SPIKE GLS (UF3)	6.0	5.7	7.7	5.3	3.3	5.6
BAR LP 6164	5.7	6.0	7.7	4.7	3.7	5.5
APPLE 3GL (PPG-PR 339)	5.3	6.7	7.0	5.7	3.0	5.5
GO-142	6.7	5.3	7.3	5.0	3.3	5.5
JR-123	5.3	6.3	7.7	5.0	3.3	5.5
UMPQUA	5.3	6.7	7.3	4.7	3.7	5.5
ALLOY (RRT)	3.3	7.3	8.0	4.7	4.0	5.5
BAR LP 6117	5.7	5.3	8.0	5.3	3.0	5.5

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

NAME	CA7	CT1	IL1	MI1	NE1	MEAN
BAR LP 6158	6.3	5.0	7.3	5.7	3.0	5.5
BAR LP 6165	5.7	5.0	6.7	5.7	4.3	5.5
BRIGHTSTAR SLT	5.7	5.0	7.7	5.3	3.7	5.5
DLFPS-236/3541	4.3	6.3	7.7	5.3	3.7	5.5
FASTBALL 3GL (PPG-PR 329)	2.0	6.3	7.7	6.0	5.3	5.5
LPB-SD-104	5.7	4.7	7.3	5.3	4.3	5.5
PPG-PR 371	5.0	6.0	7.3	5.3	3.7	5.5
PARADOX GLR (PPG-PR 331)	4.3	6.7	7.7	5.0	3.3	5.4
APR2612	4.7	5.3	7.7	5.7	3.3	5.3
HATRICK (BSP-17)	5.0	6.0	7.7	5.0	3.0	5.3
021	5.0	6.3	7.0	5.0	3.3	5.3
SLUGGER 3GL (PPG-PR 343)	5.3	6.0	7.3	5.0	3.0	5.3
APR3060	5.0	5.3	7.0	5.0	4.0	5.3
ASP0118GL (A-4G)	5.7	5.3	7.3	4.7	3.3	5.3
JR-747	5.0	4.3	7.3	5.3	4.3	5.3
GREEN SUPREME+ (AMP-R1)	4.7	5.3	7.3	5.7	3.0	5.2
BAR LP 6131	6.0	4.7	7.0	5.0	3.3	5.2
DLFPS-238/3014	6.3	5.0	6.7	5.0	3.0	5.2
CS-6	5.7	5.0	6.7	5.3	3.0	5.1
BAR LP 6159	5.3	5.0	7.3	5.0	3.0	5.1
JR-888	2.3	6.7	7.0	5.0	4.3	5.1
RAD-PR 112	4.3	5.0	7.3	5.3	3.0	5.0
LINN	4.7	4.7	6.0	4.7	3.3	4.7
LSD VALUE	1.7	1.2	1.0	1.0	0.9	0.5
C.V. (%)	17.1	12.2	8.0	11.8	15.4	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.

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	MO1	ND1	VA1	MEAN
PPG-PR 371	66.7	43.3	99.0	69.7
DLFPS-236/3538	66.7	40.0	99.0	68.6
PPG-PR 367	45.0	53.3	99.0	65.8
DLFPS-236/3553	61.7	35.0	99.0	65.2
PARADOX GLR (PPG-PR 331)	53.3	40.0	99.0	64.1
PST-2GTD	43.3	50.0	99.0	64.1
PPG-PR 423	38.3	53.3	99.0	63.6
PPG-PR 422	51.7	40.0	99.0	63.6
PST-2FOXY	51.7	40.0	99.0	63.6
SEABISCUIT	45.0	43.3	99.0	62.4
JR-123	65.0	23.3	99.0	62.4
02BS2	51.7	35.0	99.0	61.9
SNX	45.0	41.7	99.0	61.9
PARAGON 2 GLR (FP2)	58.3	26.7	99.0	61.3
GO-143	36.7	48.3	99.0	61.3
BAR LP 6165	40.0	43.3	99.0	60.8
EVOLVE	50.0	33.3	99.0	60.8
RAD-PR 112	38.3	45.0	99.0	60.8
BAR LP 6233	51.7	31.7	99.0	60.8
HOMERUN LS (PPG-PR 419)	55.0	28.3	99.0	60.8
GREEN SUPREME+ (AMP-R1)	33.3	48.3	99.0	60.2
APR3060	46.7	35.0	99.0	60.2
DLFPS-236/3544	55.0	25.0	99.0	59.7
DLFPS-236/3554	50.0	30.0	99.0	59.7
BAR LP 6164	45.0	33.3	99.0	59.1
NP-2	46.7	31.7	99.0	59.1
SILVER SPORT (PST-2CRP)	46.7	30.0	99.0	58.6
UMPQUA	36.7	40.0	99.0	58.6
PHARAOH	36.7	38.3	99.0	58.0
PPG-PR 420	48.3	26.7	99.0	58.0
PST-2MAY	48.3	25.0	99.0	57.4
PST-2PDA	46.7	26.7	99.0	57.4
SHIELD (02BS4)	50.0	23.3	99.0	57.4
DLFPS-236/3547	50.0	21.7	99.0	56.9
PR-5-16	50.0	21.7	99.0	56.9
PPG-PR 370	46.7	25.0	99.0	56.9
SPIKE GLS (UF3)	41.7	30.0	99.0	56.9
021	43.3	26.7	99.0	56.3
DLFPS-236/3541	36.7	33.3	99.0	56.3
GRAY HAWK (PST-2FIND)	50.0	20.0	99.0	56.3
PPG-PR 360	46.7	23.3	99.0	56.3
PPG-PR 421	43.3	26.7	99.0	56.3
SLIDER LS (PPG-PR 241)	33.3	36.7	99.0	56.3
ALLSTAR III	38.3	30.0	99.0	55.8
PST-2A2	35.0	33.3	99.0	55.8
DLFPS-236/3546	46.7	21.7	99.0	55.8

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	MO1	ND1	VA1	MEAN
PPG-PR 385	50.0	18.3	99.0	55.8
PST-2EGAD	46.7	21.7	99.0	55.8
ASP0117 (A-PR15)	43.3	23.3	99.0	55.2
ASP0218 (A-6D)	43.3	23.3	99.0	55.2
PST-2BDT	38.3	28.3	99.0	55.2
JR-197	46.7	20.0	99.0	55.2
XCELERATOR	36.7	30.0	99.0	55.2
ALLOY (RRT)	43.3	21.7	99.0	54.7
APPLE 3GL (PPG-PR 339)	46.7	18.3	99.0	54.7
PPG-PR 372	33.3	31.7	99.0	54.7
DLFPS-236/3550	40.0	23.3	99.0	54.1
FASTBALL 3GL (PPG-PR 329)	51.7	11.7	99.0	54.1
GO-141	35.0	28.3	99.0	54.1
GRAY WOLF (PST-2GAL)	45.0	18.3	99.0	54.1
TEE-ME-UP (BSP-25)	30.0	31.7	99.0	53.6
CS-6	31.7	30.0	99.0	53.6
DLFPS-236/3548	43.3	18.3	99.0	53.6
PL2	48.3	13.3	99.0	53.6
DLFPS-236/3552	36.7	25.0	99.0	53.6
APR2612	33.3	26.7	99.0	53.0
LPB-SD-105	26.7	33.3	99.0	53.0
SLUGGER 3GL (PPG-PR 343)	43.3	15.0	99.0	52.4
BAR LP 6158	41.7	16.7	99.0	52.4
DLFPS-236/3556	36.7	21.7	99.0	52.4
BRIGHTSTAR SLT	41.7	15.0	99.0	51.9
APR2616	36.7	18.3	99.0	51.3
BAR LP 6159	43.3	11.7	99.0	51.3
GRAND SLAM GLD	46.7	8.3	99.0	51.3
NP-3	36.7	18.3	99.0	51.3
PPG-PR 424	48.3	6.7	99.0	51.3
02BS1	40.0	13.3	99.0	50.8
DLFPS-236/3545	43.3	10.0	99.0	50.8
DLFPS-238/3014	43.3	10.0	99.0	50.8
JR-888	43.3	10.0	99.0	50.8
023	41.7	11.7	99.0	50.8
PEPPER II (RAD-PR 103)	41.7	11.7	99.0	50.8
ASP0118GL (A-4G)	33.3	18.3	99.0	50.2
BAR LP 6162	33.3	18.3	99.0	50.2
DERBY XTREME	36.7	15.0	99.0	50.2
DLFPS-236/3543	41.7	10.0	99.0	50.2
OVERDRIVE 5G	40.0	11.7	99.0	50.2
BAR LP 6131	40.0	10.0	99.0	49.7
FIREBALL (BWH)	28.3	21.7	99.0	49.7
FURLONG (LTP-FCB)	48.3	1.7	99.0	49.7
GO-142	33.3	16.7	99.0	49.7
SIGNET	40.0	10.0	99.0	49.7

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	MO1	ND1	VA1	MEAN
DLFPS-236/3542	43.3	5.0	99.0	49.1
CPN	36.7	11.7	99.0	49.1
MRSL-PR15	36.7	11.7	99.0	49.1
PR-6-15	26.7	20.0	99.0	48.6
HATRICK (BSP-17)	40.0	16.7	87.7	48.1
DLFPS-236/3540	36.7	8.3	99.0	48.0
KARMA	40.0	5.0	99.0	48.0
BAR LP 6117	43.3	0.0	99.0	47.4
LPB-SD-103	20.0	23.3	99.0	47.4
SR 4650	36.7	6.7	99.0	47.4
LINN	40.0	3.3	97.7	47.0
SAGUARO	36.7	5.0	99.0	46.9
INTENSE	36.7	3.3	99.0	46.3
LPB-SD-102	26.7	13.3	99.0	46.3
MAN O WAR	33.3	6.7	99.0	46.3
ASP0116EXT	26.7	10.0	99.0	45.2
MENSA	31.7	5.0	99.0	45.2
SAVANT	33.3	1.7	99.0	44.7
LPB-SD-104	25.0	5.0	99.0	43.0
MRSL-PR16	30.0	0.0	99.0	43.0
JR-747	20.0	5.0	99.0	41.3
LPB-SD-101	23.3	1.7	99.0	41.3
LSD VALUE	19.3	5.8	3.0	6.8
C.V. (%)	28.9	16.0	1.9	13.5

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 21.   PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
2018 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	ND1	NAME	ND1
LPB-SD-105	60.0	PST-2BDT	28.3
GO-143	55.0	ASP0218 (A-6D)	26.7
PPG-PR 367	55.0	DLFPS-236/3546	26.7
PPG-PR 423	53.3	DLFPS-236/3556	26.7
GREEN SUPREME+ (AMP-R1)	51.7	PPG-PR 360	26.7
PST-2GTD	51.7	PPG-PR 420	26.7
PPG-PR 371	48.3	PPG-PR 421	26.7
TEE-ME-UP (BSP-25)	45.0	PST-2PDA	26.7
RAD-PR 112	45.0	SHIELD (02BS4)	26.7
021	43.3	DLFPS-236/3547	25.0
BAR LP 6165	43.3	PPG-PR 370	25.0
DLFPS-236/3538	43.3	PR-6-15	25.0
PARADOX GLR (PPG-PR 331)	43.3	PST-2MAY	25.0
SEABISCUIT	43.3	ALLOY (RRT)	23.3
SNX	43.3	ASP0118GL (A-4G)	23.3
APR3060	41.7	FIREBALL (BWH)	23.3
PPG-PR 422	40.0	GO-142	23.3
PST-2FOXY	40.0	BAR LP 6233	21.7
SLIDER LS (PPG-PR 241)	40.0	DLFPS-236/3548	21.7
UMPQUA	40.0	NP-3	21.7
EVOLVE	38.3	PPG-PR 385	21.7
PHARAOH	38.3	PR-5-16	21.7
02BS2	36.7	PST-2EGAD	21.7
DLFPS-236/3541	36.7	APPLE 3GL (PPG-PR 339)	20.0
PPG-PR 372	36.7	APR2616	20.0
CS-6	35.0	DERBY XTREME	20.0
DLFPS-236/3553	35.0	GRAY HAWK (PST-2FIND)	20.0
NP-2	35.0	JR-197	20.0
PST-2A2	35.0	BAR LP 6162	18.3
SPIKE GLS (UF3)	35.0	GRAY WOLF (PST-2GAL)	18.3
XCELERATOR	35.0	BAR LP 6158	16.7
BAR LP 6164	33.3	LPB-SD-102	16.7
GO-141	33.3	SLUGGER 3GL (PPG-PR 343)	16.7
LPB-SD-103	33.3	BRIGHTSTAR SLT	15.0
ALLSTAR III	31.7	02BS1	13.3
APR2612	31.7	DLFPS-236/3543	13.3
PARAGON 2 GLR (FP2)	31.7	DLFPS-236/3545	13.3
HOMERUN LS (PPG-PR 419)	31.7	PEPPER II (RAD-PR 103)	13.3
DLFPS-236/3544	30.0	PL2	13.3
DLFPS-236/3550	30.0	023	11.7
DLFPS-236/3552	30.0	BAR LP 6159	11.7
DLFPS-236/3554	30.0	CPN	11.7
JR-123	30.0	FASTBALL 3GL (PPG-PR 329)	11.7
SILVER SPORT (PST-2CRP)	30.0	JR-888	11.7
ASP0117 (A-PR15)	28.3	MRSL-PR15	11.7
HATRICK (BSP-17)	28.3	OVERDRIVE 5G	11.7

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	ND1
ASP0116EXT	10.0
BAR LP 6131	10.0
DLFPS-236/3540	10.0
DLFPS-238/3014	10.0
SIGNET	10.0
GRAND SLAM GLD	8.3
MAN O WAR	6.7
MENSA	6.7
PPG-PR 424	6.7
SAGUARO	6.7
SR 4650	6.7
DLFPS-236/3542	5.0
JR-747	5.0
KARMA	5.0
LPB-SD-104	5.0
INTENSE	3.3
LINN	3.3
FURLONG (LTP-FCB)	1.7
LPB-SD-101	1.7
SAVANT	1.7
BAR LP 6117	0.0
MRSL-PR16	0.0
LSD VALUE	6.9
C.V. (%)	17.2

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.

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/   PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	ND1	VA1	MEAN	NAME	ND1	VA1	MEAN
LPB-SD-105	75.0	8.0	41.5	ALLSTAR III	31.7	9.0	20.3
TEE-ME-UP (BSP-25)	61.7	9.0	35.3	ASP0218 (A-6D)	31.7	9.0	20.3
PPG-PR 367	60.0	9.0	34.5	DLFPS-236/3547	31.7	9.0	20.3
GO-143	58.3	9.0	33.7	DLFPS-236/3554	31.7	9.0	20.3
021	56.7	9.0	32.8	PR-6-15	31.7	9.0	20.3
PPG-PR 423	55.0	9.0	32.0	PST-2BDT	31.7	9.0	20.3
GREEN SUPREME+ (AMP-R1)	53.3	9.0	31.2	PST-2PDA	31.7	9.0	20.3
PPG-PR 371	51.7	9.0	30.3	SILVER SPORT (PST-2CRP)	31.7	9.0	20.3
PST-2GTD	51.7	9.0	30.3	PPG-PR 360	31.7	8.7	20.2
APR3060	48.3	9.0	28.7	ASP0117 (A-PR15)	30.0	9.0	19.5
EVOLVE	46.7	9.0	27.8	GO-142	30.0	9.0	19.5
PARADOX GLR (PPG-PR 331)	46.7	9.0	27.8	PPG-PR 370	30.0	9.0	19.5
RAD-PR 112	46.7	9.0	27.8	PPG-PR 420	30.0	9.0	19.5
SNX	46.7	9.0	27.8	LPB-SD-102	30.0	8.7	19.3
BAR LP 6165	45.0	9.0	27.0	ASP0118GL (A-4G)	28.3	9.0	18.7
DLFPS-236/3538	45.0	9.0	27.0	NP-3	28.3	9.0	18.7
PPG-PR 422	45.0	9.0	27.0	PPG-PR 421	28.3	9.0	18.7
PPG-PR 372	43.3	9.0	26.2	ALLOY (RRT)	26.7	9.0	17.8
PST-2FOXY	43.3	9.0	26.2	DLFPS-236/3546	26.7	9.0	17.8
SEABISCUIT	43.3	9.0	26.2	APPLE 3GL (PPG-PR 339)	25.0	9.0	17.0
SPIKE GLS (UF3)	43.3	9.0	26.2	APR2616	25.0	9.0	17.0
02BS2	41.7	9.0	25.3	PST-2MAY	25.0	9.0	17.0
SLIDER LS (PPG-PR 241)	41.7	9.0	25.3	DERBY XTREME	23.3	9.0	16.2
UMPQUA	41.7	9.0	25.3	DLFPS-236/3548	23.3	9.0	16.2
XCELERATOR	41.7	9.0	25.3	PPG-PR 385	23.3	9.0	16.2
DLFPS-236/3541	41.7	8.7	25.2	PST-2EGAD	23.3	9.0	16.2
CS-6	40.0	9.0	24.5	GRAY HAWK (PST-2FIND)	21.7	9.0	15.3
DLFPS-236/3553	40.0	9.0	24.5	JR-197	21.7	9.0	15.3
NP-2	40.0	9.0	24.5	PR-5-16	21.7	9.0	15.3
FIREBALL (BWH)	40.0	8.7	24.3	SLUGGER 3GL (PPG-PR 343)	20.0	9.0	14.5
HATRICK (BSP-17)	40.0	8.0	24.0	BAR LP 6158	18.3	9.0	13.7
PHARAOH	38.3	9.0	23.7	BAR LP 6162	18.3	9.0	13.7
APR2612	38.3	8.7	23.5	GRAY WOLF (PST-2GAL)	18.3	9.0	13.7
BAR LP 6233	36.7	9.0	22.8	BRIGHTSTAR SLT	16.7	9.0	12.8
DLFPS-236/3556	36.7	9.0	22.8	02BS1	15.0	9.0	12.0
GO-141	36.7	9.0	22.8	DLFPS-236/3540	15.0	9.0	12.0
LPB-SD-103	36.7	8.7	22.7	FASTBALL 3GL (PPG-PR 329)	15.0	9.0	12.0
BAR LP 6164	35.0	9.0	22.0	JR-888	15.0	9.0	12.0
DLFPS-236/3544	35.0	9.0	22.0	PEPPER II (RAD-PR 103)	15.0	9.0	12.0
PARAGON 2 GLR (FP2)	35.0	9.0	22.0	MRSL-PR15	15.0	8.7	11.8
HOMERUN LS (PPG-PR 419)	35.0	9.0	22.0	023	13.3	9.0	11.2
PST-2A2	35.0	9.0	22.0	DLFPS-236/3545	13.3	9.0	11.2
DLFPS-236/3550	33.3	9.0	21.2	PL2	13.3	9.0	11.2
DLFPS-236/3552	33.3	9.0	21.2	DLFPS-236/3543	13.3	8.7	11.0
JR-123	33.3	9.0	21.2	ASP0116EXT	11.7	9.0	10.3
SHIELD (02BS4)	33.3	9.0	21.2	ALLSTAR III	31.7	9.0	20.3

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	ND1	VA1	MEAN
BAR LP 6159	11.7	9.0	10.3
CPN	11.7	9.0	10.3
DLFPS-238/3014	11.7	9.0	10.3
OVERDRIVE 5G	11.7	9.0	10.3
SIGNET	11.7	9.0	10.3
BAR LP 6131	10.0	9.0	9.5
DLFPS-236/3542	8.3	9.0	8.7
GRAND SLAM GLD	8.3	9.0	8.7
SAGUARO	8.3	9.0	8.7
MAN O WAR	6.7	9.0	7.8
MENSA	6.7	9.0	7.8
PPG-PR 424	6.7	9.0	7.8
SR 4650	6.7	9.0	7.8
LPB-SD-104	6.7	8.3	7.5
INTENSE	5.0	9.0	7.0
JR-747	5.0	8.7	6.8
KARMA	5.0	8.7	6.8
FURLONG (LTP-FCB)	1.7	9.0	5.3
LPB-SD-101	1.7	9.0	5.3
LINN	3.3	6.7	5.0
SAVANT	1.7	8.3	5.0
BAR LP 6117	0.0	9.0	4.5
MRSL-PR16	0.0	9.0	4.5
LSD VALUE	6.7	0.5	3.4
C.V. (%)	14.8	3.5	16.0

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

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

RED THREAD RATINGS 1-9; 9=NO DISEASE 2/   RED THREAD RATINGS 1-9; 9=NO DISEASE 2/

NAME	MD1	MO1	MEAN	NAME	MD1	MO1	MEAN
PL2	8.0	9.0	8.5	JR-747	5.7	9.0	7.3
BAR LP 6162	7.3	9.0	8.2	PPG-PR 424	5.7	9.0	7.3
TEE-ME-UP (BSP-25)	7.3	9.0	8.2	SIGNET	5.7	9.0	7.3
DLFPS-236/3556	7.3	9.0	8.2	SLUGGER 3GL (PPG-PR 343)	5.7	9.0	7.3
MENSA	7.3	9.0	8.2	SNX	5.7	9.0	7.3
021	7.0	9.0	8.0	SPIKE GLS (UF3)	7.0	7.7	7.3
ASP0116EXT	7.0	9.0	8.0	EVOLVE	6.0	8.7	7.3
DLFPS-236/3541	7.0	9.0	8.0	FASTBALL 3GL (PPG-PR 329)	6.0	8.7	7.3
DLFPS-236/3543	7.0	9.0	8.0	PPG-PR 421	6.7	7.7	7.2
DLFPS-236/3545	7.0	9.0	8.0	APR2612	5.3	9.0	7.2
GO-141	7.0	9.0	8.0	APR2616	5.3	9.0	7.2
GRAND SLAM GLD	6.7	9.0	7.8	ASP0118GL (A-4G)	5.3	9.0	7.2
INTENSE	6.7	9.0	7.8	BAR LP 6117	5.3	9.0	7.2
JR-123	7.7	8.0	7.8	DLFPS-236/3552	5.3	9.0	7.2
LPB-SD-101	6.7	9.0	7.8	GO-143	5.7	8.7	7.2
MRSL-PR16	6.7	9.0	7.8	NP-2	6.3	8.0	7.2
PPG-PR 367	6.7	9.0	7.8	PST-2GTD	5.3	9.0	7.2
PR-6-15	6.7	9.0	7.8	SILVER SPORT (PST-2CRP)	5.3	9.0	7.2
ASP0117 (A-PR15)	7.0	8.7	7.8	SLIDER LS (PPG-PR 241)	5.3	9.0	7.2
BRIGHTSTAR SLT	6.3	9.0	7.7	APR3060	5.0	9.0	7.0
DLFPS-236/3542	6.3	9.0	7.7	LPB-SD-103	5.0	9.0	7.0
FURLONG (LTP-FCB)	6.7	8.7	7.7	NP-3	5.0	9.0	7.0
LPB-SD-104	6.3	9.0	7.7	PPG-PR 372	5.0	9.0	7.0
PPG-PR 422	6.3	9.0	7.7	ALLOY (RRT)	6.0	7.7	6.8
PPG-PR 423	6.3	9.0	7.7	CPN	4.7	9.0	6.8
SHIELD (02BS4)	6.3	9.0	7.7	CS-6	4.7	9.0	6.8
XCELERATOR	6.3	9.0	7.7	HOMERUN LS (PPG-PR 419)	4.7	9.0	6.8
BAR LP 6164	6.0	9.0	7.5	MAN O WAR	4.7	9.0	6.8
DLFPS-236/3548	6.0	9.0	7.5	PHARAOH	4.7	9.0	6.8
DLFPS-236/3550	6.0	9.0	7.5	PST-2A2	4.7	9.0	6.8
GO-142	6.0	9.0	7.5	RAD-PR 112	4.7	9.0	6.8
JR-888	6.7	8.3	7.5	SEABISCUIT	5.7	8.0	6.8
LPB-SD-102	6.0	9.0	7.5	SR 4650	4.7	9.0	6.8
MRSL-PR15	6.0	9.0	7.5	GRAY WOLF (PST-2GAL)	5.0	8.3	6.7
OVERDRIVE 5G	6.0	9.0	7.5	PPG-PR 360	5.0	8.3	6.7
SAVANT	6.0	9.0	7.5	02BS2	6.3	7.0	6.7
023	5.7	9.0	7.3	BAR LP 6233	4.3	9.0	6.7
02BS1	5.7	9.0	7.3	DLFPS-236/3547	6.3	7.0	6.7
APPLE 3GL (PPG-PR 339)	5.7	9.0	7.3	JR-197	6.0	7.3	6.7
BAR LP 6131	5.7	9.0	7.3	KARMA	4.3	9.0	6.7
HATRICK (BSP-17)	6.7	8.0	7.3	PST-2PDA	4.3	9.0	6.7
DERBY XTREME	6.3	8.3	7.3	UMPQUA	4.3	9.0	6.7
DLFPS-236/3540	5.7	9.0	7.3	BAR LP 6159	4.0	9.0	6.5
DLFPS-236/3544	6.7	8.0	7.3	FIREBALL (BWH)	5.7	7.3	6.5
DLFPS-238/3014	5.7	9.0	7.3	GRAY HAWK (PST-2FIND)	4.0	9.0	6.5

RED THREAD RATINGS 1-9; 9=NO DISEASE 2/

NAME	MD1	MO1	MEAN
LPB-SD-105	6.0	7.0	6.5
PST-2EGAD	4.0	9.0	6.5
DLFPS-236/3546	6.0	6.7	6.3
PARADOX GLR (PPG-PR 331)	5.0	7.7	6.3
SAGUARO	5.0	7.7	6.3
ASP0218 (A-6D)	3.7	9.0	6.3
PR-5-16	4.0	8.7	6.3
PST-2BDT	3.7	9.0	6.3
GREEN SUPREME+ (AMP-R1)	3.3	9.0	6.2
PST-2MAY	4.0	8.3	6.2
PPG-PR 385	5.0	7.3	6.2
ALLSTAR III	4.7	7.3	6.0
BAR LP 6158	3.0	9.0	6.0
DLFPS-236/3554	5.7	6.3	6.0
PARAGON 2 GLR (FP2)	4.7	7.0	5.8
PEPPER II (RAD-PR 103)	5.7	6.0	5.8
PPG-PR 370	5.7	6.0	5.8
PPG-PR 420	5.7	6.0	5.8
BAR LP 6165	2.3	9.0	5.7
DLFPS-236/3538	5.7	5.7	5.7
LINN	2.3	9.0	5.7
PPG-PR 371	5.7	5.7	5.7
PST-2FOXY	4.3	7.0	5.7
DLFPS-236/3553	4.3	6.7	5.5
LSD VALUE	2.1	2.1	1.5
C.V. (%)	23.7	15.2	18.6

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 24.      CROWN RUST RATINGS OF PERENNIAL RYEGRASS CULTIVARS  1/
                          2018 DATA

CROWN RUST RATINGS 1-9; 9=NO DISEASE  2/      CROWN RUST RATINGS 1-9; 9=NO DISEASE  2/

NAME                        MN1           NAME                          MN1

PARAGON 2 GLR (FP2)         8.7           PST-2BDT                      6.3
DLFPS-236/3546              8.0           PST-2GTD                      6.3
FURLONG (LTP-FCB)           8.0           SHIELD (02BS4)                6.3
NP-2                        8.0           SLIDER LS (PPG-PR 241)        6.3
SPIKE GLS (UF3)             8.0           UMPQUA                        6.3
DLFPS-236/3544              7.7           DLFPS-236/3541                6.0
DLFPS-236/3545              7.7           DLFPS-236/3542                6.0
DLFPS-236/3553              7.7           PPG-PR 370                    6.0
JR-197                      7.7           PPG-PR 372                    6.0
MAN O WAR                   7.7           PPG-PR 420                    6.0
GRAND SLAM GLD              7.5           PST-2EGAD                     6.0
02BS1                       7.3           PST-2PDA                      6.0
DLFPS-236/3547              7.3           APR2612                       5.7
DLFPS-236/3556              7.3           APR2616                       5.7
HOMERUN LS (PPG-PR 419)     7.3           DLFPS-236/3543                5.7
INTENSE                     7.3           DLFPS-236/3554                5.7
PL2                         7.3           LPB-SD-103                    5.7
PPG-PR 367                  7.3           PPG-PR 385                    5.7
PPG-PR 422                  7.3           SIGNET                        5.7
PPG-PR 424                  7.3           023                           5.3
ALLOY (RRT)                 7.0           APR3060                       5.3
CPN                         7.0           ASP0117 (A-PR15)              5.3
FASTBALL 3GL (PPG-PR 329)   7.0           DERBY XTREME                  5.3
GRAY WOLF (PST-2GAL)        7.0           DLFPS-236/3548                5.3
JR-123                      7.0           KARMA                         5.3
NP-3                        7.0           LPB-SD-102                    5.3
OVERDRIVE 5G                7.0           LPB-SD-105                    5.3
PHARAOH                     7.0           MRSL-PR16                     5.3
PARADOX GLR (PPG-PR 331)    7.0           SR 4650                       5.3
PPG-PR 421                  7.0           GREEN SUPREME+ (AMP-R1)       5.0
PPG-PR 423                  7.0           ASP0118GL (A-4G)              5.0
SEABISCUIT                  7.0           ASP0218 (A-6D)                5.0
02BS2                       6.7           FIREBALL (BWH)                5.0
GRAY HAWK (PST-2FIND)       6.7           DLFPS-236/3540                5.0
PPG-PR 360                  6.7           DLFPS-236/3550                5.0
PPG-PR 371                  6.7           DLFPS-236/3552                5.0
PR-6-15                     6.7           MENSA                         5.0
PST-2FOXY                   6.7           CS-6                          4.7
PST-2MAY                    6.7           EVOLVE                        4.7
SILVER SPORT (PST-2CRP)     6.7           JR-747                        4.7
SLUGGER 3GL (PPG-PR 343)    6.7           SAGUARO                       4.7
XCELERATOR                  6.7           SNX                           4.7
021                         6.3           ALLSTAR III                   4.3
APPLE 3GL (PPG-PR 339)      6.3           ASP0116EXT                    4.3
PST-2A2                     6.3           BAR LP 6233                   4.3
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TABLE 24.          CROWN RUST RATINGS OF PERENNIAL RYEGRASS CULTIVARS  1/
(CONT'D)                              2018 DATA


               CROWN RUST RATINGS 1-9; 9=NO DISEASE  2/


                 NAME                        MN1

                 HATRICK (BSP-17)            4.3
                 DLFPS-238/3014              4.3
                 MRSL-PR15                   4.3
                 SAVANT                      4.3
                 BAR LP 6164                 4.0
                 LPB-SD-104                  4.0
                 PR-5-16                     4.0
                 DLFPS-236/3538              3.7
                 JR-888                      3.7
                 LPB-SD-101                  3.7
                 RAD-PR 112                  3.7
                 BAR LP 6117                 3.3
                 GO-142                      3.3
                 PEPPER II (RAD-PR 103)      3.3
                 BAR LP 6158                 3.0
                 GO-141                      3.0
                 BAR LP 6131                 2.7
                 BAR LP 6159                 2.7
                 BAR LP 6162                 2.7
                 BRIGHTSTAR SLT              2.7
                 TEE-ME-UP (BSP-25)          2.7
                 GO-143                      2.7
                 LINN                        2.3
                 BAR LP 6165                 2.0


                 LSD VALUE                   1.3
                 C.V. (%)                    14.1
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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 25.   PINK SNOW MOLD RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
                                      2018 DATA

PINK SNOW MOLD RATINGS 1-9; 9=NO DISEASE 2/   PINK SNOW MOLD RATINGS 1-9; 9=NO DISEASE 2/

NAME	MN1	NAME	MN1
021	5.3	SNX	3.7
APR2616	4.7	02BS1	3.3
PHARAOH	4.7	APR2612	3.3
SPIKE GLS (UF3)	4.7	ASP0117 (A-PR15)	3.3
GREEN SUPREME+ (AMP-R1)	4.3	BAR LP 6164	3.3
APR3060	4.3	BAR LP 6165	3.3
ASP0116EXT	4.3	CS-6	3.3
ASP0118GL (A-4G)	4.3	DLFPS-236/3541	3.3
DLFPS-236/3543	4.3	DLFPS-236/3556	3.3
DLFPS-236/3550	4.3	GRAY WOLF (PST-2GAL)	3.3
FASTBALL 3GL (PPG-PR 329)	4.3	NP-3	3.3
PPG-PR 422	4.3	OVERDRIVE 5G	3.3
PPG-PR 423	4.3	PPG-PR 370	3.3
SHIELD (02BS4)	4.3	PPG-PR 371	3.3
02BS2	4.0	PPG-PR 372	3.3
ASP0218 (A-6D)	4.0	PPG-PR 424	3.3
BAR LP 6117	4.0	PR-5-16	3.3
DERBY XTREME	4.0	PST-2A2	3.3
EVOLVE	4.0	PST-2PDA	3.3
FURLONG (LTP-FCB)	4.0	SAVANT	3.3
MRSL-PR15	4.0	SEABISCUIT	3.3
MRSL-PR16	4.0	SIGNET	3.3
PPG-PR 360	4.0	SLIDER LS (PPG-PR 241)	3.3
PPG-PR 385	4.0	UMPQUA	3.3
PR-6-15	4.0	023	3.0
PST-2MAY	4.0	ALLSTAR III	3.0
SLUGGER 3GL (PPG-PR 343)	4.0	APPLE 3GL (PPG-PR 339)	3.0
SR 4650	4.0	CPN	3.0
BAR LP 6159	3.7	DLFPS-236/3540	3.0
BAR LP 6162	3.7	DLFPS-236/3546	3.0
BRIGHTSTAR SLT	3.7	DLFPS-236/3553	3.0
HATRICK (BSP-17)	3.7	DLFPS-236/3554	3.0
FIREBALL (BWH)	3.7	DLFPS-238/3014	3.0
DLFPS-236/3538	3.7	PARAGON 2 GLR (FP2)	3.0
DLFPS-236/3544	3.7	GO-142	3.0
DLFPS-236/3547	3.7	JR-123	3.0
DLFPS-236/3548	3.7	JR-197	3.0
DLFPS-236/3552	3.7	JR-888	3.0
GO-141	3.7	KARMA	3.0
GO-143	3.7	LPB-SD-103	3.0
NP-2	3.7	PPG-PR 367	3.0
PEPPER II (RAD-PR 103)	3.7	PST-2EGAD	3.0
PARADOX GLR (PPG-PR 331)	3.7	PST-2GTD	3.0
PST-2FOXY	3.7	RAD-PR 112	3.0
SILVER SPORT (PST-2CRP)	3.7	SAGUARO	3.0

TABLE 25.   PINK SNOW MOLD RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
(CONT'D)   2018 DATA

PINK SNOW MOLD RATINGS 1-9; 9=NO DISEASE 2/

NAME	MN1
ALLOY (RRT)	2.7
BAR LP 6158	2.7
BAR LP 6233	2.7
TEE-ME-UP (BSP-25)	2.7
INTENSE	2.7
LPB-SD-101	2.7
PST-2BDT	2.7
XCELERATOR	2.7
BAR LP 6131	2.3
GRAND SLAM GLD	2.3
HOMERUN LS (PPG-PR 419)	2.3
MAN O WAR	2.3
PL2	2.3
PPG-PR 420	2.3
PPG-PR 421	2.3
DLFPS-236/3542	2.0
GRAY HAWK (PST-2FIND)	2.0
LPB-SD-105	2.0
MENSA	2.0
DLFPS-236/3545	1.7
LPB-SD-102	1.7
LPB-SD-104	1.7
JR-747	1.3
LINN	1.3
LSD VALUE	1.9
C.V. (%)	36.1

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.

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

NAME	IL1	NAME	IL1
GREEN SUPREME+ (AMP-R1)	7.0	FASTBALL 3GL (PPG-PR 329)	6.3
DERBY XTREME	7.0	GO-143	6.3
PARAGON 2 GLR (FP2)	7.0	JR-197	6.3
FURLONG (LTP-FCB)	7.0	LPB-SD-101	6.3
GRAY HAWK (PST-2FIND)	7.0	LPB-SD-104	6.3
LPB-SD-103	7.0	MRSL-PR16	6.3
PST-2PDA	7.0	NP-2	6.3
SIGNET	7.0	PHARAOH	6.3
021	6.7	PPG-PR 367	6.3
02BS1	6.7	PPG-PR 371	6.3
APPLE 3GL (PPG-PR 339)	6.7	PPG-PR 372	6.3
BAR LP 6117	6.7	PPG-PR 423	6.3
BAR LP 6233	6.7	PPG-PR 424	6.3
HATRICK (BSP-17)	6.7	PR-5-16	6.3
FIREBALL (BWH)	6.7	PST-2A2	6.3
CPN	6.7	PST-2BDT	6.3
CS-6	6.7	PST-2GTD	6.3
LPB-SD-102	6.7	SAGUARO	6.3
LPB-SD-105	6.7	SHIELD (02BS4)	6.3
MAN O WAR	6.7	SILVER SPORT (PST-2CRP)	6.3
MRSL-PR15	6.7	SLIDER LS (PPG-PR 241)	6.3
NP-3	6.7	UMPQUA	6.3
PEPPER II (RAD-PR 103)	6.7	XCELERATOR	6.3
PARADOX GLR (PPG-PR 331)	6.7	ALLOY (RRT)	6.0
PPG-PR 370	6.7	ASP0117 (A-PR15)	6.0
PPG-PR 385	6.7	ASP0218 (A-6D)	6.0
PR-6-15	6.7	BAR LP 6131	6.0
PST-2FOXY	6.7	BAR LP 6158	6.0
SAVANT	6.7	TEE-ME-UP (BSP-25)	6.0
SEABISCUIT	6.7	DLFPS-236/3540	6.0
SLUGGER 3GL (PPG-PR 343)	6.7	DLFPS-236/3542	6.0
SNX	6.7	DLFPS-236/3544	6.0
SR 4650	6.7	DLFPS-236/3547	6.0
ALLSTAR III	6.3	DLFPS-236/3550	6.0
ASP0116EXT	6.3	EVOLVE	6.0
ASP0118GL (A-4G)	6.3	GO-141	6.0
BAR LP 6159	6.3	GO-142	6.0
BAR LP 6162	6.3	GRAND SLAM GLD	6.0
BRIGHTSTAR SLT	6.3	GRAY WOLF (PST-2GAL)	6.0
DLFPS-236/3538	6.3	HOMERUN LS (PPG-PR 419)	6.0
DLFPS-236/3541	6.3	INTENSE	6.0
DLFPS-236/3543	6.3	JR-123	6.0
DLFPS-236/3548	6.3	KARMA	6.0
DLFPS-236/3554	6.3	MENSA	6.0
DLFPS-238/3014	6.3	OVERDRIVE 5G	6.0

TABLE 26. FALL COLOR (NOVEMBER) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/
(CONT'D)   2018 DATA

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

NAME	IL1
PPG-PR 420	6.0
PPG-PR 421	6.0
PPG-PR 422	6.0
PST-2EGAD	6.0
PST-2MAY	6.0
RAD-PR 112	6.0
SPIKE GLS (UF3)	6.0
023	5.7
02BS2	5.7
APR2612	5.7
APR2616	5.7
APR3060	5.7
BAR LP 6164	5.7
BAR LP 6165	5.7
DLFPS-236/3545	5.7
DLFPS-236/3546	5.7
DLFPS-236/3552	5.7
DLFPS-236/3553	5.7
DLFPS-236/3556	5.7
PL2	5.7
PPG-PR 360	5.7
JR-888	5.3
JR-747	5.0
LINN	4.0
LSD VALUE	1.3
C.V. (%)	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.

NAME	QUALITY MEAN 1/	MAXIMUM IN TOP 25% 2/	NAME	QUALITY MEAN 1/	MAXIMUM IN TOP 25% 2/
021	5.8	33.3	DLFPS-238/3014	5.2	23.8
023	5.8	23.8	EVOLVE	5.4	9.5
02BS1	5.6	9.5	FASTBALL 3GL (PPG-PR 329)	5.8	38.1
02BS2	5.7	38.1	PARAGON 2 GLR (FP2)	5.8	23.8
ALLOY (RRT)	5.8	47.6	FURLONG (LTP-FCB)	6.0	61.9
ALLSTAR III	5.3	4.8	GO-141	5.3	4.8
GREEN SUPREME+ (AMP-R1)	5.3	4.8	GO-142	5.3	4.8
APPLE 3GL (PPG-PR 339)	5.8	38.1	GO-143	5.2	0.0
APR2612	5.3	0.0	GRAND SLAM GLD	5.7	9.5
APR2616	5.7	38.1	GRAY HAWK (PST-2FIND)	5.6	14.3
APR3060	5.5	14.3	GRAY WOLF (PST-2GAL)	5.8	42.9
ASP0116EXT	5.5	23.8	HOMERUN LS (PPG-PR 419)	5.7	28.6
ASP0117 (A-PR15)	5.7	14.3	INTENSE	5.7	33.3
ASP0118GL (A-4G)	5.5	9.5	JR-123	5.6	19.0
ASP0218 (A-6D)	5.5	14.3	JR-197	5.8	38.1
BAR LP 6117	5.4	19.0	JR-747	4.9	4.8
BAR LP 6131	5.3	9.5	JR-888	5.2	0.0
BAR LP 6158	5.4	14.3	KARMA	5.3	5.0
BAR LP 6159	5.4	0.0	LINN	3.4	0.0
BAR LP 6162	5.0	19.0	LPB-SD-101	5.2	4.8
BAR LP 6164	5.6	23.8	LPB-SD-102	5.3	14.3
BAR LP 6165	5.3	23.8	LPB-SD-103	5.2	0.0
BAR LP 6233	5.6	23.8	LPB-SD-104	4.9	0.0
BRIGHTSTAR SLT	5.3	4.8	LPB-SD-105	5.1	4.8
HATRICK (BSP-17)	5.4	19.0	MAN O WAR	5.6	19.0
TEE-ME-UP (BSP-25)	5.3	19.0	MENSA	5.2	4.8
FIREBALL (BWH)	5.3	4.8	MRSL-PR15	5.3	4.8
CPN	5.7	19.0	MRSL-PR16	5.4	9.5
CS-6	5.4	19.0	NP-2	5.8	28.6
DERBY XTREME	5.5	9.5	NP-3	5.7	28.6
DLFPS-236/3538	5.6	14.3	OVERDRIVE 5G	5.7	28.6
DLFPS-236/3540	5.7	28.6	PEPPER II (RAD-PR 103)	5.3	4.8
DLFPS-236/3541	5.8	33.3	PHARAOH	5.7	28.6
DLFPS-236/3542	5.8	42.9	PL2	5.8	33.3
DLFPS-236/3543	5.8	52.4	PARADOX GLR (PPG-PR 331)	5.9	52.4
DLFPS-236/3544	5.9	33.3	PPG-PR 360	5.8	28.6
DLFPS-236/3545	5.8	47.6	PPG-PR 367	5.7	42.9
DLFPS-236/3546	5.8	38.1	PPG-PR 370	5.7	23.8
DLFPS-236/3547	5.8	42.9	PPG-PR 371	5.7	42.9
DLFPS-236/3548	5.9	42.9	PPG-PR 372	5.8	28.6
DLFPS-236/3550	5.8	33.3	PPG-PR 385	5.6	9.5
DLFPS-236/3552	5.9	42.9	PPG-PR 420	5.8	33.3
DLFPS-236/3553	5.8	38.1	PPG-PR 421	6.0	66.7
DLFPS-236/3554	6.0	52.4	PPG-PR 422	5.8	38.1
DLFPS-236/3556	5.7	38.1	PPG-PR 423	5.8	42.9

| | QUALITY | MAXIMUM |
NAME	MEAN 1/	IN TOP 25% 2/
PPG-PR 424	5.9	42.9
PR-5-16	5.7	14.3
PR-6-15	5.9	47.6
PST-2A2	5.7	23.8
PST-2BDT	5.5	9.5
PST-2EGAD	5.7	14.3
PST-2FOXY	5.8	9.5
PST-2GTD	5.8	28.6
PST-2MAY	5.7	15.0
PST-2PDA	5.5	4.8
RAD-PR 112	5.4	14.3
SAGUARO	5.4	19.0
SAVANT	5.2	14.3
SEABISCUIT	5.7	23.8
SHIELD (02BS4)	5.7	14.3
SIGNET	5.7	19.0
SILVER SPORT (PST-2CRP)	5.8	47.6
SLIDER LS (PPG-PR 241)	5.7	19.0
SLUGGER 3GL (PPG-PR 343)	5.8	52.4
SNX	5.4	9.5
SPIKE GLS (UF3)	5.7	19.0
SR 4650	5.5	9.5
UMPQUA	5.8	38.1
XCELERATOR	5.7	28.6
LSD VALUE	0.2	
C.V. (%)	10.2	

*/ 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.