

## **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.

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## **A Guide to NTEP Turfgrass Ratings**

### **Introduction**

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

### **General Considerations**

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

### **Turfgrass Quality**

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

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

### **Other Ratings**

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

## 2010 NATIONAL PERENNIAL RYEGRASS TEST

### LOCATIONS SUBMITTING DATA FOR 2011

| <u>State</u>  | <u>Location</u>                 | <u>Code</u> |
|---------------|---------------------------------|-------------|
| Alabama       | Eufaula (Overseeding)           | AL3         |
| Arizona       | Tucson (Overseeding)            | AZ1         |
| California    | Riverside                       | CA3         |
| California    | Riverside (Traffic Study)       | CA4         |
| Florida       | Gainesville (Overseeding)       | FL1         |
| Illinois      | Urbana                          | IL1         |
| Iowa          | Ames                            | IA1         |
| Maryland      | College Park                    | MD1         |
| Massachusetts | Amherst                         | MA1         |
| Michigan      | East Lansing                    | MI1         |
| Minnesota     | St. Paul                        | MN1         |
| Missouri      | Columbia                        | MO1         |
| Nebraska      | Mead                            | NE1         |
| New Jersey    | Adelphia                        | NJ2         |
| New Jersey    | Adelphia (Gray Leaf Spot Study) | NJ3         |
| Oregon        | Corvallis                       | OR1         |
| Pennsylvania  | University Park (Traffic Study) | PA1         |
| Rhode Island  | Kingston (Salt Tolerance)       | RI1         |
| Virginia      | Blacksburg                      | VA1         |
| Virginia      | Blacksburg (Traffic Study)      | VA2         |
| Virginia      | Blacksburg (Drought Study)      | VA3         |
| Washington    | Puyallup (Sand Drought Stress)  | WA3         |

# 2010 NATIONAL PERENNIAL RYEGRASS TEST

## Entries and Sponsors

| Entry No. | Name                   | Sponsor                              | Entry No. | Name                        | Sponsor                            |
|-----------|------------------------|--------------------------------------|-----------|-----------------------------|------------------------------------|
| 1         | Rinovo                 | Semillas Fito                        | 46        | ISG-31                      | Integrated Seeds                   |
| 2         | CL 11601               | The Scotts Company                   | 47        | A-35                        | Allied Seeds                       |
| * 3       | Pizzazz 2 GLR (PR 909) | Turf Merchants, Inc.                 | 48        | CS-PR66                     | Columbia Seeds                     |
| * 4       | Pangea GLR (CL 11701)  | Turf Merchants, Inc.                 | 49        | CST                         | Columbia Seeds                     |
| 5         | APR 2036               | Brett Young Seeds Ltd.               | 50        | JR-178                      | Jacklin Seed by Simplot®           |
| * 6       | Linn                   | Standard Entry                       | 51        | JR-192                      | Jacklin Seed by Simplot®           |
| * 7       | Uno                    | Standard Entry                       | *52       | SR 4650 (PSRX-3701)         | Seed Research of Oregon            |
| 8         | DLF LGD-3026           | DLF International Seeds              | *53       | Karma (PICK 10401)          | Pickseed USA, Inc.                 |
| 9         | DLF LGD-3022           | DLF International Seeds              | *54       | Mach I                      | Standard Entry                     |
| *10       | Sideways (PSRX-S84)    | Seed Research of Oregon              | 55        | RAD-PR62                    | Radix Research                     |
| *11       | Wicked (SRX-4RHD)      | Seed Research of Oregon              | 56        | RAD-PR55R                   | Lewis Seed                         |
| 12        | Playoff 2 (P02)        | John Deere Landscapes                | 57        | IS-PR 409                   | Brett Young Seeds Ltd.             |
| 13        | Evolution (S85)        | John Deere Landscapes                | 58        | IS-PR 463                   | DLF International Seeds            |
| 14        | LTP-RAE                | Lebanon Turf Products                | 59        | IS-PR 469                   | DLF International Seeds            |
| *15       | Allante                | Ledeboer Seed/Pro-Turf Solutions-OVS | 60        | IS-PR 479                   | DLF International Seeds            |
| *16       | Insight                | Ledeboer Seed/Pro-Turf Solutions-OVS | 61        | IS-PR 487                   | DLF International Seeds            |
| *17       | Sienna                 | Ledeboer Seed/Pro-Turf Solutions-OVS | 62        | IS-PR 488                   | DLF International Seeds            |
| *18       | Brightstar SLT         | Standard Entry                       | 63        | IS-PR 489                   | DLF International Seeds            |
| 19        | CL 307                 | Pennington Seed Company              | 64        | IS-PR 491                   | DLF International Seeds            |
| 20        | APR 2320               | Pennington Seed Company              | 65        | IS-PR 492                   | DLF International Seeds            |
| *21       | Haven (APR 2038)       | Smith Seed Services                  | 66        | DLF LGT 4182                | DLF International Seeds            |
| 22        | PPG-PR 121             | Ampac Seed Company                   | 67        | ISG-30                      | Integrated Seeds                   |
| 23        | PPG-PR 128             | Integra Turf, Inc.                   | 68        | PST-204D                    | Landmark Native Seeds              |
| 24        | PPG-PR 133             | Mountain View Seeds                  | 69        | PST-2NKM                    | Landmark Native Seeds              |
| 25        | PPG-PR 134             | Mountain View Seeds                  | 70        | PST-2DR9                    | Pure-Seed Testing                  |
| 26        | LTP-PR 135             | Lebanon Turf Products                | 71        | PST-2MG7                    | Pure-Seed Testing                  |
| 27        | PPG-PR 136             | Lewis Seed                           | 72        | PST-2TQL                    | Pure-Seed Testing                  |
| 28        | PPG-PR 137             | Columbia Seeds                       | *73       | Dominator (PST-2AG4)        | Brett Young Seeds Ltd.             |
| 29        | PPG-PR 138             | Ampac Seed Company                   | 74        | MANHATTAN 6 GLR (PST-2MAGS) | Turf Merchants, Inc.               |
| 30        | PPG-PR 140             | Mountain View Seeds                  | 75        | PST-2K9                     | The Scotts Company                 |
| 31        | PPG-PR 142             | Peak Plant Genetics                  | 76        | PST-2BNS                    | Pure-Seed Testing                  |
| 32        | PPG-PR 143             | Columbia Seeds                       | 77        | PST-2ACR                    | Pure-Seed Testing                  |
| 33        | PPG-PR 164             | Mountain View Seeds                  | *78       | Rio Vista                   | Burlingham Seeds                   |
| 34        | PPG-PR 165             | Peak Plant Genetics                  | *79       | Octane                      | Burlingham Seeds                   |
| 35        | BAR Lp 10969           | Barenbrug USA                        | *80       | Bonneville                  | Burlingham Seeds                   |
| 36        | BAR Lp 10972           | Barenbrug USA                        | 81        | PSRX-4CAGL                  | Pickseed USA & Seed Research of OR |
| 37        | BAR Lp 10970           | Barenbrug USA                        | 82        | GO-DHS                      | Grassland Oregon                   |
| 38        | 2NJK                   | Barenbrug USA                        | 83        | GO-PR60                     | Grassland Oregon                   |
| 39        | BAR Lp 7608            | Barenbrug USA                        | 84        | Sox Fan (GM3)               | Landmark Native Seeds              |
| *40       | Pinnacle               | Standard Entry                       | 85        | PRX-4GM1                    | Pickseed USA & Seed Research of OR |
| 41        | APR 2445               | ProSeeds Marketing                   | 86        | SRX-4MSH                    | Seed Research of Oregon            |
| *42       | Fiesta 4               | Standard Entry                       | 87        | Pick 4DFHM                  | Pickseed USA, Inc.                 |
| 43        | GO-G37                 | Grassland Oregon                     | *88       | Palmer V                    | Standard Entry                     |
| 44        | CS-20                  | Columbia Seeds                       |           |                             |                                    |
| 45        | ISG-36                 | Integrated Seeds                     |           |                             |                                    |

\* COMMERCIALY AVAILABLE IN THE USA IN 2012

2011 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN  
THE 2010 NATIONAL PERENNIAL RYEGRASS TEST

| LOCATION | SOIL<br>TEXTURE     | SOIL<br>PH | SOIL<br>PHOSPHOROUS<br>(LBS/ACRE) | SOIL<br>POTASSIUM<br>(LBS/ACRE) | NITROGEN<br>(LBS/1000 SQ FT) | SUN<br>OR<br>SHADE | MOWING<br>HEIGHT<br>(IN) | IRRIGATION<br>PRACTICED   |
|----------|---------------------|------------|-----------------------------------|---------------------------------|------------------------------|--------------------|--------------------------|---------------------------|
| AL3      | -                   | -          | -                                 | -                               | -                            | -                  | 0.6-1.0                  | TO PREVENT STRESS         |
| AZ1      | SANDY CLAY LOAM     | 7.6-8.5    | 451+                              | 501+                            | 5.1-6.0                      | FULL SUN           | 0.0-0.5                  | TO PREVENT STRESS         |
| CA3      | SANDY LOAM          | 7.6-8.5    | 0-60                              | 0-150                           | 6.1-7.0                      | FULL SUN           | 1.6-2.0                  | TO PREVENT STRESS         |
| CA4      | SANDY LOAM          | 7.6-8.5    | 0-60                              | 0-150                           | 6.1-7.0                      | FULL SUN           | 1.6-2.0                  | TO PREVENT STRESS         |
| FL1      | SANDY LOAM          | 6.6-7.0    | 151-270                           | 0-150                           | 3.1-4.0                      | FULL SUN           | 0.0-0.5                  | TO PREVENT STRESS         |
| IA1      | SANDY CLAY LOAM     | 7.1-7.5    | 0-60                              | 241-375                         | 2.1-3.0                      | FULL SUN           | 2.6-3.0                  | TO PREVENT STRESS         |
| IL1      | SANDY CLAY LOAM     | 6.6-7.0    | 0-60                              | 376-500                         | 3.1-4.0                      | FULL SUN           | 0.6-1.0                  | TO PREVENT STRESS         |
| 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                         | 3.1-4.0                      | FULL SUN           | 2.1-2.5                  | TO PREVENT DORMANCY       |
| MI1      | -                   | -          | -                                 | -                               | -                            | -                  | -                        | -                         |
| MN1      | SILTY CLAY LOAM     | 7.1-7.5    | 61-150                            | 151-240                         | 2.1-3.0                      | FULL SUN           | 1.6-2.0                  | ONLY DURING SEVERE STRESS |
| MO1      | SANDY CLAY LOAM     | 5.6-6.0    | 61-150                            | 241-375                         | 1.1-2.0                      | FULL SUN           | 2.6-3.0                  | TO PREVENT DORMANCY       |
| NE1      | SILTY CLAY AND CLAY | 7.1-7.5    | 0-60                              | 376-500                         | 1.1-2.0                      | FULL SUN           | 2.6-3.0                  | TO PREVENT STRESS         |
| NJ2      | SANDY LOAM          | 6.6-7.0    | 271-450                           | 151-240                         | 3.1-4.0                      | FULL SUN           | 1.1-1.5                  | TO PREVENT STRESS         |
| NJ3      | SANDY LOAM          | 6.6-7.0    | 271-450                           | 151-240                         | 1.1-2.0                      | 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           | 1.6-2.0                  | TO PREVENT DORMANCY       |
| PA1      | SILT LOAM AND SILT  | 6.6-7.0    | 61-150                            | 151-240                         | 2.1-3.0                      | FULL SUN           | 1.6-2.0                  | TO PREVENT STRESS         |
| RI1      | -                   | -          | -                                 | -                               | -                            | -                  | -                        | -                         |
| VA1      | SILTY CLAY LOAM     | 5.6-6.0    | 0-60                              | 0-150                           | 3.1-4.0                      | LIGHT SHADE        | 1.6-2.0                  | ONLY DURING SEVERE STRESS |
| VA2      | SILTY CLAY LOAM     | 5.6-6.0    | 0-60                              | 0-150                           | 3.1-4.0                      | LIGHT SHADE        | 1.6-2.0                  | ONLY DURING SEVERE STRESS |
| VA3      | -                   | -          | -                                 | -                               | -                            | -                  | -                        | -                         |
| WA3      | SAND                | 6.1-6.5    | 0-60                              | 0-150                           | 5.1-6.0                      | FULL SUN           | 1.1-1.5                  | TO PREVENT STRESS         |

TABLE B.

LOCATIONS AND DATA COLLECTED IN 2011

| LOCATION | JANUARY<br>QUALITY<br>RATING | FEBRUARY<br>QUALITY<br>RATING | MARCH<br>QUALITY<br>RATING | APRIL<br>QUALITY<br>RATING | MAY<br>QUALITY<br>RATING | JUNE<br>QUALITY<br>RATING | JULY<br>QUALITY<br>RATING | AUGUST<br>QUALITY<br>RATING | SEPTEMBER<br>QUALITY<br>RATING | OCTOBER<br>QUALITY<br>RATING | NOVEMBER<br>QUALITY<br>RATING | DECEMBER<br>QUALITY<br>RATING | GENETIC<br>COLOR | SPRING<br>GREENUP | WEAR<br>TOLERANCE | SEEDLING<br>VIGOR |
|----------|------------------------------|-------------------------------|----------------------------|----------------------------|--------------------------|---------------------------|---------------------------|-----------------------------|--------------------------------|------------------------------|-------------------------------|-------------------------------|------------------|-------------------|-------------------|-------------------|
| * AL3    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| * AZ1    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| CA3      | X                            | X                             | X                          | X                          | X                        | X                         | X                         | X                           | X                              | X                            | X                             | X                             |                  |                   |                   | X                 |
| * CA4    |                              |                               |                            |                            |                          |                           |                           | X                           | X                              | X                            | X                             | X                             |                  |                   |                   |                   |
| * FL1    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| IA1      |                              |                               |                            |                            | X                        | X                         | X                         | X                           | X                              | X                            |                               |                               | X                |                   |                   |                   |
| IL1      |                              |                               |                            | X                          | X                        | X                         | X                         | X                           | X                              | X                            |                               |                               | X                | X                 |                   |                   |
| MA1      |                              |                               |                            |                            | X                        | X                         | X                         | X                           | X                              | X                            | X                             | X                             | X                |                   | X                 |                   |
| MD1      |                              |                               |                            | X                          | X                        | X                         | X                         | X                           | X                              | X                            | X                             |                               |                  | X                 |                   |                   |
| MI1      |                              |                               |                            |                            |                          | X                         | X                         | X                           | X                              | X                            |                               |                               |                  |                   |                   |                   |
| MN1      |                              |                               |                            |                            | X                        | X                         | X                         | X                           | X                              | X                            |                               |                               | X                |                   |                   | X                 |
| MO1      |                              |                               | X                          | X                          | X                        | X                         | X                         | X                           | X                              | X                            | X                             |                               | X                |                   |                   | X                 |
| NE1      |                              |                               |                            |                            | X                        | X                         | X                         | X                           | X                              | X                            | X                             |                               | X                | X                 |                   |                   |
| NJ2      |                              |                               |                            | X                          | X                        | X                         | X                         | X                           | X                              | X                            | X                             |                               | X                |                   |                   |                   |
| * NJ3    |                              |                               |                            |                            |                          |                           |                           |                             | X                              | X                            | X                             |                               |                  |                   |                   |                   |
| OR1      | X                            | X                             | X                          | X                          | X                        | X                         | X                         | X                           | X                              | X                            | X                             | X                             | X                |                   |                   | X                 |
| * PA1    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| * RI1    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| VA1      |                              | X                             | X                          | X                          | X                        | X                         | X                         | X                           |                                |                              | X                             |                               |                  |                   |                   |                   |
| * VA2    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| * VA3    |                              |                               |                            |                            |                          |                           |                           |                             |                                |                              |                               |                               |                  |                   |                   |                   |
| * WA3    | X                            | X                             | X                          | X                          | X                        | X                         | X                         | X                           | X                              | X                            | X                             | X                             | X                |                   |                   |                   |

TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2011

| LOCATION | SPRING<br>DENSITY | SUMMER<br>DENSITY | PERCENT<br>COVER<br>SPRING | PERCENT<br>COVER<br>FALL | WINTER<br>COLOR | DROUGHT<br>TOLERANCE<br>DORMANCY | DROUGHT<br>TOLERANCE<br>RECOVERY | BROWN<br>PATCH<br>WARM TEMP. | PYTHIUM<br>BLIGHT | PINK<br>SNOW<br>MOLD | SEEDHEAD<br>RATINGS | MOWING<br>QUALITY | PERCENT<br>ESTABLISH-<br>MENT | PERCENT<br>ESTABLISHMENT<br>OCTOBER | PERCENT<br>ESTABLISHMENT<br>NOVEMBER |
|----------|-------------------|-------------------|----------------------------|--------------------------|-----------------|----------------------------------|----------------------------------|------------------------------|-------------------|----------------------|---------------------|-------------------|-------------------------------|-------------------------------------|--------------------------------------|
| * AL3    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * AZ1    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| CA3      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * CA4    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * FL1    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| IA1      |                   |                   |                            | X                        |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| IL1      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   | X                             |                                     |                                      |
| MA1      |                   | X                 |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   | X                             |                                     |                                      |
| MD1      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| MI1      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               | X                                   | X                                    |
| MN1      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   | X                    |                     | X                 |                               |                                     |                                      |
| MO1      |                   |                   | X                          | X                        |                 |                                  |                                  | X                            |                   |                      |                     |                   |                               |                                     |                                      |
| NE1      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| NJ2      |                   |                   |                            | X                        |                 |                                  |                                  | X                            |                   |                      | X                   |                   |                               |                                     |                                      |
| * NJ3    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| OR1      |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * PA1    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * RI1    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| VA1      |                   |                   | X                          |                          |                 |                                  |                                  |                              | X                 |                      |                     |                   |                               |                                     |                                      |
| * VA2    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * VA3    |                   |                   |                            |                          |                 |                                  |                                  |                              |                   |                      |                     |                   |                               |                                     |                                      |
| * WA3    | X                 |                   |                            |                          | X               | X                                | X                                |                              |                   |                      |                     |                   |                               |                                     |                                      |

\* MORE DATA FOR "AL3", "AZ1", "CA4", "FL1", "NJ3", "PA1", "RI1", "VA2", "WA3", AND "VA3" IN TABLE 16, 17, 10, 18, 15, 11, 14, 12, 13, 19.



TABLE 1. TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 GROWN AT ONE LOCATION IN THE U.S. FOR AMMI GROUP 1 \*\*/  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                     | NJ2 | NAME                        | NJ2 |
|--------------------------|-----|-----------------------------|-----|
| * KARMA (PICK 10401)     | 7.4 | * DOMINATOR (PST-2AG4)      | 6.0 |
| * PANGEA GLR (CL 11701)  | 7.3 | * MACH I                    | 6.0 |
| IS-PR 491                | 7.0 | CST                         | 6.0 |
| IS-PR 409                | 7.0 | IS-PR 488                   | 5.9 |
| PPG-PR 121               | 6.9 | * UNO                       | 5.9 |
| *WICKED (SRX-4RHD)       | 6.9 | DLF LGD-3022                | 5.9 |
| RINOVO                   | 6.9 | CL 11601                    | 5.9 |
| GO-PR60                  | 6.9 | JR-192                      | 5.9 |
| * SR 4650 (PSRX-3701)    | 6.9 | PST-2K9                     | 5.8 |
| EVOLUTION (S85)          | 6.8 | SOX FAN (GM3)               | 5.8 |
| IS-PR 463                | 6.8 | PPG-PR 140                  | 5.8 |
| PST-2BNS                 | 6.7 | RAD-PR62                    | 5.8 |
| PPG-PR 138               | 6.7 | LTP-PR 135                  | 5.7 |
| * SIENNA                 | 6.7 | 2NJK                        | 5.6 |
| PPG-PR 136               | 6.7 | BAR LP 10972                | 5.6 |
| * RIO VISTA              | 6.7 | PPG-PR 128                  | 5.6 |
| JR-178                   | 6.7 | SRX-4MSH                    | 5.6 |
| IS-PR 469                | 6.7 | PST-204D                    | 5.5 |
| PPG-PR 165               | 6.6 | DLF LGD-3026                | 5.5 |
| PPG-PR 164               | 6.6 | PST-2NKM                    | 5.5 |
| APR-36                   | 6.4 | GO-G37                      | 5.4 |
| * PIZZAZZ 2 GLR (PR 909) | 6.4 | A-35                        | 5.4 |
| PPG-PR 137               | 6.4 | MANHATTAN 6 GLR (PST-2MAGS) | 5.4 |
| * FIESTA 4               | 6.4 | PST-2ACR                    | 5.4 |
| IS-PR 487                | 6.4 | BAR LP 10969                | 5.4 |
| PPG-PR 134               | 6.4 | * BONNEVILLE                | 5.3 |
| BAR LP 10970             | 6.3 | ISG-30                      | 5.2 |
| * OCTANE                 | 6.3 | * HAVEN (APR 2038)          | 5.2 |
| APR-20                   | 6.3 | PST-2DR9                    | 5.2 |
| RAD-PR55R                | 6.3 | ISG-36                      | 5.2 |
| * INSIGHT                | 6.3 | PST-2MG7                    | 5.2 |
| IS-PR 489                | 6.3 | PLAYOFF 2 (P02)             | 5.1 |
| PPG-PR 133               | 6.2 | PST-2TQL                    | 5.1 |
| * SIDEWAYS (PSRX-S84)    | 6.2 | DLF LGT 4182                | 4.7 |
| IS-PR 492                | 6.2 | PICK 4DFHM                  | 4.6 |
| CL 307                   | 6.2 | ISG-31                      | 4.6 |
| * ALLANTE                | 6.1 | * BRIGHTSTAR SLT            | 4.5 |
| LTP-RAE                  | 6.1 | CS-20                       | 4.4 |
| PSRX-4CAGL               | 6.1 | GO-DHS                      | 4.1 |
| CS-PR66                  | 6.1 | BAR LP 7608                 | 4.0 |
| IS-PR 479                | 6.1 | * PINNACLE                  | 2.8 |
| APR-45                   | 6.1 | * LINN                      | 0.9 |
| * PALMER V               | 6.1 |                             |     |
| PPG-PR 142               | 6.1 | LSD VALUE                   | 0.8 |
| PPG-PR 143               | 6.0 | C.V. (%)                    | 8.9 |
| PRX-4GM1                 | 6.0 |                             |     |

\* COMMERCIALY AVAILABLE IN THE USA IN 2012.

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

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

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

TABLE 2  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 GROWN AT TWO LOCATIONS IN THE U.S. FOR AMMI GROUP 2 \*\*/  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                   | MN1 | MD1 | MEAN | NAME                        | MN1  | MD1 | MEAN |
|------------------------|-----|-----|------|-----------------------------|------|-----|------|
| PANGEA GLR (CL 11701)  | 5.9 | 6.1 | 6.0  | APR-45                      | 5.1  | 5.6 | 5.3  |
| KARMA (PICK 10401)     | 5.9 | 6.0 | 5.9  | DOMINATOR (PST-2AG4)        | 5.1  | 5.6 | 5.3  |
| WICKED (SRX-4RHD)      | 5.7 | 6.0 | 5.9  | UNO                         | 5.0  | 5.6 | 5.3  |
| IS-PR 491              | 5.7 | 6.0 | 5.8  | PRX-4GM1                    | 5.1  | 5.6 | 5.3  |
| EVOLUTION (S85)        | 5.6 | 5.9 | 5.8  | LTP-RAE                     | 5.1  | 5.5 | 5.3  |
| SR 4650 (PSRX-3701)    | 5.6 | 5.9 | 5.8  | PPG-PR 140                  | 5.0  | 5.6 | 5.3  |
| IS-PR 463              | 5.6 | 5.9 | 5.8  | JR-192                      | 5.0  | 5.5 | 5.3  |
| PST-2BNS               | 5.6 | 5.9 | 5.8  | CST                         | 5.0  | 5.5 | 5.3  |
| RINOVO                 | 5.6 | 5.9 | 5.8  | LTP-PR 135                  | 4.9  | 5.6 | 5.2  |
| PPG-PR 121             | 5.6 | 5.9 | 5.7  | SOX FAN (GM3)               | 4.9  | 5.5 | 5.2  |
| PPG-PR 138             | 5.6 | 5.9 | 5.7  | MACH I                      | 5.0  | 5.4 | 5.2  |
| JR-178                 | 5.5 | 5.9 | 5.7  | 2NJK                        | 4.8  | 5.5 | 5.1  |
| GO-PR60                | 5.6 | 5.9 | 5.7  | PST-2K9                     | 4.9  | 5.4 | 5.1  |
| IS-PR 409              | 5.6 | 5.8 | 5.7  | PST-2NKM                    | 4.8  | 5.5 | 5.1  |
| RIO VISTA              | 5.5 | 5.9 | 5.7  | PPG-PR 128                  | 4.8  | 5.4 | 5.1  |
| IS-PR 469              | 5.5 | 5.9 | 5.7  | SRX-4MSH                    | 4.8  | 5.4 | 5.1  |
| SIENNA                 | 5.5 | 5.8 | 5.7  | PST-204D                    | 4.7  | 5.4 | 5.0  |
| PPG-PR 164             | 5.5 | 5.8 | 5.6  | RAD-PR62                    | 4.8  | 5.3 | 5.0  |
| IS-PR 487              | 5.4 | 5.9 | 5.6  | A-35                        | 4.7  | 5.3 | 5.0  |
| PPG-PR 136             | 5.5 | 5.8 | 5.6  | PST-2ACR                    | 4.7  | 5.3 | 5.0  |
| PPG-PR 165             | 5.4 | 5.8 | 5.6  | DLF LGD-3026                | 4.7  | 5.3 | 5.0  |
| PIZZAZZ 2 GLR (PR 909) | 5.4 | 5.8 | 5.6  | BONNEVILLE                  | 4.6  | 5.3 | 5.0  |
| PPG-PR 137             | 5.3 | 5.8 | 5.6  | BAR LP 10972                | 4.7  | 5.2 | 5.0  |
| PPG-PR 134             | 5.3 | 5.7 | 5.5  | MANHATTAN 6 GLR (PST-2MAGS) | 4.6  | 5.3 | 5.0  |
| IS-PR 492              | 5.3 | 5.8 | 5.5  | GO-G37                      | 4.6  | 5.3 | 5.0  |
| APR-36                 | 5.3 | 5.7 | 5.5  | ISG-30                      | 4.6  | 5.3 | 5.0  |
| FIESTA 4               | 5.3 | 5.7 | 5.5  | BAR LP 10969                | 4.6  | 5.3 | 4.9  |
| BAR LP 10970           | 5.3 | 5.7 | 5.5  | ISG-36                      | 4.6  | 5.3 | 4.9  |
| OCTANE                 | 5.3 | 5.7 | 5.5  | PST-2MG7                    | 4.5  | 5.3 | 4.9  |
| SIDEWAYS (PSRX-S84)    | 5.2 | 5.7 | 5.5  | PST-2DR9                    | 4.5  | 5.3 | 4.9  |
| INSIGHT                | 5.2 | 5.6 | 5.4  | HAVEN (APR 2038)            | 4.5  | 5.2 | 4.9  |
| RAD-PR55R              | 5.2 | 5.6 | 5.4  | PST-2TQL                    | 4.5  | 5.2 | 4.8  |
| PPG-PR 133             | 5.2 | 5.6 | 5.4  | PLAYOFF 2 (P02)             | 4.5  | 5.2 | 4.8  |
| APR-20                 | 5.2 | 5.6 | 5.4  | CS-20                       | 4.2  | 5.2 | 4.7  |
| PALMER V               | 5.2 | 5.7 | 5.4  | ISG-31                      | 4.2  | 5.1 | 4.6  |
| CL 11601               | 5.1 | 5.7 | 5.4  | BRIGHTSTAR SLT              | 4.2  | 5.1 | 4.6  |
| IS-PR 489              | 5.2 | 5.6 | 5.4  | DLF LGT 4182                | 4.1  | 4.8 | 4.5  |
| IS-PR 488              | 5.1 | 5.7 | 5.4  | PICK 4DFHM                  | 4.1  | 4.8 | 4.5  |
| CL 307                 | 5.1 | 5.6 | 5.4  | BAR LP 7608                 | 3.8  | 4.9 | 4.3  |
| ALLANTE                | 5.1 | 5.6 | 5.4  | GO-DHS                      | 3.7  | 4.7 | 4.2  |
| DLF LGD-3022           | 5.1 | 5.7 | 5.4  | PINNACLE                    | 3.0  | 4.3 | 3.6  |
| PPG-PR 142             | 5.1 | 5.6 | 5.4  | LINN                        | 1.3  | 2.8 | 2.1  |
| PSRX-4CAGL             | 5.1 | 5.6 | 5.4  |                             |      |     |      |
| CS-PR66                | 5.1 | 5.6 | 5.4  | LSD VALUE                   | 0.8  | 0.8 | 0.8  |
| IS-PR 479              | 5.1 | 5.6 | 5.4  | C.V. (%)                    | 10.5 | 9.5 | 10.0 |
| PPG-PR 143             | 5.1 | 5.6 | 5.3  |                             |      |     |      |

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

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.

STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

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

TABLE 3. TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
GROWN AT SEVEN LOCATIONS IN THE U.S. FOR AMMI GROUP 3 \*\*/  
2011 DATA

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

| NAME                   | IL1 | VA1 | MI1 | MA1 | NE1 | MO1 | OR1 | MEAN |
|------------------------|-----|-----|-----|-----|-----|-----|-----|------|
| WICKED (SRX-4RHD)      | 5.7 | 6.3 | 6.0 | 6.0 | 6.7 | 5.6 | 6.6 | 6.1  |
| IS-PR 487              | 5.6 | 6.2 | 5.9 | 6.0 | 6.6 | 5.5 | 6.5 | 6.0  |
| PANGEA GLR (CL 11701)  | 5.6 | 6.2 | 5.9 | 5.9 | 6.6 | 5.4 | 6.4 | 6.0  |
| PST-2BNS               | 5.6 | 6.2 | 5.9 | 5.9 | 6.6 | 5.5 | 6.5 | 6.0  |
| CL 11601               | 5.5 | 6.1 | 5.9 | 5.9 | 6.6 | 5.5 | 6.5 | 6.0  |
| EVOLUTION (S85)        | 5.6 | 6.2 | 5.9 | 5.9 | 6.6 | 5.4 | 6.4 | 6.0  |
| IS-PR 463              | 5.5 | 6.2 | 5.9 | 5.9 | 6.6 | 5.4 | 6.4 | 6.0  |
| IS-PR 491              | 5.6 | 6.2 | 5.9 | 5.9 | 6.6 | 5.4 | 6.4 | 6.0  |
| JR-178                 | 5.5 | 6.1 | 5.9 | 5.9 | 6.5 | 5.5 | 6.5 | 6.0  |
| IS-PR 492              | 5.5 | 6.1 | 5.9 | 5.9 | 6.5 | 5.5 | 6.5 | 6.0  |
| PPG-PR 138             | 5.5 | 6.1 | 5.9 | 5.9 | 6.5 | 5.4 | 6.4 | 6.0  |
| SR 4650 (PSRX-3701)    | 5.5 | 6.1 | 5.9 | 5.9 | 6.5 | 5.4 | 6.4 | 6.0  |
| RIO VISTA              | 5.5 | 6.1 | 5.9 | 5.9 | 6.5 | 5.4 | 6.4 | 6.0  |
| DLF LGD-3022           | 5.4 | 6.1 | 5.8 | 5.8 | 6.5 | 5.4 | 6.5 | 5.9  |
| RINOVO                 | 5.5 | 6.1 | 5.8 | 5.8 | 6.5 | 5.4 | 6.4 | 5.9  |
| IS-PR 469              | 5.5 | 6.1 | 5.8 | 5.8 | 6.5 | 5.4 | 6.4 | 5.9  |
| IS-PR 488              | 5.4 | 6.1 | 5.8 | 5.8 | 6.5 | 5.4 | 6.4 | 5.9  |
| PIZZAZZ 2 GLR (PR 909) | 5.5 | 6.1 | 5.8 | 5.8 | 6.5 | 5.4 | 6.4 | 5.9  |
| PPG-PR 137             | 5.4 | 6.1 | 5.8 | 5.8 | 6.5 | 5.4 | 6.4 | 5.9  |
| SIDEWAYS (PSRX-S84)    | 5.4 | 6.0 | 5.8 | 5.8 | 6.5 | 5.4 | 6.4 | 5.9  |
| PPG-PR 164             | 5.4 | 6.0 | 5.8 | 5.8 | 6.4 | 5.3 | 6.3 | 5.9  |
| GO-PR60                | 5.4 | 6.0 | 5.8 | 5.8 | 6.4 | 5.3 | 6.3 | 5.9  |
| PPG-PR 121             | 5.4 | 6.0 | 5.8 | 5.8 | 6.4 | 5.3 | 6.3 | 5.9  |
| KARMA (PICK 10401)     | 5.5 | 6.1 | 5.8 | 5.8 | 6.4 | 5.3 | 6.3 | 5.9  |
| PALMER V               | 5.4 | 6.0 | 5.7 | 5.8 | 6.4 | 5.4 | 6.4 | 5.9  |
| PPG-PR 134             | 5.4 | 6.0 | 5.7 | 5.8 | 6.4 | 5.3 | 6.3 | 5.9  |
| SIENNA                 | 5.4 | 6.0 | 5.7 | 5.8 | 6.4 | 5.3 | 6.3 | 5.9  |
| LTP-PR 135             | 5.3 | 6.0 | 5.7 | 5.7 | 6.4 | 5.4 | 6.4 | 5.8  |
| PPG-PR 140             | 5.3 | 6.0 | 5.7 | 5.7 | 6.4 | 5.3 | 6.4 | 5.8  |
| PPG-PR 165             | 5.4 | 6.0 | 5.7 | 5.7 | 6.4 | 5.3 | 6.3 | 5.8  |
| OCTANE                 | 5.3 | 6.0 | 5.7 | 5.7 | 6.4 | 5.3 | 6.3 | 5.8  |
| UNO                    | 5.3 | 5.9 | 5.7 | 5.7 | 6.4 | 5.3 | 6.3 | 5.8  |
| APR-36                 | 5.3 | 6.0 | 5.7 | 5.7 | 6.4 | 5.3 | 6.3 | 5.8  |
| PPG-PR 136             | 5.4 | 6.0 | 5.7 | 5.7 | 6.4 | 5.2 | 6.2 | 5.8  |
| BAR LP 10970           | 5.3 | 6.0 | 5.7 | 5.7 | 6.4 | 5.3 | 6.3 | 5.8  |
| PPG-PR 142             | 5.3 | 5.9 | 5.7 | 5.7 | 6.4 | 5.3 | 6.3 | 5.8  |
| IS-PR 409              | 5.4 | 6.0 | 5.7 | 5.7 | 6.3 | 5.2 | 6.2 | 5.8  |
| FIESTA 4               | 5.3 | 5.9 | 5.7 | 5.7 | 6.3 | 5.3 | 6.3 | 5.8  |
| PPG-PR 143             | 5.3 | 5.9 | 5.7 | 5.7 | 6.3 | 5.3 | 6.3 | 5.8  |
| JR-192                 | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.3 | 6.3 | 5.8  |
| PPG-PR 133             | 5.3 | 5.9 | 5.7 | 5.7 | 6.3 | 5.3 | 6.3 | 5.8  |
| DOMINATOR (PST-2AG4)   | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.3 | 6.3 | 5.8  |
| PST-2NKM               | 5.2 | 5.9 | 5.6 | 5.7 | 6.3 | 5.3 | 6.3 | 5.8  |
| INSIGHT                | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.2 | 6.2 | 5.8  |
| CS-20                  | 5.2 | 5.8 | 5.6 | 5.6 | 6.3 | 5.4 | 6.4 | 5.8  |
| CL 307                 | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.2 | 6.2 | 5.8  |
| ALLANTE                | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.2 | 6.2 | 5.8  |
| PSRX-4CAGL             | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.2 | 6.2 | 5.7  |
| IS-PR 479              | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.2 | 6.2 | 5.7  |
| RAD-PR55R              | 5.3 | 5.9 | 5.6 | 5.7 | 6.3 | 5.2 | 6.2 | 5.7  |
| CS-PR66                | 5.3 | 5.9 | 5.6 | 5.6 | 6.3 | 5.2 | 6.2 | 5.7  |
| SOX FAN (GM3)          | 5.2 | 5.9 | 5.6 | 5.6 | 6.3 | 5.2 | 6.3 | 5.7  |

TABLE 3 TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 GROWN AT SEVEN LOCATIONS IN THE U.S. FOR AMMI GROUP 3 \*\*/  
 2011 DATA

| TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/ |      |     |     |     |     |      |     |      |
|------------------------------------------------|------|-----|-----|-----|-----|------|-----|------|
| NAME                                           | IL1  | VA1 | MI1 | MA1 | NE1 | MO1  | OR1 | MEAN |
| APR-20                                         | 5.3  | 5.9 | 5.6 | 5.6 | 6.3 | 5.2  | 6.2 | 5.7  |
| PRX-4GM1                                       | 5.2  | 5.9 | 5.6 | 5.6 | 6.3 | 5.2  | 6.2 | 5.7  |
| 2NJK                                           | 5.2  | 5.9 | 5.6 | 5.6 | 6.3 | 5.2  | 6.2 | 5.7  |
| CST                                            | 5.2  | 5.9 | 5.6 | 5.6 | 6.3 | 5.2  | 6.2 | 5.7  |
| APR-45                                         | 5.2  | 5.9 | 5.6 | 5.6 | 6.3 | 5.2  | 6.2 | 5.7  |
| IS-PR 489                                      | 5.2  | 5.9 | 5.6 | 5.6 | 6.3 | 5.2  | 6.2 | 5.7  |
| ISG-36                                         | 5.1  | 5.8 | 5.5 | 5.6 | 6.2 | 5.2  | 6.2 | 5.7  |
| ISG-30                                         | 5.1  | 5.8 | 5.5 | 5.6 | 6.2 | 5.2  | 6.2 | 5.7  |
| BONNEVILLE                                     | 5.1  | 5.8 | 5.5 | 5.6 | 6.2 | 5.2  | 6.2 | 5.7  |
| PPG-PR 128                                     | 5.2  | 5.8 | 5.5 | 5.6 | 6.2 | 5.2  | 6.2 | 5.7  |
| A-35                                           | 5.1  | 5.8 | 5.5 | 5.5 | 6.2 | 5.2  | 6.2 | 5.7  |
| LTP-RAE                                        | 5.2  | 5.8 | 5.5 | 5.6 | 6.2 | 5.1  | 6.1 | 5.6  |
| SRX-4MSH                                       | 5.1  | 5.8 | 5.5 | 5.5 | 6.2 | 5.2  | 6.2 | 5.6  |
| PST-2MG7                                       | 5.1  | 5.8 | 5.5 | 5.5 | 6.2 | 5.2  | 6.2 | 5.6  |
| PST-2ACR                                       | 5.1  | 5.8 | 5.5 | 5.5 | 6.2 | 5.2  | 6.2 | 5.6  |
| PST-204D                                       | 5.1  | 5.8 | 5.5 | 5.5 | 6.2 | 5.2  | 6.2 | 5.6  |
| PST-2DR9                                       | 5.1  | 5.7 | 5.5 | 5.5 | 6.2 | 5.1  | 6.2 | 5.6  |
| BRIGHTSTAR SLT                                 | 5.0  | 5.7 | 5.4 | 5.5 | 6.2 | 5.2  | 6.2 | 5.6  |
| PST-2TQL                                       | 5.1  | 5.7 | 5.4 | 5.5 | 6.1 | 5.1  | 6.2 | 5.6  |
| HAVEN (APR 2038)                               | 5.1  | 5.7 | 5.4 | 5.5 | 6.1 | 5.1  | 6.1 | 5.6  |
| BAR LP 10969                                   | 5.1  | 5.7 | 5.4 | 5.5 | 6.1 | 5.1  | 6.1 | 5.6  |
| ISG-31                                         | 5.0  | 5.7 | 5.4 | 5.5 | 6.1 | 5.2  | 6.2 | 5.6  |
| MANHATTAN 6 GLR (PST-2MAGS)                    | 5.1  | 5.7 | 5.4 | 5.5 | 6.1 | 5.1  | 6.1 | 5.6  |
| PLAYOFF 2 (P02)                                | 5.0  | 5.7 | 5.4 | 5.5 | 6.1 | 5.1  | 6.1 | 5.6  |
| PST-2K9                                        | 5.1  | 5.7 | 5.4 | 5.5 | 6.1 | 5.0  | 6.0 | 5.6  |
| DLF LGD-3026                                   | 5.0  | 5.7 | 5.4 | 5.4 | 6.1 | 5.1  | 6.1 | 5.5  |
| GO-G37                                         | 5.0  | 5.7 | 5.4 | 5.4 | 6.1 | 5.1  | 6.1 | 5.5  |
| MACH I                                         | 5.1  | 5.7 | 5.4 | 5.4 | 6.1 | 5.0  | 6.0 | 5.5  |
| BAR LP 7608                                    | 4.9  | 5.5 | 5.3 | 5.3 | 6.0 | 5.1  | 6.1 | 5.5  |
| RAD-PR62                                       | 5.0  | 5.6 | 5.3 | 5.4 | 6.0 | 5.0  | 6.0 | 5.5  |
| BAR LP 10972                                   | 4.9  | 5.6 | 5.3 | 5.3 | 6.0 | 4.9  | 5.9 | 5.4  |
| PICK 4DFHM                                     | 4.7  | 5.4 | 5.1 | 5.1 | 5.8 | 4.8  | 5.8 | 5.2  |
| DLF LGT 4182                                   | 4.7  | 5.3 | 5.1 | 5.1 | 5.8 | 4.8  | 5.8 | 5.2  |
| GO-DHS                                         | 4.6  | 5.3 | 5.0 | 5.0 | 5.7 | 4.8  | 5.8 | 5.2  |
| PINNACLE                                       | 4.4  | 5.1 | 4.9 | 4.9 | 5.6 | 4.7  | 5.8 | 5.1  |
| LINN                                           | 3.1  | 3.8 | 3.6 | 3.6 | 4.3 | 3.5  | 4.5 | 3.8  |
| LSD VALUE                                      | 0.8  | 0.8 | 0.8 | 0.8 | 0.8 | 0.8  | 0.8 | 0.8  |
| C.V. (%)                                       | 10.0 | 8.9 | 9.4 | 9.3 | 8.3 | 10.0 | 8.4 | 9.2  |

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

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

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

TABLE 4. TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 GROWN AT TWO LOCATIONS IN THE U.S. FOR AMMI GROUP 4 \*\*/  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                   | CA3 | IA1 | MEAN | NAME                        | CA3 | IA1 | MEAN |
|------------------------|-----|-----|------|-----------------------------|-----|-----|------|
| CL 11601               | 7.0 | 6.0 | 6.5  | PST-2MG7                    | 6.7 | 5.7 | 6.2  |
| IS-PR 487              | 7.0 | 6.0 | 6.5  | CL 307                      | 6.7 | 5.7 | 6.2  |
| WICKED (SRX-4RHD)      | 7.0 | 6.0 | 6.5  | ALLANTE                     | 6.7 | 5.7 | 6.2  |
| IS-PR 492              | 7.0 | 6.0 | 6.5  | FIESTA 4                    | 6.7 | 5.7 | 6.2  |
| CS-20                  | 7.0 | 6.0 | 6.5  | PPG-PR 165                  | 6.7 | 5.7 | 6.2  |
| DLF LGD-3022           | 6.9 | 5.9 | 6.4  | IS-PR 479                   | 6.7 | 5.7 | 6.2  |
| IS-PR 488              | 6.9 | 5.9 | 6.4  | PSRX-4CAGL                  | 6.7 | 5.7 | 6.2  |
| PST-2BNS               | 6.9 | 5.9 | 6.4  | A-35                        | 6.7 | 5.7 | 6.2  |
| JR-178                 | 6.9 | 5.9 | 6.4  | INSIGHT                     | 6.7 | 5.7 | 6.2  |
| IS-PR 463              | 6.9 | 5.9 | 6.4  | CS-PR66                     | 6.7 | 5.7 | 6.2  |
| EVOLUTION (S85)        | 6.9 | 5.9 | 6.4  | PRX-4GM1                    | 6.7 | 5.7 | 6.2  |
| LTP-PR 135             | 6.9 | 5.9 | 6.4  | PPG-PR 128                  | 6.7 | 5.7 | 6.2  |
| PPG-PR 138             | 6.9 | 5.9 | 6.4  | CST                         | 6.7 | 5.7 | 6.2  |
| RIO VISTA              | 6.9 | 5.9 | 6.4  | PST-2ACR                    | 6.7 | 5.7 | 6.2  |
| IS-PR 491              | 6.9 | 5.9 | 6.4  | PPG-PR 136                  | 6.7 | 5.7 | 6.2  |
| SIDEWAYS (PSRX-S84)    | 6.9 | 5.9 | 6.4  | RAD-PR55R                   | 6.7 | 5.7 | 6.2  |
| SR 4650 (PSRX-3701)    | 6.9 | 5.9 | 6.4  | PST-2TQL                    | 6.7 | 5.7 | 6.2  |
| PIZZAZZ 2 GLR (PR 909) | 6.8 | 5.8 | 6.3  | PST-2DR9                    | 6.7 | 5.7 | 6.2  |
| PANGEA GLR (CL 11701)  | 6.8 | 5.8 | 6.3  | BAR LP 7608                 | 6.7 | 5.7 | 6.2  |
| PPG-PR 140             | 6.8 | 5.8 | 6.3  | KARMA (PICK 10401)          | 6.7 | 5.7 | 6.2  |
| PALMER V               | 6.8 | 5.8 | 6.3  | PST-204D                    | 6.7 | 5.7 | 6.2  |
| PPG-PR 137             | 6.8 | 5.8 | 6.3  | SRX-4MSH                    | 6.7 | 5.7 | 6.2  |
| IS-PR 469              | 6.8 | 5.8 | 6.3  | APR-20                      | 6.7 | 5.7 | 6.2  |
| PST-2NKM               | 6.8 | 5.8 | 6.3  | APR-45                      | 6.7 | 5.7 | 6.2  |
| UNO                    | 6.8 | 5.8 | 6.3  | HAVEN (APR 2038)            | 6.6 | 5.7 | 6.2  |
| RINOVO                 | 6.8 | 5.8 | 6.3  | PLAYOFF 2 (P02)             | 6.6 | 5.6 | 6.1  |
| PPG-PR 134             | 6.8 | 5.8 | 6.3  | IS-PR 409                   | 6.6 | 5.6 | 6.1  |
| PPG-PR 164             | 6.8 | 5.8 | 6.3  | IS-PR 489                   | 6.6 | 5.6 | 6.1  |
| JR-192                 | 6.8 | 5.8 | 6.3  | BAR LP 10969                | 6.6 | 5.6 | 6.1  |
| PPG-PR 142             | 6.8 | 5.8 | 6.3  | MANHATTAN 6 GLR (PST-2MAGS) | 6.6 | 5.6 | 6.1  |
| ISG-36                 | 6.8 | 5.8 | 6.3  | LTP-RAE                     | 6.6 | 5.6 | 6.1  |
| ISG-30                 | 6.8 | 5.8 | 6.3  | DLF LGD-3026                | 6.6 | 5.6 | 6.1  |
| PPG-PR 143             | 6.8 | 5.8 | 6.3  | GO-G37                      | 6.6 | 5.6 | 6.1  |
| BRIGHTSTAR SLT         | 6.7 | 5.8 | 6.3  | PST-2K9                     | 6.5 | 5.5 | 6.0  |
| OCTANE                 | 6.7 | 5.7 | 6.2  | MACH I                      | 6.5 | 5.5 | 6.0  |
| DOMINATOR (PST-2AG4)   | 6.7 | 5.7 | 6.2  | RAD-PR62                    | 6.4 | 5.4 | 5.9  |
| 2NJK                   | 6.7 | 5.7 | 6.2  | BAR LP 10972                | 6.4 | 5.4 | 5.9  |
| GO-PR60                | 6.7 | 5.7 | 6.2  | PINNACLE                    | 6.4 | 5.4 | 5.9  |
| BONNEVILLE             | 6.7 | 5.7 | 6.2  | PICK 4DFHM                  | 6.3 | 5.3 | 5.8  |
| SIENNA                 | 6.7 | 5.7 | 6.2  | GO-DHS                      | 6.3 | 5.3 | 5.8  |
| SOX FAN (GM3)          | 6.7 | 5.7 | 6.2  | DLF LGT 4182                | 6.3 | 5.3 | 5.8  |
| PPG-PR 121             | 6.7 | 5.7 | 6.2  | LINN                        | 5.2 | 4.2 | 4.7  |
| BAR LP 10970           | 6.7 | 5.7 | 6.2  |                             |     |     |      |
| APR-36                 | 6.7 | 5.7 | 6.2  | LSD VALUE                   | 0.8 | 0.8 | 0.8  |
| ISG-31                 | 6.7 | 5.7 | 6.2  | C.V. (%)                    | 7.8 | 9.2 | 8.4  |
| PPG-PR 133             | 6.7 | 5.7 | 6.2  |                             |     |     |      |

- \* ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS AMMI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE AN AMMI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON AMMI, GO TO [WWW.NTEP.ORG/AMMI\\_Q&A.PDF](http://WWW.NTEP.ORG/AMMI_Q&A.PDF)
- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).
- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 5. MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 GROWN AT TWO LOCATIONS 1/  
 IN THE NORTHEAST REGION  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                   | MA1 | NJ2 | MEAN | NAME                        | MA1 | NJ2 | MEAN |
|------------------------|-----|-----|------|-----------------------------|-----|-----|------|
| IS-PR 469              | 6.0 | 7.6 | 6.8  | CST                         | 5.9 | 5.7 | 5.8  |
| GO-PR60                | 6.3 | 7.0 | 6.6  | DOMINATOR (PST-2AG4)        | 5.4 | 6.1 | 5.8  |
| RINOVO                 | 6.1 | 7.1 | 6.6  | PALMER V                    | 5.9 | 5.6 | 5.8  |
| IS-PR 492              | 6.5 | 6.6 | 6.6  | CL 307                      | 5.3 | 6.2 | 5.8  |
| PPG-PR 164             | 5.8 | 7.4 | 6.6  | PPG-PR 143                  | 5.6 | 5.8 | 5.7  |
| PPG-PR 121             | 6.3 | 6.8 | 6.5  | UNO                         | 5.6 | 5.9 | 5.7  |
| IS-PR 491              | 5.8 | 7.2 | 6.5  | DLF LGD-3022                | 5.8 | 5.7 | 5.7  |
| IS-PR 463              | 6.1 | 6.9 | 6.5  | LTP-RAE                     | 5.0 | 6.5 | 5.7  |
| KARMA (PICK 10401)     | 5.5 | 7.4 | 6.5  | LTP-PR 135                  | 5.5 | 5.8 | 5.7  |
| PPG-PR 136             | 6.0 | 6.9 | 6.4  | MANHATTAN 6 GLR (PST-2MAGS) | 5.3 | 6.0 | 5.6  |
| PPG-PR 165             | 6.1 | 6.7 | 6.4  | PST-2K9                     | 5.4 | 5.9 | 5.6  |
| PANGEA GLR (CL 11701)  | 5.5 | 7.2 | 6.4  | SRX-4MSH                    | 5.5 | 5.7 | 5.6  |
| IS-PR 409              | 5.8 | 7.0 | 6.4  | DLF LGD-3026                | 5.3 | 5.9 | 5.6  |
| SR 4650 (PSRX-3701)    | 5.8 | 7.0 | 6.4  | JR-192                      | 5.6 | 5.6 | 5.6  |
| WICKED (SRX-4RHD)      | 6.0 | 6.6 | 6.3  | RAD-PR62                    | 5.4 | 5.7 | 5.6  |
| SIENNA                 | 6.0 | 6.6 | 6.3  | ISG-36                      | 5.8 | 5.3 | 5.5  |
| CS-PR66                | 6.0 | 6.4 | 6.2  | 2NJK                        | 5.5 | 5.6 | 5.5  |
| FIESTA 4               | 6.0 | 6.4 | 6.2  | ISG-30                      | 5.8 | 5.3 | 5.5  |
| RAD-PR55R              | 5.9 | 6.5 | 6.2  | SOX FAN (GM3)               | 5.4 | 5.7 | 5.5  |
| MACH I                 | 6.0 | 6.3 | 6.2  | A-35                        | 5.5 | 5.5 | 5.5  |
| PPG-PR 138             | 6.2 | 6.2 | 6.2  | GO-G37                      | 5.6 | 5.4 | 5.5  |
| PSRX-4CAGL             | 6.1 | 6.2 | 6.1  | PPG-PR 140                  | 5.8 | 5.2 | 5.5  |
| APR 2445               | 5.6 | 6.7 | 6.1  | PST-204D                    | 5.6 | 5.3 | 5.5  |
| RIO VISTA              | 5.6 | 6.7 | 6.1  | PPG-PR 128                  | 5.5 | 5.3 | 5.4  |
| INSIGHT                | 6.0 | 6.2 | 6.1  | BAR LP 10969                | 5.4 | 5.4 | 5.4  |
| PST-2BNS               | 5.8 | 6.4 | 6.1  | PST-2MG7                    | 5.5 | 5.3 | 5.4  |
| JR-178                 | 5.5 | 6.7 | 6.1  | PST-2DR9                    | 5.7 | 5.1 | 5.4  |
| APR 2036               | 5.8 | 6.3 | 6.1  | CS-20                       | 5.7 | 4.9 | 5.3  |
| OCTANE                 | 6.0 | 6.1 | 6.1  | PST-2NKM                    | 5.4 | 5.2 | 5.3  |
| EVOLUTION (S85)        | 5.4 | 6.7 | 6.1  | HAVEN (APR 2038)            | 5.3 | 5.3 | 5.3  |
| IS-PR 479              | 5.9 | 6.1 | 6.0  | PST-2TQL                    | 5.3 | 5.1 | 5.2  |
| PPG-PR 137             | 5.9 | 6.1 | 6.0  | BONNEVILLE                  | 5.0 | 5.4 | 5.2  |
| PPG-PR 133             | 5.6 | 6.3 | 6.0  | PICK 4DFHM                  | 5.5 | 4.7 | 5.1  |
| APR 2320               | 5.7 | 6.3 | 6.0  | BRIGHTSTAR SLT              | 5.8 | 4.4 | 5.1  |
| IS-PR 487              | 5.5 | 6.4 | 6.0  | ISG-31                      | 5.4 | 4.7 | 5.0  |
| PRX-4GM1               | 5.8 | 6.1 | 6.0  | BAR LP 10972                | 5.0 | 5.1 | 5.0  |
| BAR LP 10970           | 5.8 | 6.1 | 5.9  | PLAYOFF 2 (P02)             | 5.4 | 4.6 | 5.0  |
| PPG-PR 134             | 5.5 | 6.4 | 5.9  | BAR LP 7608                 | 6.0 | 3.9 | 4.9  |
| PIZZAZZ 2 GLR (PR 909) | 5.5 | 6.3 | 5.9  | PST-2ACR                    | 4.8 | 4.8 | 4.8  |
| IS-PR 488              | 5.7 | 6.0 | 5.9  | GO-DHS                      | 5.1 | 4.4 | 4.8  |
| PPG-PR 142             | 5.9 | 5.8 | 5.9  | DLF LGT 4182                | 4.2 | 4.8 | 4.5  |
| SIDEWAYS (PSRX-S84)    | 5.5 | 6.2 | 5.8  | PINNACLE                    | 5.3 | 2.8 | 4.0  |
| CL 11601               | 6.1 | 5.6 | 5.8  | LINN                        | 3.5 | 1.0 | 2.3  |
| ALLANTE                | 5.6 | 6.0 | 5.8  |                             |     |     |      |
| IS-PR 489              | 5.4 | 6.3 | 5.8  | LSD VALUE                   | 0.7 | 0.8 | 0.5  |
|                        |     |     |      | C.V. (%)                    | 8.0 | 8.4 | 8.2  |

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 6. MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 GROWN AT THREE LOCATIONS 1/  
 IN THE TRANSITION REGION  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                   | MD1 | MO1 | VA1 | MEAN | NAME                        | MD1 | MO1 | VA1 | MEAN |
|------------------------|-----|-----|-----|------|-----------------------------|-----|-----|-----|------|
| PST-2BNS               | 6.1 | 6.1 | 6.4 | 6.2  | PPG-PR 121                  | 5.9 | 5.3 | 5.5 | 5.5  |
| WICKED (SRX-4RHD)      | 5.8 | 6.0 | 6.3 | 6.0  | BAR LP 10972                | 5.8 | 5.2 | 5.5 | 5.5  |
| PANGEA GLR (CL 11701)  | 6.0 | 5.8 | 6.4 | 6.0  | PST-2MG7                    | 5.7 | 5.1 | 5.7 | 5.5  |
| IS-PR 469              | 5.6 | 6.2 | 6.3 | 6.0  | PPG-PR 140                  | 5.8 | 5.2 | 5.5 | 5.5  |
| PPG-PR 134             | 5.8 | 5.9 | 6.4 | 6.0  | BONNEVILLE                  | 5.5 | 5.6 | 5.4 | 5.5  |
| IS-PR 491              | 5.9 | 5.7 | 6.3 | 6.0  | DOMINATOR (PST-2AG4)        | 5.5 | 5.0 | 6.0 | 5.5  |
| IS-PR 488              | 5.9 | 5.6 | 6.3 | 5.9  | ISG-30                      | 5.1 | 5.1 | 6.2 | 5.5  |
| JR-178                 | 6.0 | 5.6 | 6.2 | 5.9  | IS-PR 489                   | 5.6 | 4.9 | 6.0 | 5.5  |
| IS-PR 487              | 5.7 | 5.7 | 6.4 | 5.9  | PPG-PR 136                  | 5.8 | 5.2 | 5.4 | 5.5  |
| PIZZAZZ 2 GLR (PR 909) | 6.2 | 5.3 | 6.2 | 5.9  | 2NJK                        | 5.3 | 5.3 | 5.8 | 5.5  |
| RINOVO                 | 6.0 | 5.1 | 6.6 | 5.9  | RAD-PR62                    | 5.1 | 5.6 | 5.7 | 5.5  |
| GO-PR60                | 5.9 | 5.5 | 6.2 | 5.9  | PPG-PR 165                  | 5.6 | 5.1 | 5.6 | 5.5  |
| IS-PR 463              | 5.7 | 5.4 | 6.5 | 5.9  | ISG-31                      | 5.0 | 5.8 | 5.5 | 5.4  |
| APR 2036               | 5.8 | 5.7 | 6.0 | 5.8  | PPG-PR 142                  | 5.4 | 5.3 | 5.6 | 5.4  |
| SIDEWAYS (PSRX-S84)    | 6.0 | 5.4 | 6.1 | 5.8  | CS-20                       | 5.0 | 5.4 | 5.9 | 5.4  |
| APR 2445               | 5.1 | 5.9 | 6.3 | 5.8  | PPG-PR 164                  | 5.3 | 5.5 | 5.5 | 5.4  |
| BAR LP 10970           | 6.1 | 5.1 | 6.1 | 5.8  | HAVEN (APR 2038)            | 5.8 | 4.9 | 5.6 | 5.4  |
| PPG-PR 138             | 6.3 | 5.2 | 5.8 | 5.8  | SIENNA                      | 5.7 | 4.5 | 6.0 | 5.4  |
| PALMER V               | 6.0 | 5.3 | 6.1 | 5.8  | INSIGHT                     | 5.6 | 4.7 | 5.9 | 5.4  |
| IS-PR 492              | 5.5 | 5.4 | 6.3 | 5.8  | MANHATTAN 6 GLR (PST-2MAGS) | 5.2 | 5.2 | 5.8 | 5.4  |
| IS-PR 409              | 5.6 | 5.4 | 6.3 | 5.7  | PST-204D                    | 5.4 | 4.8 | 6.0 | 5.4  |
| RIO VISTA              | 6.0 | 5.1 | 6.0 | 5.7  | BAR LP 7608                 | 5.3 | 5.3 | 5.6 | 5.4  |
| UNO                    | 5.7 | 5.8 | 5.7 | 5.7  | GO-G37                      | 5.1 | 5.0 | 6.0 | 5.4  |
| OCTANE                 | 6.2 | 5.5 | 5.5 | 5.7  | RAD-PR55R                   | 5.5 | 5.1 | 5.4 | 5.4  |
| CL 11601               | 5.8 | 5.5 | 5.9 | 5.7  | LTP-RAE                     | 5.5 | 4.7 | 5.9 | 5.3  |
| EVOLUTION (S85)        | 5.5 | 5.2 | 6.3 | 5.7  | PST-2DR9                    | 5.3 | 4.8 | 6.0 | 5.3  |
| DLF LGD-3022           | 5.6 | 5.3 | 6.2 | 5.7  | PST-2K9                     | 5.0 | 5.3 | 5.7 | 5.3  |
| KARMA (PICK 10401)     | 5.8 | 5.1 | 6.1 | 5.7  | BAR LP 10969                | 5.2 | 5.1 | 5.7 | 5.3  |
| PSRX-4CAGL             | 6.1 | 5.3 | 5.6 | 5.7  | APR 2320                    | 5.2 | 4.8 | 6.0 | 5.3  |
| PST-2NKM               | 5.4 | 5.4 | 6.2 | 5.6  | MACH I                      | 5.5 | 4.8 | 5.7 | 5.3  |
| PPG-PR 143             | 5.9 | 5.3 | 5.8 | 5.6  | DLF LGD-3026                | 5.6 | 4.6 | 5.7 | 5.3  |
| SR 4650 (PSRX-3701)    | 5.7 | 5.1 | 6.1 | 5.6  | ISG-36                      | 4.9 | 5.3 | 5.8 | 5.3  |
| SOX FAN (GM3)          | 5.8 | 5.2 | 5.9 | 5.6  | PST-2TQL                    | 5.1 | 4.9 | 5.9 | 5.3  |
| IS-PR 479              | 5.4 | 5.3 | 6.2 | 5.6  | CS-PR66                     | 5.1 | 5.3 | 5.4 | 5.3  |
| A-35                   | 5.3 | 5.7 | 6.0 | 5.6  | PPG-PR 128                  | 5.1 | 5.1 | 5.6 | 5.3  |
| CST                    | 5.4 | 5.2 | 6.2 | 5.6  | PLAYOFF 2 (P02)             | 5.3 | 4.8 | 5.7 | 5.2  |
| JR-192                 | 5.5 | 5.2 | 6.2 | 5.6  | PICK 4DFHM                  | 5.3 | 4.9 | 5.5 | 5.2  |
| PPG-PR 137             | 6.0 | 4.9 | 6.0 | 5.6  | PST-2ACR                    | 5.6 | 4.9 | 5.1 | 5.2  |
| PPG-PR 133             | 5.6 | 5.1 | 6.0 | 5.6  | BRIGHTSTAR SLT              | 4.9 | 5.1 | 5.4 | 5.1  |
| ALLANTE                | 5.9 | 5.2 | 5.7 | 5.6  | DLF LGT 4182                | 4.3 | 5.4 | 5.6 | 5.1  |
| FIESTA 4               | 5.7 | 4.7 | 6.4 | 5.6  | GO-DHS                      | 5.0 | 4.8 | 4.8 | 4.9  |
| PRX-4GM1               | 5.8 | 5.5 | 5.4 | 5.6  | PINNACLE                    | 4.0 | 5.0 | 4.9 | 4.7  |
| CL 307                 | 6.0 | 5.2 | 5.5 | 5.6  | LINN                        | 2.4 | 3.0 | 4.2 | 3.2  |
| LTP-PR 135             | 5.4 | 5.2 | 6.0 | 5.6  |                             |     |     |     |      |
| SRX-4MSH               | 5.5 | 5.3 | 5.8 | 5.6  | LSD VALUE                   | 0.7 | 0.7 | 0.7 | 0.4  |
|                        |     |     |     |      | C.V. (%)                    | 7.6 | 7.9 | 7.5 | 7.7  |

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

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

TABLE 7. MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
GROWN AT FIVE LOCATIONS 1/  
IN THE NORTH CENTRAL REGION  
2011 DATA  
TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                   | IA1 | IL1 | MI1 | MN1 | NE1 | MEAN |
|------------------------|-----|-----|-----|-----|-----|------|
| EVOLUTION (S85)        | 6.3 | 5.5 | 5.9 | 6.1 | 6.7 | 6.1  |
| WICKED (SRX-4RHD)      | 5.7 | 6.1 | 6.3 | 6.0 | 6.3 | 6.1  |
| RIO VISTA              | 6.2 | 5.5 | 6.6 | 5.4 | 6.5 | 6.0  |
| IS-PR 487              | 6.2 | 5.9 | 5.9 | 5.4 | 6.6 | 6.0  |
| SR 4650 (PSRX-3701)    | 6.2 | 5.8 | 5.9 | 5.6 | 6.8 | 6.0  |
| CL 11601               | 6.1 | 6.2 | 5.8 | 5.4 | 6.5 | 6.0  |
| PPG-PR 138             | 5.4 | 5.7 | 5.9 | 6.2 | 6.6 | 6.0  |
| PANGEA GLR (CL 11701)  | 5.6 | 5.7 | 6.1 | 6.0 | 6.4 | 5.9  |
| SIENNA                 | 6.4 | 5.0 | 6.0 | 5.8 | 6.3 | 5.9  |
| DLF LGD-3022           | 6.6 | 5.6 | 6.1 | 5.4 | 6.0 | 5.9  |
| JR-178                 | 6.1 | 5.7 | 6.0 | 5.6 | 6.3 | 5.9  |
| PST-2ACR               | 6.0 | 5.6 | 5.9 | 5.6 | 6.5 | 5.9  |
| PIZZAZZ 2 GLR (PR 909) | 5.8 | 5.8 | 6.2 | 5.3 | 6.4 | 5.9  |
| PPG-PR 137             | 5.7 | 5.6 | 6.0 | 5.7 | 6.5 | 5.9  |
| KARMA (PICK 10401)     | 5.2 | 6.0 | 6.1 | 5.8 | 6.4 | 5.9  |
| PPG-PR 165             | 6.1 | 5.6 | 5.8 | 5.3 | 6.6 | 5.9  |
| APR 2320               | 6.6 | 5.8 | 5.3 | 5.6 | 6.1 | 5.9  |
| SIDEWAYS (PSRX-S84)    | 6.2 | 5.7 | 5.9 | 5.1 | 6.2 | 5.8  |
| PPG-PR 140             | 5.7 | 5.5 | 5.7 | 5.9 | 6.3 | 5.8  |
| IS-PR 463              | 6.1 | 5.0 | 5.4 | 5.7 | 6.8 | 5.8  |
| JR-192                 | 6.2 | 6.0 | 5.4 | 5.4 | 5.8 | 5.8  |
| PST-2BNS               | 5.2 | 5.2 | 6.0 | 6.1 | 6.3 | 5.8  |
| PPG-PR 164             | 5.6 | 5.7 | 6.5 | 4.4 | 6.6 | 5.8  |
| PST-2NKM               | 5.9 | 5.2 | 5.8 | 5.3 | 6.6 | 5.8  |
| PPG-PR 142             | 6.2 | 5.0 | 5.5 | 5.8 | 6.3 | 5.7  |
| LTP-PR 135             | 6.1 | 5.4 | 6.0 | 4.7 | 6.5 | 5.7  |
| IS-PR 491              | 5.8 | 5.0 | 5.9 | 5.5 | 6.5 | 5.7  |
| PALMER V               | 5.1 | 5.5 | 6.0 | 5.6 | 6.5 | 5.7  |
| PPG-PR 121             | 5.8 | 5.0 | 5.7 | 5.9 | 6.3 | 5.7  |
| UNO                    | 5.8 | 5.8 | 5.8 | 4.9 | 6.3 | 5.7  |
| OCTANE                 | 5.7 | 5.5 | 5.9 | 5.3 | 6.3 | 5.7  |
| ALLANTE                | 5.8 | 5.0 | 6.0 | 5.2 | 6.6 | 5.7  |
| IS-PR 488              | 5.9 | 5.4 | 6.2 | 4.8 | 6.3 | 5.7  |
| IS-PR 489              | 5.9 | 5.5 | 5.3 | 5.2 | 6.6 | 5.7  |
| CL 307                 | 6.2 | 5.4 | 5.5 | 5.1 | 6.3 | 5.7  |
| DOMINATOR (PST-2AG4)   | 5.9 | 5.3 | 6.0 | 4.9 | 6.2 | 5.7  |
| INSIGHT                | 5.7 | 5.1 | 6.0 | 5.4 | 6.2 | 5.7  |
| PPG-PR 136             | 5.6 | 5.1 | 6.1 | 5.3 | 6.3 | 5.7  |
| IS-PR 492              | 6.3 | 5.2 | 5.7 | 4.6 | 6.5 | 5.7  |
| IS-PR 409              | 5.4 | 5.6 | 5.6 | 5.6 | 6.1 | 5.7  |
| 2NJK                   | 6.3 | 5.2 | 5.4 | 5.0 | 6.4 | 5.7  |
| PPG-PR 143             | 5.7 | 5.2 | 5.8 | 5.3 | 6.3 | 5.7  |
| BAR LP 10970           | 5.6 | 5.8 | 5.5 | 5.3 | 6.0 | 5.6  |
| RAD-PR55R              | 5.9 | 5.0 | 5.9 | 4.9 | 6.5 | 5.6  |
| RINOVO                 | 5.7 | 5.4 | 5.5 | 5.1 | 6.4 | 5.6  |

TABLE 7. MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 (CONT'D)  
 GROWN AT FIVE LOCATIONS 1/  
 IN THE NORTH CENTRAL REGION  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

| NAME                        | IA1  | IL1  | MI1  | MN1  | NE1 | MEAN |
|-----------------------------|------|------|------|------|-----|------|
| APR 2036                    | 5.4  | 5.1  | 5.9  | 5.5  | 6.1 | 5.6  |
| BONNEVILLE                  | 5.9  | 5.3  | 5.9  | 4.4  | 6.4 | 5.6  |
| PPG-PR 133                  | 5.8  | 4.9  | 5.4  | 5.2  | 6.7 | 5.6  |
| LTP-RAE                     | 6.3  | 5.1  | 5.5  | 4.7  | 6.3 | 5.6  |
| FIESTA 4                    | 5.4  | 5.5  | 5.6  | 5.1  | 6.4 | 5.6  |
| PPG-PR 128                  | 5.3  | 5.7  | 5.5  | 5.3  | 6.2 | 5.6  |
| PPG-PR 134                  | 5.3  | 5.5  | 5.5  | 5.2  | 6.3 | 5.6  |
| GO-PR60                     | 5.3  | 5.0  | 5.5  | 5.4  | 6.6 | 5.6  |
| CS-PR66                     | 5.9  | 4.7  | 5.5  | 5.1  | 6.5 | 5.5  |
| IS-PR 469                   | 6.3  | 5.4  | 5.3  | 4.1  | 6.6 | 5.5  |
| BRIGHTSTAR SLT              | 6.1  | 5.3  | 5.6  | 4.4  | 6.2 | 5.5  |
| PST-2TQL                    | 6.0  | 4.9  | 5.9  | 4.5  | 6.2 | 5.5  |
| PST-204D                    | 5.6  | 5.4  | 5.3  | 4.9  | 6.2 | 5.5  |
| PRX-4GM1                    | 5.9  | 5.2  | 5.3  | 5.0  | 6.1 | 5.5  |
| SOX FAN (GM3)               | 5.3  | 5.4  | 5.4  | 4.9  | 6.4 | 5.5  |
| CST                         | 5.0  | 4.9  | 5.6  | 5.4  | 6.4 | 5.5  |
| PLAYOFF 2 (P02)             | 5.2  | 4.8  | 5.8  | 5.3  | 6.3 | 5.5  |
| IS-PR 479                   | 5.2  | 5.1  | 5.5  | 5.1  | 6.2 | 5.4  |
| BAR LP 10969                | 5.9  | 4.8  | 5.5  | 4.7  | 6.3 | 5.4  |
| PSRX-4CAGL                  | 5.6  | 5.0  | 5.3  | 4.8  | 6.6 | 5.4  |
| HAVEN (APR 2038)            | 6.0  | 4.7  | 5.7  | 4.3  | 6.4 | 5.4  |
| PST-2K9                     | 5.2  | 5.0  | 5.3  | 5.0  | 6.4 | 5.4  |
| PST-2DR9                    | 5.9  | 4.9  | 5.3  | 4.8  | 6.0 | 5.4  |
| SRX-4MSH                    | 5.7  | 4.9  | 5.7  | 4.5  | 5.9 | 5.3  |
| BAR LP 10972                | 4.9  | 5.0  | 5.3  | 5.2  | 6.1 | 5.3  |
| ISG-36                      | 5.8  | 5.1  | 5.1  | 4.8  | 5.8 | 5.3  |
| PST-2MG7                    | 5.8  | 5.3  | 5.2  | 4.1  | 6.1 | 5.3  |
| RAD-PR62                    | 4.8  | 5.1  | 5.3  | 4.8  | 6.3 | 5.3  |
| A-35                        | 5.3  | 5.3  | 5.1  | 4.5  | 6.0 | 5.2  |
| APR 2445                    | 5.3  | 5.0  | 5.1  | 4.4  | 6.4 | 5.2  |
| CS-20                       | 6.3  | 5.2  | 5.1  | 3.7  | 5.9 | 5.2  |
| DLF LGD-3026                | 6.0  | 5.2  | 4.9  | 4.1  | 6.0 | 5.2  |
| ISG-30                      | 5.2  | 5.0  | 5.7  | 4.5  | 5.6 | 5.2  |
| MACH I                      | 5.3  | 4.5  | 5.1  | 4.4  | 6.6 | 5.2  |
| MANHATTAN 6 GLR (PST-2MAGS) | 5.8  | 5.1  | 5.3  | 3.7  | 6.1 | 5.2  |
| GO-G37                      | 4.9  | 4.9  | 4.9  | 4.8  | 6.0 | 5.1  |
| DLF LGT 4182                | 5.2  | 4.8  | 4.9  | 4.3  | 6.0 | 5.1  |
| BAR LP 7608                 | 5.7  | 4.5  | 5.1  | 3.8  | 6.2 | 5.1  |
| ISG-31                      | 5.4  | 4.7  | 4.7  | 4.4  | 6.1 | 5.1  |
| PINNACLE                    | 5.6  | 4.5  | 5.3  | 2.8  | 5.8 | 4.8  |
| PICK 4DFHM                  | 4.9  | 4.6  | 4.9  | 3.6  | 5.9 | 4.8  |
| GO-DHS                      | 5.2  | 4.5  | 4.7  | 3.2  | 5.9 | 4.7  |
| LINN                        | 3.7  | 3.0  | 4.1  | 1.2  | 4.3 | 3.3  |
| LSD VALUE                   | 1.3  | 1.0  | 1.1  | 1.1  | 0.6 | 0.5  |
| C.V. (%)                    | 14.2 | 11.9 | 12.6 | 13.5 | 5.5 | 11.7 |

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

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

TABLE 8.

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH  
MONTH GROWN AT RIVERSIDE, CA (IN THE SOUTHWEST REGION) 1/  
2011 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 |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| ISG-36                      | 8.0 | 6.7 | 8.0 | 8.0 | 8.0 | 7.7 | 6.7 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.8  |
| CS-20                       | 7.7 | 7.0 | 7.3 | 8.0 | 8.0 | 6.7 | 6.3 | 7.7 | 8.0 | 7.3 | 8.0 | 8.0 | 7.5  |
| ISG-30                      | 7.7 | 7.3 | 8.0 | 8.0 | 7.7 | 6.3 | 6.3 | 7.7 | 8.0 | 7.3 | 8.0 | 7.7 | 7.5  |
| ISG-31                      | 7.3 | 6.3 | 8.0 | 8.0 | 8.0 | 6.0 | 6.3 | 7.3 | 8.0 | 7.7 | 8.0 | 7.7 | 7.4  |
| GO-G37                      | 7.3 | 7.0 | 7.3 | 8.0 | 7.7 | 6.3 | 6.3 | 7.7 | 8.0 | 7.0 | 8.0 | 7.7 | 7.4  |
| CS-PR66                     | 7.0 | 6.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.7 | 7.7 | 7.7 | 6.7 | 7.3 | 7.3 | 7.2  |
| EVOLUTION (S85)             | 7.0 | 6.7 | 7.0 | 7.0 | 7.3 | 7.7 | 6.3 | 7.3 | 7.0 | 7.3 | 7.3 | 7.3 | 7.1  |
| DOMINATOR (PST-2AG4)        | 7.7 | 8.0 | 7.0 | 7.0 | 7.0 | 7.3 | 6.3 | 7.3 | 7.0 | 6.7 | 7.0 | 7.0 | 7.1  |
| PPG-PR 140                  | 7.0 | 7.7 | 7.3 | 7.0 | 7.0 | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.1  |
| GO-PR60                     | 7.3 | 6.7 | 6.7 | 7.3 | 7.3 | 6.3 | 6.7 | 7.0 | 7.7 | 7.3 | 7.0 | 7.0 | 7.0  |
| IS-PR 463                   | 7.7 | 7.0 | 6.3 | 7.3 | 7.0 | 7.0 | 6.7 | 7.0 | 7.0 | 7.3 | 7.0 | 7.0 | 7.0  |
| APR 2445                    | 7.3 | 6.7 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.3 | 7.0 | 7.0 | 7.3 | 7.0 | 7.0  |
| DLF LGD-3026                | 7.7 | 7.0 | 7.0 | 7.3 | 8.0 | 6.7 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0  |
| IS-PR 491                   | 7.7 | 7.0 | 6.7 | 7.0 | 7.0 | 7.3 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0  |
| PANGEA GLR (CL 11701)       | 7.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.3 | 7.0  |
| KARMA (PICK 10401)          | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.3 | 7.0 | 7.0  |
| PPG-PR 138                  | 7.3 | 7.3 | 7.3 | 7.0 | 7.0 | 6.7 | 6.0 | 7.0 | 7.0 | 7.0 | 7.3 | 7.0 | 7.0  |
| A-35                        | 7.0 | 5.3 | 6.3 | 8.0 | 8.0 | 6.0 | 6.3 | 8.0 | 8.0 | 6.3 | 7.0 | 7.3 | 7.0  |
| JR-178                      | 7.3 | 6.7 | 6.7 | 7.0 | 7.0 | 6.7 | 7.0 | 7.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0  |
| PST-2MG7                    | 7.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0  |
| PPG-PR 121                  | 7.3 | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0  |
| PPG-PR 164                  | 7.7 | 6.7 | 6.7 | 7.0 | 7.0 | 6.7 | 6.3 | 6.7 | 7.0 | 7.3 | 7.3 | 7.0 | 6.9  |
| PST-2K9                     | 7.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.9  |
| SOX FAN (GM3)               | 7.7 | 7.0 | 7.3 | 7.0 | 7.0 | 6.3 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.7 | 6.9  |
| PPG-PR 136                  | 7.7 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.3 | 7.0 | 7.0 | 6.9  |
| SR 4650 (PSRX-3701)         | 7.0 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 6.3 | 7.0 | 7.0 | 7.3 | 7.0 | 7.0 | 6.9  |
| PST-2BNS                    | 7.3 | 6.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.9  |
| CST                         | 7.0 | 6.3 | 6.7 | 7.0 | 7.0 | 7.3 | 6.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.9  |
| IS-PR 492                   | 7.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.3 | 6.3 | 7.0 | 7.0 | 6.7 | 6.7 | 6.9  |
| JR-192                      | 7.3 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.7 | 6.0 | 6.9  |
| PPG-PR 134                  | 7.0 | 6.3 | 6.3 | 7.0 | 7.0 | 7.3 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.9  |
| GO-DHS                      | 7.0 | 6.3 | 7.3 | 8.0 | 8.0 | 5.0 | 6.0 | 6.7 | 8.0 | 6.7 | 6.7 | 6.3 | 6.8  |
| LTP-PR 135                  | 7.3 | 6.7 | 6.7 | 6.7 | 7.0 | 7.0 | 6.3 | 6.7 | 7.0 | 7.0 | 6.7 | 7.0 | 6.8  |
| PPG-PR 133                  | 7.0 | 6.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.3 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.8  |
| PPG-PR 137                  | 7.3 | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.0 | 6.3 | 6.7 | 7.0 | 7.0 | 7.0 | 6.8  |
| MANHATTAN 6 GLR (PST-2MAGS) | 7.3 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 6.8  |
| PLAYOFF 2 (P02)             | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 6.3 | 7.0 | 7.0 | 6.7 | 6.7 | 6.7 | 6.8  |
| PPG-PR 142                  | 6.7 | 6.3 | 6.3 | 7.0 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.3 | 6.8  |
| PRX-4GM1                    | 7.3 | 6.3 | 7.0 | 7.0 | 7.0 | 6.0 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.8  |
| IS-PR 479                   | 6.3 | 4.7 | 6.3 | 7.7 | 7.7 | 6.3 | 6.3 | 7.0 | 7.7 | 7.7 | 7.0 | 6.7 | 6.8  |
| BAR LP 10970                | 7.0 | 6.3 | 7.0 | 6.7 | 7.0 | 6.3 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 6.3 | 6.8  |
| CL 11601                    | 7.0 | 6.7 | 6.7 | 6.7 | 7.0 | 6.7 | 6.3 | 6.3 | 7.0 | 7.0 | 7.0 | 6.7 | 6.8  |
| INSIGHT                     | 7.0 | 6.3 | 6.3 | 7.0 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 6.8  |
| LTP-RAE                     | 6.3 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.8  |
| PALMER V                    | 8.0 | 7.3 | 7.0 | 7.0 | 7.0 | 5.7 | 5.0 | 6.3 | 7.0 | 6.7 | 7.0 | 7.0 | 6.8  |
| RINOVO                      | 6.3 | 6.3 | 6.3 | 7.0 | 6.7 | 6.7 | 6.3 | 7.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.8  |

TABLE 8 TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 (CONT'D) MONTH GROWN AT RIVERSIDE, CA (IN THE SOUTHWEST REGION) 1/  
 2011 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 |
| PPG-PR 128                                             | 6.7  | 6.3  | 6.7  | 7.0 | 6.7 | 7.0 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7  |
| PST-204D                                               | 7.0  | 6.7  | 6.3  | 7.0 | 7.0 | 6.7 | 6.7 | 6.7 | 7.0 | 6.3 | 6.7 | 6.7 | 6.7  |
| SRX-4MSH                                               | 6.7  | 5.7  | 6.7  | 7.0 | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7  |
| IS-PR 487                                              | 6.7  | 5.7  | 6.0  | 7.0 | 7.0 | 7.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7  |
| BAR LP 10969                                           | 7.0  | 6.0  | 6.7  | 7.0 | 7.0 | 6.0 | 6.7 | 7.0 | 7.0 | 6.7 | 7.0 | 6.0 | 6.7  |
| CL 307                                                 | 6.3  | 6.7  | 6.0  | 7.0 | 6.7 | 6.7 | 5.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.3 | 6.7  |
| FIESTA 4                                               | 6.0  | 5.3  | 5.7  | 7.0 | 7.3 | 6.3 | 6.0 | 7.0 | 7.3 | 7.3 | 7.7 | 7.0 | 6.7  |
| PPG-PR 143                                             | 6.0  | 6.0  | 5.7  | 7.0 | 7.0 | 7.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7  |
| RAD-PR55R                                              | 6.0  | 5.0  | 5.3  | 7.7 | 6.3 | 6.7 | 6.3 | 7.3 | 8.0 | 7.0 | 7.3 | 7.0 | 6.7  |
| PST-2DR9                                               | 7.0  | 6.7  | 6.7  | 7.0 | 7.0 | 6.7 | 6.0 | 6.3 | 7.0 | 6.7 | 6.3 | 6.3 | 6.6  |
| DLF LGD-3022                                           | 6.3  | 6.0  | 6.0  | 7.0 | 7.0 | 6.7 | 6.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.6  |
| SIDEWAYS (PSRX-S84)                                    | 6.3  | 6.0  | 6.0  | 7.0 | 7.0 | 7.0 | 6.0 | 6.3 | 7.0 | 6.7 | 7.0 | 7.0 | 6.6  |
| IS-PR 488                                              | 7.0  | 6.0  | 6.0  | 6.7 | 7.0 | 7.0 | 6.0 | 6.3 | 6.7 | 7.0 | 7.0 | 6.7 | 6.6  |
| ALLANTE                                                | 6.3  | 6.3  | 6.0  | 7.0 | 7.0 | 7.0 | 5.7 | 6.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.6  |
| PST-2ACR                                               | 7.0  | 6.0  | 6.3  | 6.7 | 7.0 | 6.0 | 5.7 | 6.7 | 6.7 | 7.0 | 7.0 | 6.7 | 6.6  |
| 2NJK                                                   | 7.0  | 6.0  | 6.3  | 7.0 | 7.0 | 7.0 | 6.3 | 6.7 | 7.0 | 6.3 | 6.0 | 5.7 | 6.5  |
| WICKED (SRX-4RHD)                                      | 5.7  | 5.3  | 6.0  | 7.0 | 6.7 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 6.7 | 6.5  |
| APR 2320                                               | 6.7  | 6.0  | 5.7  | 7.0 | 7.0 | 7.0 | 6.0 | 6.0 | 7.0 | 6.7 | 6.7 | 6.3 | 6.5  |
| PSRX-4CAGL                                             | 6.3  | 5.3  | 5.7  | 7.7 | 7.0 | 5.7 | 5.7 | 6.3 | 7.3 | 7.0 | 7.0 | 7.0 | 6.5  |
| RIO VISTA                                              | 5.7  | 5.7  | 5.0  | 7.0 | 6.7 | 7.0 | 6.3 | 7.0 | 7.0 | 6.7 | 7.0 | 7.0 | 6.5  |
| PST-2TQL                                               | 5.7  | 6.0  | 5.3  | 6.7 | 7.0 | 6.7 | 6.3 | 6.7 | 7.0 | 7.0 | 6.7 | 6.7 | 6.5  |
| APR 2036                                               | 5.3  | 4.7  | 6.0  | 7.0 | 6.7 | 6.7 | 6.0 | 7.0 | 7.3 | 7.0 | 7.0 | 6.7 | 6.4  |
| MACH I                                                 | 5.3  | 5.0  | 5.3  | 7.7 | 7.3 | 5.7 | 5.7 | 6.7 | 7.7 | 7.0 | 7.0 | 7.0 | 6.4  |
| SIENNA                                                 | 5.7  | 5.3  | 5.3  | 7.0 | 6.7 | 7.0 | 5.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.4  |
| BRIGHTSTAR SLT                                         | 7.0  | 6.3  | 6.3  | 6.0 | 6.3 | 6.0 | 6.3 | 7.3 | 6.7 | 6.0 | 6.7 | 6.0 | 6.4  |
| HAVEN (APR 2038)                                       | 6.3  | 6.0  | 6.7  | 6.7 | 7.0 | 6.7 | 5.7 | 6.0 | 7.0 | 6.0 | 7.0 | 6.0 | 6.4  |
| BAR LP 10972                                           | 6.0  | 5.7  | 5.7  | 7.0 | 7.0 | 6.3 | 6.3 | 6.7 | 7.0 | 6.3 | 6.7 | 6.0 | 6.4  |
| PST-2NKM                                               | 6.0  | 5.3  | 6.3  | 6.7 | 6.7 | 6.3 | 6.3 | 7.0 | 6.7 | 6.3 | 6.7 | 6.3 | 6.4  |
| BONNEVILLE                                             | 5.7  | 5.0  | 5.0  | 7.0 | 6.7 | 6.7 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.4  |
| IS-PR 409                                              | 5.3  | 5.0  | 5.7  | 7.0 | 6.3 | 6.3 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.4  |
| PIZZAZZ 2 GLR (PR 909)                                 | 5.3  | 5.0  | 5.0  | 7.0 | 6.0 | 6.7 | 6.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.3  |
| IS-PR 489                                              | 5.3  | 5.0  | 5.7  | 7.0 | 7.0 | 6.3 | 5.7 | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.3  |
| UNO                                                    | 5.7  | 4.7  | 5.0  | 6.7 | 6.3 | 6.3 | 6.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.7 | 6.3  |
| DLF LGT 4182                                           | 6.0  | 5.0  | 5.7  | 8.0 | 7.0 | 5.7 | 5.3 | 6.7 | 7.0 | 6.0 | 6.0 | 6.3 | 6.2  |
| IS-PR 469                                              | 4.0  | 3.7  | 4.7  | 7.3 | 6.0 | 6.7 | 6.3 | 7.0 | 7.3 | 7.0 | 7.3 | 7.3 | 6.2  |
| OCTANE                                                 | 4.7  | 4.7  | 5.0  | 7.0 | 6.7 | 6.7 | 6.0 | 6.3 | 7.0 | 6.7 | 7.0 | 7.0 | 6.2  |
| RAD-PR62                                               | 5.0  | 5.0  | 5.0  | 6.7 | 7.0 | 6.0 | 6.0 | 7.0 | 7.0 | 6.7 | 6.7 | 6.7 | 6.2  |
| BAR LP 7608                                            | 6.0  | 6.3  | 6.3  | 6.7 | 6.0 | 6.0 | 6.0 | 6.3 | 6.7 | 6.3 | 5.7 | 6.0 | 6.2  |
| PPG-PR 165                                             | 5.3  | 4.0  | 4.3  | 7.0 | 6.0 | 7.0 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.2  |
| PICK 4DFHM                                             | 4.3  | 4.0  | 5.0  | 7.0 | 7.0 | 6.0 | 5.7 | 6.3 | 7.0 | 6.3 | 7.0 | 7.0 | 6.1  |
| PINNACLE                                               | 4.7  | 4.3  | 4.3  | 6.0 | 6.0 | 5.7 | 5.7 | 5.7 | 6.0 | 6.0 | 6.3 | 5.7 | 5.5  |
| LINN                                                   | 6.0  | 5.0  | 5.0  | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.3 | 5.0 | 5.1  |
| LSD VALUE                                              | 2.4  | 2.3  | 2.0  | 0.4 | 0.7 | 0.8 | 0.8 | 0.8 | 0.4 | 0.6 | 0.6 | 0.7 | 0.6  |
| C.V. (%)                                               | 22.3 | 23.3 | 19.8 | 3.9 | 6.6 | 7.8 | 8.1 | 7.1 | 3.4 | 5.0 | 5.3 | 6.2 | 5.8  |

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

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

TABLE 9.

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH  
MONTH GROWN AT CORVALLIS, OR (PACIFIC REGION) 1/  
2011 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 |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| RINOVO                 | 6.3 | 6.7 | 7.0 | 7.0 | 7.7 | 6.7 | 7.3 | 7.3 | 6.7 | 6.0 | 6.0 | 6.3 | 6.8  |
| IS-PR 491              | 6.0 | 6.7 | 7.0 | 6.3 | 7.3 | 7.0 | 7.7 | 7.0 | 6.3 | 6.3 | 6.0 | 6.7 | 6.7  |
| IS-PR 469              | 6.0 | 6.7 | 7.0 | 7.0 | 7.7 | 6.7 | 7.0 | 6.7 | 6.0 | 6.3 | 6.0 | 6.3 | 6.6  |
| PPG-PR 121             | 6.0 | 6.3 | 6.7 | 6.3 | 7.3 | 7.0 | 7.3 | 6.7 | 6.0 | 6.7 | 6.3 | 6.3 | 6.6  |
| WICKED (SRX-4RHD)      | 6.3 | 6.3 | 7.0 | 7.0 | 7.0 | 7.3 | 7.3 | 6.7 | 6.0 | 6.0 | 6.0 | 6.0 | 6.6  |
| PPG-PR 128             | 6.3 | 6.3 | 6.7 | 6.0 | 7.0 | 6.7 | 7.7 | 7.0 | 6.3 | 6.3 | 6.0 | 6.0 | 6.5  |
| IS-PR 479              | 6.0 | 6.3 | 6.7 | 7.0 | 7.3 | 7.0 | 7.0 | 7.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.5  |
| PSRX-4CAGL             | 6.3 | 6.3 | 7.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 6.0 | 6.0 | 6.0 | 6.3 | 6.5  |
| PST-2BNS               | 6.0 | 6.0 | 6.7 | 6.3 | 7.0 | 7.3 | 7.7 | 6.7 | 6.0 | 6.3 | 6.0 | 6.3 | 6.5  |
| SIENNA                 | 6.0 | 6.0 | 6.7 | 7.0 | 7.3 | 7.0 | 7.3 | 6.7 | 6.0 | 6.3 | 5.7 | 6.3 | 6.5  |
| SOX FAN (GM3)          | 6.0 | 6.3 | 7.0 | 6.3 | 7.0 | 6.7 | 7.0 | 6.7 | 6.3 | 6.7 | 6.0 | 6.3 | 6.5  |
| CS-20                  | 6.3 | 6.3 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 5.7 | 6.0 | 6.0 | 6.0 | 6.5  |
| IS-PR 409              | 6.0 | 6.3 | 6.7 | 6.3 | 7.3 | 7.0 | 7.7 | 6.7 | 6.0 | 6.0 | 6.0 | 6.0 | 6.5  |
| FIESTA 4               | 6.0 | 6.3 | 7.0 | 6.3 | 7.0 | 6.7 | 6.7 | 6.7 | 6.3 | 6.3 | 6.0 | 6.3 | 6.5  |
| APR 2036               | 6.0 | 6.3 | 7.0 | 6.7 | 7.7 | 7.0 | 7.3 | 6.7 | 6.0 | 5.7 | 5.7 | 5.7 | 6.5  |
| IS-PR 487              | 6.0 | 6.3 | 7.0 | 7.0 | 6.7 | 7.0 | 7.3 | 6.0 | 6.3 | 6.7 | 5.7 | 5.7 | 6.5  |
| PPG-PR 164             | 6.7 | 6.7 | 6.7 | 6.0 | 7.0 | 6.7 | 7.0 | 6.7 | 6.0 | 6.0 | 6.0 | 6.0 | 6.4  |
| IS-PR 463              | 6.0 | 6.3 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 6.0 | 5.7 | 6.0 | 6.0 | 6.4  |
| RIO VISTA              | 6.0 | 6.3 | 6.3 | 6.3 | 7.3 | 6.7 | 7.0 | 6.7 | 6.0 | 6.3 | 6.0 | 6.0 | 6.4  |
| PIZZAZZ 2 GLR (PR 909) | 5.7 | 6.0 | 6.3 | 6.0 | 7.0 | 6.7 | 7.0 | 6.7 | 6.7 | 6.3 | 6.0 | 6.3 | 6.4  |
| PPG-PR 134             | 6.0 | 6.0 | 7.0 | 6.3 | 7.0 | 6.7 | 7.3 | 6.3 | 6.0 | 6.0 | 6.0 | 6.0 | 6.4  |
| PANGEA GLR (CL 11701)  | 6.0 | 6.7 | 7.0 | 7.0 | 7.0 | 6.7 | 7.0 | 6.3 | 6.0 | 6.3 | 5.3 | 5.3 | 6.4  |
| PPG-PR 133             | 6.0 | 6.0 | 6.3 | 6.0 | 6.7 | 6.7 | 7.0 | 6.7 | 6.3 | 6.7 | 6.0 | 6.3 | 6.4  |
| IS-PR 489              | 6.0 | 6.0 | 6.3 | 6.3 | 7.0 | 7.0 | 7.0 | 6.0 | 6.0 | 6.3 | 6.0 | 6.3 | 6.4  |
| IS-PR 492              | 6.0 | 6.0 | 6.7 | 6.3 | 7.0 | 7.0 | 7.3 | 6.0 | 6.0 | 6.3 | 5.7 | 6.0 | 6.4  |
| ISG-30                 | 5.7 | 6.0 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 6.3 | 5.7 | 5.7 | 6.0 | 6.7 | 6.4  |
| PALMER V               | 6.3 | 6.0 | 6.3 | 6.3 | 7.0 | 6.7 | 6.7 | 6.7 | 6.0 | 6.0 | 6.0 | 6.3 | 6.4  |
| PPG-PR 137             | 6.0 | 6.0 | 7.0 | 6.7 | 7.0 | 6.7 | 7.0 | 6.7 | 5.7 | 6.0 | 5.7 | 6.0 | 6.4  |
| IS-PR 488              | 6.0 | 6.3 | 7.0 | 6.0 | 6.7 | 6.7 | 7.0 | 6.3 | 6.0 | 6.0 | 6.0 | 6.0 | 6.3  |
| OCTANE                 | 6.0 | 6.0 | 6.7 | 7.0 | 6.7 | 6.7 | 6.7 | 6.0 | 6.0 | 6.0 | 6.0 | 6.3 | 6.3  |
| PPG-PR 136             | 6.0 | 6.7 | 6.7 | 6.3 | 7.0 | 6.3 | 7.0 | 6.3 | 5.7 | 6.0 | 6.0 | 6.0 | 6.3  |
| PPG-PR 143             | 6.0 | 6.0 | 6.7 | 6.3 | 7.3 | 6.3 | 6.3 | 6.3 | 6.0 | 6.3 | 6.0 | 6.3 | 6.3  |
| A-35                   | 6.0 | 6.7 | 7.0 | 6.7 | 7.7 | 7.0 | 7.0 | 6.0 | 5.0 | 5.7 | 5.3 | 5.7 | 6.3  |
| BONNEVILLE             | 6.0 | 6.0 | 6.3 | 6.0 | 6.7 | 6.7 | 7.0 | 6.3 | 6.0 | 6.3 | 6.0 | 6.3 | 6.3  |
| DLF LGD-3026           | 6.0 | 6.3 | 7.0 | 6.7 | 7.0 | 6.7 | 6.7 | 5.7 | 5.3 | 6.0 | 6.0 | 6.3 | 6.3  |
| INSIGHT                | 6.0 | 6.3 | 6.7 | 6.7 | 7.7 | 6.7 | 6.7 | 6.0 | 6.0 | 5.7 | 5.3 | 6.0 | 6.3  |
| PST-2DR9               | 6.0 | 6.0 | 6.3 | 6.0 | 7.0 | 7.0 | 7.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.3 | 6.3  |
| RAD-PR55R              | 6.0 | 6.0 | 7.0 | 7.0 | 7.3 | 7.0 | 6.3 | 6.0 | 6.0 | 5.7 | 5.7 | 5.7 | 6.3  |
| EVOLUTION (S85)        | 6.0 | 6.7 | 6.7 | 6.7 | 7.0 | 7.0 | 6.7 | 6.0 | 6.0 | 5.7 | 5.7 | 5.7 | 6.3  |
| MACH I                 | 5.3 | 6.3 | 6.3 | 6.7 | 7.0 | 7.0 | 7.0 | 6.3 | 6.0 | 6.0 | 6.0 | 5.7 | 6.3  |
| PPG-PR 142             | 6.0 | 6.3 | 6.7 | 7.0 | 7.0 | 6.3 | 6.7 | 6.7 | 6.0 | 5.7 | 5.7 | 5.7 | 6.3  |
| JR-178                 | 6.0 | 6.0 | 7.0 | 6.3 | 6.7 | 6.7 | 7.0 | 6.7 | 6.0 | 5.7 | 5.7 | 5.7 | 6.3  |
| LTP-PR 135             | 6.0 | 6.0 | 6.3 | 6.3 | 7.0 | 7.0 | 7.0 | 6.3 | 6.0 | 6.0 | 5.7 | 5.7 | 6.3  |
| LTP-RAE                | 6.0 | 6.7 | 6.3 | 6.3 | 6.7 | 6.7 | 6.7 | 6.3 | 6.0 | 6.0 | 5.7 | 6.0 | 6.3  |
| SR 4650 (PSRX-3701)    | 6.0 | 6.0 | 7.0 | 6.7 | 6.7 | 6.3 | 7.0 | 6.3 | 5.3 | 6.0 | 5.7 | 6.3 | 6.3  |
| CL 307                 | 5.7 | 6.0 | 6.0 | 6.3 | 6.7 | 6.7 | 7.0 | 6.3 | 6.0 | 6.3 | 6.0 | 6.0 | 6.3  |

TABLE 9  
Taken from the 2010 Perennial Ryegrass test-11 data report, with permission from NTEP  
(CONT'D)

TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH  
MONTH GROWN AT CORVALLIS, OR (PACIFIC REGION) 1/  
2011 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 |
| DLF LGD-3022                                           | 6.0 | 6.0 | 6.0 | 6.0 | 7.0 | 6.3 | 6.7 | 6.7 | 6.0 | 6.0 | 6.0 | 6.3 | 6.3  |
| PPG-PR 140                                             | 5.7 | 6.0 | 6.3 | 6.3 | 7.0 | 6.7 | 6.7 | 6.0 | 6.0 | 6.0 | 6.0 | 6.3 | 6.3  |
| CS-PR66                                                | 5.7 | 6.0 | 7.0 | 6.3 | 7.0 | 7.0 | 7.0 | 6.0 | 5.7 | 5.7 | 5.7 | 5.7 | 6.2  |
| GO-PR60                                                | 6.0 | 6.0 | 6.0 | 6.0 | 7.3 | 6.7 | 7.0 | 6.0 | 6.0 | 6.0 | 6.0 | 5.7 | 6.2  |
| ISG-31                                                 | 5.7 | 6.0 | 6.3 | 6.0 | 7.0 | 7.0 | 7.0 | 6.3 | 6.0 | 5.7 | 5.7 | 6.0 | 6.2  |
| PRX-4GM1                                               | 6.0 | 6.0 | 6.3 | 6.0 | 7.0 | 6.7 | 7.0 | 6.7 | 5.7 | 5.7 | 5.7 | 6.0 | 6.2  |
| KARMA (PICK 10401)                                     | 6.0 | 6.0 | 7.0 | 6.3 | 7.3 | 6.7 | 6.7 | 6.0 | 5.7 | 5.7 | 5.3 | 5.7 | 6.2  |
| PPG-PR 165                                             | 6.0 | 6.0 | 6.7 | 6.3 | 7.0 | 7.0 | 6.7 | 6.0 | 5.7 | 5.7 | 5.3 | 6.0 | 6.2  |
| HAVEN (APR 2038)                                       | 6.0 | 6.0 | 6.3 | 6.0 | 6.3 | 6.7 | 7.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.2  |
| SIDEWAYS (PSRX-S84)                                    | 6.0 | 6.3 | 6.3 | 6.0 | 7.0 | 6.7 | 7.0 | 5.7 | 5.7 | 5.7 | 6.0 | 6.0 | 6.2  |
| UNO                                                    | 6.0 | 6.3 | 6.7 | 6.0 | 7.0 | 6.3 | 7.0 | 6.3 | 6.0 | 5.7 | 5.7 | 5.3 | 6.2  |
| CL 11601                                               | 6.0 | 6.0 | 7.0 | 6.0 | 6.3 | 6.3 | 7.0 | 6.0 | 6.0 | 6.0 | 5.7 | 5.7 | 6.2  |
| CST                                                    | 6.0 | 6.3 | 7.0 | 6.3 | 6.7 | 6.0 | 7.0 | 6.3 | 5.7 | 5.7 | 5.7 | 5.3 | 6.2  |
| PPG-PR 138                                             | 6.0 | 6.0 | 6.3 | 6.0 | 7.0 | 6.7 | 6.7 | 6.3 | 5.7 | 5.7 | 5.7 | 6.0 | 6.2  |
| 2NJK                                                   | 6.0 | 6.0 | 6.3 | 6.0 | 7.0 | 6.7 | 7.0 | 6.3 | 5.7 | 5.7 | 5.3 | 5.7 | 6.1  |
| MANHATTAN 6 GLR (PST-2MAGS)                            | 5.7 | 6.0 | 6.3 | 6.3 | 6.7 | 6.7 | 7.0 | 6.3 | 5.7 | 5.7 | 5.7 | 5.7 | 6.1  |
| PLAYOFF 2 (P02)                                        | 5.7 | 6.3 | 6.0 | 6.0 | 7.0 | 7.0 | 6.7 | 5.7 | 5.7 | 6.0 | 5.7 | 6.0 | 6.1  |
| APR 2445                                               | 6.3 | 6.0 | 6.7 | 6.0 | 6.7 | 6.7 | 7.0 | 6.3 | 5.7 | 5.3 | 5.3 | 5.3 | 6.1  |
| SRX-4MSH                                               | 5.7 | 6.0 | 6.3 | 6.0 | 7.0 | 6.7 | 7.3 | 6.0 | 5.7 | 5.7 | 5.3 | 5.7 | 6.1  |
| GO-G37                                                 | 5.7 | 6.0 | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 6.0 | 5.3 | 5.3 | 5.3 | 5.3 | 6.1  |
| BAR LP 10970                                           | 5.7 | 6.0 | 6.0 | 6.3 | 7.0 | 6.7 | 7.3 | 6.0 | 5.3 | 6.0 | 5.3 | 5.3 | 6.1  |
| PST-2MG7                                               | 5.7 | 6.0 | 6.3 | 6.3 | 6.7 | 6.7 | 7.0 | 6.0 | 5.3 | 5.7 | 5.7 | 5.7 | 6.1  |
| PICK 4DFHM                                             | 5.7 | 6.0 | 6.0 | 6.0 | 6.7 | 6.3 | 6.7 | 6.0 | 5.7 | 5.7 | 6.0 | 6.0 | 6.1  |
| ISG-36                                                 | 5.3 | 6.0 | 6.7 | 6.7 | 7.3 | 7.0 | 6.3 | 6.0 | 5.3 | 5.7 | 5.3 | 5.0 | 6.1  |
| PST-2NKM                                               | 5.7 | 5.7 | 6.3 | 6.0 | 6.7 | 6.7 | 7.0 | 6.0 | 5.3 | 6.0 | 5.7 | 5.7 | 6.1  |
| DOMINATOR (PST-2AG4)                                   | 6.0 | 6.3 | 6.3 | 6.3 | 6.3 | 6.7 | 7.0 | 6.0 | 5.3 | 5.3 | 5.3 | 5.3 | 6.0  |
| ALLANTE                                                | 5.7 | 6.0 | 6.3 | 6.3 | 7.0 | 6.3 | 6.7 | 6.0 | 5.3 | 6.0 | 5.0 | 5.3 | 6.0  |
| BAR LP 10969                                           | 5.3 | 6.0 | 7.0 | 6.3 | 6.7 | 6.3 | 7.0 | 5.7 | 5.3 | 5.7 | 5.0 | 5.7 | 6.0  |
| PST-204D                                               | 5.7 | 5.7 | 6.0 | 6.0 | 7.0 | 7.0 | 6.7 | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | 6.0  |
| PST-2TQL                                               | 5.7 | 6.0 | 6.7 | 6.0 | 6.7 | 6.3 | 6.7 | 6.0 | 5.3 | 5.7 | 5.0 | 5.7 | 6.0  |
| DLF LGT 4182                                           | 5.7 | 6.0 | 6.0 | 6.0 | 6.7 | 7.0 | 6.7 | 5.0 | 5.3 | 6.0 | 5.3 | 6.0 | 6.0  |
| APR 2320                                               | 6.0 | 6.0 | 6.0 | 6.0 | 6.7 | 6.7 | 7.0 | 6.0 | 5.3 | 5.0 | 5.0 | 5.0 | 5.9  |
| PST-2K9                                                | 5.0 | 6.0 | 6.3 | 6.3 | 6.3 | 6.3 | 6.7 | 5.3 | 5.0 | 5.7 | 5.7 | 6.0 | 5.9  |
| BRIGHTSTAR SLT                                         | 5.3 | 6.0 | 6.0 | 6.0 | 6.3 | 6.3 | 7.0 | 5.7 | 5.3 | 5.7 | 5.0 | 5.7 | 5.9  |
| PST-2ACR                                               | 5.7 | 5.7 | 6.0 | 6.0 | 6.3 | 6.3 | 7.0 | 6.0 | 5.3 | 5.3 | 5.3 | 5.3 | 5.9  |
| RAD-PR62                                               | 6.0 | 6.0 | 6.0 | 5.7 | 6.7 | 6.7 | 6.7 | 6.0 | 5.0 | 5.0 | 5.0 | 5.3 | 5.8  |
| GO-DHS                                                 | 5.3 | 6.0 | 6.0 | 6.0 | 6.7 | 6.7 | 6.3 | 5.7 | 5.0 | 5.3 | 5.3 | 5.3 | 5.8  |
| BAR LP 7608                                            | 5.3 | 6.0 | 6.0 | 6.0 | 6.7 | 6.7 | 6.7 | 5.3 | 5.3 | 5.3 | 4.7 | 5.3 | 5.8  |
| BAR LP 10972                                           | 6.0 | 6.0 | 6.0 | 6.0 | 7.0 | 6.7 | 7.0 | 5.7 | 5.0 | 4.7 | 4.3 | 4.3 | 5.7  |
| JR-192                                                 | 5.0 | 5.0 | 6.0 | 6.0 | 7.0 | 6.3 | 6.7 | 5.7 | 5.0 | 5.3 | 4.7 | 5.3 | 5.7  |
| PINNACLE                                               | 5.7 | 6.0 | 6.0 | 5.7 | 6.7 | 6.0 | 6.3 | 4.3 | 5.0 | 5.3 | 5.3 | 5.3 | 5.6  |
| LINN                                                   | 4.0 | 5.0 | 5.0 | 5.0 | 6.3 | 6.0 | 6.3 | 5.0 | 5.0 | 5.3 | 5.3 | 5.3 | 5.3  |
| LSD VALUE                                              | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.6 | 0.7 | 0.7 | 0.9 | 0.3  |
| C.V. (%)                                               | 6.1 | 5.9 | 6.5 | 6.5 | 6.6 | 7.2 | 6.8 | 7.9 | 6.9 | 7.8 | 7.5 | 9.4 | 3.3  |

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

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

TABLE 10. Taken from the 2010 Perennial Ryegrass test 11 data report with permission from NTEP  
 MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 AT RIVERSIDE (TRAFFIC STUDY), CA 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                  | PERCENT COVER IN SEPTEMBER |           |       | PERCENT COVER IN OCTOBER |           |       | PERCENT COVER IN NOVEMBER |           |       | QUALITY RATINGS |     |     |     |     |      |
|-----------------------|----------------------------|-----------|-------|--------------------------|-----------|-------|---------------------------|-----------|-------|-----------------|-----|-----|-----|-----|------|
|                       | STRAW                      | BARE SOIL | GREEN | STRAW                    | BARE SOIL | GREEN | STRAW                     | BARE SOIL | GREEN | AUG             | SEP | OCT | NOV | DEC | MEAN |
| KARMA (PICK 10401)    | 15.0                       | 20.0      | 65.0  | 5.0                      | 65.0      | 30.0  | 5                         | 53.3      | 41.7  | 7.0             | 4.3 | 3.0 | 3.0 | 3.0 | 4.1  |
| A-35                  | 20.0                       | 20.0      | 60.0  | 5.0                      | 78.3      | 16.7  | 5                         | 65.0      | 30.0  | 8.0             | 4.3 | 2.0 | 2.7 | 3.0 | 4.0  |
| GO-G37                | 20.0                       | 23.3      | 56.7  | 5.0                      | 70.0      | 25.0  | 5                         | 53.3      | 41.7  | 7.7             | 3.7 | 2.7 | 3.0 | 3.0 | 4.0  |
| IS-PR 463             | 21.7                       | 20.0      | 58.3  | 5.0                      | 70.0      | 25.0  | 5                         | 66.7      | 28.3  | 7.0             | 3.7 | 2.7 | 3.0 | 3.7 | 4.0  |
| IS-PR 491             | 18.3                       | 16.7      | 65.0  | 5.0                      | 71.7      | 23.3  | 5                         | 53.3      | 41.7  | 7.0             | 4.0 | 2.3 | 3.3 | 3.3 | 4.0  |
| ISG-36                | 20.0                       | 28.3      | 51.7  | 5.0                      | 71.7      | 23.3  | 5                         | 56.7      | 38.3  | 8.0             | 3.7 | 2.7 | 3.0 | 2.7 | 4.0  |
| JR-192                | 20.0                       | 20.0      | 60.0  | 5.0                      | 66.7      | 28.3  | 5                         | 55.0      | 40.0  | 7.0             | 4.3 | 2.7 | 3.0 | 3.0 | 4.0  |
| PST-204D              | 18.3                       | 20.0      | 61.7  | 5.0                      | 68.3      | 26.7  | 5                         | 50.0      | 45.0  | 6.7             | 4.3 | 2.7 | 3.0 | 3.3 | 4.0  |
| PST-2MG7              | 21.7                       | 18.3      | 60.0  | 5.0                      | 73.3      | 21.7  | 4                         | 60.0      | 36.0  | 6.7             | 4.0 | 2.3 | 3.7 | 3.3 | 4.0  |
| EVOLUTION (S85)       | 18.3                       | 28.3      | 53.3  | 5.7                      | 65.0      | 29.3  | 5                         | 56.7      | 38.3  | 7.3             | 3.7 | 3.0 | 3.0 | 3.0 | 4.0  |
| 2NJK                  | 23.3                       | 15.0      | 61.7  | 5.0                      | 70.0      | 25.0  | 5                         | 53.3      | 41.7  | 6.7             | 4.0 | 2.7 | 3.0 | 3.0 | 3.9  |
| PANGEA GLR (CL 11701) | 20.0                       | 25.0      | 55.0  | 5.0                      | 71.7      | 23.3  | 5                         | 60.0      | 35.0  | 7.0             | 3.7 | 2.7 | 3.0 | 3.0 | 3.9  |
| CS-PR66               | 20.0                       | 23.3      | 56.7  | 5.0                      | 75.0      | 20.0  | 5                         | 60.0      | 35.0  | 7.7             | 3.7 | 2.3 | 3.0 | 3.0 | 3.9  |
| GO-PR60               | 21.7                       | 20.0      | 58.3  | 5.0                      | 71.7      | 23.3  | 5                         | 63.3      | 31.7  | 7.0             | 4.0 | 2.7 | 2.7 | 3.0 | 3.9  |
| PST-2BNS              | 21.7                       | 20.0      | 58.3  | 5.0                      | 71.7      | 23.3  | 5                         | 56.7      | 38.3  | 7.0             | 4.0 | 2.3 | 3.0 | 3.3 | 3.9  |
| SRX-4MSH              | 18.3                       | 18.3      | 63.3  | 5.0                      | 71.7      | 23.3  | 5                         | 56.7      | 38.3  | 6.7             | 4.3 | 2.3 | 2.7 | 3.3 | 3.9  |
| PST-2NKM              | 21.7                       | 25.0      | 53.3  | 5.0                      | 70.0      | 25.0  | 5                         | 56.7      | 38.3  | 7.0             | 3.7 | 2.3 | 3.0 | 3.0 | 3.8  |
| RINOVO                | 23.3                       | 30.0      | 46.7  | 5.0                      | 71.7      | 23.3  | 5                         | 66.7      | 28.3  | 7.3             | 3.3 | 2.7 | 2.7 | 3.0 | 3.8  |
| BAR LP 10970          | 21.7                       | 26.7      | 51.7  | 5.0                      | 75.0      | 20.0  | 5                         | 61.7      | 33.3  | 7.0             | 3.7 | 2.3 | 2.7 | 3.0 | 3.7  |
| BAR LP 10972          | 18.3                       | 23.3      | 58.3  | 5.0                      | 70.0      | 25.0  | 5                         | 63.3      | 31.7  | 6.7             | 3.3 | 2.7 | 2.7 | 3.0 | 3.7  |
| BONNEVILLE            | 23.3                       | 20.0      | 56.7  | 5.0                      | 70.0      | 25.0  | 5                         | 63.3      | 31.7  | 6.3             | 3.7 | 2.7 | 2.7 | 3.0 | 3.7  |
| BRIGHTSTAR SLT        | 21.7                       | 28.3      | 50.0  | 5.0                      | 76.7      | 18.3  | 5                         | 60.0      | 35.0  | 7.3             | 3.7 | 2.0 | 2.7 | 3.0 | 3.7  |
| DLF LGD-3022          | 23.3                       | 31.7      | 45.0  | 5.0                      | 75.0      | 20.0  | 5                         | 56.7      | 38.3  | 7.0             | 3.7 | 2.0 | 3.0 | 3.0 | 3.7  |
| FIESTA 4              | 16.7                       | 26.7      | 56.7  | 5.0                      | 71.7      | 23.3  | 5                         | 60.0      | 35.0  | 7.0             | 3.7 | 2.3 | 2.7 | 3.0 | 3.7  |
| SOX FAN (GM3)         | 18.3                       | 25.0      | 56.7  | 5.0                      | 73.3      | 21.7  | 5                         | 63.3      | 31.7  | 6.3             | 3.7 | 2.7 | 2.7 | 3.0 | 3.7  |
| IS-PR 469             | 23.3                       | 21.7      | 55.0  | 5.0                      | 71.7      | 23.3  | 5                         | 63.3      | 31.7  | 7.0             | 3.7 | 2.3 | 2.7 | 3.0 | 3.7  |
| IS-PR 479             | 23.3                       | 18.3      | 58.3  | 5.0                      | 52.7      | 42.3  | 5                         | 66.7      | 28.3  | 7.0             | 3.7 | 2.3 | 2.7 | 3.0 | 3.7  |
| ISG-31                | 18.3                       | 40.0      | 41.7  | 5.0                      | 76.7      | 18.3  | 5                         | 66.7      | 28.3  | 7.3             | 3.7 | 2.3 | 2.7 | 2.7 | 3.7  |
| MACH I                | 23.3                       | 20.0      | 56.7  | 5.0                      | 75.0      | 20.0  | 5                         | 68.3      | 26.7  | 6.7             | 4.0 | 2.3 | 2.3 | 3.0 | 3.7  |
| PPG-PR 140            | 21.7                       | 30.0      | 48.3  | 5.0                      | 70.0      | 25.0  | 5                         | 60.0      | 35.0  | 7.0             | 3.3 | 2.7 | 2.7 | 2.7 | 3.7  |
| SR 4650 (PSRX-3701)   | 18.3                       | 31.7      | 50.0  | 5.0                      | 75.0      | 20.0  | 5                         | 66.7      | 28.3  | 7.0             | 3.7 | 3.0 | 2.3 | 2.7 | 3.7  |
| PSRX-4CAGL            | 20.0                       | 20.0      | 60.0  | 5.0                      | 71.7      | 23.3  | 5                         | 60.0      | 35.0  | 6.3             | 4.0 | 2.7 | 2.7 | 3.0 | 3.7  |
| PST-2K9               | 21.7                       | 25.0      | 53.3  | 5.0                      | 76.7      | 18.3  | 5                         | 66.7      | 28.3  | 7.0             | 3.7 | 2.3 | 2.7 | 2.7 | 3.7  |
| APR 2445              | 20.0                       | 30.0      | 50.0  | 5.0                      | 76.7      | 18.3  | 5                         | 66.7      | 28.3  | 7.3             | 3.7 | 2.0 | 2.3 | 2.7 | 3.6  |
| CL 307                | 23.3                       | 33.3      | 43.3  | 5.0                      | 75.0      | 20.0  | 5                         | 63.3      | 31.7  | 6.7             | 3.3 | 2.3 | 2.7 | 3.0 | 3.6  |
| IS-PR 487             | 23.3                       | 23.3      | 53.3  | 5.0                      | 76.7      | 18.3  | 5                         | 66.7      | 28.3  | 7.0             | 3.7 | 2.3 | 2.7 | 2.3 | 3.6  |
| IS-PR 488             | 30.0                       | 20.0      | 50.0  | 5.0                      | 75.0      | 20.0  | 5                         | 63.3      | 31.7  | 6.3             | 3.7 | 2.3 | 2.7 | 3.0 | 3.6  |
| JR-178                | 18.3                       | 33.3      | 48.3  | 5.0                      | 76.7      | 18.3  | 5                         | 70.0      | 25.0  | 7.3             | 3.7 | 2.3 | 2.3 | 2.3 | 3.6  |
| OCTANE                | 25.0                       | 21.7      | 53.3  | 5.0                      | 73.3      | 21.7  | 5                         | 60.0      | 35.0  | 6.3             | 3.7 | 2.3 | 2.7 | 3.0 | 3.6  |
| PPG-PR 142            | 23.3                       | 30.0      | 46.7  | 5.0                      | 75.0      | 20.0  | 5                         | 63.3      | 31.7  | 6.7             | 3.7 | 2.3 | 2.7 | 2.7 | 3.6  |
| DOMINATOR (PST-2AG4)  | 21.7                       | 31.7      | 46.7  | 5.0                      | 75.0      | 20.0  | 5                         | 58.3      | 36.7  | 7.3             | 3.3 | 2.3 | 2.3 | 2.7 | 3.6  |
| CS-20                 | 20.0                       | 40.0      | 40.0  | 5.0                      | 76.7      | 18.3  | 5                         | 73.3      | 21.7  | 7.7             | 3.0 | 2.3 | 2.3 | 2.3 | 3.5  |
| CST                   | 26.7                       | 28.3      | 45.0  | 5.0                      | 75.0      | 20.0  | 5                         | 70.0      | 25.0  | 7.0             | 3.3 | 2.3 | 2.3 | 2.3 | 3.5  |
| GO-DHS                | 23.3                       | 26.7      | 50.0  | 5.7                      | 76.7      | 17.7  | 5                         | 66.7      | 28.3  | 6.7             | 3.7 | 2.0 | 2.3 | 3.0 | 3.5  |
| IS-PR 492             | 23.3                       | 25.0      | 51.7  | 5.0                      | 76.7      | 18.3  | 5                         | 70.0      | 25.0  | 6.3             | 3.7 | 2.3 | 2.3 | 2.7 | 3.5  |
| ISG-30                | 26.7                       | 30.0      | 43.3  | 5.0                      | 76.7      | 18.3  | 5                         | 73.3      | 21.7  | 7.7             | 3.3 | 2.0 | 2.0 | 2.7 | 3.5  |
| PALMER V              | 30.0                       | 25.0      | 45.0  | 5.0                      | 73.3      | 21.7  | 5                         | 63.3      | 31.7  | 6.3             | 3.3 | 2.3 | 2.7 | 2.7 | 3.5  |

TABLE 10. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT RIVERSIDE (TRAFFIC STUDY), CA 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | PERCENT COVER IN SEPTEMBER |           |       | PERCENT COVER IN OCTOBER |           |       | PERCENT COVER IN NOVEMBER |           |       | AUG | SEP  | QUALITY RATINGS |      |      | MEAN |
|-----------------------------|----------------------------|-----------|-------|--------------------------|-----------|-------|---------------------------|-----------|-------|-----|------|-----------------|------|------|------|
|                             | STRAW                      | BARE SOIL | GREEN | STRAW                    | BARE SOIL | GREEN | STRAW                     | BARE SOIL | GREEN |     |      | OCT             | NOV  | DEC  |      |
| PPG-PR 138                  | 23.3                       | 38.3      | 38.3  | 5.0                      | 75.0      | 20.0  | 5.0                       | 46.0      | 49.0  | 7.0 | 3.0  | 2.3             | 2.3  | 2.7  | 3.5  |
| PPG-PR 143                  | 28.3                       | 36.7      | 35.0  | 5.0                      | 78.3      | 16.7  | 5.0                       | 63.3      | 31.7  | 7.0 | 3.0  | 2.0             | 2.7  | 3.0  | 3.5  |
| PRX-4GM1                    | 16.7                       | 28.3      | 55.0  | 5.0                      | 78.3      | 16.7  | 5.0                       | 70.0      | 25.0  | 6.7 | 3.7  | 2.0             | 2.3  | 3.0  | 3.5  |
| SIDEWAYS (PSRX-S84)         | 23.3                       | 28.3      | 48.3  | 5.0                      | 75.0      | 20.0  | 5.0                       | 63.3      | 31.7  | 6.3 | 3.7  | 2.7             | 2.3  | 2.7  | 3.5  |
| PST-2DR9                    | 21.7                       | 28.3      | 50.0  | 5.0                      | 76.7      | 18.3  | 5.0                       | 66.7      | 28.3  | 6.3 | 3.3  | 2.3             | 2.7  | 2.7  | 3.5  |
| MANHATTAN 6 GLR (PST-2MAGS) | 26.7                       | 31.7      | 41.7  | 5.0                      | 78.3      | 16.7  | 5.0                       | 70.0      | 25.0  | 6.7 | 3.3  | 2.3             | 2.3  | 2.7  | 3.5  |
| PST-2TQL                    | 21.7                       | 30.0      | 48.3  | 5.0                      | 78.3      | 16.7  | 5.0                       | 70.0      | 25.0  | 6.7 | 3.3  | 2.3             | 2.3  | 3.0  | 3.5  |
| RAD-PR62                    | 23.3                       | 31.7      | 45.0  | 5.0                      | 81.7      | 13.3  | 5.0                       | 78.3      | 16.7  | 7.0 | 3.7  | 2.0             | 2.0  | 2.7  | 3.5  |
| WICKED (SRX-4RHD)           | 21.7                       | 30.0      | 48.3  | 5.0                      | 78.3      | 16.7  | 3.3                       | 71.7      | 25.0  | 7.0 | 3.3  | 2.3             | 2.3  | 2.7  | 3.5  |
| UNO                         | 23.3                       | 33.3      | 43.3  | 5.0                      | 76.7      | 18.3  | 5.0                       | 68.3      | 26.7  | 7.0 | 3.0  | 2.3             | 2.7  | 2.7  | 3.5  |
| LTP-RAE                     | 23.3                       | 36.7      | 40.0  | 5.0                      | 75.0      | 20.0  | 5.0                       | 75.0      | 20.0  | 7.0 | 3.0  | 2.3             | 2.3  | 2.3  | 3.4  |
| PLAYOFF 2 (P02)             | 23.3                       | 33.3      | 43.3  | 5.0                      | 80.0      | 15.0  | 5.0                       | 66.7      | 28.3  | 7.0 | 3.3  | 2.0             | 2.3  | 2.3  | 3.4  |
| PICK 4DFHM                  | 25.0                       | 20.0      | 55.0  | 5.0                      | 75.0      | 20.0  | 5.0                       | 63.3      | 31.7  | 6.3 | 3.7  | 2.0             | 2.0  | 3.0  | 3.4  |
| PPG-PR 133                  | 25.0                       | 35.0      | 40.0  | 5.0                      | 80.0      | 15.0  | 5.0                       | 75.0      | 20.0  | 6.7 | 3.3  | 2.3             | 2.3  | 2.3  | 3.4  |
| PPG-PR 136                  | 21.7                       | 36.7      | 41.7  | 5.0                      | 78.3      | 16.7  | 5.0                       | 75.0      | 20.0  | 6.7 | 3.3  | 2.3             | 2.3  | 2.3  | 3.4  |
| PST-2ACR                    | 25.0                       | 33.3      | 41.7  | 5.7                      | 76.7      | 17.7  | 5.3                       | 71.7      | 23.0  | 6.7 | 3.0  | 2.3             | 2.3  | 2.7  | 3.4  |
| RAD-PR55R                   | 21.7                       | 35.0      | 43.3  | 5.0                      | 81.7      | 13.3  | 5.0                       | 78.3      | 16.7  | 7.3 | 3.0  | 2.0             | 2.3  | 2.3  | 3.4  |
| ALLANTE                     | 23.3                       | 41.7      | 35.0  | 5.0                      | 76.7      | 18.3  | 5.0                       | 68.3      | 26.7  | 6.0 | 3.0  | 2.3             | 2.7  | 2.3  | 3.3  |
| APR 2036                    | 26.7                       | 31.7      | 41.7  | 5.0                      | 80.0      | 15.0  | 5.0                       | 76.7      | 18.3  | 7.0 | 3.3  | 2.0             | 2.0  | 2.3  | 3.3  |
| APR 2320                    | 25.0                       | 28.3      | 46.7  | 5.0                      | 76.7      | 18.3  | 5.0                       | 75.0      | 20.0  | 6.0 | 3.7  | 2.0             | 2.0  | 2.7  | 3.3  |
| BAR LP 10969                | 21.7                       | 38.3      | 40.0  | 5.0                      | 81.7      | 13.3  | 5.0                       | 76.7      | 18.3  | 7.0 | 3.0  | 2.0             | 2.0  | 2.3  | 3.3  |
| BAR LP 7608                 | 21.7                       | 31.7      | 46.7  | 5.0                      | 80.0      | 15.0  | 5.0                       | 60.0      | 35.0  | 6.3 | 3.3  | 2.0             | 2.3  | 2.7  | 3.3  |
| INSIGHT                     | 25.0                       | 35.0      | 40.0  | 5.0                      | 76.7      | 18.3  | 5.0                       | 76.7      | 18.3  | 6.7 | 3.0  | 2.3             | 2.0  | 2.3  | 3.3  |
| IS-PR 489                   | 30.0                       | 21.7      | 48.3  | 5.0                      | 76.7      | 18.3  | 5.0                       | 66.7      | 28.3  | 6.0 | 3.3  | 2.0             | 2.3  | 3.0  | 3.3  |
| PPG-PR 121                  | 26.7                       | 40.0      | 33.3  | 5.0                      | 83.3      | 11.7  | 5.0                       | 78.3      | 16.7  | 7.0 | 3.0  | 2.0             | 2.0  | 2.3  | 3.3  |
| PPG-PR 128                  | 25.0                       | 31.7      | 43.3  | 5.0                      | 80.0      | 15.0  | 5.0                       | 70.0      | 25.0  | 6.3 | 3.3  | 2.0             | 2.3  | 2.7  | 3.3  |
| PPG-PR 134                  | 23.3                       | 36.7      | 40.0  | 5.0                      | 80.0      | 15.0  | 5.0                       | 76.7      | 18.3  | 7.0 | 3.0  | 2.3             | 2.0  | 2.3  | 3.3  |
| PPG-PR 137                  | 26.7                       | 36.7      | 36.7  | 5.0                      | 73.3      | 21.7  | 5.0                       | 53.7      | 41.3  | 6.3 | 3.0  | 2.3             | 2.3  | 2.7  | 3.3  |
| PPG-PR 164                  | 21.7                       | 41.7      | 36.7  | 5.0                      | 78.3      | 16.7  | 5.0                       | 75.0      | 20.0  | 6.7 | 3.0  | 2.3             | 2.0  | 2.7  | 3.3  |
| RIO VISTA                   | 25.0                       | 36.7      | 38.3  | 5.0                      | 83.3      | 11.7  | 5.0                       | 65.0      | 30.0  | 7.0 | 3.0  | 2.0             | 2.0  | 2.3  | 3.3  |
| HAVEN (APR 2038)            | 28.3                       | 35.0      | 36.7  | 5.0                      | 80.0      | 15.0  | 5.0                       | 76.7      | 18.3  | 6.0 | 3.0  | 2.3             | 2.0  | 2.7  | 3.2  |
| DLF LGT 4182                | 38.3                       | 25.0      | 36.7  | 5.0                      | 83.3      | 11.7  | 5.0                       | 81.7      | 13.3  | 6.7 | 2.7  | 2.0             | 2.0  | 2.7  | 3.2  |
| IS-PR 409                   | 25.0                       | 36.7      | 38.3  | 5.0                      | 80.0      | 15.0  | 5.0                       | 78.3      | 16.7  | 6.7 | 3.0  | 2.0             | 2.0  | 2.3  | 3.2  |
| LTP-PR 135                  | 21.7                       | 46.7      | 31.7  | 5.0                      | 85.0      | 10.0  | 5.0                       | 78.3      | 16.7  | 6.7 | 2.7  | 2.0             | 2.0  | 2.0  | 3.1  |
| PPG-PR 165                  | 20.0                       | 38.3      | 41.7  | 5.0                      | 81.7      | 13.3  | 5.0                       | 80.0      | 15.0  | 6.3 | 3.0  | 2.0             | 2.0  | 2.3  | 3.1  |
| PIZZAZZ 2 GLR (PR 909)      | 18.3                       | 53.3      | 28.3  | 5.0                      | 86.7      | 8.3   | 5.0                       | 81.7      | 13.3  | 7.0 | 2.3  | 2.0             | 2.0  | 2.0  | 3.1  |
| SIENNA                      | 25.0                       | 45.0      | 30.0  | 5.0                      | 85.0      | 10.0  | 5.0                       | 80.0      | 15.0  | 6.7 | 2.7  | 2.0             | 2.0  | 2.3  | 3.1  |
| CL 11601                    | 20.0                       | 50.0      | 30.0  | 5.0                      | 81.7      | 13.3  | 5.0                       | 75.0      | 20.0  | 6.3 | 2.7  | 2.0             | 2.0  | 2.0  | 3.0  |
| DLF LGD-3026                | 25.0                       | 43.3      | 31.7  | 5.0                      | 83.3      | 11.7  | 5.0                       | 81.7      | 13.3  | 6.3 | 2.7  | 2.0             | 1.7  | 2.0  | 2.9  |
| PINNACLE                    | 23.3                       | 36.7      | 40.0  | 5.0                      | 84.3      | 10.7  | 5.0                       | 76.7      | 18.3  | 5.7 | 3.0  | 1.7             | 1.7  | 1.7  | 2.7  |
| LINN                        | 26.7                       | 55.0      | 18.3  | 4.3                      | 92.0      | 3.7   | 4.3                       | 87.7      | 8.0   | 5.0 | 2.0  | 1.3             | 1.3  | 1.3  | 2.2  |
| LSD VALUE                   | 13.6                       | 19.8      | 21.1  | 1.0                      | 31.4      | 32.2  | 1.6                       | 47.3      | 47.2  | 0.8 | 1.5  | 1.6             | 1.8  | 1.2  | 0.7  |
| C.V. (%)                    | 22.2                       | 33.3      | 23.1  | 4.8                      | 11.6      | 46.4  | 7.7                       | 20.4      | 48.5  | 7.0 | 18.2 | 20.5            | 24.8 | 19.4 | 10.6 |

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

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

3/ TRAFFIC IS APPLIED USING A BRINKMANN TRAFFIC SIMULATOR TO APPROXIMATE 60 FOOTBALL GAMES OVER A TEN WEEK PERIOD IN FALL.

TABLE 11:

PERCENT GROUND COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT UNIVERSITY PARK (TRAFFIC STUDY), PA 2/ 3/  
2011 DATA

| NAME                   | BEFORE TRAFFIC<br>IS STARTING<br>AUGUST 27 |      | AFTER TRAFFIC<br>IS COMPLETED<br>OCTOBER 10 |      |
|------------------------|--------------------------------------------|------|---------------------------------------------|------|
|                        | NO WEAR                                    | WEAR | NO WEAR                                     | WEAR |
| LTP-PR 135             | 99                                         | 99.0 | 98.7                                        | 88.0 |
| CL 11601               | 99                                         | 99.0 | 99.0                                        | 84.3 |
| SIENNA                 | 99                                         | 99.0 | 99.0                                        | 84.3 |
| IS-PR 492              | 99                                         | 99.0 | 99.0                                        | 84.0 |
| PPG-PR 128             | 99                                         | 99.0 | 99.0                                        | 84.0 |
| IS-PR 469              | 99                                         | 99.0 | 99.0                                        | 83.7 |
| PPG-PR 140             | 99                                         | 99.0 | 99.0                                        | 83.0 |
| IS-PR 487              | 99                                         | 99.0 | 99.0                                        | 82.7 |
| WICKED (SRX-4RHD)      | 99                                         | 99.0 | 99.0                                        | 82.3 |
| PPG-PR 138             | 99                                         | 99.0 | 99.0                                        | 82.0 |
| SOX FAN (GM3)          | 99                                         | 99.0 | 99.0                                        | 82.0 |
| LTP-RAE                | 99                                         | 99.0 | 99.0                                        | 81.7 |
| PPG-PR 142             | 99                                         | 99.0 | 99.0                                        | 81.7 |
| IS-PR 488              | 99                                         | 99.0 | 99.0                                        | 81.3 |
| KARMA (PICK 10401)     | 99                                         | 99.0 | 99.0                                        | 81.3 |
| PPG-PR 165             | 99                                         | 99.0 | 99.0                                        | 81.3 |
| EVOLUTION (S85)        | 99                                         | 99.0 | 99.0                                        | 81.0 |
| IS-PR 489              | 99                                         | 99.0 | 99.0                                        | 80.7 |
| PPG-PR 164             | 99                                         | 99.0 | 99.0                                        | 80.7 |
| RINOVO                 | 99                                         | 99.0 | 99.0                                        | 80.7 |
| DLF LGD-3022           | 99                                         | 99.0 | 99.0                                        | 80.0 |
| PPG-PR 133             | 99                                         | 99.0 | 99.0                                        | 80.0 |
| SR 4650 (PSRX-3701)    | 99                                         | 99.0 | 99.0                                        | 80.0 |
| UNO                    | 99                                         | 99.0 | 99.0                                        | 80.0 |
| PLAYOFF 2 (P02)        | 99                                         | 99.0 | 98.3                                        | 79.3 |
| DLF LGD-3026           | 99                                         | 99.0 | 99.0                                        | 79.0 |
| CST                    | 99                                         | 99.0 | 99.0                                        | 78.7 |
| BAR LP 10969           | 99                                         | 99.0 | 99.0                                        | 78.3 |
| RAD-PR55R              | 99                                         | 99.0 | 98.3                                        | 78.3 |
| INSIGHT                | 99                                         | 99.0 | 98.7                                        | 77.7 |
| PPG-PR 137             | 99                                         | 99.0 | 99.0                                        | 77.7 |
| PPG-PR 143             | 99                                         | 99.0 | 99.0                                        | 77.7 |
| APR 2320               | 99                                         | 99.0 | 99.0                                        | 77.3 |
| BAR LP 10972           | 99                                         | 98.3 | 99.0                                        | 77.3 |
| PST-204D               | 99                                         | 99.0 | 99.0                                        | 77.3 |
| OCTANE                 | 99                                         | 99.0 | 99.0                                        | 77.0 |
| PALMER V               | 99                                         | 99.0 | 99.0                                        | 77.0 |
| PPG-PR 136             | 99                                         | 99.0 | 99.0                                        | 77.0 |
| RIO VISTA              | 99                                         | 99.0 | 99.0                                        | 77.0 |
| APR 2445               | 99                                         | 99.0 | 99.0                                        | 76.7 |
| BRIGHTSTAR SLT         | 99                                         | 99.0 | 98.7                                        | 76.7 |
| PANGEA GLR (CL 11701)  | 99                                         | 99.0 | 99.0                                        | 76.7 |
| CL 307                 | 99                                         | 99.0 | 99.0                                        | 76.3 |
| HAVEN (APR 2038)       | 99                                         | 99.0 | 99.0                                        | 76.3 |
| PIZZAZZ 2 GLR (PR 909) | 99                                         | 99.0 | 98.7                                        | 76.3 |
| PSRX-4CAGL             | 99                                         | 99.0 | 99.0                                        | 76.3 |
| DOMINATOR (PST-2AG4)   | 99                                         | 99.0 | 99.0                                        | 76.0 |

TABLE 11.  
(CONT'D)PERCENT GROUND COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
AT UNIVERSITY PARK (TRAFFIC STUDY), PA 2/ 3/  
2011 DATA

| NAME                        | BEFORE TRAFFIC<br>IS STARTING<br>AUGUST 27 |      | AFTER TRAFFIC<br>IS COMPLETED<br>OCTOBER 10 |      |
|-----------------------------|--------------------------------------------|------|---------------------------------------------|------|
|                             | NO WEAR                                    | WEAR | NO WEAR                                     | WEAR |
| GO-G37                      | 99.0                                       | 99.0 | 99.0                                        | 76.0 |
| IS-PR 491                   | 99.0                                       | 99.0 | 99.0                                        | 76.0 |
| PRX-4GM1                    | 99.0                                       | 99.0 | 99.0                                        | 76.0 |
| BONNEVILLE                  | 99.0                                       | 99.0 | 99.0                                        | 75.7 |
| PST-2BNS                    | 99.0                                       | 99.0 | 99.0                                        | 75.7 |
| PST-2NKM                    | 99.0                                       | 99.0 | 99.0                                        | 75.7 |
| PST-2TQL                    | 99.0                                       | 99.0 | 99.0                                        | 75.7 |
| MACH I                      | 99.0                                       | 99.0 | 99.0                                        | 75.3 |
| PPG-PR 121                  | 99.0                                       | 99.0 | 99.0                                        | 75.3 |
| 2NJK                        | 99.0                                       | 99.0 | 98.7                                        | 75.0 |
| PICK 4DFHM                  | 99.0                                       | 98.7 | 99.0                                        | 75.0 |
| CS-PR66                     | 99.0                                       | 99.0 | 99.0                                        | 74.3 |
| BAR LP 10970                | 99.0                                       | 99.0 | 99.0                                        | 74.0 |
| IS-PR 479                   | 99.0                                       | 99.0 | 99.0                                        | 74.0 |
| ISG-30                      | 99.0                                       | 99.0 | 99.0                                        | 74.0 |
| PINNACLE                    | 99.0                                       | 99.0 | 96.3                                        | 74.0 |
| IS-PR 409                   | 99.0                                       | 99.0 | 98.7                                        | 73.3 |
| ISG-31                      | 99.0                                       | 99.0 | 99.0                                        | 73.3 |
| ISG-36                      | 99.0                                       | 99.0 | 99.0                                        | 73.3 |
| SRX-4MSH                    | 99.0                                       | 99.0 | 98.3                                        | 73.3 |
| SIDEWAYS (PSRX-S84)         | 99.0                                       | 99.0 | 99.0                                        | 73.0 |
| GO-PR60                     | 99.0                                       | 99.0 | 99.0                                        | 72.3 |
| APR 2036                    | 99.0                                       | 99.0 | 99.0                                        | 71.7 |
| PST-2ACR                    | 99.0                                       | 99.0 | 98.7                                        | 71.7 |
| A-35                        | 99.0                                       | 99.0 | 98.3                                        | 71.0 |
| MANHATTAN 6 GLR (PST-2MAGS) | 99.0                                       | 99.0 | 99.0                                        | 70.3 |
| JR-192                      | 99.0                                       | 99.0 | 98.3                                        | 70.0 |
| PPG-PR 134                  | 99.0                                       | 99.0 | 99.0                                        | 70.0 |
| PST-2DR9                    | 99.0                                       | 99.0 | 99.0                                        | 69.3 |
| CS-20                       | 99.0                                       | 99.0 | 98.7                                        | 69.0 |
| GO-DHS                      | 99.0                                       | 99.0 | 98.0                                        | 69.0 |
| IS-PR 463                   | 99.0                                       | 99.0 | 99.0                                        | 68.7 |
| PST-2K9                     | 99.0                                       | 99.0 | 99.0                                        | 68.7 |
| ALLANTE                     | 99.0                                       | 99.0 | 99.0                                        | 68.3 |
| FIESTA 4                    | 99.0                                       | 99.0 | 99.0                                        | 67.7 |
| JR-178                      | 99.0                                       | 99.0 | 99.0                                        | 67.7 |
| LINN                        | 96.7                                       | 97.0 | 96.7                                        | 67.7 |
| PST-2MG7                    | 99.0                                       | 98.7 | 98.3                                        | 67.3 |
| RAD-PR62                    | 99.0                                       | 99.0 | 99.0                                        | 66.0 |
| BAR LP 7608                 | 99.0                                       | 98.7 | 99.0                                        | 65.0 |
| DLF LGT 4182                | 98.3                                       | 98.7 | 98.0                                        | 49.3 |
| LSD VALUE                   | 0.3                                        | 0.5  | 0.7                                         | 21.0 |
| C.V. (%)                    | 0.2                                        | 0.3  | 0.4                                         | 10.6 |

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).  
2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.  
3/ TRAFFIC IS APPLIED USING A BRINKMANN TRAFFIC SIMULATOR TO APPROXIMATE 60 FOOTBALL GAMES OVER A TEN WEEK PERIOD IN FALL.

TABLE 12. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT BLACKSBURG (TRAFFIC STUDY), VA 1/  
2011 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | PERCENT GREEN COVER<br>BEFORE TRAFFIC<br>8/29/11 | PERCENT GREEN COVER<br>NO TRAFFIC<br>9/27/11 | PERCENT GREEN COVER<br>TRAFFIC<br>9/27/11 | PERCENT GREEN COVER<br>TRAFFIC<br>11/2/11 | 2-WEEKS AFTER<br>LAST TRAFFIC<br>11/22/11 | QUALITY<br>TRAFFIC<br>11/2/11 |
|-----------------------------|--------------------------------------------------|----------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------|
| HAVEN (APR 2038)            | 96.0                                             | 99.0                                         | 81.7                                      | 83.3                                      | 75.0                                      | 5.7                           |
| PPG-PR 137                  | 96.0                                             | 99.0                                         | 88.3                                      | 90.0                                      | 76.7                                      | 5.7                           |
| PIZZAZZ 2 GLR (PR 909)      | 98.0                                             | 99.0                                         | 88.3                                      | 85.0                                      | 80.0                                      | 5.7                           |
| SRX-4MSH                    | 98.0                                             | 99.0                                         | 86.7                                      | 86.7                                      | 83.3                                      | 5.7                           |
| BAR LP 10970                | 98.0                                             | 99.0                                         | 81.7                                      | 83.3                                      | 78.3                                      | 5.3                           |
| CL 11601                    | 96.0                                             | 99.0                                         | 85.0                                      | 83.3                                      | 80.0                                      | 5.3                           |
| GO-G37                      | 96.0                                             | 97.7                                         | 73.3                                      | 86.7                                      | 76.7                                      | 5.3                           |
| IS-PR 488                   | 97.0                                             | 99.0                                         | 83.3                                      | 80.0                                      | 86.7                                      | 5.3                           |
| IS-PR 491                   | 92.0                                             | 92.7                                         | 86.7                                      | 65.0                                      | 85.0                                      | 5.3                           |
| JR-192                      | 98.0                                             | 99.0                                         | 88.3                                      | 83.3                                      | 85.0                                      | 5.3                           |
| LTP-PR 135                  | 97.0                                             | 99.0                                         | 85.0                                      | 83.3                                      | 78.3                                      | 5.3                           |
| PPG-PR 134                  | 96.0                                             | 99.0                                         | 80.0                                      | 75.0                                      | 75.0                                      | 5.3                           |
| PST-204D                    | 96.0                                             | 99.0                                         | 81.7                                      | 86.7                                      | 81.7                                      | 5.3                           |
| PST-2DR9                    | 98.0                                             | 99.0                                         | 80.0                                      | 80.0                                      | 73.3                                      | 5.3                           |
| PST-2TQL                    | 97.0                                             | 99.0                                         | 80.0                                      | 76.7                                      | 81.7                                      | 5.3                           |
| RINOVO                      | 96.0                                             | 99.0                                         | 86.7                                      | 80.0                                      | 76.7                                      | 5.3                           |
| DLF LGD-3022                | 94.3                                             | 99.0                                         | 76.7                                      | 71.7                                      | 68.3                                      | 5.0                           |
| SOX FAN (GM3)               | 98.0                                             | 99.0                                         | 86.7                                      | 86.7                                      | 86.7                                      | 5.0                           |
| IS-PR 487                   | 98.3                                             | 99.0                                         | 85.0                                      | 78.3                                      | 75.0                                      | 5.0                           |
| IS-PR 492                   | 93.7                                             | 96.0                                         | 88.3                                      | 83.3                                      | 83.3                                      | 5.0                           |
| ISG-31                      | 95.0                                             | 96.0                                         | 80.0                                      | 83.3                                      | 83.3                                      | 5.0                           |
| JR-178                      | 97.0                                             | 99.0                                         | 85.0                                      | 78.3                                      | 78.3                                      | 5.0                           |
| OCTANE                      | 95.3                                             | 99.0                                         | 78.3                                      | 75.0                                      | 78.3                                      | 5.0                           |
| PPG-PR 121                  | 94.3                                             | 99.0                                         | 80.0                                      | 73.3                                      | 73.3                                      | 5.0                           |
| PPG-PR 128                  | 96.0                                             | 99.0                                         | 78.3                                      | 73.3                                      | 76.7                                      | 5.0                           |
| PPG-PR 133                  | 96.0                                             | 99.0                                         | 83.3                                      | 81.7                                      | 76.7                                      | 5.0                           |
| PPG-PR 136                  | 94.3                                             | 99.0                                         | 76.7                                      | 80.0                                      | 68.3                                      | 5.0                           |
| PPG-PR 138                  | 94.3                                             | 99.0                                         | 80.0                                      | 78.3                                      | 75.0                                      | 5.0                           |
| PPG-PR 142                  | 96.0                                             | 99.0                                         | 81.7                                      | 78.3                                      | 80.0                                      | 5.0                           |
| PRX-4GM1                    | 98.0                                             | 99.0                                         | 83.3                                      | 81.7                                      | 78.3                                      | 5.0                           |
| SIDEWAYS (PSRX-S84)         | 96.0                                             | 99.0                                         | 83.3                                      | 78.3                                      | 80.0                                      | 5.0                           |
| PST-2K9                     | 97.0                                             | 99.0                                         | 80.0                                      | 85.0                                      | 76.7                                      | 5.0                           |
| MANHATTAN 6 GLR (PST-2MAGS) | 94.3                                             | 99.0                                         | 78.3                                      | 80.0                                      | 75.0                                      | 5.0                           |
| APR 2036                    | 92.7                                             | 99.0                                         | 86.7                                      | 73.3                                      | 81.7                                      | 4.7                           |
| APR 2320                    | 96.0                                             | 99.0                                         | 85.0                                      | 81.7                                      | 80.0                                      | 4.7                           |
| APR 2445                    | 94.3                                             | 99.0                                         | 86.7                                      | 75.0                                      | 85.0                                      | 4.7                           |
| BRIGHTSTAR SLT              | 94.7                                             | 97.7                                         | 78.3                                      | 78.3                                      | 73.3                                      | 4.7                           |
| CS-PR66                     | 95.3                                             | 99.0                                         | 76.7                                      | 75.0                                      | 70.0                                      | 4.7                           |
| DLF LGD-3026                | 95.0                                             | 97.7                                         | 80.0                                      | 80.0                                      | 70.0                                      | 4.7                           |
| FIESTA 4                    | 96.0                                             | 97.7                                         | 76.7                                      | 76.7                                      | 73.3                                      | 4.7                           |
| INSIGHT                     | 96.3                                             | 99.0                                         | 71.7                                      | 73.3                                      | 70.0                                      | 4.7                           |
| IS-PR 463                   | 98.0                                             | 99.0                                         | 83.3                                      | 78.3                                      | 75.0                                      | 4.7                           |
| IS-PR 479                   | 95.0                                             | 99.0                                         | 78.3                                      | 76.7                                      | 78.3                                      | 4.7                           |
| ISG-30                      | 95.0                                             | 99.0                                         | 83.3                                      | 80.0                                      | 76.7                                      | 4.7                           |
| ISG-36                      | 92.7                                             | 97.7                                         | 71.7                                      | 78.3                                      | 71.7                                      | 4.7                           |
| PLAYOFF 2 (P02)             | 97.0                                             | 97.7                                         | 76.7                                      | 73.3                                      | 75.0                                      | 4.7                           |
| PICK 4DFHM                  | 96.0                                             | 99.0                                         | 83.3                                      | 78.3                                      | 76.7                                      | 4.7                           |

TABLE 12. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 (CONT'D) AT BLACKSBURG (TRAFFIC STUDY), VA 1/

| NAME                  | PERCENT GREEN COVER |            | PERCENT GREEN COVER |         | 2-WEEKS AFTER | QUALITY |
|-----------------------|---------------------|------------|---------------------|---------|---------------|---------|
|                       | BEFORE TRAFFIC      | NO TRAFFIC | TRAFFIC             | TRAFFIC | LAST TRAFFIC  | TRAFFIC |
|                       | 8/29/11             | 9/27/11    | 9/27/11             | 11/2/11 | 11/22/11      | 11/2/11 |
| PPG-PR 140            | 95.0                | 99.0       | 81.7                | 71.7    | 71.7          | 4.7     |
| SR 4650 (PSRX-3701)   | 98.0                | 99.0       | 85.0                | 83.3    | 76.7          | 4.7     |
| PST-2ACR              | 92.7                | 97.7       | 81.7                | 73.3    | 78.3          | 4.7     |
| DOMINATOR (PST-2AG4)  | 96.0                | 99.0       | 80.0                | 76.7    | 70.0          | 4.7     |
| EVOLUTION (S85)       | 98.0                | 99.0       | 83.3                | 76.7    | 75.0          | 4.7     |
| UNO                   | 90.0                | 96.0       | 81.7                | 66.7    | 61.7          | 4.7     |
| A-35                  | 93.3                | 99.0       | 76.7                | 75.0    | 76.7          | 4.3     |
| ALLANTE               | 92.7                | 99.0       | 73.3                | 68.3    | 61.7          | 4.3     |
| BAR LP 10969          | 96.0                | 99.0       | 78.3                | 66.7    | 71.7          | 4.3     |
| BAR LP 7608           | 97.0                | 99.0       | 76.7                | 70.0    | 63.3          | 4.3     |
| BONNEVILLE            | 93.7                | 99.0       | 76.7                | 71.7    | 73.3          | 4.3     |
| PANGEA GLR (CL 11701) | 97.0                | 99.0       | 78.3                | 75.0    | 78.3          | 4.3     |
| CL 307                | 96.0                | 99.0       | 83.3                | 78.3    | 73.3          | 4.3     |
| CST                   | 98.0                | 99.0       | 85.0                | 83.3    | 81.7          | 4.3     |
| GO-DHS                | 92.7                | 99.0       | 75.0                | 73.3    | 75.0          | 4.3     |
| GO-PR60               | 95.3                | 99.0       | 76.7                | 73.3    | 73.3          | 4.3     |
| IS-PR 469             | 97.0                | 99.0       | 80.0                | 80.0    | 75.0          | 4.3     |
| IS-PR 489             | 97.0                | 99.0       | 85.0                | 83.3    | 80.0          | 4.3     |
| LTP-RAE               | 97.0                | 99.0       | 86.7                | 71.7    | 75.0          | 4.3     |
| MACH I                | 92.7                | 99.0       | 68.3                | 66.7    | 58.3          | 4.3     |
| PALMER V              | 94.3                | 99.0       | 76.7                | 73.3    | 71.7          | 4.3     |
| KARMA (PICK 10401)    | 98.0                | 99.0       | 78.3                | 76.7    | 68.3          | 4.3     |
| PPG-PR 143            | 93.3                | 99.0       | 80.0                | 70.0    | 68.3          | 4.3     |
| PPG-PR 164            | 95.0                | 99.0       | 83.3                | 73.3    | 75.0          | 4.3     |
| PPG-PR 165            | 96.0                | 99.0       | 78.3                | 65.0    | 75.0          | 4.3     |
| PSRX-4CAGL            | 91.0                | 99.0       | 76.7                | 65.0    | 71.7          | 4.3     |
| PST-2MG7              | 96.0                | 96.0       | 81.7                | 86.7    | 78.3          | 4.3     |
| RIO VISTA             | 97.0                | 99.0       | 83.3                | 81.7    | 75.0          | 4.3     |
| 2NJK                  | 98.0                | 99.0       | 81.7                | 81.7    | 68.3          | 4.0     |
| CS-20                 | 91.7                | 99.0       | 75.0                | 61.7    | 71.7          | 4.0     |
| DLF LGT 4182          | 90.0                | 99.0       | 68.3                | 68.3    | 63.3          | 4.0     |
| PINNACLE              | 92.7                | 97.7       | 66.7                | 65.0    | 63.3          | 4.0     |
| PST-2NKM              | 98.0                | 97.7       | 90.0                | 83.3    | 83.3          | 4.0     |
| RAD-PR55R             | 95.3                | 99.0       | 71.7                | 61.7    | 70.0          | 4.0     |
| RAD-PR62              | 95.0                | 99.0       | 78.3                | 61.7    | 71.7          | 4.0     |
| SIENNA                | 94.3                | 99.0       | 75.0                | 73.3    | 73.3          | 4.0     |
| WICKED (SRX-4RHD)     | 97.3                | 99.0       | 75.0                | 68.3    | 61.7          | 4.0     |
| IS-PR 409             | 97.0                | 99.0       | 76.7                | 73.3    | 70.0          | 3.7     |
| PST-2BNS              | 97.0                | 99.0       | 85.0                | 73.3    | 71.7          | 3.7     |
| BAR LP 10972          | 94.3                | 99.0       | 70.0                | 66.7    | 56.7          | 3.3     |
| LINN                  | 85.0                | 91.3       | 55.0                | 56.7    | 46.7          | 2.7     |
| LSD VALUE             | 6.2                 | 5.7        | 13.7                | 28.8    | 25.8          | 5.3     |
| C.V. (%)              | 3.0                 | 1.9        | 8.5                 | 13.3    | 13.2          | 22.3    |

- 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.
- 3/ TRAFFIC IS APPLIED USING A BRINKMANN TRAFFIC SIMULATOR TO APPROXIMATE 60 FOOTBALL GAMES OVER A TEN WEEK PERIOD IN FALL. TRAFFIC APPLIED STARTING 8/31/11, EVERY TUESDAY AND FRIDAY. LAST TRAFFIC APPLIED ON 11/4/11.

TABLE 13.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT PUYALLUP (SAND DROUGHT STUDY), WA 1/  
2011 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | QUALITY RATINGS |     |     |     |     |     |     |     |     |     |     |     | MEAN |
|-----------------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
|                             | JAN             | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |      |
| PIZZAZZ 2 GLR (PR 909)      | 5.7             | 5.3 | 5.3 | 6.3 | 7.0 | 5.0 | 5.7 | 4.7 | 4.7 | 5.3 | 6.3 | 5.0 | 5.5  |
| CL 11601                    | 5.0             | 4.7 | 5.3 | 5.7 | 5.0 | 4.7 | 5.0 | 4.3 | 4.3 | 5.0 | 7.0 | 5.3 | 5.1  |
| CL 307                      | 6.0             | 5.3 | 5.7 | 5.7 | 5.7 | 4.7 | 4.7 | 4.0 | 4.3 | 4.7 | 5.7 | 4.7 | 5.1  |
| PPG-PR 121                  | 5.3             | 5.0 | 5.0 | 5.3 | 6.3 | 5.0 | 4.3 | 4.3 | 4.7 | 4.3 | 5.7 | 5.3 | 5.1  |
| IS-PR 487                   | 5.3             | 4.7 | 5.0 | 5.3 | 5.3 | 5.0 | 4.7 | 4.7 | 4.7 | 4.3 | 6.0 | 4.7 | 5.0  |
| LTP-RAE                     | 5.0             | 5.3 | 4.3 | 5.3 | 6.3 | 5.0 | 5.0 | 5.0 | 4.3 | 4.3 | 5.0 | 4.7 | 5.0  |
| PANGEA GLR (CL 11701)       | 5.3             | 5.0 | 5.0 | 5.7 | 6.3 | 4.7 | 4.7 | 4.0 | 4.0 | 5.0 | 5.7 | 4.7 | 5.0  |
| SIENNA                      | 5.0             | 4.7 | 4.7 | 5.7 | 6.0 | 5.3 | 5.0 | 4.7 | 4.0 | 4.7 | 5.3 | 4.7 | 5.0  |
| SR 4650 (PSRX-3701)         | 5.7             | 5.0 | 5.0 | 6.0 | 5.7 | 4.7 | 4.7 | 4.7 | 4.3 | 4.7 | 5.0 | 4.3 | 5.0  |
| PPG-PR 136                  | 5.0             | 5.0 | 5.0 | 5.3 | 5.3 | 5.0 | 4.7 | 4.0 | 4.0 | 4.7 | 5.7 | 4.7 | 4.9  |
| PPG-PR 164                  | 5.0             | 5.0 | 5.0 | 5.0 | 6.3 | 5.0 | 4.3 | 4.0 | 4.3 | 4.7 | 5.0 | 5.0 | 4.9  |
| RINOVO                      | 5.3             | 5.0 | 5.0 | 5.3 | 5.0 | 5.0 | 5.3 | 4.0 | 4.0 | 4.7 | 6.0 | 4.7 | 4.9  |
| BAR LP 10970                | 4.7             | 4.7 | 4.7 | 4.7 | 6.0 | 5.3 | 4.7 | 4.7 | 4.7 | 4.0 | 5.3 | 4.3 | 4.8  |
| KARMA (PICK 10401)          | 5.3             | 4.7 | 4.7 | 5.3 | 6.3 | 5.7 | 4.7 | 4.3 | 4.3 | 3.3 | 4.7 | 4.3 | 4.8  |
| PPG-PR 137                  | 4.7             | 5.0 | 4.7 | 5.0 | 4.7 | 4.7 | 5.0 | 5.0 | 4.0 | 4.7 | 5.3 | 4.7 | 4.8  |
| PPG-PR 142                  | 5.3             | 4.3 | 4.7 | 5.0 | 5.3 | 4.7 | 5.3 | 4.7 | 4.3 | 4.0 | 5.3 | 4.3 | 4.8  |
| PST-2MG7                    | 5.0             | 4.3 | 4.7 | 5.3 | 5.0 | 4.3 | 5.0 | 4.0 | 4.3 | 4.7 | 6.3 | 5.0 | 4.8  |
| PST-2NKM                    | 4.0             | 4.0 | 4.3 | 5.3 | 5.7 | 4.7 | 5.0 | 5.0 | 4.0 | 4.3 | 5.7 | 5.0 | 4.8  |
| UNO                         | 4.0             | 5.0 | 5.0 | 6.0 | 6.0 | 5.3 | 5.3 | 3.7 | 4.0 | 4.0 | 5.3 | 4.3 | 4.8  |
| APR 2320                    | 5.0             | 4.0 | 3.7 | 5.0 | 5.3 | 4.7 | 5.0 | 4.3 | 4.7 | 4.7 | 5.7 | 4.0 | 4.7  |
| APR 2445                    | 4.7             | 4.7 | 4.0 | 4.7 | 5.7 | 4.3 | 5.0 | 4.7 | 4.0 | 4.0 | 5.7 | 4.7 | 4.7  |
| BONNEVILLE                  | 5.7             | 5.3 | 4.7 | 5.7 | 5.7 | 4.7 | 4.0 | 4.3 | 4.0 | 4.0 | 4.7 | 4.0 | 4.7  |
| CS-PR66                     | 4.3             | 4.0 | 4.0 | 4.7 | 4.7 | 4.7 | 5.0 | 5.7 | 5.0 | 4.3 | 5.3 | 4.3 | 4.7  |
| DLF LGD-3022                | 5.0             | 5.3 | 4.7 | 6.0 | 4.7 | 4.0 | 4.3 | 4.3 | 4.0 | 4.3 | 5.0 | 4.7 | 4.7  |
| IS-PR 463                   | 4.7             | 4.7 | 4.0 | 5.0 | 5.3 | 4.7 | 4.7 | 4.3 | 4.3 | 4.3 | 5.7 | 4.7 | 4.7  |
| MACH I                      | 4.7             | 4.7 | 4.7 | 5.0 | 5.3 | 4.7 | 4.0 | 4.7 | 4.3 | 4.7 | 5.3 | 4.3 | 4.7  |
| PPG-PR 138                  | 4.7             | 4.0 | 4.7 | 5.3 | 5.3 | 4.0 | 4.7 | 5.0 | 4.0 | 4.0 | 5.7 | 4.7 | 4.7  |
| PST-2BNS                    | 5.0             | 4.7 | 5.0 | 5.3 | 4.3 | 5.3 | 5.0 | 4.7 | 4.0 | 4.0 | 4.3 | 4.7 | 4.7  |
| MANHATTAN 6 GLR (PST-2MAGS) | 4.0             | 4.3 | 5.0 | 6.0 | 5.3 | 4.7 | 4.0 | 4.7 | 4.3 | 3.7 | 5.3 | 4.7 | 4.7  |
| RIO VISTA                   | 5.0             | 4.7 | 4.7 | 5.0 | 6.0 | 4.7 | 4.7 | 4.0 | 4.0 | 4.3 | 5.3 | 4.3 | 4.7  |
| EVOLUTION (S85)             | 4.7             | 4.7 | 4.3 | 5.0 | 6.0 | 4.0 | 4.3 | 4.0 | 4.3 | 5.0 | 5.3 | 4.7 | 4.7  |
| SIDEWAYS (PSRX-S84)         | 5.7             | 4.3 | 5.0 | 5.0 | 5.0 | 4.3 | 4.0 | 4.0 | 4.3 | 4.7 | 5.7 | 4.0 | 4.7  |
| A-35                        | 4.7             | 4.7 | 4.7 | 4.7 | 5.7 | 4.7 | 5.0 | 4.3 | 4.0 | 4.0 | 4.7 | 4.3 | 4.6  |
| DOMINATOR (PST-2AG4)        | 5.3             | 4.3 | 4.3 | 5.0 | 5.3 | 5.0 | 4.7 | 4.7 | 4.0 | 3.7 | 5.3 | 4.0 | 4.6  |
| HAVEN (APR 2038)            | 4.3             | 4.0 | 4.3 | 4.7 | 5.3 | 4.3 | 5.0 | 4.7 | 4.3 | 4.3 | 5.0 | 4.3 | 4.6  |
| INSIGHT                     | 4.3             | 4.7 | 3.7 | 5.3 | 5.0 | 4.3 | 5.0 | 5.0 | 4.3 | 4.0 | 5.3 | 4.7 | 4.6  |
| IS-PR 409                   | 4.7             | 4.3 | 4.7 | 4.7 | 5.3 | 4.3 | 4.3 | 4.3 | 4.0 | 4.0 | 5.7 | 4.7 | 4.6  |
| IS-PR 469                   | 4.7             | 4.3 | 4.7 | 4.0 | 5.0 | 4.3 | 4.7 | 4.3 | 4.3 | 4.3 | 5.3 | 4.7 | 4.6  |
| IS-PR 488                   | 4.7             | 4.3 | 4.7 | 5.7 | 4.3 | 4.0 | 4.3 | 4.0 | 4.3 | 4.7 | 6.0 | 4.7 | 4.6  |
| IS-PR 489                   | 5.0             | 4.7 | 4.3 | 4.7 | 4.3 | 4.0 | 4.3 | 4.3 | 4.0 | 4.7 | 5.7 | 5.0 | 4.6  |
| IS-PR 491                   | 4.7             | 4.3 | 4.0 | 5.3 | 6.0 | 4.3 | 4.3 | 3.7 | 4.0 | 4.3 | 5.7 | 4.3 | 4.6  |
| ISG-31                      | 4.0             | 4.7 | 4.7 | 5.3 | 5.0 | 4.3 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 4.7 | 4.6  |
| OCTANE                      | 5.0             | 4.7 | 4.7 | 5.0 | 5.0 | 4.3 | 4.3 | 4.0 | 4.0 | 4.3 | 5.3 | 4.3 | 4.6  |
| PPG-PR 128                  | 5.0             | 4.3 | 5.0 | 5.0 | 5.3 | 4.3 | 4.0 | 4.3 | 4.0 | 4.3 | 4.7 | 4.3 | 4.6  |
| PPG-PR 133                  | 4.7             | 5.0 | 4.0 | 5.0 | 5.3 | 4.0 | 5.0 | 4.3 | 4.0 | 4.3 | 5.3 | 4.3 | 4.6  |
| PPG-PR 134                  | 4.7             | 4.0 | 4.0 | 5.0 | 5.3 | 4.3 | 5.0 | 4.3 | 4.3 | 4.7 | 5.0 | 4.7 | 4.6  |
| PPG-PR 143                  | 5.0             | 4.3 | 5.0 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.0 | 4.0 | 5.0 | 4.3 | 4.6  |

TABLE 13. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
(CONT'D)

| 2011 DATA                                             |                 |      |      |      |      |      |      |      |     |      |      |      |      |
|-------------------------------------------------------|-----------------|------|------|------|------|------|------|------|-----|------|------|------|------|
| TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/ |                 |      |      |      |      |      |      |      |     |      |      |      |      |
| NAME                                                  | QUALITY RATINGS |      |      |      |      |      |      |      |     |      |      |      | MEAN |
|                                                       | JAN             | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP | OCT  | NOV  | DEC  |      |
| PRX-4GM1                                              | 4.3             | 4.3  | 5.0  | 5.0  | 5.0  | 4.3  | 4.7  | 4.3  | 4.0 | 4.0  | 5.0  | 4.7  | 4.6  |
| PST-204D                                              | 4.0             | 4.0  | 4.0  | 5.0  | 5.3  | 4.3  | 5.0  | 4.7  | 4.7 | 4.0  | 5.7  | 4.7  | 4.6  |
| PST-2DR9                                              | 4.3             | 4.3  | 4.3  | 5.3  | 4.7  | 4.0  | 5.3  | 4.7  | 4.3 | 4.0  | 5.0  | 4.3  | 4.6  |
| PST-2TQL                                              | 4.0             | 4.0  | 4.0  | 4.7  | 4.7  | 5.0  | 5.0  | 5.0  | 4.3 | 4.7  | 5.3  | 4.3  | 4.6  |
| IS-PR 492                                             | 4.7             | 4.3  | 4.3  | 4.7  | 5.0  | 4.0  | 4.7  | 4.3  | 4.0 | 4.3  | 5.3  | 4.7  | 4.5  |
| ISG-30                                                | 5.3             | 4.7  | 4.3  | 4.7  | 5.0  | 4.0  | 4.7  | 4.0  | 4.0 | 3.7  | 5.0  | 4.7  | 4.5  |
| JR-178                                                | 5.0             | 4.0  | 4.3  | 4.7  | 6.0  | 5.0  | 5.0  | 3.0  | 4.0 | 4.0  | 4.7  | 4.0  | 4.5  |
| LTP-PR 135                                            | 4.7             | 4.3  | 4.3  | 4.7  | 5.3  | 4.3  | 4.3  | 4.7  | 4.3 | 4.3  | 4.7  | 4.3  | 4.5  |
| PALMER V                                              | 4.7             | 4.3  | 4.0  | 5.3  | 5.0  | 4.0  | 4.7  | 4.3  | 4.0 | 4.3  | 5.3  | 4.3  | 4.5  |
| SOX FAN (GM3)                                         | 5.3             | 4.7  | 4.3  | 5.3  | 5.0  | 4.3  | 4.0  | 3.7  | 4.0 | 4.0  | 4.7  | 4.7  | 4.5  |
| SRX-4MSH                                              | 4.3             | 4.0  | 4.7  | 4.7  | 5.0  | 4.3  | 4.3  | 4.7  | 4.3 | 4.3  | 4.7  | 4.7  | 4.5  |
| WICKED (SRX-4RHD)                                     | 5.0             | 4.3  | 4.0  | 4.7  | 5.0  | 4.7  | 4.3  | 4.7  | 4.3 | 4.0  | 4.3  | 4.7  | 4.5  |
| ALLANTE                                               | 4.0             | 4.0  | 3.7  | 5.3  | 5.7  | 4.3  | 5.0  | 4.7  | 4.0 | 4.0  | 4.7  | 4.0  | 4.4  |
| BAR LP 10972                                          | 4.3             | 4.0  | 3.7  | 4.3  | 5.0  | 4.7  | 4.3  | 4.7  | 4.0 | 4.3  | 5.3  | 4.3  | 4.4  |
| BAR LP 7608                                           | 4.7             | 3.7  | 3.7  | 4.7  | 4.7  | 5.0  | 4.7  | 4.3  | 4.0 | 3.7  | 4.7  | 4.7  | 4.4  |
| FIESTA 4                                              | 5.0             | 4.0  | 4.3  | 5.0  | 5.3  | 4.7  | 4.0  | 3.7  | 4.0 | 3.7  | 5.0  | 4.3  | 4.4  |
| GO-G37                                                | 4.7             | 4.3  | 4.7  | 5.3  | 5.7  | 4.3  | 4.3  | 3.7  | 3.7 | 3.7  | 4.3  | 4.0  | 4.4  |
| PPG-PR 165                                            | 4.7             | 4.3  | 4.3  | 4.7  | 4.7  | 5.0  | 5.0  | 4.0  | 4.0 | 4.0  | 4.3  | 4.3  | 4.4  |
| RAD-PR62                                              | 4.7             | 3.7  | 4.0  | 4.7  | 5.3  | 4.0  | 4.7  | 4.7  | 4.3 | 4.0  | 4.7  | 4.3  | 4.4  |
| APR 2036                                              | 4.0             | 4.0  | 4.0  | 4.7  | 4.3  | 4.0  | 4.0  | 3.7  | 4.0 | 4.0  | 5.7  | 5.0  | 4.3  |
| BRIGHTSTAR SLT                                        | 4.7             | 4.3  | 3.7  | 5.0  | 4.7  | 4.7  | 4.7  | 4.0  | 4.0 | 4.0  | 4.7  | 3.7  | 4.3  |
| GO-PR60                                               | 4.7             | 3.7  | 4.3  | 4.0  | 5.3  | 4.7  | 4.0  | 4.0  | 4.0 | 4.3  | 4.0  | 4.3  | 4.3  |
| ISG-36                                                | 5.0             | 3.7  | 4.0  | 4.7  | 5.3  | 4.0  | 4.3  | 4.0  | 4.0 | 3.7  | 4.3  | 4.0  | 4.3  |
| PSRX-4CAGL                                            | 5.3             | 4.3  | 4.3  | 4.3  | 5.0  | 4.0  | 4.0  | 3.3  | 3.7 | 4.3  | 4.7  | 4.3  | 4.3  |
| RAD-PR55R                                             | 4.7             | 4.0  | 4.3  | 4.0  | 4.7  | 4.0  | 4.3  | 4.3  | 4.0 | 4.0  | 4.7  | 4.3  | 4.3  |
| 2NJK                                                  | 4.0             | 3.7  | 3.3  | 5.0  | 4.3  | 4.0  | 4.3  | 4.7  | 4.0 | 4.3  | 4.7  | 4.0  | 4.2  |
| BAR LP 10969                                          | 4.7             | 4.0  | 3.7  | 4.7  | 4.0  | 4.3  | 4.3  | 4.0  | 4.0 | 3.7  | 5.0  | 4.0  | 4.2  |
| CST                                                   | 4.3             | 4.0  | 4.0  | 4.7  | 4.3  | 4.0  | 4.3  | 4.0  | 4.0 | 3.7  | 4.7  | 4.0  | 4.2  |
| JR-192                                                | 4.0             | 3.7  | 3.3  | 4.3  | 5.7  | 5.0  | 5.0  | 3.7  | 4.0 | 3.3  | 4.7  | 3.7  | 4.2  |
| PICK 4DFHM                                            | 4.7             | 4.0  | 4.3  | 4.3  | 4.3  | 4.0  | 4.3  | 3.7  | 4.0 | 3.7  | 4.7  | 4.0  | 4.2  |
| PST-2ACR                                              | 4.0             | 4.3  | 4.0  | 5.0  | 4.3  | 4.0  | 4.3  | 4.0  | 4.0 | 4.0  | 4.7  | 4.0  | 4.2  |
| CS-20                                                 | 4.0             | 4.3  | 4.3  | 4.3  | 4.7  | 4.0  | 4.0  | 4.0  | 3.7 | 3.7  | 4.3  | 4.0  | 4.1  |
| DLF LGD-3026                                          | 4.7             | 4.0  | 3.7  | 4.0  | 4.3  | 4.0  | 4.7  | 3.3  | 3.7 | 4.0  | 4.3  | 4.3  | 4.1  |
| IS-PR 479                                             | 4.0             | 3.7  | 3.3  | 4.3  | 4.3  | 4.0  | 4.3  | 3.7  | 4.0 | 4.3  | 4.7  | 4.3  | 4.1  |
| PINNACLE                                              | 4.0             | 4.0  | 3.0  | 5.0  | 4.0  | 4.3  | 5.0  | 4.3  | 4.0 | 3.3  | 4.7  | 4.0  | 4.1  |
| PPG-PR 140                                            | 4.0             | 3.3  | 3.0  | 4.0  | 4.3  | 4.0  | 4.3  | 4.3  | 4.3 | 4.3  | 5.0  | 4.7  | 4.1  |
| PLAYOFF 2 (P02)                                       | 4.0             | 3.7  | 3.0  | 4.7  | 4.3  | 4.0  | 4.3  | 4.0  | 4.3 | 3.7  | 4.3  | 4.0  | 4.0  |
| DLF LGT 4182                                          | 4.0             | 3.3  | 3.0  | 4.0  | 4.0  | 4.0  | 3.7  | 4.0  | 4.0 | 4.0  | 4.7  | 4.3  | 3.9  |
| GO-DHS                                                | 4.0             | 3.7  | 4.3  | 4.7  | 4.0  | 4.0  | 3.7  | 3.3  | 4.0 | 3.7  | 4.0  | 4.0  | 3.9  |
| PST-2K9                                               | 4.3             | 3.7  | 3.3  | 4.0  | 4.3  | 4.0  | 4.0  | 3.7  | 4.0 | 3.7  | 4.3  | 4.0  | 3.9  |
| LINN                                                  | 4.3             | 3.0  | 3.3  | 5.0  | 3.0  | 4.0  | 4.7  | 3.7  | 3.3 | 3.3  | 3.0  | 3.0  | 3.6  |
| LSD VALUE                                             | 1.4             | 0.9  | 1.4  | 1.1  | 1.6  | 1.1  | 2.6  | 2.1  | 1.2 | 2.6  | 2.2  | 2.0  | 0.5  |
| C.V. (%)                                              | 13.6            | 11.8 | 16.0 | 11.9 | 15.8 | 11.6 | 14.9 | 16.5 | 9.6 | 16.5 | 16.7 | 13.4 | 6.7  |

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).
- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.
- 3/ TO INDUCE DROUGHT CONDITIONS, IRRIGATION IS REDUCED TO 50-65%ET DURING SUMMER. THEREFORE, SUMMER RATINGS REFLECT INDUCED CHRONIC DROUGHT. FALL AND WINTER RATINGS REFLECT RECOVERY FROM CHRONIC DROUGHT CONDITIONS.

TABLE 13. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT PUYALLUP (SAND DROUGHT STUDY), WA 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | GENETIC<br>COLOR | SPRING<br>DENSITY | WINTER<br>COLOR | DROUGHT<br>TOLERANCE<br>DORMANCY | DROUGHT<br>TOLERANCE<br>RECOVERY | MOWING<br>QUALITY<br>JUNE | MOWING<br>QUALITY<br>SEPTEMBER | RED THREAD RATINGS |         |          | PERCENT ESTABLISHMENT IN 2010 |          |          |
|-----------------------------|------------------|-------------------|-----------------|----------------------------------|----------------------------------|---------------------------|--------------------------------|--------------------|---------|----------|-------------------------------|----------|----------|
|                             |                  |                   |                 |                                  |                                  |                           |                                | SEPTEMBER          | OCTOBER | DECEMBER | SEPTEMBER                     | NOVEMBER | DECEMBER |
| PIZZAZZ 2 GLR (PR 909)      | 6.3              | 8.0               | 6.7             | 5.0                              | 7.0                              | 5.3                       | 6.3                            | 5.0                | 5.3     | 5.3      | 70.0                          | 95.0     | 90.0     |
| CL 11601                    | 5.7              | 8.3               | 6.0             | 5.0                              | 6.3                              | 4.0                       | 6.7                            | 5.3                | 5.3     | 5.7      | 70.0                          | 88.3     | 85.0     |
| CL 307                      | 6.3              | 9.0               | 6.3             | 4.0                              | 6.3                              | 4.7                       | 6.0                            | 4.3                | 5.0     | 5.3      | 76.7                          | 95.0     | 95.0     |
| PPG-PR 121                  | 6.7              | 8.3               | 7.0             | 4.3                              | 6.7                              | 4.7                       | 6.0                            | 5.0                | 3.7     | 4.3      | 70.0                          | 93.3     | 90.0     |
| IS-PR 487                   | 5.7              | 8.3               | 6.7             | 5.3                              | 6.7                              | 5.7                       | 7.0                            | 5.0                | 5.3     | 4.7      | 66.7                          | 83.3     | 88.3     |
| LTP-RAE                     | 6.7              | 8.3               | 6.3             | 5.3                              | 6.3                              | 5.0                       | 6.3                            | 5.0                | 5.0     | 5.3      | 66.7                          | 90.0     | 91.7     |
| PANGEA GLR (CL 11701)       | 7.0              | 8.3               | 7.0             | 4.7                              | 6.3                              | 5.7                       | 7.3                            | 5.0                | 4.7     | 5.0      | 76.7                          | 88.3     | 93.3     |
| SIENNA                      | 7.0              | 8.3               | 5.7             | 5.3                              | 6.0                              | 6.7                       | 7.3                            | 4.3                | 4.7     | 5.0      | 63.3                          | 93.3     | 86.7     |
| SR 4650 (PSRX-3701)         | 6.0              | 8.3               | 6.3             | 5.0                              | 6.7                              | 5.0                       | 5.7                            | 5.0                | 5.3     | 4.3      | 80.0                          | 93.3     | 88.3     |
| PPG-PR 136                  | 6.7              | 8.7               | 6.7             | 4.7                              | 6.0                              | 5.3                       | 6.0                            | 4.3                | 4.7     | 5.0      | 60.0                          | 91.7     | 90.0     |
| PPG-PR 164                  | 5.7              | 8.7               | 6.7             | 4.0                              | 6.0                              | 5.3                       | 4.3                            | 4.0                | 5.0     | 4.7      | 70.0                          | 95.0     | 91.7     |
| RINOVO                      | 6.3              | 8.0               | 6.7             | 4.7                              | 5.7                              | 5.7                       | 4.7                            | 3.7                | 4.7     | 5.3      | 63.3                          | 93.3     | 90.0     |
| BAR LP 10970                | 6.0              | 8.0               | 6.0             | 5.0                              | 6.7                              | 7.3                       | 7.3                            | 5.7                | 4.3     | 4.3      | 66.7                          | 88.3     | 86.7     |
| KARMA (PICK 10401)          | 6.0              | 8.0               | 6.7             | 4.3                              | 6.3                              | 6.3                       | 6.7                            | 4.7                | 3.3     | 4.3      | 73.3                          | 90.0     | 88.3     |
| PPG-PR 137                  | 6.7              | 8.3               | 6.7             | 5.7                              | 6.0                              | 4.0                       | 5.7                            | 4.7                | 5.0     | 4.7      | 56.7                          | 90.0     | 86.7     |
| PPG-PR 142                  | 6.3              | 7.7               | 6.7             | 4.7                              | 6.0                              | 5.0                       | 6.3                            | 4.7                | 4.7     | 4.3      | 70.0                          | 88.3     | 88.3     |
| PST-2MG7                    | 6.3              | 7.7               | 5.7             | 4.7                              | 6.3                              | 4.3                       | 6.0                            | 4.7                | 4.3     | 5.0      | 66.7                          | 88.3     | 86.7     |
| PST-2NKM                    | 5.7              | 7.3               | 6.0             | 5.3                              | 5.3                              | 5.3                       | 6.7                            | 4.3                | 4.7     | 5.0      | 63.3                          | 88.3     | 83.3     |
| UNO                         | 6.3              | 8.0               | 6.7             | 4.0                              | 5.7                              | 5.3                       | 6.3                            | 4.3                | 4.3     | 5.0      | 70.0                          | 90.0     | 86.7     |
| APR 2320                    | 7.0              | 7.7               | 5.3             | 5.0                              | 7.7                              | 7.3                       | 8.0                            | 5.7                | 4.7     | 4.3      | 63.3                          | 90.0     | 83.3     |
| APR 2445                    | 6.0              | 7.3               | 6.7             | 5.0                              | 6.0                              | 4.3                       | 5.7                            | 4.7                | 4.0     | 5.3      | 63.3                          | 88.3     | 85.0     |
| BONNEVILLE                  | 6.3              | 8.0               | 6.3             | 4.0                              | 6.0                              | 3.7                       | 5.0                            | 4.0                | 4.0     | 4.0      | 63.3                          | 91.7     | 91.7     |
| CS-PR66                     | 6.7              | 7.0               | 6.3             | 6.7                              | 7.0                              | 5.7                       | 7.7                            | 6.0                | 4.7     | 4.3      | 63.3                          | 85.0     | 83.3     |
| DLF LGD-3022                | 5.7              | 8.7               | 6.7             | 4.7                              | 6.0                              | 4.0                       | 5.7                            | 4.7                | 4.0     | 4.3      | 73.3                          | 91.7     | 88.3     |
| IS-PR 463                   | 7.0              | 7.3               | 6.3             | 5.0                              | 5.3                              | 4.7                       | 6.0                            | 4.3                | 4.3     | 5.0      | 56.7                          | 91.7     | 91.7     |
| MACH I                      | 6.7              | 7.7               | 6.7             | 4.7                              | 6.0                              | 4.7                       | 6.0                            | 5.3                | 5.3     | 4.7      | 66.7                          | 86.7     | 86.7     |
| PPG-PR 138                  | 6.3              | 7.3               | 6.0             | 5.0                              | 6.3                              | 4.7                       | 7.3                            | 5.0                | 4.7     | 4.7      | 70.0                          | 91.7     | 90.0     |
| PST-2BNS                    | 6.7              | 7.3               | 6.3             | 5.3                              | 6.3                              | 6.0                       | 6.7                            | 4.7                | 4.3     | 3.7      | 63.3                          | 86.7     | 85.0     |
| MANHATTAN 6 GLR (PST-2MAGS) | 5.7              | 7.3               | 6.7             | 4.7                              | 6.0                              | 4.3                       | 6.3                            | 4.3                | 5.0     | 5.3      | 63.3                          | 85.0     | 85.0     |
| RIO VISTA                   | 6.3              | 7.3               | 6.3             | 4.3                              | 6.0                              | 5.0                       | 5.0                            | 4.0                | 4.0     | 5.0      | 63.3                          | 86.7     | 86.7     |
| EVOLUTION (S85)             | 6.3              | 8.0               | 6.3             | 4.7                              | 6.0                              | 3.7                       | 6.0                            | 4.7                | 5.3     | 5.3      | 63.3                          | 93.3     | 85.0     |
| SIDEWAYS (PSRX-S84)         | 6.0              | 8.0               | 6.3             | 4.3                              | 6.0                              | 3.7                       | 5.0                            | 4.7                | 5.0     | 5.0      | 66.7                          | 88.3     | 88.3     |
| A-35                        | 7.7              | 7.7               | 7.3             | 4.3                              | 6.3                              | 7.7                       | 7.3                            | 4.7                | 4.3     | 4.0      | 63.3                          | 86.7     | 83.3     |
| DOMINATOR (PST-2AG4)        | 6.3              | 7.7               | 5.3             | 5.3                              | 6.3                              | 6.0                       | 6.3                            | 4.7                | 3.7     | 4.0      | 56.7                          | 86.7     | 86.7     |
| HAVEN (APR 2038)            | 5.3              | 7.7               | 5.3             | 4.3                              | 6.3                              | 4.3                       | 6.3                            | 4.7                | 4.0     | 4.3      | 70.0                          | 83.3     | 83.3     |
| INSIGHT                     | 6.0              | 7.3               | 6.0             | 5.7                              | 6.0                              | 6.0                       | 6.7                            | 4.3                | 4.0     | 5.0      | 70.0                          | 86.7     | 86.7     |
| IS-PR 409                   | 6.7              | 8.0               | 6.3             | 3.7                              | 5.0                              | 4.3                       | 4.7                            | 4.0                | 5.0     | 5.0      | 63.3                          | 86.7     | 83.3     |
| IS-PR 469                   | 6.7              | 7.3               | 6.3             | 5.0                              | 6.3                              | 5.0                       | 5.7                            | 4.3                | 5.3     | 6.0      | 60.0                          | 90.0     | 88.3     |
| IS-PR 488                   | 7.0              | 8.0               | 6.7             | 4.3                              | 6.0                              | 4.0                       | 5.7                            | 4.3                | 5.0     | 5.3      | 63.3                          | 86.7     | 86.7     |
| IS-PR 489                   | 5.7              | 8.0               | 6.3             | 4.7                              | 6.0                              | 3.0                       | 5.3                            | 4.7                | 5.0     | 5.3      | 66.7                          | 91.7     | 86.7     |
| IS-PR 491                   | 7.0              | 7.7               | 6.7             | 5.0                              | 5.3                              | 3.7                       | 5.0                            | 4.0                | 4.7     | 4.3      | 56.7                          | 91.7     | 86.7     |
| ISG-31                      | 6.3              | 7.7               | 6.3             | 4.0                              | 6.0                              | 4.0                       | 6.3                            | 4.3                | 3.3     | 4.7      | 63.3                          | 91.7     | 85.0     |
| OCTANE                      | 7.3              | 8.0               | 6.7             | 4.0                              | 5.0                              | 3.7                       | 4.3                            | 3.7                | 4.3     | 5.0      | 73.3                          | 88.3     | 90.0     |
| PPG-PR 128                  | 6.0              | 7.7               | 7.0             | 5.3                              | 6.0                              | 5.0                       | 6.3                            | 4.7                | 4.7     | 4.7      | 73.3                          | 86.7     | 88.3     |
| PPG-PR 133                  | 6.7              | 7.7               | 6.7             | 5.0                              | 5.7                              | 3.7                       | 5.7                            | 4.3                | 4.3     | 4.7      | 56.7                          | 85.0     | 85.0     |
| PPG-PR 134                  | 6.0              | 7.3               | 6.3             | 5.7                              | 6.7                              | 4.7                       | 7.0                            | 5.0                | 5.7     | 5.3      | 56.7                          | 85.0     | 85.0     |
| PPG-PR 143                  | 6.7              | 8.0               | 6.7             | 4.3                              | 6.3                              | 5.0                       | 6.3                            | 4.3                | 4.3     | 4.7      | 66.7                          | 86.7     | 88.3     |
| PRX-4GM1                    | 6.0              | 7.0               | 6.3             | 4.0                              | 5.3                              | 4.0                       | 5.7                            | 4.3                | 4.7     | 5.3      | 53.3                          | 86.7     | 86.7     |
| PST-204D                    | 5.3              | 7.3               | 5.3             | 5.0                              | 6.0                              | 5.7                       | 7.0                            | 5.0                | 3.7     | 4.7      | 70.0                          | 83.3     | 81.7     |

TABLE 13. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
AT PUYALLUP (SAND DROUGHT STUDY), WA 1/

| 2011 DATA                                             |                  |                   |                 |                                  |                                  |                           |                                |                    |         |          |                               |          |          |
|-------------------------------------------------------|------------------|-------------------|-----------------|----------------------------------|----------------------------------|---------------------------|--------------------------------|--------------------|---------|----------|-------------------------------|----------|----------|
| TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/ |                  |                   |                 |                                  |                                  |                           |                                |                    |         |          |                               |          |          |
| NAME                                                  | GENETIC<br>COLOR | SPRING<br>DENSITY | WINTER<br>COLOR | DROUGHT<br>TOLERANCE<br>DORMANCY | DROUGHT<br>TOLERANCE<br>RECOVERY | MOWING<br>QUALITY<br>JUNE | MOWING<br>QUALITY<br>SEPTEMBER | RED THREAD RATINGS |         |          | PERCENT ESTABLISHMENT IN 2010 |          |          |
|                                                       |                  |                   |                 |                                  |                                  |                           |                                | SEPTEMBER          | OCTOBER | DECEMBER | SEPTEMBER                     | NOVEMBER | DECEMBER |
| PST-2DR9                                              | 5.3              | 6.7               | 6.3             | 4.7                              | 6.0                              | 4.0                       | 6.3                            | 4.7                | 4.3     | 4.7      | 60.0                          | 88.3     | 85.0     |
| PST-2TQL                                              | 6.7              | 7.0               | 5.7             | 4.7                              | 6.7                              | 5.7                       | 6.7                            | 5.0                | 4.7     | 4.0      | 60.0                          | 80.0     | 81.7     |
| IS-PR 492                                             | 6.7              | 7.0               | 5.7             | 4.7                              | 6.3                              | 3.3                       | 5.3                            | 4.0                | 5.0     | 5.0      | 56.7                          | 86.7     | 86.7     |
| ISG-30                                                | 7.7              | 7.7               | 6.3             | 5.0                              | 6.0                              | 5.0                       | 6.0                            | 4.0                | 4.0     | 4.3      | 63.3                          | 88.3     | 86.7     |
| JR-178                                                | 6.3              | 7.0               | 6.3             | 3.3                              | 5.0                              | 5.3                       | 5.3                            | 4.3                | 4.0     | 4.3      | 66.7                          | 88.3     | 88.3     |
| LTP-PR 135                                            | 6.0              | 7.7               | 6.0             | 5.0                              | 5.7                              | 4.0                       | 6.0                            | 4.7                | 4.3     | 4.3      | 73.3                          | 88.3     | 86.7     |
| PALMER V                                              | 6.0              | 6.7               | 5.7             | 4.7                              | 6.0                              | 5.0                       | 6.0                            | 4.7                | 4.7     | 4.7      | 63.3                          | 88.3     | 88.3     |
| SOX FAN (GM3)                                         | 6.3              | 7.7               | 5.3             | 3.7                              | 6.0                              | 3.7                       | 5.3                            | 4.7                | 4.3     | 4.3      | 66.7                          | 90.0     | 90.0     |
| SRX-4MSH                                              | 6.0              | 7.7               | 4.7             | 4.0                              | 5.7                              | 4.0                       | 5.7                            | 5.0                | 4.3     | 4.3      | 60.0                          | 81.7     | 86.7     |
| WICKED (SRX-4RHD)                                     | 7.0              | 7.3               | 6.0             | 5.3                              | 6.7                              | 5.0                       | 6.3                            | 5.3                | 5.7     | 5.0      | 70.0                          | 91.7     | 85.0     |
| ALLANTE                                               | 5.3              | 7.3               | 5.0             | 5.3                              | 6.0                              | 6.0                       | 7.0                            | 4.3                | 4.0     | 4.0      | 66.7                          | 85.0     | 86.7     |
| BAR LP 10972                                          | 6.0              | 7.3               | 6.0             | 5.0                              | 6.0                              | 5.7                       | 6.7                            | 4.7                | 5.0     | 4.0      | 63.3                          | 86.7     | 83.3     |
| BAR LP 7608                                           | 5.7              | 7.0               | 5.0             | 5.3                              | 5.7                              | 6.3                       | 7.0                            | 4.0                | 3.7     | 4.3      | 70.0                          | 83.3     | 83.3     |
| FIESTA 4                                              | 6.3              | 6.7               | 7.0             | 3.7                              | 5.7                              | 5.3                       | 5.3                            | 4.3                | 4.3     | 4.0      | 66.7                          | 85.0     | 86.7     |
| GO-G37                                                | 7.0              | 7.7               | 6.3             | 3.7                              | 6.0                              | 5.3                       | 5.7                            | 4.3                | 3.3     | 4.0      | 63.3                          | 88.3     | 85.0     |
| PPG-PR 165                                            | 6.7              | 7.7               | 6.7             | 4.7                              | 6.0                              | 5.3                       | 4.7                            | 4.3                | 4.3     | 3.7      | 66.7                          | 85.0     | 86.7     |
| RAD-PR62                                              | 5.0              | 6.7               | 5.0             | 5.0                              | 6.7                              | 5.7                       | 7.3                            | 4.3                | 4.0     | 4.3      | 63.3                          | 91.7     | 86.7     |
| APR 2036                                              | 6.7              | 7.0               | 6.0             | 4.3                              | 6.0                              | 4.7                       | 6.0                            | 4.0                | 5.3     | 5.3      | 56.7                          | 86.7     | 85.0     |
| BRIGHTSTAR SLT                                        | 5.3              | 7.7               | 5.3             | 5.3                              | 6.3                              | 5.7                       | 7.7                            | 4.7                | 3.7     | 3.7      | 70.0                          | 88.3     | 85.0     |
| GO-PR60                                               | 7.0              | 7.0               | 5.0             | 4.7                              | 6.0                              | 6.7                       | 7.3                            | 4.3                | 4.3     | 4.3      | 60.0                          | 85.0     | 86.7     |
| ISG-36                                                | 7.3              | 7.3               | 7.0             | 3.7                              | 6.0                              | 4.7                       | 6.7                            | 4.3                | 3.7     | 5.0      | 56.7                          | 85.0     | 86.7     |
| PSRX-4CAGL                                            | 7.0              | 6.7               | 6.7             | 4.0                              | 5.7                              | 3.7                       | 4.0                            | 4.0                | 4.3     | 4.0      | 66.7                          | 88.3     | 90.0     |
| RAD-PR55R                                             | 7.3              | 7.0               | 6.0             | 5.0                              | 6.0                              | 5.3                       | 7.0                            | 4.7                | 5.3     | 5.0      | 63.3                          | 80.0     | 85.0     |
| 2NJK                                                  | 5.7              | 7.0               | 5.7             | 5.0                              | 6.3                              | 4.3                       | 6.0                            | 4.3                | 4.3     | 4.3      | 63.3                          | 85.0     | 83.3     |
| BAR LP 10969                                          | 5.3              | 7.3               | 6.0             | 4.3                              | 6.3                              | 3.7                       | 5.3                            | 4.0                | 3.7     | 4.0      | 66.7                          | 83.3     | 86.7     |
| CST                                                   | 5.7              | 7.3               | 6.3             | 4.0                              | 6.3                              | 3.7                       | 5.3                            | 4.7                | 3.7     | 4.7      | 63.3                          | 85.0     | 83.3     |
| JR-192                                                | 6.3              | 6.3               | 4.7             | 5.0                              | 6.0                              | 6.7                       | 7.0                            | 4.0                | 3.0     | 3.7      | 70.0                          | 83.3     | 80.0     |
| PICK 4DFHM                                            | 6.3              | 7.0               | 6.0             | 4.0                              | 5.3                              | 3.3                       | 5.0                            | 4.3                | 3.7     | 4.3      | 70.0                          | 83.3     | 85.0     |
| PST-2ACR                                              | 6.3              | 7.3               | 6.0             | 4.3                              | 5.3                              | 3.3                       | 5.3                            | 4.0                | 4.3     | 4.3      | 66.7                          | 85.0     | 85.0     |
| CS-20                                                 | 7.3              | 7.3               | 7.0             | 4.3                              | 5.3                              | 4.0                       | 5.0                            | 3.7                | 3.7     | 4.3      | 63.3                          | 86.7     | 83.3     |
| DLF LGD-3026                                          | 6.7              | 7.3               | 6.7             | 4.3                              | 5.3                              | 3.0                       | 4.3                            | 4.0                | 3.7     | 4.0      | 70.0                          | 90.0     | 86.7     |
| IS-PR 479                                             | 8.0              | 7.0               | 5.7             | 4.7                              | 5.7                              | 5.0                       | 6.0                            | 4.0                | 5.0     | 4.7      | 60.0                          | 81.7     | 85.0     |
| PINNACLE                                              | 5.0              | 7.3               | 4.7             | 5.0                              | 5.7                              | 5.7                       | 7.0                            | 4.3                | 4.0     | 3.7      | 70.0                          | 85.0     | 83.3     |
| PPG-PR 140                                            | 6.0              | 6.3               | 5.7             | 4.7                              | 5.3                              | 3.3                       | 5.3                            | 5.0                | 3.7     | 4.7      | 50.0                          | 81.7     | 81.7     |
| PLAYOFF 2 (P02)                                       | 6.0              | 6.7               | 5.3             | 4.7                              | 6.0                              | 3.7                       | 6.7                            | 4.3                | 4.0     | 4.7      | 56.7                          | 83.3     | 81.7     |
| DLF LGT 4182                                          | 6.7              | 6.3               | 5.0             | 5.0                              | 5.7                              | 4.3                       | 6.7                            | 4.7                | 4.7     | 4.7      | 50.0                          | 80.0     | 78.3     |
| GO-DHS                                                | 7.7              | 6.7               | 6.3             | 3.3                              | 5.0                              | 4.7                       | 6.0                            | 4.0                | 3.3     | 4.0      | 60.0                          | 81.7     | 80.0     |
| PST-2K9                                               | 6.0              | 6.7               | 5.3             | 4.3                              | 5.0                              | 4.3                       | 6.0                            | 4.3                | 4.0     | 4.0      | 63.3                          | 81.7     | 83.3     |
| LINN                                                  | 5.0              | 6.0               | 4.7             | 3.7                              | 5.0                              | 3.0                       | 6.3                            | 3.0                | 3.7     | 3.7      | 63.3                          | 83.3     | 81.7     |
| LSD VALUE                                             | 0.9              | 1.6               | 1.3             | 3.4                              | 1.6                              | 1.4                       | 1.9                            | 2.6                | 3.0     | 4.5      | 15.5                          | 7.7      | 8.3      |
| C.V. (%)                                              | 8.8              | 9.9               | 11.5            | 20.6                             | 11.3                             | 17.4                      | 16.0                           | 16.8               | 21.3    | 20.9     | 11.2                          | 4.7      | 4.5      |

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

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

3/ TO INDUCE DROUGHT CONDITIONS, IRRIGATION IS REDUCED TO 50-65%ET DURING SUMMER. THEREFORE, SUMMER RATINGS REFLECT INDUCED CHRONIC DROUGHT. FALL AND WINTER RATINGS REFLECT RECOVERY FROM CHRONIC DROUGHT CONDITIONS.

TABLE 13: (CONT'D)

PERCENT GREEN COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
AT PUYALLUP (SAND DROUGHT STUDY), WA 2/ 3/ 4/  
2011 DATA

| NAME                   | 6_22 | 8_4  | 8_12 | 8_19 | 8_25 | 9_1  | 9_8  | 9_15 |
|------------------------|------|------|------|------|------|------|------|------|
| PPG-PR 134             | 83.5 | 82.3 | 84.7 | 86.0 | 84.0 | 77.7 | 83.7 | 93.3 |
| CL 11601               | 73.5 | 73.0 | 72.3 | 77.0 | 82.0 | 74.7 | 75.3 | 93.0 |
| IS-PR 479              | 80.0 | 71.3 | 74.0 | 75.3 | 66.3 | 66.0 | 78.3 | 91.7 |
| WICKED (SRX-4RHD)      | 77.0 | 82.7 | 86.0 | 84.3 | 81.0 | 78.0 | 82.7 | 91.7 |
| BAR LP 10969           | 84.0 | 76.0 | 82.7 | 80.7 | 80.7 | 73.0 | 81.3 | 91.3 |
| EVOLUTION (S85)        | 79.5 | 69.3 | 71.3 | 72.0 | 82.0 | 71.3 | 79.0 | 91.0 |
| IS-PR 488              | 82.0 | 70.0 | 79.3 | 78.7 | 80.3 | 76.0 | 82.0 | 90.7 |
| PPG-PR 128             | 86.5 | 76.0 | 82.3 | 78.7 | 75.7 | 76.3 | 83.0 | 90.7 |
| CS-PR66                | 81.0 | 84.0 | 87.0 | 85.7 | 87.3 | 83.7 | 86.7 | 90.3 |
| PPG-PR 137             | 69.5 | 78.7 | 87.0 | 85.0 | 80.3 | 80.0 | 81.7 | 90.3 |
| ALLANTE                | 78.5 | 83.7 | 87.0 | 80.7 | 78.7 | 73.0 | 85.3 | 89.7 |
| SIDEWAYS (PSRX-S84)    | 82.5 | 66.0 | 82.7 | 82.0 | 76.3 | 66.3 | 73.0 | 89.7 |
| HAVEN (APR 2038)       | 78.5 | 71.7 | 77.7 | 77.3 | 79.3 | 75.7 | 77.7 | 89.0 |
| PST-2BNS               | 79.0 | 76.7 | 83.7 | 82.3 | 75.7 | 73.3 | 82.3 | 89.0 |
| APR 2320               | 86.0 | 79.7 | 76.3 | 79.7 | 84.0 | 80.0 | 82.0 | 88.7 |
| IS-PR 469              | 82.0 | 74.3 | 82.3 | 80.7 | 81.0 | 75.3 | 80.0 | 88.7 |
| ISG-30                 | 83.5 | 74.7 | 77.7 | 79.3 | 80.0 | 80.0 | 80.7 | 88.7 |
| DLF LGT 4182           | 79.0 | 74.7 | 73.0 | 78.0 | 83.0 | 72.3 | 77.7 | 88.3 |
| RAD-PR55R              | 84.0 | 73.0 | 79.0 | 80.7 | 72.3 | 75.7 | 81.7 | 88.3 |
| SIENNA                 | 89.5 | 71.3 | 77.0 | 77.3 | 75.3 | 78.0 | 76.0 | 88.3 |
| BRIGHTSTAR SLT         | 72.0 | 81.0 | 84.0 | 83.0 | 72.7 | 77.3 | 82.0 | 88.0 |
| CST                    | 84.5 | 71.3 | 77.3 | 72.7 | 79.0 | 76.0 | 78.7 | 88.0 |
| 2NJK                   | 80.5 | 76.3 | 80.7 | 79.7 | 78.3 | 73.0 | 76.0 | 87.7 |
| CL 307                 | 81.5 | 83.3 | 81.3 | 81.0 | 80.7 | 73.7 | 79.7 | 87.7 |
| IS-PR 409              | 85.0 | 54.0 | 65.0 | 63.3 | 65.3 | 60.0 | 74.0 | 87.3 |
| KARMA (PICK 10401)     | 88.5 | 71.0 | 79.3 | 81.7 | 79.0 | 79.3 | 80.7 | 87.3 |
| PPG-PR 136             | 84.0 | 63.3 | 64.7 | 69.3 | 76.7 | 67.0 | 69.0 | 87.3 |
| INSIGHT                | 84.5 | 77.0 | 83.3 | 81.0 | 81.7 | 76.3 | 80.3 | 87.0 |
| IS-PR 489              | 70.0 | 79.3 | 83.7 | 81.7 | 83.0 | 76.0 | 77.3 | 87.0 |
| LINN                   | 64.5 | 48.3 | 55.0 | 55.0 | 58.3 | 49.0 | 63.3 | 87.0 |
| RIO VISTA              | 82.0 | 59.3 | 68.7 | 65.0 | 75.7 | 65.0 | 74.3 | 87.0 |
| APR 2036               | 83.0 | 80.3 | 78.7 | 77.0 | 79.7 | 74.7 | 74.3 | 86.7 |
| DLF LGD-3026           | 74.0 | 63.0 | 68.7 | 68.3 | 69.7 | 66.3 | 73.7 | 86.7 |
| IS-PR 487              | 88.0 | 80.0 | 86.7 | 86.7 | 85.3 | 77.3 | 81.7 | 86.7 |
| LTP-PR 135             | 83.5 | 66.0 | 76.3 | 73.3 | 79.3 | 74.3 | 80.3 | 86.7 |
| PPG-PR 142             | 79.5 | 75.7 | 72.0 | 77.3 | 75.3 | 76.3 | 75.0 | 86.7 |
| PPG-PR 143             | 79.5 | 68.0 | 76.0 | 76.0 | 78.3 | 75.7 | 79.7 | 86.7 |
| PST-2NKM               | 79.5 | 70.0 | 75.0 | 76.7 | 74.3 | 63.3 | 75.3 | 86.7 |
| BAR LP 10970           | 83.0 | 74.3 | 78.0 | 79.7 | 82.7 | 77.0 | 78.7 | 86.3 |
| PST-2MG7               | 67.5 | 68.0 | 67.7 | 73.7 | 74.7 | 68.3 | 73.0 | 86.3 |
| SR 4650 (PSRX-3701)    | 78.5 | 82.7 | 82.7 | 83.0 | 81.7 | 78.0 | 81.7 | 86.3 |
| BONNEVILLE             | 77.0 | 69.0 | 80.7 | 81.3 | 79.3 | 74.0 | 74.3 | 85.7 |
| LTP-RAE                | 81.5 | 81.7 | 85.3 | 81.0 | 82.7 | 74.7 | 79.0 | 85.7 |
| SOX FAN (GM3)          | 84.5 | 74.3 | 78.0 | 78.0 | 78.7 | 73.7 | 76.7 | 85.3 |
| IS-PR 492              | 81.5 | 70.3 | 80.7 | 76.0 | 76.3 | 70.7 | 75.3 | 85.0 |
| PALMER V               | 87.5 | 72.3 | 80.0 | 80.7 | 80.7 | 74.7 | 76.3 | 85.0 |
| PIZZAZZ 2 GLR (PR 909) | 84.0 | 78.0 | 84.0 | 80.3 | 81.7 | 81.0 | 82.7 | 85.0 |
| PST-2ACR               | 81.0 | 64.0 | 72.7 | 76.7 | 79.0 | 73.3 | 76.3 | 85.0 |

TABLE 13. PERCENT GREEN COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
(CONT'D) AT PUYALLUP (SAND DROUGHT STUDY), WA 2/ 3/ 4/  
2011 DATA

| NAME                        | 6_22 | 8_4  | 8_12 | 8_19 | 8_25 | 9_1  | 9_8  | 9_15 |
|-----------------------------|------|------|------|------|------|------|------|------|
| SRX-4MSH                    | 77.5 | 63.0 | 67.3 | 68.3 | 74.0 | 69.0 | 68.0 | 85.0 |
| DOMINATOR (PST-2AG4)        | 87.0 | 71.7 | 75.0 | 81.3 | 79.0 | 64.7 | 68.3 | 84.7 |
| GO-PR60                     | 78.5 | 62.3 | 70.0 | 73.7 | 71.7 | 63.0 | 72.3 | 84.7 |
| PANGEA GLR (CL 11701)       | 88.0 | 69.0 | 78.3 | 76.0 | 75.3 | 69.7 | 71.0 | 84.7 |
| PICK 4DFHM                  | 68.5 | 72.0 | 80.3 | 75.0 | 77.0 | 68.0 | 79.3 | 84.7 |
| PPG-PR 138                  | 77.0 | 68.0 | 74.7 | 75.3 | 78.0 | 71.3 | 78.0 | 84.7 |
| MACH I                      | 87.0 | 75.0 | 79.3 | 82.0 | 74.7 | 72.0 | 78.7 | 84.3 |
| PLAYOFF 2 (P02)             | 77.5 | 84.7 | 83.7 | 79.3 | 75.3 | 71.7 | 75.0 | 84.3 |
| PPG-PR 165                  | 83.5 | 75.7 | 81.3 | 77.0 | 76.0 | 77.7 | 78.0 | 84.3 |
| PST-204D                    | 82.0 | 75.7 | 81.0 | 80.0 | 78.7 | 70.7 | 78.3 | 84.3 |
| UNO                         | 83.0 | 71.0 | 68.0 | 62.0 | 69.7 | 60.7 | 74.3 | 84.3 |
| BAR LP 7608                 | 82.5 | 72.3 | 85.7 | 80.7 | 81.3 | 70.7 | 74.3 | 84.0 |
| PRX-4GM1                    | 76.5 | 58.3 | 65.3 | 63.0 | 69.3 | 62.7 | 69.3 | 83.7 |
| APR 2445                    | 83.0 | 67.0 | 71.3 | 73.3 | 64.3 | 59.0 | 68.7 | 83.3 |
| IS-PR 491                   | 84.5 | 80.0 | 80.3 | 81.3 | 78.7 | 68.7 | 77.7 | 83.0 |
| BAR LP 10972                | 82.0 | 80.3 | 80.0 | 81.3 | 82.3 | 70.0 | 76.3 | 82.7 |
| IS-PR 463                   | 83.5 | 72.7 | 77.7 | 74.0 | 81.7 | 72.3 | 76.0 | 82.7 |
| RAD-PR62                    | 73.5 | 78.0 | 81.3 | 72.3 | 80.0 | 74.3 | 78.7 | 82.7 |
| FIESTA 4                    | 84.5 | 60.7 | 64.0 | 63.3 | 72.0 | 65.7 | 74.0 | 82.3 |
| PPG-PR 133                  | 77.0 | 75.0 | 81.7 | 77.7 | 77.0 | 67.7 | 75.7 | 82.3 |
| PST-2TQL                    | 79.5 | 79.0 | 75.3 | 79.3 | 76.0 | 73.7 | 77.0 | 81.7 |
| ISG-31                      | 76.5 | 69.0 | 75.3 | 75.3 | 64.7 | 63.7 | 75.3 | 81.3 |
| PINNACLE                    | 82.0 | 67.7 | 77.0 | 79.3 | 68.7 | 76.7 | 75.7 | 81.0 |
| PPG-PR 164                  | 83.5 | 72.0 | 74.3 | 70.7 | 70.7 | 67.0 | 72.0 | 81.0 |
| PSRX-4CAGL                  | 69.5 | 64.3 | 75.7 | 72.0 | 73.3 | 73.0 | 70.0 | 81.0 |
| PST-2K9                     | 83.5 | 74.7 | 82.3 | 79.3 | 80.7 | 70.0 | 75.3 | 81.0 |
| PPG-PR 121                  | 81.5 | 65.0 | 73.0 | 72.7 | 75.0 | 74.7 | 77.0 | 80.7 |
| PPG-PR 140                  | 79.0 | 60.0 | 70.0 | 68.3 | 72.0 | 68.0 | 71.7 | 80.0 |
| PST-2DR9                    | 74.5 | 73.0 | 76.3 | 77.3 | 71.7 | 69.0 | 73.7 | 80.0 |
| MANHATTAN 6 GLR (PST-2MAGS) | 81.5 | 63.0 | 62.3 | 64.0 | 73.7 | 62.3 | 70.3 | 79.3 |
| JR-178                      | 83.0 | 56.3 | 61.0 | 60.0 | 63.7 | 63.7 | 67.0 | 79.0 |
| OCTANE                      | 75.0 | 66.7 | 69.7 | 72.3 | 73.7 | 64.3 | 71.0 | 78.7 |
| DLF LGD-3022                | 80.0 | 71.3 | 75.3 | 75.7 | 68.0 | 64.3 | 70.7 | 78.3 |
| RINOVO                      | 85.5 | 76.0 | 79.3 | 75.7 | 69.7 | 68.0 | 69.0 | 78.3 |
| GO-DHS                      | 73.0 | 67.3 | 71.7 | 69.0 | 72.0 | 60.3 | 64.7 | 77.7 |
| A-35                        | 88.0 | 82.3 | 75.7 | 76.0 | 73.0 | 68.7 | 72.0 | 77.3 |
| ISG-36                      | 86.0 | 55.3 | 60.3 | 63.3 | 67.7 | 62.0 | 65.3 | 76.3 |
| CS-20                       | 67.5 | 67.7 | 60.3 | 61.0 | 59.3 | 56.0 | 65.7 | 75.0 |
| GO-G37                      | 78.5 | 69.7 | 72.7 | 73.3 | 70.7 | 67.3 | 62.3 | 75.0 |
| JR-192                      | 82.5 | 73.0 | 72.7 | 68.3 | 67.0 | 60.3 | 67.3 | 73.3 |
| LSD VALUE                   | 26.1 | 64.9 | 55.3 | 41.3 | 26.7 | 36.0 | 29.4 | 21.0 |
| C.V. (%)                    | 8.3  | 19.1 | 16.3 | 14.3 | 11.7 | 14.4 | 11.0 | 7.8  |

- 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.
- 3/ TO INDUCE DROUGHT CONDITIONS, IRRIGATION IS REDUCED TO 50-65%ET DURING SUMMER. THEREFORE, SUMMER RATINGS REFLECT INDUCED CHRONIC DROUGHT. FALL AND WINTER RATINGS REFLECT RECOVERY FROM CHRONIC DROUGHT CONDITIONS.
- 4/ DATA WAS COLLECTED USING A DIGITAR CAMERA WITH LIGHT BOX AND IMAGES WERE ANALYZED USING SIGMASCAN SOFTWARE.

TABLE 14  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 PERCENT COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 AT KINGSTON (SALT TOLERANCE IN GREENHOUSE), RI 2/  
 2011 DATA

| NAME                        | PERCENT COVER FOR DIFFERENT SALT LEVELS (PPM) |      |       |       |       | ADJUSTED PERCENT COVER RATINGS<br>FOR DIFFERENT SALT LEVELS (PPM) |       |       |       |  |
|-----------------------------|-----------------------------------------------|------|-------|-------|-------|-------------------------------------------------------------------|-------|-------|-------|--|
|                             | 5000 3/                                       | 7500 | 10000 | 12500 | 15000 | 7500 4/                                                           | 10000 | 12500 | 15000 |  |
| MANHATTAN 6 GLR (PST-2MAGS) | 95.0                                          | 99.0 | 89.5  | 79.5  | 66.0  | 104.3                                                             | 94.3  | 83.8  | 69.3  |  |
| RINOVO                      | 38.3                                          | 52.3 | 53.3  | 35.8  | 19.8  | 153.8                                                             | 149.0 | 94.8  | 62.8  |  |
| PPG-PR 121                  | 82.3                                          | 88.8 | 84.3  | 66.0  | 41.3  | 109.0                                                             | 102.3 | 80.5  | 50.0  |  |
| IS-PR 479                   | 92.0                                          | 91.0 | 82.8  | 62.0  | 38.3  | 99.3                                                              | 89.8  | 67.5  | 41.8  |  |
| PINNACLE                    | 84.8                                          | 83.8 | 85.0  | 62.5  | 34.0  | 99.0                                                              | 100.8 | 73.8  | 40.8  |  |
| PST-2NKM                    | 85.0                                          | 87.3 | 77.8  | 55.0  | 32.8  | 103.8                                                             | 90.8  | 62.8  | 37.3  |  |
| UNO                         | 87.5                                          | 89.3 | 85.0  | 67.3  | 32.0  | 102.3                                                             | 97.3  | 76.8  | 36.8  |  |
| RAD-PR62                    | 85.8                                          | 92.5 | 86.0  | 48.0  | 29.0  | 108.5                                                             | 101.3 | 56.0  | 34.5  |  |
| BAR LP 7608                 | 91.5                                          | 97.3 | 94.3  | 73.3  | 30.8  | 107.5                                                             | 105.0 | 80.0  | 33.5  |  |
| BRIGHTSTAR SLT              | 88.8                                          | 81.0 | 75.0  | 56.8  | 30.5  | 91.5                                                              | 84.0  | 63.0  | 33.5  |  |
| PICK 4DFHM                  | 77.0                                          | 80.5 | 69.5  | 55.5  | 26.0  | 104.5                                                             | 90.8  | 70.8  | 33.3  |  |
| EVOLUTION (S85)             | 81.5                                          | 72.0 | 71.8  | 40.3  | 25.3  | 89.8                                                              | 90.8  | 52.0  | 32.8  |  |
| SRX-4MSH                    | 40.5                                          | 54.3 | 44.0  | 31.0  | 15.0  | 156.8                                                             | 125.5 | 72.5  | 32.8  |  |
| HAVEN (APR 2038)            | 72.8                                          | 78.5 | 70.5  | 48.5  | 23.5  | 107.3                                                             | 97.0  | 67.3  | 32.5  |  |
| IS-PR 409                   | 74.5                                          | 80.0 | 68.3  | 37.0  | 23.5  | 107.8                                                             | 91.5  | 49.0  | 32.0  |  |
| A-35                        | 77.8                                          | 82.5 | 77.3  | 63.0  | 24.5  | 106.3                                                             | 99.5  | 81.0  | 31.5  |  |
| INSIGHT                     | 53.0                                          | 60.5 | 59.0  | 45.5  | 16.5  | 118.0                                                             | 114.8 | 87.8  | 31.3  |  |
| BONNEVILLE                  | 84.3                                          | 82.0 | 83.5  | 55.3  | 26.5  | 98.0                                                              | 99.8  | 66.3  | 31.0  |  |
| PLAYOFF 2 (P02)             | 92.3                                          | 90.5 | 91.0  | 67.8  | 28.3  | 98.0                                                              | 98.5  | 73.0  | 30.8  |  |
| ISG-36                      | 85.3                                          | 84.8 | 80.8  | 63.0  | 26.0  | 99.3                                                              | 94.8  | 74.0  | 30.3  |  |
| PANGEA GLR (CL 11701)       | 78.0                                          | 87.5 | 88.3  | 50.3  | 21.8  | 113.3                                                             | 116.0 | 66.8  | 30.0  |  |
| SR 4650 (PSRX-3701)         | 79.5                                          | 77.5 | 66.3  | 46.8  | 24.0  | 99.0                                                              | 82.0  | 57.8  | 29.5  |  |
| CST                         | 90.5                                          | 89.0 | 90.8  | 68.3  | 26.3  | 98.5                                                              | 100.5 | 75.5  | 29.3  |  |
| GO-G37                      | 87.8                                          | 91.3 | 91.0  | 73.0  | 25.8  | 104.5                                                             | 104.5 | 84.8  | 29.3  |  |
| BAR LP 10970                | 80.5                                          | 75.5 | 62.8  | 52.8  | 24.0  | 94.8                                                              | 78.0  | 65.0  | 27.8  |  |
| JR-178                      | 84.0                                          | 78.3 | 73.0  | 55.3  | 23.8  | 93.0                                                              | 86.5  | 65.3  | 27.5  |  |
| ISG-31                      | 85.3                                          | 88.5 | 90.8  | 71.5  | 23.0  | 104.0                                                             | 107.0 | 84.5  | 27.3  |  |
| PPG-PR 138                  | 90.3                                          | 92.0 | 94.3  | 63.5  | 24.5  | 102.8                                                             | 105.3 | 69.5  | 27.3  |  |
| PST-2K9                     | 92.5                                          | 92.0 | 90.8  | 73.3  | 23.5  | 100.0                                                             | 99.0  | 79.5  | 26.8  |  |
| OCTANE                      | 44.8                                          | 45.0 | 31.0  | 22.8  | 10.8  | 103.3                                                             | 73.3  | 54.3  | 26.5  |  |
| DLF LGT 4182                | 86.8                                          | 94.5 | 88.8  | 53.8  | 22.0  | 109.3                                                             | 103.0 | 63.5  | 26.3  |  |
| IS-PR 469                   | 73.8                                          | 80.3 | 72.3  | 52.5  | 19.0  | 108.5                                                             | 99.0  | 72.8  | 26.3  |  |
| PPG-PR 142                  | 83.8                                          | 85.5 | 78.3  | 52.8  | 21.5  | 102.5                                                             | 93.3  | 63.0  | 26.3  |  |
| PIZZAZZ 2 GLR (PR 909)      | 85.8                                          | 84.8 | 77.3  | 37.5  | 22.8  | 98.5                                                              | 90.0  | 42.0  | 26.3  |  |
| PPG-PR 140                  | 79.3                                          | 86.3 | 85.8  | 52.0  | 20.5  | 109.0                                                             | 108.3 | 65.0  | 25.8  |  |
| IS-PR 489                   | 80.0                                          | 89.3 | 89.3  | 66.5  | 20.5  | 111.8                                                             | 112.0 | 84.3  | 25.3  |  |
| BAR LP 10972                | 80.5                                          | 83.0 | 90.3  | 63.8  | 19.8  | 103.5                                                             | 112.5 | 79.8  | 25.0  |  |
| PPG-PR 137                  | 77.5                                          | 86.8 | 72.0  | 50.0  | 18.8  | 111.5                                                             | 92.5  | 64.8  | 24.0  |  |
| DOMINATOR (PST-2AG4)        | 53.0                                          | 53.5 | 50.5  | 24.0  | 11.8  | 105.0                                                             | 97.0  | 47.3  | 23.8  |  |
| APR 2445                    | 91.3                                          | 86.8 | 81.3  | 61.3  | 21.5  | 95.3                                                              | 89.3  | 67.3  | 23.3  |  |
| SIDEWAYS (PSRX-S84)         | 83.0                                          | 88.8 | 86.0  | 63.8  | 19.8  | 107.3                                                             | 104.3 | 75.0  | 23.3  |  |
| GO-PR60                     | 80.8                                          | 89.5 | 76.3  | 52.0  | 18.8  | 112.5                                                             | 95.3  | 66.5  | 23.0  |  |
| IS-PR 487                   | 79.8                                          | 90.5 | 87.5  | 62.5  | 18.3  | 114.8                                                             | 110.3 | 79.0  | 22.3  |  |
| PPG-PR 133                  | 85.3                                          | 88.0 | 75.0  | 49.0  | 18.8  | 103.8                                                             | 87.0  | 56.5  | 21.3  |  |
| ISG-30                      | 60.3                                          | 70.0 | 62.0  | 27.0  | 14.5  | 119.5                                                             | 108.3 | 45.0  | 20.3  |  |
| PPG-PR 165                  | 45.0                                          | 42.8 | 38.3  | 20.0  | 7.0   | 104.0                                                             | 95.0  | 48.3  | 20.3  |  |
| APR 2320                    | 81.8                                          | 87.8 | 70.3  | 31.0  | 14.3  | 111.5                                                             | 89.0  | 39.5  | 20.0  |  |
| DLF LGD-3022                | 75.0                                          | 81.3 | 66.8  | 50.8  | 14.5  | 110.5                                                             | 90.8  | 67.0  | 20.0  |  |
| APR 2036                    | 89.0                                          | 88.3 | 86.8  | 64.8  | 17.8  | 100.3                                                             | 99.3  | 73.3  | 19.8  |  |
| PRX-4GM1                    | 75.0                                          | 66.0 | 55.5  | 34.8  | 15.5  | 87.5                                                              | 72.5  | 44.3  | 19.0  |  |
| PSRX-4CAGL                  | 74.3                                          | 72.5 | 55.0  | 30.3  | 15.0  | 97.8                                                              | 69.3  | 35.0  | 18.0  |  |
| DLF LGD-3026                | 84.5                                          | 82.3 | 77.3  | 41.8  | 15.0  | 97.8                                                              | 90.8  | 47.8  | 17.0  |  |

TABLE 14.

(CONT'D)

PERCENT COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT KINGSTON (SALT TOLERANCE IN GREENHOUSE), RI 2/  
2011 DATA

| NAME               | PERCENT COVER FOR DIFFERENT SALT LEVELS (PPM) |      |       |       |       | ADJUSTED (RELATIVE) PERCENT COVER RATINGS<br>FOR DIFFERENT SALT LEVELS (PPM) |       |       |       |  |
|--------------------|-----------------------------------------------|------|-------|-------|-------|------------------------------------------------------------------------------|-------|-------|-------|--|
|                    | 5000 3/                                       | 7500 | 10000 | 12500 | 15000 | 7500 4/                                                                      | 10000 | 12500 | 15000 |  |
| PPG-PR 128         | 84.0                                          | 87.8 | 69.8  | 51.3  | 13.8  | 106.0                                                                        | 82.8  | 58.3  | 17.0  |  |
| RAD-PR55R          | 80.3                                          | 82.3 | 71.3  | 36.5  | 13.5  | 102.3                                                                        | 88.5  | 45.3  | 16.8  |  |
| CS-PR66            | 87.0                                          | 94.5 | 82.3  | 63.0  | 13.8  | 108.8                                                                        | 95.0  | 72.8  | 16.5  |  |
| PST-204D           | 66.8                                          | 63.3 | 65.3  | 25.0  | 8.8   | 98.5                                                                         | 103.8 | 43.3  | 16.5  |  |
| RIO VISTA          | 91.0                                          | 95.5 | 87.5  | 71.5  | 14.5  | 105.3                                                                        | 96.8  | 78.8  | 16.5  |  |
| SOX FAN (GM3)      | 85.3                                          | 87.5 | 65.8  | 32.8  | 13.5  | 104.0                                                                        | 77.0  | 39.3  | 15.8  |  |
| KARMA (PICK 10401) | 75.5                                          | 87.3 | 67.8  | 48.8  | 12.0  | 117.0                                                                        | 90.5  | 64.8  | 15.5  |  |
| PPG-PR 136         | 91.5                                          | 90.5 | 93.0  | 71.8  | 14.3  | 98.5                                                                         | 101.5 | 78.3  | 15.3  |  |
| CL 307             | 70.5                                          | 66.3 | 58.5  | 31.8  | 10.8  | 93.0                                                                         | 81.5  | 42.3  | 14.5  |  |
| CS-20              | 67.5                                          | 64.5 | 60.5  | 24.8  | 10.3  | 97.5                                                                         | 88.8  | 35.3  | 14.3  |  |
| IS-PR 491          | 86.0                                          | 89.5 | 78.3  | 36.5  | 10.8  | 103.5                                                                        | 90.5  | 42.5  | 13.0  |  |
| IS-PR 488          | 67.0                                          | 65.8 | 51.5  | 20.5  | 8.0   | 97.8                                                                         | 77.0  | 30.0  | 11.8  |  |
| LINN               | 73.0                                          | 78.5 | 65.0  | 57.0  | 10.5  | 116.0                                                                        | 91.3  | 77.3  | 11.8  |  |
| CL 11601           | 60.8                                          | 70.5 | 55.5  | 24.8  | 5.5   | 129.5                                                                        | 95.0  | 41.8  | 11.0  |  |
| LTP-PR 135         | 89.3                                          | 96.3 | 90.0  | 57.3  | 10.8  | 109.8                                                                        | 102.5 | 62.8  | 11.0  |  |
| PST-2BNS           | 82.8                                          | 82.0 | 75.8  | 43.8  | 9.5   | 98.5                                                                         | 90.5  | 50.0  | 10.8  |  |
| WICKED (SRX-4RHD)  | 84.3                                          | 86.8 | 73.5  | 53.8  | 8.3   | 103.3                                                                        | 87.5  | 64.3  | 10.0  |  |
| ALLANTE            | 88.8                                          | 96.0 | 83.5  | 64.3  | 8.8   | 109.0                                                                        | 93.3  | 71.5  | 9.5   |  |
| JR-192             | 76.3                                          | 91.8 | 83.3  | 51.5  | 5.3   | 122.8                                                                        | 112.0 | 70.8  | 9.0   |  |
| IS-PR 463          | 68.5                                          | 66.3 | 55.5  | 26.8  | 6.5   | 101.5                                                                        | 84.3  | 36.8  | 8.8   |  |
| PPG-PR 164         | 68.8                                          | 81.5 | 74.0  | 43.3  | 5.0   | 119.8                                                                        | 109.5 | 65.0  | 8.5   |  |
| PST-2DR9           | 89.8                                          | 94.0 | 85.3  | 68.0  | 7.3   | 104.5                                                                        | 95.0  | 75.8  | 8.5   |  |
| GO-DHS             | 77.0                                          | 63.8 | 59.8  | 22.8  | 6.3   | 83.8                                                                         | 77.5  | 28.8  | 7.5   |  |
| FIESTA 4           | 78.0                                          | 83.0 | 81.0  | 48.3  | 5.5   | 107.5                                                                        | 104.3 | 63.5  | 7.3   |  |
| PST-2MG7           | 92.3                                          | 91.5 | 86.0  | 51.5  | 6.5   | 99.0                                                                         | 93.5  | 56.3  | 7.3   |  |
| 2NJK               | 79.5                                          | 82.0 | 78.8  | 50.0  | 6.3   | 105.8                                                                        | 100.5 | 64.8  | 7.0   |  |
| MACH I             | 54.3                                          | 60.3 | 49.5  | 24.5  | 4.5   | 119.8                                                                        | 90.8  | 39.3  | 7.0   |  |
| SIENNA             | 76.8                                          | 83.5 | 55.5  | 26.5  | 5.0   | 111.3                                                                        | 72.0  | 34.0  | 6.5   |  |
| PPG-PR 134         | 83.0                                          | 82.0 | 73.0  | 30.3  | 5.5   | 99.5                                                                         | 88.3  | 33.8  | 6.3   |  |
| PALMER V           | 77.0                                          | 80.0 | 63.5  | 39.3  | 4.8   | 110.3                                                                        | 87.0  | 55.3  | 5.5   |  |
| PPG-PR 143         | 82.3                                          | 92.5 | 76.8  | 43.3  | 4.5   | 113.0                                                                        | 92.3  | 51.5  | 5.5   |  |
| BAR LP 10969       | 79.5                                          | 70.3 | 63.5  | 18.0  | 3.5   | 90.0                                                                         | 83.3  | 22.8  | 4.0   |  |
| PST-2ACR           | 75.5                                          | 78.3 | 52.8  | 7.5   | 2.3   | 103.0                                                                        | 70.8  | 10.5  | 3.3   |  |
| LTP-RAE            | 73.3                                          | 78.5 | 57.3  | 21.5  | 1.8   | 108.8                                                                        | 78.0  | 29.3  | 2.8   |  |
| PST-2TQL           | 67.0                                          | 72.8 | 57.8  | 9.0   | 1.5   | 109.0                                                                        | 86.5  | 13.5  | 2.3   |  |
| IS-PR 492          | 39.3                                          | 63.8 | 42.5  | 4.0   | 0.0   | 166.8                                                                        | 112.3 | 10.0  | 0.0   |  |
| LSD VALUE          | 17.6                                          | 17.7 | 24.2  | 28.4  | 17.3  | 38.4                                                                         | 59.5  | 39.6  | 23.3  |  |
| C.V. (%)           | 16.0                                          | 15.3 | 22.2  | 41.0  | 69.7  | 18.4                                                                         | 23.4  | 40.8  | 70.6  |  |

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.

3/ THE 5000 PPM SALT LEVEL IS CONSIDERED THE HIGHEST LEVEL MOST PERENNIAL RYEGRASS WILL TOLERATE WITHOUT DAMAGE (THEREFORE OUR BASE LEVEL). SALT LEVELS WERE INCREASED BY 2500 PPM EVERY TWO WEEKS THEREAFTER AND PERCENT COVER RATINGS WERE GENERATED FROM DIGITAL IMAGES.

4/ THE ADJUSTED COVER RATINGS SHOW PERCENTAGE COVER IN EACH POT AS COMPARED TO THE 5000 PPM LEVEL (OUR BASE OR STARTING LEVEL).

TABLE 15. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT ADELPHIA (GRAY LEAF SPOT STUDY), NJ 1/

| NAME                        | PERCENT<br>ESTABLISH-<br>MENT | GRAY LEAF SPOT RATINGS |                   | SEP | QUALITY RATINGS |     | MEAN |
|-----------------------------|-------------------------------|------------------------|-------------------|-----|-----------------|-----|------|
|                             |                               | SEP 2<br>51 DAYS       | SEP 22<br>71 DAYS |     | OCT             | NOV |      |
| SR 4650 (PSRX-3701)         | 91.7                          | 8.7                    | 8.0               | 7.7 | 7.7             | 8.3 | 7.9  |
| KARMA (PICK 10401)          | 84.0                          | 8.0                    | 8.3               | 7.7 | 7.7             | 8.0 | 7.8  |
| CL 11601                    | 77.3                          | 8.0                    | 7.0               | 6.7 | 7.7             | 8.3 | 7.6  |
| PANGEA GLR (CL 11701)       | 85.7                          | 8.0                    | 7.0               | 6.3 | 8.0             | 8.3 | 7.6  |
| CL 307                      | 85.0                          | 8.7                    | 7.7               | 7.0 | 7.7             | 8.0 | 7.6  |
| OCTANE                      | 90.0                          | 7.7                    | 6.7               | 6.7 | 8.0             | 8.0 | 7.6  |
| IS-PR 488                   | 85.0                          | 7.3                    | 7.0               | 6.7 | 8.0             | 7.3 | 7.3  |
| JR-178                      | 83.3                          | 8.0                    | 7.3               | 7.3 | 7.3             | 7.3 | 7.3  |
| EVOLUTION (S85)             | 78.3                          | 7.3                    | 7.0               | 7.3 | 7.3             | 7.0 | 7.2  |
| IS-PR 489                   | 86.7                          | 7.7                    | 7.3               | 6.7 | 7.3             | 7.3 | 7.1  |
| PPG-PR 134                  | 83.3                          | 8.3                    | 7.3               | 6.7 | 7.3             | 7.0 | 7.0  |
| PPG-PR 164                  | 90.0                          | 8.3                    | 7.3               | 6.7 | 7.3             | 7.0 | 7.0  |
| PPG-PR 165                  | 86.7                          | 7.7                    | 7.3               | 6.3 | 7.3             | 7.3 | 7.0  |
| BONNEVILLE                  | 79.0                          | 7.7                    | 7.0               | 6.3 | 6.7             | 7.3 | 6.8  |
| PPG-PR 133                  | 81.7                          | 6.7                    | 6.3               | 6.3 | 6.7             | 7.3 | 6.8  |
| PIZZAZZ 2 GLR (PR 909)      | 84.7                          | 8.0                    | 6.7               | 6.0 | 7.0             | 7.3 | 6.8  |
| PPG-PR 121                  | 90.7                          | 7.7                    | 7.0               | 6.3 | 6.7             | 7.0 | 6.7  |
| PPG-PR 136                  | 75.0                          | 6.0                    | 5.3               | 5.7 | 7.3             | 7.0 | 6.7  |
| PPG-PR 138                  | 92.3                          | 7.3                    | 6.0               | 6.0 | 7.7             | 6.3 | 6.7  |
| SIDEWAYS (PSRX-S84)         | 92.3                          | 8.3                    | 7.7               | 6.7 | 6.7             | 6.7 | 6.7  |
| PPG-PR 143                  | 90.0                          | 7.3                    | 6.3               | 6.0 | 7.0             | 6.7 | 6.6  |
| IS-PR 469                   | 82.3                          | 6.7                    | 5.0               | 5.7 | 7.0             | 6.7 | 6.4  |
| PPG-PR 137                  | 86.7                          | 7.3                    | 7.3               | 5.7 | 6.7             | 7.0 | 6.4  |
| IS-PR 492                   | 76.7                          | 7.0                    | 6.0               | 6.0 | 6.3             | 6.7 | 6.3  |
| PPG-PR 142                  | 86.7                          | 7.3                    | 6.0               | 6.0 | 6.3             | 6.7 | 6.3  |
| LTP-PR 135                  | 73.3                          | 7.7                    | 6.3               | 6.3 | 6.0             | 6.3 | 6.2  |
| LTP-RAE                     | 83.3                          | 7.3                    | 6.3               | 6.7 | 5.7             | 6.3 | 6.2  |
| PPG-PR 140                  | 85.0                          | 6.3                    | 6.3               | 5.7 | 6.3             | 6.3 | 6.1  |
| RIO VISTA                   | 75.0                          | 7.0                    | 6.0               | 5.3 | 6.0             | 7.0 | 6.1  |
| IS-PR 409                   | 78.3                          | 5.7                    | 4.3               | 5.7 | 6.0             | 6.3 | 6.0  |
| PPG-PR 128                  | 85.0                          | 6.3                    | 6.0               | 5.0 | 6.3             | 6.7 | 6.0  |
| MANHATTAN 6 GLR (PST-2MAGS) | 75.0                          | 6.7                    | 5.7               | 5.3 | 6.0             | 6.0 | 5.8  |
| WICKED (SRX-4RHD)           | 86.7                          | 5.7                    | 4.7               | 5.0 | 6.3             | 6.0 | 5.8  |
| IS-PR 463                   | 73.3                          | 6.0                    | 5.0               | 4.3 | 6.0             | 6.7 | 5.7  |
| IS-PR 487                   | 86.7                          | 5.7                    | 6.0               | 5.3 | 6.0             | 5.7 | 5.7  |
| CST                         | 76.7                          | 6.7                    | 5.3               | 5.0 | 5.3             | 6.3 | 5.6  |
| SOX FAN (GM3)               | 86.7                          | 7.0                    | 5.0               | 5.0 | 5.3             | 6.3 | 5.6  |
| IS-PR 491                   | 80.0                          | 7.0                    | 4.7               | 4.7 | 5.7             | 5.7 | 5.3  |
| PSRX-4CAGL                  | 85.0                          | 7.0                    | 5.3               | 4.7 | 5.0             | 6.3 | 5.3  |
| PRX-4GM1                    | 83.3                          | 7.3                    | 6.0               | 4.7 | 5.0             | 6.0 | 5.2  |
| PST-2BNS                    | 76.7                          | 6.0                    | 4.3               | 4.7 | 5.0             | 5.7 | 5.1  |
| RINOVO                      | 86.7                          | 6.0                    | 4.7               | 4.0 | 5.7             | 5.7 | 5.1  |
| FIESTA 4                    | 76.7                          | 6.3                    | 4.7               | 4.7 | 5.0             | 5.3 | 5.0  |
| APR 2445                    | 75.0                          | 5.7                    | 4.3               | 4.3 | 5.0             | 5.3 | 4.9  |
| DLF LGD-3022                | 85.0                          | 5.0                    | 4.3               | 4.0 | 4.7             | 5.7 | 4.8  |
| DLF LGD-3026                | 85.0                          | 5.3                    | 4.3               | 4.0 | 5.0             | 5.3 | 4.8  |
| PALMER V                    | 86.7                          | 5.3                    | 4.3               | 3.7 | 4.7             | 5.3 | 4.6  |

TABLE 15. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 (CONT'D) AT ADELPHI (GRAY LEAF SPOT STUDY), NJ 1/

| NAME                 | PERCENT<br>ESTABLISH-<br>MENT | GRAY LEAF SPOT RATINGS |                   | SEP  | QUALITY RATINGS |      | MEAN |
|----------------------|-------------------------------|------------------------|-------------------|------|-----------------|------|------|
|                      |                               | SEP 2<br>51 DAYS       | SEP 22<br>71 DAYS |      | OCT             | NOV  |      |
| PST-2MG7             | 68.3                          | 5.0                    | 3.7               | 4.0  | 4.7             | 5.0  | 4.6  |
| 2NJK                 | 83.3                          | 5.3                    | 3.7               | 4.0  | 4.3             | 5.0  | 4.4  |
| PST-2NKM             | 83.3                          | 6.0                    | 4.0               | 4.0  | 4.3             | 4.7  | 4.3  |
| APR 2036             | 78.3                          | 5.7                    | 4.0               | 3.3  | 4.3             | 5.0  | 4.2  |
| HAVEN (APR 2038)     | 86.7                          | 5.0                    | 4.3               | 3.7  | 4.7             | 4.3  | 4.2  |
| SRX-4MSH             | 80.0                          | 4.3                    | 4.0               | 3.3  | 3.7             | 4.3  | 3.8  |
| PST-2ACR             | 75.0                          | 4.7                    | 3.0               | 2.7  | 3.7             | 4.7  | 3.7  |
| UNO                  | 76.7                          | 4.0                    | 3.0               | 3.0  | 3.7             | 4.0  | 3.6  |
| PST-2DR9             | 71.7                          | 4.0                    | 2.7               | 3.3  | 3.3             | 3.7  | 3.4  |
| PST-2K9              | 73.3                          | 5.0                    | 3.7               | 3.0  | 3.3             | 4.0  | 3.4  |
| PICK 4DFHM           | 83.3                          | 4.0                    | 3.3               | 2.7  | 3.3             | 4.0  | 3.3  |
| DOMINATOR (PST-2AG4) | 68.3                          | 4.0                    | 3.0               | 3.0  | 3.0             | 3.0  | 3.0  |
| IS-PR 479            | 78.3                          | 3.7                    | 2.3               | 2.0  | 2.7             | 3.7  | 2.8  |
| PLAYOFF 2 (P02)      | 80.0                          | 4.0                    | 2.7               | 2.3  | 2.7             | 3.0  | 2.7  |
| CS-PR66              | 71.7                          | 3.7                    | 2.3               | 2.0  | 2.7             | 3.0  | 2.6  |
| GO-PR60              | 83.3                          | 3.3                    | 2.0               | 1.7  | 3.0             | 3.0  | 2.6  |
| ISG-36               | 75.0                          | 4.0                    | 2.3               | 2.3  | 2.3             | 3.0  | 2.6  |
| PST-204D             | 85.0                          | 4.0                    | 1.7               | 2.0  | 2.7             | 3.0  | 2.6  |
| A-35                 | 66.7                          | 3.7                    | 1.7               | 1.7  | 2.7             | 3.0  | 2.4  |
| BAR LP 10970         | 81.7                          | 3.0                    | 2.0               | 2.0  | 2.7             | 2.7  | 2.4  |
| RAD-PR55R            | 75.0                          | 3.7                    | 2.3               | 2.3  | 2.3             | 2.7  | 2.4  |
| BAR LP 10969         | 81.7                          | 3.0                    | 1.7               | 1.7  | 2.0             | 3.0  | 2.2  |
| ISG-31               | 76.7                          | 3.3                    | 2.0               | 2.0  | 2.0             | 2.7  | 2.2  |
| PST-2TQL             | 75.0                          | 3.7                    | 1.7               | 2.0  | 2.0             | 2.7  | 2.2  |
| CS-20                | 65.0                          | 3.7                    | 1.7               | 1.7  | 2.0             | 2.7  | 2.1  |
| ISG-30               | 71.7                          | 3.0                    | 1.0               | 1.3  | 2.3             | 2.7  | 2.1  |
| SIENNA               | 76.7                          | 3.0                    | 2.3               | 2.0  | 2.0             | 2.3  | 2.1  |
| ALLANTE              | 85.0                          | 2.7                    | 1.7               | 1.7  | 1.7             | 2.0  | 1.8  |
| GO-G37               | 66.7                          | 3.3                    | 1.3               | 1.7  | 1.7             | 2.0  | 1.8  |
| BAR LP 10972         | 66.7                          | 2.7                    | 1.3               | 1.7  | 1.3             | 2.0  | 1.7  |
| INSIGHT              | 85.0                          | 2.7                    | 2.0               | 1.3  | 1.7             | 2.0  | 1.7  |
| MACH I               | 85.7                          | 3.0                    | 1.3               | 1.3  | 1.3             | 2.3  | 1.7  |
| DLF LGT 4182         | 65.0                          | 2.7                    | 1.3               | 1.3  | 1.7             | 1.7  | 1.6  |
| BRIGHTSTAR SLT       | 73.3                          | 3.0                    | 1.7               | 1.3  | 1.0             | 2.0  | 1.4  |
| GO-DHS               | 73.3                          | 2.7                    | 1.0               | 1.0  | 1.7             | 1.3  | 1.3  |
| RAD-PR62             | 63.3                          | 1.7                    | 1.0               | 1.0  | 1.0             | 2.0  | 1.3  |
| BAR LP 7608          | 71.7                          | 2.0                    | 1.3               | 1.3  | 1.0             | 1.0  | 1.1  |
| JR-192               | 68.3                          | 2.0                    | 1.0               | 1.0  | 1.0             | 1.3  | 1.1  |
| PINNACLE             | 70.0                          | 2.3                    | 1.0               | 1.0  | 1.0             | 1.3  | 1.1  |
| APR 2320             | 71.7                          | 1.3                    | 1.0               | 1.0  | 1.0             | 1.0  | 1.0  |
| LINN                 | 65.0                          | 1.3                    | 1.0               | 1.0  | 1.0             | 1.0  | 1.0  |
| LSD VALUE            | 28.6                          | 1.2                    | 1.1               | 1.1  | 1.3             | 1.2  | 1.0  |
| C.V. (%)             | 13.3                          | 15.7                   | 17.6              | 19.1 | 18.9            | 16.9 | 15.1 |

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  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | PERCENT COVER OF BERMUDAGRASS IN FALL |          |         |          | PERCENT COVER OF OVERSEEDING GRASS |          |         |          | QUALITY<br>10/15/10 |
|-----------------------------|---------------------------------------|----------|---------|----------|------------------------------------|----------|---------|----------|---------------------|
|                             | 10/15/10                              | 10/25/10 | 11/5/10 | 11/15/10 | 10/15/10                           | 10/25/10 | 11/5/10 | 11/15/10 |                     |
| LTP-PR 135                  | 99                                    | 99       | 85      | 45       | 18.3                               | 46.7     | 73.3    | 99.0     | 3.0                 |
| OCTANE                      | 99                                    | 99       | 85      | 45       | 15.0                               | 28.3     | 70.0    | 99.0     | 3.3                 |
| SOX FAN (GM3)               | 99                                    | 99       | 85      | 45       | 8.3                                | 28.3     | 66.7    | 96.3     | 2.3                 |
| BONNEVILLE                  | 99                                    | 99       | 85      | 45       | 21.7                               | 35.0     | 75.0    | 97.7     | 4.0                 |
| MACH I                      | 99                                    | 99       | 85      | 45       | 15.0                               | 38.3     | 81.7    | 99.0     | 3.0                 |
| PICK 4DFHM                  | 99                                    | 99       | 85      | 45       | 16.7                               | 35.0     | 71.7    | 99.0     | 3.0                 |
| PPG-PR 121                  | 99                                    | 99       | 85      | 45       | 18.3                               | 40.0     | 68.3    | 99.0     | 3.0                 |
| PPG-PR 133                  | 99                                    | 99       | 85      | 45       | 15.0                               | 33.3     | 81.7    | 96.3     | 3.0                 |
| PPG-PR 134                  | 99                                    | 99       | 85      | 45       | 21.7                               | 43.3     | 76.7    | 97.7     | 3.0                 |
| CL 307                      | 99                                    | 99       | 85      | 45       | 21.7                               | 41.7     | 76.7    | 99.0     | 3.7                 |
| PALMER V                    | 99                                    | 99       | 85      | 45       | 15.0                               | 31.7     | 73.3    | 99.0     | 2.7                 |
| BAR LP 10972                | 99                                    | 99       | 85      | 45       | 8.3                                | 25.0     | 66.7    | 99.0     | 2.3                 |
| PST-2K9                     | 99                                    | 99       | 85      | 45       | 13.3                               | 31.7     | 63.3    | 99.0     | 3.0                 |
| RIO VISTA                   | 99                                    | 99       | 85      | 45       | 13.3                               | 33.3     | 61.7    | 99.0     | 3.0                 |
| SR 4650 (PSRX-3701 )        | 99                                    | 99       | 85      | 45       | 21.7                               | 35.0     | 73.3    | 97.7     | 2.0                 |
| SRX-4MSH                    | 99                                    | 99       | 85      | 45       | 15.0                               | 25.0     | 63.3    | 99.0     | 3.0                 |
| BAR LP 10969                | 99                                    | 99       | 85      | 45       | 16.7                               | 35.0     | 76.7    | 99.0     | 3.0                 |
| IS-PR 489                   | 99                                    | 99       | 85      | 45       | 20.0                               | 40.0     | 73.3    | 99.0     | 3.0                 |
| JR-178                      | 99                                    | 99       | 85      | 45       | 18.3                               | 35.0     | 76.7    | 99.0     | 3.0                 |
| PINNACLE                    | 99                                    | 99       | 85      | 45       | 15.0                               | 31.7     | 76.7    | 99.0     | 2.0                 |
| PPG-PR 136                  | 99                                    | 99       | 85      | 45       | 18.3                               | 41.7     | 68.3    | 99.0     | 3.0                 |
| PPG-PR 137                  | 99                                    | 99       | 85      | 45       | 15.0                               | 28.3     | 58.3    | 97.7     | 2.0                 |
| PPG-PR 138                  | 99                                    | 99       | 85      | 45       | 16.7                               | 31.7     | 70.0    | 97.7     | 3.0                 |
| PPG-PR 143                  | 99                                    | 99       | 85      | 45       | 21.7                               | 40.0     | 71.7    | 99.0     | 3.0                 |
| PPG-PR 164                  | 99                                    | 99       | 85      | 45       | 18.3                               | 31.7     | 63.3    | 97.7     | 3.0                 |
| PRX-4GM1                    | 99                                    | 99       | 85      | 45       | 21.7                               | 30.0     | 66.7    | 99.0     | 3.3                 |
| PST-2ACR                    | 99                                    | 99       | 85      | 45       | 5.0                                | 23.3     | 48.3    | 97.7     | 2.0                 |
| PST-2NKM                    | 99                                    | 99       | 85      | 45       | 11.7                               | 30.0     | 65.0    | 97.7     | 2.3                 |
| RINOVO                      | 99                                    | 99       | 85      | 45       | 13.3                               | 25.0     | 71.7    | 99.0     | 3.0                 |
| EVOLUTION (S85)             | 99                                    | 99       | 85      | 45       | 11.7                               | 30.0     | 58.3    | 97.7     | 4.0                 |
| ALLANTE                     | 99                                    | 99       | 85      | 45       | 11.7                               | 30.0     | 68.3    | 97.7     | 3.0                 |
| HAVEN (APR 2038)            | 99                                    | 99       | 85      | 45       | 20.0                               | 40.0     | 73.3    | 99.0     | 3.0                 |
| INSIGHT                     | 99                                    | 99       | 85      | 45       | 18.3                               | 43.3     | 66.7    | 96.3     | 3.7                 |
| ISG-31                      | 99                                    | 99       | 85      | 45       | 21.7                               | 35.0     | 78.3    | 99.0     | 3.3                 |
| PPG-PR 140                  | 99                                    | 99       | 85      | 45       | 13.3                               | 28.3     | 70.0    | 97.7     | 3.0                 |
| MANHATTAN 6 GLR (PST-2MAGS) | 99                                    | 99       | 85      | 45       | 18.3                               | 36.7     | 75.0    | 99.0     | 3.3                 |
| PST-2TQL                    | 99                                    | 99       | 85      | 45       | 16.7                               | 28.3     | 70.0    | 99.0     | 3.0                 |
| UNO                         | 99                                    | 99       | 85      | 45       | 11.7                               | 20.0     | 70.0    | 99.0     | 2.3                 |
| BAR LP 7608                 | 99                                    | 99       | 85      | 45       | 13.3                               | 35.0     | 73.3    | 97.7     | 2.3                 |
| CS-PR66                     | 99                                    | 99       | 85      | 45       | 6.7                                | 21.7     | 73.3    | 99.0     | 2.3                 |
| CST                         | 99                                    | 99       | 85      | 45       | 16.7                               | 38.3     | 81.7    | 99.0     | 2.3                 |
| DLF LGD-3022                | 99                                    | 99       | 85      | 45       | 10.0                               | 21.7     | 65.0    | 93.3     | 2.0                 |
| FIESTA 4                    | 99                                    | 99       | 85      | 45       | 11.7                               | 26.7     | 61.7    | 97.7     | 2.7                 |
| GO-G37                      | 99                                    | 99       | 85      | 45       | 13.3                               | 25.0     | 68.3    | 99.0     | 3.0                 |
| KARMA (PICK 10401)          | 99                                    | 99       | 85      | 45       | 23.3                               | 36.7     | 78.3    | 97.7     | 3.0                 |
| PPG-PR 128                  | 99                                    | 99       | 85      | 45       | 15.0                               | 31.7     | 76.7    | 99.0     | 2.7                 |
| PPG-PR 142                  | 99                                    | 99       | 85      | 45       | 15.0                               | 31.7     | 76.7    | 99.0     | 3.0                 |

TABLE 16. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
Taken from the 2011 Perennial Ryegrass test-11 data report with permission from NTEP  
(CONT'D)

| 2011 DATA<br>TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/ |                                       |          |         |          |                                    |          |         |          |                     |
|--------------------------------------------------------------------|---------------------------------------|----------|---------|----------|------------------------------------|----------|---------|----------|---------------------|
| NAME                                                               | PERCENT COVER OF BERMUDAGRASS IN FALL |          |         |          | PERCENT COVER OF OVERSEEDING GRASS |          |         |          | QUALITY<br>10/15/10 |
|                                                                    | 10/15/10                              | 10/25/10 | 11/5/10 | 11/15/10 | 10/15/10                           | 10/25/10 | 11/5/10 | 11/15/10 |                     |
| PST-204D                                                           | 99                                    | 99       | 85      | 45       | 11.7                               | 25.0     | 71.7    | 99.0     | 2.7                 |
| SIENNA                                                             | 99                                    | 99       | 85      | 45       | 15.0                               | 28.3     | 58.3    | 96.3     | 3.0                 |
| 2NJK                                                               | 99                                    | 99       | 85      | 45       | 10.0                               | 23.3     | 75.0    | 94.7     | 2.3                 |
| APR 2036                                                           | 99                                    | 99       | 85      | 45       | 11.7                               | 18.3     | 58.3    | 93.0     | 2.3                 |
| APR 2445                                                           | 99                                    | 99       | 85      | 45       | 10.0                               | 23.3     | 75.0    | 97.7     | 2.0                 |
| BRIGHTSTAR SLT                                                     | 99                                    | 99       | 85      | 45       | 15.0                               | 26.7     | 73.3    | 99.0     | 3.0                 |
| CS-20                                                              | 99                                    | 99       | 85      | 45       | 16.7                               | 30.0     | 73.3    | 99.0     | 3.0                 |
| DOMINATOR (PST-2AG4)                                               | 99                                    | 99       | 85      | 45       | 5.0                                | 21.7     | 61.7    | 99.0     | 2.0                 |
| GO-DHS                                                             | 99                                    | 99       | 85      | 45       | 13.3                               | 28.3     | 63.3    | 99.0     | 3.0                 |
| IS-PR 409                                                          | 99                                    | 99       | 85      | 45       | 11.7                               | 26.7     | 65.0    | 99.0     | 2.0                 |
| IS-PR 487                                                          | 99                                    | 99       | 85      | 45       | 11.7                               | 23.3     | 76.7    | 99.0     | 2.7                 |
| IS-PR 488                                                          | 99                                    | 99       | 85      | 45       | 6.7                                | 25.0     | 63.3    | 99.0     | 2.0                 |
| IS-PR 492                                                          | 99                                    | 99       | 85      | 45       | 11.7                               | 26.7     | 75.0    | 97.7     | 3.0                 |
| PLAYOFF 2 (P02)                                                    | 99                                    | 99       | 85      | 45       | 15.0                               | 35.0     | 71.7    | 93.3     | 3.7                 |
| PIZZAZZ 2 GLR (PR 909)                                             | 99                                    | 99       | 85      | 45       | 10.0                               | 21.7     | 61.7    | 99.0     | 2.0                 |
| PST-2MG7                                                           | 99                                    | 99       | 85      | 45       | 10.0                               | 30.0     | 66.7    | 97.7     | 2.0                 |
| RAD-PR55R                                                          | 99                                    | 99       | 85      | 45       | 5.0                                | 20.0     | 60.0    | 91.7     | 1.7                 |
| SIDEWAYS (PSRX-S84)                                                | 99                                    | 99       | 85      | 45       | 18.3                               | 33.3     | 71.7    | 99.0     | 3.7                 |
| APR 2320                                                           | 99                                    | 99       | 85      | 45       | 5.0                                | 13.3     | 58.3    | 91.7     | 2.0                 |
| IS-PR 469                                                          | 99                                    | 99       | 85      | 45       | 11.7                               | 30.0     | 73.3    | 99.0     | 2.7                 |
| IS-PR 491                                                          | 99                                    | 99       | 85      | 45       | 16.7                               | 25.0     | 73.3    | 99.0     | 3.0                 |
| PANGEA GLR (CL 11701)                                              | 99                                    | 99       | 85      | 45       | 16.7                               | 30.0     | 78.3    | 97.7     | 2.3                 |
| PPG-PR 165                                                         | 99                                    | 99       | 85      | 45       | 13.3                               | 25.0     | 53.3    | 99.0     | 2.7                 |
| GO-PR60                                                            | 99                                    | 99       | 85      | 45       | 20.0                               | 41.7     | 68.3    | 99.0     | 3.0                 |
| ISG-36                                                             | 99                                    | 99       | 85      | 45       | 10.0                               | 25.0     | 76.7    | 96.3     | 3.0                 |
| LTP-RAE                                                            | 99                                    | 99       | 85      | 45       | 11.7                               | 21.7     | 68.3    | 99.0     | 3.3                 |
| PSRX-4CAGL                                                         | 99                                    | 99       | 85      | 45       | 18.3                               | 36.7     | 70.0    | 99.0     | 3.3                 |
| PST-2DR9                                                           | 99                                    | 99       | 85      | 45       | 15.0                               | 20.0     | 73.3    | 99.0     | 3.0                 |
| RAD-PR62                                                           | 99                                    | 99       | 85      | 45       | 6.7                                | 23.3     | 61.7    | 96.3     | 2.0                 |
| WICKED (SRX-4RHD)                                                  | 99                                    | 99       | 85      | 45       | 11.7                               | 26.7     | 75.0    | 99.0     | 2.3                 |
| A-35                                                               | 99                                    | 99       | 85      | 45       | 10.0                               | 26.7     | 66.7    | 99.0     | 2.7                 |
| BAR LP 10970                                                       | 99                                    | 99       | 85      | 45       | 8.3                                | 23.3     | 76.7    | 99.0     | 2.0                 |
| CL 11601                                                           | 99                                    | 99       | 85      | 45       | 18.3                               | 33.3     | 68.3    | 99.0     | 2.7                 |
| DLF LGT 4182                                                       | 99                                    | 99       | 85      | 45       | 8.3                                | 21.7     | 61.7    | 99.0     | 2.0                 |
| IS-PR 463                                                          | 99                                    | 99       | 85      | 45       | 6.7                                | 25.0     | 65.0    | 94.7     | 2.0                 |
| JR-192                                                             | 99                                    | 99       | 85      | 45       | 10.0                               | 30.0     | 65.0    | 99.0     | 3.0                 |
| DLF LGD-3026                                                       | 99                                    | 99       | 85      | 45       | 13.3                               | 25.0     | 65.0    | 99.0     | 2.7                 |
| ISG-30                                                             | 99                                    | 99       | 85      | 45       | 15.0                               | 28.3     | 71.7    | 99.0     | 2.7                 |
| PST-2BNS                                                           | 99                                    | 99       | 85      | 45       | 5.0                                | 18.3     | 51.7    | 99.0     | 2.0                 |
| IS-PR 479                                                          | 99                                    | 99       | 85      | 45       | 11.7                               | 28.3     | 73.3    | 99.0     | 2.0                 |
| LINN                                                               | 99                                    | 99       | 85      | 45       | 11.7                               | 21.7     | 68.3    | 97.7     | 2.0                 |
| LSD VALUE                                                          | 0                                     | 0        | 0       | 0        | 6.7                                | 8.5      | 4.9     | 2.8      | 0.5                 |
| C.V. (%)                                                           | 0                                     | 0        | 0       | 0        | 29.2                               | 18.0     | 4.8     | 1.7      | 13.0                |

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).
- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.
- 3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

TABLE 16. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | COLOR RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        | QUALITY RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        |
|-----------------------------|------------------------------------------------------|--------|--------|--------|--------|--------------------------------------------------------|--------|--------|--------|--------|
|                             | 12/2/10                                              | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 | 12/2/10                                                | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 |
| LTP-PR 135                  | 7.3                                                  | 8.0    | 7.3    | 7.7    | 7.0    | 8.0                                                    | 8.3    | 8.3    | 8.3    | 8.3    |
| OCTANE                      | 7.0                                                  | 6.3    | 7.0    | 7.0    | 6.3    | 8.0                                                    | 8.0    | 8.3    | 8.0    | 8.0    |
| SOX FAN (GM3)               | 7.7                                                  | 7.0    | 7.3    | 7.0    | 7.3    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    |
| BONNEVILLE                  | 6.3                                                  | 6.7    | 6.7    | 7.0    | 6.3    | 7.0                                                    | 7.7    | 8.0    | 7.7    | 7.7    |
| MACH I                      | 6.3                                                  | 7.7    | 7.0    | 7.7    | 7.0    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    |
| PICK 4DFHM                  | 7.0                                                  | 6.7    | 7.0    | 6.7    | 6.3    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 7.7    |
| PPG-PR 121                  | 8.0                                                  | 8.0    | 6.7    | 7.3    | 8.0    | 8.0                                                    | 8.0    | 7.7    | 7.7    | 7.7    |
| PPG-PR 133                  | 6.7                                                  | 7.0    | 7.7    | 7.0    | 6.7    | 7.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    |
| PPG-PR 134                  | 8.0                                                  | 7.7    | 8.0    | 7.7    | 7.3    | 8.0                                                    | 8.0    | 7.7    | 8.0    | 8.0    |
| CL 307                      | 7.0                                                  | 7.7    | 7.7    | 7.0    | 6.3    | 7.0                                                    | 7.3    | 7.7    | 7.7    | 7.7    |
| PALMER V                    | 6.7                                                  | 7.0    | 7.0    | 7.3    | 7.0    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 7.7    |
| BAR LP 10972                | 7.3                                                  | 8.0    | 6.7    | 6.7    | 6.3    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    |
| PST-2K9                     | 7.0                                                  | 7.0    | 6.7    | 7.0    | 7.0    | 8.0                                                    | 7.7    | 7.7    | 8.0    | 8.0    |
| RIO VISTA                   | 6.3                                                  | 7.0    | 7.0    | 7.0    | 7.0    | 7.0                                                    | 7.7    | 7.7    | 7.7    | 7.0    |
| SR 4650 (PSRX-3701)         | 7.7                                                  | 8.0    | 7.0    | 7.3    | 7.7    | 8.0                                                    | 8.0    | 7.7    | 8.0    | 7.3    |
| SRX-4MSH                    | 7.0                                                  | 7.0    | 6.7    | 7.0    | 7.0    | 7.3                                                    | 7.7    | 8.0    | 8.0    | 8.0    |
| BAR LP 10969                | 6.3                                                  | 6.7    | 7.0    | 6.7    | 6.3    | 7.0                                                    | 8.0    | 7.7    | 8.0    | 7.3    |
| IS-PR 489                   | 6.3                                                  | 8.0    | 7.3    | 6.7    | 7.0    | 7.0                                                    | 8.0    | 7.7    | 7.7    | 7.7    |
| JR-178                      | 7.0                                                  | 7.0    | 7.0    | 7.0    | 6.7    | 7.7                                                    | 7.3    | 8.0    | 7.3    | 7.7    |
| PINNACLE                    | 6.0                                                  | 7.0    | 7.3    | 6.3    | 6.3    | 7.0                                                    | 7.3    | 7.7    | 8.0    | 7.0    |
| PPG-PR 136                  | 7.7                                                  | 7.7    | 7.0    | 6.7    | 6.7    | 8.0                                                    | 7.7    | 7.7    | 7.3    | 7.3    |
| PPG-PR 137                  | 7.3                                                  | 8.0    | 7.0    | 7.0    | 6.7    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    |
| PPG-PR 138                  | 7.0                                                  | 7.0    | 7.0    | 6.3    | 7.0    | 7.7                                                    | 8.0    | 7.7    | 7.3    | 7.3    |
| PPG-PR 143                  | 6.7                                                  | 7.0    | 7.0    | 7.0    | 6.3    | 6.7                                                    | 7.7    | 8.0    | 8.0    | 8.3    |
| PPG-PR 164                  | 6.7                                                  | 6.7    | 6.7    | 6.7    | 7.0    | 6.7                                                    | 7.7    | 7.7    | 7.7    | 8.0    |
| PRX-4GM1                    | 7.3                                                  | 6.3    | 6.7    | 7.3    | 7.3    | 7.7                                                    | 7.3    | 7.3    | 7.3    | 7.0    |
| PST-2ACR                    | 7.0                                                  | 6.7    | 6.3    | 6.3    | 7.0    | 8.0                                                    | 7.7    | 7.3    | 7.3    | 7.7    |
| PST-2NKM                    | 7.0                                                  | 8.0    | 7.0    | 7.0    | 7.0    | 8.0                                                    | 8.0    | 8.0    | 8.0    | 7.3    |
| RINOVO                      | 7.0                                                  | 7.3    | 7.0    | 7.3    | 7.0    | 6.3                                                    | 7.0    | 7.0    | 7.7    | 8.0    |
| EVOLUTION (S85)             | 7.3                                                  | 8.0    | 7.0    | 6.7    | 7.0    | 8.0                                                    | 8.0    | 7.7    | 7.7    | 7.3    |
| ALLANTE                     | 6.3                                                  | 6.7    | 7.0    | 7.3    | 6.7    | 6.7                                                    | 7.0    | 7.3    | 7.3    | 7.3    |
| HAVEN (APR 2038)            | 7.0                                                  | 6.7    | 7.0    | 7.3    | 7.0    | 7.0                                                    | 7.7    | 8.0    | 8.0    | 7.7    |
| INSIGHT                     | 6.0                                                  | 5.7    | 6.3    | 7.0    | 6.7    | 7.0                                                    | 7.0    | 7.3    | 7.3    | 7.7    |
| ISG-31                      | 7.3                                                  | 7.0    | 6.7    | 6.7    | 7.0    | 8.3                                                    | 7.3    | 7.3    | 7.3    | 7.3    |
| PPG-PR 140                  | 6.3                                                  | 6.7    | 7.0    | 7.0    | 6.0    | 7.0                                                    | 7.3    | 8.0    | 8.0    | 8.0    |
| MANHATTAN 6 GLR (PST-2MAGS) | 6.7                                                  | 6.3    | 6.3    | 6.7    | 7.3    | 7.7                                                    | 7.3    | 7.3    | 7.0    | 7.3    |
| PST-2TQL                    | 6.0                                                  | 6.7    | 6.7    | 6.7    | 6.3    | 6.7                                                    | 7.7    | 8.0    | 8.0    | 7.7    |
| UNO                         | 6.3                                                  | 6.7    | 7.0    | 7.0    | 6.0    | 7.3                                                    | 7.0    | 7.7    | 8.0    | 8.0    |
| BAR LP 7608                 | 6.7                                                  | 8.0    | 7.0    | 7.0    | 6.7    | 7.7                                                    | 8.0    | 7.7    | 7.3    | 7.0    |
| CS-PR66                     | 7.0                                                  | 7.0    | 7.0    | 7.7    | 7.3    | 8.0                                                    | 8.3    | 7.7    | 7.3    | 7.3    |
| CST                         | 7.7                                                  | 7.3    | 6.7    | 7.3    | 7.3    | 8.0                                                    | 7.7    | 7.7    | 7.7    | 7.7    |
| DLF LGD-3022                | 6.3                                                  | 7.0    | 7.0    | 7.0    | 6.7    | 7.0                                                    | 7.0    | 7.3    | 7.7    | 8.0    |
| FIESTA 4                    | 7.0                                                  | 7.7    | 7.3    | 7.0    | 6.7    | 8.0                                                    | 8.0    | 8.0    | 7.3    | 7.3    |
| GO-G37                      | 7.3                                                  | 8.0    | 8.0    | 7.0    | 7.0    | 8.0                                                    | 8.0    | 7.3    | 7.7    | 7.0    |
| KARMA (PICK 10401)          | 7.7                                                  | 7.7    | 7.3    | 7.3    | 7.3    | 7.7                                                    | 7.3    | 7.0    | 7.0    | 7.0    |
| PPG-PR 128                  | 7.3                                                  | 7.3    | 7.0    | 7.0    | 7.0    | 7.0                                                    | 7.7    | 7.7    | 7.3    | 7.3    |
| PPG-PR 142                  | 5.7                                                  | 6.0    | 5.7    | 6.3    | 6.7    | 6.7                                                    | 7.7    | 7.7    | 7.7    | 7.7    |

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | COLOR RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        | QUALITY RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        |
|------------------------|------------------------------------------------------|--------|--------|--------|--------|--------------------------------------------------------|--------|--------|--------|--------|
|                        | 12/2/10                                              | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 | 12/2/10                                                | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 |
| PST-204D               | 7.3                                                  | 7.3    | 6.7    | 7.0    | 7.0    | 7.7                                                    | 7.0    | 7.3    | 7.0    | 7.3    |
| SIENNA                 | 7.0                                                  | 7.0    | 6.3    | 6.3    | 6.0    | 7.0                                                    | 7.3    | 7.3    | 7.3    | 7.3    |
| 2NJK                   | 6.7                                                  | 7.0    | 7.3    | 7.0    | 6.3    | 7.7                                                    | 7.7    | 7.7    | 7.7    | 7.7    |
| APR 2036               | 7.0                                                  | 7.0    | 7.0    | 6.7    | 6.3    | 6.7                                                    | 7.7    | 7.3    | 7.3    | 7.0    |
| APR 2445               | 6.7                                                  | 6.7    | 7.7    | 6.3    | 7.0    | 7.7                                                    | 7.7    | 7.7    | 7.3    | 7.7    |
| BRIGHTSTAR SLT         | 6.7                                                  | 7.0    | 7.0    | 6.7    | 6.3    | 6.7                                                    | 7.0    | 7.0    | 7.3    | 7.3    |
| CS-20                  | 7.7                                                  | 7.0    | 7.7    | 7.3    | 7.7    | 8.0                                                    | 7.3    | 7.0    | 7.3    | 7.0    |
| DOMINATOR (PST-2AG4)   | 7.0                                                  | 7.0    | 6.3    | 7.3    | 6.7    | 6.7                                                    | 7.0    | 7.0    | 7.3    | 7.3    |
| GO-DHS                 | 8.0                                                  | 7.0    | 7.0    | 7.7    | 8.0    | 8.0                                                    | 7.0    | 7.0    | 7.3    | 7.0    |
| IS-PR 409              | 6.0                                                  | 6.7    | 6.7    | 7.0    | 7.0    | 6.7                                                    | 7.3    | 7.7    | 8.0    | 7.7    |
| IS-PR 487              | 7.3                                                  | 7.7    | 6.3    | 7.0    | 7.3    | 7.3                                                    | 7.7    | 7.7    | 7.3    | 7.0    |
| IS-PR 488              | 6.7                                                  | 7.7    | 7.0    | 7.0    | 7.0    | 7.3                                                    | 7.7    | 8.0    | 7.0    | 7.7    |
| IS-PR 492              | 7.0                                                  | 7.7    | 6.7    | 7.0    | 7.0    | 7.0                                                    | 7.3    | 7.0    | 7.3    | 7.3    |
| PLAYOFF 2 (P02)        | 7.0                                                  | 6.7    | 6.3    | 6.7    | 7.0    | 7.0                                                    | 7.3    | 7.3    | 7.0    | 7.3    |
| PIZZAZZ 2 GLR (PR 909) | 5.7                                                  | 6.0    | 6.3    | 6.7    | 6.7    | 6.0                                                    | 6.7    | 7.3    | 7.7    | 7.7    |
| PST-2MG7               | 6.0                                                  | 7.0    | 7.3    | 7.0    | 6.3    | 7.0                                                    | 7.0    | 7.3    | 7.0    | 7.3    |
| RAD-PR55R              | 6.0                                                  | 7.0    | 7.0    | 7.0    | 6.3    | 7.0                                                    | 7.0    | 7.3    | 7.7    | 7.3    |
| SIDEWAYS (PSRX-S84)    | 7.0                                                  | 6.7    | 7.0    | 6.7    | 7.0    | 7.0                                                    | 7.0    | 7.7    | 7.7    | 7.7    |
| APR 2320               | 6.3                                                  | 6.7    | 7.7    | 7.3    | 7.0    | 6.0                                                    | 7.0    | 7.7    | 7.7    | 7.7    |
| IS-PR 469              | 5.0                                                  | 7.0    | 6.7    | 7.0    | 6.7    | 5.7                                                    | 7.0    | 7.3    | 7.3    | 7.3    |
| IS-PR 491              | 6.7                                                  | 8.0    | 7.3    | 7.0    | 6.7    | 7.0                                                    | 7.7    | 7.0    | 7.7    | 7.0    |
| PANGEA GLR (CL 11701)  | 6.3                                                  | 5.7    | 6.0    | 6.3    | 7.0    | 7.0                                                    | 7.0    | 7.0    | 6.7    | 7.0    |
| PPG-PR 165             | 7.0                                                  | 7.0    | 7.0    | 6.7    | 7.0    | 7.0                                                    | 7.3    | 7.3    | 7.3    | 7.3    |
| GO-PR60                | 7.3                                                  | 6.7    | 6.7    | 7.0    | 7.0    | 8.0                                                    | 7.0    | 7.0    | 6.7    | 6.7    |
| ISG-36                 | 7.0                                                  | 6.7    | 6.3    | 7.0    | 7.3    | 8.0                                                    | 7.7    | 7.3    | 7.0    | 6.7    |
| LTP-RAE                | 7.0                                                  | 7.3    | 7.3    | 7.0    | 7.0    | 7.3                                                    | 7.7    | 7.0    | 6.7    | 6.3    |
| PSRX-4CAGL             | 6.3                                                  | 6.7    | 7.0    | 6.7    | 6.7    | 6.7                                                    | 7.0    | 7.3    | 6.7    | 6.7    |
| PST-2DR9               | 6.7                                                  | 7.3    | 6.7    | 6.7    | 6.7    | 7.0                                                    | 7.0    | 6.7    | 6.7    | 6.7    |
| RAD-PR62               | 6.3                                                  | 7.0    | 7.0    | 7.3    | 7.3    | 6.7                                                    | 7.0    | 7.3    | 7.7    | 7.3    |
| WICKED (SRX-4RHD)      | 6.7                                                  | 7.0    | 6.7    | 7.0    | 6.7    | 7.0                                                    | 7.0    | 7.3    | 7.3    | 7.3    |
| A-35                   | 7.3                                                  | 6.7    | 6.7    | 7.0    | 7.0    | 8.0                                                    | 7.3    | 7.0    | 7.0    | 6.7    |
| BAR LP 10970           | 6.0                                                  | 6.7    | 6.7    | 6.7    | 6.3    | 6.7                                                    | 7.0    | 7.0    | 7.3    | 7.3    |
| CL 11601               | 6.0                                                  | 6.3    | 6.3    | 6.0    | 6.3    | 6.0                                                    | 7.0    | 7.3    | 7.0    | 7.0    |
| DLF LGT 4182           | 7.0                                                  | 7.3    | 6.7    | 7.0    | 6.7    | 7.7                                                    | 7.0    | 7.3    | 7.3    | 7.3    |
| IS-PR 463              | 6.3                                                  | 7.0    | 6.3    | 6.7    | 6.0    | 7.0                                                    | 7.0    | 7.0    | 7.0    | 7.3    |
| JR-192                 | 7.0                                                  | 7.0    | 6.7    | 6.7    | 7.0    | 7.0                                                    | 7.0    | 7.0    | 7.0    | 6.7    |
| DLF LGD-3026           | 7.0                                                  | 7.0    | 6.7    | 7.0    | 5.7    | 7.7                                                    | 6.7    | 7.0    | 7.0    | 6.7    |
| ISG-30                 | 6.7                                                  | 7.3    | 6.3    | 6.7    | 6.3    | 7.3                                                    | 7.3    | 7.0    | 7.0    | 6.7    |
| PST-2BNS               | 6.3                                                  | 7.0    | 7.0    | 6.0    | 6.3    | 7.0                                                    | 7.0    | 7.0    | 6.3    | 6.3    |
| IS-PR 479              | 7.0                                                  | 6.7    | 6.3    | 6.7    | 6.7    | 7.0                                                    | 6.7    | 6.3    | 6.3    | 7.0    |
| LINN                   | 5.0                                                  | 5.0    | 4.7    | 4.7    | 4.3    | 6.0                                                    | 6.0    | 5.7    | 5.7    | 6.0    |
| LSD VALUE              | 0.7                                                  | 0.7    | 0.7    | 0.8    | 0.7    | 0.5                                                    | 0.7    | 0.8    | 0.8    | 1.1    |
| C.V. (%)               | 6.6                                                  | 6.2    | 6.4    | 6.3    | 6.4    | 4.7                                                    | 5.3    | 6.1    | 6.1    | 7.4    |

- 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.
- 3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

TABLE 16. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | DENSITY RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        | UNIFORMITY RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        |
|-----------------------------|--------------------------------------------------------|--------|--------|--------|--------|-----------------------------------------------------------|--------|--------|--------|--------|
|                             | 12/2/10                                                | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 | 12/2/10                                                   | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 |
| LTP-PR 135                  | 8.0                                                    | 7.3    | 7.3    | 7.7    | 7.7    | 8.0                                                       | 7.7    | 7.7    | 7.3    | 7.0    |
| OCTANE                      | 7.7                                                    | 8.0    | 8.0    | 8.3    | 8.0    | 8.0                                                       | 8.0    | 7.0    | 7.3    | 7.7    |
| SOX FAN (GM3)               | 7.0                                                    | 7.7    | 8.0    | 7.7    | 7.3    | 7.7                                                       | 7.3    | 6.7    | 7.0    | 7.0    |
| BONNEVILLE                  | 7.7                                                    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0                                                       | 8.0    | 7.0    | 8.0    | 8.0    |
| MACH I                      | 8.0                                                    | 8.0    | 8.0    | 8.3    | 8.7    | 8.0                                                       | 7.7    | 7.0    | 7.3    | 7.0    |
| PICK 4DFHM                  | 7.7                                                    | 8.0    | 8.0    | 8.3    | 7.7    | 8.0                                                       | 8.0    | 7.0    | 7.3    | 8.0    |
| PPG-PR 121                  | 7.7                                                    | 7.7    | 8.0    | 7.3    | 7.7    | 8.0                                                       | 8.0    | 7.7    | 7.7    | 7.0    |
| PPG-PR 133                  | 8.0                                                    | 8.0    | 7.7    | 8.3    | 8.0    | 8.0                                                       | 7.3    | 8.0    | 7.7    | 7.0    |
| PPG-PR 134                  | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0                                                       | 7.7    | 7.0    | 7.0    | 7.0    |
| CL 307                      | 7.7                                                    | 7.3    | 7.3    | 8.3    | 7.7    | 7.0                                                       | 7.3    | 7.7    | 7.7    | 7.0    |
| PALMER V                    | 8.0                                                    | 8.0    | 7.7    | 8.3    | 7.3    | 8.0                                                       | 8.0    | 7.0    | 7.0    | 7.3    |
| BAR LP 10972                | 8.0                                                    | 7.7    | 7.0    | 8.0    | 8.0    | 8.0                                                       | 8.0    | 7.3    | 7.3    | 7.3    |
| PST-2K9                     | 7.7                                                    | 7.7    | 7.7    | 8.0    | 7.3    | 8.0                                                       | 8.0    | 7.0    | 7.0    | 7.0    |
| RIO VISTA                   | 7.0                                                    | 7.7    | 8.0    | 8.0    | 7.7    | 7.7                                                       | 8.0    | 7.3    | 7.7    | 7.7    |
| SR 4650 (PSRX-3701)         | 8.0                                                    | 8.0    | 7.7    | 8.0    | 7.7    | 7.0                                                       | 7.0    | 7.0    | 7.3    | 7.3    |
| SRX-4MSH                    | 7.7                                                    | 7.7    | 7.7    | 8.0    | 7.0    | 7.7                                                       | 8.0    | 7.0    | 7.0    | 7.0    |
| BAR LP 10969                | 8.0                                                    | 8.0    | 7.3    | 8.0    | 8.0    | 8.0                                                       | 7.7    | 7.0    | 7.3    | 7.0    |
| IS-PR 489                   | 7.7                                                    | 8.0    | 7.0    | 8.0    | 7.3    | 8.0                                                       | 8.0    | 7.3    | 7.3    | 7.3    |
| JR-178                      | 7.3                                                    | 7.3    | 7.3    | 7.3    | 7.3    | 7.7                                                       | 7.3    | 8.0    | 7.3    | 7.0    |
| PINNACLE                    | 8.0                                                    | 7.0    | 7.7    | 7.3    | 7.3    | 8.0                                                       | 8.0    | 7.3    | 7.0    | 7.3    |
| PPG-PR 136                  | 7.3                                                    | 7.3    | 8.0    | 8.0    | 7.3    | 7.0                                                       | 7.0    | 7.7    | 7.0    | 6.7    |
| PPG-PR 137                  | 8.0                                                    | 8.0    | 8.0    | 8.3    | 7.7    | 7.0                                                       | 8.0    | 7.3    | 7.3    | 7.0    |
| PPG-PR 138                  | 7.0                                                    | 8.0    | 7.7    | 7.3    | 7.3    | 8.0                                                       | 7.3    | 7.0    | 7.3    | 7.0    |
| PPG-PR 143                  | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0                                                       | 7.0    | 7.0    | 7.0    | 7.7    |
| PPG-PR 164                  | 7.7                                                    | 8.0    | 8.0    | 8.3    | 8.3    | 8.0                                                       | 7.3    | 7.7    | 7.7    | 7.3    |
| PRX-4GM1                    | 8.0                                                    | 8.0    | 8.0    | 7.7    | 7.0    | 7.3                                                       | 7.3    | 7.0    | 7.3    | 7.0    |
| PST-2ACR                    | 7.7                                                    | 7.3    | 7.0    | 7.3    | 7.3    | 7.3                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| PST-2NKM                    | 7.7                                                    | 8.0    | 8.0    | 8.0    | 8.0    | 7.0                                                       | 7.3    | 7.3    | 7.0    | 7.0    |
| RINOVO                      | 8.0                                                    | 8.0    | 7.7    | 7.0    | 8.0    | 7.0                                                       | 7.0    | 7.7    | 7.3    | 7.0    |
| EVOLUTION (S85)             | 8.0                                                    | 7.3    | 7.3    | 7.3    | 8.0    | 8.0                                                       | 8.0    | 7.3    | 7.3    | 7.0    |
| ALLANTE                     | 7.3                                                    | 7.3    | 7.0    | 7.7    | 7.7    | 7.0                                                       | 7.0    | 7.3    | 7.3    | 7.0    |
| HAVEN (APR 2038)            | 8.0                                                    | 8.0    | 7.3    | 8.0    | 8.0    | 8.0                                                       | 8.0    | 7.3    | 7.0    | 7.3    |
| INSIGHT                     | 7.7                                                    | 7.7    | 7.7    | 8.0    | 7.3    | 7.0                                                       | 7.7    | 7.3    | 7.3    | 7.0    |
| ISG-31                      | 7.3                                                    | 7.7    | 7.0    | 7.7    | 7.7    | 8.0                                                       | 8.0    | 7.3    | 7.0    | 7.7    |
| PPG-PR 140                  | 8.0                                                    | 7.0    | 7.7    | 7.3    | 7.3    | 7.0                                                       | 7.0    | 7.7    | 7.7    | 7.3    |
| MANHATTAN 6 GLR (PST-2MAGS) | 7.7                                                    | 7.0    | 7.3    | 7.3    | 7.3    | 8.0                                                       | 7.7    | 7.3    | 7.0    | 7.0    |
| PST-2TQL                    | 7.7                                                    | 8.0    | 7.7    | 7.7    | 7.3    | 7.7                                                       | 7.7    | 7.3    | 7.3    | 7.7    |
| UNO                         | 7.7                                                    | 8.0    | 7.7    | 7.3    | 8.0    | 7.0                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| BAR LP 7608                 | 8.0                                                    | 7.7    | 7.3    | 7.7    | 7.7    | 7.0                                                       | 7.0    | 7.3    | 7.0    | 7.0    |
| CS-PR66                     | 7.7                                                    | 8.0    | 7.7    | 8.0    | 8.0    | 8.0                                                       | 7.7    | 7.0    | 7.3    | 7.0    |
| CST                         | 7.7                                                    | 7.3    | 7.7    | 7.7    | 7.7    | 7.3                                                       | 8.0    | 8.0    | 7.0    | 7.0    |
| DLF LGD-3022                | 8.0                                                    | 8.0    | 8.0    | 9.0    | 8.3    | 8.0                                                       | 8.0    | 8.0    | 8.0    | 8.0    |
| FIESTA 4                    | 8.0                                                    | 7.7    | 7.7    | 8.0    | 7.3    | 8.0                                                       | 7.7    | 8.0    | 7.3    | 7.3    |
| GO-G37                      | 7.7                                                    | 8.0    | 7.0    | 8.0    | 7.7    | 7.3                                                       | 7.7    | 7.0    | 7.0    | 7.0    |
| KARMA (PICK 10401)          | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.3    | 7.3                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| PPG-PR 128                  | 7.0                                                    | 7.3    | 8.0    | 8.0    | 7.3    | 8.0                                                       | 7.7    | 7.3    | 7.0    | 7.3    |
| PPG-PR 142                  | 7.0                                                    | 7.3    | 7.3    | 7.7    | 7.3    | 7.0                                                       | 6.7    | 7.3    | 7.3    | 7.3    |

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | DENSITY RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        | UNIFORMITY RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |        |        |        |        |
|------------------------|--------------------------------------------------------|--------|--------|--------|--------|-----------------------------------------------------------|--------|--------|--------|--------|
|                        | 12/2/10                                                | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 | 12/2/10                                                   | 1/5/11 | 2/7/11 | 3/4/11 | 4/4/11 |
| PST-204D               | 7.3                                                    | 7.7    | 7.0    | 7.7    | 7.3    | 7.0                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| SIENNA                 | 7.7                                                    | 7.7    | 8.0    | 7.7    | 7.3    | 8.0                                                       | 7.0    | 7.3    | 7.0    | 7.3    |
| 2NJK                   | 7.0                                                    | 7.0    | 7.3    | 8.0    | 7.3    | 8.0                                                       | 8.0    | 7.7    | 7.3    | 7.3    |
| APR 2036               | 7.3                                                    | 7.3    | 7.3    | 7.0    | 7.3    | 7.3                                                       | 7.0    | 8.0    | 8.0    | 7.3    |
| APR 2445               | 8.0                                                    | 7.7    | 7.3    | 7.7    | 7.7    | 7.0                                                       | 7.3    | 7.7    | 7.3    | 7.0    |
| BRIGHTSTAR SLT         | 7.7                                                    | 6.7    | 7.0    | 6.7    | 7.3    | 7.3                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| CS-20                  | 7.3                                                    | 7.3    | 7.3    | 7.3    | 7.3    | 7.7                                                       | 7.0    | 7.3    | 7.0    | 7.0    |
| DOMINATOR (PST-2AG4)   | 7.0                                                    | 7.3    | 8.0    | 8.0    | 7.7    | 8.0                                                       | 8.0    | 7.0    | 7.0    | 7.3    |
| GO-DHS                 | 7.3                                                    | 7.0    | 7.0    | 7.3    | 7.3    | 7.7                                                       | 7.0    | 7.0    | 7.3    | 7.0    |
| IS-PR 409              | 7.7                                                    | 7.7    | 7.3    | 7.7    | 7.3    | 7.0                                                       | 7.0    | 7.3    | 7.0    | 7.0    |
| IS-PR 487              | 7.0                                                    | 7.7    | 8.0    | 7.7    | 7.0    | 7.3                                                       | 7.0    | 7.0    | 7.3    | 7.0    |
| IS-PR 488              | 7.3                                                    | 7.0    | 7.3    | 7.7    | 7.3    | 7.0                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| IS-PR 492              | 7.7                                                    | 7.7    | 7.0    | 7.3    | 7.0    | 7.0                                                       | 7.3    | 7.0    | 7.0    | 7.0    |
| PLAYOFF 2 (P02)        | 7.0                                                    | 7.7    | 7.3    | 8.3    | 8.0    | 7.0                                                       | 7.0    | 8.0    | 7.0    | 7.0    |
| PIZZAZZ 2 GLR (PR 909) | 7.0                                                    | 7.7    | 8.0    | 6.3    | 7.0    | 8.0                                                       | 8.0    | 8.0    | 7.7    | 7.3    |
| PST-2MG7               | 7.3                                                    | 8.0    | 7.7    | 8.0    | 8.0    | 7.0                                                       | 7.0    | 8.0    | 7.3    | 7.3    |
| RAD-PR55R              | 7.3                                                    | 7.3    | 8.0    | 7.7    | 7.0    | 6.0                                                       | 6.7    | 7.0    | 7.0    | 7.3    |
| SIDEWAYS (PSRX-S84)    | 7.7                                                    | 7.7    | 8.0    | 8.0    | 8.3    | 7.0                                                       | 7.0    | 7.0    | 7.0    | 7.0    |
| APR 2320               | 7.7                                                    | 8.0    | 8.0    | 8.0    | 8.3    | 6.3                                                       | 7.3    | 7.3    | 7.3    | 7.0    |
| IS-PR 469              | 7.7                                                    | 7.7    | 7.7    | 8.3    | 7.7    | 7.0                                                       | 7.3    | 7.7    | 7.0    | 7.0    |
| IS-PR 491              | 8.0                                                    | 8.0    | 8.0    | 8.0    | 8.0    | 7.0                                                       | 7.3    | 7.3    | 7.0    | 7.3    |
| PANGEA GLR (CL 11701)  | 7.0                                                    | 7.3    | 7.0    | 7.0    | 7.0    | 7.0                                                       | 7.3    | 7.3    | 7.0    | 7.3    |
| PPG-PR 165             | 7.7                                                    | 8.0    | 7.7    | 7.7    | 7.7    | 7.3                                                       | 7.0    | 7.0    | 7.0    | 7.7    |
| GO-PR60                | 6.7                                                    | 7.3    | 7.3    | 7.0    | 7.0    | 7.3                                                       | 7.0    | 7.3    | 7.3    | 7.3    |
| ISG-36                 | 7.0                                                    | 7.0    | 7.0    | 7.3    | 7.0    | 6.7                                                       | 7.0    | 7.0    | 7.3    | 7.3    |
| LTP-RAE                | 6.7                                                    | 7.0    | 7.0    | 7.0    | 7.7    | 7.0                                                       | 7.0    | 7.7    | 7.0    | 7.3    |
| PSRX-4CAGL             | 6.7                                                    | 7.0    | 7.0    | 7.3    | 7.0    | 7.3                                                       | 7.7    | 7.0    | 7.3    | 7.0    |
| PST-2DR9               | 7.0                                                    | 7.3    | 7.0    | 7.0    | 7.3    | 6.7                                                       | 6.7    | 6.7    | 6.7    | 6.7    |
| RAD-PR62               | 7.3                                                    | 7.3    | 7.0    | 7.3    | 7.3    | 6.0                                                       | 6.7    | 7.0    | 7.0    | 7.0    |
| WICKED (SRX-4RHD)      | 7.7                                                    | 7.7    | 8.0    | 7.7    | 7.7    | 7.7                                                       | 8.0    | 7.3    | 7.3    | 7.3    |
| A-35                   | 7.3                                                    | 7.3    | 7.3    | 7.0    | 7.3    | 7.0                                                       | 7.3    | 7.3    | 7.3    | 7.3    |
| BAR LP 10970           | 7.3                                                    | 7.0    | 7.0    | 7.7    | 7.3    | 8.0                                                       | 7.7    | 8.0    | 7.0    | 7.7    |
| CL 11601               | 7.0                                                    | 7.0    | 7.3    | 7.0    | 7.3    | 7.3                                                       | 7.3    | 7.3    | 7.0    | 7.0    |
| DLF LGT 4182           | 7.7                                                    | 7.3    | 8.0    | 7.3    | 7.3    | 8.0                                                       | 8.0    | 7.3    | 7.3    | 7.3    |
| IS-PR 463              | 7.7                                                    | 7.3    | 7.3    | 7.7    | 7.7    | 7.0                                                       | 7.0    | 7.7    | 7.0    | 7.0    |
| JR-192                 | 6.7                                                    | 7.0    | 8.0    | 7.3    | 7.0    | 7.0                                                       | 7.3    | 7.0    | 7.0    | 7.0    |
| DLF LGD-3026           | 8.0                                                    | 8.0    | 7.7    | 8.0    | 8.0    | 7.7                                                       | 8.0    | 8.0    | 7.0    | 7.0    |
| ISG-30                 | 6.7                                                    | 7.0    | 7.0    | 7.0    | 6.7    | 7.0                                                       | 7.0    | 7.3    | 7.0    | 7.3    |
| PST-2BNS               | 8.0                                                    | 7.0    | 7.3    | 7.3    | 7.3    | 6.3                                                       | 7.0    | 7.3    | 7.3    | 6.7    |
| IS-PR 479              | 7.0                                                    | 7.0    | 7.0    | 7.0    | 7.0    | 7.3                                                       | 7.0    | 7.3    | 7.0    | 7.3    |
| LINN                   | 7.0                                                    | 7.0    | 7.3    | 6.3    | 7.0    | 7.0                                                       | 7.3    | 7.0    | 7.0    | 7.3    |
| LSD VALUE              | 0.8                                                    | 0.9    | 0.8    | 0.8    | 0.9    | 0.5                                                       | 0.6    | 0.8    | 1.0    | 1.0    |
| C.V. (%)               | 6.0                                                    | 6.0    | 5.8    | 6.1    | 6.3    | 4.7                                                       | 5.1    | 5.6    | 5.3    | 5.4    |

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.

3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

TABLE 16. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | COLOR OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        | QUALITY OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        |
|-----------------------------|---------------------------------------------------|---------|--------|---------|--------|-----------------------------------------------------|---------|--------|---------|--------|
|                             | 4/14/11                                           | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 | 4/14/11                                             | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 |
| LTP-PR 135                  | 7.0                                               | 7.3     | 7.7    | 6.7     | 6.7    | 8.3                                                 | 7.3     | 7.0    | 5.7     | 4.0    |
| OCTANE                      | 7.0                                               | 7.0     | 7.0    | 6.0     | 6.0    | 8.3                                                 | 7.3     | 7.3    | 5.3     | 4.7    |
| SOX FAN (GM3)               | 7.7                                               | 8.0     | 7.3    | 7.0     | 6.0    | 9.0                                                 | 7.3     | 7.0    | 5.7     | 4.7    |
| BONNEVILLE                  | 7.0                                               | 7.0     | 6.7    | 6.7     | 6.0    | 7.7                                                 | 7.7     | 7.7    | 5.7     | 4.3    |
| MACH I                      | 8.0                                               | 8.0     | 7.0    | 6.3     | 6.7    | 8.7                                                 | 8.0     | 6.3    | 5.0     | 3.3    |
| PICK 4DFHM                  | 7.0                                               | 7.0     | 6.7    | 6.7     | 6.3    | 8.0                                                 | 7.3     | 7.0    | 5.3     | 4.3    |
| PPG-PR 121                  | 6.7                                               | 7.0     | 7.3    | 7.0     | 7.0    | 7.7                                                 | 7.3     | 6.7    | 5.3     | 5.3    |
| PPG-PR 133                  | 7.3                                               | 8.0     | 8.0    | 5.7     | 5.7    | 8.3                                                 | 7.0     | 7.0    | 5.3     | 5.0    |
| PPG-PR 134                  | 7.0                                               | 7.7     | 8.0    | 7.0     | 6.7    | 7.7                                                 | 7.0     | 7.0    | 5.7     | 4.3    |
| CL 307                      | 7.7                                               | 8.0     | 7.0    | 5.7     | 6.0    | 7.7                                                 | 7.7     | 6.7    | 5.3     | 5.0    |
| PALMER V                    | 7.7                                               | 8.0     | 7.0    | 6.3     | 6.0    | 8.3                                                 | 7.0     | 7.0    | 5.0     | 4.0    |
| BAR LP 10972                | 8.0                                               | 8.0     | 8.0    | 6.7     | 6.3    | 8.0                                                 | 7.3     | 6.7    | 4.7     | 4.0    |
| PST-2K9                     | 7.0                                               | 7.0     | 7.0    | 6.3     | 6.7    | 8.0                                                 | 7.0     | 8.0    | 4.3     | 3.3    |
| RIO VISTA                   | 6.3                                               | 6.7     | 6.7    | 6.7     | 6.3    | 7.3                                                 | 7.3     | 7.0    | 5.7     | 5.0    |
| SR 4650 (PSRX-3701)         | 7.3                                               | 7.0     | 7.0    | 7.0     | 7.0    | 8.3                                                 | 7.0     | 7.0    | 5.0     | 4.0    |
| SRX-4MSH                    | 7.3                                               | 7.7     | 6.7    | 7.0     | 6.0    | 8.0                                                 | 7.3     | 7.0    | 4.7     | 4.0    |
| BAR LP 10969                | 7.7                                               | 8.0     | 7.0    | 6.0     | 6.3    | 8.0                                                 | 7.3     | 7.0    | 4.7     | 3.0    |
| IS-PR 489                   | 6.7                                               | 7.0     | 7.0    | 7.0     | 6.7    | 8.0                                                 | 7.0     | 6.7    | 5.0     | 4.3    |
| JR-178                      | 6.3                                               | 6.0     | 6.7    | 6.7     | 6.3    | 8.0                                                 | 7.0     | 6.7    | 5.3     | 3.7    |
| PINNACLE                    | 5.7                                               | 5.7     | 6.0    | 5.0     | 5.0    | 7.3                                                 | 7.0     | 7.0    | 6.0     | 5.0    |
| PPG-PR 136                  | 6.3                                               | 6.0     | 6.0    | 6.3     | 6.3    | 7.3                                                 | 6.7     | 6.7    | 5.7     | 4.3    |
| PPG-PR 137                  | 6.0                                               | 6.7     | 6.3    | 6.0     | 5.7    | 8.0                                                 | 7.0     | 7.0    | 4.7     | 3.3    |
| PPG-PR 138                  | 5.7                                               | 6.0     | 6.0    | 6.3     | 6.0    | 7.7                                                 | 7.3     | 7.0    | 5.0     | 3.3    |
| PPG-PR 143                  | 7.0                                               | 7.0     | 7.0    | 6.3     | 6.0    | 8.7                                                 | 7.0     | 7.0    | 4.3     | 3.3    |
| PPG-PR 164                  | 7.3                                               | 7.3     | 6.3    | 6.3     | 5.7    | 8.0                                                 | 7.3     | 7.0    | 5.0     | 3.0    |
| PRX-4GM1                    | 7.0                                               | 7.0     | 6.7    | 6.0     | 6.7    | 7.3                                                 | 7.0     | 7.0    | 5.0     | 5.0    |
| PST-2ACR                    | 6.7                                               | 6.3     | 7.0    | 6.3     | 6.0    | 8.0                                                 | 7.0     | 7.3    | 4.7     | 4.0    |
| PST-2NKM                    | 7.0                                               | 7.0     | 6.7    | 7.0     | 6.0    | 8.0                                                 | 7.0     | 7.0    | 4.3     | 4.0    |
| RINOVO                      | 7.0                                               | 7.3     | 7.0    | 7.0     | 7.0    | 8.7                                                 | 7.3     | 7.0    | 5.3     | 4.0    |
| EVOLUTION (S85)             | 6.3                                               | 6.0     | 6.0    | 6.7     | 6.0    | 7.7                                                 | 7.0     | 7.0    | 4.0     | 3.0    |
| ALLANTE                     | 6.3                                               | 7.0     | 6.3    | 6.0     | 6.3    | 7.7                                                 | 7.0     | 6.3    | 5.7     | 4.7    |
| HAVEN (APR 2038)            | 7.0                                               | 7.3     | 6.7    | 6.7     | 6.3    | 7.7                                                 | 7.0     | 6.7    | 4.0     | 4.0    |
| INSIGHT                     | 7.0                                               | 7.0     | 6.3    | 5.7     | 5.3    | 7.7                                                 | 7.0     | 6.3    | 5.3     | 4.3    |
| ISG-31                      | 6.3                                               | 7.0     | 6.3    | 6.7     | 6.3    | 6.7                                                 | 7.0     | 7.0    | 5.0     | 3.3    |
| PPG-PR 140                  | 6.3                                               | 6.0     | 6.0    | 6.0     | 6.0    | 8.0                                                 | 7.3     | 6.7    | 4.0     | 3.0    |
| MANHATTAN 6 GLR (PST-2MAGS) | 6.3                                               | 7.0     | 7.0    | 6.7     | 7.0    | 7.7                                                 | 7.7     | 7.7    | 4.3     | 3.0    |
| PST-2TQL                    | 7.3                                               | 7.3     | 7.0    | 6.0     | 6.0    | 8.3                                                 | 7.3     | 7.0    | 3.7     | 3.3    |
| UNO                         | 7.0                                               | 6.7     | 6.3    | 5.7     | 5.0    | 8.0                                                 | 7.0     | 7.0    | 4.7     | 3.7    |
| BAR LP 7608                 | 6.7                                               | 7.0     | 7.0    | 5.7     | 5.3    | 7.0                                                 | 7.0     | 7.0    | 4.7     | 3.7    |
| CS-PR66                     | 7.0                                               | 7.0     | 7.0    | 7.0     | 7.0    | 7.7                                                 | 7.0     | 7.0    | 3.7     | 3.0    |
| CST                         | 6.7                                               | 7.0     | 7.0    | 6.7     | 6.3    | 7.3                                                 | 7.0     | 7.0    | 4.3     | 3.0    |
| DLF LGD-3022                | 7.0                                               | 6.7     | 7.0    | 6.7     | 6.3    | 8.3                                                 | 7.0     | 7.0    | 4.3     | 4.0    |
| FIESTA 4                    | 6.7                                               | 7.0     | 6.0    | 6.7     | 7.0    | 7.7                                                 | 7.3     | 6.0    | 4.3     | 3.0    |
| GO-G37                      | 7.0                                               | 7.0     | 7.0    | 7.0     | 6.7    | 7.3                                                 | 7.3     | 6.7    | 4.7     | 2.7    |
| KARMA (PICK 10401)          | 7.0                                               | 7.7     | 8.0    | 6.7     | 6.7    | 7.0                                                 | 7.0     | 6.7    | 5.0     | 4.7    |
| PPG-PR 128                  | 6.0                                               | 7.0     | 7.0    | 7.0     | 6.3    | 7.3                                                 | 7.0     | 6.3    | 4.7     | 4.0    |
| PPG-PR 142                  | 6.7                                               | 7.0     | 7.0    | 6.3     | 6.3    | 7.3                                                 | 6.7     | 6.7    | 5.3     | 3.0    |

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TABLE 16. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | COLOR OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        | QUALITY OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        |
|------------------------|---------------------------------------------------|---------|--------|---------|--------|-----------------------------------------------------|---------|--------|---------|--------|
|                        | 4/14/11                                           | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 | 4/14/11                                             | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 |
| PST-204D               | 6.0                                               | 6.0     | 6.3    | 7.0     | 6.3    | 7.7                                                 | 7.0     | 7.0    | 4.7     | 4.3    |
| SIENNA                 | 5.3                                               | 5.0     | 5.7    | 6.0     | 5.0    | 7.3                                                 | 7.3     | 6.3    | 5.7     | 3.0    |
| 2NJK                   | 6.0                                               | 6.3     | 6.0    | 6.7     | 5.3    | 7.7                                                 | 7.0     | 6.0    | 4.0     | 3.0    |
| APR 2036               | 5.7                                               | 6.3     | 6.0    | 6.0     | 6.3    | 7.0                                                 | 7.0     | 7.0    | 5.0     | 3.7    |
| APR 2445               | 6.0                                               | 6.0     | 7.0    | 6.3     | 6.3    | 7.7                                                 | 7.3     | 6.0    | 3.7     | 3.7    |
| BRIGHTSTAR SLT         | 6.3                                               | 7.0     | 6.3    | 6.0     | 4.7    | 6.7                                                 | 7.3     | 7.0    | 4.7     | 4.0    |
| CS-20                  | 6.0                                               | 6.0     | 6.7    | 7.0     | 6.3    | 6.7                                                 | 7.3     | 7.0    | 4.0     | 3.0    |
| DOMINATOR (PST-2AG4)   | 7.0                                               | 8.0     | 7.3    | 6.7     | 6.3    | 7.7                                                 | 7.3     | 7.3    | 4.7     | 3.7    |
| GO-DHS                 | 6.3                                               | 7.0     | 7.0    | 7.3     | 6.7    | 7.0                                                 | 7.0     | 7.0    | 4.7     | 3.3    |
| IS-PR 409              | 7.0                                               | 7.0     | 6.3    | 6.3     | 6.7    | 8.0                                                 | 7.0     | 6.7    | 4.7     | 3.0    |
| IS-PR 487              | 7.0                                               | 7.0     | 6.7    | 7.0     | 7.0    | 7.7                                                 | 7.0     | 6.3    | 4.7     | 3.0    |
| IS-PR 488              | 7.0                                               | 7.0     | 6.7    | 6.3     | 6.3    | 7.3                                                 | 7.0     | 6.7    | 4.3     | 3.0    |
| IS-PR 492              | 6.7                                               | 7.0     | 6.7    | 6.7     | 6.0    | 7.3                                                 | 6.7     | 6.3    | 5.3     | 3.0    |
| PLAYOFF 2 (P02)        | 6.3                                               | 6.7     | 6.3    | 6.7     | 6.7    | 7.0                                                 | 7.0     | 7.0    | 4.0     | 3.3    |
| PIZZAZZ 2 GLR (PR 909) | 6.3                                               | 6.3     | 6.3    | 6.3     | 6.3    | 7.7                                                 | 7.7     | 7.0    | 5.3     | 3.0    |
| PST-2MG7               | 6.3                                               | 6.3     | 6.0    | 6.3     | 6.3    | 7.7                                                 | 7.3     | 7.3    | 4.3     | 3.3    |
| RAD-PR55R              | 6.7                                               | 6.7     | 7.0    | 6.7     | 7.0    | 7.3                                                 | 7.0     | 6.3    | 5.0     | 4.0    |
| SIDEWAYS (PSRX-S84)    | 7.0                                               | 7.3     | 6.7    | 6.3     | 6.3    | 7.7                                                 | 6.7     | 6.3    | 4.3     | 3.0    |
| APR 2320               | 7.0                                               | 7.0     | 6.7    | 6.3     | 6.3    | 8.0                                                 | 7.0     | 6.7    | 3.7     | 3.7    |
| IS-PR 469              | 6.7                                               | 6.7     | 6.0    | 5.3     | 5.7    | 8.0                                                 | 7.3     | 6.7    | 4.3     | 3.0    |
| IS-PR 491              | 6.7                                               | 7.0     | 7.0    | 6.7     | 6.3    | 7.7                                                 | 6.7     | 6.0    | 4.0     | 3.0    |
| PANGEA GLR (CL 11701)  | 6.0                                               | 6.3     | 6.0    | 6.3     | 6.0    | 7.3                                                 | 6.7     | 7.0    | 5.0     | 4.0    |
| PPG-PR 165             | 7.0                                               | 7.0     | 7.0    | 6.0     | 6.3    | 7.3                                                 | 7.0     | 6.7    | 4.3     | 3.0    |
| GO-PR60                | 6.0                                               | 7.0     | 7.0    | 7.0     | 6.7    | 6.7                                                 | 6.7     | 7.3    | 3.7     | 3.0    |
| ISG-36                 | 7.0                                               | 7.0     | 7.0    | 7.0     | 7.0    | 6.7                                                 | 6.3     | 6.7    | 3.7     | 3.0    |
| LTP-RAE                | 6.7                                               | 7.0     | 6.7    | 6.7     | 7.0    | 6.3                                                 | 6.3     | 6.7    | 4.7     | 3.7    |
| PSRX-4CAGL             | 6.7                                               | 6.7     | 6.7    | 6.3     | 5.7    | 6.7                                                 | 6.3     | 6.7    | 4.0     | 4.3    |
| PST-2DR9               | 5.7                                               | 6.0     | 5.7    | 6.3     | 6.3    | 6.7                                                 | 6.7     | 6.7    | 5.3     | 3.7    |
| RAD-PR62               | 7.0                                               | 7.0     | 7.0    | 6.3     | 7.0    | 7.0                                                 | 7.0     | 6.7    | 4.0     | 3.0    |
| WICKED (SRX-4RHD)      | 7.0                                               | 7.0     | 7.0    | 6.3     | 6.7    | 7.3                                                 | 6.7     | 6.7    | 4.0     | 3.0    |
| A-35                   | 5.3                                               | 5.7     | 6.3    | 7.3     | 6.3    | 6.7                                                 | 6.7     | 6.3    | 4.3     | 2.7    |
| BAR LP 10970           | 6.7                                               | 7.0     | 6.3    | 6.0     | 5.7    | 7.3                                                 | 6.3     | 6.7    | 4.3     | 3.3    |
| CL 11601               | 6.0                                               | 7.0     | 6.0    | 5.7     | 6.0    | 7.0                                                 | 7.0     | 6.3    | 4.3     | 3.3    |
| DLF LGT 4182           | 6.0                                               | 6.0     | 5.7    | 6.7     | 6.3    | 7.0                                                 | 6.7     | 6.3    | 3.3     | 2.7    |
| IS-PR 463              | 6.0                                               | 6.0     | 6.3    | 6.0     | 6.0    | 7.0                                                 | 6.7     | 5.7    | 4.7     | 3.3    |
| JR-192                 | 6.3                                               | 6.3     | 6.7    | 6.7     | 6.0    | 6.3                                                 | 6.3     | 7.0    | 4.3     | 3.0    |
| DLF LGD-3026           | 6.0                                               | 7.0     | 7.0    | 7.0     | 6.0    | 6.3                                                 | 6.0     | 6.0    | 4.3     | 4.0    |
| ISG-30                 | 5.7                                               | 5.3     | 6.0    | 6.7     | 6.0    | 6.3                                                 | 6.3     | 6.7    | 4.0     | 3.0    |
| PST-2BNS               | 5.7                                               | 6.7     | 7.0    | 6.3     | 6.3    | 5.7                                                 | 6.7     | 7.0    | 4.7     | 3.0    |
| IS-PR 479              | 6.0                                               | 6.3     | 6.3    | 7.0     | 6.7    | 6.7                                                 | 6.7     | 6.7    | 3.3     | 3.0    |
| LINN                   | 4.0                                               | 4.0     | 4.0    | 3.3     | 4.3    | 6.0                                                 | 6.0     | 6.0    | 4.0     | 4.0    |
| LSD VALUE              | 0.6                                               | 0.5     | 0.6    | 1.1     | 0.8    | 2.9                                                 | 1.3     | 0.9    | 2.1     | 0.6    |
| C.V. (%)               | 6.2                                               | 5.1     | 5.7    | 9.6     | 7.7    | 12.9                                                | 7.2     | 6.9    | 18.2    | 11.7   |

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

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

3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

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TABLE 16. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/  
2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | DENSITY OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        | UNIFORMITY OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        | QUALITY |
|-----------------------------|-----------------------------------------------------|---------|--------|---------|--------|--------------------------------------------------------|---------|--------|---------|--------|---------|
|                             | 4/14/11                                             | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 | 4/14/11                                                | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 | MEAN    |
| LTP-PR 135                  | 7.3                                                 | 6.7     | 6.7    | 5.7     | 4.3    | 7.0                                                    | 7.0     | 7.3    | 5.0     | 4.0    | 7.0     |
| OCTANE                      | 8.0                                                 | 7.3     | 7.0    | 5.0     | 3.7    | 7.7                                                    | 8.0     | 8.0    | 5.0     | 4.7    | 7.0     |
| SOX FAN (GM3)               | 8.0                                                 | 7.3     | 7.0    | 5.7     | 4.7    | 7.0                                                    | 7.0     | 7.0    | 5.3     | 4.0    | 6.9     |
| BONNEVILLE                  | 8.0                                                 | 7.0     | 7.0    | 5.7     | 4.3    | 7.3                                                    | 8.0     | 7.7    | 5.7     | 4.7    | 6.8     |
| MACH I                      | 9.0                                                 | 7.3     | 6.7    | 4.3     | 3.7    | 7.0                                                    | 7.0     | 7.0    | 4.3     | 3.0    | 6.8     |
| PICK 4DFHM                  | 8.0                                                 | 7.7     | 7.0    | 5.3     | 5.0    | 7.3                                                    | 7.0     | 7.0    | 5.3     | 4.3    | 6.8     |
| PPG-PR 121                  | 7.7                                                 | 7.3     | 7.0    | 5.7     | 5.0    | 7.0                                                    | 7.0     | 6.7    | 6.0     | 4.0    | 6.8     |
| PPG-PR 133                  | 9.0                                                 | 7.3     | 6.7    | 5.7     | 5.0    | 7.0                                                    | 7.7     | 7.0    | 5.3     | 4.0    | 6.8     |
| PPG-PR 134                  | 8.0                                                 | 7.7     | 7.0    | 6.0     | 4.3    | 7.0                                                    | 7.3     | 7.7    | 5.0     | 4.0    | 6.8     |
| CL 307                      | 7.7                                                 | 7.0     | 7.0    | 5.7     | 5.0    | 7.3                                                    | 7.3     | 7.3    | 5.7     | 4.0    | 6.7     |
| PALMER V                    | 8.0                                                 | 7.3     | 7.0    | 5.0     | 3.7    | 7.3                                                    | 7.0     | 7.0    | 5.7     | 3.3    | 6.7     |
| BAR LP 10972                | 8.0                                                 | 7.0     | 6.7    | 4.3     | 4.0    | 7.3                                                    | 7.0     | 7.0    | 4.3     | 3.3    | 6.6     |
| PST-2K9                     | 7.3                                                 | 7.0     | 6.0    | 4.0     | 3.0    | 7.0                                                    | 7.3     | 6.3    | 4.0     | 3.0    | 6.6     |
| RIO VISTA                   | 8.0                                                 | 7.0     | 6.0    | 5.3     | 5.0    | 7.3                                                    | 7.7     | 7.0    | 4.7     | 5.0    | 6.6     |
| SR 4650 (PSRX-3701)         | 8.0                                                 | 7.0     | 7.0    | 5.0     | 4.0    | 7.3                                                    | 7.3     | 7.0    | 5.0     | 3.3    | 6.6     |
| SRX-4MSH                    | 7.7                                                 | 7.7     | 6.7    | 4.3     | 4.0    | 7.3                                                    | 7.0     | 6.7    | 4.7     | 4.7    | 6.6     |
| BAR LP 10969                | 8.3                                                 | 7.0     | 7.0    | 4.3     | 3.0    | 7.3                                                    | 7.0     | 7.0    | 4.0     | 3.0    | 6.5     |
| IS-PR 489                   | 8.3                                                 | 7.3     | 6.7    | 5.0     | 4.0    | 7.3                                                    | 7.3     | 7.0    | 4.7     | 4.3    | 6.5     |
| JR-178                      | 8.0                                                 | 7.0     | 7.0    | 4.7     | 4.0    | 7.0                                                    | 7.0     | 7.0    | 4.3     | 2.7    | 6.5     |
| PINNACLE                    | 7.3                                                 | 7.3     | 6.7    | 5.7     | 5.0    | 7.0                                                    | 7.3     | 6.7    | 5.3     | 4.3    | 6.5     |
| PPG-PR 136                  | 7.7                                                 | 7.0     | 6.0    | 5.3     | 4.7    | 7.0                                                    | 7.3     | 6.3    | 5.7     | 4.7    | 6.5     |
| PPG-PR 137                  | 8.0                                                 | 8.0     | 6.7    | 4.3     | 3.3    | 7.0                                                    | 7.7     | 7.0    | 5.0     | 3.7    | 6.5     |
| PPG-PR 138                  | 7.7                                                 | 7.3     | 6.7    | 5.0     | 4.0    | 7.0                                                    | 7.0     | 7.0    | 5.7     | 4.0    | 6.5     |
| PPG-PR 143                  | 8.3                                                 | 7.3     | 6.7    | 4.7     | 2.7    | 7.3                                                    | 7.3     | 6.7    | 4.0     | 3.0    | 6.5     |
| PPG-PR 164                  | 8.0                                                 | 7.7     | 7.0    | 4.7     | 3.7    | 7.0                                                    | 7.0     | 8.0    | 4.3     | 3.3    | 6.5     |
| PRX-4GM1                    | 8.0                                                 | 7.0     | 7.0    | 5.3     | 5.0    | 7.0                                                    | 7.0     | 7.0    | 5.0     | 4.3    | 6.5     |
| PST-2ACR                    | 7.7                                                 | 7.0     | 5.3    | 4.7     | 4.0    | 7.3                                                    | 7.0     | 5.7    | 4.0     | 3.7    | 6.5     |
| PST-2NKM                    | 8.0                                                 | 7.7     | 6.0    | 3.7     | 3.0    | 7.3                                                    | 7.0     | 6.3    | 4.3     | 4.0    | 6.5     |
| RINOVO                      | 8.7                                                 | 8.0     | 7.0    | 5.3     | 4.0    | 7.3                                                    | 7.0     | 6.3    | 6.0     | 3.7    | 6.5     |
| EVOLUTION (S85)             | 7.7                                                 | 7.0     | 7.0    | 4.0     | 4.0    | 7.0                                                    | 7.3     | 7.0    | 5.0     | 3.7    | 6.5     |
| ALLANTE                     | 7.7                                                 | 7.0     | 6.0    | 5.3     | 4.7    | 7.0                                                    | 7.3     | 6.7    | 6.0     | 5.0    | 6.4     |
| HAVEN (APR 2038)            | 8.0                                                 | 6.7     | 7.0    | 4.7     | 4.0    | 7.0                                                    | 8.0     | 7.0    | 5.0     | 4.3    | 6.4     |
| INSIGHT                     | 7.7                                                 | 7.0     | 7.0    | 5.0     | 4.0    | 7.0                                                    | 7.0     | 7.0    | 6.0     | 4.0    | 6.4     |
| ISG-31                      | 7.3                                                 | 7.3     | 7.0    | 4.3     | 3.3    | 7.7                                                    | 7.7     | 7.0    | 4.0     | 3.3    | 6.4     |
| PPG-PR 140                  | 7.0                                                 | 6.7     | 6.0    | 4.0     | 3.3    | 7.3                                                    | 7.0     | 6.3    | 5.0     | 3.0    | 6.4     |
| MANHATTAN 6 GLR (PST-2MAGS) | 7.0                                                 | 6.7     | 5.3    | 4.0     | 2.7    | 7.3                                                    | 7.3     | 6.7    | 3.7     | 2.7    | 6.4     |
| PST-2TQL                    | 7.7                                                 | 7.0     | 6.0    | 3.7     | 2.7    | 7.0                                                    | 7.0     | 6.3    | 4.0     | 3.3    | 6.4     |
| UNO                         | 8.0                                                 | 7.7     | 7.0    | 4.7     | 4.3    | 7.0                                                    | 7.3     | 7.0    | 5.0     | 4.7    | 6.4     |
| BAR LP 7608                 | 7.7                                                 | 7.3     | 7.0    | 4.7     | 4.0    | 7.0                                                    | 7.0     | 7.0    | 4.0     | 3.3    | 6.3     |
| CS-PR66                     | 8.0                                                 | 7.0     | 6.0    | 3.0     | 3.0    | 7.0                                                    | 7.3     | 7.0    | 3.7     | 3.0    | 6.3     |
| CST                         | 7.7                                                 | 7.3     | 6.7    | 4.3     | 3.0    | 7.0                                                    | 7.0     | 7.0    | 3.0     | 3.3    | 6.3     |
| DLF LGD-3022                | 8.3                                                 | 8.0     | 7.0    | 4.0     | 3.3    | 7.7                                                    | 7.0     | 6.7    | 5.0     | 3.7    | 6.3     |
| FIESTA 4                    | 7.7                                                 | 6.7     | 6.3    | 4.3     | 3.0    | 7.3                                                    | 7.0     | 7.0    | 5.0     | 3.0    | 6.3     |
| GO-G37                      | 7.7                                                 | 7.0     | 6.0    | 4.0     | 2.7    | 7.0                                                    | 7.0     | 6.3    | 4.7     | 2.7    | 6.3     |
| KARMA (PICK 10401)          | 8.0                                                 | 7.0     | 7.0    | 5.0     | 4.3    | 7.0                                                    | 7.0     | 7.0    | 5.0     | 4.0    | 6.3     |
| PPG-PR 128                  | 7.7                                                 | 6.7     | 7.0    | 4.3     | 3.3    | 7.3                                                    | 7.3     | 7.3    | 5.0     | 3.3    | 6.3     |
| PPG-PR 142                  | 7.3                                                 | 6.7     | 5.7    | 5.0     | 3.0    | 7.3                                                    | 6.7     | 6.7    | 5.0     | 3.0    | 6.3     |

TABLE 16. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS AT EUFAULA (OVERSEEDING AT EUFAULA COUNTRY CLUB), AL 1/ 2011 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | DENSITY OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        | UNIFORMITY OF OVERALL PLOT IN SPRING/SUMMER TRANSITION |         |        |         |        | QUALITY<br>MEAN |
|------------------------|-----------------------------------------------------|---------|--------|---------|--------|--------------------------------------------------------|---------|--------|---------|--------|-----------------|
|                        | 4/14/11                                             | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 | 4/14/11                                                | 4/27/11 | 5/9/11 | 5/23/11 | 6/1/11 |                 |
| PST-204D               | 7.7                                                 | 7.3     | 6.3    | 4.7     | 4.3    | 7.0                                                    | 7.0     | 6.0    | 4.7     | 3.3    | 6.3             |
| SIENNA                 | 7.7                                                 | 7.0     | 7.0    | 5.3     | 3.7    | 7.0                                                    | 7.3     | 7.0    | 5.7     | 3.3    | 6.3             |
| 2NJK                   | 7.3                                                 | 7.3     | 6.7    | 3.7     | 2.7    | 7.3                                                    | 7.0     | 7.0    | 4.3     | 3.0    | 6.2             |
| APR 2036               | 7.3                                                 | 7.0     | 6.7    | 4.7     | 4.7    | 7.3                                                    | 7.0     | 6.7    | 5.3     | 4.7    | 6.2             |
| APR 2445               | 7.7                                                 | 7.0     | 6.7    | 4.0     | 3.7    | 7.3                                                    | 7.0     | 7.0    | 4.7     | 3.7    | 6.2             |
| BRIGHTSTAR SLT         | 7.0                                                 | 6.7     | 6.7    | 4.0     | 4.0    | 7.3                                                    | 7.0     | 6.7    | 5.3     | 3.3    | 6.2             |
| CS-20                  | 7.0                                                 | 7.0     | 6.0    | 4.0     | 3.0    | 7.0                                                    | 7.0     | 6.7    | 4.3     | 3.3    | 6.2             |
| DOMINATOR (PST-2AG4)   | 7.7                                                 | 7.0     | 6.7    | 4.7     | 3.7    | 7.3                                                    | 7.0     | 6.3    | 4.7     | 3.3    | 6.2             |
| GO-DHS                 | 7.0                                                 | 6.7     | 6.3    | 4.3     | 3.0    | 7.0                                                    | 7.0     | 7.0    | 4.0     | 3.3    | 6.2             |
| IS-PR 409              | 8.0                                                 | 7.3     | 6.7    | 4.3     | 3.7    | 7.3                                                    | 7.3     | 7.0    | 3.3     | 3.0    | 6.2             |
| IS-PR 487              | 8.0                                                 | 7.7     | 6.7    | 4.7     | 3.3    | 7.0                                                    | 7.0     | 6.7    | 3.3     | 3.7    | 6.2             |
| IS-PR 488              | 7.3                                                 | 7.0     | 7.0    | 4.3     | 3.7    | 7.3                                                    | 7.0     | 7.0    | 3.3     | 3.7    | 6.2             |
| IS-PR 492              | 7.7                                                 | 6.7     | 6.7    | 4.7     | 3.0    | 7.0                                                    | 7.0     | 7.0    | 4.0     | 4.0    | 6.2             |
| PLAYOFF 2 (P02)        | 7.3                                                 | 7.3     | 7.0    | 4.0     | 3.7    | 7.3                                                    | 7.3     | 6.7    | 4.7     | 3.3    | 6.2             |
| PIZZAZZ 2 GLR (PR 909) | 7.7                                                 | 7.0     | 6.7    | 5.3     | 4.3    | 7.0                                                    | 6.7     | 6.7    | 6.0     | 4.3    | 6.2             |
| PST-2MG7               | 8.0                                                 | 7.3     | 6.3    | 4.3     | 3.0    | 7.3                                                    | 7.0     | 6.7    | 3.7     | 3.0    | 6.2             |
| RAD-PR55R              | 7.7                                                 | 7.3     | 6.3    | 4.7     | 3.0    | 7.0                                                    | 7.0     | 7.0    | 4.7     | 2.7    | 6.2             |
| SIDEWAYS (PSRX-S84)    | 8.0                                                 | 8.0     | 6.3    | 4.0     | 3.3    | 7.7                                                    | 7.3     | 6.7    | 4.3     | 4.3    | 6.2             |
| APR 2320               | 8.0                                                 | 7.0     | 6.7    | 4.0     | 3.7    | 7.7                                                    | 7.7     | 7.0    | 5.3     | 4.0    | 6.1             |
| IS-PR 469              | 8.0                                                 | 7.0     | 6.3    | 4.3     | 4.0    | 7.0                                                    | 7.0     | 7.0    | 5.0     | 4.3    | 6.1             |
| IS-PR 491              | 8.0                                                 | 7.0     | 6.3    | 4.0     | 3.3    | 7.3                                                    | 7.3     | 7.0    | 4.0     | 3.7    | 6.1             |
| PANGEA GLR (CL 11701)  | 7.3                                                 | 6.3     | 7.0    | 5.0     | 4.3    | 7.0                                                    | 7.3     | 7.0    | 5.7     | 4.0    | 6.1             |
| PPG-PR 165             | 7.7                                                 | 7.0     | 6.7    | 4.0     | 3.3    | 7.7                                                    | 7.0     | 7.0    | 4.3     | 3.3    | 6.1             |
| GO-PR60                | 7.0                                                 | 7.0     | 6.0    | 3.7     | 3.0    | 7.0                                                    | 7.3     | 6.3    | 3.7     | 2.7    | 6.0             |
| ISG-36                 | 7.0                                                 | 6.7     | 6.3    | 3.3     | 2.7    | 7.3                                                    | 7.7     | 7.0    | 4.0     | 2.7    | 6.0             |
| LTP-RAE                | 7.3                                                 | 6.7     | 6.3    | 4.3     | 3.7    | 7.0                                                    | 7.0     | 6.7    | 5.0     | 3.7    | 6.0             |
| PSRX-4CAGL             | 7.0                                                 | 7.0     | 7.0    | 3.7     | 3.3    | 7.3                                                    | 7.0     | 6.0    | 4.3     | 3.7    | 6.0             |
| PST-2DR9               | 7.3                                                 | 7.0     | 6.7    | 4.7     | 3.0    | 6.7                                                    | 7.0     | 6.3    | 4.0     | 2.7    | 6.0             |
| RAD-PR62               | 7.3                                                 | 6.7     | 6.0    | 3.7     | 3.0    | 7.0                                                    | 7.0     | 6.3    | 3.3     | 3.3    | 6.0             |
| WICKED (SRX-4RHD)      | 7.7                                                 | 7.3     | 7.0    | 4.0     | 3.0    | 7.7                                                    | 8.0     | 7.0    | 4.7     | 4.0    | 6.0             |
| A-35                   | 7.0                                                 | 6.7     | 6.3    | 4.0     | 2.7    | 7.3                                                    | 7.3     | 6.7    | 3.3     | 3.3    | 5.9             |
| BAR LP 10970           | 7.7                                                 | 8.0     | 6.0    | 4.0     | 3.0    | 7.3                                                    | 7.7     | 6.3    | 4.0     | 3.0    | 5.9             |
| CL 11601               | 7.0                                                 | 7.0     | 6.3    | 4.7     | 3.3    | 7.3                                                    | 7.0     | 7.0    | 6.3     | 4.0    | 5.9             |
| DLF LGT 4182           | 7.3                                                 | 7.0     | 6.3    | 3.0     | 2.7    | 7.0                                                    | 7.0     | 6.7    | 3.0     | 3.3    | 5.9             |
| IS-PR 463              | 7.3                                                 | 6.7     | 7.0    | 4.7     | 3.7    | 7.0                                                    | 7.0     | 7.0    | 5.0     | 3.7    | 5.9             |
| JR-192                 | 7.0                                                 | 7.3     | 6.7    | 4.3     | 3.0    | 7.0                                                    | 7.0     | 6.7    | 4.7     | 3.3    | 5.9             |
| DLF LGD-3026           | 8.0                                                 | 7.7     | 6.7    | 4.0     | 4.0    | 7.3                                                    | 7.3     | 7.0    | 4.3     | 4.3    | 5.8             |
| ISG-30                 | 6.3                                                 | 6.0     | 6.0    | 4.0     | 3.3    | 7.0                                                    | 7.0     | 6.7    | 3.3     | 3.3    | 5.8             |
| PST-2BNS               | 7.3                                                 | 7.3     | 5.7    | 4.3     | 3.3    | 6.7                                                    | 6.7     | 6.0    | 3.7     | 3.0    | 5.7             |
| IS-PR 479              | 7.0                                                 | 6.7     | 6.3    | 3.3     | 3.0    | 7.3                                                    | 7.3     | 7.0    | 3.0     | 3.3    | 5.6             |
| LINN                   | 7.0                                                 | 7.0     | 7.0    | 4.0     | 4.0    | 7.3                                                    | 7.0     | 6.3    | 5.3     | 5.0    | 5.2             |
| LSD VALUE              | 2.0                                                 | 0.9     | 0.8    | 2.5     | 0.8    | 1.9                                                    | 0.7     | 0.7    | 0.9     | 1.1    | 0.4             |
| C.V. (%)               | 9.0                                                 | 6.3     | 6.6    | 20.9    | 13.5   | 5.8                                                    | 5.0     | 5.6    | 11.9    | 16.8   | 4.1             |

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.

3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

Taken from the 2010 Perennial Ryegrass test 11 data report with permission from NTEP  
 TABLE 17. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 AT TUCSON (OVERSEEDING AT TUCSON COUNTRY CLUB), AZ 1/  
 2010-11 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | PERCENT<br>OVERSEEDING<br>GRASSES EARLY<br>ESTABLISHED | OVERSEEDING GRASS RATINGS<br>IN FALL TRANSITION |                   |                     | COLOR OF OVERSEEDING GRASS IN WINTER |         |        |        | OVERSEEDING GRASS QUALITY IN WINTER |        |        |
|-----------------------------|--------------------------------------------------------|-------------------------------------------------|-------------------|---------------------|--------------------------------------|---------|--------|--------|-------------------------------------|--------|--------|
|                             |                                                        | %COVER<br>12/13/10                              | %COVER<br>1/10/11 | QUALITY<br>12/13/10 | 12/13/10                             | 1/10/11 | 2/3/11 | 3/5/11 | 1/10/11                             | 2/3/11 | 3/5/11 |
| KARMA (PICK 10401)          | 38.3                                                   | 83.3                                            | 96.0              | 6.7                 | 6.7                                  | 6.7     | 6.7    | 6.3    | 7.3                                 | 7.7    | 8.3    |
| PPG-PR 128                  | 36.7                                                   | 90.0                                            | 93.0              | 7.0                 | 6.7                                  | 7.0     | 7.0    | 6.0    | 6.7                                 | 7.3    | 8.0    |
| OCTANE                      | 33.3                                                   | 83.3                                            | 96.0              | 6.7                 | 7.3                                  | 7.0     | 6.0    | 6.3    | 6.7                                 | 7.0    | 8.0    |
| CL 307                      | 30.0                                                   | 81.7                                            | 93.7              | 5.0                 | 6.3                                  | 6.3     | 6.0    | 6.0    | 6.7                                 | 7.0    | 6.7    |
| SIDEWAYS (PSRX-S84)         | 36.7                                                   | 86.7                                            | 96.3              | 6.7                 | 6.3                                  | 6.3     | 6.0    | 5.7    | 7.0                                 | 7.7    | 8.7    |
| CL 11601                    | 43.3                                                   | 88.3                                            | 94.7              | 7.0                 | 6.3                                  | 5.7     | 5.7    | 5.3    | 7.3                                 | 7.0    | 8.0    |
| IS-PR 487                   | 36.7                                                   | 73.3                                            | 93.0              | 6.0                 | 5.7                                  | 6.3     | 7.0    | 6.3    | 6.3                                 | 6.3    | 6.7    |
| PPG-PR 137                  | 33.3                                                   | 83.3                                            | 94.3              | 6.3                 | 6.3                                  | 6.7     | 6.3    | 6.0    | 7.0                                 | 7.3    | 7.7    |
| PPG-PR 142                  | 33.3                                                   | 86.7                                            | 93.0              | 7.0                 | 6.7                                  | 7.3     | 6.3    | 6.3    | 6.7                                 | 6.7    | 7.0    |
| IS-PR 492                   | 36.7                                                   | 80.0                                            | 90.0              | 5.7                 | 6.3                                  | 6.0     | 6.0    | 5.3    | 6.7                                 | 6.3    | 7.3    |
| ISG-31                      | 30.0                                                   | 83.3                                            | 94.7              | 6.3                 | 7.7                                  | 7.3     | 8.0    | 7.7    | 7.0                                 | 7.0    | 7.7    |
| PPG-PR 133                  | 31.7                                                   | 78.3                                            | 94.7              | 6.3                 | 7.0                                  | 6.7     | 6.7    | 6.0    | 6.0                                 | 7.0    | 7.3    |
| HAVEN (APR 2038)            | 40.0                                                   | 83.3                                            | 97.7              | 6.7                 | 7.0                                  | 6.3     | 5.7    | 5.7    | 7.3                                 | 7.0    | 7.0    |
| SIENNA                      | 40.0                                                   | 80.0                                            | 92.3              | 7.0                 | 6.7                                  | 6.0     | 5.7    | 6.3    | 6.0                                 | 6.0    | 7.3    |
| 2NJK                        | 28.3                                                   | 90.0                                            | 97.7              | 7.3                 | 6.7                                  | 6.7     | 6.7    | 6.7    | 7.3                                 | 6.7    | 7.0    |
| BAR LP 10972                | 31.7                                                   | 80.0                                            | 93.0              | 6.0                 | 6.3                                  | 6.7     | 6.0    | 5.7    | 6.3                                 | 6.3    | 6.0    |
| PPG-PR 121                  | 33.3                                                   | 86.7                                            | 93.0              | 5.7                 | 6.7                                  | 7.0     | 6.7    | 6.3    | 6.7                                 | 7.0    | 7.0    |
| PST-2K9                     | 31.7                                                   | 83.3                                            | 91.7              | 6.3                 | 7.0                                  | 7.0     | 5.7    | 5.7    | 6.0                                 | 6.3    | 7.0    |
| RIO VISTA                   | 38.3                                                   | 80.0                                            | 90.0              | 6.3                 | 6.7                                  | 6.7     | 6.0    | 5.7    | 6.3                                 | 6.0    | 7.0    |
| INSIGHT                     | 28.3                                                   | 73.3                                            | 90.0              | 6.7                 | 6.0                                  | 6.3     | 5.7    | 6.0    | 6.0                                 | 6.0    | 7.0    |
| IS-PR 469                   | 38.3                                                   | 71.7                                            | 89.7              | 5.7                 | 6.3                                  | 6.7     | 6.0    | 6.0    | 6.0                                 | 6.0    | 7.0    |
| IS-PR 488                   | 30.0                                                   | 75.0                                            | 86.7              | 5.7                 | 6.3                                  | 6.7     | 6.3    | 6.0    | 5.7                                 | 7.0    | 7.0    |
| PPG-PR 136                  | 35.0                                                   | 76.7                                            | 91.3              | 5.7                 | 6.0                                  | 6.7     | 5.7    | 6.3    | 5.7                                 | 6.3    | 7.7    |
| PPG-PR 165                  | 31.7                                                   | 76.7                                            | 93.3              | 6.0                 | 6.3                                  | 6.0     | 5.7    | 6.0    | 5.7                                 | 6.3    | 6.3    |
| PRX-4GM1                    | 43.3                                                   | 81.7                                            | 93.0              | 6.3                 | 7.0                                  | 6.7     | 6.3    | 6.3    | 6.7                                 | 5.7    | 7.0    |
| MANHATTAN 6 GLR (PST-2MAGS) | 38.3                                                   | 78.3                                            | 91.3              | 6.0                 | 6.7                                  | 6.0     | 5.7    | 6.0    | 6.0                                 | 6.0    | 6.3    |
| PST-2MG7                    | 30.0                                                   | 78.3                                            | 93.0              | 5.7                 | 7.0                                  | 6.7     | 6.3    | 7.0    | 6.0                                 | 6.7    | 6.3    |
| CS-20                       | 20.0                                                   | 88.3                                            | 93.0              | 6.0                 | 7.7                                  | 8.3     | 7.7    | 7.3    | 7.0                                 | 7.0    | 6.7    |
| LTP-PR 135                  | 33.3                                                   | 76.7                                            | 91.7              | 6.0                 | 6.3                                  | 7.3     | 6.3    | 6.3    | 6.7                                 | 6.7    | 6.7    |
| WICKED (SRX-4RHD)           | 26.7                                                   | 80.0                                            | 93.3              | 5.7                 | 7.0                                  | 7.0     | 6.0    | 6.3    | 5.7                                 | 6.3    | 7.0    |
| MACH I                      | 30.0                                                   | 85.0                                            | 97.7              | 6.0                 | 6.3                                  | 7.3     | 7.3    | 7.0    | 7.0                                 | 7.7    | 7.7    |
| PPG-PR 164                  | 28.3                                                   | 76.7                                            | 93.3              | 5.7                 | 7.3                                  | 7.7     | 7.3    | 6.7    | 6.7                                 | 7.0    | 6.7    |
| PST-2TQL                    | 20.0                                                   | 81.7                                            | 94.7              | 5.7                 | 6.7                                  | 6.7     | 6.7    | 6.3    | 6.7                                 | 7.0    | 7.3    |
| APR 2036                    | 30.0                                                   | 78.3                                            | 86.7              | 5.7                 | 7.0                                  | 7.0     | 4.7    | 6.0    | 6.0                                 | 5.7    | 6.0    |
| CST                         | 21.7                                                   | 73.3                                            | 94.7              | 5.0                 | 7.0                                  | 6.7     | 6.3    | 6.0    | 6.3                                 | 6.3    | 7.7    |
| DLF LGD-3022                | 28.3                                                   | 85.0                                            | 93.0              | 6.7                 | 7.3                                  | 6.7     | 6.7    | 6.0    | 6.3                                 | 5.7    | 7.0    |
| IS-PR 489                   | 21.7                                                   | 76.7                                            | 91.7              | 5.7                 | 7.0                                  | 6.0     | 5.3    | 5.3    | 6.3                                 | 6.0    | 6.7    |
| PLAYOFF 2 (P02)             | 23.3                                                   | 83.3                                            | 90.0              | 6.0                 | 7.0                                  | 7.0     | 6.7    | 6.0    | 6.7                                 | 7.7    | 7.0    |
| PPG-PR 143                  | 36.7                                                   | 80.0                                            | 94.3              | 6.0                 | 6.3                                  | 6.7     | 6.0    | 6.0    | 6.3                                 | 7.0    | 7.0    |
| PST-2DR9                    | 23.3                                                   | 73.3                                            | 90.0              | 5.0                 | 6.7                                  | 7.3     | 6.3    | 6.3    | 6.0                                 | 6.0    | 6.7    |
| RAD-PR55R                   | 21.7                                                   | 70.0                                            | 88.3              | 6.0                 | 8.0                                  | 7.3     | 6.7    | 6.7    | 5.7                                 | 5.7    | 7.3    |
| PANGEA GLR (CL 11701)       | 33.3                                                   | 76.7                                            | 86.3              | 5.7                 | 6.7                                  | 7.3     | 5.7    | 6.0    | 5.7                                 | 6.3    | 6.3    |
| PPG-PR 134                  | 35.0                                                   | 66.7                                            | 86.3              | 5.3                 | 7.0                                  | 6.7     | 6.0    | 6.0    | 6.0                                 | 6.3    | 6.7    |
| RINOVO                      | 38.3                                                   | 71.7                                            | 90.0              | 5.7                 | 7.0                                  | 6.3     | 7.0    | 6.3    | 6.0                                 | 5.3    | 6.0    |
| GO-G37                      | 26.7                                                   | 68.3                                            | 91.3              | 5.3                 | 8.0                                  | 8.0     | 7.7    | 7.7    | 5.7                                 | 5.7    | 7.0    |
| IS-PR 463                   | 30.0                                                   | 83.3                                            | 90.0              | 6.3                 | 7.0                                  | 6.3     | 6.0    | 5.7    | 6.3                                 | 5.7    | 6.0    |
| LTP-RAE                     | 21.7                                                   | 66.7                                            | 91.7              | 5.3                 | 7.0                                  | 7.0     | 6.0    | 6.0    | 5.7                                 | 6.0    | 6.3    |

TABLE 17. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT TUCSON (OVERSEEDING AT TUCSON COUNTRY CLUB), AZ 1/  
 2010-11 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | PERCENT<br>OVERSEEDING<br>GRASSES EARLY<br>ESTABLISHED | OVERSEEDING GRASS RATINGS<br>IN FALL TRANSITION |                   |                     | COLOR OF OVERSEEDING GRASS IN WINTER |         |        |        | OVERSEEDING GRASS QUALITY IN WINTER |        |        |
|------------------------|--------------------------------------------------------|-------------------------------------------------|-------------------|---------------------|--------------------------------------|---------|--------|--------|-------------------------------------|--------|--------|
|                        |                                                        | %COVER<br>12/13/10                              | %COVER<br>1/10/11 | QUALITY<br>12/13/10 | 12/13/10                             | 1/10/11 | 2/3/11 | 3/5/11 | 1/10/11                             | 2/3/11 | 3/5/11 |
| PIZZAZZ 2 GLR (PR 909) | 40.0                                                   | 81.7                                            | 96.3              | 6.7                 | 6.3                                  | 6.0     | 6.3    | 6.0    | 6.3                                 | 6.3    | 6.3    |
| UNO                    | 26.7                                                   | 81.7                                            | 91.7              | 6.3                 | 6.7                                  | 6.3     | 6.3    | 6.3    | 6.7                                 | 7.0    | 6.7    |
| SOX FAN (GM3)          | 26.7                                                   | 78.3                                            | 93.0              | 5.7                 | 6.7                                  | 7.0     | 6.3    | 6.0    | 6.7                                 | 6.7    | 7.0    |
| GO-DHS                 | 21.7                                                   | 63.3                                            | 81.3              | 4.7                 | 8.0                                  | 7.7     | 6.7    | 6.3    | 6.0                                 | 5.7    | 6.3    |
| IS-PR 409              | 25.0                                                   | 76.7                                            | 88.3              | 5.3                 | 6.7                                  | 7.0     | 6.3    | 6.7    | 6.3                                 | 6.0    | 6.7    |
| IS-PR 491              | 21.7                                                   | 76.7                                            | 86.7              | 5.7                 | 7.0                                  | 7.7     | 6.7    | 6.7    | 5.7                                 | 5.3    | 6.0    |
| ALLANTE                | 31.7                                                   | 80.0                                            | 91.7              | 6.0                 | 6.3                                  | 6.7     | 6.3    | 5.3    | 6.0                                 | 6.3    | 6.7    |
| APR 2445               | 18.3                                                   | 70.0                                            | 91.7              | 5.3                 | 6.7                                  | 7.0     | 7.0    | 6.3    | 6.3                                 | 6.0    | 6.0    |
| BAR LP 10970           | 30.0                                                   | 83.3                                            | 91.3              | 6.3                 | 7.3                                  | 7.3     | 6.0    | 6.0    | 6.3                                 | 5.7    | 6.0    |
| BRIGHTSTAR SLT         | 30.0                                                   | 76.7                                            | 91.0              | 6.0                 | 6.3                                  | 6.0     | 5.0    | 5.3    | 6.0                                 | 5.7    | 5.7    |
| GO-PR60                | 25.0                                                   | 78.3                                            | 92.3              | 6.0                 | 7.0                                  | 7.0     | 6.7    | 6.0    | 6.3                                 | 5.3    | 6.0    |
| IS-PR 479              | 26.7                                                   | 65.0                                            | 88.3              | 5.7                 | 7.0                                  | 7.3     | 7.3    | 6.7    | 5.7                                 | 5.7    | 6.3    |
| PINNACLE               | 40.0                                                   | 80.0                                            | 93.0              | 6.3                 | 5.7                                  | 5.3     | 4.7    | 4.7    | 6.3                                 | 6.7    | 7.0    |
| SR 4650 (PSRX-3701)    | 31.7                                                   | 75.0                                            | 85.0              | 5.7                 | 7.3                                  | 7.0     | 6.3    | 6.3    | 5.7                                 | 5.3    | 5.7    |
| APR 2320               | 21.7                                                   | 71.7                                            | 90.0              | 5.7                 | 7.0                                  | 6.7     | 5.7    | 6.3    | 5.3                                 | 5.3    | 5.7    |
| BAR LP 7608            | 36.7                                                   | 68.3                                            | 85.0              | 5.3                 | 5.7                                  | 5.0     | 5.3    | 5.7    | 5.3                                 | 5.3    | 5.7    |
| PPG-PR 140             | 23.3                                                   | 75.0                                            | 83.3              | 5.3                 | 7.0                                  | 6.3     | 6.0    | 5.7    | 5.7                                 | 6.3    | 6.0    |
| PSRX-4CAGL             | 30.0                                                   | 75.0                                            | 88.0              | 6.3                 | 7.3                                  | 7.7     | 6.7    | 6.7    | 6.0                                 | 5.3    | 6.0    |
| BAR LP 10969           | 23.3                                                   | 75.0                                            | 85.0              | 6.0                 | 6.3                                  | 5.7     | 5.3    | 6.0    | 5.3                                 | 4.7    | 5.7    |
| BONNEVILLE             | 21.7                                                   | 71.7                                            | 85.0              | 5.0                 | 7.3                                  | 6.3     | 5.7    | 6.3    | 6.0                                 | 6.3    | 6.0    |
| JR-178                 | 25.0                                                   | 61.7                                            | 85.0              | 5.0                 | 7.0                                  | 6.7     | 6.3    | 6.0    | 5.0                                 | 5.7    | 5.7    |
| PST-2ACR               | 26.7                                                   | 71.7                                            | 83.3              | 6.0                 | 7.0                                  | 6.3     | 5.3    | 5.3    | 5.3                                 | 5.0    | 5.3    |
| PST-2NKM               | 26.7                                                   | 70.0                                            | 88.3              | 5.0                 | 6.7                                  | 6.0     | 6.0    | 6.0    | 6.0                                 | 5.3    | 5.3    |
| CS-PR66                | 28.3                                                   | 76.7                                            | 88.3              | 6.0                 | 7.0                                  | 6.7     | 5.7    | 6.0    | 5.7                                 | 5.3    | 5.3    |
| PST-204D               | 23.3                                                   | 66.7                                            | 83.3              | 4.7                 | 6.7                                  | 7.0     | 5.7    | 6.0    | 4.7                                 | 4.7    | 4.7    |
| DOMINATOR (PST-2AG4)   | 30.0                                                   | 71.7                                            | 90.0              | 6.0                 | 7.3                                  | 6.3     | 6.3    | 5.7    | 6.0                                 | 5.3    | 5.7    |
| ISG-30                 | 31.7                                                   | 78.3                                            | 88.0              | 5.3                 | 7.3                                  | 8.0     | 7.7    | 8.0    | 6.0                                 | 5.3    | 5.7    |
| FIESTA 4               | 33.3                                                   | 70.0                                            | 85.0              | 5.7                 | 7.3                                  | 6.7     | 6.0    | 5.3    | 5.7                                 | 5.0    | 5.3    |
| PALMER V               | 30.0                                                   | 70.0                                            | 93.3              | 6.0                 | 6.0                                  | 6.0     | 6.7    | 5.7    | 6.3                                 | 6.0    | 6.0    |
| PST-2BNS               | 30.0                                                   | 66.7                                            | 80.0              | 5.7                 | 6.3                                  | 6.0     | 4.7    | 5.3    | 5.3                                 | 4.7    | 4.7    |
| DLF LGD-3026           | 23.3                                                   | 65.0                                            | 81.7              | 5.0                 | 7.0                                  | 6.7     | 6.0    | 6.3    | 5.3                                 | 5.0    | 5.3    |
| PICK 4DFHM             | 28.3                                                   | 68.3                                            | 83.3              | 5.7                 | 6.7                                  | 6.0     | 6.0    | 5.7    | 5.3                                 | 5.0    | 5.7    |
| PPG-PR 138             | 23.3                                                   | 71.7                                            | 83.3              | 4.7                 | 6.7                                  | 7.0     | 5.7    | 5.3    | 5.3                                 | 5.3    | 6.3    |
| ISG-36                 | 16.7                                                   | 55.0                                            | 81.7              | 4.3                 | 7.3                                  | 7.3     | 5.7    | 7.0    | 5.3                                 | 5.3    | 4.7    |
| JR-192                 | 25.0                                                   | 56.7                                            | 75.0              | 4.3                 | 6.7                                  | 7.0     | 5.0    | 6.0    | 4.7                                 | 4.3    | 5.3    |
| EVOLUTION (S85)        | 21.7                                                   | 56.7                                            | 76.7              | 4.3                 | 8.0                                  | 6.7     | 6.0    | 5.7    | 4.3                                 | 4.3    | 4.7    |
| SRX-4MSH               | 23.3                                                   | 60.0                                            | 83.3              | 4.7                 | 6.3                                  | 6.0     | 6.0    | 5.7    | 4.7                                 | 5.3    | 4.7    |
| A-35                   | 25.0                                                   | 63.3                                            | 75.0              | 4.3                 | 8.0                                  | 7.7     | 7.7    | 7.3    | 4.7                                 | 4.3    | 4.7    |
| RAD-PR62               | 20.0                                                   | 48.3                                            | 73.3              | 3.7                 | 6.3                                  | 6.0     | 4.3    | 5.3    | 4.7                                 | 4.3    | 4.3    |
| LINN                   | 31.7                                                   | 55.0                                            | 78.3              | 4.7                 | 4.3                                  | 4.3     | 4.7    | 4.0    | 4.0                                 | 3.7    | 4.0    |
| DLF LGT 4182           | 20.0                                                   | 36.7                                            | 60.0              | 3.3                 | 5.7                                  | 7.0     | 4.0    | 5.0    | 3.0                                 | 3.0    | 3.0    |
| LSD VALUE              | 22.8                                                   | 31.4                                            | 16.5              | 3.5                 | 2.1                                  | 1.5     | 2.0    | 1.5    | 2.6                                 | 4.3    | 3.4    |
| C.V. (%)               | 30.2                                                   | 17.3                                            | 8.8               | 19.9                | 12.2                                 | 11.4    | 15.4   | 12.5   | 17.7                                | 23.6   | 22.0   |

- 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/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 600 LBS./ACRE.

TABLE 17. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT TUCSON (OVERSEEDING AT TUCSON COUNTRY CLUB), AZ 1/  
 2010-11 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | COLOR RATINGS OF THE OVERALL PLOT IN SPRING |         |        |         |        | QUALITY RATINGS OF THE OVERALL PLOT IN SPRING |         |        |         |        | OVERALL PLOT IN SPRING | DENSITY | UNIFORMITY |
|-----------------------------|---------------------------------------------|---------|--------|---------|--------|-----------------------------------------------|---------|--------|---------|--------|------------------------|---------|------------|
|                             | 4/11/11                                     | 5/16/11 | 6/6/11 | 6/13/11 | 7/5/11 | 4/11/11                                       | 5/16/11 | 6/6/11 | 6/13/11 | 7/5/11 | 6/13/11                | 4/11/11 | 4/11/11    |
| KARMA (PICK 10401)          | 6.0                                         | 6.3     | 6.7    | 6.7     | 7.0    | 7.7                                           | 7.7     | 7.3    | 7.3     | 6.7    | 7.7                    | 7.7     | 7.7        |
| PPG-PR 128                  | 6.0                                         | 6.0     | 6.3    | 6.0     | 5.7    | 7.7                                           | 7.7     | 6.7    | 8.0     | 7.3    | 8.3                    | 7.3     | 7.3        |
| OCTANE                      | 6.7                                         | 6.3     | 6.7    | 6.7     | 7.0    | 7.7                                           | 7.3     | 7.0    | 7.7     | 7.3    | 8.0                    | 8.0     | 8.0        |
| CL 307                      | 7.0                                         | 6.7     | 7.0    | 6.7     | 6.7    | 7.3                                           | 7.7     | 8.0    | 8.7     | 7.3    | 9.0                    | 7.3     | 7.3        |
| SIDEWAYS (PSRX-S84)         | 6.0                                         | 5.7     | 6.0    | 6.0     | 5.7    | 7.3                                           | 5.7     | 7.0    | 7.7     | 6.7    | 7.3                    | 7.3     | 7.3        |
| CL 11601                    | 6.0                                         | 5.7     | 5.3    | 5.0     | 5.3    | 7.3                                           | 7.0     | 6.3    | 6.3     | 6.7    | 7.3                    | 7.3     | 7.3        |
| IS-PR 487                   | 6.7                                         | 6.3     | 6.0    | 5.7     | 6.0    | 7.7                                           | 7.0     | 7.7    | 8.0     | 7.3    | 8.3                    | 8.0     | 8.0        |
| PPG-PR 137                  | 6.0                                         | 5.7     | 6.3    | 7.0     | 6.7    | 6.7                                           | 7.0     | 7.0    | 7.0     | 6.7    | 7.7                    | 7.0     | 7.0        |
| PPG-PR 142                  | 6.0                                         | 7.0     | 7.0    | 6.7     | 6.3    | 6.7                                           | 7.3     | 7.0    | 7.3     | 7.0    | 7.7                    | 7.0     | 7.0        |
| IS-PR 492                   | 7.3                                         | 6.0     | 6.0    | 6.3     | 5.7    | 7.0                                           | 7.0     | 7.7    | 8.3     | 6.3    | 9.0                    | 7.3     | 7.3        |
| ISG-31                      | 8.0                                         | 8.3     | 7.0    | 7.0     | 6.3    | 6.7                                           | 6.7     | 7.0    | 7.3     | 6.3    | 7.3                    | 7.0     | 7.0        |
| PPG-PR 133                  | 6.7                                         | 7.0     | 6.7    | 6.3     | 6.3    | 7.3                                           | 6.7     | 7.3    | 8.0     | 5.7    | 7.7                    | 7.0     | 7.0        |
| HAVEN (APR 2038)            | 6.0                                         | 6.7     | 6.0    | 5.7     | 5.0    | 7.0                                           | 7.0     | 6.7    | 7.0     | 5.3    | 7.0                    | 6.0     | 6.0        |
| SIENNA                      | 5.7                                         | 5.7     | 5.3    | 5.3     | 4.3    | 6.3                                           | 8.0     | 7.3    | 8.3     | 4.7    | 8.3                    | 7.0     | 7.0        |
| 2NJK                        | 6.0                                         | 6.0     | 6.0    | 6.0     | 6.7    | 6.0                                           | 6.3     | 6.7    | 6.3     | 6.7    | 7.0                    | 6.3     | 6.3        |
| BAR LP 10972                | 6.7                                         | 6.7     | 6.7    | 6.0     | 6.0    | 6.7                                           | 6.7     | 7.0    | 8.0     | 7.0    | 8.7                    | 6.0     | 6.0        |
| PPG-PR 121                  | 6.3                                         | 6.7     | 7.0    | 6.0     | 6.7    | 7.7                                           | 7.0     | 6.0    | 6.7     | 6.3    | 7.0                    | 6.7     | 6.7        |
| PST-2K9                     | 6.0                                         | 6.3     | 5.7    | 6.0     | 6.0    | 7.0                                           | 7.0     | 6.7    | 6.7     | 7.0    | 7.0                    | 7.0     | 7.0        |
| RIO VISTA                   | 6.3                                         | 6.7     | 6.7    | 6.7     | 4.7    | 6.7                                           | 7.3     | 8.0    | 7.3     | 5.3    | 7.7                    | 7.3     | 7.3        |
| INSIGHT                     | 6.3                                         | 6.0     | 5.7    | 6.3     | 4.3    | 7.0                                           | 7.7     | 7.3    | 7.0     | 4.3    | 7.0                    | 6.0     | 6.0        |
| IS-PR 469                   | 7.3                                         | 7.3     | 8.0    | 7.7     | 6.7    | 7.3                                           | 7.3     | 7.3    | 6.7     | 6.0    | 7.7                    | 7.0     | 7.0        |
| IS-PR 488                   | 6.3                                         | 6.7     | 6.3    | 6.7     | 5.0    | 6.7                                           | 7.3     | 7.3    | 7.3     | 5.7    | 8.0                    | 6.7     | 6.7        |
| PPG-PR 136                  | 6.3                                         | 7.7     | 7.0    | 6.7     | 6.3    | 7.3                                           | 7.3     | 7.0    | 6.7     | 6.0    | 8.3                    | 7.0     | 7.0        |
| PPG-PR 165                  | 6.3                                         | 6.7     | 7.0    | 6.3     | 6.7    | 7.0                                           | 6.7     | 7.0    | 7.3     | 6.7    | 7.7                    | 7.3     | 7.3        |
| PRX-4GM1                    | 6.7                                         | 7.3     | 6.7    | 6.3     | 6.3    | 6.3                                           | 6.7     | 7.0    | 7.3     | 6.3    | 8.0                    | 6.3     | 6.3        |
| MANHATTAN 6 GLR (PST-2MAGS) | 6.7                                         | 6.7     | 7.0    | 6.3     | 5.7    | 6.7                                           | 7.7     | 7.0    | 8.0     | 5.7    | 8.7                    | 6.7     | 6.7        |
| PST-2MG7                    | 7.0                                         | 7.3     | 7.3    | 7.3     | 7.3    | 6.3                                           | 6.7     | 6.7    | 7.3     | 7.3    | 7.3                    | 6.7     | 6.7        |
| CS-20                       | 7.3                                         | 8.7     | 8.7    | 8.3     | 7.7    | 6.0                                           | 7.0     | 6.0    | 6.0     | 6.7    | 7.7                    | 6.0     | 6.0        |
| LTP-PR 135                  | 6.3                                         | 6.7     | 6.7    | 6.3     | 5.0    | 7.0                                           | 6.3     | 7.0    | 6.7     | 5.7    | 7.0                    | 6.7     | 6.7        |
| WICKED (SRX-4RHD)           | 6.3                                         | 7.0     | 7.0    | 6.0     | 6.0    | 6.3                                           | 6.7     | 6.7    | 7.3     | 7.0    | 7.7                    | 6.7     | 6.7        |
| MACH I                      | 7.7                                         | 8.3     | 7.0    | 7.0     | 3.0    | 7.7                                           | 7.0     | 5.7    | 5.7     | 3.0    | 6.0                    | 6.7     | 6.7        |
| PPG-PR 164                  | 7.0                                         | 6.7     | 6.7    | 6.3     | 6.3    | 7.0                                           | 6.3     | 6.0    | 6.3     | 6.0    | 7.7                    | 7.7     | 7.7        |
| PST-2TQL                    | 6.3                                         | 7.0     | 7.7    | 6.3     | 6.3    | 7.0                                           | 6.0     | 6.0    | 6.7     | 5.3    | 7.0                    | 6.7     | 6.7        |
| APR 2036                    | 7.0                                         | 7.0     | 7.3    | 5.7     | 5.3    | 6.3                                           | 6.7     | 7.0    | 6.7     | 6.3    | 6.7                    | 6.0     | 6.0        |
| CST                         | 6.3                                         | 6.3     | 6.7    | 6.3     | 6.3    | 6.3                                           | 6.3     | 6.7    | 6.3     | 5.7    | 7.7                    | 6.7     | 6.7        |
| DLF LGD-3022                | 6.7                                         | 7.3     | 7.0    | 7.0     | 6.0    | 6.0                                           | 6.0     | 6.3    | 7.0     | 5.7    | 7.3                    | 6.7     | 6.7        |
| IS-PR 489                   | 5.7                                         | 6.0     | 5.7    | 6.0     | 6.0    | 6.7                                           | 6.0     | 6.0    | 6.3     | 7.0    | 7.0                    | 7.3     | 7.3        |
| PLAYOFF 2 (P02)             | 6.7                                         | 7.0     | 7.0    | 6.7     | 5.7    | 6.0                                           | 6.0     | 6.0    | 5.7     | 5.3    | 6.7                    | 6.0     | 6.0        |
| PPG-PR 143                  | 6.7                                         | 7.0     | 7.0    | 6.7     | 7.3    | 6.3                                           | 6.0     | 6.0    | 6.3     | 6.0    | 7.0                    | 7.0     | 7.0        |
| PST-2DR9                    | 6.3                                         | 6.7     | 6.7    | 6.7     | 5.7    | 6.0                                           | 6.7     | 7.3    | 7.0     | 6.0    | 7.0                    | 6.7     | 6.7        |
| RAD-PR55R                   | 8.0                                         | 8.7     | 8.3    | 8.0     | 6.7    | 7.0                                           | 6.3     | 6.3    | 7.0     | 5.3    | 7.3                    | 6.7     | 6.7        |
| PANGEA GLR (CL 11701)       | 6.3                                         | 6.0     | 6.7    | 7.0     | 6.7    | 6.7                                           | 6.3     | 6.3    | 6.7     | 5.7    | 7.0                    | 7.3     | 7.3        |
| PPG-PR 134                  | 4.7                                         | 6.7     | 6.3    | 6.7     | 6.3    | 6.3                                           | 6.3     | 6.3    | 6.3     | 6.3    | 7.3                    | 6.3     | 6.3        |
| RINOVO                      | 6.7                                         | 6.7     | 6.7    | 6.7     | 5.3    | 6.7                                           | 6.7     | 7.3    | 6.7     | 5.3    | 8.3                    | 7.0     | 7.0        |
| GO-G37                      | 8.3                                         | 8.7     | 8.3    | 7.7     | 7.0    | 6.7                                           | 6.0     | 6.0    | 7.0     | 6.0    | 7.3                    | 6.7     | 6.7        |
| IS-PR 463                   | 6.7                                         | 6.7     | 7.0    | 6.3     | 6.0    | 5.7                                           | 6.3     | 5.7    | 6.0     | 6.7    | 7.3                    | 6.0     | 6.0        |
| LTP-RAE                     | 5.7                                         | 6.7     | 6.7    | 6.3     | 6.3    | 6.7                                           | 5.3     | 6.7    | 7.0     | 5.7    | 7.3                    | 6.3     | 6.3        |

TABLE 17. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT TUCSON (OVERSEEDING AT TUCSON COUNTRY CLUB), AZ 1/  
 2010-11 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | COLOR RATINGS OF THE OVERALL PLOT IN SPRING |         |        |         |        | QUALITY RATINGS OF THE OVERALL PLOT IN SPRING |         |        |         |        | OVERALL PLOT IN SPRING |                       |
|------------------------|---------------------------------------------|---------|--------|---------|--------|-----------------------------------------------|---------|--------|---------|--------|------------------------|-----------------------|
|                        | 4/11/11                                     | 5/16/11 | 6/6/11 | 6/13/11 | 7/5/11 | 4/11/11                                       | 5/16/11 | 6/6/11 | 6/13/11 | 7/5/11 | DENSITY<br>6/13/11     | UNIFORMITY<br>4/11/11 |
| PIZZAZZ 2 GLR (PR 909) | 6.3                                         | 6.7     | 6.3    | 5.7     | 4.7    | 6.3                                           | 6.3     | 6.3    | 6.0     | 4.3    | 7.0                    | 6.7                   |
| UNO                    | 6.7                                         | 6.3     | 6.3    | 6.0     | 5.7    | 5.7                                           | 6.7     | 6.0    | 5.3     | 4.7    | 6.7                    | 6.7                   |
| SOX FAN (GM3)          | 6.3                                         | 6.3     | 6.0    | 5.7     | 3.3    | 6.7                                           | 6.3     | 6.0    | 5.7     | 3.3    | 6.0                    | 6.0                   |
| GO-DHS                 | 8.3                                         | 7.7     | 8.0    | 7.7     | 8.0    | 6.0                                           | 6.0     | 6.0    | 7.3     | 6.3    | 7.7                    | 6.0                   |
| IS-PR 409              | 7.0                                         | 7.0     | 7.0    | 6.7     | 4.7    | 7.3                                           | 6.0     | 6.0    | 6.0     | 4.7    | 7.0                    | 6.7                   |
| IS-PR 491              | 6.7                                         | 7.3     | 8.0    | 7.3     | 6.7    | 6.0                                           | 6.0     | 6.0    | 7.0     | 6.7    | 8.0                    | 5.7                   |
| ALLANTE                | 6.3                                         | 6.0     | 5.3    | 5.3     | 2.0    | 7.3                                           | 7.0     | 5.0    | 6.7     | 2.3    | 6.3                    | 7.3                   |
| APR 2445               | 7.3                                         | 7.3     | 7.0    | 7.3     | 7.3    | 6.0                                           | 5.3     | 5.7    | 6.7     | 6.0    | 6.7                    | 6.0                   |
| BAR LP 10970           | 7.7                                         | 7.3     | 6.7    | 7.0     | 4.3    | 6.0                                           | 6.0     | 5.7    | 6.3     | 4.3    | 6.3                    | 6.3                   |
| BRIGHTSTAR SLT         | 5.0                                         | 5.3     | 6.3    | 5.0     | 4.7    | 6.7                                           | 6.3     | 6.0    | 5.7     | 4.7    | 6.7                    | 6.7                   |
| GO-PR60                | 7.0                                         | 7.3     | 7.7    | 6.7     | 6.0    | 6.0                                           | 7.0     | 6.0    | 6.0     | 4.7    | 6.7                    | 6.7                   |
| IS-PR 479              | 7.3                                         | 8.0     | 7.7    | 7.3     | 5.3    | 6.7                                           | 6.0     | 6.3    | 6.3     | 4.7    | 7.0                    | 6.3                   |
| PINNACLE               | 4.7                                         | 4.7     | 4.7    | 4.7     | 3.0    | 6.3                                           | 6.0     | 5.7    | 5.3     | 3.7    | 6.0                    | 6.0                   |
| SR 4650 (PSRX-3701)    | 6.7                                         | 6.3     | 7.7    | 6.3     | 6.3    | 6.3                                           | 6.3     | 6.3    | 6.3     | 5.7    | 8.0                    | 6.3                   |
| APR 2320               | 7.3                                         | 7.3     | 7.3    | 7.0     | 6.7    | 5.7                                           | 6.0     | 6.0    | 6.3     | 6.0    | 6.7                    | 6.0                   |
| BAR LP 7608            | 6.0                                         | 6.0     | 5.7    | 5.3     | 5.3    | 5.7                                           | 6.7     | 6.3    | 6.0     | 5.7    | 7.7                    | 6.0                   |
| PPG-PR 140             | 6.7                                         | 6.0     | 5.7    | 6.0     | 4.7    | 6.3                                           | 6.3     | 6.0    | 5.7     | 4.3    | 6.0                    | 7.0                   |
| PSRX-4CAGL             | 7.7                                         | 7.3     | 6.7    | 6.3     | 4.7    | 6.3                                           | 7.0     | 5.7    | 5.7     | 4.0    | 6.3                    | 6.0                   |
| BAR LP 10969           | 5.3                                         | 5.3     | 6.3    | 5.3     | 4.7    | 5.7                                           | 6.0     | 6.7    | 6.7     | 5.0    | 7.3                    | 5.7                   |
| BONNEVILLE             | 7.0                                         | 5.7     | 6.0    | 6.3     | 6.0    | 6.3                                           | 5.3     | 5.7    | 5.7     | 5.3    | 6.3                    | 6.3                   |
| JR-178                 | 7.0                                         | 6.3     | 6.7    | 6.0     | 6.0    | 6.0                                           | 5.3     | 6.7    | 6.3     | 5.3    | 6.7                    | 6.3                   |
| PST-2ACR               | 6.3                                         | 6.7     | 6.3    | 6.3     | 5.7    | 5.7                                           | 6.3     | 5.7    | 6.7     | 5.0    | 7.0                    | 6.3                   |
| PST-2NKM               | 6.3                                         | 5.7     | 6.0    | 6.0     | 4.7    | 5.7                                           | 6.3     | 6.0    | 6.7     | 5.3    | 7.3                    | 5.7                   |
| CS-PR66                | 6.7                                         | 7.0     | 6.7    | 6.3     | 4.7    | 5.7                                           | 6.3     | 5.7    | 6.0     | 4.3    | 6.0                    | 6.0                   |
| PST-204D               | 6.3                                         | 6.3     | 7.0    | 6.3     | 5.3    | 6.0                                           | 6.7     | 6.3    | 6.7     | 6.0    | 7.7                    | 6.3                   |
| DOMINATOR (PST-2AG4)   | 6.3                                         | 7.3     | 5.7    | 5.7     | 3.7    | 6.3                                           | 6.3     | 6.0    | 5.3     | 3.7    | 6.0                    | 6.0                   |
| ISG-30                 | 9.0                                         | 8.0     | 7.3    | 7.0     | 4.7    | 6.3                                           | 5.7     | 6.0    | 5.0     | 4.0    | 5.3                    | 6.3                   |
| FIESTA 4               | 7.7                                         | 7.3     | 7.3    | 5.7     | 1.7    | 6.0                                           | 7.3     | 6.3    | 5.7     | 2.0    | 6.3                    | 6.0                   |
| PALMER V               | 7.3                                         | 6.3     | 5.7    | 5.7     | 2.3    | 6.3                                           | 5.7     | 4.7    | 5.0     | 2.3    | 4.3                    | 6.3                   |
| PST-2BNS               | 5.7                                         | 6.3     | 5.7    | 5.7     | 5.0    | 5.0                                           | 6.3     | 5.7    | 5.7     | 5.7    | 7.0                    | 5.0                   |
| DLF LGD-3026           | 7.7                                         | 8.3     | 7.7    | 6.3     | 4.7    | 6.0                                           | 6.0     | 5.7    | 5.7     | 3.7    | 6.0                    | 6.3                   |
| PICK 4DFHM             | 6.7                                         | 6.0     | 5.7    | 5.7     | 4.3    | 5.7                                           | 4.7     | 5.3    | 5.3     | 4.3    | 5.3                    | 6.0                   |
| PPG-PR 138             | 7.0                                         | 6.7     | 6.3    | 5.7     | 4.3    | 5.7                                           | 5.7     | 5.0    | 5.0     | 4.0    | 6.0                    | 6.0                   |
| ISG-36                 | 8.7                                         | 8.3     | 8.7    | 8.0     | 4.7    | 5.0                                           | 6.3     | 5.7    | 5.3     | 4.0    | 6.3                    | 6.0                   |
| JR-192                 | 6.3                                         | 6.3     | 6.0    | 6.0     | 5.7    | 5.3                                           | 5.3     | 5.3    | 6.0     | 5.7    | 6.0                    | 5.7                   |
| EVOLUTION (S85)        | 6.3                                         | 7.0     | 7.0    | 6.7     | 6.0    | 5.3                                           | 5.0     | 6.0    | 6.3     | 5.7    | 6.7                    | 5.3                   |
| SRX-4MSH               | 6.7                                         | 5.7     | 6.0    | 6.0     | 5.0    | 6.0                                           | 4.7     | 5.3    | 6.0     | 4.3    | 5.7                    | 5.3                   |
| A-35                   | 7.7                                         | 8.3     | 7.3    | 7.7     | 5.0    | 5.0                                           | 5.0     | 5.7    | 5.7     | 5.7    | 5.3                    | 5.7                   |
| RAD-PR62               | 6.3                                         | 6.0     | 6.7    | 6.3     | 5.7    | 5.3                                           | 5.0     | 5.0    | 5.3     | 5.0    | 5.3                    | 5.0                   |
| LINN                   | 4.0                                         | 3.3     | 5.7    | 3.3     | 3.0    | 4.7                                           | 4.0     | 4.3    | 4.3     | 3.0    | 4.7                    | 3.7                   |
| DLF LGT 4182           | 8.0                                         | 7.0     | 7.7    | 7.3     | 4.3    | 3.7                                           | 5.7     | 5.0    | 4.3     | 4.3    | 5.3                    | 3.7                   |
| LSD VALUE              | 1.3                                         | 1.4     | 1.5    | 1.2     | 2.1    | 2.8                                           | 2.6     | 2.3    | 2.7     | 2.6    | 3.0                    | 2.5                   |
| C.V. (%)               | 11.9                                        | 12.1    | 12.5   | 11.4    | 22.0   | 16.7                                          | 16.5    | 15.9   | 18.2    | 25.2   | 18.1                   | 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.

3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 600 LBS./ACRE.

TABLE 17. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT TUCSON (OVERSEEDING AT TUCSON COUNTRY CLUB), AZ 1/  
2010-11 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | PERCENT OVERSEEDING GRASS<br>IN SPRING |         |        | GENETIC<br>COLOR | LEAF<br>TEXTURE | QUALITY<br>MEAN |
|-----------------------------|----------------------------------------|---------|--------|------------------|-----------------|-----------------|
|                             | 4/11/11                                | 5/16/11 | 6/6/11 |                  |                 |                 |
| KARMA (PICK 10401)          | 97.7                                   | 94.7    | 93.0   | 6.0              | 6.7             | 7.4             |
| PPG-PR 128                  | 97.7                                   | 91.7    | 86.0   | 6.0              | 7.0             | 7.4             |
| OCTANE                      | 94.7                                   | 94.0    | 86.7   | 6.3              | 6.0             | 7.3             |
| CL 307                      | 94.7                                   | 97.3    | 96.7   | 7.0              | 6.3             | 7.1             |
| SIDEWAYS (PSRX-S84)         | 97.7                                   | 93.0    | 86.3   | 5.7              | 6.7             | 7.1             |
| CL 11601                    | 97.7                                   | 90.0    | 89.0   | 5.7              | 7.7             | 7.0             |
| IS-PR 487                   | 99.0                                   | 96.3    | 91.3   | 6.0              | 6.7             | 7.0             |
| PPG-PR 137                  | 96.0                                   | 88.0    | 79.7   | 6.3              | 6.7             | 7.0             |
| PPG-PR 142                  | 94.7                                   | 91.0    | 91.3   | 7.0              | 6.7             | 7.0             |
| IS-PR 492                   | 99.0                                   | 95.7    | 94.0   | 6.7              | 6.3             | 6.9             |
| ISG-31                      | 97.7                                   | 91.3    | 89.0   | 7.7              | 6.3             | 6.9             |
| PPG-PR 133                  | 96.3                                   | 90.7    | 86.7   | 6.7              | 6.0             | 6.9             |
| HAVEN (APR 2038)            | 94.7                                   | 93.0    | 86.3   | 6.3              | 5.0             | 6.8             |
| SIENNA                      | 99.0                                   | 92.7    | 94.0   | 5.7              | 7.3             | 6.8             |
| 2NJK                        | 96.3                                   | 94.0    | 92.7   | 6.0              | 4.7             | 6.7             |
| BAR LP 10972                | 97.7                                   | 94.0    | 91.3   | 6.7              | 6.0             | 6.7             |
| PPG-PR 121                  | 97.7                                   | 91.7    | 83.7   | 6.7              | 6.7             | 6.7             |
| PST-2K9                     | 96.3                                   | 85.7    | 76.7   | 6.0              | 6.0             | 6.7             |
| RIO VISTA                   | 97.7                                   | 96.0    | 93.7   | 6.7              | 6.7             | 6.7             |
| INSIGHT                     | 96.3                                   | 91.3    | 91.3   | 6.0              | 6.7             | 6.6             |
| IS-PR 469                   | 96.0                                   | 96.3    | 94.7   | 7.3              | 6.3             | 6.6             |
| IS-PR 488                   | 94.7                                   | 91.7    | 92.0   | 6.3              | 6.7             | 6.6             |
| PPG-PR 136                  | 99.0                                   | 93.0    | 89.7   | 7.3              | 6.3             | 6.6             |
| PPG-PR 165                  | 97.7                                   | 91.3    | 83.0   | 6.7              | 6.7             | 6.6             |
| PRX-4GM1                    | 94.7                                   | 89.0    | 83.0   | 6.7              | 5.7             | 6.6             |
| MANHATTAN 6 GLR (PST-2MAGS) | 97.7                                   | 95.7    | 94.7   | 6.7              | 6.0             | 6.6             |
| PST-2MG7                    | 96.3                                   | 87.7    | 83.0   | 7.3              | 6.3             | 6.6             |
| CS-20                       | 94.7                                   | 88.3    | 85.0   | 8.3              | 6.3             | 6.5             |
| LTP-PR 135                  | 97.7                                   | 88.3    | 91.3   | 6.7              | 6.7             | 6.5             |
| WICKED (SRX-4RHD)           | 94.3                                   | 90.0    | 80.0   | 6.7              | 6.0             | 6.5             |
| MACH I                      | 94.7                                   | 92.7    | 87.7   | 7.7              | 6.0             | 6.4             |
| PPG-PR 164                  | 94.7                                   | 87.3    | 84.3   | 7.0              | 6.3             | 6.4             |
| PST-2TQL                    | 96.0                                   | 88.3    | 78.7   | 7.0              | 4.7             | 6.4             |
| APR 2036                    | 94.3                                   | 92.3    | 88.3   | 7.0              | 6.3             | 6.3             |
| CST                         | 92.7                                   | 86.7    | 76.7   | 6.3              | 5.0             | 6.3             |
| DLF LGD-3022                | 97.7                                   | 80.0    | 82.3   | 7.0              | 6.0             | 6.3             |
| IS-PR 489                   | 94.7                                   | 84.3    | 83.3   | 6.0              | 6.3             | 6.3             |
| PLAYOFF 2 (P02)             | 97.7                                   | 83.0    | 73.3   | 6.7              | 5.3             | 6.3             |
| PPG-PR 143                  | 96.3                                   | 80.7    | 73.3   | 7.0              | 6.3             | 6.3             |
| PST-2DR9                    | 94.7                                   | 89.0    | 87.0   | 6.7              | 6.3             | 6.3             |
| RAD-PR55R                   | 93.0                                   | 88.3    | 79.7   | 8.3              | 5.3             | 6.3             |
| PANGEA GLR (CL 11701)       | 94.7                                   | 79.7    | 76.7   | 6.3              | 6.0             | 6.2             |
| PPG-PR 134                  | 93.0                                   | 89.7    | 87.7   | 5.7              | 6.7             | 6.2             |
| RINOVO                      | 93.3                                   | 97.0    | 95.3   | 6.7              | 6.0             | 6.2             |
| GO-G37                      | 94.7                                   | 88.3    | 84.0   | 8.7              | 6.0             | 6.1             |
| IS-PR 463                   | 99.0                                   | 77.7    | 80.0   | 6.7              | 5.7             | 6.1             |
| LTP-RAE                     | 96.3                                   | 83.3    | 80.0   | 6.3              | 6.0             | 6.1             |

TABLE 17. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT TUCSON (OVERSEEDING AT TUCSON COUNTRY CLUB), AZ 1/  
 2010-11 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                   | PERCENT OVERSEEDING GRASS<br>IN SPRING |         |        | GENETIC<br>COLOR | LEAF<br>TEXTURE | QUALITY<br>MEAN |
|------------------------|----------------------------------------|---------|--------|------------------|-----------------|-----------------|
|                        | 4/11/11                                | 5/16/11 | 6/6/11 |                  |                 |                 |
| PIZZAZZ 2 GLR (PR 909) | 96.0                                   | 93.0    | 87.7   | 6.3              | 5.7             | 6.1             |
| UNO                    | 96.0                                   | 83.3    | 82.3   | 6.3              | 6.3             | 6.1             |
| SOX FAN (GM3)          | 94.7                                   | 87.7    | 81.7   | 6.3              | 6.7             | 6.0             |
| GO-DHS                 | 94.7                                   | 93.7    | 87.7   | 8.0              | 5.0             | 6.0             |
| IS-PR 409              | 94.7                                   | 88.3    | 78.3   | 7.0              | 6.3             | 6.0             |
| IS-PR 491              | 96.0                                   | 88.3    | 84.0   | 7.3              | 5.3             | 6.0             |
| ALLANTE                | 94.7                                   | 94.3    | 92.0   | 5.7              | 6.7             | 5.9             |
| APR 2445               | 97.7                                   | 86.3    | 76.7   | 7.3              | 6.0             | 5.9             |
| BAR LP 10970           | 97.7                                   | 91.3    | 89.7   | 7.3              | 5.7             | 5.9             |
| BRIGHTSTAR SLT         | 94.3                                   | 89.0    | 85.0   | 5.7              | 6.3             | 5.9             |
| GO-PR60                | 96.0                                   | 90.7    | 86.0   | 7.3              | 6.3             | 5.9             |
| IS-PR 479              | 96.0                                   | 85.3    | 86.3   | 7.3              | 6.0             | 5.9             |
| PINNACLE               | 94.7                                   | 93.0    | 78.7   | 4.7              | 5.0             | 5.9             |
| SR 4650 (PSRX-3701)    | 96.3                                   | 87.3    | 78.3   | 6.7              | 6.3             | 5.9             |
| APR 2320               | 92.7                                   | 86.0    | 83.7   | 7.0              | 5.3             | 5.8             |
| BAR LP 7608            | 91.3                                   | 86.7    | 80.0   | 6.0              | 6.0             | 5.8             |
| PPG-PR 140             | 97.7                                   | 95.0    | 86.3   | 6.0              | 6.3             | 5.8             |
| PSRX-4CAGL             | 94.7                                   | 93.0    | 88.0   | 7.3              | 6.3             | 5.8             |
| BAR LP 10969           | 93.0                                   | 90.7    | 86.7   | 5.7              | 5.3             | 5.7             |
| BONNEVILLE             | 86.7                                   | 78.3    | 75.7   | 6.3              | 5.7             | 5.7             |
| JR-178                 | 96.0                                   | 92.0    | 92.3   | 6.3              | 6.0             | 5.7             |
| PST-2ACR               | 96.0                                   | 89.7    | 83.7   | 6.3              | 5.3             | 5.7             |
| PST-2NKM               | 99.0                                   | 89.7    | 94.3   | 6.0              | 4.7             | 5.7             |
| CS-PR66                | 98.7                                   | 94.7    | 92.0   | 6.7              | 6.0             | 5.6             |
| PST-204D               | 97.7                                   | 88.0    | 87.3   | 6.3              | 6.0             | 5.6             |
| DOMINATOR (PST-2AG4)   | 94.7                                   | 81.3    | 72.3   | 6.3              | 5.3             | 5.6             |
| ISG-30                 | 97.7                                   | 93.7    | 90.0   | 8.3              | 6.3             | 5.5             |
| FIESTA 4               | 93.3                                   | 95.7    | 91.7   | 7.7              | 7.0             | 5.4             |
| PALMER V               | 97.7                                   | 91.3    | 80.3   | 6.7              | 6.0             | 5.4             |
| PST-2BNS               | 90.0                                   | 84.7    | 75.3   | 6.0              | 6.0             | 5.4             |
| DLF LGD-3026           | 91.0                                   | 78.0    | 74.7   | 7.7              | 4.7             | 5.3             |
| PICK 4DFHM             | 89.7                                   | 73.3    | 83.0   | 6.0              | 6.0             | 5.2             |
| PPG-PR 138             | 93.3                                   | 85.0    | 81.7   | 6.7              | 6.3             | 5.2             |
| ISG-36                 | 94.7                                   | 87.3    | 79.3   | 8.7              | 4.0             | 5.1             |
| JR-192                 | 88.3                                   | 80.0    | 73.3   | 6.3              | 6.3             | 5.1             |
| EVOLUTION (S85)        | 88.3                                   | 78.0    | 81.3   | 6.7              | 6.3             | 5.1             |
| SRX-4MSH               | 93.0                                   | 89.7    | 88.0   | 6.0              | 6.3             | 5.1             |
| A-35                   | 96.0                                   | 87.3    | 90.7   | 7.7              | 6.3             | 5.0             |
| RAD-PR62               | 83.3                                   | 68.3    | 73.3   | 6.3              | 6.3             | 4.7             |
| LINN                   | 94.7                                   | 84.7    | 83.0   | 4.7              | 3.3             | 4.1             |
| DLF LGT 4182           | 86.7                                   | 73.3    | 68.3   | 7.7              | 4.7             | 3.9             |
| LSD VALUE              | 12.9                                   | 25.2    | 48.7   | 1.1              | 1.6             | 1.7             |
| C.V. (%)               | 4.6                                    | 9.7     | 13.2   | 10.0             | 13.7            | 13.4            |

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).  
 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.  
 3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 600 LBS./ACRE.

TABLE 18.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT GAINESVILLE (OVERSEEDING AT UNIVERSITY OF FLORIDA G. C.), FL 1/  
2011 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME               | PERCENT COVER OF BERMUDAGRASS IN FALL |          |          |          | PERCENT COVER OF OVERSEEDING GRASS |          |          |          | QUALITY IN FALL |          |
|--------------------|---------------------------------------|----------|----------|----------|------------------------------------|----------|----------|----------|-----------------|----------|
|                    | 11/8/10                               | 11/18/10 | 11/29/10 | 12/10/10 | 11/8/10                            | 11/18/10 | 11/29/10 | 12/10/10 | 11/12/10        | 11/29/10 |
| PPG-PR 134         | 99                                    | 70.0     | 41.7     | 33.3     | 5.7                                | 30.0     | 58.3     | 66.7     | 8.0             | 8.0      |
| IS-PR 489          | 99                                    | 70.0     | 43.3     | 33.3     | 7.3                                | 30.0     | 56.7     | 66.7     | 7.3             | 8.0      |
| MACH I             | 99                                    | 78.3     | 50.0     | 31.7     | 10.7                               | 21.7     | 50.0     | 68.3     | 6.7             | 7.0      |
| BAR LP 10972       | 99                                    | 76.7     | 46.7     | 30.0     | 6.7                                | 23.3     | 53.3     | 70.0     | 7.3             | 8.0      |
| BONNEVILLE         | 99                                    | 75.0     | 41.7     | 33.3     | 6.3                                | 25.0     | 58.3     | 66.7     | 7.3             | 7.0      |
| IS-PR 491          | 99                                    | 75.0     | 53.3     | 33.3     | 5.7                                | 25.0     | 46.7     | 66.7     | 6.7             | 7.3      |
| KARMA (PICK 10401) | 99                                    | 71.7     | 43.3     | 38.3     | 11.7                               | 28.3     | 56.7     | 61.7     | 7.3             | 7.7      |
| PST-2BNS           | 99                                    | 76.7     | 41.7     | 36.7     | 10.0                               | 23.3     | 58.3     | 63.3     | 7.7             | 7.7      |
| RAD-PR55R          | 99                                    | 75.0     | 46.7     | 31.7     | 10.7                               | 25.0     | 53.3     | 68.3     | 6.7             | 7.3      |
| RAD-PR62           | 99                                    | 76.7     | 46.7     | 33.3     | 5.7                                | 23.3     | 53.3     | 66.7     | 6.7             | 7.0      |
| SRX-4MSH           | 99                                    | 75.0     | 45.0     | 35.0     | 14.0                               | 25.0     | 55.0     | 65.0     | 6.7             | 7.3      |
| A-35               | 99                                    | 66.7     | 43.3     | 35.0     | 7.3                                | 33.3     | 56.7     | 65.0     | 7.3             | 7.3      |
| BAR LP 10969       | 99                                    | 70.0     | 45.0     | 30.0     | 7.3                                | 30.0     | 55.0     | 70.0     | 7.3             | 7.7      |
| BAR LP 10970       | 99                                    | 75.0     | 48.3     | 36.7     | 9.0                                | 25.0     | 51.7     | 63.3     | 7.0             | 7.3      |
| PALMER V           | 99                                    | 61.7     | 40.0     | 38.3     | 16.7                               | 38.3     | 60.0     | 61.7     | 7.0             | 7.0      |
| PPG-PR 133         | 99                                    | 70.0     | 45.0     | 30.0     | 12.3                               | 30.0     | 55.0     | 70.0     | 7.3             | 7.3      |
| PPG-PR 140         | 99                                    | 76.7     | 43.3     | 33.3     | 6.7                                | 23.3     | 56.7     | 66.7     | 7.3             | 7.3      |
| PRX-4GM1           | 99                                    | 71.7     | 48.3     | 31.7     | 12.3                               | 28.3     | 51.7     | 68.3     | 6.7             | 7.3      |
| SIENNA             | 99                                    | 80.0     | 45.0     | 30.0     | 15.7                               | 20.0     | 55.0     | 70.0     | 7.3             | 8.0      |
| ALLANTE            | 99                                    | 73.3     | 48.3     | 43.3     | 6.7                                | 26.7     | 51.7     | 56.7     | 7.7             | 7.7      |
| APR 2320           | 99                                    | 83.3     | 50.0     | 33.3     | 6.3                                | 16.7     | 50.0     | 66.7     | 7.0             | 7.0      |
| CL 307             | 99                                    | 78.3     | 50.0     | 38.3     | 10.0                               | 21.7     | 50.0     | 61.7     | 8.0             | 7.7      |
| CS-20              | 99                                    | 73.3     | 45.0     | 36.7     | 6.7                                | 26.7     | 55.0     | 63.3     | 6.7             | 7.3      |
| DLF LGD-3026       | 99                                    | 73.3     | 48.3     | 38.3     | 10.0                               | 26.7     | 51.7     | 61.7     | 7.3             | 7.7      |
| FIESTA 4           | 99                                    | 76.7     | 43.3     | 43.3     | 8.0                                | 23.3     | 56.7     | 56.7     | 7.0             | 7.0      |
| SOX FAN (GM3)      | 99                                    | 71.7     | 46.7     | 33.3     | 10.0                               | 28.3     | 53.3     | 66.7     | 6.7             | 6.7      |
| GO-G37             | 99                                    | 78.3     | 50.0     | 33.3     | 5.7                                | 21.7     | 50.0     | 66.7     | 6.7             | 7.0      |
| INSIGHT            | 99                                    | 68.3     | 43.3     | 35.0     | 10.0                               | 31.7     | 56.7     | 65.0     | 7.7             | 7.7      |
| IS-PR 409          | 99                                    | 68.3     | 40.0     | 36.7     | 12.3                               | 31.7     | 60.0     | 63.3     | 7.7             | 7.3      |
| IS-PR 479          | 99                                    | 78.3     | 50.0     | 36.7     | 5.0                                | 21.7     | 50.0     | 63.3     | 7.0             | 7.3      |
| IS-PR 487          | 99                                    | 75.0     | 48.3     | 40.0     | 12.3                               | 25.0     | 51.7     | 60.0     | 7.3             | 7.0      |
| IS-PR 488          | 99                                    | 71.7     | 55.0     | 36.7     | 5.0                                | 28.3     | 45.0     | 63.3     | 7.0             | 7.7      |
| IS-PR 492          | 99                                    | 70.0     | 48.3     | 33.3     | 8.0                                | 30.0     | 51.7     | 66.7     | 6.7             | 7.3      |
| ISG-30             | 99                                    | 73.3     | 48.3     | 45.0     | 15.0                               | 26.7     | 51.7     | 55.0     | 7.7             | 7.7      |
| LTP-PR 135         | 99                                    | 73.3     | 41.7     | 43.3     | 8.3                                | 26.7     | 58.3     | 56.7     | 8.0             | 8.0      |
| PICK 4DFHM         | 99                                    | 75.0     | 41.7     | 33.3     | 13.3                               | 25.0     | 58.3     | 66.7     | 7.3             | 7.0      |
| PPG-PR 136         | 99                                    | 76.7     | 43.3     | 43.3     | 8.3                                | 23.3     | 56.7     | 56.7     | 7.0             | 7.7      |
| PPG-PR 138         | 99                                    | 78.3     | 45.0     | 38.3     | 6.7                                | 21.7     | 55.0     | 61.7     | 7.7             | 8.0      |
| PPG-PR 142         | 99                                    | 80.0     | 50.0     | 46.7     | 6.3                                | 20.0     | 50.0     | 53.3     | 6.7             | 7.0      |
| PSRX-4CAGL         | 99                                    | 80.0     | 51.7     | 35.0     | 5.7                                | 20.0     | 48.3     | 65.0     | 6.3             | 6.7      |
| PST-2K9            | 99                                    | 80.0     | 48.3     | 36.7     | 7.3                                | 20.0     | 51.7     | 63.3     | 7.0             | 7.3      |
| RIO VISTA          | 99                                    | 71.7     | 46.7     | 45.0     | 11.7                               | 28.3     | 53.3     | 55.0     | 7.7             | 7.3      |
| UNO                | 99                                    | 70.0     | 43.3     | 35.0     | 13.3                               | 30.0     | 56.7     | 65.0     | 7.3             | 7.3      |
| APR 2036           | 99                                    | 73.3     | 45.0     | 43.3     | 9.7                                | 26.7     | 55.0     | 56.7     | 7.3             | 7.7      |
| CS-PR66            | 99                                    | 73.3     | 46.7     | 35.0     | 6.3                                | 26.7     | 53.3     | 65.0     | 7.3             | 7.3      |
| GO-DHS             | 99                                    | 81.7     | 50.0     | 36.7     | 11.7                               | 18.3     | 50.0     | 63.3     | 7.0             | 6.7      |
| IS-PR 469          | 99                                    | 80.0     | 50.0     | 30.0     | 7.3                                | 20.0     | 50.0     | 70.0     | 7.0             | 7.0      |

TABLE 18.

(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
AT GAINESVILLE (OVERSEEDING AT UNIVERSITY OF FLORIDA G. C.), FL 1/  
2011 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | PERCENT COVER OF BERMUDAGRASS IN FALL |          |          |          | PERCENT COVER OF OVERSEEDING GRASS |          |          |          | QUALITY IN FALL |          |
|-----------------------------|---------------------------------------|----------|----------|----------|------------------------------------|----------|----------|----------|-----------------|----------|
|                             | 11/8/10                               | 11/18/10 | 11/29/10 | 12/10/10 | 11/8/10                            | 11/18/10 | 11/29/10 | 12/10/10 | 11/12/10        | 11/29/10 |
| ISG-31                      | 99                                    | 76.7     | 41.7     | 35.0     | 6.7                                | 23.3     | 58.3     | 65.0     | 7.3             | 7.3      |
| JR-178                      | 99                                    | 78.3     | 45.0     | 36.7     | 8.3                                | 21.7     | 55.0     | 63.3     | 7.3             | 7.3      |
| LTP-RAE                     | 99                                    | 75.0     | 46.7     | 43.3     | 8.3                                | 25.0     | 53.3     | 56.7     | 6.7             | 6.7      |
| OCTANE                      | 99                                    | 68.3     | 46.7     | 38.3     | 10.0                               | 31.7     | 53.3     | 61.7     | 7.3             | 7.0      |
| PINNACLE                    | 99                                    | 71.7     | 48.3     | 36.7     | 10.0                               | 28.3     | 51.7     | 63.3     | 7.3             | 7.0      |
| PPG-PR 137                  | 99                                    | 83.3     | 46.7     | 43.3     | 8.3                                | 16.7     | 53.3     | 56.7     | 7.7             | 7.3      |
| PPG-PR 165                  | 99                                    | 70.0     | 45.0     | 43.3     | 10.7                               | 30.0     | 55.0     | 56.7     | 7.3             | 7.7      |
| SR 4650 (PSRX-3701)         | 99                                    | 73.3     | 45.0     | 43.3     | 10.7                               | 26.7     | 55.0     | 56.7     | 7.0             | 7.0      |
| SIDEWAYS (PSRX-S84)         | 99                                    | 76.7     | 46.7     | 36.7     | 6.7                                | 23.3     | 53.3     | 63.3     | 7.3             | 7.7      |
| PST-204D                    | 99                                    | 73.3     | 41.7     | 43.3     | 13.3                               | 26.7     | 58.3     | 56.7     | 7.7             | 8.0      |
| PST-2MG7                    | 99                                    | 76.7     | 55.0     | 46.7     | 5.0                                | 23.3     | 45.0     | 53.3     | 7.3             | 7.0      |
| PST-2NKM                    | 99                                    | 65.0     | 50.0     | 36.7     | 13.3                               | 35.0     | 50.0     | 63.3     | 7.7             | 7.3      |
| APR 2445                    | 99                                    | 75.0     | 51.7     | 50.0     | 6.7                                | 25.0     | 48.3     | 50.0     | 7.3             | 7.3      |
| BAR LP 7608                 | 99                                    | 78.3     | 48.3     | 41.7     | 9.0                                | 21.7     | 51.7     | 58.3     | 7.3             | 7.0      |
| DLF LGD-3022                | 99                                    | 78.3     | 48.3     | 38.3     | 6.7                                | 21.7     | 51.7     | 61.7     | 7.7             | 7.7      |
| ISG-36                      | 99                                    | 81.7     | 51.7     | 40.3     | 9.0                                | 18.3     | 48.3     | 59.7     | 7.0             | 7.0      |
| JR-192                      | 99                                    | 81.7     | 58.3     | 51.7     | 5.0                                | 18.3     | 41.7     | 48.3     | 6.3             | 6.7      |
| PPG-PR 143                  | 99                                    | 76.7     | 48.3     | 43.3     | 7.3                                | 23.3     | 51.7     | 56.7     | 6.3             | 6.7      |
| PPG-PR 164                  | 99                                    | 78.3     | 45.0     | 48.3     | 8.3                                | 21.7     | 55.0     | 51.7     | 7.0             | 7.3      |
| PST-2ACR                    | 99                                    | 73.3     | 45.0     | 40.0     | 9.0                                | 26.7     | 55.0     | 60.0     | 6.7             | 7.0      |
| PST-2DR9                    | 99                                    | 73.3     | 43.3     | 36.7     | 8.0                                | 26.7     | 56.7     | 63.3     | 7.0             | 7.0      |
| 2NJK                        | 99                                    | 81.7     | 61.7     | 38.3     | 8.3                                | 18.3     | 38.3     | 61.7     | 7.0             | 7.0      |
| BRIGHTSTAR SLT              | 99                                    | 76.7     | 53.3     | 38.3     | 10.7                               | 23.3     | 46.7     | 61.7     | 7.7             | 7.3      |
| CL 11601                    | 99                                    | 70.0     | 51.7     | 48.3     | 14.0                               | 30.0     | 48.3     | 51.7     | 7.0             | 7.0      |
| IS-PR 463                   | 99                                    | 81.7     | 53.3     | 40.0     | 6.7                                | 18.3     | 46.7     | 60.0     | 7.3             | 7.3      |
| PPG-PR 121                  | 99                                    | 71.7     | 48.3     | 48.3     | 8.0                                | 28.3     | 51.7     | 51.7     | 6.7             | 7.0      |
| PPG-PR 128                  | 99                                    | 71.7     | 53.3     | 43.3     | 6.7                                | 28.3     | 46.7     | 56.7     | 7.3             | 7.0      |
| DOMINATOR (PST-2AG4)        | 99                                    | 78.3     | 51.7     | 45.0     | 5.7                                | 21.7     | 48.3     | 55.0     | 7.3             | 6.7      |
| MANHATTAN 6 GLR (PST-2MAGS) | 99                                    | 78.3     | 46.7     | 41.7     | 7.3                                | 21.7     | 53.3     | 58.3     | 7.0             | 7.0      |
| EVOLUTION (S85)             | 99                                    | 73.3     | 50.0     | 45.0     | 5.7                                | 26.7     | 50.0     | 55.0     | 7.0             | 6.7      |
| PANGEA GLR (CL 11701)       | 99                                    | 73.3     | 50.0     | 48.3     | 6.7                                | 26.7     | 50.0     | 51.7     | 7.3             | 8.0      |
| CST                         | 99                                    | 73.3     | 46.7     | 38.3     | 8.3                                | 26.7     | 53.3     | 61.7     | 7.7             | 7.0      |
| DLF LGT 4182                | 99                                    | 80.0     | 56.7     | 41.7     | 8.3                                | 20.0     | 43.3     | 58.3     | 6.3             | 6.7      |
| GO-PR60                     | 99                                    | 83.3     | 51.7     | 43.3     | 6.7                                | 16.7     | 48.3     | 56.7     | 7.0             | 7.0      |
| PIZZAZZ 2 GLR (PR 909)      | 99                                    | 66.7     | 46.7     | 43.3     | 13.3                               | 33.3     | 53.3     | 56.7     | 6.7             | 7.0      |
| RINOVO                      | 99                                    | 71.7     | 51.7     | 55.0     | 10.7                               | 28.3     | 48.3     | 45.0     | 6.7             | 7.0      |
| PLAYOFF 2 (P02)             | 99                                    | 71.7     | 48.3     | 48.3     | 11.7                               | 28.3     | 51.7     | 51.7     | 6.3             | 7.0      |
| PST-2TQL                    | 99                                    | 81.7     | 55.0     | 48.3     | 9.0                                | 18.3     | 45.0     | 51.7     | 7.0             | 7.0      |
| HAVEN (APR 2038)            | 99                                    | 75.0     | 55.0     | 51.7     | 7.3                                | 25.0     | 45.0     | 48.3     | 7.0             | 7.0      |
| WICKED (SRX-4RHD)           | 99                                    | 66.7     | 53.3     | 50.0     | 12.3                               | 33.3     | 46.7     | 50.0     | 7.0             | 7.3      |
| LINN                        | 99                                    | 66.7     | 41.7     | 43.3     | 10.7                               | 33.3     | 58.3     | 56.7     | 7.0             | 7.3      |
| LSD VALUE                   | 0                                     | 23.6     | 27.5     | 59.0     | 14.8                               | 23.6     | 27.5     | 59.0     | 2.1             | 3.1      |
| C.V. (%)                    | 0                                     | 9.6      | 15.0     | 28.8     | 49.0                               | 28.3     | 13.7     | 18.8     | 8.9             | 9.3      |

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.

3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

TABLE 18. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-1 data report with permission from NTEP  
 AT GAINESVILLE (OVERSEEDING AT UNIVERSITY OF FLORIDA G. C.), FL 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME               | COLOR RATINGS |          |         | THE RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |     |     |                 |     |     | UNIFORMITY RATINGS |          |         |
|--------------------|---------------|----------|---------|----------------------------------------------------|-----|-----|-----------------|-----|-----|--------------------|----------|---------|
|                    | 12/10/10      | 12/23/10 | 1/19/11 | QUALITY RATINGS                                    |     |     | DENSITY RATINGS |     |     | 12/10/10           | 12/23/10 | 1/19/11 |
| PPG-PR 134         | 7.0           | 6.3      | 7.7     | 8.0                                                | 6.3 | 8.7 | 8.0             | 6.0 | 9.0 | 7.7                | 6.0      | 8.3     |
| IS-PR 489          | 7.0           | 7.0      | 8.0     | 7.7                                                | 6.3 | 8.7 | 8.0             | 6.7 | 9.0 | 7.0                | 6.7      | 8.7     |
| MACH I             | 7.7           | 8.0      | 9.0     | 8.0                                                | 7.7 | 8.7 | 8.0             | 7.7 | 9.0 | 7.3                | 7.7      | 8.0     |
| BAR LP 10972       | 7.7           | 6.7      | 8.7     | 8.0                                                | 6.3 | 8.7 | 8.0             | 7.0 | 9.0 | 7.7                | 6.3      | 8.0     |
| BONNEVILLE         | 7.3           | 7.7      | 8.7     | 8.0                                                | 7.0 | 8.7 | 7.7             | 7.3 | 9.0 | 7.7                | 7.0      | 9.0     |
| IS-PR 491          | 7.3           | 7.7      | 9.0     | 7.3                                                | 7.0 | 9.0 | 7.7             | 7.3 | 9.0 | 7.0                | 7.0      | 8.3     |
| KARMA (PICK 10401) | 7.0           | 7.0      | 7.7     | 7.7                                                | 6.3 | 8.7 | 8.0             | 6.7 | 9.0 | 7.7                | 6.3      | 8.0     |
| PST-2BNS           | 7.3           | 7.3      | 8.3     | 7.3                                                | 6.3 | 8.7 | 7.7             | 6.7 | 9.0 | 7.3                | 6.3      | 8.0     |
| RAD-PR55R          | 7.7           | 7.7      | 8.3     | 7.7                                                | 7.3 | 9.0 | 7.7             | 7.0 | 9.0 | 7.7                | 7.0      | 8.3     |
| RAD-PR62           | 7.3           | 8.0      | 8.3     | 7.7                                                | 7.3 | 9.0 | 8.0             | 7.0 | 9.0 | 7.7                | 7.0      | 7.7     |
| SRX-4MSH           | 7.0           | 7.0      | 8.3     | 7.7                                                | 7.3 | 8.7 | 8.0             | 7.0 | 8.7 | 7.3                | 7.0      | 7.7     |
| A-35               | 7.7           | 7.3      | 8.7     | 7.3                                                | 7.3 | 8.3 | 8.0             | 7.0 | 9.0 | 7.3                | 7.3      | 8.7     |
| BAR LP 10969       | 7.0           | 6.3      | 8.3     | 7.3                                                | 6.0 | 8.7 | 7.7             | 6.3 | 9.0 | 7.3                | 6.3      | 8.0     |
| BAR LP 10970       | 7.3           | 7.0      | 8.0     | 7.7                                                | 6.7 | 8.3 | 7.7             | 6.3 | 8.7 | 6.7                | 6.3      | 8.0     |
| PALMER V           | 7.0           | 7.3      | 8.3     | 7.3                                                | 7.3 | 8.7 | 7.7             | 7.7 | 9.0 | 7.3                | 7.3      | 8.3     |
| PPG-PR 133         | 6.3           | 6.0      | 8.0     | 7.3                                                | 6.0 | 8.3 | 7.7             | 6.3 | 9.0 | 6.7                | 6.0      | 8.3     |
| PPG-PR 140         | 7.3           | 7.0      | 8.3     | 8.0                                                | 6.3 | 8.3 | 7.7             | 6.0 | 8.7 | 7.3                | 6.0      | 8.0     |
| PRX-4GM1           | 7.7           | 7.3      | 8.3     | 7.3                                                | 7.3 | 8.7 | 8.0             | 7.3 | 9.0 | 7.7                | 7.3      | 8.3     |
| SIENNA             | 7.0           | 6.7      | 8.7     | 7.7                                                | 5.7 | 8.7 | 7.7             | 6.3 | 9.0 | 7.0                | 6.3      | 8.7     |
| ALLANTE            | 7.0           | 5.7      | 8.0     | 7.3                                                | 5.3 | 8.7 | 8.0             | 5.3 | 8.7 | 7.0                | 4.3      | 8.7     |
| APR 2320           | 7.3           | 6.7      | 8.3     | 7.7                                                | 6.7 | 8.3 | 8.0             | 6.3 | 8.3 | 7.3                | 6.0      | 8.0     |
| CL 307             | 6.7           | 5.0      | 7.3     | 7.7                                                | 5.3 | 8.3 | 8.0             | 5.0 | 8.7 | 7.0                | 4.3      | 8.0     |
| CS-20              | 7.3           | 6.7      | 8.7     | 7.3                                                | 6.3 | 8.0 | 7.3             | 6.7 | 9.0 | 6.7                | 6.3      | 7.0     |
| DLF LGD-3026       | 7.3           | 6.3      | 8.3     | 7.3                                                | 6.0 | 8.0 | 7.3             | 6.3 | 9.0 | 7.3                | 5.3      | 8.0     |
| FIESTA 4           | 6.7           | 6.3      | 8.7     | 7.0                                                | 6.3 | 9.0 | 7.3             | 6.7 | 9.0 | 6.3                | 6.3      | 8.3     |
| SOX FAN (GM3)      | 7.3           | 7.3      | 8.7     | 7.3                                                | 7.3 | 8.7 | 7.3             | 7.7 | 9.0 | 7.7                | 7.3      | 8.7     |
| GO-G37             | 7.7           | 7.0      | 8.7     | 7.3                                                | 6.7 | 8.7 | 7.3             | 7.0 | 9.0 | 7.3                | 7.0      | 7.3     |
| INSIGHT            | 7.3           | 7.0      | 8.3     | 7.7                                                | 7.0 | 8.7 | 8.0             | 7.0 | 9.0 | 7.3                | 6.7      | 8.7     |
| IS-PR 409          | 7.0           | 7.0      | 7.7     | 7.7                                                | 6.0 | 8.3 | 8.0             | 6.7 | 9.0 | 7.7                | 6.7      | 8.0     |
| IS-PR 479          | 7.3           | 7.0      | 8.7     | 7.7                                                | 6.7 | 8.3 | 8.0             | 7.0 | 8.7 | 7.3                | 6.3      | 8.0     |
| IS-PR 487          | 6.7           | 6.7      | 8.3     | 7.0                                                | 6.0 | 9.0 | 7.7             | 6.3 | 9.0 | 6.3                | 5.7      | 8.3     |
| IS-PR 488          | 7.0           | 6.3      | 8.0     | 7.3                                                | 6.3 | 8.7 | 8.0             | 6.3 | 9.0 | 7.3                | 5.7      | 7.7     |
| IS-PR 492          | 7.0           | 7.3      | 8.7     | 7.0                                                | 6.7 | 9.0 | 7.3             | 7.7 | 9.0 | 6.7                | 7.3      | 8.3     |
| ISG-30             | 7.3           | 6.7      | 8.7     | 7.3                                                | 6.3 | 7.7 | 8.0             | 6.3 | 8.7 | 7.0                | 5.7      | 7.3     |
| LTP-PR 135         | 7.0           | 6.3      | 7.7     | 8.0                                                | 6.0 | 8.3 | 8.0             | 6.7 | 9.0 | 7.3                | 5.7      | 7.7     |
| PICK 4DFHM         | 6.7           | 7.0      | 8.0     | 7.7                                                | 6.7 | 8.0 | 8.0             | 7.3 | 9.0 | 7.7                | 6.7      | 8.0     |
| PPG-PR 136         | 6.7           | 6.0      | 8.0     | 7.7                                                | 6.0 | 8.0 | 8.0             | 6.0 | 8.7 | 6.7                | 5.7      | 7.7     |
| PPG-PR 138         | 7.0           | 6.3      | 7.3     | 7.7                                                | 6.0 | 8.0 | 8.0             | 6.7 | 8.7 | 7.3                | 5.7      | 7.3     |
| PPG-PR 142         | 6.7           | 7.0      | 9.0     | 7.3                                                | 6.7 | 9.0 | 7.0             | 6.7 | 9.0 | 6.3                | 6.3      | 8.7     |
| PSRX-4CAGL         | 7.7           | 7.7      | 9.0     | 7.3                                                | 6.7 | 9.0 | 7.3             | 7.0 | 9.0 | 7.3                | 7.7      | 8.7     |
| PST-2K9            | 7.0           | 6.7      | 7.7     | 7.3                                                | 6.3 | 9.0 | 7.7             | 6.0 | 9.0 | 6.7                | 5.7      | 8.7     |
| RIO VISTA          | 6.0           | 6.3      | 8.0     | 7.3                                                | 6.0 | 8.0 | 8.0             | 6.3 | 9.0 | 6.7                | 6.0      | 8.0     |
| UNO                | 6.7           | 7.0      | 8.7     | 7.3                                                | 6.7 | 8.7 | 7.3             | 6.7 | 9.0 | 7.0                | 6.7      | 8.3     |
| APR 2036           | 7.3           | 6.7      | 8.3     | 7.0                                                | 5.7 | 8.3 | 8.3             | 6.0 | 9.0 | 7.7                | 5.7      | 8.0     |
| CS-PR66            | 7.3           | 6.7      | 7.7     | 7.7                                                | 6.7 | 7.7 | 7.3             | 6.3 | 9.0 | 7.3                | 6.7      | 7.3     |
| GO-DHS             | 7.7           | 7.3      | 9.0     | 7.3                                                | 7.0 | 8.3 | 8.0             | 7.0 | 9.0 | 7.3                | 7.3      | 7.7     |
| IS-PR 469          | 7.3           | 6.3      | 8.0     | 7.7                                                | 6.3 | 8.7 | 7.7             | 6.3 | 9.0 | 7.3                | 6.3      | 8.0     |

TABLE 18. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-1 data report with permission from NTEP  
 AT GAINESVILLE (OVERSEEDING AT UNIVERSITY OF FLORIDA G. C.), FL 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | COLOR RATINGS |          |         | THE RATINGS FOR OVERSEEDING GRASS IN WINTER PERIOD |          |         |          |          |         | UNIFORMITY RATINGS |          |         |
|-----------------------------|---------------|----------|---------|----------------------------------------------------|----------|---------|----------|----------|---------|--------------------|----------|---------|
|                             | 12/10/10      | 12/23/10 | 1/19/11 | 12/10/10                                           | 12/23/10 | 1/19/11 | 12/10/10 | 12/23/10 | 1/19/11 | 12/10/10           | 12/23/10 | 1/19/11 |
| ISG-31                      | 7.3           | 7.0      | 8.3     | 7.7                                                | 6.7      | 8.0     | 7.7      | 7.0      | 8.7     | 7.3                | 7.0      | 7.7     |
| JR-178                      | 7.0           | 6.0      | 7.7     | 7.3                                                | 6.0      | 8.0     | 7.7      | 5.7      | 8.7     | 7.3                | 5.7      | 7.7     |
| LTP-RAE                     | 7.0           | 6.3      | 7.7     | 7.0                                                | 6.3      | 8.3     | 7.0      | 6.3      | 8.3     | 6.7                | 6.0      | 8.7     |
| OCTANE                      | 6.7           | 7.0      | 7.7     | 7.3                                                | 6.7      | 8.0     | 7.7      | 7.3      | 8.7     | 7.3                | 6.7      | 7.3     |
| PINNACLE                    | 6.3           | 5.7      | 6.7     | 7.7                                                | 6.0      | 8.0     | 7.7      | 6.0      | 8.3     | 6.7                | 5.0      | 8.0     |
| PPG-PR 137                  | 6.7           | 6.3      | 7.7     | 7.7                                                | 6.3      | 7.7     | 7.7      | 6.3      | 8.0     | 7.3                | 5.7      | 7.3     |
| PPG-PR 165                  | 6.7           | 6.3      | 8.0     | 7.0                                                | 6.3      | 8.3     | 7.7      | 6.3      | 9.0     | 6.3                | 6.7      | 8.0     |
| SR 4650 (PSRX-3701)         | 7.0           | 6.7      | 8.7     | 7.0                                                | 7.0      | 8.7     | 7.7      | 7.0      | 8.7     | 6.3                | 7.0      | 8.7     |
| SIDEWAYS (PSRX-S84)         | 7.3           | 6.0      | 7.7     | 7.3                                                | 6.0      | 8.3     | 7.7      | 6.0      | 8.3     | 7.3                | 5.3      | 7.7     |
| PST-204D                    | 6.7           | 6.0      | 7.0     | 7.3                                                | 6.0      | 8.0     | 8.0      | 6.0      | 8.7     | 7.0                | 5.7      | 7.3     |
| PST-2MG7                    | 7.0           | 6.3      | 8.0     | 7.3                                                | 6.3      | 7.7     | 7.7      | 6.3      | 8.7     | 6.7                | 6.3      | 7.0     |
| PST-2NKM                    | 6.7           | 6.7      | 7.0     | 7.0                                                | 6.0      | 8.0     | 7.7      | 6.3      | 8.7     | 7.0                | 5.0      | 7.7     |
| APR 2445                    | 6.0           | 6.0      | 8.3     | 6.3                                                | 5.7      | 8.7     | 7.0      | 5.7      | 9.0     | 6.0                | 4.7      | 7.3     |
| BAR LP 7608                 | 6.7           | 6.0      | 7.0     | 7.7                                                | 6.0      | 8.0     | 8.0      | 6.0      | 8.3     | 7.3                | 5.3      | 8.0     |
| DLF LGD-3022                | 7.0           | 6.0      | 7.3     | 7.3                                                | 5.3      | 7.3     | 7.7      | 5.0      | 8.3     | 7.0                | 5.0      | 7.3     |
| ISG-36                      | 7.3           | 6.7      | 8.0     | 7.0                                                | 6.3      | 8.3     | 7.7      | 6.7      | 8.7     | 6.7                | 6.3      | 8.0     |
| JR-192                      | 7.0           | 6.3      | 7.7     | 6.7                                                | 6.0      | 8.3     | 6.7      | 6.3      | 8.7     | 6.0                | 5.7      | 7.3     |
| PPG-PR 143                  | 6.3           | 7.0      | 8.7     | 6.7                                                | 6.7      | 9.0     | 6.7      | 6.0      | 9.0     | 6.0                | 6.0      | 8.7     |
| PPG-PR 164                  | 6.0           | 5.7      | 7.7     | 7.0                                                | 6.0      | 8.3     | 7.3      | 6.3      | 9.0     | 6.0                | 5.7      | 8.0     |
| PST-2ACR                    | 6.7           | 6.7      | 8.0     | 6.7                                                | 6.3      | 8.7     | 7.7      | 6.3      | 8.7     | 6.7                | 5.7      | 8.0     |
| PST-2DR9                    | 7.0           | 6.3      | 7.7     | 7.0                                                | 6.0      | 8.0     | 7.7      | 6.3      | 8.7     | 6.7                | 6.0      | 7.7     |
| 2NJK                        | 6.7           | 6.0      | 7.7     | 7.3                                                | 6.0      | 8.0     | 7.7      | 5.3      | 8.0     | 6.7                | 5.3      | 7.7     |
| BRIGHTSTAR SLT              | 6.7           | 6.0      | 7.3     | 7.3                                                | 5.7      | 8.7     | 7.7      | 5.7      | 8.7     | 7.3                | 5.3      | 8.0     |
| CL 11601                    | 6.0           | 6.3      | 7.3     | 6.3                                                | 5.3      | 8.0     | 6.7      | 6.0      | 8.7     | 6.3                | 4.7      | 7.7     |
| IS-PR 463                   | 6.3           | 5.3      | 7.0     | 7.3                                                | 5.3      | 8.0     | 8.0      | 5.3      | 8.0     | 7.0                | 4.7      | 7.3     |
| PPG-PR 121                  | 6.3           | 6.0      | 8.7     | 6.3                                                | 6.3      | 8.7     | 7.0      | 6.3      | 9.0     | 6.3                | 6.0      | 8.0     |
| PPG-PR 128                  | 6.3           | 5.7      | 8.0     | 6.7                                                | 5.7      | 8.7     | 7.3      | 6.0      | 9.0     | 6.7                | 5.7      | 8.0     |
| DOMINATOR (PST-2AG4)        | 7.3           | 6.7      | 8.3     | 7.0                                                | 6.3      | 8.0     | 7.7      | 6.7      | 8.3     | 6.0                | 6.7      | 8.3     |
| MANHATTAN 6 GLR (PST-2MAGS) | 7.0           | 6.0      | 8.7     | 7.0                                                | 5.7      | 9.0     | 7.3      | 5.3      | 9.0     | 6.3                | 5.7      | 8.3     |
| EVOLUTION (S85)             | 6.3           | 6.0      | 8.7     | 6.3                                                | 5.3      | 8.3     | 6.3      | 6.3      | 8.7     | 6.3                | 5.7      | 8.7     |
| PANGEA GLR (CL 11701)       | 6.7           | 6.0      | 8.0     | 6.7                                                | 5.3      | 7.3     | 7.7      | 5.7      | 8.7     | 6.7                | 5.3      | 7.3     |
| CST                         | 6.3           | 5.3      | 7.3     | 7.0                                                | 5.0      | 7.7     | 7.3      | 5.0      | 8.7     | 6.7                | 5.0      | 7.3     |
| DLF LGT 4182                | 7.0           | 6.7      | 7.3     | 7.0                                                | 6.3      | 7.7     | 7.7      | 6.0      | 8.3     | 6.3                | 6.0      | 6.7     |
| GO-PR60                     | 6.7           | 6.7      | 7.7     | 7.0                                                | 6.0      | 8.0     | 7.7      | 5.7      | 8.3     | 6.7                | 5.3      | 8.0     |
| PIZZAZZ 2 GLR (PR 909)      | 6.7           | 6.7      | 8.7     | 6.7                                                | 6.0      | 8.7     | 7.0      | 6.3      | 8.7     | 6.7                | 5.3      | 8.3     |
| RINOVO                      | 5.7           | 6.3      | 8.3     | 6.3                                                | 6.0      | 8.3     | 6.3      | 6.0      | 8.7     | 6.3                | 5.7      | 8.0     |
| PLAYOFF 2 (P02)             | 6.0           | 6.0      | 8.3     | 6.3                                                | 6.0      | 8.0     | 7.0      | 5.7      | 8.7     | 5.7                | 5.7      | 7.7     |
| PST-2TQL                    | 7.0           | 6.3      | 7.7     | 7.3                                                | 5.7      | 8.0     | 7.7      | 6.0      | 8.7     | 6.7                | 5.3      | 7.7     |
| HAVEN (APR 2038)            | 6.0           | 5.0      | 8.3     | 6.0                                                | 5.0      | 8.0     | 7.0      | 5.3      | 8.7     | 6.0                | 5.0      | 7.3     |
| WICKED (SRX-4RHD)           | 5.7           | 5.0      | 7.7     | 6.3                                                | 4.7      | 7.7     | 7.0      | 5.0      | 8.3     | 5.7                | 4.3      | 7.0     |
| LINN                        | 6.0           | 5.0      | 5.7     | 6.3                                                | 5.0      | 7.7     | 7.7      | 5.3      | 7.3     | 7.3                | 4.0      | 8.0     |
| LSD VALUE                   | 4.2           | 6.0      | 1.7     | 5.9                                                | 7.5      | 3.5     | 3.7      | 6.8      | 1.7     | 5.2                | 9.1      | 2.4     |
| C.V. (%)                    | 13.0          | 18.9     | 9.5     | 13.7                                               | 20.6     | 9.2     | 10.1     | 20.1     | 5.7     | 14.6               | 27.5     | 9.5     |

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.

3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

TABLE 18. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT GAINESVILLE (OVERSEEDING AT UNIVERSITY OF FLORIDA G. C.), FL 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME               | COLOR RATINGS |         |         | QUALITY RATINGS |         |         | DENSITY RATINGS |         |         | UNIFORMITY RATINGS |         |         | QUALITY<br>MEAN |
|--------------------|---------------|---------|---------|-----------------|---------|---------|-----------------|---------|---------|--------------------|---------|---------|-----------------|
|                    | 2/18/11       | 3/15/11 | 4/13/11 | 2/18/11         | 3/15/11 | 4/13/11 | 2/18/11         | 3/15/11 | 4/13/11 | 2/18/11            | 3/15/11 | 4/13/11 |                 |
| PPG-PR 134         | 8.3           | 7.3     | 7.0     | 8.3             | 8.3     | 8.0     | 8.7             | 6.0     | 2.7     | 7.7                | 7.0     | 6.7     | 8.0             |
| IS-PR 489          | 7.7           | 7.7     | 7.3     | 8.7             | 8.3     | 8.0     | 9.0             | 6.7     | 3.7     | 7.7                | 7.7     | 7.3     | 7.9             |
| MACH I             | 8.7           | 8.0     | 7.7     | 8.7             | 8.3     | 8.0     | 8.7             | 7.0     | 3.7     | 7.7                | 7.3     | 7.0     | 7.9             |
| BAR LP 10972       | 8.0           | 8.0     | 7.7     | 8.3             | 8.0     | 8.0     | 9.0             | 6.7     | 3.7     | 8.3                | 6.3     | 7.3     | 7.8             |
| BONNEVILLE         | 7.3           | 7.7     | 7.3     | 8.0             | 8.0     | 8.0     | 8.7             | 7.0     | 3.3     | 8.3                | 7.0     | 7.0     | 7.8             |
| IS-PR 491          | 8.3           | 8.0     | 7.7     | 8.7             | 8.3     | 8.0     | 9.0             | 7.7     | 4.0     | 8.0                | 7.7     | 7.3     | 7.8             |
| KARMA (PICK 10401) | 8.0           | 7.0     | 7.0     | 8.7             | 8.0     | 7.7     | 9.0             | 6.3     | 2.7     | 8.3                | 6.0     | 7.0     | 7.8             |
| PST-2BNS           | 7.7           | 7.3     | 6.7     | 8.3             | 8.3     | 7.7     | 9.0             | 7.0     | 2.7     | 7.7                | 7.3     | 6.7     | 7.8             |
| RAD-PR55R          | 8.3           | 8.0     | 8.0     | 8.7             | 8.0     | 7.7     | 9.0             | 8.0     | 3.7     | 7.7                | 6.7     | 6.7     | 7.8             |
| RAD-PR62           | 8.0           | 7.7     | 8.0     | 8.7             | 8.0     | 8.0     | 8.7             | 7.0     | 3.3     | 7.7                | 7.3     | 7.0     | 7.8             |
| SRX-4MSH           | 7.7           | 7.0     | 7.0     | 8.7             | 7.7     | 8.0     | 9.0             | 6.0     | 2.7     | 8.3                | 7.0     | 7.0     | 7.8             |
| A-35               | 9.0           | 7.7     | 7.3     | 8.7             | 7.7     | 7.3     | 9.0             | 7.0     | 3.3     | 8.0                | 6.3     | 6.3     | 7.7             |
| BAR LP 10969       | 7.3           | 7.7     | 7.7     | 8.7             | 8.0     | 8.0     | 9.0             | 6.3     | 4.0     | 8.0                | 6.7     | 7.0     | 7.7             |
| BAR LP 10970       | 7.7           | 7.3     | 7.0     | 8.3             | 8.0     | 8.0     | 9.0             | 6.7     | 2.7     | 7.7                | 7.0     | 6.3     | 7.7             |
| PALMER V           | 8.0           | 7.7     | 7.3     | 8.7             | 8.0     | 7.3     | 9.0             | 6.7     | 3.7     | 8.3                | 7.0     | 5.7     | 7.7             |
| PPG-PR 133         | 7.7           | 7.0     | 7.3     | 8.7             | 8.3     | 8.0     | 9.0             | 6.0     | 3.7     | 7.7                | 7.0     | 6.3     | 7.7             |
| PPG-PR 140         | 8.3           | 7.3     | 7.0     | 8.0             | 8.3     | 7.7     | 9.0             | 6.3     | 3.0     | 7.3                | 6.7     | 6.3     | 7.7             |
| PRX-4GM1           | 8.3           | 7.7     | 7.3     | 8.7             | 7.7     | 8.0     | 9.0             | 6.7     | 3.3     | 8.3                | 7.3     | 7.0     | 7.7             |
| SIENNA             | 7.7           | 8.0     | 7.3     | 8.0             | 8.3     | 8.0     | 9.0             | 7.0     | 3.3     | 8.0                | 7.0     | 7.0     | 7.7             |
| ALLANTE            | 7.7           | 7.7     | 7.0     | 8.3             | 8.0     | 8.0     | 9.0             | 6.7     | 2.7     | 8.0                | 6.3     | 6.7     | 7.6             |
| APR 2320           | 8.0           | 7.3     | 7.3     | 8.3             | 8.0     | 7.7     | 9.0             | 6.3     | 3.0     | 7.3                | 6.3     | 6.3     | 7.6             |
| CL 307             | 8.0           | 7.3     | 6.7     | 8.3             | 8.0     | 7.7     | 9.0             | 5.7     | 2.7     | 8.3                | 7.0     | 6.7     | 7.6             |
| CS-20              | 9.0           | 8.0     | 7.0     | 9.0             | 8.0     | 8.0     | 9.0             | 6.0     | 3.0     | 8.0                | 5.7     | 6.0     | 7.6             |
| DLF LGD-3026       | 8.7           | 8.7     | 7.3     | 8.7             | 8.0     | 8.0     | 9.0             | 6.7     | 4.0     | 8.3                | 6.7     | 6.0     | 7.6             |
| FIESTA 4           | 8.3           | 8.0     | 7.7     | 9.0             | 7.7     | 7.7     | 9.0             | 7.0     | 3.7     | 8.0                | 7.0     | 6.7     | 7.6             |
| SOX FAN (GM3)      | 8.0           | 7.7     | 7.0     | 8.7             | 7.7     | 7.7     | 9.0             | 7.3     | 3.3     | 8.0                | 7.0     | 7.3     | 7.6             |
| GO-G37             | 8.7           | 7.7     | 7.3     | 8.7             | 7.7     | 8.0     | 8.7             | 6.3     | 3.3     | 7.7                | 5.7     | 6.7     | 7.6             |
| INSIGHT            | 7.3           | 6.7     | 6.7     | 8.3             | 6.3     | 7.3     | 9.0             | 5.7     | 2.3     | 8.3                | 5.3     | 6.3     | 7.6             |
| IS-PR 409          | 7.7           | 7.3     | 7.0     | 8.0             | 8.0     | 7.7     | 9.0             | 6.3     | 3.3     | 7.7                | 6.7     | 6.0     | 7.6             |
| IS-PR 479          | 8.3           | 8.0     | 7.7     | 8.7             | 7.7     | 7.7     | 9.0             | 7.0     | 3.7     | 7.7                | 6.3     | 6.3     | 7.6             |
| IS-PR 487          | 7.3           | 8.0     | 7.0     | 8.3             | 8.3     | 7.7     | 9.0             | 7.0     | 3.0     | 8.0                | 7.3     | 6.7     | 7.6             |
| IS-PR 488          | 8.7           | 7.7     | 6.7     | 9.0             | 8.0     | 7.0     | 9.0             | 6.0     | 3.0     | 8.0                | 6.0     | 7.3     | 7.6             |
| IS-PR 492          | 8.0           | 7.7     | 7.7     | 8.3             | 8.0     | 8.0     | 8.7             | 6.7     | 3.7     | 8.0                | 6.7     | 7.7     | 7.6             |
| ISG-30             | 8.3           | 8.0     | 6.7     | 8.7             | 8.0     | 7.3     | 9.0             | 6.7     | 2.7     | 8.0                | 6.0     | 5.7     | 7.6             |
| LTP-PR 135         | 7.7           | 6.0     | 6.3     | 8.7             | 6.7     | 7.0     | 9.0             | 4.3     | 2.0     | 9.0                | 4.7     | 7.0     | 7.6             |
| PICK 4DFHM         | 7.7           | 7.0     | 7.3     | 8.7             | 7.7     | 8.0     | 9.0             | 5.7     | 3.0     | 8.3                | 7.0     | 6.7     | 7.6             |
| PPG-PR 136         | 8.3           | 7.3     | 6.7     | 8.7             | 8.0     | 8.0     | 9.0             | 5.0     | 2.7     | 8.0                | 6.7     | 6.7     | 7.6             |
| PPG-PR 138         | 8.0           | 6.7     | 6.3     | 8.3             | 8.0     | 7.3     | 9.0             | 4.3     | 2.3     | 7.7                | 6.3     | 6.3     | 7.6             |
| PPG-PR 142         | 7.7           | 8.0     | 7.7     | 8.3             | 8.0     | 7.7     | 9.0             | 6.0     | 4.0     | 8.0                | 7.0     | 7.0     | 7.6             |
| PSRX-4CAGL         | 8.7           | 8.0     | 7.7     | 8.7             | 8.0     | 8.0     | 9.0             | 7.3     | 3.7     | 7.7                | 6.7     | 6.7     | 7.6             |
| PST-2K9            | 7.7           | 7.7     | 7.0     | 8.0             | 8.0     | 8.0     | 8.7             | 6.7     | 3.3     | 8.0                | 6.7     | 7.0     | 7.6             |
| RIO VISTA          | 7.3           | 7.3     | 7.0     | 8.3             | 8.0     | 8.0     | 9.0             | 6.3     | 3.0     | 8.0                | 6.7     | 6.3     | 7.6             |
| UNO                | 7.7           | 8.0     | 7.7     | 8.0             | 8.0     | 7.7     | 9.0             | 7.0     | 3.7     | 8.0                | 7.0     | 6.7     | 7.6             |
| APR 2036           | 7.7           | 7.7     | 7.3     | 8.3             | 8.0     | 7.7     | 8.7             | 5.7     | 3.3     | 7.7                | 7.0     | 7.0     | 7.5             |
| CS-PR66            | 8.3           | 7.3     | 7.0     | 8.3             | 7.7     | 7.7     | 9.0             | 5.7     | 3.0     | 7.7                | 6.3     | 6.7     | 7.5             |
| GO-DHS             | 8.7           | 7.7     | 7.0     | 8.7             | 7.3     | 7.7     | 9.0             | 6.7     | 3.3     | 8.3                | 5.7     | 6.0     | 7.5             |
| IS-PR 469          | 8.3           | 7.3     | 7.0     | 8.3             | 7.7     | 7.3     | 9.0             | 6.7     | 3.0     | 7.3                | 7.0     | 6.3     | 7.5             |

TABLE 18. (CONT'D) MEAN TURFGRASS QUALITY AND OTHER RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 Taken from the 2010 Perennial Ryegrass test-1 data report with permission from NTEP  
 AT GAINESVILLE (OVERSEEDING AT UNIVERSITY OF FLORIDA G. C.), FL 1/  
 2011 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/ 3/

| NAME                        | COLOR RATINGS |         |         | THE RATINGS FOR OVERSEEDING GRASS IN SPRING/SUMMER TRANSITION PERIOD |         |         | QUALITY RATINGS |         |         | DENSITY RATINGS |         |         | UNIFORMITY RATINGS |         |         | QUALITY<br>MEAN |
|-----------------------------|---------------|---------|---------|----------------------------------------------------------------------|---------|---------|-----------------|---------|---------|-----------------|---------|---------|--------------------|---------|---------|-----------------|
|                             | 2/18/11       | 3/15/11 | 4/13/11 | 2/18/11                                                              | 3/15/11 | 4/13/11 | 2/18/11         | 3/15/11 | 4/13/11 | 2/18/11         | 3/15/11 | 4/13/11 | 2/18/11            | 3/15/11 | 4/13/11 |                 |
| ISG-31                      | 9.0           | 7.7     | 7.3     | 8.3                                                                  | 7.7     | 7.3     | 8.7             | 6.3     | 3.0     | 7.3             | 6.0     | 6.3     | 7.5                |         |         | 7.5             |
| JR-178                      | 8.0           | 7.3     | 6.7     | 8.7                                                                  | 8.0     | 7.7     | 9.0             | 6.0     | 2.7     | 8.3             | 6.7     | 6.0     | 7.5                |         |         | 7.5             |
| LTP-RAE                     | 7.3           | 7.7     | 7.3     | 8.3                                                                  | 8.3     | 8.0     | 9.0             | 6.3     | 3.3     | 8.3             | 6.7     | 6.3     | 7.5                |         |         | 7.5             |
| OCTANE                      | 7.7           | 6.7     | 7.3     | 8.3                                                                  | 7.7     | 7.7     | 9.0             | 5.7     | 3.3     | 8.7             | 6.3     | 7.0     | 7.5                |         |         | 7.5             |
| PINNACLE                    | 7.0           | 6.3     | 6.3     | 8.7                                                                  | 8.0     | 7.7     | 9.0             | 5.3     | 1.7     | 8.0             | 7.0     | 7.0     | 7.5                |         |         | 7.5             |
| PPG-PR 137                  | 7.7           | 6.7     | 6.7     | 8.3                                                                  | 7.3     | 7.3     | 8.7             | 5.0     | 2.3     | 8.0             | 6.7     | 6.7     | 7.5                |         |         | 7.5             |
| PPG-PR 165                  | 7.0           | 7.0     | 6.7     | 8.3                                                                  | 7.3     | 7.3     | 9.0             | 6.0     | 2.7     | 8.3             | 6.3     | 6.7     | 7.5                |         |         | 7.5             |
| SR 4650 (PSRX-3701)         | 8.0           | 7.3     | 7.0     | 8.7                                                                  | 7.3     | 7.3     | 9.0             | 6.0     | 2.7     | 8.3             | 6.7     | 7.0     | 7.5                |         |         | 7.5             |
| SIDEWAYS (PSRX-S84)         | 7.3           | 7.7     | 6.7     | 8.3                                                                  | 7.7     | 7.7     | 9.0             | 6.0     | 3.0     | 7.7             | 6.7     | 7.0     | 7.5                |         |         | 7.5             |
| PST-204D                    | 7.3           | 7.0     | 7.0     | 8.3                                                                  | 7.7     | 7.3     | 9.0             | 5.7     | 3.0     | 8.0             | 6.7     | 6.7     | 7.5                |         |         | 7.5             |
| PST-2MG7                    | 8.3           | 7.3     | 6.7     | 8.7                                                                  | 8.0     | 7.3     | 9.0             | 6.3     | 2.7     | 8.3             | 6.0     | 6.3     | 7.5                |         |         | 7.5             |
| PST-2NKM                    | 7.7           | 7.7     | 6.7     | 8.3                                                                  | 8.0     | 7.7     | 9.0             | 7.0     | 3.0     | 8.0             | 7.0     | 6.3     | 7.5                |         |         | 7.5             |
| APR 2445                    | 8.3           | 7.3     | 7.3     | 8.7                                                                  | 7.7     | 7.3     | 9.0             | 6.3     | 3.3     | 7.3             | 6.7     | 6.0     | 7.4                |         |         | 7.4             |
| BAR LP 7608                 | 7.3           | 6.3     | 6.7     | 8.3                                                                  | 7.3     | 7.7     | 9.0             | 5.0     | 2.7     | 8.3             | 6.0     | 6.7     | 7.4                |         |         | 7.4             |
| DLF LGD-3022                | 7.3           | 6.7     | 6.3     | 8.3                                                                  | 8.0     | 7.3     | 9.0             | 5.3     | 2.3     | 8.3             | 6.3     | 6.3     | 7.4                |         |         | 7.4             |
| ISG-36                      | 9.0           | 7.0     | 6.7     | 8.7                                                                  | 7.3     | 7.7     | 9.0             | 6.0     | 3.0     | 8.0             | 5.0     | 6.3     | 7.4                |         |         | 7.4             |
| JR-192                      | 7.7           | 7.3     | 7.0     | 8.7                                                                  | 8.7     | 8.0     | 9.0             | 6.3     | 2.7     | 8.3             | 7.0     | 7.3     | 7.4                |         |         | 7.4             |
| PPG-PR 143                  | 8.0           | 8.3     | 7.0     | 8.3                                                                  | 8.3     | 7.0     | 9.0             | 6.7     | 3.0     | 8.0             | 7.3     | 7.0     | 7.4                |         |         | 7.4             |
| PPG-PR 164                  | 8.0           | 7.0     | 6.7     | 8.3                                                                  | 8.0     | 7.3     | 9.0             | 5.3     | 2.7     | 8.3             | 5.7     | 6.3     | 7.4                |         |         | 7.4             |
| PST-2ACR                    | 7.7           | 7.7     | 7.0     | 8.0                                                                  | 8.0     | 8.0     | 9.0             | 6.3     | 3.0     | 8.0             | 7.0     | 7.3     | 7.4                |         |         | 7.4             |
| PST-2DR9                    | 7.7           | 7.7     | 7.0     | 8.3                                                                  | 8.3     | 7.7     | 8.7             | 6.7     | 3.0     | 8.0             | 7.0     | 6.0     | 7.4                |         |         | 7.4             |
| 2NJK                        | 7.7           | 7.0     | 7.3     | 8.3                                                                  | 7.3     | 7.7     | 9.0             | 6.0     | 3.0     | 8.0             | 6.0     | 7.0     | 7.3                |         |         | 7.3             |
| BRIGHTSTAR SLT              | 7.0           | 7.0     | 6.7     | 8.3                                                                  | 6.3     | 7.3     | 9.0             | 5.3     | 2.7     | 7.7             | 6.0     | 6.7     | 7.3                |         |         | 7.3             |
| CL 11601                    | 8.0           | 7.3     | 7.0     | 8.3                                                                  | 8.0     | 8.0     | 8.7             | 6.3     | 3.0     | 7.3             | 7.3     | 7.3     | 7.3                |         |         | 7.3             |
| IS-PR 463                   | 7.7           | 6.3     | 6.7     | 8.3                                                                  | 7.7     | 7.3     | 9.0             | 5.7     | 2.3     | 8.7             | 6.3     | 6.0     | 7.3                |         |         | 7.3             |
| PPG-PR 121                  | 7.7           | 7.3     | 7.3     | 8.0                                                                  | 7.7     | 7.3     | 8.7             | 6.3     | 3.7     | 8.0             | 7.0     | 7.0     | 7.3                |         |         | 7.3             |
| PPG-PR 128                  | 7.7           | 6.7     | 7.0     | 8.3                                                                  | 6.7     | 7.7     | 8.7             | 5.7     | 3.3     | 7.7             | 6.0     | 7.0     | 7.3                |         |         | 7.3             |
| DOMINATOR (PST-2AG4)        | 7.7           | 7.3     | 6.3     | 8.7                                                                  | 7.0     | 7.0     | 9.0             | 5.7     | 2.7     | 7.3             | 6.0     | 6.7     | 7.3                |         |         | 7.3             |
| MANHATTAN 6 GLR (PST-2MAGS) | 7.7           | 7.3     | 6.7     | 8.3                                                                  | 7.0     | 7.3     | 9.0             | 6.0     | 2.3     | 8.0             | 6.3     | 7.3     | 7.3                |         |         | 7.3             |
| EVOLUTION (S85)             | 7.7           | 7.7     | 7.7     | 8.7                                                                  | 8.3     | 7.3     | 9.0             | 6.7     | 3.3     | 7.7             | 7.3     | 7.0     | 7.3                |         |         | 7.3             |
| PANGEA GLR (CL 11701)       | 7.3           | 7.0     | 7.0     | 8.3                                                                  | 7.3     | 7.0     | 9.0             | 6.0     | 2.7     | 7.7             | 6.3     | 6.0     | 7.2                |         |         | 7.2             |
| CST                         | 7.3           | 7.3     | 7.0     | 8.0                                                                  | 8.0     | 7.3     | 9.0             | 6.0     | 2.7     | 7.7             | 6.7     | 5.7     | 7.2                |         |         | 7.2             |
| DLF LGT 4182                | 8.0           | 6.3     | 6.7     | 8.3                                                                  | 7.3     | 7.7     | 8.7             | 5.0     | 3.0     | 7.0             | 5.3     | 6.3     | 7.2                |         |         | 7.2             |
| GO-PR60                     | 8.3           | 7.0     | 6.7     | 8.7                                                                  | 6.7     | 7.3     | 9.0             | 6.0     | 3.0     | 8.3             | 5.7     | 6.3     | 7.2                |         |         | 7.2             |
| PIZZAZZ 2 GLR (PR 909)      | 8.0           | 8.0     | 7.7     | 8.3                                                                  | 7.3     | 7.0     | 9.0             | 7.3     | 3.0     | 7.7             | 7.3     | 7.0     | 7.2                |         |         | 7.2             |
| RINOVO                      | 7.3           | 8.3     | 7.7     | 8.0                                                                  | 7.3     | 7.7     | 8.3             | 7.7     | 4.0     | 7.3             | 8.0     | 7.0     | 7.2                |         |         | 7.2             |
| PLAYOFF 2 (P02)             | 8.0           | 8.3     | 7.3     | 8.0                                                                  | 7.7     | 7.3     | 9.0             | 7.3     | 3.3     | 7.0             | 8.0     | 6.3     | 7.1                |         |         | 7.1             |
| PST-2TQL                    | 8.3           | 6.3     | 6.3     | 8.3                                                                  | 6.7     | 7.0     | 9.0             | 5.3     | 1.7     | 7.7             | 6.0     | 6.7     | 7.1                |         |         | 7.1             |
| HAVEN (APR 2038)            | 7.0           | 7.3     | 6.7     | 8.3                                                                  | 7.3     | 7.3     | 9.0             | 4.7     | 2.7     | 8.0             | 6.0     | 6.3     | 7.0                |         |         | 7.0             |
| WICKED (SRX-4RHD)           | 7.7           | 8.0     | 7.0     | 8.3                                                                  | 7.7     | 7.0     | 9.0             | 6.3     | 3.3     | 7.7             | 6.7     | 6.3     | 7.0                |         |         | 7.0             |
| LINN                        | 5.0           | 5.3     | 6.0     | 6.7                                                                  | 8.0     | 7.0     | 7.7             | 7.0     | 3.0     | 8.3             | 7.7     | 8.0     | 6.9                |         |         | 6.9             |
| LSD VALUE                   | 0.9           | 2.4     | 2.0     | 2.4                                                                  | 4.5     | 2.9     | 0.5             | 4.4     | 1.8     | 2.2             | 4.3     | 3.0     | 2.2                |         |         | 2.2             |
| C.V. (%)                    | 7.0           | 11.4    | 9.2     | 6.5                                                                  | 11.6    | 8.0     | 2.8             | 19.0    | 23.0    | 7.7             | 16.2    | 11.7    | 5.6                |         |         | 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.  
 3/ THE OVERSEEDING RATE OF ALL ENTRIES WAS 400 LBS./ACRE.

TABLE 19. PERCENT GREEN COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
AT BLACKSBURG (DROUGHT STUDY), VA 2/ 3/ 4/  
2011 DATA

| NAME                   | IRRIGATION WITHHELD |      |      | IRRIGATION WITHHELD |      | IRRIGATION APPLIED |      |
|------------------------|---------------------|------|------|---------------------|------|--------------------|------|
|                        | 6_27                | 7_6  | 7_11 | 7_13                | 7_24 | 8_6                | 9_6  |
| IS-PR 489              | 84.3                | 48.0 | 34.0 | 29.3                | 10.0 | 48.3               | 81.3 |
| PST-2DR9               | 84.0                | 49.3 | 43.0 | 38.7                | 27.3 | 44.7               | 80.7 |
| SIDEWAYS (PSRX-S84)    | 85.3                | 48.3 | 39.0 | 32.0                | 17.7 | 50.7               | 80.0 |
| WICKED (SRX-4RHD)      | 81.7                | 39.0 | 30.3 | 28.0                | 18.3 | 54.0               | 78.0 |
| PPG-PR 121             | 84.3                | 39.3 | 27.0 | 21.3                | 8.3  | 44.3               | 76.7 |
| SRX-4MSH               | 80.3                | 38.0 | 29.7 | 26.7                | 17.0 | 36.7               | 76.7 |
| SR 4650 (PSRX-3701)    | 89.3                | 57.7 | 51.3 | 44.0                | 28.7 | 47.7               | 76.3 |
| DLF LGD-3022           | 81.7                | 36.3 | 25.3 | 21.0                | 9.3  | 55.7               | 75.7 |
| PST-2NKM               | 84.3                | 47.0 | 36.7 | 30.7                | 18.0 | 38.0               | 75.0 |
| PST-2BNS               | 86.3                | 44.7 | 33.3 | 30.7                | 18.7 | 56.3               | 74.3 |
| LTP-PR 135             | 85.3                | 40.0 | 26.3 | 21.7                | 5.3  | 50.7               | 73.0 |
| IS-PR 469              | 81.0                | 39.0 | 26.7 | 22.7                | 12.0 | 36.3               | 72.0 |
| BONNEVILLE             | 80.0                | 42.3 | 33.7 | 30.3                | 20.3 | 45.3               | 70.7 |
| PPG-PR 128             | 80.0                | 34.7 | 22.3 | 19.0                | 9.0  | 48.0               | 70.7 |
| IS-PR 488              | 87.0                | 52.3 | 44.7 | 39.0                | 25.3 | 50.7               | 70.0 |
| PLAYOFF 2 (P02)        | 78.0                | 41.3 | 34.3 | 30.3                | 18.3 | 42.3               | 70.0 |
| PPG-PR 134             | 84.3                | 44.3 | 34.0 | 31.3                | 20.0 | 56.0               | 70.0 |
| PST-2K9                | 84.3                | 48.3 | 45.0 | 41.7                | 35.0 | 49.7               | 70.0 |
| APR 2445               | 79.0                | 36.3 | 29.3 | 25.7                | 22.0 | 58.7               | 69.7 |
| IS-PR 491              | 84.7                | 48.3 | 37.7 | 33.0                | 19.7 | 37.0               | 69.7 |
| IS-PR 409              | 81.3                | 39.0 | 30.3 | 26.3                | 16.0 | 34.0               | 69.3 |
| PPG-PR 133             | 84.3                | 41.3 | 28.7 | 24.7                | 11.0 | 43.7               | 69.3 |
| IS-PR 463              | 82.3                | 36.7 | 30.0 | 26.7                | 14.0 | 38.7               | 69.0 |
| GO-PR60                | 76.0                | 34.0 | 27.3 | 24.0                | 19.3 | 39.0               | 68.7 |
| PSRX-4CAGL             | 79.0                | 37.0 | 24.7 | 21.3                | 8.7  | 30.3               | 68.3 |
| UNO                    | 82.3                | 43.0 | 37.0 | 32.0                | 21.0 | 47.3               | 68.3 |
| DLF LGD-3026           | 81.3                | 35.3 | 28.7 | 26.7                | 16.3 | 47.3               | 67.7 |
| PICK 4DFHM             | 78.3                | 38.0 | 29.0 | 25.3                | 15.0 | 45.3               | 67.7 |
| JR-178                 | 84.7                | 41.7 | 27.0 | 22.0                | 10.7 | 37.7               | 67.0 |
| IS-PR 492              | 85.0                | 43.3 | 27.0 | 22.3                | 8.7  | 33.3               | 66.7 |
| ISG-30                 | 74.3                | 32.3 | 25.0 | 20.0                | 11.0 | 36.0               | 66.3 |
| PST-2MG7               | 77.3                | 43.3 | 38.0 | 33.3                | 25.3 | 37.7               | 65.7 |
| PIZZAZZ 2 GLR (PR 909) | 80.0                | 33.0 | 22.0 | 20.0                | 7.0  | 51.3               | 65.0 |
| CL 11601               | 84.7                | 48.3 | 42.7 | 38.0                | 23.3 | 45.7               | 64.7 |
| PPG-PR 164             | 86.7                | 48.3 | 37.0 | 31.3                | 16.0 | 52.3               | 64.7 |
| DOMINATOR (PST-2AG4)   | 80.7                | 36.3 | 28.7 | 23.7                | 15.0 | 31.0               | 63.0 |
| EVOLUTION (S85)        | 76.0                | 32.3 | 27.0 | 24.7                | 20.7 | 48.3               | 61.3 |
| OCTANE                 | 85.3                | 43.7 | 36.0 | 33.3                | 18.0 | 44.3               | 61.0 |
| BAR LP 10969           | 84.7                | 49.7 | 42.7 | 39.7                | 25.0 | 42.7               | 60.7 |
| SOX FAN (GM3)          | 84.3                | 41.7 | 33.3 | 28.0                | 16.0 | 39.3               | 60.7 |
| PRX-4GM1               | 79.7                | 38.3 | 28.3 | 23.7                | 14.0 | 29.0               | 60.0 |
| RINOV0                 | 82.7                | 45.7 | 36.7 | 32.7                | 19.7 | 38.3               | 60.0 |
| PPG-PR 165             | 85.3                | 48.3 | 39.0 | 36.0                | 26.3 | 39.0               | 59.7 |
| JR-192                 | 82.3                | 42.3 | 29.3 | 22.3                | 9.7  | 42.7               | 59.3 |
| GO-DHS                 | 75.0                | 30.3 | 24.3 | 21.0                | 14.7 | 45.3               | 58.7 |
| BAR LP 10970           | 77.7                | 37.7 | 27.3 | 24.3                | 14.7 | 34.7               | 58.3 |
| ISG-31                 | 73.7                | 28.0 | 19.3 | 15.7                | 8.3  | 33.0               | 58.3 |
| LTP-RAE                | 82.7                | 42.7 | 33.0 | 28.3                | 18.7 | 42.0               | 58.0 |

Taken from the 2010 Perennial Ryegrass test-11 data, report with permission from NTEP  
 TABLE 19. PERCENT GREEN COVER RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 (CONT'D) AT BLACKSBURG (DROUGHT STUDY), VA 2/ 3/ 4/  
 2011 DATA

| NAME                        | IRRIGATION WITHHELD |      |      | IRRIGATION WITHHELD |      | IRRIGATION APPLIED |      |
|-----------------------------|---------------------|------|------|---------------------|------|--------------------|------|
|                             | 6_27                | 7_6  | 7_11 | 7_13                | 7_24 | 8_6                | 9_6  |
| PPG-PR 138                  | 75.3                | 31.3 | 21.3 | 19.3                | 13.0 | 30.3               | 57.7 |
| PST-2ACR                    | 74.7                | 27.3 | 20.0 | 18.0                | 7.7  | 36.3               | 57.7 |
| MACH I                      | 71.0                | 25.0 | 20.7 | 17.3                | 9.7  | 27.7               | 57.3 |
| PPG-PR 143                  | 79.3                | 36.0 | 24.7 | 21.7                | 9.0  | 38.0               | 56.7 |
| RAD-PR62                    | 80.0                | 41.0 | 34.3 | 28.0                | 17.7 | 39.7               | 56.7 |
| PST-204D                    | 81.0                | 44.7 | 35.3 | 30.7                | 18.0 | 44.0               | 56.0 |
| PALMER V                    | 83.0                | 39.3 | 31.0 | 29.3                | 22.3 | 38.3               | 55.3 |
| CL 307                      | 83.3                | 36.7 | 25.0 | 21.7                | 5.7  | 41.7               | 55.0 |
| CS-PR66                     | 79.0                | 32.3 | 20.3 | 15.7                | 6.7  | 28.3               | 55.0 |
| ISG-36                      | 78.7                | 33.0 | 26.0 | 22.3                | 13.0 | 32.7               | 54.3 |
| FIESTA 4                    | 74.0                | 19.0 | 10.0 | 8.0                 | 2.0  | 27.3               | 52.7 |
| IS-PR 479                   | 76.3                | 28.3 | 18.7 | 14.7                | 8.3  | 29.0               | 52.3 |
| GO-G37                      | 75.0                | 28.0 | 19.7 | 16.7                | 9.3  | 40.0               | 52.0 |
| PANGEA GLR (CL 11701)       | 79.0                | 39.7 | 33.7 | 29.7                | 19.0 | 40.3               | 52.0 |
| INSIGHT                     | 87.0                | 39.0 | 29.7 | 27.0                | 16.7 | 46.3               | 50.0 |
| RIO VISTA                   | 81.0                | 25.0 | 13.7 | 12.7                | 4.3  | 36.7               | 50.0 |
| APR 2036                    | 80.0                | 37.0 | 26.0 | 24.7                | 14.3 | 43.3               | 49.7 |
| IS-PR 487                   | 84.3                | 47.3 | 38.3 | 31.0                | 16.0 | 39.3               | 49.0 |
| PPG-PR 137                  | 78.0                | 30.0 | 21.0 | 18.0                | 4.7  | 39.0               | 48.7 |
| PPG-PR 140                  | 80.3                | 44.7 | 36.0 | 35.3                | 23.0 | 39.7               | 48.0 |
| ALLANTE                     | 79.3                | 27.0 | 19.0 | 17.3                | 10.0 | 37.0               | 47.3 |
| MANHATTAN 6 GLR (PST-2MAGS) | 75.0                | 23.7 | 19.7 | 16.7                | 9.7  | 38.3               | 47.0 |
| SIENNA                      | 89.3                | 56.3 | 49.0 | 47.0                | 37.0 | 46.7               | 46.7 |
| CST                         | 77.7                | 23.0 | 11.3 | 9.3                 | 2.7  | 19.0               | 45.0 |
| PST-2TQL                    | 76.7                | 36.3 | 29.7 | 25.7                | 18.0 | 33.0               | 44.7 |
| CS-20                       | 77.7                | 31.7 | 22.0 | 18.3                | 10.3 | 36.0               | 43.7 |
| LINN                        | 80.7                | 28.3 | 21.0 | 20.0                | 8.3  | 46.3               | 43.7 |
| 2NJK                        | 75.3                | 43.0 | 39.0 | 38.0                | 35.0 | 44.7               | 43.3 |
| BRIGHTSTAR SLT              | 82.0                | 40.0 | 29.7 | 27.0                | 21.0 | 34.3               | 43.3 |
| BAR LP 10972                | 82.0                | 43.7 | 38.7 | 35.3                | 22.3 | 32.0               | 43.0 |
| HAVEN (APR 2038)            | 83.3                | 41.0 | 32.0 | 26.3                | 11.7 | 28.7               | 41.7 |
| PPG-PR 136                  | 77.0                | 26.0 | 15.0 | 13.3                | 6.3  | 23.3               | 41.0 |
| APR 2320                    | 78.3                | 33.7 | 28.0 | 25.3                | 14.3 | 32.7               | 40.3 |
| A-35                        | 74.7                | 24.3 | 17.0 | 13.3                | 7.3  | 29.3               | 38.7 |
| PINNACLE                    | 88.0                | 53.7 | 38.0 | 31.3                | 18.7 | 41.7               | 38.7 |
| BAR LP 7608                 | 77.7                | 25.3 | 18.3 | 16.3                | 6.0  | 57.7               | 37.3 |
| DLF LGT 4182                | 73.3                | 32.0 | 29.0 | 26.0                | 19.7 | 38.7               | 37.0 |
| PPG-PR 142                  | 79.3                | 33.7 | 22.7 | 19.3                | 11.3 | 20.0               | 33.3 |
| KARMA (PICK 10401)          | 77.3                | 20.3 | 14.7 | 12.0                | 1.0  | 13.7               | 23.3 |
| RAD-PR55R                   | 73.7                | 26.3 | 21.0 | 18.0                | 10.0 | 18.7               | 23.3 |
| LSD VALUE                   | 10.2                | 27.6 | 36.3 | 34.5                | 33.6 | 59.5               | 58.7 |
| C.V. (%)                    | 6.2                 | 30.1 | 43.0 | 46.3                | 74.2 | 38.3               | 33.7 |

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).
- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.
- 3/ DROUGHT WAS IMPOSED USING MOVEABLE RAINOUT SHELTERS TO RESTRICT RAINFALL AND ALSO BY WITHHOLDING IRRIGATION.
- 4/ DATA WAS COLLECTED USING A DIGITAL CAMERA WITH LIGHT BOX AND IMAGES WERE ANALYZED USING SIGMASCAN SOFTWARE.

2011 DATA

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

| NAME                        | IA1 | IL1 | MA1 | MN1 | MO1 | NE1 | NJ2 | OR1 | MEAN |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|
| A-35                        | 8.3 | 7.7 | 8.0 | 9.0 | 9.0 | 7.3 | 9.0 | 8.0 | 8.3  |
| ISG-36                      | 8.0 | 7.7 | 8.7 | 8.7 | 8.3 | 8.0 | 8.3 | 7.7 | 8.2  |
| CS-20                       | 8.3 | 7.3 | 7.3 | 8.0 | 8.3 | 7.7 | 9.0 | 8.0 | 8.0  |
| ISG-30                      | 7.7 | 7.3 | 7.7 | 8.7 | 7.7 | 8.0 | 8.7 | 7.3 | 7.9  |
| ISG-31                      | 8.0 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 8.3 | 7.7 | 7.6  |
| GO-G37                      | 8.0 | 7.3 | 7.3 | 8.3 | 6.3 | 7.3 | 8.7 | 7.0 | 7.5  |
| GO-DHS                      | 7.0 | 7.0 | 7.3 | 8.3 | 6.0 | 7.7 | 8.7 | 7.3 | 7.4  |
| RAD-PR55R                   | 7.3 | 6.3 | 7.3 | 8.0 | 6.3 | 7.7 | 8.7 | 6.7 | 7.3  |
| PSRX-4CAGL                  | 7.0 | 7.0 | 7.0 | 7.7 | 6.7 | 7.0 | 8.0 | 7.7 | 7.3  |
| GO-PR60                     | 7.3 | 7.0 | 7.0 | 7.0 | 5.7 | 7.0 | 8.3 | 7.7 | 7.1  |
| IS-PR 479                   | 8.0 | 7.0 | 6.3 | 6.3 | 7.3 | 7.0 | 8.0 | 7.0 | 7.1  |
| MACH I                      | 7.3 | 7.0 | 7.3 | 6.7 | 6.7 | 7.0 | 7.7 | 7.0 | 7.1  |
| CS-PR66                     | 7.3 | 6.0 | 6.7 | 6.7 | 7.0 | 7.3 | 7.7 | 7.3 | 7.0  |
| DLF LGD-3026                | 6.7 | 6.3 | 7.7 | 6.7 | 6.0 | 7.0 | 8.0 | 7.3 | 7.0  |
| IS-PR 491                   | 7.0 | 6.3 | 6.3 | 6.3 | 7.3 | 7.0 | 7.7 | 7.7 | 7.0  |
| DLF LGT 4182                | 6.7 | 7.0 | 7.0 | 6.7 | 5.7 | 7.0 | 8.0 | 7.0 | 6.9  |
| IS-PR 469                   | 7.0 | 6.3 | 6.0 | 6.7 | 7.0 | 7.0 | 7.7 | 7.3 | 6.9  |
| MANHATTAN 6 GLR (PST-2MAGS) | 6.3 | 6.7 | 6.3 | 7.0 | 7.0 | 7.0 | 7.7 | 7.0 | 6.9  |
| APR 2320                    | 7.7 | 6.0 | 6.3 | 7.3 | 6.0 | 7.0 | 6.7 | 7.7 | 6.8  |
| PANGEA GLR (CL 11701)       | 6.3 | 6.3 | 5.7 | 6.7 | 6.0 | 7.3 | 8.7 | 7.0 | 6.8  |
| IS-PR 492                   | 6.3 | 6.7 | 7.0 | 6.0 | 6.3 | 7.0 | 7.0 | 7.3 | 6.7  |
| FIESTA 4                    | 6.3 | 7.0 | 6.3 | 6.7 | 5.7 | 7.0 | 8.0 | 6.7 | 6.7  |
| IS-PR 409                   | 6.0 | 6.3 | 6.3 | 6.3 | 6.3 | 7.0 | 7.7 | 7.7 | 6.7  |
| APR 2445                    | 7.0 | 6.0 | 6.0 | 6.3 | 6.3 | 7.0 | 7.3 | 7.3 | 6.7  |
| PPG-PR 138                  | 7.3 | 6.3 | 6.0 | 7.0 | 5.7 | 7.0 | 7.0 | 7.0 | 6.7  |
| APR 2036                    | 6.7 | 6.3 | 6.0 | 6.0 | 6.7 | 7.0 | 7.0 | 7.3 | 6.6  |
| RINOVO                      | 6.7 | 6.0 | 6.0 | 7.0 | 5.7 | 7.0 | 7.0 | 7.7 | 6.6  |
| IS-PR 463                   | 6.3 | 6.3 | 6.0 | 6.0 | 6.7 | 7.0 | 7.7 | 7.0 | 6.6  |
| EVOLUTION (S85)             | 6.0 | 6.7 | 6.3 | 6.3 | 6.0 | 7.3 | 7.0 | 7.0 | 6.6  |
| OCTANE                      | 7.0 | 6.3 | 5.7 | 6.3 | 6.3 | 7.0 | 6.3 | 7.0 | 6.5  |
| PPG-PR 136                  | 6.3 | 6.3 | 6.3 | 6.7 | 4.3 | 7.3 | 7.3 | 7.0 | 6.5  |
| PPG-PR 137                  | 6.3 | 6.3 | 6.0 | 6.3 | 6.3 | 7.0 | 6.3 | 7.0 | 6.5  |
| PST-2MG7                    | 6.0 | 6.0 | 6.3 | 6.3 | 5.3 | 7.0 | 7.7 | 7.0 | 6.5  |
| DOMINATOR (PST-2AG4)        | 6.0 | 6.7 | 6.0 | 5.3 | 5.7 | 7.0 | 7.3 | 7.3 | 6.4  |
| PST-2ACR                    | 6.3 | 6.7 | 6.3 | 6.0 | 5.3 | 7.0 | 7.3 | 6.3 | 6.4  |
| RAD-PR62                    | 6.7 | 6.0 | 6.0 | 5.7 | 6.3 | 7.0 | 7.0 | 6.7 | 6.4  |
| PPG-PR 164                  | 6.3 | 6.0 | 5.7 | 6.3 | 6.0 | 7.0 | 7.0 | 7.0 | 6.4  |
| JR-178                      | 6.7 | 6.3 | 5.7 | 5.7 | 6.3 | 7.0 | 6.3 | 7.0 | 6.4  |
| PIZZAZZ 2 GLR (PR 909)      | 6.0 | 6.0 | 5.7 | 6.0 | 5.7 | 7.0 | 7.3 | 7.3 | 6.4  |
| BAR LP 10972                | 6.3 | 5.7 | 5.7 | 6.0 | 6.3 | 7.0 | 7.0 | 7.0 | 6.4  |
| LTP-RAE                     | 6.7 | 6.0 | 6.0 | 6.7 | 5.0 | 7.0 | 7.0 | 6.7 | 6.4  |
| IS-PR 488                   | 6.7 | 6.0 | 6.3 | 5.3 | 6.0 | 7.0 | 6.3 | 7.0 | 6.3  |
| IS-PR 489                   | 6.3 | 6.0 | 6.0 | 5.3 | 5.0 | 7.0 | 7.7 | 7.3 | 6.3  |
| PPG-PR 121                  | 6.0 | 6.0 | 5.7 | 5.7 | 6.0 | 7.0 | 6.7 | 7.7 | 6.3  |
| SOX FAN (GM3)               | 6.7 | 6.3 | 6.3 | 6.0 | 5.0 | 7.0 | 6.3 | 7.0 | 6.3  |

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

| NAME                | IA1 | IL1 | MA1 | MN1  | MO1  | NE1 | NJ2  | OR1 | MEAN |
|---------------------|-----|-----|-----|------|------|-----|------|-----|------|
| WICKED (SRX-4RHD)   | 6.3 | 6.0 | 5.3 | 5.3  | 6.3  | 7.0 | 6.7  | 7.7 | 6.3  |
| PST-2TQL            | 6.7 | 6.3 | 5.7 | 5.7  | 5.3  | 7.0 | 6.7  | 7.0 | 6.3  |
| RIO VISTA           | 6.3 | 6.3 | 6.0 | 6.3  | 3.7  | 7.0 | 7.3  | 7.3 | 6.3  |
| SR 4650 (PSRX-3701) | 6.0 | 6.0 | 5.7 | 6.3  | 5.7  | 7.0 | 7.0  | 6.7 | 6.3  |
| PALMER V            | 6.0 | 6.0 | 6.3 | 5.3  | 6.0  | 7.0 | 6.7  | 7.0 | 6.3  |
| BAR LP 10970        | 7.0 | 5.7 | 6.0 | 6.0  | 5.3  | 7.0 | 6.3  | 6.7 | 6.3  |
| CL 307              | 6.0 | 5.7 | 6.7 | 6.0  | 4.7  | 7.3 | 6.7  | 7.0 | 6.3  |
| CST                 | 6.3 | 6.3 | 6.0 | 6.7  | 6.3  | 7.0 | 5.0  | 6.3 | 6.3  |
| LTP-PR 135          | 6.7 | 6.0 | 5.3 | 5.3  | 6.7  | 7.0 | 5.7  | 7.0 | 6.2  |
| KARMA (PICK 10401)  | 6.7 | 6.3 | 5.3 | 6.0  | 5.3  | 7.0 | 6.3  | 6.7 | 6.2  |
| PPG-PR 134          | 6.3 | 6.3 | 6.0 | 5.3  | 5.3  | 7.0 | 6.3  | 7.0 | 6.2  |
| PPG-PR 143          | 7.0 | 6.0 | 5.7 | 6.0  | 5.3  | 7.0 | 6.0  | 6.7 | 6.2  |
| PRX-4GM1            | 6.3 | 6.3 | 6.0 | 5.0  | 5.7  | 7.0 | 6.3  | 7.0 | 6.2  |
| SRX-4MSH            | 6.7 | 6.3 | 6.3 | 5.0  | 6.0  | 7.0 | 5.3  | 7.0 | 6.2  |
| DLF LGD-3022        | 6.3 | 5.7 | 6.7 | 6.0  | 5.3  | 7.0 | 5.3  | 7.0 | 6.2  |
| PPG-PR 165          | 6.0 | 6.0 | 6.0 | 5.7  | 5.0  | 7.0 | 6.7  | 7.0 | 6.2  |
| SIENNA              | 7.0 | 6.3 | 5.3 | 5.0  | 5.7  | 6.7 | 6.0  | 7.3 | 6.2  |
| UNO                 | 6.3 | 6.0 | 6.0 | 4.7  | 6.0  | 7.0 | 6.3  | 7.0 | 6.2  |
| PST-2K9             | 6.0 | 6.3 | 6.0 | 5.7  | 5.3  | 7.0 | 6.3  | 6.7 | 6.2  |
| PST-204D            | 6.3 | 6.0 | 5.3 | 5.7  | 5.0  | 7.0 | 7.0  | 6.7 | 6.1  |
| BONNEVILLE          | 6.0 | 6.0 | 6.0 | 5.0  | 5.7  | 7.0 | 6.0  | 7.0 | 6.1  |
| JR-192              | 6.7 | 6.0 | 5.7 | 5.3  | 6.0  | 7.0 | 5.3  | 6.7 | 6.1  |
| PPG-PR 133          | 6.0 | 6.0 | 5.7 | 5.0  | 5.7  | 7.0 | 6.3  | 7.0 | 6.1  |
| PPG-PR 128          | 6.0 | 6.3 | 6.0 | 4.7  | 6.0  | 7.0 | 5.0  | 7.7 | 6.1  |
| PICK 4DFHM          | 6.0 | 6.3 | 6.0 | 5.3  | 6.0  | 7.0 | 5.0  | 6.7 | 6.0  |
| PPG-PR 140          | 6.7 | 6.3 | 5.7 | 5.7  | 5.7  | 7.0 | 4.7  | 6.7 | 6.0  |
| PPG-PR 142          | 6.0 | 6.0 | 6.0 | 5.3  | 6.0  | 7.0 | 5.3  | 6.7 | 6.0  |
| PST-2BNS            | 6.3 | 6.3 | 5.3 | 5.0  | 6.3  | 7.0 | 4.7  | 7.3 | 6.0  |
| PST-2DR9            | 6.0 | 6.0 | 6.3 | 5.0  | 5.0  | 7.0 | 6.0  | 7.0 | 6.0  |
| PST-2NKM            | 6.3 | 6.0 | 5.7 | 5.3  | 5.3  | 7.0 | 5.7  | 7.0 | 6.0  |
| 2NJK                | 6.0 | 6.0 | 5.3 | 5.7  | 5.0  | 7.0 | 5.7  | 7.0 | 6.0  |
| IS-PR 487           | 6.0 | 6.0 | 5.3 | 5.0  | 5.3  | 7.0 | 5.7  | 7.3 | 6.0  |
| PLAYOFF 2 (P02)     | 6.0 | 6.3 | 5.7 | 4.7  | 4.7  | 7.0 | 6.0  | 7.0 | 5.9  |
| CL 11601            | 6.3 | 6.0 | 5.0 | 5.0  | 5.0  | 7.0 | 6.0  | 7.0 | 5.9  |
| SIDEWAYS (PSRX-S84) | 6.0 | 6.0 | 5.3 | 4.7  | 5.3  | 7.0 | 6.3  | 6.7 | 5.9  |
| BAR LP 10969        | 6.3 | 5.7 | 5.3 | 4.7  | 5.7  | 7.0 | 5.0  | 6.3 | 5.8  |
| HAVEN (APR 2038)    | 6.0 | 5.7 | 5.7 | 4.3  | 4.7  | 7.0 | 5.0  | 7.0 | 5.7  |
| INSIGHT             | 6.3 | 5.7 | 5.3 | 4.0  | 5.0  | 6.7 | 5.7  | 6.3 | 5.6  |
| ALLANTE             | 6.0 | 6.3 | 5.0 | 4.3  | 5.0  | 6.7 | 5.0  | 6.3 | 5.6  |
| BAR LP 7608         | 6.0 | 5.0 | 5.0 | 4.0  | 5.7  | 6.7 | 4.0  | 6.3 | 5.3  |
| BRIGHTSTAR SLT      | 6.0 | 5.3 | 5.0 | 4.0  | 4.0  | 6.7 | 4.7  | 6.7 | 5.3  |
| PINNACLE            | 5.3 | 4.3 | 4.0 | 2.0  | 3.0  | 5.7 | 1.0  | 5.7 | 3.9  |
| LINN                | 5.0 | 3.0 | 3.0 | 1.0  | 2.3  | 5.0 | 1.0  | 6.0 | 3.3  |
| LSD VALUE           | 0.9 | 0.7 | 0.8 | 1.2  | 1.4  | 0.4 | 1.3  | 0.8 | 0.3  |
| C.V. (%)            | 8.2 | 7.1 | 8.6 | 12.4 | 14.8 | 3.6 | 12.2 | 6.8 | 9.5  |

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  
Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP

SPRING GREENUP RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
2011 DATA

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

| NAME                   | IL1 | MD1 | NE1 | MEAN | NAME                        | IL1  | MD1 | NE1  | MEAN |
|------------------------|-----|-----|-----|------|-----------------------------|------|-----|------|------|
| CL 11601               | 7.3 | 7.3 | 4.7 | 6.4  | APR 2445                    | 4.7  | 7.0 | 5.3  | 5.7  |
| CS-20                  | 6.0 | 7.0 | 6.0 | 6.3  | IS-PR 463                   | 5.3  | 6.7 | 5.0  | 5.7  |
| RINOVO                 | 6.0 | 7.7 | 5.3 | 6.3  | ISG-30                      | 5.3  | 7.3 | 4.3  | 5.7  |
| A-35                   | 5.7 | 7.3 | 5.7 | 6.2  | PLAYOFF 2 (P02)             | 5.3  | 7.0 | 4.7  | 5.7  |
| ISG-36                 | 6.7 | 7.0 | 5.0 | 6.2  | PPG-PR 137                  | 4.3  | 7.3 | 5.3  | 5.7  |
| LTP-RAE                | 5.7 | 7.0 | 6.0 | 6.2  | PRX-4GM1                    | 4.7  | 6.7 | 5.7  | 5.7  |
| PIZZAZZ 2 GLR (PR 909) | 5.7 | 7.7 | 5.3 | 6.2  | PST-2BNS                    | 5.3  | 7.0 | 4.7  | 5.7  |
| WICKED (SRX-4RHD)      | 5.7 | 7.3 | 5.7 | 6.2  | RAD-PR62                    | 5.0  | 7.0 | 5.0  | 5.7  |
| PANGEA GLR (CL 11701)  | 6.0 | 7.3 | 5.3 | 6.2  | UNO                         | 4.7  | 7.3 | 5.0  | 5.7  |
| SRX-4MSH               | 5.7 | 6.7 | 6.0 | 6.1  | BAR LP 10970                | 5.0  | 7.0 | 4.7  | 5.6  |
| DLF LGD-3022           | 6.0 | 7.0 | 5.3 | 6.1  | BAR LP 10972                | 4.7  | 6.3 | 5.7  | 5.6  |
| DLF LGT 4182           | 5.3 | 7.3 | 5.7 | 6.1  | GO-G37                      | 5.0  | 7.0 | 4.7  | 5.6  |
| GO-PR60                | 5.7 | 7.3 | 5.3 | 6.1  | PPG-PR 128                  | 4.7  | 7.3 | 4.7  | 5.6  |
| IS-PR 479              | 5.0 | 7.3 | 6.0 | 6.1  | PPG-PR 138                  | 4.7  | 7.0 | 5.0  | 5.6  |
| IS-PR 489              | 6.0 | 7.3 | 5.0 | 6.1  | PST-2MG7                    | 5.0  | 6.7 | 5.0  | 5.6  |
| JR-178                 | 5.3 | 7.7 | 5.3 | 6.1  | SIDEWAYS (PSRX-S84)         | 4.3  | 7.7 | 4.7  | 5.6  |
| CST                    | 5.0 | 7.3 | 5.7 | 6.0  | SR 4650 (PSRX-3701)         | 5.3  | 6.7 | 4.7  | 5.6  |
| IS-PR 469              | 5.0 | 6.7 | 6.3 | 6.0  | INSIGHT                     | 5.7  | 6.0 | 4.7  | 5.4  |
| IS-PR 492              | 6.0 | 7.3 | 4.7 | 6.0  | JR-192                      | 4.7  | 7.0 | 4.7  | 5.4  |
| OCTANE                 | 5.0 | 8.0 | 5.0 | 6.0  | PICK 4DFHM                  | 4.7  | 6.7 | 5.0  | 5.4  |
| PPG-PR 133             | 6.0 | 7.3 | 4.7 | 6.0  | PPG-PR 165                  | 4.7  | 7.0 | 4.7  | 5.4  |
| PPG-PR 143             | 5.3 | 8.0 | 4.7 | 6.0  | PST-2DR9                    | 4.7  | 7.0 | 4.7  | 5.4  |
| PST-2ACR               | 6.3 | 7.0 | 4.7 | 6.0  | BAR LP 7608                 | 4.3  | 7.0 | 5.0  | 5.4  |
| RAD-PR55R              | 5.3 | 7.7 | 5.0 | 6.0  | ISG-31                      | 5.7  | 6.3 | 4.3  | 5.4  |
| RIO VISTA              | 5.0 | 8.0 | 5.0 | 6.0  | PPG-PR 121                  | 4.0  | 7.0 | 5.3  | 5.4  |
| SOX FAN (GM3)          | 5.7 | 7.3 | 5.0 | 6.0  | PPG-PR 142                  | 4.3  | 7.0 | 5.0  | 5.4  |
| APR 2320               | 5.3 | 6.7 | 5.7 | 5.9  | ALLANTE                     | 5.0  | 6.7 | 4.3  | 5.3  |
| IS-PR 409              | 5.0 | 7.0 | 5.7 | 5.9  | CL 307                      | 5.3  | 6.7 | 4.0  | 5.3  |
| MACH I                 | 5.3 | 7.7 | 4.7 | 5.9  | DLF LGD-3026                | 4.0  | 7.0 | 5.0  | 5.3  |
| PPG-PR 140             | 5.7 | 7.3 | 4.7 | 5.9  | IS-PR 491                   | 4.7  | 7.0 | 4.3  | 5.3  |
| PPG-PR 164             | 6.3 | 6.7 | 4.7 | 5.9  | LINN                        | 7.3  | 5.3 | 3.3  | 5.3  |
| PSRX-4CAGL             | 4.7 | 7.3 | 5.7 | 5.9  | MANHATTAN 6 GLR (PST-2MAGS) | 5.0  | 6.7 | 4.3  | 5.3  |
| FIESTA 4               | 5.0 | 7.3 | 5.3 | 5.9  | BRIGHTSTAR SLT              | 4.7  | 6.3 | 4.7  | 5.2  |
| HAVEN (APR 2038)       | 5.3 | 7.0 | 5.3 | 5.9  | DOMINATOR (PST-2AG4)        | 5.0  | 7.0 | 3.7  | 5.2  |
| IS-PR 488              | 6.0 | 7.3 | 4.3 | 5.9  | KARMA (PICK 10401)          | 4.3  | 6.7 | 4.7  | 5.2  |
| PPG-PR 136             | 5.3 | 7.0 | 5.3 | 5.9  | BAR LP 10969                | 4.0  | 6.7 | 4.7  | 5.1  |
| BONNEVILLE             | 4.7 | 7.0 | 5.7 | 5.8  | GO-DHS                      | 4.0  | 6.7 | 4.7  | 5.1  |
| SIENNA                 | 5.7 | 7.0 | 4.7 | 5.8  | PST-204D                    | 5.0  | 6.7 | 3.7  | 5.1  |
| 2NJK                   | 5.0 | 7.0 | 5.3 | 5.8  | PST-2K9                     | 4.3  | 6.7 | 4.3  | 5.1  |
| CS-PR66                | 5.3 | 7.0 | 5.0 | 5.8  | PALMER V                    | 4.3  | 6.7 | 4.0  | 5.0  |
| IS-PR 487              | 5.3 | 6.7 | 5.3 | 5.8  | PST-2NKM                    | 4.0  | 6.3 | 4.7  | 5.0  |
| LTP-PR 135             | 4.3 | 7.0 | 6.0 | 5.8  | PST-2TQL                    | 5.0  | 6.0 | 3.7  | 4.9  |
| PPG-PR 134             | 5.3 | 6.7 | 5.3 | 5.8  | PINNACLE                    | 4.0  | 5.3 | 4.0  | 4.4  |
| EVOLUTION (S85)        | 5.3 | 7.3 | 4.7 | 5.8  |                             |      |     |      |      |
| APR 2036               | 4.3 | 7.0 | 5.7 | 5.7  | LSD VALUE                   | 1.6  | 0.9 | 1.7  | 0.8  |
|                        |     |     |     |      | C.V. (%)                    | 18.8 | 8.0 | 21.0 | 15.5 |

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

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

TABLE 22 WEAR TOLERANCE RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 2011 DATA

WEAR TOLERANCE RATINGS 1-9; 9=MAXIMUM TOLERANCE 2/

| NAME                   | MA1 | NAME                        | MA1  |
|------------------------|-----|-----------------------------|------|
| DOMINATOR (PST-2AG4)   | 6.3 | ISG-36                      | 5.0  |
| 2NJK                   | 6.0 | JR-178                      | 5.0  |
| APR 2036               | 6.0 | PICK 4DFHM                  | 5.0  |
| BAR LP 10970           | 6.0 | PPG-PR 128                  | 5.0  |
| DLF LGD-3022           | 6.0 | PPG-PR 133                  | 5.0  |
| GO-PR60                | 6.0 | PPG-PR 136                  | 5.0  |
| IS-PR 479              | 6.0 | PPG-PR 137                  | 5.0  |
| JR-192                 | 6.0 | PPG-PR 142                  | 5.0  |
| ALLANTE                | 5.7 | PST-2BNS                    | 5.0  |
| BAR LP 10969           | 5.7 | RINOVO                      | 5.0  |
| BAR LP 10972           | 5.7 | SOX FAN (GM3)               | 5.0  |
| BRIGHTSTAR SLT         | 5.7 | UNO                         | 5.0  |
| CS-20                  | 5.7 | APR 2445                    | 4.7  |
| GO-G37                 | 5.7 | CS-PR66                     | 4.7  |
| IS-PR 491              | 5.7 | DLF LGD-3026                | 4.7  |
| MACH I                 | 5.7 | DLF LGT 4182                | 4.7  |
| PPG-PR 165             | 5.7 | HAVEN (APR 2038)            | 4.7  |
| PSRX-4CAGL             | 5.7 | INSIGHT                     | 4.7  |
| PST-2MG7               | 5.7 | LTP-RAE                     | 4.7  |
| APR 2320               | 5.3 | PINNACLE                    | 4.7  |
| IS-PR 463              | 5.3 | PPG-PR 140                  | 4.7  |
| IS-PR 488              | 5.3 | PPG-PR 143                  | 4.7  |
| IS-PR 492              | 5.3 | MANHATTAN 6 GLR (PST-2MAGS) | 4.7  |
| ISG-31                 | 5.3 | RAD-PR55R                   | 4.7  |
| LTP-PR 135             | 5.3 | EVOLUTION (S85)             | 4.7  |
| OCTANE                 | 5.3 | SIENNA                      | 4.7  |
| PLAYOFF 2 (P02)        | 5.3 | WICKED (SRX-4RHD)           | 4.7  |
| PALMER V               | 5.3 | GO-DHS                      | 4.3  |
| PIZZAZZ 2 GLR (PR 909) | 5.3 | IS-PR 469                   | 4.3  |
| PPG-PR 121             | 5.3 | IS-PR 489                   | 4.3  |
| PPG-PR 138             | 5.3 | PANGEA GLR (CL 11701)       | 4.3  |
| PRX-4GM1               | 5.3 | PST-2NKM                    | 4.3  |
| PST-204D               | 5.3 | PST-2TQL                    | 4.3  |
| PST-2ACR               | 5.3 | RIO VISTA                   | 4.3  |
| PST-2DR9               | 5.3 | SR 4650 (PSRX-3701)         | 4.3  |
| PST-2K9                | 5.3 | SRX-4MSH                    | 4.3  |
| RAD-PR62               | 5.3 | A-35                        | 4.0  |
| SIDEWAYS (PSRX-S84)    | 5.3 | BONNEVILLE                  | 4.0  |
| BAR LP 7608            | 5.0 | CL 307                      | 4.0  |
| CL 11601               | 5.0 | KARMA (PICK 10401)          | 4.0  |
| CST                    | 5.0 | PPG-PR 134                  | 4.0  |
| FIESTA 4               | 5.0 | PPG-PR 164                  | 4.0  |
| IS-PR 409              | 5.0 | LINN                        | 3.7  |
| IS-PR 487              | 5.0 |                             |      |
| ISG-30                 | 5.0 |                             |      |
|                        |     | LSD VALUE                   | 1.0  |
|                        |     | C.V. (%)                    | 12.3 |

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

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

| SEEDLING VIGOR RATINGS 1-9; 9=MAXIMUM VIGOR 2/ |     |     |     |     |      |
|------------------------------------------------|-----|-----|-----|-----|------|
| NAME                                           | CA3 | MN1 | MO1 | OR1 | MEAN |
| PALMER V                                       | 7.0 | 7.7 | 6.7 | 7.0 | 7.1  |
| LINN                                           | 8.0 | 7.7 | 5.7 | 6.7 | 7.0  |
| SOX FAN (GM3)                                  | 7.0 | 7.7 | 6.7 | 6.7 | 7.0  |
| JR-192                                         | 6.7 | 7.3 | 6.7 | 7.0 | 6.9  |
| CL 11601                                       | 6.7 | 7.3 | 6.7 | 6.7 | 6.8  |
| ISG-31                                         | 6.7 | 6.7 | 7.0 | 7.0 | 6.8  |
| PPG-PR 138                                     | 6.7 | 7.3 | 6.7 | 6.7 | 6.8  |
| SIENNA                                         | 6.0 | 8.0 | 6.7 | 6.7 | 6.8  |
| DOMINATOR (PST-2AG4)                           | 7.0 | 6.3 | 7.0 | 7.0 | 6.8  |
| JR-178                                         | 7.0 | 7.0 | 6.3 | 7.0 | 6.8  |
| LTP-PR 135                                     | 6.3 | 7.7 | 6.3 | 7.0 | 6.8  |
| IS-PR 492                                      | 6.5 | 6.7 | 7.0 | 7.0 | 6.8  |
| ALLANTE                                        | 6.3 | 8.3 | 5.7 | 6.7 | 6.8  |
| 2NJK                                           | 6.3 | 7.0 | 6.7 | 7.0 | 6.8  |
| BRIGHTSTAR SLT                                 | 6.7 | 7.3 | 6.3 | 6.7 | 6.8  |
| DLF LGD-3022                                   | 6.7 | 7.3 | 6.3 | 6.7 | 6.8  |
| HAVEN (APR 2038)                               | 6.7 | 6.7 | 6.7 | 7.0 | 6.8  |
| OCTANE                                         | 5.3 | 7.7 | 7.0 | 7.0 | 6.8  |
| PANGEA GLR (CL 11701)                          | 6.3 | 7.7 | 6.7 | 6.3 | 6.8  |
| KARMA (PICK 10401)                             | 6.3 | 7.0 | 7.0 | 6.7 | 6.8  |
| PPG-PR 121                                     | 6.3 | 8.0 | 5.7 | 7.0 | 6.8  |
| PPG-PR 128                                     | 6.3 | 7.3 | 6.3 | 7.0 | 6.8  |
| PPG-PR 133                                     | 6.0 | 7.3 | 6.7 | 7.0 | 6.8  |
| PPG-PR 134                                     | 6.3 | 6.7 | 7.3 | 6.7 | 6.8  |
| PPG-PR 164                                     | 6.3 | 7.3 | 6.3 | 7.0 | 6.8  |
| RINOVO                                         | 6.3 | 7.3 | 6.3 | 7.0 | 6.8  |
| CL 307                                         | 6.0 | 7.3 | 7.3 | 6.3 | 6.8  |
| IS-PR 463                                      | 7.0 | 7.0 | 6.0 | 6.7 | 6.7  |
| INSIGHT                                        | 6.3 | 8.0 | 6.0 | 6.3 | 6.7  |
| PST-2DR9                                       | 6.7 | 7.0 | 6.0 | 6.7 | 6.6  |
| SIDEWAYS (PSRX-S84)                            | 6.0 | 6.7 | 7.0 | 6.7 | 6.6  |
| IS-PR 489                                      | 6.0 | 7.3 | 6.0 | 7.0 | 6.6  |
| PST-2NKM                                       | 6.0 | 7.3 | 6.0 | 7.0 | 6.6  |
| SR 4650 (PSRX-3701)                            | 6.3 | 7.0 | 6.3 | 6.7 | 6.6  |
| BAR LP 10969                                   | 6.7 | 6.7 | 6.0 | 6.7 | 6.5  |
| CS-20                                          | 6.7 | 6.0 | 6.7 | 6.7 | 6.5  |
| BAR LP 7608                                    | 6.3 | 7.0 | 5.7 | 7.0 | 6.5  |
| ISG-36                                         | 7.0 | 6.3 | 6.0 | 6.7 | 6.5  |
| PPG-PR 140                                     | 6.3 | 7.0 | 6.0 | 6.7 | 6.5  |
| PRX-4GM1                                       | 6.0 | 7.0 | 6.3 | 6.7 | 6.5  |
| PST-2ACR                                       | 6.3 | 7.0 | 6.0 | 6.7 | 6.5  |
| CST                                            | 6.7 | 6.7 | 6.0 | 6.3 | 6.4  |
| DLF LGD-3026                                   | 6.3 | 6.7 | 5.7 | 7.0 | 6.4  |
| GO-PR60                                        | 6.0 | 7.7 | 5.7 | 6.3 | 6.4  |
| PINNACLE                                       | 5.3 | 7.7 | 6.0 | 6.7 | 6.4  |

TABLE 23. SEEDLING VIGOR RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test 1 data report with permission from NTEP  
 (CONT'D) 2011 DATA

| SEEDLING VIGOR RATINGS 1-9; 9=MAXIMUM VIGOR 2/ |      |     |      |     |      |
|------------------------------------------------|------|-----|------|-----|------|
| NAME                                           | CA3  | MN1 | MO1  | OR1 | MEAN |
| PPG-PR 136                                     | 6.3  | 6.7 | 5.7  | 7.0 | 6.4  |
| PSRX-4CAGL                                     | 6.0  | 7.0 | 6.0  | 6.7 | 6.4  |
| MANHATTAN 6 GLR (PST-2MAGS)                    | 6.3  | 6.7 | 6.0  | 6.7 | 6.4  |
| PST-2TQL                                       | 6.0  | 6.3 | 6.7  | 6.7 | 6.4  |
| EVOLUTION (S85)                                | 6.0  | 6.7 | 6.3  | 6.7 | 6.4  |
| WICKED (SRX-4RHD)                              | 5.7  | 7.0 | 6.0  | 7.0 | 6.4  |
| APR 2445                                       | 6.3  | 6.3 | 6.7  | 6.3 | 6.4  |
| PPG-PR 137                                     | 6.3  | 7.3 | 5.7  | 6.3 | 6.4  |
| PPG-PR 143                                     | 6.0  | 7.3 | 6.0  | 6.3 | 6.4  |
| GO-G37                                         | 6.7  | 6.0 | 5.7  | 7.0 | 6.3  |
| PPG-PR 142                                     | 6.0  | 6.7 | 6.7  | 6.0 | 6.3  |
| PST-204D                                       | 6.7  | 6.7 | 5.3  | 6.7 | 6.3  |
| APR 2036                                       | 6.0  | 6.3 | 6.7  | 6.3 | 6.3  |
| BAR LP 10970                                   | 6.3  | 6.3 | 5.7  | 7.0 | 6.3  |
| ISG-30                                         | 7.0  | 6.0 | 5.3  | 7.0 | 6.3  |
| PST-2BNS                                       | 6.0  | 7.3 | 5.7  | 6.3 | 6.3  |
| PST-2MG7                                       | 6.7  | 5.7 | 6.0  | 6.7 | 6.3  |
| CS-PR66                                        | 6.3  | 6.7 | 6.3  | 5.7 | 6.3  |
| IS-PR 487                                      | 6.0  | 6.7 | 6.3  | 6.0 | 6.3  |
| PLAYOFF 2 (P02)                                | 6.3  | 6.7 | 6.0  | 6.0 | 6.3  |
| PST-2K9                                        | 6.0  | 6.7 | 6.3  | 6.0 | 6.3  |
| SRX-4MSH                                       | 6.0  | 7.0 | 5.3  | 6.7 | 6.3  |
| UNO                                            | 4.7  | 7.7 | 6.3  | 6.3 | 6.3  |
| BONNEVILLE                                     | 5.0  | 6.7 | 6.0  | 7.0 | 6.2  |
| IS-PR 491                                      | 6.0  | 6.7 | 5.7  | 6.3 | 6.2  |
| RAD-PR62                                       | 5.3  | 7.3 | 5.3  | 6.7 | 6.2  |
| RIO VISTA                                      | 5.0  | 7.0 | 6.0  | 6.7 | 6.2  |
| BAR LP 10972                                   | 6.3  | 6.0 | 6.0  | 6.3 | 6.2  |
| FIESTA 4                                       | 5.7  | 7.3 | 5.3  | 6.3 | 6.2  |
| DLF LGT 4182                                   | 6.7  | 5.0 | 5.7  | 7.0 | 6.1  |
| GO-DHS                                         | 6.7  | 6.3 | 4.7  | 6.7 | 6.1  |
| MACH I                                         | 6.0  | 6.0 | 5.7  | 6.7 | 6.1  |
| IS-PR 479                                      | 6.0  | 5.7 | 6.3  | 6.3 | 6.1  |
| PIZZAZZ 2 GLR (PR 909)                         | 4.3  | 7.3 | 6.7  | 6.0 | 6.1  |
| IS-PR 409                                      | 4.7  | 6.7 | 6.0  | 6.7 | 6.0  |
| A-35                                           | 6.3  | 6.0 | 5.0  | 6.7 | 6.0  |
| LTP-RAE                                        | 6.3  | 6.0 | 5.7  | 6.0 | 6.0  |
| APR 2320                                       | 6.3  | 6.0 | 5.3  | 6.3 | 6.0  |
| PICK 4DFHM                                     | 4.7  | 7.0 | 5.3  | 6.3 | 5.8  |
| IS-PR 469                                      | 4.3  | 6.3 | 6.7  | 5.7 | 5.8  |
| RAD-PR55R                                      | 4.7  | 6.3 | 5.7  | 6.3 | 5.8  |
| IS-PR 488                                      | 6.0  | 6.0 | 5.0  | 5.7 | 5.7  |
| PPG-PR 165                                     | 4.3  | 6.7 | 5.3  | 6.3 | 5.7  |
| LSD VALUE                                      | 1.8  | 1.1 | 1.6  | 1.0 | 0.7  |
| C.V. (%)                                       | 18.2 | 9.5 | 16.1 | 9.2 | 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 24. SUMMER DENSITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 2011 DATA

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

| NAME                   | MA1 | NAME                        | MA1 |
|------------------------|-----|-----------------------------|-----|
| INSIGHT                | 7.3 | PPG-PR 138                  | 6.0 |
| ALLANTE                | 6.7 | PPG-PR 142                  | 6.0 |
| APR 2320               | 6.7 | PRX-4GM1                    | 6.0 |
| BRIGHTSTAR SLT         | 6.7 | PSRX-4CAGL                  | 6.0 |
| CL 11601               | 6.7 | RAD-PR55R                   | 6.0 |
| CS-PR66                | 6.7 | SRX-4MSH                    | 6.0 |
| ISG-36                 | 6.7 | UNO                         | 6.0 |
| MACH I                 | 6.7 | 2NJK                        | 5.7 |
| PPG-PR 165             | 6.7 | BAR LP 7608                 | 5.7 |
| SIENNA                 | 6.7 | DLF LGD-3026                | 5.7 |
| SR 4650 (PSRX-3701)    | 6.7 | GO-G37                      | 5.7 |
| APR 2445               | 6.3 | ISG-30                      | 5.7 |
| CL 307                 | 6.3 | JR-178                      | 5.7 |
| CST                    | 6.3 | LTP-RAE                     | 5.7 |
| FIESTA 4               | 6.3 | PLAYOFF 2 (P02)             | 5.7 |
| GO-PR60                | 6.3 | PANGEA GLR (CL 11701)       | 5.7 |
| IS-PR 409              | 6.3 | PPG-PR 128                  | 5.7 |
| IS-PR 463              | 6.3 | PPG-PR 134                  | 5.7 |
| IS-PR 469              | 6.3 | PPG-PR 164                  | 5.7 |
| IS-PR 479              | 6.3 | PST-2K9                     | 5.7 |
| IS-PR 488              | 6.3 | MANHATTAN 6 GLR (PST-2MAGS) | 5.7 |
| IS-PR 491              | 6.3 | PST-2MG7                    | 5.7 |
| IS-PR 492              | 6.3 | PST-2NKM                    | 5.7 |
| JR-192                 | 6.3 | PST-2TQL                    | 5.7 |
| OCTANE                 | 6.3 | RAD-PR62                    | 5.7 |
| KARMA (PICK 10401)     | 6.3 | RIO VISTA                   | 5.7 |
| PPG-PR 121             | 6.3 | EVOLUTION (S85)             | 5.7 |
| PPG-PR 136             | 6.3 | SIDEWAYS (PSRX-S84)         | 5.7 |
| PPG-PR 137             | 6.3 | SOX FAN (GM3)               | 5.7 |
| PPG-PR 140             | 6.3 | WICKED (SRX-4RHD)           | 5.7 |
| PST-2BNS               | 6.3 | BAR LP 10972                | 5.3 |
| PST-2DR9               | 6.3 | DLF LGD-3022                | 5.3 |
| RINOVO                 | 6.3 | GO-DHS                      | 5.3 |
| A-35                   | 6.0 | HAVEN (APR 2038)            | 5.3 |
| APR 2036               | 6.0 | IS-PR 487                   | 5.3 |
| BAR LP 10969           | 6.0 | IS-PR 489                   | 5.3 |
| BAR LP 10970           | 6.0 | PINNACLE                    | 5.3 |
| CS-20                  | 6.0 | PPG-PR 143                  | 5.3 |
| DOMINATOR (PST-2AG4)   | 6.0 | PST-204D                    | 5.3 |
| ISG-31                 | 6.0 | BONNEVILLE                  | 5.0 |
| LTP-PR 135             | 6.0 | DLF LGT 4182                | 5.0 |
| PALMER V               | 6.0 | PST-2ACR                    | 5.0 |
| PICK 4DFHM             | 6.0 | LINN                        | 3.7 |
| PIZZAZZ 2 GLR (PR 909) | 6.0 |                             |     |
| PPG-PR 133             | 6.0 | LSD VALUE                   | 0.9 |
|                        |     | C.V. (%)                    | 9.6 |

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 25 PERCENT LIVING GROUND COVER (SPRING) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 2011 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

| NAME                        | MO1  | VA1  | MEAN | NAME                | MO1  | VA1  | MEAN |
|-----------------------------|------|------|------|---------------------|------|------|------|
| PANGEA GLR (CL 11701)       | 97.7 | 93.3 | 95.5 | SIDEWAYS (PSRX-S84) | 99.0 | 83.3 | 91.2 |
| KARMA (PICK 10401)          | 97.7 | 93.3 | 95.5 | ALLANTE             | 94.7 | 86.7 | 90.7 |
| RINOVO                      | 97.7 | 93.3 | 95.5 | HAVEN (APR 2038)    | 96.3 | 85.0 | 90.7 |
| CST                         | 99.0 | 91.7 | 95.3 | PPG-PR 138          | 96.3 | 85.0 | 90.7 |
| DLF LGT 4182                | 99.0 | 91.7 | 95.3 | IS-PR 409           | 97.7 | 83.3 | 90.5 |
| PIZZAZZ 2 GLR (PR 909)      | 99.0 | 91.7 | 95.3 | MACH I              | 97.7 | 83.3 | 90.5 |
| LINN                        | 98.3 | 91.7 | 95.0 | PPG-PR 134          | 97.7 | 83.3 | 90.5 |
| CL 11601                    | 97.7 | 91.7 | 94.7 | ISG-30              | 93.7 | 86.7 | 90.2 |
| INSIGHT                     | 99.0 | 90.0 | 94.5 | PST-2K9             | 94.7 | 85.0 | 89.8 |
| IS-PR 489                   | 96.0 | 91.7 | 93.8 | RAD-PR55R           | 94.7 | 85.0 | 89.8 |
| PLAYOFF 2 (P02)             | 97.7 | 90.0 | 93.8 | BAR LP 10970        | 96.3 | 83.3 | 89.8 |
| PPG-PR 136                  | 97.7 | 90.0 | 93.8 | IS-PR 491           | 96.3 | 83.3 | 89.8 |
| SR 4650 (PSRX-3701)         | 96.0 | 91.7 | 93.8 | PST-2MG7            | 97.7 | 81.7 | 89.7 |
| JR-178                      | 99.0 | 88.3 | 93.7 | IS-PR 487           | 99.0 | 80.0 | 89.5 |
| EVOLUTION (S85)             | 99.0 | 88.3 | 93.7 | OCTANE              | 99.0 | 80.0 | 89.5 |
| SIENNA                      | 99.0 | 88.3 | 93.7 | PPG-PR 128          | 99.0 | 80.0 | 89.5 |
| SOX FAN (GM3)               | 99.0 | 88.3 | 93.7 | LTP-RAE             | 90.0 | 88.3 | 89.2 |
| BRIGHTSTAR SLT              | 96.0 | 90.0 | 93.0 | BAR LP 10969        | 94.7 | 83.3 | 89.0 |
| DOMINATOR (PST-2AG4)        | 97.7 | 88.3 | 93.0 | BAR LP 10972        | 96.3 | 81.7 | 89.0 |
| PINNACLE                    | 97.7 | 88.3 | 93.0 | GO-G37              | 96.3 | 81.7 | 89.0 |
| PST-2NKM                    | 97.7 | 88.3 | 93.0 | ISG-31              | 96.3 | 81.7 | 89.0 |
| DLF LGD-3026                | 93.7 | 91.7 | 92.7 | A-35                | 97.7 | 80.0 | 88.8 |
| IS-PR 488                   | 96.3 | 88.3 | 92.3 | APR 2445            | 96.0 | 81.7 | 88.8 |
| WICKED (SRX-4RHD)           | 96.3 | 88.3 | 92.3 | IS-PR 469           | 92.7 | 85.0 | 88.8 |
| APR 2036                    | 97.7 | 86.7 | 92.2 | IS-PR 479           | 97.7 | 80.0 | 88.8 |
| DLF LGD-3022                | 97.7 | 86.7 | 92.2 | UNO                 | 97.7 | 80.0 | 88.8 |
| IS-PR 463                   | 97.7 | 86.7 | 92.2 | ISG-36              | 97.3 | 80.0 | 88.7 |
| LTP-PR 135                  | 97.7 | 86.7 | 92.2 | GO-PR60             | 94.7 | 81.7 | 88.2 |
| PALMER V                    | 97.7 | 86.7 | 92.2 | PPG-PR 165          | 94.7 | 81.7 | 88.2 |
| PICK 4DFHM                  | 97.7 | 86.7 | 92.2 | CS-20               | 96.7 | 78.3 | 87.5 |
| PPG-PR 133                  | 97.7 | 86.7 | 92.2 | FIESTA 4            | 93.3 | 81.7 | 87.5 |
| PPG-PR 140                  | 97.7 | 86.7 | 92.2 | GO-DHS              | 95.0 | 80.0 | 87.5 |
| RAD-PR62                    | 97.7 | 86.7 | 92.2 | CL 307              | 96.3 | 78.3 | 87.3 |
| RIO VISTA                   | 96.0 | 88.3 | 92.2 | PPG-PR 121          | 99.0 | 75.0 | 87.0 |
| 2NJK                        | 99.0 | 85.0 | 92.0 | PST-204D            | 93.7 | 80.0 | 86.8 |
| PRX-4GM1                    | 99.0 | 85.0 | 92.0 | BONNEVILLE          | 96.3 | 76.7 | 86.5 |
| SRX-4MSH                    | 99.0 | 85.0 | 92.0 | PPG-PR 143          | 96.3 | 76.7 | 86.5 |
| PPG-PR 137                  | 95.0 | 88.3 | 91.7 | PPG-PR 164          | 94.7 | 78.3 | 86.5 |
| PST-2DR9                    | 93.3 | 90.0 | 91.7 | PSRX-4CAGL          | 96.3 | 76.7 | 86.5 |
| CS-PR66                     | 94.7 | 88.3 | 91.5 | IS-PR 492           | 96.0 | 76.7 | 86.3 |
| JR-192                      | 96.3 | 86.7 | 91.5 | APR 2320            | 93.0 | 78.3 | 85.7 |
| PST-2TQL                    | 94.7 | 88.3 | 91.5 | PST-2ACR            | 96.3 | 68.3 | 82.3 |
| PPG-PR 142                  | 97.7 | 85.0 | 91.3 |                     |      |      |      |
| PST-2BNS                    | 97.7 | 85.0 | 91.3 | LSD VALUE           | 4.7  | 11.2 | 6.1  |
| MANHATTAN 6 GLR (PST-2MAGS) | 97.7 | 85.0 | 91.3 | C.V. (%)            | 3.0  | 8.2  | 5.9  |
| BAR LP 7608                 | 99.0 | 83.3 | 91.2 |                     |      |      |      |

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

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

TABLE 26. PERCENT LIVING GROUND COVER (FALL) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
2011 DATA

| PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/ |      |      |      |      |
|---------------------------------------------------|------|------|------|------|
| NAME                                              | IA1  | M01  | NJ2  | MEAN |
| UNO                                               | 73.3 | 86.7 | 86.7 | 82.2 |
| 2NJK                                              | 73.3 | 91.7 | 80.0 | 81.7 |
| OCTANE                                            | 70.0 | 76.7 | 91.7 | 79.4 |
| CL 307                                            | 76.7 | 73.3 | 85.0 | 78.3 |
| PINNACLE                                          | 70.0 | 75.0 | 90.0 | 78.3 |
| BRIGHTSTAR SLT                                    | 83.3 | 65.0 | 85.0 | 77.8 |
| SIDEWAYS (PSRX-S84)                               | 73.3 | 80.0 | 80.0 | 77.8 |
| SRX-4MSH                                          | 66.7 | 86.7 | 78.3 | 77.2 |
| PST-2MG7                                          | 73.3 | 80.0 | 78.3 | 77.2 |
| PST-2NKM                                          | 73.3 | 78.3 | 80.0 | 77.2 |
| PPG-PR 121                                        | 63.3 | 80.0 | 86.7 | 76.7 |
| SR 4650 (PSRX-3701)                               | 66.7 | 71.7 | 91.7 | 76.7 |
| DOMINATOR (PST-2AG4)                              | 70.0 | 76.7 | 80.0 | 75.6 |
| JR-178                                            | 63.3 | 78.3 | 85.0 | 75.6 |
| PPG-PR 137                                        | 60.0 | 85.0 | 81.7 | 75.6 |
| GO-DHS                                            | 63.3 | 83.3 | 78.3 | 75.0 |
| HAVEN (APR 2038)                                  | 63.3 | 75.0 | 85.0 | 74.4 |
| IS-PR 463                                         | 63.3 | 80.0 | 80.0 | 74.4 |
| ISG-31                                            | 60.0 | 83.3 | 80.0 | 74.4 |
| PST-2TQL                                          | 66.7 | 71.7 | 85.0 | 74.4 |
| EVOLUTION (S85)                                   | 63.3 | 80.0 | 80.0 | 74.4 |
| BAR LP 10970                                      | 60.0 | 85.0 | 76.7 | 73.9 |
| CS-PR66                                           | 66.7 | 86.7 | 68.3 | 73.9 |
| DLF LGD-3022                                      | 73.3 | 60.0 | 88.3 | 73.9 |
| BAR LP 10969                                      | 66.7 | 78.3 | 75.0 | 73.3 |
| BAR LP 7608                                       | 60.0 | 83.3 | 76.7 | 73.3 |
| CL 11601                                          | 70.0 | 60.0 | 90.0 | 73.3 |
| CS-20                                             | 78.3 | 68.3 | 73.3 | 73.3 |
| IS-PR 491                                         | 66.7 | 81.7 | 71.7 | 73.3 |
| JR-192                                            | 70.0 | 78.3 | 71.7 | 73.3 |
| PST-2K9                                           | 53.3 | 85.0 | 81.7 | 73.3 |
| ISG-30                                            | 70.0 | 73.3 | 75.0 | 72.8 |
| LINN                                              | 63.3 | 68.3 | 86.7 | 72.8 |
| PPG-PR 133                                        | 63.3 | 76.7 | 76.7 | 72.2 |
| PPG-PR 165                                        | 63.3 | 71.7 | 81.7 | 72.2 |
| PST-2BNS                                          | 56.7 | 78.3 | 81.7 | 72.2 |
| PALMER V                                          | 60.0 | 68.3 | 88.3 | 72.2 |
| BONNEVILLE                                        | 66.7 | 73.3 | 75.0 | 71.7 |
| PANGEA GLR (CL 11701)                             | 60.0 | 68.3 | 86.7 | 71.7 |
| PICK 4DFHM                                        | 50.0 | 86.7 | 78.3 | 71.7 |
| PST-2ACR                                          | 56.7 | 81.7 | 76.7 | 71.7 |
| RAD-PR55R                                         | 63.3 | 76.7 | 75.0 | 71.7 |
| SOX FAN (GM3)                                     | 60.0 | 70.0 | 85.0 | 71.7 |
| WICKED (SRX-4RHD)                                 | 56.7 | 78.3 | 80.0 | 71.7 |
| ISG-36                                            | 63.3 | 75.0 | 75.0 | 71.1 |
| PST-2DR9                                          | 56.7 | 71.7 | 85.0 | 71.1 |

| PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/ |      |      |      |      |
|---------------------------------------------------|------|------|------|------|
| NAME                                              | IA1  | MO1  | NJ2  | MEAN |
| APR 2320                                          | 63.3 | 71.7 | 78.3 | 71.1 |
| GO-PR60                                           | 63.3 | 76.7 | 73.3 | 71.1 |
| MACH I                                            | 56.7 | 78.3 | 78.3 | 71.1 |
| PPG-PR 140                                        | 60.0 | 78.3 | 75.0 | 71.1 |
| PRX-4GM1                                          | 63.3 | 66.7 | 83.3 | 71.1 |
| MANHATTAN 6 GLR (PST-2MAGS)                       | 73.3 | 63.3 | 76.7 | 71.1 |
| PPG-PR 128                                        | 56.7 | 76.7 | 78.3 | 70.6 |
| PPG-PR 134                                        | 53.3 | 79.3 | 78.3 | 70.3 |
| FIESTA 4                                          | 53.3 | 73.3 | 83.3 | 70.0 |
| GO-G37                                            | 50.0 | 83.3 | 76.7 | 70.0 |
| KARMA (PICK 10401)                                | 50.0 | 73.3 | 86.7 | 70.0 |
| IS-PR 492                                         | 60.0 | 73.3 | 75.0 | 69.4 |
| LTP-PR 135                                        | 60.0 | 73.3 | 75.0 | 69.4 |
| PPG-PR 142                                        | 66.7 | 63.3 | 78.3 | 69.4 |
| PST-204D                                          | 60.0 | 65.0 | 83.3 | 69.4 |
| APR 2445                                          | 53.3 | 81.7 | 71.7 | 68.9 |
| IS-PR 487                                         | 60.0 | 75.0 | 71.7 | 68.9 |
| RINOVO                                            | 53.3 | 65.0 | 88.3 | 68.9 |
| IS-PR 489                                         | 70.0 | 61.7 | 75.0 | 68.9 |
| A-35                                              | 60.0 | 75.0 | 70.0 | 68.3 |
| DLF LGT 4182                                      | 56.7 | 81.7 | 66.7 | 68.3 |
| IS-PR 469                                         | 56.7 | 78.3 | 70.0 | 68.3 |
| SIENNA                                            | 63.3 | 55.0 | 86.7 | 68.3 |
| PIZZAZZ 2 GLR (PR 909)                            | 70.0 | 48.3 | 85.0 | 67.8 |
| ALLANTE                                           | 73.3 | 41.7 | 88.3 | 67.8 |
| PLAYOFF 2 (P02)                                   | 60.0 | 73.3 | 70.0 | 67.8 |
| PPG-PR 143                                        | 56.7 | 68.3 | 78.3 | 67.8 |
| RAD-PR62                                          | 53.3 | 76.7 | 73.3 | 67.8 |
| DLF LGD-3026                                      | 70.0 | 50.0 | 81.7 | 67.2 |
| BAR LP 10972                                      | 46.7 | 81.7 | 70.0 | 66.1 |
| PPG-PR 164                                        | 63.3 | 48.3 | 86.7 | 66.1 |
| RIO VISTA                                         | 63.3 | 55.0 | 80.0 | 66.1 |
| INSIGHT                                           | 56.7 | 56.7 | 85.0 | 66.1 |
| PPG-PR 136                                        | 60.0 | 65.0 | 71.7 | 65.6 |
| CST                                               | 53.3 | 73.3 | 68.3 | 65.0 |
| IS-PR 488                                         | 53.3 | 75.0 | 66.7 | 65.0 |
| APR 2036                                          | 53.3 | 66.7 | 73.3 | 64.4 |
| PPG-PR 138                                        | 43.3 | 66.7 | 81.7 | 63.9 |
| IS-PR 479                                         | 56.7 | 58.3 | 71.7 | 62.2 |
| IS-PR 409                                         | 45.0 | 68.3 | 70.0 | 61.1 |
| PSRX-4CAGL                                        | 50.0 | 53.3 | 78.3 | 60.6 |
| LTP-RAE                                           | 60.0 | 43.3 | 75.0 | 59.4 |
| LSD VALUE                                         | 24.8 | 23.9 | 8.2  | 11.8 |
| C.V. (%)                                          | 24.8 | 20.5 | 6.4  | 17.8 |

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

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

TABLE 27 BROWN PATCH (WARM TEMPERATURE) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP 2011 DATA

| BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/ |     |     |      |                             |      |      |      |  |
|------------------------------------------|-----|-----|------|-----------------------------|------|------|------|--|
| NAME                                     | MO1 | NJ2 | MEAN | NAME                        | MO1  | NJ2  | MEAN |  |
| IS-PR 463                                | 5.7 | 6.7 | 6.2  | PRX-4GM1                    | 3.7  | 5.3  | 4.5  |  |
| IS-PR 487                                | 6.0 | 6.3 | 6.2  | SIDEWAYS (PSRX-S84)         | 4.3  | 4.7  | 4.5  |  |
| KARMA (PICK 10401)                       | 5.0 | 7.3 | 6.2  | PPG-PR 142                  | 4.7  | 4.0  | 4.3  |  |
| APR 2445                                 | 7.0 | 4.7 | 5.8  | SOX FAN (GM3)               | 4.0  | 4.7  | 4.3  |  |
| INSIGHT                                  | 5.3 | 6.3 | 5.8  | CL 307                      | 4.3  | 4.3  | 4.3  |  |
| IS-PR 492                                | 5.7 | 5.7 | 5.7  | CST                         | 5.0  | 3.7  | 4.3  |  |
| LTP-RAE                                  | 6.7 | 4.7 | 5.7  | PALMER V                    | 5.0  | 3.7  | 4.3  |  |
| PPG-PR 134                               | 5.7 | 5.7 | 5.7  | PICK 4DFHM                  | 5.0  | 3.7  | 4.3  |  |
| IS-PR 491                                | 5.3 | 6.0 | 5.7  | PST-2K9                     | 4.3  | 4.3  | 4.3  |  |
| PANGEA GLR (CL 11701)                    | 4.7 | 6.3 | 5.5  | DOMINATOR (PST-2AG4)        | 4.7  | 3.7  | 4.2  |  |
| PPG-PR 165                               | 4.0 | 7.0 | 5.5  | JR-178                      | 4.7  | 3.7  | 4.2  |  |
| PST-2BNS                                 | 5.3 | 5.7 | 5.5  | PPG-PR 138                  | 4.7  | 3.7  | 4.2  |  |
| ALLANTE                                  | 4.7 | 6.0 | 5.3  | RIO VISTA                   | 3.7  | 4.7  | 4.2  |  |
| CL 11601                                 | 5.7 | 5.0 | 5.3  | 2NJK                        | 4.3  | 4.0  | 4.2  |  |
| PST-2NKM                                 | 5.0 | 5.7 | 5.3  | BAR LP 7608                 | 5.3  | 3.0  | 4.2  |  |
| PPG-PR 143                               | 6.3 | 4.3 | 5.3  | CS-PR66                     | 4.3  | 4.0  | 4.2  |  |
| SRX-4MSH                                 | 5.3 | 5.3 | 5.3  | GO-PR60                     | 4.0  | 4.3  | 4.2  |  |
| WICKED (SRX-4RHD)                        | 5.3 | 5.3 | 5.3  | BAR LP 10972                | 5.0  | 3.0  | 4.0  |  |
| UNO                                      | 5.3 | 5.3 | 5.3  | BRIGHTSTAR SLT              | 4.0  | 4.0  | 4.0  |  |
| IS-PR 469                                | 4.7 | 5.7 | 5.2  | PINNACLE                    | 4.7  | 3.3  | 4.0  |  |
| RINOVO                                   | 3.3 | 7.0 | 5.2  | MANHATTAN 6 GLR (PST-2MAGS) | 4.7  | 3.3  | 4.0  |  |
| SIENNA                                   | 4.7 | 5.7 | 5.2  | PST-2MG7                    | 5.3  | 2.7  | 4.0  |  |
| IS-PR 488                                | 5.3 | 5.0 | 5.2  | PST-2TQL                    | 4.0  | 4.0  | 4.0  |  |
| PIZZAZZ 2 GLR (PR 909)                   | 5.3 | 5.0 | 5.2  | RAD-PR62                    | 4.3  | 3.7  | 4.0  |  |
| PPG-PR 164                               | 4.0 | 6.3 | 5.2  | PSRX-4CAGL                  | 4.0  | 3.7  | 3.8  |  |
| BAR LP 10970                             | 5.3 | 4.7 | 5.0  | PST-204D                    | 5.0  | 2.7  | 3.8  |  |
| JR-192                                   | 5.0 | 5.0 | 5.0  | PST-2DR9                    | 4.3  | 3.3  | 3.8  |  |
| LTP-PR 135                               | 5.3 | 4.7 | 5.0  | RAD-PR55R                   | 4.0  | 3.7  | 3.8  |  |
| PPG-PR 133                               | 5.3 | 4.7 | 5.0  | FIESTA 4                    | 3.3  | 4.0  | 3.7  |  |
| PPG-PR 136                               | 4.0 | 6.0 | 5.0  | ISG-31                      | 4.7  | 2.7  | 3.7  |  |
| SR 4650 (PSRX-3701)                      | 4.3 | 5.7 | 5.0  | PLAYOFF 2 (P02)             | 3.7  | 3.7  | 3.7  |  |
| BAR LP 10969                             | 4.7 | 5.0 | 4.8  | PST-2ACR                    | 3.7  | 3.7  | 3.7  |  |
| DLF LGD-3022                             | 5.0 | 4.7 | 4.8  | A-35                        | 3.7  | 3.3  | 3.5  |  |
| EVOLUTION (S85)                          | 4.7 | 5.0 | 4.8  | APR 2320                    | 4.0  | 3.0  | 3.5  |  |
| PPG-PR 140                               | 5.3 | 4.3 | 4.8  | MACH I                      | 3.3  | 3.7  | 3.5  |  |
| BONNEVILLE                               | 4.7 | 4.7 | 4.7  | DLF LGT 4182                | 3.0  | 3.7  | 3.3  |  |
| APR 2036                                 | 4.3 | 5.0 | 4.7  | GO-G37                      | 3.0  | 3.7  | 3.3  |  |
| IS-PR 409                                | 4.3 | 5.0 | 4.7  | ISG-30                      | 4.0  | 2.7  | 3.3  |  |
| IS-PR 489                                | 5.0 | 4.3 | 4.7  | CS-20                       | 3.3  | 3.0  | 3.2  |  |
| OCTANE                                   | 5.0 | 4.3 | 4.7  | GO-DHS                      | 3.7  | 2.7  | 3.2  |  |
| PPG-PR 128                               | 5.0 | 4.3 | 4.7  | ISG-36                      | 3.7  | 2.3  | 3.0  |  |
| PPG-PR 137                               | 4.3 | 5.0 | 4.7  | DLF LGD-3026                | 3.3  | 2.3  | 2.8  |  |
| HAVEN (APR 2038)                         | 4.3 | 4.7 | 4.5  | LINN                        | 3.0  | 1.3  | 2.2  |  |
| IS-PR 479                                | 5.0 | 4.0 | 4.5  |                             |      |      |      |  |
| PPG-PR 121                               | 3.3 | 5.7 | 4.5  | LSD VALUE                   | 1.7  | 1.7  | 1.2  |  |
|                                          |     |     |      | C.V. (%)                    | 23.3 | 23.9 | 23.6 |  |

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

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

TABLE 28. PYTHIUM BLIGHT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 2011 DATA

| PYTHIUM BLIGHT RATINGS 1-9; 9=NO DISEASE 2/ |     |                        |      |
|---------------------------------------------|-----|------------------------|------|
| NAME                                        | VA1 | NAME                   | VA1  |
| GO-DHS                                      | 6.3 | APR 2320               | 2.3  |
| BRIGHTSTAR SLT                              | 4.3 | BAR LP 7608            | 2.3  |
| ISG-36                                      | 4.3 | CL 11601               | 2.3  |
| A-35                                        | 4.0 | CST                    | 2.3  |
| CL 307                                      | 4.0 | DLF LGD-3026           | 2.3  |
| CS-20                                       | 4.0 | IS-PR 409              | 2.3  |
| ISG-31                                      | 4.0 | IS-PR 489              | 2.3  |
| 2NJK                                        | 3.7 | LTP-RAE                | 2.3  |
| GO-G37                                      | 3.7 | PPG-PR 133             | 2.3  |
| ISG-30                                      | 3.7 | PPG-PR 138             | 2.3  |
| MACH I                                      | 3.7 | RAD-PR55R              | 2.3  |
| PLAYOFF 2 (P02)                             | 3.7 | SR 4650 (PSRX-3701)    | 2.3  |
| PPG-PR 142                                  | 3.7 | WICKED (SRX-4RHD)      | 2.3  |
| PST-2ACR                                    | 3.7 | ALLANTE                | 2.0  |
| MANHATTAN 6 GLR (PST-2MAGS)                 | 3.7 | APR 2445               | 2.0  |
| PST-2MG7                                    | 3.7 | BAR LP 10972           | 2.0  |
| BONNEVILLE                                  | 3.3 | FIESTA 4               | 2.0  |
| PPG-PR 121                                  | 3.3 | IS-PR 463              | 2.0  |
| PPG-PR 128                                  | 3.3 | IS-PR 469              | 2.0  |
| PPG-PR 140                                  | 3.3 | JR-192                 | 2.0  |
| PPG-PR 143                                  | 3.3 | KARMA (PICK 10401)     | 2.0  |
| PPG-PR 164                                  | 3.3 | PINNACLE               | 2.0  |
| PSRX-4CAGL                                  | 3.3 | PIZZAZZ 2 GLR (PR 909) | 2.0  |
| PST-2DR9                                    | 3.3 | PPG-PR 134             | 2.0  |
| SOX FAN (GM3)                               | 3.3 | PST-2NKM               | 2.0  |
| CS-PR66                                     | 3.0 | RAD-PR62               | 2.0  |
| DOMINATOR (PST-2AG4)                        | 3.0 | RIO VISTA              | 2.0  |
| HAVEN (APR 2038)                            | 3.0 | SIDEWAYS (PSRX-S84)    | 2.0  |
| OCTANE                                      | 3.0 | UNO                    | 2.0  |
| PPG-PR 136                                  | 3.0 | BAR LP 10970           | 1.7  |
| PST-2K9                                     | 3.0 | GO-PR60                | 1.7  |
| SRX-4MSH                                    | 3.0 | INSIGHT                | 1.7  |
| BAR LP 10969                                | 2.7 | IS-PR 487              | 1.7  |
| DLF LGT 4182                                | 2.7 | IS-PR 488              | 1.7  |
| IS-PR 479                                   | 2.7 | IS-PR 491              | 1.7  |
| IS-PR 492                                   | 2.7 | PALMER V               | 1.7  |
| JR-178                                      | 2.7 | PANGEA GLR (CL 11701)  | 1.7  |
| LINN                                        | 2.7 | PST-204D               | 1.7  |
| LTP-PR 135                                  | 2.7 | EVOLUTION (S85)        | 1.7  |
| PICK 4DFHM                                  | 2.7 | SIENNA                 | 1.7  |
| PPG-PR 137                                  | 2.7 | DLF LGD-3022           | 1.3  |
| PPG-PR 165                                  | 2.7 | PST-2BNS               | 1.3  |
| PRX-4GM1                                    | 2.7 | RINOVO                 | 1.3  |
| PST-2TQL                                    | 2.7 |                        |      |
| APR 2036                                    | 2.3 |                        |      |
|                                             |     | LSD VALUE              | 1.7  |
|                                             |     | C.V. (%)               | 40.2 |

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 29. PINK SNOW MOLD RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 2011 DATA

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

| NAME                  | MN1 | NAME                        | MN1  |
|-----------------------|-----|-----------------------------|------|
| PANGEA GLR (CL 11701) | 7.3 | PALMER V                    | 5.0  |
| SOX FAN (GM3)         | 7.0 | PIZZAZZ 2 GLR (PR 909)      | 5.0  |
| PLAYOFF 2 (P02)       | 6.7 | PPG-PR 165                  | 5.0  |
| PPG-PR 134            | 6.7 | RAD-PR55R                   | 5.0  |
| PPG-PR 138            | 6.7 | EVOLUTION (S85)             | 5.0  |
| APR 2320              | 6.3 | SIENNA                      | 5.0  |
| BAR LP 10972          | 6.3 | SR 4650 (PSRX-3701)         | 5.0  |
| OCTANE                | 6.3 | UNO                         | 5.0  |
| PPG-PR 128            | 6.3 | 2NJK                        | 4.7  |
| PPG-PR 140            | 6.3 | BAR LP 7608                 | 4.7  |
| APR 2036              | 6.0 | BRIGHTSTAR SLT              | 4.7  |
| JR-178                | 6.0 | FIESTA 4                    | 4.7  |
| PPG-PR 142            | 6.0 | IS-PR 463                   | 4.7  |
| PST-2NKM              | 6.0 | IS-PR 487                   | 4.7  |
| WICKED (SRX-4RHD)     | 6.0 | ISG-36                      | 4.7  |
| A-35                  | 5.7 | LINN                        | 4.7  |
| DLF LGT 4182          | 5.7 | PINNACLE                    | 4.7  |
| HAVEN (APR 2038)      | 5.7 | PSRX-4CAGL                  | 4.7  |
| IS-PR 489             | 5.7 | RIO VISTA                   | 4.7  |
| IS-PR 491             | 5.7 | BONNEVILLE                  | 4.3  |
| PPG-PR 121            | 5.7 | IS-PR 492                   | 4.3  |
| PRX-4GM1              | 5.7 | ISG-30                      | 4.3  |
| PST-2ACR              | 5.7 | LTP-PR 135                  | 4.3  |
| PST-2BNS              | 5.7 | LTP-RAE                     | 4.3  |
| PST-2K9               | 5.7 | PPG-PR 136                  | 4.3  |
| BAR LP 10969          | 5.3 | PST-2DR9                    | 4.3  |
| CL 11601              | 5.3 | SIDEWAYS (PSRX-S84)         | 4.3  |
| CS-PR66               | 5.3 | ALLANTE                     | 4.0  |
| CST                   | 5.3 | GO-PR60                     | 4.0  |
| DOMINATOR (PST-2AG4)  | 5.3 | MACH I                      | 4.0  |
| INSIGHT               | 5.3 | PST-2MG7                    | 4.0  |
| IS-PR 488             | 5.3 | SRX-4MSH                    | 4.0  |
| JR-192                | 5.3 | CS-20                       | 3.7  |
| KARMA (PICK 10401)    | 5.3 | PICK 4DFHM                  | 3.7  |
| PPG-PR 133            | 5.3 | RAD-PR62                    | 3.7  |
| PPG-PR 137            | 5.3 | RINOV0                      | 3.7  |
| PPG-PR 143            | 5.3 | APR 2445                    | 3.3  |
| PST-204D              | 5.3 | DLF LGD-3026                | 3.3  |
| BAR LP 10970          | 5.0 | GO-DHS                      | 3.3  |
| CL 307                | 5.0 | IS-PR 469                   | 3.3  |
| DLF LGD-3022          | 5.0 | PPG-PR 164                  | 3.3  |
| GO-G37                | 5.0 | PST-2TQL                    | 3.3  |
| IS-PR 409             | 5.0 | MANHATTAN 6 GLR (PST-2MAGS) | 2.7  |
| IS-PR 479             | 5.0 |                             |      |
| ISG-31                | 5.0 | LSD VALUE                   | 2.4  |
|                       |     | C.V. (%)                    | 29.6 |

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.

| SEEDHEAD RATINGS 1-9; 9=NONE 2/ |     |                             |      |
|---------------------------------|-----|-----------------------------|------|
| NAME                            | NJ2 | NAME                        | NJ2  |
| APR 2320                        | 9.0 | WICKED (SRX-4RHD)           | 5.7  |
| IS-PR 469                       | 9.0 | BAR LP 10969                | 5.3  |
| INSIGHT                         | 8.7 | CS-20                       | 5.3  |
| A-35                            | 8.3 | CST                         | 5.3  |
| BAR LP 10970                    | 8.3 | GO-G37                      | 5.3  |
| SIENNA                          | 8.3 | IS-PR 488                   | 5.3  |
| JR-192                          | 8.0 | ISG-30                      | 5.3  |
| ALLANTE                         | 7.7 | OCTANE                      | 5.3  |
| APR 2036                        | 7.3 | PPG-PR 133                  | 5.3  |
| GO-PR60                         | 7.3 | PPG-PR 136                  | 5.3  |
| IS-PR 479                       | 7.3 | PSRX-4CAGL                  | 5.3  |
| RINOVO                          | 7.3 | PST-2K9                     | 5.3  |
| CS-PR66                         | 7.0 | PPG-PR 137                  | 5.0  |
| IS-PR 409                       | 7.0 | PPG-PR 143                  | 5.0  |
| IS-PR 491                       | 7.0 | PRX-4GM1                    | 5.0  |
| LTP-RAE                         | 7.0 | EVOLUTION (S85)             | 5.0  |
| KARMA (PICK 10401)              | 7.0 | DLF LGT 4182                | 4.7  |
| PPG-PR 164                      | 7.0 | DOMINATOR (PST-2AG4)        | 4.7  |
| PST-2BNS                        | 7.0 | HAVEN (APR 2038)            | 4.7  |
| IS-PR 487                       | 6.7 | ISG-31                      | 4.7  |
| MACH I                          | 6.7 | PPG-PR 128                  | 4.7  |
| PPG-PR 165                      | 6.7 | PPG-PR 142                  | 4.7  |
| APR 2445                        | 6.3 | SIDEWAYS (PSRX-S84)         | 4.7  |
| IS-PR 463                       | 6.3 | SOX FAN (GM3)               | 4.7  |
| ISG-36                          | 6.3 | BRIGHTSTAR SLT              | 4.3  |
| PPG-PR 138                      | 6.3 | CL 307                      | 4.3  |
| RAD-PR55R                       | 6.3 | DLF LGD-3026                | 4.3  |
| SR 4650 (PSRX-3701)             | 6.3 | IS-PR 489                   | 4.3  |
| BAR LP 10972                    | 6.0 | LTP-PR 135                  | 4.3  |
| JR-178                          | 6.0 | PINNACLE                    | 4.3  |
| PALMER V                        | 6.0 | PST-204D                    | 4.3  |
| PANGEA GLR (CL 11701)           | 6.0 | MANHATTAN 6 GLR (PST-2MAGS) | 4.3  |
| PPG-PR 121                      | 6.0 | CL 11601                    | 4.0  |
| RAD-PR62                        | 6.0 | DLF LGD-3022                | 4.0  |
| SRX-4MSH                        | 6.0 | PLAYOFF 2 (P02)             | 4.0  |
| UNO                             | 6.0 | PICK 4DFHM                  | 4.0  |
| BAR LP 7608                     | 5.7 | PST-2MG7                    | 4.0  |
| FIESTA 4                        | 5.7 | PST-2NKM                    | 4.0  |
| GO-DHS                          | 5.7 | 2NJK                        | 3.7  |
| IS-PR 492                       | 5.7 | PST-2DR9                    | 3.7  |
| PIZZAZZ 2 GLR (PR 909)          | 5.7 | BONNEVILLE                  | 3.3  |
| PPG-PR 134                      | 5.7 | PST-2ACR                    | 3.0  |
| PPG-PR 140                      | 5.7 | LINN                        | 1.0  |
| PST-2TQL                        | 5.7 |                             |      |
| RIO VISTA                       | 5.7 |                             |      |
|                                 |     | LSD VALUE                   | 1.5  |
|                                 |     | C.V. (%)                    | 16.6 |

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 31. PERCENT ESTABLISHMENT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 2011 DATA 2/

| NAME                   | IL1  | MA1  | MEAN | NAME                        | IL1  | MA1  | MEAN |
|------------------------|------|------|------|-----------------------------|------|------|------|
| PPG-PR 165             | 71.7 | 70.0 | 70.8 | SIENNA                      | 68.3 | 50.0 | 59.2 |
| CL 11601               | 73.3 | 66.7 | 70.0 | ISG-30                      | 66.7 | 50.0 | 58.3 |
| OCTANE                 | 76.7 | 63.3 | 70.0 | EVOLUTION (S85)             | 66.7 | 50.0 | 58.3 |
| PPG-PR 136             | 75.0 | 63.3 | 69.2 | CS-PR66                     | 60.0 | 56.7 | 58.3 |
| PPG-PR 137             | 71.7 | 66.7 | 69.2 | IS-PR 409                   | 70.0 | 46.7 | 58.3 |
| PPG-PR 138             | 76.7 | 60.0 | 68.3 | IS-PR 492                   | 56.7 | 60.0 | 58.3 |
| SR 4650 (PSRX-3701)    | 70.0 | 66.7 | 68.3 | PALMER V                    | 70.0 | 46.7 | 58.3 |
| RINOVO                 | 78.3 | 56.7 | 67.5 | APR 2036                    | 65.0 | 50.0 | 57.5 |
| BRIGHTSTAR SLT         | 76.7 | 56.7 | 66.7 | CS-20                       | 65.0 | 50.0 | 57.5 |
| PPG-PR 164             | 73.3 | 56.7 | 65.0 | MACH I                      | 65.0 | 50.0 | 57.5 |
| CL 307                 | 71.7 | 56.7 | 64.2 | PPG-PR 133                  | 58.3 | 56.7 | 57.5 |
| PSRX-4CAGL             | 75.0 | 53.3 | 64.2 | PST-2BNS                    | 58.3 | 56.7 | 57.5 |
| SOX FAN (GM3)          | 71.7 | 56.7 | 64.2 | A-35                        | 66.7 | 46.7 | 56.7 |
| HAVEN (APR 2038)       | 76.7 | 50.0 | 63.3 | DLF LGD-3026                | 70.0 | 43.3 | 56.7 |
| JR-192                 | 66.7 | 60.0 | 63.3 | GO-DHS                      | 66.7 | 46.7 | 56.7 |
| PST-204D               | 76.7 | 50.0 | 63.3 | GO-PR60                     | 60.0 | 53.3 | 56.7 |
| PPG-PR 128             | 70.0 | 56.7 | 63.3 | IS-PR 463                   | 63.3 | 50.0 | 56.7 |
| PRX-4GM1               | 70.0 | 56.7 | 63.3 | IS-PR 491                   | 63.3 | 50.0 | 56.7 |
| PST-2DR9               | 70.0 | 56.7 | 63.3 | LTP-RAE                     | 63.3 | 50.0 | 56.7 |
| FIESTA 4               | 75.0 | 50.0 | 62.5 | PST-2NKM                    | 66.7 | 46.7 | 56.7 |
| JR-178                 | 71.7 | 53.3 | 62.5 | PPG-PR 140                  | 56.7 | 56.7 | 56.7 |
| LINN                   | 75.0 | 50.0 | 62.5 | PICK 4DFHM                  | 58.3 | 53.3 | 55.8 |
| PIZZAZZ 2 GLR (PR 909) | 68.3 | 56.7 | 62.5 | GO-G37                      | 61.7 | 50.0 | 55.8 |
| PPG-PR 121             | 71.7 | 53.3 | 62.5 | IS-PR 489                   | 61.7 | 50.0 | 55.8 |
| PPG-PR 143             | 68.3 | 56.7 | 62.5 | PST-2K9                     | 68.3 | 43.3 | 55.8 |
| UNO                    | 75.0 | 50.0 | 62.5 | 2NJK                        | 63.3 | 46.7 | 55.0 |
| BAR LP 10969           | 70.0 | 53.3 | 61.7 | IS-PR 469                   | 60.0 | 50.0 | 55.0 |
| LTP-PR 135             | 70.0 | 53.3 | 61.7 | IS-PR 487                   | 65.0 | 43.3 | 54.2 |
| PANGEA GLR (CL 11701)  | 70.0 | 53.3 | 61.7 | ISG-31                      | 65.0 | 43.3 | 54.2 |
| INSIGHT                | 73.3 | 50.0 | 61.7 | RAD-PR62                    | 65.0 | 43.3 | 54.2 |
| PINNACLE               | 71.7 | 50.0 | 60.8 | PST-2TQL                    | 68.3 | 40.0 | 54.2 |
| RIO VISTA              | 71.7 | 50.0 | 60.8 | RAD-PR55R                   | 61.7 | 46.7 | 54.2 |
| SIDEWAYS (PSRX-S84)    | 71.7 | 50.0 | 60.8 | ISG-36                      | 50.0 | 56.7 | 53.3 |
| WICKED (SRX-4RHD)      | 71.7 | 50.0 | 60.8 | PLAYOFF 2 (P02)             | 51.7 | 53.3 | 52.5 |
| BONNEVILLE             | 75.0 | 46.7 | 60.8 | PST-2ACR                    | 65.0 | 40.0 | 52.5 |
| KARMA (PICK 10401)     | 65.0 | 56.7 | 60.8 | BAR LP 10970                | 63.3 | 40.0 | 51.7 |
| PST-2MG7               | 68.3 | 53.3 | 60.8 | CST                         | 50.0 | 53.3 | 51.7 |
| SRX-4MSH               | 65.0 | 56.7 | 60.8 | MANHATTAN 6 GLR (PST-2MAGS) | 66.7 | 36.7 | 51.7 |
| ALLANTE                | 66.7 | 53.3 | 60.0 | APR 2445                    | 56.7 | 46.7 | 51.7 |
| BAR LP 7608            | 66.7 | 53.3 | 60.0 | IS-PR 479                   | 56.7 | 46.7 | 51.7 |
| DLF LGD-3022           | 70.0 | 50.0 | 60.0 | DLF LGT 4182                | 58.3 | 36.7 | 47.5 |
| DOMINATOR (PST-2AG4)   | 66.7 | 53.3 | 60.0 | BAR LP 10972                | 60.0 | 30.0 | 45.0 |
| IS-PR 488              | 63.3 | 56.7 | 60.0 |                             |      |      |      |
| PPG-PR 142             | 66.7 | 53.3 | 60.0 | LSD VALUE                   | 13.5 | 13.2 | 9.4  |
| APR 2320               | 65.0 | 53.3 | 59.2 | C.V. (%)                    | 12.5 | 15.8 | 13.9 |
| PPG-PR 134             | 65.0 | 53.3 | 59.2 |                             |      |      |      |

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 32. PERCENT ESTABLISHMENT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 AT EAST LANSING, MI 2/  
 2010 DATA

| NAME                   | OCTOBER | NOVEMBER | MEAN |
|------------------------|---------|----------|------|
| CL 307                 | 26.7    | 50.0     | 38.3 |
| RINOVO                 | 25.0    | 50.0     | 37.5 |
| OCTANE                 | 25.0    | 48.3     | 36.7 |
| PLAYOFF 2 (P02)        | 23.3    | 46.7     | 35.0 |
| SIENNA                 | 25.0    | 45.0     | 35.0 |
| KARMA (PICK 10401)     | 23.3    | 43.3     | 33.3 |
| PST-2NKM               | 25.0    | 41.7     | 33.3 |
| RAD-PR55R              | 21.7    | 45.0     | 33.3 |
| DLF LGD-3022           | 23.3    | 41.7     | 32.5 |
| INSIGHT                | 25.0    | 40.0     | 32.5 |
| ISG-30                 | 21.7    | 43.3     | 32.5 |
| PALMER V               | 21.7    | 43.3     | 32.5 |
| PINNACLE               | 23.3    | 41.7     | 32.5 |
| PIZZAZZ 2 GLR (PR 909) | 23.3    | 41.7     | 32.5 |
| RIO VISTA              | 21.7    | 43.3     | 32.5 |
| ALLANTE                | 21.7    | 41.7     | 31.7 |
| BONNEVILLE             | 23.3    | 40.0     | 31.7 |
| CL 11601               | 25.0    | 38.3     | 31.7 |
| PANGEA GLR (CL 11701)  | 21.7    | 41.7     | 31.7 |
| JR-178                 | 23.3    | 38.3     | 30.8 |
| LINN                   | 21.7    | 40.0     | 30.8 |
| PPG-PR 164             | 23.3    | 38.3     | 30.8 |
| PST-2ACR               | 20.0    | 41.7     | 30.8 |
| 2NJK                   | 21.7    | 38.3     | 30.0 |
| A-35                   | 21.7    | 38.3     | 30.0 |
| DOMINATOR (PST-2AG4)   | 21.7    | 38.3     | 30.0 |
| IS-PR 488              | 23.3    | 36.7     | 30.0 |
| PST-204D               | 21.7    | 38.3     | 30.0 |
| PST-2DR9               | 21.7    | 38.3     | 30.0 |
| EVOLUTION (S85)        | 20.0    | 40.0     | 30.0 |
| BAR LP 10970           | 21.7    | 36.7     | 29.2 |
| LTP-PR 135             | 18.3    | 40.0     | 29.2 |
| PPG-PR 121             | 21.7    | 36.7     | 29.2 |
| PPG-PR 136             | 21.7    | 36.7     | 29.2 |
| PST-2TQL               | 20.0    | 38.3     | 29.2 |
| SOX FAN (GM3)          | 21.7    | 36.7     | 29.2 |
| WICKED (SRX-4RHD)      | 20.0    | 38.3     | 29.2 |
| UNO                    | 21.7    | 36.7     | 29.2 |
| BAR LP 10969           | 21.7    | 35.0     | 28.3 |
| BRIGHTSTAR SLT         | 20.0    | 36.7     | 28.3 |
| ISG-36                 | 18.3    | 36.7     | 27.5 |
| SIDEWAYS (PSRX-S84)    | 15.0    | 40.0     | 27.5 |
| SR 4650 (PSRX-3701)    | 21.7    | 33.3     | 27.5 |
| BAR LP 7608            | 20.0    | 33.3     | 26.7 |
| GO-DHS                 | 20.0    | 33.3     | 26.7 |
| ISG-31                 | 21.7    | 31.7     | 26.7 |
| JR-192                 | 20.0    | 33.3     | 26.7 |
| PST-2BNS               | 16.7    | 36.7     | 26.7 |

TABLE 32. PERCENT ESTABLISHMENT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 (CONT'D) AT EAST LANSING, MI 2/  
 2010 DATA

| NAME                        | OCTOBER | NOVEMBER | MEAN |
|-----------------------------|---------|----------|------|
| BAR LP 10972                | 20.0    | 31.7     | 25.8 |
| DLF LGD-3026                | 18.3    | 33.3     | 25.8 |
| APR 2036                    | 16.7    | 33.3     | 25.0 |
| CS-PR66                     | 18.3    | 31.7     | 25.0 |
| GO-PR60                     | 20.0    | 30.0     | 25.0 |
| HAVEN (APR 2038)            | 16.7    | 33.3     | 25.0 |
| IS-PR 489                   | 23.3    | 26.7     | 25.0 |
| IS-PR 491                   | 18.3    | 31.7     | 25.0 |
| PICK 4DFHM                  | 18.3    | 31.7     | 25.0 |
| PPG-PR 128                  | 18.3    | 31.7     | 25.0 |
| PPG-PR 137                  | 16.7    | 33.3     | 25.0 |
| PPG-PR 165                  | 18.3    | 31.7     | 25.0 |
| PRX-4GM1                    | 18.3    | 31.7     | 25.0 |
| PST-2K9                     | 15.0    | 35.0     | 25.0 |
| APR 2320                    | 18.3    | 30.0     | 24.2 |
| CST                         | 16.7    | 31.7     | 24.2 |
| DLF LGT 4182                | 18.3    | 30.0     | 24.2 |
| IS-PR 409                   | 18.3    | 30.0     | 24.2 |
| IS-PR 463                   | 18.3    | 30.0     | 24.2 |
| MANHATTAN 6 GLR (PST-2MAGS) | 16.7    | 31.7     | 24.2 |
| PPG-PR 133                  | 16.7    | 30.0     | 23.3 |
| APR 2445                    | 18.3    | 26.7     | 22.5 |
| CS-20                       | 15.0    | 30.0     | 22.5 |
| FIESTA 4                    | 16.7    | 28.3     | 22.5 |
| IS-PR 487                   | 15.0    | 30.0     | 22.5 |
| IS-PR 492                   | 16.7    | 28.3     | 22.5 |
| PPG-PR 134                  | 15.0    | 30.0     | 22.5 |
| PPG-PR 138                  | 15.0    | 30.0     | 22.5 |
| PPG-PR 140                  | 16.7    | 28.3     | 22.5 |
| IS-PR 469                   | 16.7    | 26.7     | 21.7 |
| IS-PR 479                   | 15.0    | 28.3     | 21.7 |
| LTP-RAE                     | 13.3    | 30.0     | 21.7 |
| MACH I                      | 13.3    | 30.0     | 21.7 |
| PSRX-4CAGL                  | 16.7    | 26.7     | 21.7 |
| PST-2MG7                    | 16.7    | 26.7     | 21.7 |
| RAD-PR62                    | 18.3    | 25.0     | 21.7 |
| SRX-4MSH                    | 13.3    | 26.7     | 20.0 |
| PPG-PR 142                  | 13.3    | 25.0     | 19.2 |
| PPG-PR 143                  | 13.3    | 23.3     | 18.3 |
| GO-G37                      | 13.3    | 21.7     | 17.5 |
| LSD VALUE                   | 11.2    | 15.7     | 11.5 |
| C.V. (%)                    | 23.6    | 21.8     | 20.4 |

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

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

APPENDIX TABLE  
 Taken from the 2010 Perennial Ryegrass test-11 data report with permission from NTEP  
 SUMMARY OF TURFGRASS QUALITY RATINGS FOR PERENNIAL RYEGRASS CULTIVARS \*/  
 2011 DATA  
 TURFGRASS QUALITY RATINGS 1 9; 9=IDEAL TURF \*\*/

| NAME                 | QUALITY<br>MEAN 1/ | MAXIMUM<br>IN TOP 25% 2/ | NAME                        | QUALITY<br>MEAN 1/ | MAXIMUM<br>IN TOP 25% 2/ |
|----------------------|--------------------|--------------------------|-----------------------------|--------------------|--------------------------|
| 2NJK                 | 5.7                | 8.3                      | OCTANE                      | 5.9                | 25.0                     |
| A-35                 | 5.6                | 16.7                     | PLAYOFF 2 (P02)             | 5.5                | 0.0                      |
| ALLANTE              | 5.8                | 25.0                     | PALMER V                    | 5.9                | 41.7                     |
| APR 2036             | 5.9                | 25.0                     | PANGEA GLR (CL 11701)       | 6.2                | 66.7                     |
| APR 2320             | 5.8                | 25.0                     | KARMA (PICK 10401)          | 6.0                | 41.7                     |
| APR 2445             | 5.7                | 33.3                     | PICK 4DFHM                  | 5.2                | 0.0                      |
| BAR LP 10969         | 5.5                | 0.0                      | PINNACLE                    | 4.8                | 0.0                      |
| BAR LP 10970         | 5.9                | 16.7                     | PIZZAZZ 2 GLR (PR 909)      | 6.0                | 41.7                     |
| BAR LP 10972         | 5.4                | 0.0                      | PPG-PR 121                  | 6.0                | 50.0                     |
| BAR LP 7608          | 5.3                | 8.3                      | PPG-PR 128                  | 5.7                | 16.7                     |
| BONNEVILLE           | 5.6                | 8.3                      | PPG-PR 133                  | 5.8                | 8.3                      |
| BRIGHTSTAR SLT       | 5.5                | 8.3                      | PPG-PR 134                  | 5.9                | 25.0                     |
| CL 11601             | 6.0                | 41.7                     | PPG-PR 136                  | 5.9                | 25.0                     |
| CL 307               | 5.8                | 16.7                     | PPG-PR 137                  | 6.0                | 50.0                     |
| CS-20                | 5.6                | 25.0                     | PPG-PR 138                  | 6.1                | 58.3                     |
| CS-PR66              | 5.8                | 25.0                     | PPG-PR 140                  | 5.8                | 16.7                     |
| CST                  | 5.7                | 25.0                     | PPG-PR 142                  | 5.8                | 16.7                     |
| DLF LGD-3022         | 5.9                | 33.3                     | PPG-PR 143                  | 5.8                | 8.3                      |
| DLF LGD-3026         | 5.5                | 8.3                      | PPG-PR 164                  | 6.0                | 50.0                     |
| DLF LGT 4182         | 5.1                | 0.0                      | PPG-PR 165                  | 5.9                | 41.7                     |
| DOMINATOR (PST-2AG4) | 5.8                | 16.7                     | PRX-4GM1                    | 5.8                | 8.3                      |
| FIESTA 4             | 5.9                | 25.0                     | PSRX-4CAGL                  | 5.8                | 33.3                     |
| GO-DHS               | 5.0                | 0.0                      | PST-204D                    | 5.6                | 0.0                      |
| GO-G37               | 5.5                | 8.3                      | PST-2ACR                    | 5.6                | 25.0                     |
| GO-PR60              | 6.0                | 58.3                     | PST-2BNS                    | 6.1                | 50.0                     |
| HAVEN (APR 2038)     | 5.5                | 0.0                      | PST-2DR9                    | 5.5                | 0.0                      |
| INSIGHT              | 5.8                | 16.7                     | PST-2K9                     | 5.6                | 0.0                      |
| IS-PR 409            | 5.9                | 41.7                     | MANHATTAN 6 GLR (PST-2MAGS) | 5.5                | 0.0                      |
| IS-PR 463            | 6.1                | 66.7                     | PST-2MG7                    | 5.6                | 8.3                      |
| IS-PR 469            | 6.0                | 58.3                     | PST-2NKM                    | 5.7                | 16.7                     |
| IS-PR 479            | 5.8                | 25.0                     | PST-2TQL                    | 5.5                | 8.3                      |
| IS-PR 487            | 6.1                | 58.3                     | RAD-PR55R                   | 5.8                | 16.7                     |
| IS-PR 488            | 5.9                | 33.3                     | RAD-PR62                    | 5.5                | 8.3                      |
| IS-PR 489            | 5.8                | 8.3                      | RINOVO                      | 6.0                | 41.7                     |
| IS-PR 491            | 6.1                | 75.0                     | RIO VISTA                   | 6.0                | 58.3                     |
| IS-PR 492            | 6.0                | 33.3                     | EVOLUTION (S85)             | 6.1                | 50.0                     |
| ISG-30               | 5.6                | 16.7                     | SIDEWAYS (PSRX-S84)         | 5.9                | 33.3                     |
| ISG-31               | 5.4                | 16.7                     | SIENNA                      | 6.0                | 50.0                     |
| ISG-36               | 5.6                | 8.3                      | SOX FAN (GM3)               | 5.7                | 8.3                      |
| JR-178               | 6.1                | 75.0                     | SR 4650 (PSRX-3701)         | 6.1                | 41.7                     |
| JR-192               | 5.8                | 25.0                     | SRX-4MSH                    | 5.6                | 0.0                      |
| LINN                 | 3.4                | 0.0                      | WICKED (SRX-4RHD)           | 6.2                | 75.0                     |
| LTP-PR 135           | 5.8                | 16.7                     | UNO                         | 5.8                | 16.7                     |
| LTP-RAE              | 5.7                | 16.7                     |                             |                    |                          |
| MACH I               | 5.6                | 16.7                     | LSD VALUE                   | 0.2                |                          |
|                      |                    |                          | C.V. (%)                    | 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).  
 \*\*/ 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.