

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>.

2015 NATIONAL LOW INPUT COOL-SEASON TEST

LOCATIONS SUBMITTING DATA FOR 2017

State	Location	Code
Connecticut	Storrs	CT1
Connecticut	Storrs (Pre-Emergence Applied in 2016 Only)	CT2
Indiana	West Lafayette	IN1
Indiana	West Lafayette (Medium Input)	IN2
Michigan	East Lansing	MI1
Maryland	College Park	MD1
Minnesota	St. Paul	MN1
Missouri	Columbia	MO1
Missouri	Columbia (Pre-Emergence Applied in 2016 Only)	MO2
North Carolina	Raleigh	NC1
Nebraska	Mead	NE1
Oregon	Corvallis	OR1
Pennsylvania	Kennett Square	PA2
Utah	Logan	UT1
Virginia	Blacksburg	VA1

2015 National Low Input Cool-Season Test
Entries and Sponsors

Entry No.	Name	Species/Composition	Sponsor
*1	Natural Knit ® PRG Mix	50% Mensa perennial ryegrass 50% Savant perennial ryegrass	Ledeboer Seed LLC
*2	Bullseye	100% Bullseye tall fescue	Standard entry
*3	Bewitched	100% Bewitched Ky. Bluegrass	Standard entry
4	BGR-TF3	100% BGR-TF3 tall fescue	Berger International LLC
5	MNHD-15	100% MNHD-15 hard fescue	University of Minnesota
6	DLFPS TF-A	33% Mustang 4 tall fescue 33% Grande 3 tall fescue 34% Fayette tall fescue	DLF/Pickseed/Seed Research of OR
7	DLFPS ChCrM	24% Longfellow 3 chewings fescue 24% Windward chewings fescue 24% Chantilly strong creeping red fescue 25% Ruddy strong creeping red fescue 3% Microclover™	DLF/Pickseed/Seed Research of OR
8	DLFPS ShHM	32% Quatro sheep fescue 32% Spartan II hard fescue 33% Eureka II hard fescue 3% Microclover™	DLF/Pickseed/Seed Research of OR
9	DLFPS TFAM	32% Mustang 4 tall fescue 32% Grande 3 tall fescue 33% Fayette tall fescue 3% Microclover™	DLF/Pickseed/Seed Research of OR
*10	Vitality Low Maintenance Mixture	80% VNS hard fescue 20% VNS chewings fescue	Landmark Turf & Native Seed
*11	Vitality Double Coverage Mixture	90% VNS tall fescue 10% VNS Kentucky bluegrass	Landmark Turf & Native Seed
*12	Chantilly	100% Chantilly strong creeping red	Standard entry
*13	Dutch White Clover	100% Dutch White Clover	Standard entry
14	DLFPS TFAStC	32% Mustang 4 tall fescue 32% Grande 3 tall fescue 33% Fayette tall fescue 3% strawberry clover	DLF/Pickseed/Seed Research of OR
15	DLFPS ChCrSH	14% Longfellow 3 chewings fescue 14% Windward chewings fescue 14% Chantilly strong creeping red fescue 14% Ruddy strong creeping red fescue 14% Quatro sheep fescue 14% Eureka hard fescue 14% Spartan hard fescue	DLF/Pickseed/Seed Research of OR
*16	Spartan II	100% Spartan II hard fescue	Standard entry
*17	Quatro	100% Quatro sheep fescue	Standard entry

2015 National Low Input Cool-Season Test
Entries and Sponsors

Entry No.	Name	Species/Composition	Sponsor
*18	Ky-31 E+	100% Ky-31 tall fescue w/endophyte	Standard entry
19	CRS Mix #1	55% Gladiator hard fescue 45% 4GUD hard fescue	Columbia River Seed
20	CRS Mix #2	67% Gladiator hard fescue 33% NAI13-14 Kentucky bluegrass	Columbia River Seed
21	CRS Mix #3	45% Gladiator hard fescue 45% Sword hard fescue 10% Dutch White Clover	Columbia River Seed
22	DTT Tall Fescue Mix	50% DTT20 tall fescue 50% DTT43 tall fescue	Allied Seed LLC
23	DTTHO TF/KBG Mix	45% DTT20 tall fescue 45% DTT43 tall fescue 10% Holiday lawn Ky. Bluegrass	Allied Seed LLC
24	A-SFT	100% A-SFT tall fescue	Allied Seed LLC
*25	Kingdom	100% Kingdom tall fescue	SiteOne Landscape Supply
*26	Resolute (7H7)	100% 7H7 hard fescue	SiteOne Landscape Supply
27	Northern Mixture	40% VNS perennial ryegrass 20% VNS Kentucky bluegrass 20% VNS chewings fescue 20% VNS creeping red fescue	ProSeeds Marketing
28	Southern Mixture	70% VNS tall fescue 10% VNS Kentucky bluegrass 10% VNS perennial ryegrass 10% VNS chewings fescue	ProSeeds Marketing
29	CS Mix	40% Castle chewings fescue 40% Sword hard fescue 10% Kent creeping red fescue 10% B-15.2415 sheep fescue	Columbia Seeds LLC
*30	Yaak	100% Yaak western yarrow	Pacific NW Natives
*31	Radar	100% Radar chewings fescue	Standard entry
*32	Kenblue	100% Kenblue Kentucky bluegrass	Standard entry

* Commercially Available in the USA in 2018

TABLE A.

2017 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN
THE 2015 NATIONAL LOW INPUT COOL-SEASON TEST

LOCATION	SOIL TEXTURE	SOIL PH	SOIL PHOSPHOROUS (LBS/ACRE)	SOIL POTASSIUM (LBS/ACRE)	NITROGEN (LBS/1000 SQ FT)	SUN OR SHADE	MOWING HEIGHT (IN)	IRRIGATION PRACTICED
CT1	SANDY LOAM	6.1-6.5	0-60	151-240	-	FULL SUN	3.6-4.0	NO IRRIGATION
CT2	SANDY LOAM	6.1-6.5	0-60	151-240	-	FULL SUN	3.6-4.0	NO IRRIGATION
IN1	SILT LOAM AND SILT	7.1-7.5	61-150	151-240	1.1-2.0	FULL SUN	4.1+	NO IRRIGATION
IN2	SILT LOAM AND SILT	7.1-7.5	61-150	151-240	2.1-3.0	FULL SUN	4.1+	NO IRRIGATION
MD1	SILT LOAM AND SILT	6.1-6.5	61-150	151-240	0.0-1.0	FULL SUN	3.6-4.0	NO IRRIGATION
MI1	-	-	-	-	-	-	-	-
MN1	SILTY CLAY LOAM	6.1-6.5	61-150	241-375	0.0-1.0	FULL SUN	3.1-3.5	NO IRRIGATION
MO1	-	-	-	-	-	-	-	-
MO2	-	-	-	-	-	-	-	-
NC1	SILTY CLAY LOAM	6.1-6.5	61-150	0-150	0.0-1.0	FULL SUN	3.1-3.5	NO IRRIGATION
NE1	SILTY CLAY AND CLAY	7.1-7.5	0-60	376-500	0.0-1.0	FULL SUN	2.6-3.0	NO IRRIGATION
OR1	SILTY CLAY LOAM	6.1-6.5	0-60	241-375	0.0-1.0	FULL SUN	2.6-3.0	NO IRRIGATION
PA2	SILT LOAM AND SILT	6.1-6.5	61-150	241-375	0.0-1.0	FULL SUN	2.6-3.0	NO IRRIGATION
UT1	SILT LOAM AND SILT	7.1-7.5	0-60	151-240	-	FULL SUN	3.6-4.0	NO IRRIGATION
VA1	SILT LOAM AND SILT	5.6-6.0	0-60	0-150	0.0-1.0	FULL SUN	3.1-3.5	NO IRRIGATION

TABLE B.

LOCATIONS AND DATA COLLECTED IN 2017

LOCATION	JANUARY QUALITY RATING	FEBRUARY QUALITY RATING	MARCH QUALITY RATING	APRIL QUALITY RATING	MAY QUALITY RATING	JUNE QUALITY RATING	JULY QUALITY RATING	AUGUST QUALITY RATING	SEPTEMBER QUALITY RATING	OCTOBER QUALITY RATING	NOVEMBER QUALITY RATING	DECEMBER QUALITY RATING	GENETIC COLOR	SPRING GREENUP
CT1					X	X	X	X	X	X				X
CT2					X	X	X	X	X	X				X
IN1					X	X	X	X	X	X				
IN2					X	X	X	X	X	X				
MD1							X	X	X	X				
MI1					X	X	X	X	X	X				X
MN1							X	X	X	X				
MO1				X	X	X	X	X	X	X	X		X	
MO2				X	X	X	X	X	X	X	X		X	
NC1	X	X	X	X	X	X	X	X	X	X	X			X
NE1				X	X	X	X	X	X	X				X
OR1				X	X	X	X	X	X	X	X			
PA2			X	X	X	X	X	X	X	X	X			
UT1				X	X	X	X	X	X	X				X
VA1				X	X	X	X	X	X	X				

TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2017

LOCATION	PERCENT COVER	PERCENT COVER	PERCENT COVER	STEM RUST	DOLLAR SPOT	PINK SNOW MOLD	WINTER ANNUAL WEED	PERCENT PLANTED GRASS/WEEDS	PERCENT COVER	PERCENT WEED RATINGS					PERCENT WEED RATINGS		
	SPRING	SUMMER	FALL						JUNE	APR	JUN	AUG	SEP	OCT	SPRING	SUMMER	FALL
CT1			X								X			X			
CT2			X								X			X			
IN1			X														
IN2			X														
MD1				X			X		X					X			
MI1			X														
MN1	X	X	X												X	X	X
MO1	X														X		
MO2	X														X		
NC1			X									X	X				
NE1			X													X	X
OR1			X													X	X
PA2	X		X		X						X			X			
UT1						X											
VA1	X		X					X	X								

TABLE 1. MEAN TURFGRASS QUALITY RATINGS OF COOL-SEASON CULTIVARS GROWN UNDER 1/
 LOW INPUT IN LOCATION PERFORMANCE INDEX (LPI) GROUP 1 **/
 2017 DATA
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	ENTRY #	CT1	PA2	MD1	VA1	NC1	MI1	MO1	NE1	OR1	MEAN
DLFPS TFAM	9	7.5	4.6	5.5	7.2	4.2	5.4	5.8	4.0	5.1	5.7
CRS MIX #3	21	7.1	4.0	5.7	7.2	3.7	6.7	5.5	3.7	4.2	5.7
CRS MIX #2	20	6.2	3.8	5.8	6.9	2.8	6.7	6.0	3.9	4.1	5.5
DLFPS TFASTC	14	7.0	4.4	5.0	7.0	3.6	5.0	6.0	4.1	5.2	5.4
CRS MIX #1	19	6.2	3.6	5.8	6.9	2.4	6.5	6.1	3.7	3.9	5.3
*VITALITY DOUBLE	11	6.1	4.3	4.9	6.7	3.3	5.1	6.1	4.2	5.2	5.2
DLFPS CHCRM	7	6.2	4.2	5.3	6.5	3.3	4.8	6.1	3.8	5.0	5.2
*VITALITY LOW	10	5.5	3.7	5.6	6.5	2.5	6.1	6.1	3.8	4.2	5.2
MNHD-15	5	5.9	3.4	5.1	6.8	2.3	6.7	5.7	3.8	3.8	5.1
*BULLSEYE	2	6.2	4.3	4.5	6.6	3.5	4.6	6.0	4.2	5.4	5.1
DLFPS TF-A	6	6.5	4.2	4.5	6.6	3.3	4.5	5.8	4.0	5.2	5.1
*SPARTAN II	16	5.4	3.4	5.1	6.5	2.6	6.8	5.5	3.8	3.8	5.0
BGR-TF3	4	5.7	4.2	4.8	6.3	3.3	4.4	5.9	4.0	5.2	5.0
*RESOLUTE (7H7)	26	6.1	3.1	4.7	6.7	2.3	6.4	5.3	3.5	3.6	4.9
DTTHO TF/KBG MIX	23	6.0	3.9	4.0	6.6	3.1	5.1	5.6	4.2	5.0	4.9
DLFPS SHHM	8	5.2	3.5	4.3	6.3	3.3	6.7	4.8	4.1	4.1	4.9
*RADAR	31	4.6	3.8	5.6	5.9	2.5	5.1	6.3	3.8	4.6	4.8
DTT TALL FESCUE MIX	22	6.3	3.7	4.2	6.4	2.7	4.5	5.5	3.6	4.6	4.8
SOUTHERN MIXTURE	28	5.9	3.6	4.1	6.4	2.8	4.9	5.5	3.8	4.6	4.7
CS MIX	29	5.2	3.2	4.6	6.2	2.2	5.9	5.5	3.7	3.9	4.7
DLFPS CHCRSH	15	4.5	3.5	4.8	6.0	2.4	5.7	5.8	4.0	4.3	4.7
*KINGDOM	25	6.1	3.7	3.5	6.4	2.8	4.2	5.4	3.9	4.9	4.6
*YAAK	30	7.1	3.5	2.6	6.7	2.6	3.7	5.1	3.7	4.9	4.5
*QUATRO	17	4.8	2.9	3.7	6.1	2.5	6.4	4.6	3.8	3.7	4.4
*KY-31 E+	18	4.5	3.5	3.2	5.9	2.9	5.5	5.0	4.4	4.7	4.4
*CHANTILLY	12	4.0	3.5	4.5	5.4	2.2	4.6	5.8	3.7	4.5	4.3
NORTHERN MIXTURE	27	4.1	3.4	4.2	5.5	2.1	4.5	5.7	3.7	4.5	4.2
A-SFT	24	5.0	3.5	3.0	5.8	2.8	4.1	5.0	3.9	4.9	4.2
*KENBLUE	32	2.9	3.0	3.4	5.2	2.3	5.6	4.9	4.1	4.1	3.9
*NATURAL KNIT @ PRG MIX	1	4.2	3.1	2.4	5.2	2.6	3.7	4.3	3.6	4.5	3.6
*DUTCH WHITE CLOVER	13	3.7	2.6	1.6	5.3	2.6	5.4	3.5	4.0	3.8	3.5
*BEWITCHED	3	4.2	2.8	2.5	5.0	2.0	3.6	4.3	3.2	4.0	3.5
LSD VALUE		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
C.V. (%)		9.7	14.7	12.3	8.5	19.0	10.1	9.7	13.7	11.9	11.2

*/ COMMERCIALLY AVAILABLE IN THE USA IN 2018.

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

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

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

TABLE 2. MEAN TURFGRASS QUALITY RATINGS OF COOL-SEASON CULTIVARS GROWN UNDER 1/
 LOW INPUT IN LOCATION PERFORMANCE INDEX (LPI) GROUP 2 */
 2017 DATA
 TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	IN1	MN1	UT1	MEAN
YAAK	7.2	4.9	5.4	5.8
MNHD-15	6.6	5.4	4.3	5.4
KINGDOM	6.9	4.7	4.6	5.4
CRS MIX #1	6.6	5.5	4.0	5.4
VITALITY DOUBLE	6.9	4.5	4.3	5.2
DTTHO TF/KBG MIX	6.7	4.3	4.6	5.2
NORTHERN MIXTURE	6.9	5.1	3.5	5.2
VITALITY LOW	6.6	5.1	3.7	5.1
RADAR	6.8	5.2	3.2	5.1
DLFPS CHCRSH	6.6	5.0	3.6	5.1
CS MIX	6.4	4.9	3.9	5.1
SOUTHERN MIXTURE	6.5	4.2	4.2	5.0
CRS MIX #2	6.3	4.7	3.9	5.0
BULLSEYE	6.7	3.9	4.2	4.9
DLFPS TFASTC	6.5	3.8	4.4	4.9
DTT TALL FESCUE MIX	6.4	4.1	4.1	4.9
DLFPS TF-A	6.5	3.8	4.2	4.9
RESOLUTE (7H7)	6.0	4.5	4.1	4.8
CHANTILLY	6.6	4.7	3.1	4.8
DLFPS CHCRM	6.4	3.9	3.7	4.7
KY-31 E+	6.2	3.5	4.2	4.7
A-SFT	6.3	3.4	4.0	4.5
BGR-TF3	6.3	3.5	3.6	4.5
SPARTAN II	5.7	3.9	3.7	4.4
KENBLUE	5.9	3.5	3.2	4.2
QUATRO	5.2	2.8	3.7	3.9
BEWITCHED	5.4	2.6	3.1	3.7
NATURAL KNIT @ PRG MIX	5.3	1.9	3.3	3.5
DLFPS TFAM	5.2	1.6	3.8	3.5
CRS MIX #3	4.7	1.7	3.5	3.3
DLFPS SHHM	4.5	1.2	3.3	3.0
DUTCH WHITE CLOVER	4.4	0.9	3.6	3.0
LSD VALUE	0.9	0.9	0.9	0.9
C.V. (%)	8.6	13.8	13.7	11.5

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

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

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

TABLE 3.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF COOL-SEASON CULTIVARS
GROWN UNDER LOW INPUT WITH INITIAL ANNUAL GRASS PRE-EMERGENCE AT STORRS, CT 1/
2017 DATA
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	SPRING GREENUP	PERCENT GROUND COVER		WEED RATINGS		QUALITY RATINGS					MEAN
		FALL	SUMMER	FALL	MAY	JUN	JUL	AUG	SEP	OCT	
DLFPS TFAM	4.7	97.7	1.3	2.7	7.0	7.3	7.7	8.0	8.0	7.0	7.5
CRS MIX #3	5.7	94.3	1.3	1.7	6.7	7.0	7.3	7.7	7.0	7.7	7.2
DLFPS TF-A	4.0	93.7	9.7	3.3	7.7	7.3	6.0	6.7	7.0	7.0	6.9
DLFPS TFASTC	4.3	95.0	1.0	2.3	6.3	6.7	6.7	7.0	6.7	7.7	6.8
BULLSEYE	3.7	94.3	20.7	5.0	7.0	7.3	6.0	6.3	7.0	6.3	6.7
YAAK	2.0	95.3	4.0	13.3	7.0	6.7	7.3	7.3	6.3	5.3	6.7
CRS MIX #1	5.0	76.7	21.7	12.3	6.0	7.7	6.0	6.0	6.3	6.3	6.4
CRS MIX #2	5.7	75.0	23.0	26.0	5.7	7.3	6.0	6.7	6.3	6.3	6.4
DLFPS CHCRM	5.0	96.0	1.3	2.0	6.3	6.3	6.3	6.7	6.3	6.3	6.4
DTTHO TF/KBG MIX	3.3	71.7	36.0	5.3	6.7	7.3	6.0	5.7	6.3	6.3	6.4
MNHD-15	5.3	77.0	17.3	15.0	5.7	7.3	6.3	6.0	6.0	6.3	6.3
VITALITY DOUBLE	3.0	76.7	25.0	8.3	6.3	7.7	5.3	5.7	6.3	6.3	6.3
VITALITY LOW	5.3	88.7	5.7	10.0	5.7	6.3	6.7	6.0	6.0	6.0	6.1
SOUTHERN MIXTURE	4.0	78.0	8.7	17.0	6.3	6.0	6.3	6.3	6.3	4.7	6.0
SPARTAN II	5.0	69.7	8.7	14.3	5.7	6.3	6.7	6.0	5.3	6.0	6.0
CS MIX	5.3	75.3	25.3	21.0	6.7	6.7	5.0	5.7	5.7	6.0	5.9
DLFPS SHHM	5.7	88.7	4.3	11.7	5.7	7.0	6.3	6.3	5.0	5.0	5.9
KINGDOM	3.7	70.7	33.3	10.3	6.7	6.3	5.3	5.0	6.3	6.0	5.9
RESOLUTE (7H7)	5.7	61.7	33.3	26.7	5.0	8.0	5.7	5.0	4.7	5.7	5.7
A-SFT	4.0	68.3	21.3	12.3	6.0	7.0	5.3	3.7	5.7	6.0	5.6
DLFPS CHCRSH	4.7	87.7	11.0	10.3	5.7	5.3	5.3	5.7	5.7	5.7	5.6
DTT TALL FESCUE MIX	3.7	75.0	24.0	19.3	5.3	6.7	5.3	4.7	6.0	5.7	5.6
BGR-TF3	4.3	61.7	41.7	17.7	6.0	6.0	4.7	4.3	6.0	6.0	5.5
RADAR	4.3	91.0	6.7	17.3	6.0	5.3	4.7	5.3	6.0	5.7	5.5
KY-31 E+	4.0	94.0	7.7	14.3	4.7	3.7	6.0	6.3	6.0	4.3	5.2
NORTHERN MIXTURE	4.0	61.7	60.0	35.0	5.0	6.0	4.7	4.3	4.7	4.7	4.9
CHANTILLY	5.0	80.0	16.7	28.3	5.7	5.7	4.3	4.3	4.7	4.0	4.8
NATURAL KNIT @ PRG MIX	4.7	51.7	38.3	26.7	4.7	5.7	4.3	3.3	4.7	5.3	4.7
QUATRO	4.7	60.0	28.3	43.3	4.3	5.0	4.7	4.0	4.7	4.0	4.4
BEWITCHED	5.3	10.0	90.0	83.3	5.0	6.3	3.0	2.7	3.0	4.7	4.1
DUTCH WHITE CLOVER	4.7	23.3	20.0	86.7	5.0	4.0	5.3	5.7	1.7	1.7	3.9
KENBLUE	4.3	7.0	90.0	88.3	6.0	5.0	3.0	2.3	1.7	2.0	3.3
LSD VALUE	2.8	26.9	30.4	17.0	1.4	1.2	1.5	1.5	1.5	1.3	0.8
C.V. (%)	25.7	22.9	79.7	52.2	13.2	11.4	16.2	17.1	16.7	15.2	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 4.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF COOL-SEASON CULTIVARS
GROWN UNDER LOW INPUT WITH INITIAL ANNUAL GRASS PRE-EMERGENCE AT COLUMBIA, MO 1/
2017 DATA

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

NAME	GENETIC COLOR	PERCENT GROUND COVER SPRING	PERCENT WEED SPRING	QUALITY RATINGS									MEAN
				APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV		
DLFPS TFAM	6.7	98.0	8.7	7.3	7.0	6.3	6.3	6.7	6.3	6.3	6.7	6.6	
CRS MIX #1	6.3	97.0	16.7	6.7	7.0	6.3	6.0	6.7	6.7	6.7	6.0	6.5	
DLFPS CHCRM	7.0	98.0	6.3	7.7	7.0	5.7	5.7	6.7	6.0	6.7	6.7	6.5	
DLFPS TFASTC	7.3	98.0	4.3	7.3	6.0	5.7	6.0	6.7	7.3	6.3	6.3	6.5	
DTTHO TF/KBG MIX	7.0	98.0	9.3	6.3	6.7	7.0	6.0	6.7	6.7	6.0	6.7	6.5	
VITALITY LOW	6.0	98.0	11.7	7.0	6.7	5.3	5.7	5.7	6.7	7.0	7.7	6.5	
RADAR	6.3	98.0	8.7	6.7	7.0	5.3	5.7	6.3	6.3	6.7	7.3	6.4	
DLFPS TF-A	6.3	98.0	6.7	5.7	6.0	6.7	6.3	6.3	6.3	6.7	6.7	6.3	
SOUTHERN MIXTURE	5.7	98.0	5.0	6.3	6.3	6.3	6.0	6.3	6.3	6.3	6.7	6.3	
BULLSEYE	6.3	97.0	8.3	6.3	6.3	6.3	5.3	6.3	6.3	6.0	6.3	6.2	
DLFPS CHCRSH	6.3	97.0	10.0	6.0	6.7	6.0	5.7	5.7	6.3	5.7	6.7	6.1	
BEWITCHED	6.0	97.0	21.7	6.3	6.7	7.0	5.7	6.0	5.3	5.3	5.3	6.0	
MNHD-15	6.0	98.0	10.0	5.7	7.0	6.3	5.7	6.3	6.0	5.7	5.7	6.0	
VITALITY DOUBLE	6.0	98.0	5.0	5.3	6.3	5.7	5.7	6.3	6.3	6.3	6.3	6.0	
CS MIX	6.0	97.0	15.0	5.3	6.7	5.7	5.0	5.7	6.3	6.0	6.7	5.9	
DTT TALL FESCUE MIX	7.0	97.0	9.3	6.3	6.3	6.0	5.7	6.0	5.7	5.7	5.7	5.9	
CRS MIX #2	5.7	98.0	16.7	5.7	6.0	5.7	5.7	6.0	6.0	6.0	5.7	5.8	
CRS MIX #3	6.0	87.7	23.3	5.7	6.0	6.0	5.7	6.0	6.0	5.7	5.0	5.8	
KINGDOM	7.7	98.0	13.3	6.7	6.0	6.0	5.3	6.0	5.7	5.3	5.7	5.8	
KENBLUE	6.3	97.0	20.0	6.3	6.3	6.7	5.3	5.7	5.0	5.3	5.0	5.7	
NORTHERN MIXTURE	6.3	97.0	6.0	6.0	6.7	5.7	5.3	6.0	5.3	5.3	5.3	5.7	
A-SFT	7.0	98.0	11.7	6.3	6.3	6.0	5.3	5.3	5.0	5.3	5.3	5.6	
BGR-TF3	6.3	98.0	11.7	5.7	6.3	6.0	5.3	5.7	5.3	5.3	5.3	5.6	
RESOLUTE (7H7)	5.3	96.0	18.3	5.0	5.7	6.7	5.3	6.0	5.7	5.3	5.3	5.6	
DLFPS SHHM	6.0	88.3	23.3	6.7	6.7	5.7	5.0	5.3	5.0	5.0	4.3	5.5	
SPARTAN II	4.7	98.0	16.7	5.3	5.7	5.7	5.3	5.7	5.7	5.3	5.3	5.5	
CHANTILLY	6.0	98.0	9.3	5.0	5.0	5.0	4.7	5.3	4.7	5.7	5.3	5.1	
QUATRO	6.0	97.0	30.0	6.0	6.3	6.0	5.0	5.0	4.3	4.0	3.7	5.0	
YAAK	6.0	91.7	15.0	5.7	5.3	5.0	5.0	4.7	5.0	5.0	4.7	5.0	
NATURAL KNIT ® PRG MIX	6.3	93.3	25.0	6.3	6.7	5.7	4.7	4.3	3.7	4.0	4.0	4.9	
KY-31 E+	4.0	94.3	6.0	4.7	4.0	5.7	4.7	5.0	4.3	5.3	5.0	4.8	
DUTCH WHITE CLOVER	6.3	60.0	55.0	3.3	3.0	3.0	2.3	2.7	2.0	2.3	2.0	2.6	
LSD VALUE	1.0	9.6	9.2	1.8	1.8	1.5	1.2	1.2	1.1	1.0	1.0	0.8	
C.V. (%)	9.3	6.1	41.6	15.7	15.3	13.5	12.8	12.1	12.9	11.0	11.3	9.1	

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 5. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF COOL-SEASON CULTIVARS
 GROWN WITH ADDITIONAL FERTILIZER (MEDIUM INPUT) AT WEST LAFAYETTE, IN 1/
 2016 DATA
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT GROUND COVER		QUALITY RATINGS					MEAN
	FALL	MAY	JUN	JUL	AUG	SEP	OCT	
KINGDOM	99.0	7.3	7.3	6.7	7.0	8.0	7.7	7.3
VITALITY LOW	98.7	7.3	7.0	6.7	6.7	7.3	7.0	7.0
SOUTHERN MIXTURE	98.7	6.7	6.7	7.0	7.0	7.0	7.0	6.9
A-SFT	99.0	6.7	7.0	6.3	7.0	7.3	6.7	6.8
DLFPS TF-A	99.0	6.3	5.7	7.0	7.0	7.7	7.3	6.8
DTTHO TF/KBG MIX	99.0	6.0	6.0	7.0	7.0	7.3	7.3	6.8
BULLSEYE	99.0	6.7	6.0	6.7	7.0	7.0	7.0	6.7
VITALITY DOUBLE	99.0	6.0	6.0	6.3	7.0	7.3	7.3	6.7
YAAK	99.0	6.0	7.0	6.3	7.0	7.0	6.7	6.7
BEWITCHED	97.0	5.7	6.0	7.0	7.0	7.0	7.0	6.6
BGR-TF3	99.0	6.0	6.0	6.3	7.0	7.3	7.0	6.6
DTT TALL FESCUE MIX	99.0	6.0	6.0	6.0	7.0	7.3	7.0	6.6
RADAR	96.0	6.7	6.7	6.0	6.3	7.0	7.0	6.6
DLFPS TFASTC	99.0	7.0	6.0	6.3	6.3	7.3	6.0	6.5
KY-31 E+	99.0	6.0	6.7	7.0	6.3	6.3	6.7	6.5
CHANTILLY	97.7	6.3	6.3	6.0	6.3	6.7	7.0	6.4
DLFPS CHCRSH	97.7	6.7	6.3	6.3	6.0	6.7	6.7	6.4
NORTHERN MIXTURE	99.0	6.3	6.7	6.7	6.0	6.0	7.0	6.4
CS MIX	94.7	6.3	6.3	6.3	6.0	6.7	6.3	6.3
KENBLUE	98.7	6.0	6.0	7.0	6.7	5.7	6.0	6.2
SPARTAN II	74.3	6.0	6.0	6.0	5.3	6.3	6.7	6.1
CRS MIX #2	98.3	5.7	5.3	5.7	6.3	6.3	6.0	5.9
DLFPS TFAM	97.7	6.0	6.0	5.7	6.0	6.3	5.7	5.9
RESOLUTE (7H7)	58.3	5.7	6.3	5.7	5.3	6.0	5.0	5.7
MNHD-15	80.0	5.0	5.0	5.7	5.7	5.7	6.7	5.6
DLFPS CHCRM	88.3	5.0	5.0	5.3	6.0	5.7	5.7	5.4
NATURAL KNIT ® PRG MIX	89.7	4.3	5.3	5.7	5.7	4.7	6.3	5.3
QUATRO	56.7	4.7	5.3	4.7	5.0	5.3	5.0	5.0
CRS MIX #1	76.7	4.3	4.7	4.3	4.7	5.3	5.0	4.7
DLFPS SHHM	23.3	3.7	4.3	5.0	4.7	3.3	3.3	4.1
DUTCH WHITE CLOVER	23.3	3.3	4.0	4.3	5.0	3.7	3.7	4.0
CRS MIX #3	21.7	3.3	3.3	4.0	4.3	3.3	3.3	3.6
LSD VALUE	18.7	1.4	1.0	1.0	0.7	0.9	0.8	0.6
C.V. (%)	14.3	15.0	11.1	10.5	7.6	9.8	8.4	6.9

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

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

TABLE 6. GENETIC COLOR RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

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

NAME	MOI
DLFPS TF-A	7.3
DTTHO TF/KBG MIX	7.0
SOUTHERN MIXTURE	7.0
BGR-TF3	6.7
CRS MIX #2	6.7
CS MIX	6.7
DLFPS TFASTC	6.7
KINGDOM	6.7
NATURAL KNIT @ PRG MIX	6.7
VITALITY LOW	6.7
A-SFT	6.3
BEWITCHED	6.3
CHANTILLY	6.3
DLFPS CHCRM	6.3
DTT TALL FESCUE MIX	6.3
MNHD-15	6.3
VITALITY DOUBLE	6.3
BULLSEYE	6.0
DLFPS SHHM	6.0
DLFPS TFAM	6.0
DUTCH WHITE CLOVER	6.0
KENBLUE	6.0
NORTHERN MIXTURE	6.0
QUATRO	6.0
RADAR	6.0
CRS MIX #3	5.7
DLFPS CHCRSH	5.7
RESOLUTE (7H7)	5.3
SPARTAN II	5.3
CRS MIX #1	5.0
YAAK	5.0
KY-31 E+	4.3
LSD VALUE	1.5
C.V. (%)	14.9

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

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

TABLE 7. SPRING GREENUP RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

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

NAME	CT1	MI1	NC1	NE1	UT1	MEAN
YAAK	2.0	9.0	5.7	3.0	8.7	5.7
DLFPS CHCRM	5.7	7.7	3.0	4.0	7.0	5.5
DLFPS SHHM	5.3	5.3	4.3	5.0	7.3	5.5
CRS MIX #3	5.7	5.3	3.3	3.3	8.7	5.3
DLFPS TFAM	4.0	7.3	4.7	4.3	6.0	5.3
DUTCH WHITE CLOVER	4.0	6.3	3.0	3.7	9.0	5.2
DLFPS TFASTC	3.7	5.7	4.3	4.3	6.0	4.8
NATURAL KNIT @ PRG MIX	5.0	4.7	3.7	4.3	6.0	4.7
BULLSEYE	3.0	4.7	4.3	5.0	6.0	4.6
NORTHERN MIXTURE	4.0	5.0	3.3	3.3	7.0	4.5
QUATRO	5.0	3.3	2.0	4.0	8.3	4.5
CHANTILLY	5.3	3.7	3.7	2.7	7.0	4.5
RADAR	3.7	3.7	2.7	3.3	8.0	4.3
BGR-TF3	3.0	4.7	3.7	4.3	5.3	4.2
DTT TALL FESCUE MIX	3.3	4.3	3.0	5.0	5.0	4.1
KY-31 E+	3.3	4.3	2.7	4.0	6.3	4.1
CS MIX	3.3	3.0	2.7	4.3	7.0	4.1
DLFPS CHCRSH	3.7	3.7	2.3	3.3	7.3	4.1
KINGDOM	2.3	3.7	3.7	5.0	5.7	4.1
SOUTHERN MIXTURE	3.7	4.0	3.3	3.0	6.3	4.1
VITALITY LOW	3.7	3.3	2.3	3.7	7.3	4.1
CRS MIX #1	3.7	2.7	2.0	4.0	7.7	4.0
DLFPS TF-A	3.3	4.3	3.3	3.3	5.7	4.0
VITALITY DOUBLE	2.7	4.0	3.0	4.7	5.7	4.0
A-SFT	2.3	4.3	4.3	3.3	5.3	3.9
MNHD-15	4.0	3.0	2.0	3.3	7.0	3.9
RESOLUTE (7H7)	3.7	3.0	2.3	3.0	7.3	3.9
KENBLUE	1.7	3.3	2.3	4.3	7.3	3.8
BEWITCHED	3.0	3.7	2.0	4.0	6.0	3.7
DTTHO TF/KBG MIX	2.0	4.3	3.3	3.0	6.0	3.7
CRS MIX #2	3.3	2.7	2.3	3.3	6.7	3.7
SPARTAN II	3.3	2.3	2.3	3.3	7.0	3.7
LSD VALUE	1.3	1.0	1.7	1.8	1.1	0.6
C.V. (%)	22.9	14.7	34.1	28.9	10.0	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.

TABLE 8. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	MN1	MO1	PA2	VA1	MEAN
YAAK	96.3	96.3	97.3	99.0	97.3
DLFPS TFASTC	92.7	98.0	98.0	99.0	96.9
KY-31 E+	90.0	97.0	97.7	92.7	94.3
VITALITY DOUBLE	82.3	96.0	98.7	99.0	94.0
KENBLUE	83.0	95.3	97.3	99.0	93.7
DLFPS CHCRM	77.3	98.0	98.7	99.0	93.3
SOUTHERN MIXTURE	80.3	93.7	98.7	99.0	92.9
CRS MIX #1	75.3	98.0	98.3	99.0	92.7
MNHD-15	75.7	98.0	97.7	99.0	92.6
CRS MIX #2	74.3	98.0	99.0	99.0	92.6
KINGDOM	74.0	98.0	99.0	99.0	92.5
SPARTAN II	74.7	98.0	98.3	99.0	92.5
RESOLUTE (7H7)	76.0	95.3	99.0	99.0	92.3
DLFPS CHCRSH	72.7	98.0	98.7	99.0	92.1
DTTHO TF/KBG MIX	74.0	95.3	99.0	99.0	91.8
RADAR	71.7	97.0	98.7	99.0	91.6
DLFPS TFAM	69.7	98.0	99.0	99.0	91.4
BGR-TF3	69.7	98.0	98.7	99.0	91.3
DLFPS TF-A	69.3	98.0	98.7	99.0	91.3
VITALITY LOW	67.3	98.0	98.3	99.0	90.7
BULLSEYE	68.3	95.3	99.0	99.0	90.4
CRS MIX #3	74.0	89.3	98.3	99.0	90.2
DLFPS SHHM	74.7	87.7	98.3	99.0	89.9
NORTHERN MIXTURE	74.7	87.7	98.3	99.0	89.9
CS MIX	70.7	92.0	97.3	99.0	89.8
CHANTILLY	65.3	98.0	97.7	96.0	89.3
DUTCH WHITE CLOVER	89.0	68.3	98.7	99.0	88.8
DTT TALL FESCUE MIX	59.0	97.0	98.7	99.0	88.4
A-SFT	58.3	97.0	98.3	99.0	88.2
QUATRO	46.3	94.3	98.0	99.0	84.4
BEWITCHED	38.7	84.3	98.7	91.0	78.2
NATURAL KNIT ® PRG MIX	11.7	97.0	99.0	94.3	75.5
LSD VALUE	19.0	11.7	1.4	5.7	5.8
C.V. (%)	16.6	7.7	0.9	3.6	7.9

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

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

TABLE 9. PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	MN1
DLFPS TFASTC	94.7
KY-31 E+	93.7
YAAK	90.7
SOUTHERN MIXTURE	87.0
VITALITY DOUBLE	85.3
DLFPS CHCRM	82.3
KINGDOM	81.7
NORTHERN MIXTURE	81.7
DUTCH WHITE CLOVER	81.0
DLFPS TFAM	80.0
RADAR	80.0
CRS MIX #3	78.3
CS MIX	78.3
DLFPS CHCRSH	78.3
BULLSEYE	77.3
CRS MIX #1	77.3
DLFPS TF-A	77.0
DLFPS SHHM	75.3
VITALITY LOW	75.3
MNHD-15	75.0
CHANTILLY	73.7
RESOLUTE (7H7)	73.7
KENBLUE	73.3
DTTHO TF/KBG MIX	72.0
SPARTAN II	71.0
DTT TALL FESCUE MIX	68.7
BGR-TF3	68.0
CRS MIX #2	66.3
A-SFT	65.3
QUATRO	46.3
BEWITCHED	41.3
NATURAL KNIT © PRG MIX	15.7
LSD VALUE	18.2
C.V. (%)	15.3

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. PERCENT LIVING GROUND COVER (FALL) RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/										
NAME	CT1	IN1	MI1	MN1	NC1	NE1	OR1	PA2	VA1	MEAN
DLFPS TFASTC	53.3	99.0	88.3	97.3	76.7	96.0	90.3	86.7	99.0	87.4
DLFPS TFAM	58.3	91.0	78.3	90.3	91.7	86.3	96.7	78.3	99.0	85.6
DLFPS TF-A	71.7	99.0	88.3	86.0	50.0	96.0	93.0	80.0	99.0	84.8
BULLSEYE	61.7	99.0	78.3	91.3	50.0	99.0	93.3	83.3	99.0	83.9
BGR-TF3	80.0	99.0	81.7	77.3	48.3	82.7	94.0	78.3	99.0	82.3
NORTHERN MIXTURE	88.3	99.0	86.7	95.7	31.7	96.0	89.7	53.3	99.0	82.1
KY-31 E+	89.7	99.0	93.3	96.3	31.7	99.0	94.3	27.3	99.0	81.1
DLFPS CHCRM	55.0	96.0	56.7	94.0	78.3	93.0	88.7	65.0	99.0	80.6
SOUTHERN MIXTURE	46.0	99.0	78.3	92.7	49.3	96.0	97.3	61.7	99.0	79.9
VITALITY DOUBLE	46.7	99.0	85.0	90.3	35.0	93.0	90.3	80.0	99.0	79.8
DLFPS CHCRSH	87.7	99.0	97.7	83.7	36.7	93.0	89.3	30.0	99.0	79.6
DTTHO TF/KBG MIX	69.0	99.0	88.3	76.0	20.0	99.0	90.0	75.0	99.0	79.5
CHANTILLY	96.0	99.0	83.3	86.0	28.3	99.0	83.3	40.0	99.0	79.3
RADAR	94.3	99.0	70.0	85.0	30.0	96.0	82.0	56.7	99.0	79.1
A-SFT	83.3	99.0	60.0	77.0	28.3	96.0	92.7	71.7	99.0	78.6
CRS MIX #2	96.3	89.3	99.0	58.7	50.0	99.0	48.3	60.0	99.0	77.7
YAAK	69.3	99.0	50.0	86.0	44.7	89.7	88.3	63.3	99.0	76.6
KINGDOM	59.0	99.0	78.3	89.3	38.3	83.0	92.7	43.3	99.0	75.8
VITALITY LOW	55.7	97.7	96.3	84.3	38.3	89.7	65.0	50.0	99.0	75.1
CS MIX	69.7	97.7	93.3	84.0	28.3	89.7	72.3	38.3	98.3	74.6
KENBLUE	93.7	96.0	92.7	64.3	71.7	99.0	21.0	26.7	99.0	73.8
RESOLUTE (7H7)	84.7	88.3	99.0	72.0	31.7	93.0	38.3	53.3	99.0	73.3
DTT TALL FESCUE MIX	51.7	99.0	70.0	73.7	11.7	96.0	91.3	65.0	99.0	73.0
CRS MIX #1	46.7	94.7	97.7	85.3	40.0	99.0	41.7	50.0	99.0	72.7
MNHD-15	81.7	91.7	99.0	74.3	26.7	96.0	20.0	56.7	99.0	71.7
CRS MIX #3	68.3	26.7	99.0	80.0	68.3	96.0	35.0	61.7	99.0	70.4
DLFPS SHHM	73.3	35.0	99.0	83.3	63.3	96.0	50.0	33.3	96.0	69.9
SPARTAN II	45.0	84.7	99.0	68.3	31.7	90.0	61.7	33.3	99.0	68.1
QUATRO	93.3	71.7	97.7	43.7	20.0	96.0	61.0	21.7	99.0	67.1
NATURAL KNIT @ PRG MIX	81.7	93.0	56.7	16.0	5.0	93.0	80.0	30.0	91.3	60.7
DUTCH WHITE CLOVER	69.7	10.0	94.7	67.7	61.7	99.0	2.7	18.3	97.7	57.9
BEWITCHED	65.7	94.7	70.0	43.7	5.0	83.0	18.3	36.7	99.0	57.3
LSD VALUE	47.9	19.1	16.3	17.9	31.9	14.4	16.7	24.2	3.3	8.1
C.V. (%)	41.7	13.3	12.0	14.3	47.9	9.5	14.7	28.1	2.1	20.0

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

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

TABLE 12. DOLLAR SPOT RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

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

NAME	PA2
BEWITCHED	9.0
CRS MIX #1	9.0
CRS MIX #2	9.0
CRS MIX #3	9.0
DLFPS CHCRM	9.0
DLFPS CHCRSH	9.0
DLFPS SHHM	9.0
DLFPS TFAM	9.0
DTTHO TF/KBG MIX	9.0
KENBLUE	9.0
KY-31 E+	9.0
MNHD-15	9.0
NATURAL KNIT @ PRG MIX	9.0
QUATRO	9.0
RADAR	9.0
RESOLUTE (7H7)	9.0
SPARTAN II	9.0
VITALITY DOUBLE	9.0
VITALITY LOW	9.0
YAAK	9.0
BGR-TF3	8.3
BULLSEYE	8.3
CHANTILLY	8.3
CS MIX	8.3
DTT TALL FESCUE MIX	8.3
DUTCH WHITE CLOVER	8.3
KINGDOM	8.3
SOUTHERN MIXTURE	8.3
A-SFT	8.0
DLFPS TF-A	8.0
DLFPS TFASTC	8.0
NORTHERN MIXTURE	7.7
LSD VALUE	1.3
C.V. (%)	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 13. PINK/GRAY SNOW MOLD RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S.
2017 DATA

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

NAME	UT1
DUTCH WHITE CLOVER	9.0
CRS MIX #3	8.7
YAAK	8.7
QUATRO	8.3
RADAR	8.0
CRS MIX #1	7.7
DLFPS CHCRSH	7.3
DLFPS SHHM	7.3
KENBLUE	7.3
RESOLUTE (7H7)	7.3
VITALITY LOW	7.3
CHANTILLY	7.0
CS MIX	7.0
DLFPS CHCRM	7.0
MNHD-15	7.0
NORTHERN MIXTURE	7.0
SPARTAN II	7.0
CRS MIX #2	6.7
KY-31 E+	6.3
SOUTHERN MIXTURE	6.3
BEWITCHED	6.0
BULLSEYE	6.0
DLFPS TFAM	6.0
DLFPS TFASTC	6.0
DTTHO TF/KBG MIX	6.0
NATURAL KNIT © PRG MIX	6.0
DLFPS TF-A	5.7
KINGDOM	5.7
VITALITY DOUBLE	5.7
A-SFT	5.3
BGR-TF3	5.3
DTT TALL FESCUE MIX	5.0
LSD VALUE	1.1
C.V. (%)	10.0

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

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

TABLE 14.

PERCENT COVER (JUNE) RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT IN THE U.S. 2/
 2017 DATA

NAME	MD1
YAAK	91.7
CRS MIX #3	86.7
DLFPS CHCRM	81.7
SPARTAN II	80.0
CRS MIX #2	78.3
RADAR	78.3
KY-31 E+	76.7
DLFPS CHCRSH	75.0
DLFPS TFAM	75.0
NORTHERN MIXTURE	73.3
VITALITY LOW	71.7
DLFPS SHHM	70.0
CHANTILLY	68.3
CS MIX	63.3
DLFPS TFASTC	63.3
MNHD-15	61.7
RESOLUTE (7H7)	60.0
CRS MIX #1	56.7
SOUTHERN MIXTURE	55.0
VITALITY DOUBLE	51.7
KENBLUE	50.0
QUATRO	48.3
BULLSEYE	46.7
BGR-TF3	43.3
DLFPS TF-A	38.3
DTT TALL FESCUE MIX	36.7
DTTHO TF/KBG MIX	35.0
DUTCH WHITE CLOVER	31.7
KINGDOM	30.0
NATURAL KNIT @ PRG MIX	28.3
A-SFT	25.0
BEWITCHED	5.0
LSD VALUE	19.4
C.V. (%)	21.1

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 15.

PERCENT WINTER ANNUAL WEEDS (MARCH) RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT IN THE U.S. 2/
2017 DATA

NAME	MD1
BEWITCHED	90.0
CRS MIX #2	88.3
KENBLUE	88.3
DUTCH WHITE CLOVER	75.0
VITALITY LOW	73.3
CRS MIX #1	71.7
MNHD-15	66.7
RESOLUTE (7H7)	63.3
CS MIX	51.7
SPARTAN II	45.0
RADAR	43.3
QUATRO	41.7
DLFPS CHCRSH	33.3
DTTHO TF/KBG MIX	33.3
CRS MIX #3	31.7
KINGDOM	31.7
NORTHERN MIXTURE	30.0
DLFPS SHHM	25.0
DLFPS TF-A	25.0
CHANTILLY	21.7
A-SFT	20.7
BGR-TF3	20.0
BULLSEYE	17.7
VITALITY DOUBLE	16.0
DLFPS CHCRM	15.3
DLFPS TFASTC	15.0
DTT TALL FESCUE MIX	12.7
YAAK	10.0
SOUTHERN MIXTURE	8.3
DLFPS TFAM	6.7
KY-31 E+	5.3
NATURAL KNIT © PRG MIX	5.0
LSD VALUE	15.5
C.V. (%)	26.0

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

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

TABLE 16.

PERCENT WEED (SPRING) RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT IN THE U.S. 2/
 2017 DATA

NAME	MOI
DUTCH WHITE CLOVER	40.0
BEWITCHED	20.0
KENBLUE	20.0
NORTHERN MIXTURE	20.0
SOUTHERN MIXTURE	20.0
DLFPS SHHM	16.7
CRS MIX #1	15.0
QUATRO	15.0
YAAK	15.0
CRS MIX #3	13.3
CS MIX	13.3
CRS MIX #2	12.7
CHANTILLY	11.7
RESOLUTE (7H7)	11.0
DLFPS TF-A	10.0
KINGDOM	10.0
NATURAL KNIT @ PRG MIX	10.0
RADAR	10.0
SPARTAN II	10.0
BULLSEYE	9.3
DLFPS CHCRSH	9.3
MNHD-15	9.3
DTTHO TF/KBG MIX	8.7
BGR-TF3	8.3
DLFPS TFASTC	8.3
VITALITY DOUBLE	8.3
KY-31 E+	7.7
DLFPS CHCRM	6.7
DLFPS TFAM	6.7
A-SFT	6.0
DTT TALL FESCUE MIX	5.0
VITALITY LOW	5.0
LSD VALUE	14.2
C.V. (%)	71.9

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

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

TABLE 17.

PERCENT COVER OF PLANTED GRASSES AND WEED RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT AT BLACKSBURG, VA 2/
2017 DATA

NAME NAME	PERCENT WEEDS PCTWEED	PERCENT GROUND COVER PCTCOVER
DLFPS TF-A	3.0	97.0
VITALITY DOUBLE	3.0	97.0
KY-31 E+	4.0	96.0
SOUTHERN MIXTURE	5.0	95.0
BGR-TF3	6.7	93.3
MNHD-15	6.7	93.3
BULLSEYE	7.3	92.7
CRS MIX #3	7.3	92.7
DLFPS TFAM	8.3	92.7
CRS MIX #1	8.3	91.7
CRS MIX #2	8.3	91.7
DLFPS CHCRM	8.3	91.7
DTTHO TF/KBG MIX	8.3	91.7
NORTHERN MIXTURE	8.3	91.7
RADAR	9.0	91.0
DTT TALL FESCUE MIX	10.0	90.0
KINGDOM	10.0	90.0
SPARTAN II	10.0	90.0
A-SFT	10.7	89.3
DLFPS CHCRSH	11.7	88.3
DLFPS TFASTC	13.3	86.7
YAAK	13.3	86.7
CS MIX	14.0	85.0
QUATRO	15.0	85.0
VITALITY LOW	15.0	85.0
CHANTILLY	15.0	84.7
DLFPS SHHM	15.0	81.7
KENBLUE	20.0	80.0
RESOLUTE (7H7)	23.3	76.7
NATURAL KNIT @ PRG MIX	25.0	66.7
DUTCH WHITE CLOVER	53.3	45.0
BEWITCHED	58.3	41.7
LSD VALUE	18.7	17.9
C.V. (%)	80.6	12.5

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

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

TABLE 18.

PERCENT WEED (OCTOBER) RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT IN THE U.S. 2/
 2017 DATA

NAME	MD1
DUTCH WHITE CLOVER	80.0
BEWITCHED	68.3
NATURAL KNIT @ PRG MIX	66.7
KINGDOM	40.0
A-SFT	36.0
QUATRO	27.7
KY-31 E+	19.0
DTTHO TF/KBG MIX	18.3
RESOLUTE (7H7)	16.3
DLFPS TF-A	15.0
KENBLUE	15.0
DTT TALL FESCUE MIX	14.7
NORTHERN MIXTURE	13.3
DLFPS TFASTC	12.7
YAAK	12.7
DLFPS SHHM	12.0
CS MIX	9.7
DLFPS CHCRM	9.3
SPARTAN II	8.7
CHANTILLY	8.3
CRS MIX #3	7.7
MNHD-15	7.7
SOUTHERN MIXTURE	7.3
BULLSEYE	7.0
VITALITY DOUBLE	6.7
VITALITY LOW	6.7
BGR-TF3	6.3
DLFPS CHCRSH	6.3
DLFPS TFAM	6.3
CRS MIX #1	4.7
CRS MIX #2	3.3
RADAR	3.3
LSD VALUE	21.9
C.V. (%)	75.3

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

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

TABLE 19.

PERCENT WEED RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT AT STORRS, CT 2/
2017 DATA

NAME	PERCENT WEED RATINGS		
	SUMMER	FALL	MEAN
BEWITCHED	86.7	27.0	56.8
KENBLUE	75.0	5.7	40.3
VITALITY DOUBLE	3.7	55.0	29.3
KINGDOM	22.7	34.3	28.5
DTT TALL FESCUE MIX	16.3	35.3	25.8
A-SFT	36.7	13.3	25.0
VITALITY LOW	7.0	39.3	23.2
RADAR	40.0	4.0	22.0
BULLSEYE	20.0	23.3	21.7
CS MIX	8.3	33.7	21.0
BGR-TF3	17.3	23.3	20.3
SOUTHERN MIXTURE	3.0	37.3	20.2
SPARTAN II	5.7	34.3	20.0
CRS MIX #1	4.7	35.0	19.8
DLFPS CHCRM	1.0	38.3	19.7
YAAK	5.3	34.0	19.7
DLFPS CHCRSH	34.3	4.3	19.3
NATURAL KNIT ® PRG MIX	18.3	20.0	19.2
DLFPS TFAM	1.0	36.7	18.8
DTHO TF/KBG MIX	26.7	10.7	18.7
DLFPS TFASTC	1.0	36.0	18.5
CHANTILLY	31.7	4.7	18.2
DLFPS SHHM	4.0	26.0	15.0
DUTCH WHITE CLOVER	11.0	17.0	14.0
DLFPS TF-A	3.0	23.7	13.3
MNHD-15	12.3	11.7	12.0
RESOLUTE (7H7)	15.7	7.3	11.5
CRS MIX #2	20.3	2.0	11.2
CRS MIX #3	2.0	18.3	10.2
NORTHERN MIXTURE	16.0	4.0	10.0
QUATRO	4.3	3.3	3.8
KY-31 E+	1.7	3.3	2.5
LSD VALUE	26.7	86.9	42.3
C.V. (%)	93.2	116.7	76.9

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

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

TABLE 20.

PERCENT WEED RATINGS OF COOL-SEASON CULTIVARS 1/
GROWN UNDER LOW INPUT AT ST. PAUL, MN 2/
2017 DATA

NAME	SPRING	SUMMER	FALL	MEAN
NATURAL KNIT ® PRG MIX	84.0	79.3	72.0	78.4
BEWITCHED	61.3	58.0	56.3	58.6
QUATRO	53.0	52.0	56.3	53.8
A-SFT	41.7	34.0	22.7	32.8
DTT TALL FESCUE MIX	40.3	31.3	26.3	32.7
CRS MIX #2	20.7	32.0	41.3	31.3
SPARTAN II	24.3	28.0	31.3	27.9
KENBLUE	17.0	26.3	35.7	26.3
DTTHO TF/KBG MIX	26.0	28.0	24.0	26.0
CHANTILLY	33.3	25.0	14.0	24.1
MNHD-15	22.0	24.7	25.3	24.0
BGR-TF3	18.3	28.0	22.3	22.9
RESOLUTE (7H7)	15.7	23.7	27.0	22.1
VITALITY LOW	26.3	23.0	15.7	21.7
CS MIX	28.7	21.0	15.0	21.6
DLFPS TF-A	26.7	21.3	13.3	20.4
CRS MIX #1	24.0	22.0	14.7	20.2
RADAR	26.3	18.3	14.3	19.7
BULLSEYE	30.7	21.0	7.0	19.6
DLFPS CHCRSH	21.0	20.3	16.3	19.2
KINGDOM	25.7	18.0	10.0	17.9
CRS MIX #3	18.0	19.7	15.3	17.7
DLFPS SHHM	18.3	21.0	13.3	17.6
NORTHERN MIXTURE	25.0	18.0	4.3	15.8
DLFPS CHCRM	20.0	15.7	5.0	13.6
VITALITY DOUBLE	17.3	14.0	9.3	13.6
DUTCH WHITE CLOVER	6.7	14.3	18.7	13.2
SOUTHERN MIXTURE	17.7	11.7	7.3	12.2
DLFPS TFAM	10.0	12.7	5.0	9.2
YAAK	3.7	8.0	12.0	7.9
KY-31 E+	7.3	3.7	2.3	4.4
DLFPS TFASTC	2.3	4.7	2.3	3.1
LSD VALUE	18.5	18.1	18.4	15.4
C.V. (%)	45.8	46.1	56.6	42.3

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 21. PERCENT WEED RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT AT RALEIGH, NC 2/
 2017 DATA

NAME	JUNE	AUGUST	MEAN
DTT TALL FESCUE MIX	81.7	85.0	83.3
NATURAL KNIT © PRG MIX	86.7	80.0	83.3
A-SFT	78.3	81.7	80.0
BEWITCHED	83.3	71.7	77.5
DLFPS TF-A	80.0	65.0	72.5
QUATRO	68.3	71.7	70.0
CHANTILLY	68.3	66.7	67.5
CS MIX	66.7	68.3	67.5
KINGDOM	61.7	70.0	65.8
VITALITY DOUBLE	60.0	71.7	65.8
DTTHO TF/KBG MIX	58.3	71.7	65.0
RADAR	61.7	68.3	65.0
NORTHERN MIXTURE	55.0	71.7	63.3
KY-31 E+	56.7	68.3	62.5
BGR-TF3	56.7	65.0	60.8
BULLSEYE	58.3	61.7	60.0
SPARTAN II	56.7	60.0	58.3
VITALITY LOW	51.7	65.0	58.3
CRS MIX #1	61.7	51.7	56.7
RESOLUTE (7H7)	50.0	58.3	54.2
SOUTHERN MIXTURE	56.7	51.7	54.2
YAAK	53.3	50.7	52.0
DLFPS CHCRSH	51.7	48.3	50.0
MNHD-15	53.3	45.0	49.2
KENBLUE	55.0	41.7	48.3
CRS MIX #2	58.3	33.3	45.8
DLFPS TFASTC	6.7	25.7	16.2
DLFPS SHHM	1.7	25.0	13.3
DUTCH WHITE CLOVER	3.3	13.3	8.3
DLFPS CHCRM	3.3	8.3	5.8
DLFPS TFAM	1.7	10.0	5.8
CRS MIX #3	1.7	3.0	2.3
LSD VALUE	24.7	26.6	22.1
C.V. (%)	30.9	30.8	27.1

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 22. PERCENT WEED RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT AT MEAD, NE 2/
 2017 DATA

NAME	SUMMER	FALL	MEAN
CHANTILLY	30.0	70.0	50.0
NATURAL KNIT ® PRG MIX	20.0	80.0	50.0
NORTHERN MIXTURE	30.0	70.0	50.0
QUATRO	23.3	76.7	50.0
YAAK	23.3	76.7	50.0
MNHD-15	26.7	70.0	48.3
CS MIX	26.7	66.7	46.7
RADAR	33.3	60.0	46.7
SOUTHERN MIXTURE	33.3	60.0	46.7
A-SFT	16.7	73.3	45.0
DLFPS TF-A	26.7	63.3	45.0
VITALITY LOW	23.3	66.7	45.0
BGR-TF3	13.3	70.0	41.7
BULLSEYE	16.7	66.7	41.7
DTT TALL FESCUE MIX	6.7	76.7	41.7
KINGDOM	20.0	63.3	41.7
RESOLUTE (7H7)	26.7	56.7	41.7
CRS MIX #1	16.7	63.3	40.0
CRS MIX #2	23.3	56.7	40.0
KY-31 E+	16.7	63.3	40.0
VITALITY DOUBLE	26.7	53.3	40.0
DTHO TF/KBG MIX	20.0	53.3	36.7
SPARTAN II	26.7	43.3	35.0
BEWITCHED	20.0	46.7	33.3
DLFPS CHCRSH	20.0	43.3	31.7
KENBLUE	10.0	40.0	25.0
CRS MIX #3	23.3	0.0	11.7
DLFPS CHCRM	23.3	0.0	11.7
DUTCH WHITE CLOVER	16.7	3.3	10.0
DLFPS TFAM	16.7	0.0	8.3
DLFPS TFASTC	16.7	0.0	8.3
DLFPS SHHM	3.3	0.0	1.7
LSD VALUE	40.3	27.3	14.6
C.V. (%)	57.6	34.1	26.0

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

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

TABLE 23. PERCENT WEED RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT AT CORVALLIS, OR 2/
 2017 DATA

NAME	BROAD WEEDS SUMMER	GRASSY WEEDS FALL	BROAD WEEDS FALL	MEAN
KENBLUE	16.7	51.7	25.7	34.8
MNHD-15	28.3	30.0	35.0	31.7
BEWITCHED	14.7	41.7	26.7	31.6
DUTCH WHITE CLOVER	1.7	51.7	4.0	28.3
RESOLUTE (7H7)	19.0	28.3	19.0	23.7
CRS MIX #2	23.7	12.7	28.3	18.3
CRS MIX #3	1.0	38.3	1.7	18.2
CRS MIX #1	17.0	23.3	19.0	17.2
QUATRO	13.3	23.3	12.3	14.8
SPARTAN II	8.7	18.3	16.0	14.1
VITALITY LOW	17.3	16.7	10.0	12.3
DLFPS SHHM	5.3	21.7	6.7	10.6
CS MIX	7.7	11.7	14.0	8.6
CHANTILLY	11.0	7.7	6.7	6.7
RADAR	2.7	7.3	8.7	5.3
DLFPS CHCRM	4.0	8.0	2.0	4.8
YAAK	2.7	5.0	4.3	4.0
DLFPS CHCRSH	5.0	2.7	5.7	3.8
NORTHERN MIXTURE	3.3	1.0	7.7	3.3
DLFPS TFASTC	0.7	5.7	4.0	2.8
DTTHO TF/KBG MIX	1.3	5.0	3.3	2.7
DTT TALL FESCUE MIX	0.7	3.3	5.0	2.5
NATURAL KNIT @ PRG MIX	1.3	0.3	5.3	2.5
VITALITY DOUBLE	1.3	1.3	6.0	2.3
DLFPS TF-A	0.7	3.0	3.3	2.0
A-SFT	1.7	3.7	1.3	1.9
BULLSEYE	0.7	2.3	2.3	1.6
BGR-TF3	0.3	1.3	2.0	1.3
DLFPS TFAM	0.7	1.7	1.7	1.3
KINGDOM	0.3	1.7	2.0	1.3
KY-31 E+	0.7	1.0	2.0	1.2
SOUTHERN MIXTURE	0.7	0.3	1.7	0.9
LSD VALUE	8.2	10.9	13.0	6.4
C.V. (%)	78.1	53.6	84.6	43.8

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

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

TABLE 24.

PERCENT WEED RATINGS OF COOL-SEASON CULTIVARS 1/
 GROWN UNDER LOW INPUT AT KENNETT SQUARE, PA 2/
 2017 DATA

NAME	APRIL	SEPTEMBER	MEAN
DUTCH WHITE CLOVER	86.7	97.0	91.8
NATURAL KNIT © PRG MIX	85.0	91.7	88.3
BEWITCHED	81.7	91.0	86.3
QUATRO	76.0	95.3	85.7
CHANTILLY	81.7	83.3	82.5
KENBLUE	80.0	85.0	82.5
KINGDOM	83.3	80.0	81.7
RESOLUTE (7H7)	75.0	81.7	78.3
SPARTAN II	71.7	81.7	76.7
DLFPS CHCRSH	70.0	81.7	75.8
DTT TALL FESCUE MIX	75.0	71.7	73.3
KY-31 E+	53.3	93.3	73.3
VITALITY LOW	65.0	78.3	71.7
BGR-TF3	70.0	66.7	68.3
DTTHO TF/KBG MIX	66.7	70.0	68.3
CS MIX	61.7	73.3	67.5
MNHD-15	66.7	66.7	66.7
DLFPS SHHM	54.3	77.7	66.0
DLFPS TFAM	60.0	70.0	65.0
NORTHERN MIXTURE	50.7	76.7	63.7
A-SFT	58.3	66.7	62.5
CRS MIX #1	56.7	68.3	62.5
DLFPS TF-A	55.0	68.3	61.7
CRS MIX #2	51.7	70.0	60.8
CRS MIX #3	50.0	60.0	55.0
DLFPS CHCRM	51.7	58.3	55.0
BULLSEYE	53.3	53.3	53.3
RADAR	40.0	63.3	51.7
SOUTHERN MIXTURE	40.0	61.7	50.8
VITALITY DOUBLE	53.3	48.3	50.8
DLFPS TFASTC	48.3	48.3	48.3
YAAK	43.3	50.0	46.7
LSD VALUE	54.4	21.7	32.1
C.V. (%)	32.1	17.2	22.5

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.

APPENDIX TABLE. SUMMARY OF TURFGRASS QUALITY RATINGS FOR COOL-SEASON CULTIVARS
GROWN UNDER LOW INPUT
2017 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	QUALITY	MAXIMUM
	MEAN 1/	IN TOP 25% 2/
A-SFT	4.3	8.3
BEWITCHED	3.6	0.0
BGR-TF3	4.8	25.0
BULLSEYE	5.0	41.7
CHANTILLY	4.4	0.0
CRS MIX #1	5.1	50.0
CRS MIX #2	5.1	50.0
CRS MIX #3	4.8	41.7
CS MIX	4.6	8.3
DLFPS CHCRM	4.9	41.7
DLFPS CHCRSH	4.7	8.3
DLFPS SHHM	4.3	25.0
DLFPS TF-A	4.9	33.3
DLFPS TFAM	5.0	50.0
DLFPS TFASTC	5.2	50.0
DTT TALL FESCUE MIX	4.7	8.3
DTTHO TF/KBG MIX	4.9	33.3
DUTCH WHITE CLOVER	3.4	0.0
KENBLUE	4.0	0.0
KINGDOM	4.8	25.0
KY-31 E+	4.5	16.7
MNHD-15	5.0	50.0
NATURAL KNIT ® PRG MIX	3.7	0.0
NORTHERN MIXTURE	4.4	8.3
QUATRO	4.2	16.7
RADAR	4.8	33.3
RESOLUTE (7H7)	4.7	25.0
SOUTHERN MIXTURE	4.7	16.7
SPARTAN II	4.7	16.7
VITALITY DOUBLE	5.1	50.0
VITALITY LOW	5.0	25.0
YAAK	4.8	33.3
LSD VALUE	0.2	
C.V. (%)	11.5	

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

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

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

2/ MAXIMUM IN TOP 25% THE PERCENTAGE OF LO