

1999 Perennial Ryegrass Cultivar Trial

Rodney A. St. John and N. E. Christians

This was the fourth full year of the trial that began in the fall of 1999 with the establishment of 134 cultivars of perennial ryegrass at the Iowa State University Horticulture Research Station. The study was established on an irrigated area that was maintained at a 2-inch mowing height and fertilized with 3 to 4 lb N/1000 ft²/yr. The area received herbicide treatments as required.

The visual quality was evaluated monthly in 2003 from May through October (Table 1). The values listed under each month in Table 1 are the averages of visual quality ratings made on three replicated plots. Visual quality was based on a scale of 9 to 1: 9 = best quality, 6 = lowest acceptable quality, and 1 = worst quality. The yearly average of the monthly data for each cultivar was calculated and is listed in the last column (Mean). The first cultivar listed in Table 1 had the highest average visual quality rating for the entire 2003 season. The cultivars are listed in descending order by average quality. The last row states the LSD (least significant difference), which is a statistical measurement of how widely the datum in each column must vary before they are considered to be different from one another.

Data for genetic color (Gen Color) and leaf texture (Leaf Tex) were also collected in June 2002. Genetic color was rated using a 9 to 1 scale with 9 = dark and 1 = light green. Leaf texture was assessed with a 9 to 1 scale with 9 = fine and 1 = coarse texture. Spring greenup (Greenup) data were taken in April 2003 and were estimated using a 9 to 1 scale with 9 = green and 1 = dormant turf.

Table 1. 2003 visual quality and other ratings for the 1999 National Perennial Ryegrass Study.

Perennial Ryegrass Cultivar	Gen Color	Greenup	Leaf Tex	-----Visual Quality-----						
				May	Jun	Jul	Aug	Sep	Oct	Mean
APR 1232	9.0	6.3	8.7	9.0	8.0	7.3	6.0	7.0	8.7	7.7
PARAGON	9.0	5.3	9.0	8.7	7.3	7.7	6.0	7.3	9.0	7.7
BRIGHTSTAR SLT (PST-2A6B)	9.0	6.3	9.0	9.0	8.0	7.3	5.7	6.7	8.7	7.6
COURAGE (MB 410)	9.0	6.7	9.0	9.0	7.7	7.3	6.0	7.0	8.7	7.6
GATOR 3 (CIS-PR-85)	9.0	6.7	8.3	8.3	7.7	7.3	6.0	7.3	9.0	7.6
PST-2CRR	8.7	5.7	9.0	8.7	7.7	7.3	5.7	7.7	8.7	7.6
PST-2JH	8.7	6.0	9.0	9.0	7.7	7.3	6.0	7.0	8.3	7.6
PST-2LA	9.0	5.3	8.3	8.0	7.7	8.0	6.0	7.3	8.7	7.6
RACER II (PICK RC2)	8.7	7.0	8.7	8.7	7.3	7.7	6.0	7.3	8.7	7.6
SR 4220 (SRX 4801)	9.0	5.3	9.0	8.7	7.7	7.7	6.0	6.7	8.7	7.6
ABT-99-4.560	9.0	4.3	8.7	8.3	7.3	7.3	6.0	7.3	8.7	7.5
PIZZAZZ	9.0	5.3	8.7	8.3	8.0	7.3	5.7	7.0	8.7	7.5
ABT-99-4.115	8.3	6.0	8.3	8.3	7.3	7.0	6.0	7.3	8.3	7.4
BLAZER IV (PICK MDR)	9.0	6.0	8.7	8.7	7.7	7.3	5.7	7.0	8.0	7.4
CAS-LP84	9.0	5.7	8.3	8.0	7.3	7.3	5.7	7.0	9.0	7.4
CATALINA	9.0	5.7	9.0	8.0	7.0	7.7	5.7	7.3	8.7	7.4
CHARISMATIC (LTP 98-501)	9.0	5.3	8.7	8.0	7.3	7.3	6.0	7.3	8.7	7.4
GRAND SLAM 2L96 (PST-2L96)	8.7	5.0	8.7	8.7	8.0	7.0	6.0	6.7	8.3	7.4
MONTEREY II (JR-187)	8.7	6.7	9.0	8.3	7.3	7.0	6.0	7.0	8.7	7.4
MP107	8.7	5.3	8.7	8.3	7.3	7.7	5.7	7.0	8.7	7.4
PARADIGM (APR 1236)	8.7	6.7	8.0	8.7	7.7	7.0	5.7	7.0	8.7	7.4
PINNACLE II (BAR 9 B2)	9.0	5.3	9.0	8.7	7.7	6.7	5.3	7.3	8.7	7.4
PREMIER II	8.3	5.7	8.3	7.7	7.3	7.7	5.7	7.0	9.0	7.4
PST-2RT	8.7	5.3	9.0	8.3	7.7	7.3	5.7	7.0	8.3	7.4
RADIANT	8.7	5.7	8.7	8.7	7.7	7.3	5.3	7.0	8.3	7.4
SEVILLE II	9.0	6.0	9.0	8.7	7.0	7.3	5.7	7.0	8.7	7.4
WILMINGTON	9.0	5.7	8.7	8.7	8.0	7.0	5.3	7.3	8.3	7.4
ABT-99-4.464	9.0	5.3	9.0	8.7	7.3	7.0	6.0	7.0	8.0	7.3
AFFIRMED	8.7	6.3	9.0	8.3	7.7	7.0	5.7	6.7	8.3	7.3
ALLSPORT	9.0	6.0	9.0	8.7	7.0	7.0	5.7	7.0	8.3	7.3
APR 1235	8.0	5.0	8.0	7.7	7.3	7.3	5.7	7.0	8.7	7.3
CABO (CIS-PR-80)	8.3	6.0	9.0	8.0	7.7	7.0	5.0	7.3	8.7	7.3
INSPIRE (R8000)	9.0	5.7	9.0	8.7	7.0	7.3	5.3	7.0	8.3	7.3
KOKOMO (CIS-PR-69)	9.0	5.3	9.0	8.3	7.3	7.3	5.7	6.7	8.3	7.3
MANHATTAN 3	9.0	5.0	9.0	8.3	7.7	7.7	5.3	6.7	8.3	7.3
PENNANT II	9.0	6.0	9.0	8.3	7.3	7.3	5.3	7.0	8.7	7.3
PROSPORT (AG-P981)	9.0	5.7	9.0	8.7	7.3	7.3	5.3	7.0	8.3	7.3
RENAISSANCE (APR 1233)	8.0	5.3	8.7	7.7	7.3	6.7	5.7	7.7	8.7	7.3
SUMMERSET (MB 413)	9.0	5.3	8.7	8.3	7.7	6.7	5.7	7.0	8.3	7.3
ABT-99-4.339	9.0	4.7	9.0	8.3	6.7	7.3	5.7	7.0	8.3	7.2
ABT-99-4.965	9.0	5.0	8.7	9.0	7.0	7.3	5.3	6.7	7.7	7.2
APR 1231	8.7	5.3	8.7	8.3	7.3	6.3	5.7	7.0	8.7	7.2
ARRIVAL (CIS-PR-84)	9.0	5.7	9.0	8.7	7.0	7.3	5.7	6.7	8.0	7.2
CATHEDRAL II	8.7	6.3	9.0	8.0	7.3	7.0	5.3	7.0	8.3	7.2
CHARGER II	9.0	5.3	9.0	7.7	7.0	7.0	6.0	7.0	8.3	7.2
CITATION FORE (PST-2BR)	9.0	5.7	8.7	8.7	7.0	7.0	5.7	6.7	8.3	7.2
DLF-LDD	8.3	5.0	8.3	8.3	7.3	7.3	5.3	6.7	8.3	7.2

Perennial Ryegrass Cultivar	Gen Color	Greenup	Leaf Tex	Visual Quality						
				May	Jun	Jul	Aug	Sep	Oct	Mean
GALLERY (MB 412)	8.7	6.0	8.7	8.0	7.3	7.3	5.7	7.0	7.7	7.2
ICON (MB 414)	8.3	7.0	8.7	7.7	7.0	7.3	5.7	7.3	8.3	7.2
IQ (CIS-PR-75)	8.7	4.7	8.3	8.3	7.0	7.0	5.7	7.0	8.3	7.2
MACH 1 (ROBERTS-627)	9.0	5.3	9.0	9.0	7.3	6.7	5.3	6.7	8.0	7.2
MP88	8.3	5.7	9.0	8.0	7.0	7.0	6.0	7.0	8.3	7.2
PICK EX2	9.0	7.0	8.7	9.0	7.3	7.0	6.0	6.7	7.3	7.2
PICK PR QH-97	8.7	6.3	8.7	8.7	7.0	7.3	5.3	6.7	8.3	7.2
PST-2M4	8.7	5.7	8.7	8.7	7.3	7.0	5.3	6.7	8.0	7.2
QUEST II (ABT-99-4.721)	9.0	3.3	9.0	8.3	7.0	7.3	5.7	7.0	8.0	7.2
SR 4500	9.0	6.3	9.0	9.0	7.0	7.0	5.7	6.7	8.0	7.2
ABT-99-4.600	8.7	4.7	8.7	8.3	7.7	7.3	5.3	6.3	7.7	7.1
ADMIRE (JR-151)	8.7	6.0	8.7	8.3	6.7	7.0	5.3	6.7	8.3	7.1
ASCEND	8.0	5.7	8.3	7.7	6.7	7.3	5.0	7.3	8.7	7.1
CALYPSO II	8.3	6.0	8.7	8.0	7.0	7.3	5.7	7.0	7.7	7.1
CRUISER (ABT-99-4.709)	9.0	5.3	9.0	8.0	7.0	7.3	5.7	6.7	7.7	7.1
DIVINE	8.3	5.7	9.0	8.0	6.7	6.7	5.7	7.3	8.3	7.1
DP LP-1	8.3	6.3	9.0	8.0	7.3	6.7	5.7	7.0	8.0	7.1
ELFKIN	8.7	6.3	9.0	8.0	7.0	7.0	5.7	7.0	7.7	7.1
EXACTA	8.7	5.0	8.7	7.3	6.3	7.0	5.7	7.7	8.3	7.1
HAWKEYE (SRX 4RHT)	8.7	5.0	8.3	8.3	7.3	7.3	5.0	6.7	8.0	7.1
MP103	9.0	6.0	9.0	8.0	6.5	7.0	5.5	7.0	8.5	7.1
PALMER III	8.3	6.0	9.0	8.3	7.3	7.3	5.7	6.3	7.7	7.1
PLEASURE XL	8.7	5.7	9.0	8.0	7.0	7.0	5.0	7.0	8.3	7.1
PROMISE	9.0	5.3	8.7	8.0	7.0	7.0	5.7	7.0	8.0	7.1
PST-2SBE	8.7	5.0	9.0	8.3	7.3	7.0	5.3	7.0	7.7	7.1
RACER	8.3	6.3	8.3	8.0	7.0	6.3	6.0	7.0	8.3	7.1
SKYHAWK	9.0	4.7	8.7	7.7	7.0	7.0	6.0	6.7	8.0	7.1
SPLENDID (MB 411)	9.0	6.7	8.7	8.3	7.3	7.0	5.7	6.7	7.7	7.1
SR 4350 (APR 1237)	8.0	5.3	8.3	7.7	7.0	7.3	5.3	6.7	8.7	7.1
SR 4420 (SRX 4820)	8.7	5.3	9.0	8.0	7.0	6.3	5.0	7.3	8.7	7.1
STELLAR (CIS-PR-72)	9.0	5.0	8.3	8.7	7.0	7.3	5.7	6.7	7.3	7.1
AMAZING (B1)	9.0	5.0	9.0	8.3	7.0	6.7	5.3	6.7	8.0	7.0
APR 1234	8.7	5.0	9.0	8.0	7.3	6.7	5.3	6.7	8.0	7.0
BRIGHTSTAR II	9.0	6.3	9.0	8.3	6.7	7.0	5.3	6.7	8.0	7.0
DAZZLE (ABT-99-4.724)	9.0	5.0	8.3	8.3	7.0	7.0	5.7	6.3	7.7	7.0
FIESTA 3	8.7	4.7	8.3	7.7	7.0	6.7	5.3	6.7	8.7	7.0
JR-128	8.7	6.0	9.0	7.7	6.7	6.7	5.7	7.0	8.3	7.0
LINE DRIVE	9.0	6.0	8.7	8.3	7.0	6.7	5.3	6.7	8.0	7.0
MANHATTAN 4 (PST-2CRL)	9.0	5.0	9.0	8.3	7.0	6.7	5.3	6.7	8.0	7.0
PENTIUM (NJ-6401)	8.3	6.0	9.0	7.3	7.0	6.7	5.3	7.0	8.7	7.0
SALINAS (PST-2SLX)	8.3	4.7	9.0	8.0	6.7	7.0	5.7	6.3	8.3	7.0
SUNKISSED (ABT-99-4.834)	8.7	5.7	8.7	8.3	7.0	7.3	5.7	6.3	7.3	7.0
ABT-99-4.815	8.7	5.7	8.7	7.7	7.0	7.0	5.0	7.0	7.7	6.9
BARLENNIUM	8.0	7.0	9.0	7.3	6.3	7.0	5.7	6.7	8.3	6.9
CATALINA II (PST-CATS)	8.7	5.0	8.7	7.3	7.0	7.0	5.0	7.0	8.3	6.9
CHURCHILL	8.0	5.3	8.7	7.7	7.0	7.3	5.0	6.7	8.0	6.9
JET	8.7	4.3	9.0	7.3	7.0	7.0	5.7	6.7	8.0	6.9
LPR 98-144	9.0	6.7	8.7	8.7	6.7	7.0	5.3	6.7	7.3	6.9
LTP-ME	8.3	5.3	8.7	8.0	6.3	7.3	5.3	6.7	7.7	6.9
MAJESTY	8.3	5.7	8.7	8.0	6.3	6.7	5.3	7.0	8.0	6.9
MDP	8.3	4.7	9.0	8.0	7.0	7.0	5.3	6.7	7.7	6.9
MEPY	7.7	6.0	7.7	7.7	6.7	7.0	5.7	6.7	8.0	6.9
PACESETTER (6011)	9.0	6.0	9.0	8.3	7.0	7.0	5.0	6.3	7.7	6.9
PANTHER	8.3	6.3	9.0	8.3	7.0	7.0	5.3	6.3	7.7	6.9
PASSPORT	8.3	6.7	9.0	8.0	6.7	6.7	5.3	6.3	8.3	6.9
PHANTOM	9.0	6.7	8.7	7.7	6.3	6.7	5.3	7.0	8.3	6.9
PICK PR 1-94	8.0	6.3	8.7	8.0	7.0	7.0	5.3	6.3	7.7	6.9
PREMIER	8.3	5.3	8.7	8.0	7.3	6.7	4.7	6.7	8.0	6.9
SECRETARIAT	8.7	5.3	8.7	8.3	6.7	7.0	5.3	6.3	8.0	6.9
SRX 4120	8.7	6.7	8.7	8.0	7.0	7.0	5.3	6.7	7.7	6.9
AFFINITY	8.0	5.3	8.3	7.3	6.7	6.7	5.7	6.7	8.0	6.8
ALL STAR2 (CIS-PR-78)	9.0	5.7	9.0	8.3	7.0	7.0	4.7	6.7	7.3	6.8
BUCCANEER	8.0	7.0	8.3	8.0	6.7	6.7	5.7	6.7	7.3	6.8
EP53	8.3	3.7	8.7	7.7	6.7	6.7	5.0	6.7	8.0	6.8
EXTREME (JR-317)	9.0	6.7	9.0	7.3	7.0	6.7	5.7	6.3	8.0	6.8
KOOS R-71	8.3	5.7	8.7	8.7	7.3	6.3	5.3	6.3	7.0	6.8
NEXUS	8.7	5.0	8.7	7.7	6.7	6.7	5.0	6.7	8.3	6.8
TERRADYNE (A5C)	9.0	4.7	8.7	8.7	6.7	6.7	5.0	6.7	7.0	6.8
BY-100	8.7	7.0	9.0	7.7	6.3	6.3	5.3	6.7	7.7	6.7
EDGE	8.7	5.3	8.7	7.7	6.7	6.0	5.3	7.0	7.3	6.7
PICK PRNGS	8.7	6.0	9.0	7.7	7.0	6.0	5.3	6.7	7.3	6.7

Perennial Ryegrass Cultivar	Gen Color	Greenup	Leaf Tex	-----Visual Quality-----						
				May	Jun	Jul	Aug	Sep	Oct	Mean
PROTYME (ABT-99-4.625)	8.3	5.3	8.3	7.7	6.3	6.7	5.3	6.7	7.7	6.7
SUPERSTAR (EP57)	8.7	6.3	8.3	8.0	7.0	7.0	5.0	6.3	7.0	6.7
APR 776	8.7	5.3	8.7	7.7	6.7	6.3	5.7	6.3	7.0	6.6
DP 17-9069	7.3	4.3	8.3	7.3	6.7	6.3	5.0	6.7	7.7	6.6
EPD	8.3	5.7	8.7	7.3	7.0	7.3	4.3	6.3	7.3	6.6
HEADSTART	8.7	6.3	9.0	7.0	6.7	6.7	5.0	6.7	7.7	6.6
LPR 98-143	8.3	5.0	8.0	7.7	6.7	6.7	4.7	6.7	7.0	6.6
PROWLER (APR 777)	7.7	5.0	8.0	7.7	6.7	6.7	4.7	6.7	7.0	6.6
WVPB-R-82	8.0	6.3	9.0	7.7	7.0	6.3	4.7	6.7	7.0	6.6
WVPB-R-84	8.0	4.7	8.7	7.3	6.0	6.0	5.3	6.7	8.0	6.6
APPLAUD (PENNINGTON-11301)	9.0	5.3	9.0	8.0	6.7	7.0	6.0	4.0	7.3	6.5
YATSUGREEN	8.0	4.3	9.0	7.3	7.0	6.3	4.3	6.7	7.0	6.4
PICK PR B-97	9.0	5.3	8.7	7.7	6.7	4.7	5.0	6.3	7.7	6.3
DP 17-9391	6.7	4.3	7.7	6.0	5.7	6.0	4.7	6.0	6.7	5.8
LINN	7.3	4.0	7.7	6.7	5.7	5.3	4.0	5.7	6.0	5.6
DP 17-9496	7.0	2.0	7.7	6.0	5.7	5.3	3.7	5.7	6.3	5.4
LSD	1.1	2.3	1.1	1.8	1.3	2.2	2.2	2.4	1.8	1.0